HPSS Error Manual

February 06, 2025: High Performance Storage System 11.2

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third parties.

Chapter 1. Problem diagnosis and resolution

This chapter provides advice for solving selected problems with HPSS infrastructure components, servers, and user interfaces. Note that a problem may have more than one diagnosis and resolution.

1.1. HPSS infrastructure problems

The sections below describe infrastructure problems with RPC, DB2, and Security.

1.1.1. RPC problems

One HPSS server cannot communicate with another

Diagnosis 1: The target server may not have registered its RPC endpoint properly.

This error may be seen by the appearance of a message such as: hpss_pvr_scsi(HPSS)[2699837]: #msgtype=ALARM/CRITICAL #server=SCSI PVR 2@trigger.sandia.gov #func=pvr_notify.c/sendNotification/942 #rc=-10028 #msgid=COMM0031 #reqid=00000000000000000000000000000000 #msg=COMM0031 Call to hpss_RPCOpenConnection to open an RPC connection to SSM System Manager failed: BuildConnection: Can't get port for interface: Cannot retrieve RPC endpoint port#012GetPortInternal: hpss_RPCUtil.c:1526:GetPortInternal(): RPC: Program not registered#012GetPortInternal: hpss_RPCUtil.c:1526:GetPortInternal(): RPC: Program not registered#012GetPortInternal: hpss_RPCUtil.c:1526:GetPortInternal(): RPC: Program not registered#012GetPortInternal: hpss_RPCUtil.c:1526:GetPortInternal(): RPC: Program not registered#012GetPortInternal: hpss_RPCUtil.c:1526:GetPortInternal(): RPC: Program not registered#012GetPortInternal: hpss_RPCUtil.c:1526:GetPortInternal(): RPC: Program not registered#012. (Cannot retrieve RPC endpoint port)

Resolution: Verify proper registration of the server with RPC. If shutting down the target server and restarting it does not fix the problem, you may have to manually delete the server's RPC entry.

Diagnosis 2: A communications failure may exist or security may be disallowing communication.

Resolution: First verify that the network is up and the server is running. A less obvious cause for the problem may be that the server is not accepting calls from the client, because of security reasons. To fix this problem, make sure that the client and server are using consistent security policies, and that they have both been properly authenticated.

Diagnosis 3: The `/var/hpss` file system may be full.

Resolution: If `/var/hpss` is full, try to determine what is causing the file system to fill up. Common problems are `/var/hpss` being too small, log files that are not being archived properly, or core files from an HPSS server.

Diagnosis 4: The server may be logging too many messages.

Resolution: If a server (most notably the SSM) is forced to process too many log messages, it can become too busy to communicate with other servers. To fix the problem, turn off unneeded messages (particularly, trace and request messages). If the server is still overloaded, debug messages may be turned off. However, this may lead to insufficient information to diagnose failures.

Diagnosis 5: A server may be too busy to respond.

Resolution: If a server is very busy, other servers will not be able to communicate with it. To solve the problem, do what is necessary to decrease the load on the server. For example, you might try increasing the server's thread pool size or maximum connection count (or both), moving the server to a different machine, or adjusting one of the server-specific configuration parameters.

Diagnosis 6: A node does not have a network route to an interface being used by a server on a different host.

Resolution: Verify that all nodes that will be clients of a server running on another node (including servers that are clients of other servers) have network routes to all of the network interfaces that may be used by the server nodes. For example, if a server running on a node registers its service interface on both an Ethernet and Fiber Distributed Data Interface (FDDI), verify that all nodes that contain clients of that server have connectivity to both those interface addresses.

Diagnosis 7: The server may not have enough RPC connections defined which are necessary for communication.

Resolution: Increase the number of **Maximum Connections** under the **Interface Controls** tab of the server's **Server Configuration**.

A server cannot obtain its credentials

Diagnosis 1: There may be a problem with the keytab table.

Resolution: Make sure the keytab table (typically `/var/hpss/etc/hpss.keytab`) is readable by the OS username under which the server is running. Make sure that the key for the principal the server wants to use exists in the keytab. Look for extra versions of the server's key; they can interfere with the authentication process.

Diagnosis 2: UNIX security is in use and the HPSS UNIX login server is not running or has problems.

systemctl status hpss_login_server

This will show whether the server is running, and list its latest error log messages.

Resolution: Start the server if it is not running:

systemctl start hpss_login_server

If other error messages appear, it may require more detailed troubleshooting. Immediate relief may be found by restarting the server.

systemctl restart hpss_login_server

A server cannot register its RPC info

Diagnosis: Stale RPC information may exist for the server in the RPC table.

Resolution: Use **rpcinfo -p** to see if the RPC program number for the server interface is already registered. If the interface is registered it can be removed using **rpcinfo -d <program number> <version>**.

The connection table may have overflowed

Diagnosis: The server may be so heavily loaded that it is unable to free up connections easily.

Resolution: Do what is necessary to reduce the load on the server. The problem may also indicate that a server is configured incorrectly, or that there is a software problem in handling connections properly. To solve the problem, increase the number of **maximum connections** parameter under the **Interface Controls** tab of the server's **Server Configuration**.

1.1.2. DB2 problems

HPSS servers cannot communicate with DB2

Diagnosis: DB2 is not running.

Resolution: Verify whether DB2 is running and restart as appropriate. Authenticate as the DB2 instance owner and start DB2 with the **db2start** command. There is no harm in executing this if the DB2 instance is already running.

One or more HPSS servers are receiving metadata or DB2 errors

Diagnosis 1: Permissions on the DB2 tables may not be set correctly.

Resolution: Grant appropriate permissions to the table with the following command:

```
$ db2 GRANT DELETE,INSERT,UPDATE,SELECT ON TABLE <tableName> TO GROUP
hpsssrvr
```

Diagnosis 2: HPSS servers run under a certain UNIX username (usually *root* or *hpss*) and those UNIX identities do not have access to DB2.

Resolution: Ensure that users *root* and *hpss* have access to DB2. You can easily accomplish this with the DB2 GUI, control center. Start the control center as the instance owner:

```
% su - hpssdb
% db2cc
```

Now expand the directory tree on the left, to show the database names within HPSS (usually *cfg* and *subsys1*, and others). Right click on each database and select "Authorities". This will bring up a

window that will allow you to add UNIX users or groups and assign DB2 authorities to those users or groups. Ensure that *hpss* and *root* appear in the list and have the proper authorities.

Diagnosis 3: DB2 appears to not be running or appears hung.

Resolution: Check the DB2 message log to view any internal DB2 errors that might exist. To do this, log in as the instance owner:

```
% su - hpssdb
```

And use an editor to view the text file for DB2 messages in the instance owner's home directory:

```
% cd /var/hpss/hpssdb/sqllib/db2dump
% view db2diag.log
```

The other files that you see in this directory are binary files intended for submittal to DB2 customer support to further diagnose DB2 internal errors.

Diagnosis 4: Subsystem database tables may be missing.

Resolution: If you have added a new storage subsystem, the associated database may not be populated with the necessary tables and indexes. This can be corrected with the use of the **hpss_managetables** utility program, but contact HPSS support first for confirmation of the situation and instructions on how to proceed. Creating and deleting metadata tables should be done only when the circumstances of the situation are fully understood.

Diagnosis 5: Some other DB2 error condition exists.

Resolution: Examine each of the DB2 or metadata return codes reported by the HPSS server. Take special note of the SQL or SQLSTATE error code. Consult the DB2 Message Reference or DB2 technical support personnel or HPSS support to determine the appropriate resolution to the problem.

Cannot start DB2 instance

Diagnosis: Upon issuing a DB2 command, you receive the following error:

```
SQL1032N No start database manager command was issued. SQLSTATE=57019.
```

Resolution: In order to manually start DB2, you can use the **db2start** or **rc.hpss** command. If DB2 still does not start, we recommend you look at all DB2 environment variables and make sure they are valid. To see a list of DB2 environment variables, issue:

```
% db2set -all
```

In particular, ensure that if DB2_VENDOR_INI is set, that the file it points to exists.

DB2_VENDOR_INI is used by the HPSS backup utilities and it will prevent DB2 from starting if the file it points to does not exist.

For more details on the problem, consider using tracing. To use tracing:

```
# command to trace using a 8000000 byte file size
% db2trc on -l 8000000 -e -1 -t
% db2trc dump <filename.trc>
% db2trc off

# now format the trace file in your current working directory
% db2trc fmt <filename.trc> <filename.fmt>

# at this point, ensure the trace did not wrap by viewing
<filename.fmt>
# if it did wrap, increase -l from 8000000 to large value and try
again.
# also create a flow of the trace dump
% db2trc flw <filename.trc> <filename.flw>
```

Certain HPSS operations hang or fail under a heavy load

Diagnosis: DB2 is highly tunable and some settings can affect the volume of requests or the size of requests that can be made before DB2 will either hang or timeout and return an error.

Resolution: If DB2 hangs, first check the amount of paging occurring on the system. Occasionally, excessive paging may slow a system down so much that it may appear to be hung. Excessive paging is usually a result of poor memory allocation. Lacking a memory monitoring tool, you could try

```
% ps -eal | grep db2 | sort -r +9
```

to see a list of the DB2 processes using the most memory. If this number is unreasonable, we recommend you look at the size of buffer pools in DB2 and other basic memory allocations within DB2.

The MAXAGENTS database manager configuration parameter affects the number of connections or agents allowed by DB2 and ultimately the number of users that can perform operations within HPSS. Ensure this parameter is set to correspond to the number of DB2 connections or agents you wish to allow. We recommend setting this to 400, but it can be set much higher depending on system load.

Several database configuration parameters affect behavior of HPSS when system load is high (either many users, or several users manipulating HPSS files with unusual characteristics; like 10,000 storage segments). These include: LOCKTIMEOUT, LOCKLIST and MAXLOCKS.

LOCKTIMEOUT default setting is "-1" for each database. For HPSS subsystem databases, this setting should be set to something other than "-1"; we recommend "60". This will allow an error to be returned to the application requesting an HPSS operation that DB2 cannot handle when load is

high. Otherwise, DB2 can escalate the lock placed on a certain row to a table lock, which can easily cause all DB2 agents to enter lock-wait status and wait indefinitely for the first application to finish (a type of artificial deadlock). You can track down this behavior by issuing a

```
% db2 list applications show detail
```

and ensuring that no more than one agent is listed as having a lock-wait status.

LOCKLIST default setting is 100 4-KB pages or 400 KB of memory total. Under heavy load or for certain combinations of unusual operations, like a few users manipulating HPSS files with thousands of storage segments, this setting may not be adequate. We recommend setting this parameter to at least 500 4-KB pages. This should allow HPSS to continue to operate even under heavy loads.

MAXLOCKS default setting is 77%. We recommend keeping this at the default setting. This setting could affect the amount of DB2 work a single HPSS operation can perform. For example, if you had one user trying to delete an HPSS file with 15,000 storage segments, the operation could fail if this setting was below 77% or the LOCKLIST setting was too low, as DB2 would only allow this HPSS operation to utilize 77% of the total amount of memory (LOCKLIST) allowed within this database.

These settings only apply to subsystem databases, not the configuration database. These settings still depend on load and usage of the system. If several different users try to unlink several files with 10,000 storage segments each, then the site will have to consider increasing LOCKLIST significantly until DB2 and HPSS allow the operations to succeed. The critical setting is LOCKTIMEOUT be set to something other than "-1". This will prevent DB2 from hanging and will allow the operation to time out and produce an error that can be seen in the HPSS logs (typically in `/var/hpss/log`).

1.1.3. Security problems

HPSS servers are unable to connect to other HPSS servers

Diagnosis: This problem can be caused by several configuration or installation errors.

Resolution: Check to see that the configuration of the affected servers (both client and server) are correctly defined with appropriate permissions granted in the AUTHZACL table. If the configuration entries appear valid but servers still cannot connect, turn on **TRACE** and **DEBUG** logging and attempt to restart both servers. Check for Kerberos-related log messages and take action accordingly. For additional information that may help with this problem, see RPC problems.

Client API users get "credentials expired" errors

Diagnosis: This problem occurs because the Kerberos security service puts a time limit on the credentials cache obtained using **kinit**.

Resolution: Review the Kerberos documentation on the **kinit** commands for your realm to identify options for increasing the credential's lifetime and renewability.

1.2. HPSS server problems

The paragraphs below discuss problems common to all servers; problems with the Core Server, Migration/Purge Server, PVL, PVR, GK, LS, and Mover; and problems with logging services, Startup Daemon, and SSM.

HPSS servers are started in separate directories to prevent the overwriting of core files in the event of an abnormal termination. The parent of these directories is determined by the HPSS_PATH_CORE environment variable, with the default being `/var/hpss/adm/core`. Within that directory, subdirectories are created based on the server descriptive name, with spaces replaced by underscores and parentheses dropped. For example, for the Mover with descriptive name "Mover (hpss)", the directory created will be "Mover_hpss". Core files detected during server startup will be renamed based on the date and time that the core file was written (of the form `core.YYYY_MMDD_hhmmss`, where YYYY is the year, MMDD the month and day, and hhmmss is the hour, minute and second).

In addition, a log is maintained of servers that terminate with an abnormal termination code. The parent directory of the log file is determined by the HPSS_PATH_ADM environment variable, with the default being `/var/hpss/adm`. The file name is `hpssd.failed_server`. The **hpss_errno** tool can be used to get a string representation of HPSS error codes. See the man page for details.

If an HPSS server terminates abnormally, the appropriate core file should be saved. In addition, examine the HPSS log files for messages logged by the server and other servers interfacing with the server around the time of the abnormal termination. You should probably contact HPSS support any time a server terminates abnormally.

1.2.1. General problems

Servers cannot be started

Diagnosis 1: The **Executable** flag for a particular server is not set in the server's configuration file.

Resolution: If the **Executable** flag for a server is not set, SSM will refuse to start that server. To fix the problem, set the flag.

Diagnosis 2: The Startup Daemon on the server's host is not running.

Resolution: The Startup Daemon is normally started automatically at system boot time. If it is not running on the affected host, start it there manually (`rc.hpss -d start`). Once the Startup Daemon is up and SSM can connect to it, try starting the target server again.

Note that SSM cannot start the Startup Daemon.

Diagnosis 3: The Startup Daemon on the server's host is running, but SSM cannot connect to it.

Resolution: The only way SSM can start servers is by asking the Startup Daemon to start them, so it is essential that SSM be able to connect to the Startup Daemon. See whether SSM is connected to any other HPSS servers on that host, or whether any non-HPSS program (such as **ping** or **telnet**) can communicate between the two hosts. If the network itself is all right, try the **Force Connect** button from the *Server List* window (see the *Server List* section of the *HPSS Admin Guide*) to get SSM

to connect to the Startup Daemon. If this does not work, the SSM System Manager or the Startup Daemon (or both) may have to be restarted.

Diagnosis 4: The Startup Daemon on the server's host is running and reachable, but SSM refuses to try to connect to it, because the Startup Daemon is marked non-executable.

Resolution: SSM spends a good deal of time pinging each server to make sure it is still connected to it (and trying to reconnect if it is not). In an attempt to avoid wasting resources on a server that is not going to be running anyway, SSM ignores servers whose Executable flag is not set. If the Startup Daemon itself does not have the Executable flag set, SSM will never try to connect to it. In that case, SSM will not be able to start any servers on that host because it was not connected to the Startup Daemon there. Therefore, even though SSM does not start the Startup Daemon itself, make sure the Startup Daemon's Executable flag is set.

Servers cannot talk to one another

Diagnosis: The Domain Name Service (DNS) is *not* reachable.

Resolution: Add *all* necessary entries to the `/etc/hosts` file. Make sure the canonical name is listed first. Terminate all HPSS servers, DB2, and Kerberos. Restart the system without DNS support. Fix DNS.

1.2.2. Core Server problems

Core Server cannot connect to SSM

Diagnosis: The SSM System Manager is not running or not responding.

Resolution: If the SSM windows are responding, check the server Status column in the *Servers* list window and reconnect or restart if necessary.

The Core Server takes a long time starting

Diagnosis: The PVL is not running.

Resolution: The Core Server will attempt to mount all disk volumes by calling the PVL before it completely initializes. If the PVL is down, the Core Server will retry disk mount requests for up to five minutes which can lead to excessive delays in the Core Server starting. Make sure the PVL is running. In order to minimize delays start the PVL before starting the Core Server.

Service parameters have been changed and a Core Server does not recognize them

Diagnosis: The Core Server has not been recycled since the changes were made.

Resolution: If any service parameters other than COS parameters have been changed, the Core Server must be recycled to pick these up. This includes Storage Class, Storage Hierarchy, and Migration Policy definitions. If COS parameters for existing COS definitions (exclusive of Hierarchy ID) are the only changes made, a reinitialization of the Core Server will pick up these definitions. If COS entries are added or deleted the Core Server will need to be recycled.

Receiving messages from Core Server indicating inconsistencies in account summary records

Diagnosis 1: Account summary record has been corrupted due to an incomplete DB2 recovery.

Resolution: Specialized procedures are provided to deal with this problem. Contact HPSS support.

Diagnosis 2: Software problem in HPSS has resulted in the inconsistency.

Resolution: Contact HPSS support.

Core Server cannot connect to Gatekeeper

Diagnosis 1: The Gatekeeper is not up.

Resolution: Restart the Gatekeeper in question. The Core Server will attempt to connect to this Gatekeeper the next time it is needed.

Diagnosis 2: The Gatekeeper is not configured into the storage subsystem.

Resolution: Configure the Gatekeeper into the storage subsystem corresponding to the Core Server. Recycle the Core Server.

Errors reading, writing, creating, or deleting metadata

Diagnosis 1: Error codes indicate that DB2 is not running or not responding.

Resolution: Check the status of DB2, and restart if necessary. The Core Server will retry timed-out DB2 operations a fixed number of times before generating an error. If DB2 has failed, it is advisable to stop all HPSS components, restart DB2, then restart all of HPSS.

Diagnosis 2: Error codes indicate DB2 failures.

Resolution: The *Alarms and Events* window will provide an alarm indicating a DB2 error has occurred. Consult the local or central HPSS log as well as the DB2 diagnostic log for clues to the source of the problem. Contact HPSS support if necessary.

Core Server reports "no space"

Diagnosis 1: The disk virtual volumes are fragmented.

Resolution: When the Core Server needs to create one or more disk storage segments in which a file will be recorded it determines the size of these storage segments according to the size of the file to be recorded. It then attempts to find free space on the disk virtual volumes it manages in which to create the disk storage segments. The free space for each segment must be allocated from contiguous disk VV blocks.

If all of the disk VVs are fragmented to a point where a storage segment cannot be created at the requested length, the Core Server will report that it is out of disk space and return an error. An alarm is also sent to the "Alarms and Events" display.

The total free disk space in the system may exceed the requested storage segment size, but if the disks are sufficiently fragmented, it may not be possible to create one or more of the storage

segments.

Two solutions are available for this problem. Disk VVs can be repacked, which will create large blocks of free space, and purge parameters can be changed to increase the amount of free space in the VVs, which may increase the sizes of the largest free blocks.

Diagnosis 2: Tape VVs oversubscribed.

Resolution: In any tape storage class, there will be a certain number of tapes available to write. In some storage classes, the number may be zero. "No space" errors will be reported by the system when a storage class has no free tapes (that is, no available space). In other cases, the SSM *Active Storage Class* window may report a small number of free tapes. When this happens, the administrator should keep in mind that all of these tapes may be in use, causing a request for another free tape to be rejected with the "no space" error.

This problem can only be remedied by making more free tapes available in the storage class. This can be done by creating new storage resources, or by reclaiming empty tapes. The behavior of the system in this situation is by design. Tapes, unlike disks, must be assigned to a tape write request for the duration of the request, and cannot be shared among multiple requests. This means that there must be at least as many free tapes as there are requests in each storage class to avoid the "no space" error.

Core Server cannot be started

Diagnosis: Core Server died at initialization with "Invalid COS" error.

Resolution: The reference for a deleted COS was not removed from the Storage Subsystem Configuration to which the Core Server belongs. Bring up the *SSM Storage Subsystem Configuration* window for the appropriate storage subsystem. Search for the reference to the deleted COS in the Allowed COS list and set it to "No".

Core Server marks tape volumes full too soon

Diagnosis: A virtual volume's condition is set to EOM before the VV is filled, leaving some portion of the VV unused.

Resolution: Some unusual error conditions can cause the Core Server to change a virtual volume's condition to EOM before the VV is filled, leaving some portion of the VV unused. These unusual errors include attempts to write at an address other than the end of the tape and certain I/O errors from a Mover. When one of these errors occurs, the Core Server generates an HPSS_EOM error even though End Of Media has not been reached. Depending on the nature of the error, the server may then change the VV Condition indicator to EOM.

While some of the errors that lead to this condition generate alarms, others do not. Since these errors are normally quite rare, an occasional VV left in this condition should not pose a problem in most systems. However, if one of these unusual errors becomes frequent, the administrator will probably notice free VVs being consumed at a high rate, or VVs being selected for repacking that were just written. In this case, intervention may become necessary.

Study the Core Server and Mover log messages to determine the underlying problem that is causing

the Core Server to terminate the VV prematurely. DEBUG level logging will probably be necessary to obtain enough detailed information to identify and correct the problem.

HPSS will recycle these virtual volumes under normal operation. Normal attrition of tape storage segments will make the volumes likely repack candidates, particularly since they have relatively little data on them to start. To speed up the process, especially if a number of VVs are affected, the **repack** utility program can be executed from the command line to repack specific volumes (the SSM window does not support specifying specific volumes). Refer to the **repack** man page for more information on the **repack** utility. Once these volumes have been repacked, they can be reclaimed for reuse by HPSS or removed from the system.

1.2.3. Migration/Purge Server (MPS) problems

No storage class information reported on Storage Class List window

Diagnosis: One or more of the MPSs or Core Servers is not running or cannot be connected.

Resolution: Start the MPS or Core Server. Resolve the connection problem.

A storage class does not show up in the Storage Class List window

Diagnosis 1: The storage class has been added or updated after the MPS startup has completed.

Resolution: Shut down and restart the MPS.

Diagnosis 2: No Core Server resources have been created in the storage class.

Resolution: Create the missing resource using the appropriate resource creation window (see the *Create Tape Resources window* and *Create Disk Resources window* sections of the *HPSS Admin Guide*).

Diagnosis 3: The Core Server controlling the missing storage class has not been started.

Resolution: Start the Core Server.

Diagnosis 4: The storage class is not used in any hierarchies.

Resolution: Once the storage class is added to at least one hierarchy, and MPS is restarted, MPS will start reporting usage statistics for that storage class.

Diagnosis 5: The storage class is not active in a given subsystem.

Resolution: Enable a class of service which references a hierarchy containing the given storage class. This is done in the *Storage Subsystem Configuration* window. Once MPS is restarted it will begin reporting statistics for those storage class resources within its assigned subsystem.

MPS is not migrating or purging data

Diagnosis 1: The Core Server for this subsystem is down.

Resolution: Start the Core Server.

Diagnosis 2: No storage space is available in one of the migration target storage classes.

Resolution: Add or reclaim resources in the given storage class within the given subsystem.

Diagnosis 3: Migration or purge is encountering errors and aborting.

Resolution:

- Make sure that a bad piece of magnetic media (disk or tape) is not causing errors in either the source or target storage classes.
- Make sure that the target files do not reside on a volume which is locked. In the case of tape migration, remember that the whole file option may involve more than one source volume.

Diagnosis 4: Migration or purge appears to be hung.

Resolution:

- Make sure that a tape mount is not hung up or failing and being retried for either the source or target storage classes (applies to migration only).
- Use Real Time Monitoring to identify a potential deadlock in the servers which participate in migration or purge and contact HPSS support.

Purges occur more frequently or less frequently than desired

Diagnosis: The **Start Used Percent** parameter or the **Target Free Percent** parameter (or both) are set incorrectly in the purge policy.

Resolution: Correct the **Start Used Percent** parameter or **Target Free Percent** parameter (or both) in the purge policy. Shut down and restart the MPS.

Migrations occur more frequently or less frequently than desired

Diagnosis 1: The parameters are set incorrectly in the migration policy.

Resolution: Correct any or all of the **Runtime Interval**, **Last Read Interval**, **Last Update Interval**, and **Free Space Target** parameters in the migration policy. Suspend migration, tell the MPS to reread the migration policy, and then resume migration.

Diagnosis 2: The **Storage Class Update Interval** parameter is set incorrectly in the Migration/Purge Specific Configuration.

Resolution: If the **Storage Class Update Interval** parameter is set too large, the MPS will sample Core Server statistics too infrequently and act on the information too late. Set this parameter to a smaller value. Suspend migration, tell the MPS to reread the migration policy, and then resume migration.

Tape storage class cannot be purged

Diagnosis: Purge is not supported for tape storage classes.

Resolution: The MPS purges all the storage segments from a virtual volume as part of tape

migration. There is no specific purge for tapes.

1.2.4. Physical Volume Library (PVL) problems

Tape mount requests are not being satisfied

Diagnosis 1: The PVL is not able to connect to Mover, PVR, or Core Server.

Resolution: Look at the *Alarms and Events* window (see the *Alarms and Events window* section of the *HPSS Admin Guide*) to verify that the servers have lost their connection. Determine where connectivity problems exist and proceed to the appropriate problem diagnosis below.

Diagnosis 2: Mount requests are queued in the PVL waiting for resources.

Resolution: Check PVL job queues and devices for resource shortages such as all devices being in use, multiple requests for the same cartridge, or drives being disabled. This examination should reveal the resource shortage as being drive or cartridge related. If the shortage is caused because a drive is in a disabled state, enable (unlock) the drive (if appropriate) using the *PVL Drive Information* window. If a true resource shortage exists, wait for resources to become available or cancel appropriate PVL jobs to free the required resource. If no resource shortage exists, then proceed to Diagnosis 3.

Diagnosis 3: An internal PVL job queue error has occurred.

Resolution: Use the *PVL Job Queue* window (see the *PVL Job Queue window* section of the *HPSS Admin Guide*) to select the job in question. Cancel the job and retry it. If problems exist for all PVL mounts, restart the PVL.

A PVL job cannot be canceled

Diagnosis 1: The PVL is unable to connect to the Mover or PVR.

Resolution: Look at the *Alarms and Events* window (see the *Alarms and Events window* section of the *HPSS Admin Guide*) to verify that the servers have lost their connection. Determine where connectivity problems exist and proceed to the problem diagnosis below.

Diagnosis 2: An internal PVL queue contains inconsistent data.

Resolution: Restart the PVL. If the problem persists, check to see if the job involves a tape mount by clicking the **Job Info** button on the *PVL Job Queue* window (see the *PVL Job Queue window* section of the *HPSS Admin Guide*). If the job is a tape mount, determine the PVR involved by using the *Devices and Drives* window (see the *Devices and Drives window* section of the *HPSS Admin Guide*) to select the Drive ID and using the **Drive Info** button to activate the *PVL Drive Information* window. Shut down and restart the PVR in question.

Diagnosis 3: A Core Server has I/O requests outstanding which reserve the device causing the PVL to issue rewind *and* elevate errors.

Resolution: If data is moving to the device (this can be detected via one of the following SSM windows: *Mover Device Information*, *Core Server Disk/Tape Volume Information*, or *Mover Information*), wait for the I/O to complete. If the I/O appears hung, use a utility such as **lsof,** and

grep for Mover processes which have the device open. Kill the Mover processes and restart if necessary.

Diagnosis 4: The Platform which hosts the Mover processes or device files (or both) is down. This is causing the PVL to issue rewind *and* elevate errors.

Resolution: Lock the drive via the HPSS *Devices and Drives* window. This will cause the PVL to exit the drive unload loop and issue a dismount to the PVR. You may have to manually unload the drive in order for the dismount to occur.

Core Server mount requests are not appearing in PVL job queues

Diagnosis 1: The PVL is unable to connect to the Core Server.

Resolution: Look at the *Alarms and Events* window (see the *Alarms and Events window* section of the *HPSS Admin Guide*) to verify that PVL server has lost its connection to the Core Server. Proceed to the Core Server connectivity failure problem given below in PVL cannot connect to the Core Server.

Diagnosis 2: PVL and Core Server queues are not synchronized.

Resolution: After ensuring that the requests in question do not exist, restart the PVL. If this fails to correct the problem, restart the appropriate Core Server.

A tape cartridge is physically mounted in a drive but is not recognized by the system as being mounted

Diagnosis 1: PVL is unable to connect to a Mover.

Resolution: Look at the *Alarms and Events* window (see the *Alarms and Events window* section of the *HPSS Admin Guide*) to verify that PVL server has lost its connection to a Mover. Proceed to the Mover connectivity failure problem description given in PVL cannot connect to a Mover.

Diagnosis 2: Drive polling is not enabled for operator PVR.

Resolution: If the drive in question is in an operator PVR (is mounted by hand), polling may not have been enabled for the drive in question. Enable polling for the appropriate drive using the *PVL Drive Information* window.

Diagnosis 3: The mount response from the PVR is lost.

Resolution: If drive polling is not enabled for the drive the cartridge is mounted in, set the polling interval. Investigate the cause of the dropped mount responses.

A drive has been added to the PVL but is not being used by the system

Diagnosis 1: The drive in question has not been enabled.

Resolution: Use the *PVL Drive Information* window (see the *Devices and Drives window* section of the *HPSS Admin Guide*) to enable the drive in question for reading or writing.

Diagnosis 2: The PVL has not been able to notify the associated Mover and/or PVR about the new drive.

Resolution: Verify that the Mover and/or PVR associated with the new drive are up and running. If the PVL reported in the *Alarms and Events* window that it abandoned contact with the Mover and/or PVR for the new Drive ID and the Mover and/or PVR are up, restart the Mover and/or reinitialize the PVR.

Cannot delete a drive

Diagnosis 1: The PVL hasn't been able to successfully notify the Mover and/or PVR about this drive being previously added.

Resolution: Verify that the associated Mover and PVR (if tape) are up and that the PVL can communicate with them.

Diagnosis 2: The PVL is in the process of aborting a Mover/PVR notification.

Resolution: Wait a minute and retry the deletion.

Diagnosis 3: The drive is in use by the PVL.

Resolution: Stop or abort all jobs using this drive or allow them to complete. Lock the drive. Verify that the drive is not being used before retrying.

Diagnosis 4: For disk: storage resources haven't been deleted from the disk device/drive.

Resolution: Delete storage resources.

Diagnosis 5: For disk: the physical volume hasn't been exported from the disk device/drive.

Resolution: Export the volume.

Cannot add a drive

Diagnosis 1: Previous deletion of this drive is pending notification to either the Mover, PVR, or both servers.

Resolution: If a drive with the same Drive ID was previously deleted and the PVL was unsuccessful informing the associated Mover and PVR about the deletion (that is, notification pends to either or both servers), then the drive cannot be added until both Mover and PVR receive the notification, or the PVL aborts the notification. Retrying the *add* should abort the notification. Also, verify that both the Mover and PVR are up and that the PVL can communicate with them.

Diagnosis 2: The PVL doesn't have the required permissions.

Resolution 1: Verify that the HPSS_PRINCIPAL_PVL has a user entry in each Mover with *rtc* permissions. This can be done via the **hpss_server_acl** utility.

Resolution 2: Verify that the HPSS_PRINCIPAL_PVL has a user entry in each PVR with *rwcdt* permissions. This can be done via the **hpss_server_acl** utility.

Diagnosis 3: The PVL doesn't know about the PVR.

Resolution: The PVL learns about all the configured PVRs upon startup of the PVL. Thus the PVL

needs to be restarted after creating a new PVR.

Imports of cartridges fail due to improper labeling

Diagnosis: The **Import Type** field was used incorrectly.

Resolution: The value of the **Import Type** field can be either **Default**, **Scratch** or **Overwrite**. For disk, always use the **Scratch** import type.

- Specifying **Overwrite** or **Scratch** may cause a label to be written on to the media no matter what is currently on it, potentially causing any data on the media to be lost. Because of the potential danger of importing media as **Overwrite** or **Scratch**, a dialog box will appear to confirm the choice.

- Specifying **Default** will cause an action depending on how the media is labeled (that is, tape or disk). For tape media, the action taken is based on the current volume label type:

  HPSS - Media imported. The volume label type for this HPSS is: media has an ANSI label; that is, it starts with an 80-byte block starting with the characters **VOL1**. The owner field of the ANSI label is set to **HPSS**.

  Foreign - Media imported. The volume label type for Foreign is: media has an ANSI label, but the owner field is not **HPSS**.

  Non-ANSI - Import fails. The volume label type for Non-ANSI is: media starts with an 80-byte block that does not start with the characters **VOL1**.

  No label, but data found - Import fails.

  No label or data - Cartridge is labeled and imported.

  For disk media, the current volume label is read and if the volume identifier matches the identifier specified in the import request, the label is rewritten. This is done in case the volume is being re-imported with either a different block size or number of blocks, because these values are placed in the disk volume label. The Mover can then verify that the label matches the device configuration metadata. If the current volume identifier does not match the identifier specified in the import request, the import will fail.

PVL cannot connect to the Core Server

Diagnosis: The Core Server is not running or is not responding.

Resolution: Restart the Core Server. For additional information that may help with this problem, see RPC problems.

PVL cannot connect to a Mover

Diagnosis: The involved Mover is not running or is not responding.

Resolution: Restart the Mover in question. For additional information that may help with this problem, see RPC problems.

PVL cannot connect to the PVR

Diagnosis: The PVR is not running, or is not responding.

Resolution: Restart the PVR. For additional information that may help with this problem, see RPC problems.

PVL cannot connect to SSM

Diagnosis: The SSM System Manager is not running or is not responding.

Resolution: If the SSM windows are responding, check the status of SSM's connection to the PVL in the Status field on the *Servers* window (see the *HPSS servers* section in the *HPSS Admin Guide*) and reconnect (via the **Force Connect** button) if necessary. The PVL will attempt to connect to SSM indefinitely. For additional information that may help with this problem, see RPC problems.

1.2.5. Physical Volume Repository (PVR) problems

PVR is unable to communicate with a robot

Diagnosis: These errors are usually caused by configuration problems outside the control of HPSS.

Resolution: Verify that a non-HPSS process is able to talk to the robot. It is best to use the robot's own control software. For the STK robot, try to mount and dismount a tape from the Automated Cartridge System Library Software (ACSLS) console. Additionally for STK, make sure the Storage Server Interface (SSI) process is running on the same workstation as the PVR. The SSI process must have been started before the PVR. For an ADIC AML robot, try to mount and dismount a tape using **dasadmin** commands. Note that the user must use the command **mt -f /dev/rmtxx rewoffl** to rewind and elevate the tape before issuing the **dasadmin dismount** command. For LTO libraries, shut down the PVR and try to talk to the robot through the **tapeutil** tool. Using **tapeutil open /dev/smc0** (or whatever the device-specific file is called) and issue mount, dismount, and move volume commands.

If the non-HPSS processes are able to mount and dismount tapes, check the PVR configuration. For LTO, if you cannot open the `/dev/smc*` file, another process may have control over the library. Remember that only one process can talk to the library at a time, so any other process with an open SMC special device file descriptor will have to be terminated. For STK robots, check that the packet version used by the PVR is the same as the packet version used by the SSI and ACSLS. Note that the packet version number is usually one less than the ACSLS software version number. Be sure that this number agrees with the HPSS environment variable ACSAPI_PACKET_VERSION. For ADIC AML, check the configured Server Name and Client Name fields in the PVR configuration. Make sure that these are the same as in the OS/2 PC configuration file. Also, the user should monitor the OS/2 log file for additional information. The error messages are described in detail in the *EMASS Storage Systems AMU Reference Guide*.

PVR operational state is "Major"

Diagnosis 1: A cartridge has failed to mount.

Resolution 1: If a cartridge is supposed to be mounted by a human operator and the mount has been

outstanding for about twenty minutes, the Operational State will be set to Major to signify that the mount is taking too long. If a cartridge is supposed to be mounted by a robot, but the robot is unable to mount the cartridge, a message will be logged indicating the problem and the Operational State will be set to Major.

Correct the problem indicated in the log and then force the mount to retry by setting the PVR's Administrative State to Repaired. If the mount fails again, the Operational State will remain set to Major. All mounts that have failed will be retried when the PVR is repaired. They will also be retried every five minutes. If any mount fails, the Operational State will be set to Major.

It is possible for the Operational State to be set to Major even if there are no mounts currently pending. If a mount fails due to a transient condition, the Operational State will be set to Major. If the automatic retry successfully mounts the cartridge later, the Operational State will remain set to Major. This allows the operator to identify and correct the transient condition. Set the Administrative State to Repaired to clear the Operational State.

Resolution 2: If a cartridge fails to mount due to unavailability, investigate the cause of error. In certain cases a cartridge will become unavailable due to hardware failure. Examples include a cartridge loaded in a drive which lost power or a cartridge stuck in a passthrough port. If the mount job was requested by the data migration process, try changing the state of the requested volume to a non-writable condition, such as RO or DOWN, using the *Core Server Tape Volume Information* window, then cancel the PVL job. If the source of the mount problem can be corrected, you may be able to return the tape to regular service using the *Core Server Tape Volume Information* window.

Diagnosis 2: Insufficient drives are available to honor a mount request.

Resolution: This problem may have occurred due to the injection of a cleaning cartridge into a drive. The PVL is responsible for maintaining the available drive count; however, the PVL has *no* ability to know when a cleaning cartridge is injected. The PVR is very persistent and the problem will correct itself usually within five minutes. It is necessary to notify the PVR of repair in order to reset the Operational State to **Normal**. The PVR will continue to recheck for an available drive at five-minute intervals until the problem is resolved.

1.2.6. Gatekeeper (GK) Problems

The Core Server is not calling the Gatekeeper

Diagnosis 1: The Gatekeeper is not up.

Resolution: Restart the Gatekeeper in question. The Core Server will attempt to connect to this Gatekeeper the next time it is needed. If the site policy increased the types of requests being monitored, then the Core Server will not find this out until one of the types of requests previously being monitored is issued. For example, if the Core Server was monitoring open requests and the site policy was changed to monitor open and create requests then the Core Server won't know about the change until it attempts to issue an open to the DOWN Gatekeeper. As a general rule, it is recommended that the Core Server be recycled whenever the GK site policy changes the types of requests to be monitored.

Diagnosis 2: The Gatekeeper is not configured into the storage subsystem.

Resolution: Configure the Gatekeeper into the storage subsystem corresponding to the Core Server. Recycle the Core Server.

Diagnosis 3: The site policy increased the types of requests being monitored.

Resolution: As a general rule, it is recommended that the Core Server be recycled whenever the GK site policy changes the types of requests to be monitored.

Diagnosis 4: The AUTHZACL table entry for the GK may not be set correctly.

Resolution: Fix the GK security object to contain the following ACL entry:

```
{user hpss_core rw---}
```

The wrong request types are being monitored

Diagnosis: The types of requests being monitored have changed.

Resolution: Recycle the GK and the Core Server.

The Gatekeeper is not doing any gatekeeping

Diagnosis: The default gatekeeping policy is to do NO gatekeeping.

Resolution: Write the site customizable gatekeeping policy module. See the *Gatekeeper* section (under *HPSS server considerations*) and the *Gatekeeping* section (under *Storage policy considerations*) of the *HPSS Admin Guide.* Also, see the *HPSS Programmer's Reference.*

The SSM cannot contact the Gatekeeper

Diagnosis: The AUTHZACL table entry for the GK may not be set correctly.

Resolution: Fix the GK security object to contain the following ACL entry:

```
{user hpss_ssm rw-c}
```

The Gatekeeper won't start or load

Diagnosis 1: The shared libraries have been moved or deleted.

Resolution: Issue on Linux:

```
ldd /opt/hpss/bin/hpss_gk
```

or on AIX:

```
dump -H /opt/ hpss /bin/hpss_gk
```

to list the dynamic dependencies of the Gatekeeper dynamic executable. Check that the `libgksite.*` and `libacctsite.\*` shared libraries are actually located in the pathname displayed by the **ldd** or **dump** command. If they differ, then rebuild the Gatekeeper (see the *Build the HPSS base source tree* section of the *HPSS Admin Guide* for more information on rebuilding HPSS).

Diagnosis 2: The shared libraries have the wrong permission.

Resolution: Verify that the Gatekeeper process has read permission for the libraries it loads (such as `libgksite.*` or `libacctsite.*`).

Diagnosis 3: The site policy pathname in the Gatekeeper configuration is bad.

Resolution: The site policy pathname is passed to the gk_site_Init() routine which is written by the site. If the site implements this routine to return an error (for example, because the site policy pathname is invalid), then the Gatekeeper will crash.

Account validation fails to initialize

Diagnosis 1: The Core Server terminates during startup complaining that it cannot initialize account validation.

Resolution: Examine the logged error code as well as any account validation errors logged recently. Make sure the accounting policy has been created and initialized properly. Make sure the Global Configuration metadata has been setup. Make sure the local cell ID has been set up in the trusted cell table properly. If account validation is enabled, make sure at least one Gatekeeper has been defined and is marked executable.

Diagnosis 2: The Gatekeeper terminates during startup complaining that it cannot initialize account validation.

Resolution: Make sure an accounting policy has been defined. If you have written a site policy module, make sure it is working properly.

1.2.7. Mover problems

Mover performs poorly

Diagnosis 1: A problem exists with the Mover internal buffer size.

Resolution: If the Mover buffer size is too small, the Mover will perform numerous separate requests when a single request could be made to perform the same input or output operation. If the Mover buffer size is too large, the Mover could reserve too much system virtual memory, requiring frequent paging of Mover and other process memory (which will also decrease performance). Also, if the buffer size is too large, transfers may be completed without the Mover receiving any benefit from double buffering. (For example, if the Mover buffer size is 4 MB but a majority of client requests are 4 MB or less, the Mover will complete the transfer using one buffer, thus not allowing any client and device I/O time to be overlapped.)

Diagnosis 2: A disk device is configured to use the block special file.

Resolution: If the device is configured to use the block special file, the data will be buffered by the

operating system, which could cause additional overhead during read (primarily) and write operations. Also, data that the Mover believes has been written to disk may in fact only be stored in system memory, waiting to be flushed to disk. Change the device configuration to use the character special device.

Diagnosis 3: A disk device is not configured to use multiple Mover tasks.

Resolution: If the device is not configured to use multiple Mover tasks, the Mover will signal thread I/O requests for that device. This flag should always be set by HPSS for new default device configurations and is not settable by the user. Should you discover a disk device not configured to use multiple Mover tasks, contact HPSS support.

Mover cannot be started

Diagnosis 1: The Mover could not bind to the TCP/IP port number specified in the Mover specific configuration file.

Resolution: Verify that the hostname specified in the Mover specific configuration file relates to a valid network interface for the machine on which the Mover is running, and that the port number specified is a valid port number and one that is not in use by another process (possibly another HPSS Mover that was previously started on the same machine).

Diagnosis 2: The Mover could not bind to a UNIX domain socket used for intra-Mover communication.

Resolution: The Mover uses a set of UNIX domain sockets that are placed in `/var/hpss/tmp` while the Mover is running. If a Mover was previously running under a different UNIX user ID and was not cleanly shut down, the sockets may be left in the file system, and the newly started Mover may not be able to remove them. If this is the case, a user with sufficient privilege must remove the socket files in `/var/hpss/tmp` before the Mover can be run by the second user. The socket file names all begin with the prefix **Mvr**.

Diagnosis 3: The Mover cannot start the TCP/IP request process.

Resolution: The Mover TCP/IP program pathname is contained in the Mover specific configuration file, and may be verified by examining that information.

Diagnosis 4: The Mover node *inetd* configuration is incorrect.

Resolution: This diagnosis is likely to be correct if the Parent Mover process (on the Core Server) generated an alarm message indicating that it cannot establish a connection to the remote node. To correct the problem, verify the `/etc/services` and `/etc/inetd.conf` configuration are correct (see the *Additional Mover configuration* section of the *HPSS Admin Guide*). Also, verify (typically via **netstat**) that there is a listen waiting on the appropriate TCP port.

Diagnosis 5: The Mover encryption key is out of sync between the two Mover nodes.

Resolution: In this case, the Mover should generate an alarm message indicating that there is an encryption key mismatch. To resolve the problem, verify that the encryption key file (referenced in the `/etc/inetd.conf` file) on the Mover node contains the same value as is configured in the Mover's type-specific configuration.

Diagnosis 6: The clock skew between the Core Server node and the Mover node (the two nodes that this Mover is executing across) is greater than the maximum allowable difference (currently five minutes).

Resolution: In this case, the Mover should generate an alarm message indicating that the clock skew is too great. To resolve the problem, one or both of the nodes' clocks must be adjusted so that they are within the allowable difference.

Mover cannot write a label to a tape

Diagnosis 1: The Mover does not have the required privilege to access the device.

Resolution: Verify that the tape device special file is defined such that the user under which the Mover is running is able to access the file for both reading and writing.

Diagnosis 2: The tape device is not configured to support reading and writing variable size blocks.

Resolution: Verify that the tape device is defined such that it will support variable size blocks. This involves defining the block size of the device to be zero. Consult the platform and device driver documentation on how to set the block size for the device.

Mover cannot read the label from a previously labeled tape

Diagnosis 1: The tape device is configured as being able to support using the **no delay** flag on open, but in fact the device driver does not support issuing tape operations if the device was opened using the **no delay** flag.

Resolution: Change the device configuration to turn off the **no delay** support flag.

Diagnosis 2: The tape device is not configured to support variable block sizes (either because the device was reconfigured or the tape was read on a device other than the one that was used to write the label).

Resolution: See the Resolution for Diagnosis 2 in [Mover cannot write a label to a tape](#).

Tape positioning operations are performing poorly

Diagnosis 1: The tape device is not configured to support absolute positioning (fast locate).

Resolution: Change the device configuration to turn on the fast locate support flag if the device and driver interface support **fast locate**.

Diagnosis 2: The Mover was not built with the compilation flag to include code for the device-specific device driver interface, which would allow absolute positioning (fast locate) to be used.

Resolution: Rebuild the Mover to include support for the specific device driver interface being used, and modify the device configuration to turn on the **fast locate** support flag (if necessary).

Network transfers are performing poorly

Diagnosis 1: Routing tables on the node on which the Mover is running are incorrect.

Resolution: Verify that the system routes defined are causing the Mover to use the expected network connectivity when communicating with a remote client.

Diagnosis 2: The networking options defined in the HPSS network option file (`HPSS.conf`) are not optimally set for the utilized networks.

Resolution: Verify the correctness of the network configuration file `HPSS.conf` on the Mover machine for the utilized networks. See Appendix D of the *HPSS Admin Guide* for further details.

Mover cannot perform a LFT data transfer

Diagnosis 1: The Mover reports an access error while performing a LFT data transfer and logs an alarm message indicating that the local file could not be opened.

Resolution: Verify that the machines on which the Mover and the client are executing both have the file system that contains the specified file mounted locally.

Diagnosis 2: The Mover reports an access error while performing a LFT data transfer and logs an alarm message indicating that the specified path is not configured for LFT data transfer.

Resolution: Verify that the LFT configuration file contains a path that matches the base of the requested file path. See the *Mover configuration to support Local File Transfer* section of the *HPSS Admin Guide* for more details on configuring Local File Transfer.

Diagnosis 3: The Mover reports an access error trying while performing a LFT data transfer.

Resolution: Verify that the Mover is running as the *root* user. Because a Mover using LFT must read and write files with varying ownership and permission, it must be run as the *root* user.

Diagnosis 4: A Mover managing a tape device, on the same machine with a LFT Mover, reports a shared memory access error during migration and stage.

Resolution: Since a LFT Mover must run as the *root* user, then any other Mover on the same machine must also run as the *root* user. This is because shared memory is used for data transfer between two Movers on the same machine, and the shared memory segment is created with permissions that allow only user access. Configure the tape Mover to run as *root* and restart it.

1.2.8. Logging services problems

Logging performance is sluggish

Diagnosis: A large number of messages are being generated.

Resolution: Change the Logging Policy to filter out unneeded messages. The recommended record types to filter out first are Trace and Request. If the problem persists, consideration can be given to filtering Debug messages. However, bear in mind that this will reduce the information available when troubleshooting issues. To set or modify Logging Policy, open the *Logging Policies* window and select the logging policies for the affected servers. Modify the policies and reinitialize the Log Clients for the affected machines. The logging policy may also be modified by selecting the Log Policy tab from the *Basic Server Configuration* window. Refer to the *Logging and status* section of the *HPSS Admin Guide* for additional details.

TABs and newlines in HPSS log messages converted to #011, #012 in syslog

Diagnosis: The default rsyslog configuration converts non-printable characters in its input into their octal representation preceded by a hash sign (#).

Resolution: To replace the "#nnn" expressions with spaces, set the following in the rsyslog configuration:

```
$EscapeControlCharactersOnReceive off
$template HPSS_Format,"%TIMESTAMP% %HOSTNAME %msg:::space-cc%\n"
...
user.notice                     /var/log/hpss;HPSS_Format
```

Note: After changing the rsyslog configuration, it will be necessary to **kill -HUP** or restart the rsyslog server.

1.2.9. Startup Daemon problems

Cannot start a server

Diagnosis 1: The server may already be running. The Startup Daemon has determined that an identical copy of the target server is already running.

Resolution: Make sure that there are not two servers with the same descriptive name (this should not be possible). If you force the server to run anyway, you may damage the HPSS system, so stop the old server first.

Diagnosis 2: A lock file problem may exist.

Resolution: See A problem exists with a Startup Daemon lock file.

Diagnosis 3: The HPSS executable may not exist or may not be accessible.

Resolution: Make sure the path to the executable is specified correctly, that the executable exists, and that the UNIX user under which the server will be running has permission to access the executable.

Diagnosis 4: The UNIX user under which the server is configured to run may not exist. The Startup Daemon issues the "Cannot start server; no such UNIX user <userid>" error message. The SSM System Manager issues the "Startup of server 'XYZ' failed" error message.

Resolution: Make sure the server's user name exists in the `passwd` file on the computer where the server will be running.

Diagnosis 5: The Startup Daemon may not be running.

Resolution: The daemon must be started before HPSS servers can be brought up. To start the daemon, run the script **rc.hpss**.

Diagnosis 6: The Startup Daemon may not be responding to requests.

Resolution: Kill the daemon using the **kill -9** command and then restart it using the script **rc.hpss**. Do this only as a last resort because it causes the daemon to lose some of the information it has about which servers are running.

Cannot force halt a server

Note: These diagnoses apply only to stopping a server with the **Force Halt** button; none of them is an issue for the **Shutdown** button. Do not use the **Force Halt** button unless **Shutdown** has already been tried unsuccessfully.

Diagnosis 1: The Startup Daemon may not be running.

Resolution: To halt a server, SSM issues two requests: one to the specified server directing the server to halt immediately, and one to the Startup Daemon on the server's host directing the Startup Daemon to kill the server. Either request alone should be sufficient, but both are issued in case either fails. If SSM cannot communicate with the server, or if the server ignores the **halt** request, the only way the **halt** can succeed is if the Startup Daemon kills the server. In this case, if the Startup Daemon is not executing and communicating with SSM, the **halt** request will fail. To start the daemon, run the script **rc.hpss**.

Diagnosis 2: There may be a problem with a Startup Daemon lock file.

Resolution: See the discussion in A problem exists with a Startup Daemon lock file.

Diagnosis 3: The Startup Daemon may not be responding to requests.

Resolution: Kill the daemon using the **kill -9** command and then restart it using the script **rc.hpss**. Do this only as a last resort because it causes the daemon to lose some of the information it has about which servers are running.

A problem exists with a Startup Daemon lock file

Diagnosis 1: Lockfile name collision.

Resolution: On very rare occasions, two servers with different descriptive names will share the same lock file name. There are two ways this can happen.

The InitServer function, which is called by all HPSS servers when they start running, creates a lockfile on the server's host in the `/var/hpss/tmp` directory. The lockfile name is of the form `hpssd.NNNN.AAAA` where NNNN is a hexadecimal number and AAAA is the descriptive name of the server. The lockfile contains the process ID of the server. The Startup Daemon on each host uses the lockfile to determine whether the server is currently running.

If the server's descriptive name contains embedded spaces or other characters not valid for file names, the Startup Daemon will substitute underscores for the problem characters in the lockfile name. It is therefore possible for two descriptive names which differ only in these spaces or special characters to map to the same lockfile name.

A second way two descriptive names can map to the same lockfile name is if their first twenty-two (22) characters match, as the Startup Daemon uses only the first twenty-two characters of the descriptive name to build the lockfile.

To fix the problem, change the descriptive name of one of the servers.

Diagnosis 2: The server does not have permission to write to the lock file.

If the server was previously run under a different UNIX UID, it is possible that the lock file already exists but the server does not have access permission to overwrite it. Check the owner and permissions on the file and the UNIX UID for the server in the server configuration. If you are certain the server is not running on that host, remove the lockfile and retry starting the server.

Diagnosis 3: The lock file may be empty.

Resolution: Delete the file. The name of the file that is causing the problem can usually be found in the HPSS log. You can also use the **ls -l** command to look for empty files in `/var/hpss/tmp`.

Diagnosis 4: The lock file may contain invalid information.

Resolution: To better understand the situation, use the **cat** command to view the contents of the lock file. It should look similar to this:

```
DescName: Core Server
LockNum: 0
PID: 20016
```

The descriptive name should correlate to the name of the file (in this example, `/var/hpss/tmp/hpssd.4302.Core_Server`). If the names do not correlate, change one of the servers' descriptive names to avoid a name collision. To avoid further trouble, delete the lock file.

1.2.10. SSM problems

SSM includes three programs: the SSM System Manager, the SSM graphical user interface program **hpssgui**, and the SSM command line interface **hpssadm**. Problems with all three programs and the interactions between them are covered in this section.

The **hpssgui** and **hpssadm** programs are here jointly referred to as "ssmuser" programs. The human system administrator or operator using SSM is referred to as an "SSM user".

When diagnosing SSM problems, it is very helpful to run the **hpssgui** and **hpssadm** programs in debug mode and to keep a session log. See the **hpssgui** and **hpssadm** man pages for details.

There are four scripts for starting **hpssadm** and **hpssgui**, described in the table below:

Table 1. The **hpssgui** *and* **hpssadm** *startup scripts*

Script	Language	UNIX	Windows
hpssadm.pl	Perl	yes	if Perl installed
hpssgui.pl	Perl	yes	if Perl installed
hpssadm.vbs	Visual Basic Script	no	yes
hpssgui.vbs	Visual Basic Script	no	yes

Throughout this documentation, these scripts and the programs they start are referred to collectively as "**hpssadm** and **hpssgui**".

The System Manager won't start

Diagnosis 1: HPSS or one of its prerequisites is not installed, is not accessible, or is not operational.

Resolution: Make certain HPSS and all of its required infrastructure such as DB2 are properly installed. Make certain DB2 is executing. If LDAP is being used, make certain the LDAP server is running. If Kerberos is being used, make certain the Kerberos server is running.

Diagnosis 2: There is already an instantiation of the System Manager running.

Resolution: There must be one and only one System Manager in execution at any one time per HPSS installation. Note that the **rc.hpss** script will refuse to start the System Manager if it finds a copy already running on the same host.

The **ps** command can be used on each host to determine whether there are more copies of the System Manager executing than intended.

Diagnosis 3: HPSS is installed in a nonstandard location.

Resolution: If HPSS is installed in a nonstandard location, the **rc.hpss** script may not be able to find the proper configuration or binary files. The **rc.hpss** script will honor several environment variables to override the default locations.

Most of these variables can be defined in the HPSS environment override file, whose default location is `/var/hpss/etc/env.conf`.

One of the most important variables to define in the override file when using nonstandard locations is HPSS_ROOT, which is the pathname of the root of the tree where HPSS is installed. The default is `/opt/hpss`. See the *Define HPSS Environment Variables* section of the *HPSS Admin Guide* for other important variables.

If the `env.conf` file itself is in a nonstandard location, that location must first be defined in the environment (for example, by setting the variable in the shell) before executing **rc.hpss**. The location can be changed in several ways:

1. Modify the environment variable HPSS_ENV_CONF. This is the full pathname of the environment override file, default `/var/hpss/etc/env.conf`.

2. Modify the environment variable HPSS_PATH_ETC, the pathname of the HPSS `etc` directory. The default is `/var/hpss/etc`. Then create the `env.conf` file under the alternate HPSS_PATH_ETC directory.

3. Modify the environment variable HPSS_PATH_VAR, the pathname of the HPSS `var` directory. The default is `/var/hpss`. Then create the `etc` directory under the alternate HPSS_PATH_VAR directory and place the `env.conf` file under the `etc` directory.

Diagnosis 4: HPSS was built in one location and executed from another.

Resolution: Set both the LIBPATH and LD_LIBRARY_PATH environment variables to point to the

correct run time location of the HPSS libraries.

You can also set RUNLIBS_PATH in the `Makefile.macros` file to point to the correct run time location of the libraries. However, if you put copies of the system on multiple hosts (for example, one on a production host and one on a test host), you might not use the same location on both hosts. In this case, use LIBPATH and LD_LIBRARY_PATH to set the location on the host which differs from the RUNLIBS_PATH value.

Note that on some operating systems, your LIBPATH and LD_LIBRARY_PATH settings are removed from your shell's environment if you **su**, so you will have to reset them after the **su** before executing **rc.hpss**.

Diagnosis 5: Multiple HPSS test systems are configured on one host.

Resolution: It is never recommended to install or operate multiple HPSS systems on a single host in production. However, due to resource constraints or other considerations, some sites might install multiple test systems on a single host.

Make certain that each HPSS test installation is using a different var area. The default HPSS var area is `/var/hpss`; this can be customized for each test system with the HPSS_PATH_VAR variable.

Make certain that each HPSS test installation is using a different database. This is customized by the HPSS_GLOBAL_DB_NAME and HPSS_SUBSYS_DB_NAME environment variables.

Make certain each HPSS test installation is using a separate RPC program number range. This is customized by the HPSS_RPC_PROG_NUM_RANGE environment variable.

Diagnosis 6: The RPC port is still busy from a previous execution of the System Manager.

Example error message:

```
Starting HPSS System Manager...
Waiting up to 60 seconds for HPSS System Manager to start
$ __get_myaddress: ioctl: Bad file descriptor
```

Resolution: This is an error message from the RPC layer. The port needed for the System Manager has not been released from the previous usage, even though the old process has exited. Wait a few seconds and retry starting the System Manager.

The hpssgui or hpssadm program won't start

Diagnosis 1: Java is not installed or is not accessible.

Resolution: This is the likely diagnosis if the **hpssgui** or **hpssadm** startup script generated a message similar to: "java: not found."

Install the proper version of Java. If Java is already installed, make sure the path to the executable in the SSM configuration file (`ssm.conf` by default) is correct.

Diagnosis 2: Java is installed, but it is the wrong version.

Resolution: The **hpssgui** and **hpssadm** programs require Java 6 or greater.

Diagnosis 3: The **hpssgui** or **hpssadm** startup script is not installed or is the wrong version.

Resolution: Make certain the **hpssgui** and **hpssadm** startup scripts are installed in the correct location, that the user has permission to read and execute them, and that the user's path is set to reach them. These files are normally packaged for distribution to the ssmuser host by the **hpssuser** utility.

Diagnosis 4: The `hpss.jar` file is not installed or is an outdated version.

Resolution: Make certain the current version of the `hpss.jar` file is installed on the ssmuser host and that the user is looking for it in the right location. This file is normally packaged for distribution to the ssmuser host by the **hpssuser** utility.

Diagnosis 5: A missing or invalid `login.conf` is referenced in the SSM configuration file.

Resolution: A valid `login.conf` file must exist and be accessible on each host from which the **hpssgui** or **hpssadm** is executed. By default, this file is included in the `hpss.jar` file and should not need to be customized by the site. If the **-C** option is being used to override the default, ensure the `login.conf` file being referenced is configured correctly.

See the `/opt/hpss/config/templates/login.conf.template` file for details.

See the *login.conf* section of the *HPSS Admin Guide* for more details.

Diagnosis 6: The `krb5.conf` file is not installed, is not configured properly, or was not specified with the proper option of the **hpssgui** or **hpssadm** script (applies only if using Kerberos authentication).

Resolution: A valid `krb5.conf` file for the Kerberos realm of the SSM System Manager must exist and be accessible on each host from which the **hpssgui** or **hpssadm** programs are executed with Kerberos authentication. This file is normally created and packaged for distribution to the ssmuser host by the **hpssuser** utility.

The user must specify the correct `krb5.conf` file on the command line of the **hpssgui** or **hpssadm** startup script with the **-k** option, in the environment with the variable KRB5_CONFIG, or in the SSM configuration file.

Make certain the `krb5.conf` file exists and that it specifies the same Kerberos realm as that used by the SSM System Manager. If the default realm is not specified in the file, a possible error message from the **hpssgui** or **hpssadm** is "Authentication failed". The realm is specified in the file by the "default_realm" definition in the libdefaults Stanza, by the realms Stanza, and by the domain_realm Stanza. For example, this `krb5.conf` file specifies its default realm as ACME.COM:

```
        [libdefaults]
            default_realm = ACME.COM

        [realms]
            ACME.COM = {
                kdc = acme.com:88
                admin_server = acme.com:749
            }

        [domain_realm]
            acme.com = ACME.COM
```

It is also recommended that the `krb5.conf` file not list triple DES encryption, or if it does, that it not list it first. This does not affect **hpssgui** or **hpssadm** but may affect the **kinit** command. It is convenient to use the same `krb5.conf` file and the same keytab for both SSM and **kinit**. The **kinit** command compares whatever encryption type is in the keytab against the first encryption type listed in the `krb5.conf` file, and if it doesn't match, the **kinit** fails, even if the matching type is listed second in the `krb.conf` file.

So, if the SSM user has a keytab for **hpssadm**, it should use only regular DES encryption. If he uses that same keytab for **kinit**, and the `krb5.conf` file lists regular DES encryption but also lists triple DES encryption first, the **kinit** will fail.

The encryption types are listed in the `krb5.conf` file for the "default_ktk_enctypes" and the "default_tgs_enctypes"; for example:

```
        [libdefaults]
            default_tkt_enctypes = aes256-cts-hmac-sha1-96 aes128-cts-hmac-sha1-96
            default_tgs_enctypes = aes256-cts-hmac-sha1-96 aes128-cts-hmac-sha1-96
```

In this example, AES256 is listed first. This will cause **kinit** to fail if the keytab uses AES128 encryption. To solve this problem, list the AES256 entry second:

```
        [libdefaults]
            default_tkt_enctypes = aes128-cts-hmac-sha1-96 aes256-cts-hmac-sha1-96
            default_tgs_enctypes = aes128-cts-hmac-sha1-96 aes256-cts-hmac-sha1-96
```

or eliminate it altogether:

```
        [libdefaults]
            default_tkt_enctypes = aes128-cts-hmac-sha1-96
            default_tgs_enctypes = aes128-cts-hmac-sha1-96
```

Diagnosis 7: The SSM configuration file is not installed, is not configured properly, or was not specified with the proper option of the **hpssgui** or **hpssadm** script.

Resolution: A valid SSM configuration file must exist and be accessible on each host from which the **hpssgui** or **hpssadm** programs are executed. The file must be configured correctly for the HPSS system to which the ssmuser needs to connect.

This file is normally created and packaged for distribution to the ssmuser host by the **mkhpss** utility. The default name for the file is `ssm.conf`. The default location for the file on AIX and Linux hosts is `/var/hpss/ssm`. There is no default location on Windows.

The user must specify the correct SSM configuration file on the command line of the **hpssgui** or **hpssadm** startup script with the **-m** option.

Diagnosis 8: The UNIX realm name is not specified (applies only if using UNIX authentication).

Resolution: When using UNIX authentication, specify the UNIX realm in the `ssm.conf` file with the HPSS_SSM_UNIX_REALM variable or on the command line with the **-u** option of the **hpssgui** or **hpssadm** startup script.

Diagnosis 9: The security mechanism was not specified.

Example error message:

```
null security mechanism
```

Resolution: Specify the security mechanism in the SSM configuration file with the HPSS_SSM_SEC_MECH variable or on the command line with the **-s** option of the **hpssgui** or **hpssadm** startup script. For the **hpssadm**, also specify a valid keytab with the **-a** option of the **hpssadm** startup script.

Diagnosis 10: The user's keytab file does not exist or is not correct.

Resolution: A valid keytab for the user must exist and be accessible on each host from which he executes the **hpssadm** user program. The **hpssuser** utility is normally used to create this keytab and to package it for distribution to the ssmuser machine. Keytabs for use with Kerberos authentication can also be created manually with the **hpss_krb5_keytab** utility. Keytabs for use with UNIX authentication can also be created manually with the **hpss_unix_keytab** utility.

Make certain the keytab exists, contains an entry for the user, and contains an encrypted version of the user's password.

Make certain the correct path to the keytab is specified for the user with the **-a** option to the **hpssadm** startup script.

When using Kerberos authentication:

- Make certain the keytab was created on a machine in the same Kerberos realm as the System Manager host.
- Make certain the keytab was not created with the **kadmin** command, which randomizes the password.
- Make certain the keytab does not use triple DES encryption.

- To examine the keytab, use the **ktutil** utility, which is in the Kerberos `sbin` directory. Use its **read_kt** command to read in the keytab and its **list** command to display the entries. The **-e** option of the **list** command will display the encryption type.

  For example, use these commands to invoke the **ktutil** command, read in the keytab file `keytab.joe`, and list its entries with their encryption types:

  ```
  $ ktutil
  ktutil: read_kt keytab.joe
  ktutil: list -e
  ```

  The output from this command might be something like:

  ```
  slot KVNO Principal
  ---- ---- -------------------------------------------------
     1     2 joe@ACME.COM (Triple DES cbc mode with HMAC/sha1)
     2     2 joe@ACME.COM (DES cbc mode with CRC-32)
  ```

  In this example, the keytab lists two entries for user *joe* in Kerberos realm ACME.COM. The entry in slot 1 was created with triple DES encryption and will not work with **hpssadm** on all platforms. The entry in slot 2 was created with regular DES encryption and will work on Linux, Windows, or AIX.

- If the keytab is incorrect, recreate it on a machine in the proper Kerberos realm using the **hpssuser** or **hpss_krb5_keytab** utility.

When using UNIX authentication:

- Make certain the keytab was created on the machine on which the SSM System Manager executes. The encrypted password in the keytab will be evaluated against the encrypted password in the password file on that machine and must match it.

- Make certain the keytab was not created with the **-r** option of the **hpss_unix_keytab** utility. This places a random password into the keytab file.

- Make certain the keytab was not created with the **-p** option of the **hpss_unix_keytab** utility. This option is used to specify a password on the command line. **hpss_unix_keytab** encrypts this password using a different salt than what was used in the password file, so that the result will not match.

- To examine the keytab, use the list option of the **hpss_unix_keytab** utility.

- If the keytab is incorrect, recreate it on the same machine where the SSM System Manager executes using **hpssuser** or **hpss_unix_keytab**.

See the *Creating the SSM user accounts* section of the *HPSS Admin Guide*.

Diagnosis 11: The client can not get login credentials (Kerberos).

Example error message:

```
21:45:44 07-Feb-2006: Error: SSMUser.init.password: Can not
get login credentials debbiem
21:45:44 07-Feb-2006: Error: HPSS Login: Can not get login credentials
```

Resolution: Verify that the user is able to **kinit** and verify that the KDC port (88) is open to the client. Following is an example of how to issue a **kinit** on a Microsoft Windows client using Java's **Kinit**:

```
$ java -Djava.security.krb5.conf=\path\to\krb5.conf
sun.security.krb5.internal.tools.Kinit <username>
```

Resolution: Verify that there is no clock skew between the client machine and KDC machine; they need to be within five minutes.

The hpssgui or hpssadm cannot connect to the System Manager

Diagnosis 1: See The hpssgui or hpssadm program won't start

Resolution: Under some conditions, the **hpssgui** or **hpssadm** will be able to start despite the issues listed in The hpssgui or hpssadm program won't start but it will not be able to connect to the System Manager. Check for those problems first.

Diagnosis 2: The user does not have privileges to talk to the System Manager.

Resolution: There are two levels of privilege for SSM users: admin and operator. The privilege level is determined by the ACL (access control list) granted to the user in the AUTHZACL table in the database. Every SSM user must have a valid entry in this table. If these entries do not exist or are incorrect, the user will not be allowed to connect to the System Manager.

These entries in the AUTHZACL table are normally added by the **hpssuser** program (see the *Creating the SSM user accounts* section of the *HPSS Admin Guide*) when the user HPSS account is created.

Admin users should have all privileges: read, write, execute, control, insert, delete, and test (rwxcidt). Operators should have only read, control, and test (rct). Only these sets of permissions are supported. Other sets will be treated as no permission at all.

To verify or correct the user's privileges, use the **hpss_server_acl** program (see the *SSM user authorization* section of the *HPSS Admin Guide*). For example, to display all users who have ACL entries for accessing SSM, use:

```
$ /opt/hpss/bin/hpss_server_acl
hsa> acl -t SSM -T ssmclient
hsa> show
```

The output from this command should be something like:

```
perms - type - ID (name) - realm ID (realm)
==========================================
rwxcidt - user - 106 (hpss) - 180021 (HPSS.ACME.COM)
rwxcidt - user - 4543 (joe) - 180021 (HPSS.ACME.COM)
r--c--t - user - 60003 (fred) - 180021 (HPSS.ACME.COM)
r--c--t - user - 61001 (mary) - 180021 (HPSS.ACME.COM)


------t - any_other
```

In this example, users *hpss* and *joe* have admin privileges. Users *fred* and *mary* have operator privileges.

Use the **hpss_server_acl** commands **del** and **add** to correct invalid entries. Type "help" from the **hpss_server_acl** prompt for assistance with command syntax.

See the *HPSS server security ACLs* section of the *HPSS Admin Guide* for more information on security ACLs.

Diagnosis 3: The **hpssgui** or **hpssadm** startup script is using the wrong RPC program number for the System Manager.

Resolution: This diagnosis should be suspected if the System Manager's server configuration has been modified recently, especially if it has been moved to a new host. In the process, it may have been assigned a new RPC program number.

Use the **rpcinfo** program to determine the System Manager's program number. First, shut down all HPSS servers. Then use **rpcinfo** to verify that all HPSS programs have deregistered with portmapper.

```
% rpcinfo -p
```

Remove any portmapper registrations that were left behind. For example,

```
% rpcinfo -d 536870914 1
```

Now start just the System Manager and run **rpcinfo** to see which program number is assigned to it.

```
% rc.hpss -m start
% rpcinfo -p
program vers proto port

  ...
536870928 1 tcp 36369 hpss_ssm
```

Once the correct program number is known, it can be recorded in file `/etc/rpc` so that the program name appears along with the program number as shown above. An example line to be added to

`/etc/rpc` might be:

```
hpss_ssm 536870913
```

Of course, you can use a different name if you like, and the program number will have to match the one your portmapper has assigned to your System Manager.

Diagnosis 4: The **hpssgui** or **hpssadm** is trying to use UNIX authentication, but the System Manager does not support it.

Resolution: Check and correct the configuration of the SSM System Manager using an **hpssgui** client with Kerberos authentication. From the Configure menu on the *Health and Status* window, select Servers to bring up the *Servers* window. Select the SSM System Manager from the list and push the **Configure** button to bring up the *SSM System Manager Configuration* window.

On the Interface Controls tab, make sure the "UNIX" box is checked under Authentication Mechanisms for the Administrative Client Interface.

On the Security Controls tab, make sure one of the Authentication Service Configuration entries defines its Mechanism as "UNIX" and its Authenticator Type as "None".

Diagnosis 5: Firewall is interfering.

Resolution: If the network administrator will allow a firewall exception, specify the port number that the SSM System Manager is using to accept incoming connections using the **-n** option of the **hpssgui** or **hpssadm** startup scripts. See the **hpssgui** and **hpssadm** man pages for details. It is recommended that you set the HPSS_SSM_SERVER_LISTEN_PORT environment variable to the port that the SSM System Manager server is listening on for client RPCs; the default value is "0" which means that the port will be chosen by the portmapper. The SSM System Manager will need to be restarted after changing the setting of this environment variable and you will need to open this port in your firewall. If you don't specify the HPSS_SSM_SERVER_LISTEN_PORT, then access to port 111 is needed to use the RPC portmapper to find the SSM System Manager. Additionally, access to port 88 is needed if using Kerberos authentication.

If the network administrator will not grant a firewall exception, one way for the ssmuser programs to access the System Manager across a firewall is via a VPN connection. See the **-p** and **-h** options of the **hpssgui** or **hpssadm** man pages.

A third alternative is to use ssh tunneling through the firewall. See the instructions for tunneling on the **hpssgui** man page.

The simplest solution for the **hpssadm** is to run the **hpssadm** on the same host as the System Manager and use X Window to display the output back to the user's client machine. This is not a valid solution for **hpssgui** as it introduces a severe performance degradation. It is, however, the easiest solution for the **hpssadm** program, because for **hpssadm** there is no performance problem in executing on the same machine as the System Manager and no advantage in executing on a separate host.

See the *Using SSM through a firewall* section of the *HPSS Admin Guide* for more information.

Diagnosis 6: The System Manager is running on a host that has multiple network interfaces, host names and IP addresses.

Resolution: Determine the host name and IP address of the interface that the System Manager is actually listening on. Make sure that the client is specifying the correct host name or IP address when trying to connect to the System Manager. See the **hpssgui** and **hpssadm** man page for more information on how to specify the System Manager host name.

Diagnosis 7: Clock skew. The clock on the host where the System Manager is running is more than five minutes different from the clock on the host where the **hpssgui** or **hpssadm** program is running.

Example error message:

```
14:11:30 20-Jul-2005: Error: SSMUser.init.password: Can not get
    login credentials joe
14:11:30 20-Jul-2005: Error: HPSS Login: Can not get login
    credentials
14:11:30 20-Jul-2005: Debug: SSMUser.init.password: Can not get
    login credentials joe
Exception: Failure during login: Pre-authentication information
    was invalid (24) - Preauthentication failed
hpss.ssm.mobjects.RPCException: Failure during login:
    Pre-authentication information was invalid (24) -
    Preauthentication failed
        at hpss.ssm.mobjects.RPCLoginContext.init
            (RPCLoginContext.java:1125)
     at hpss.ssm.ssmuser.SSMUser.init(SSMUser.java:1077)
     at hpss.ssm.ssmuser.hpssgui.SSMLoginWindow$1.run(
              SSMLoginWindow.java:473)
     at java.lang.Thread.run(Unknown Source)
```

Resolution: Reset the system clocks on one or both machines so they are synchronized. To manage time synchronization issues and prevent the recurrence of the problem, configure NTP, the Network Time Protocol, on each host.

Diagnosis 8: HPSS_AUTHENTICATOR entry is missing from the client configuration file.

Resolution: Add an HPSS_AUTHENTICATOR entry to the appropriate client configuration file specifying the path to the user's keytab file. Only **hpssadm** uses this configuration option, so this diagnosis and resolution will only be effective for **hpssadm**.

Diagnosis 9: The client is unable to establish multiple connections to the System Manager. The client will report that it is "Logging in..." and the login will not complete.

Resolution: Start client with the following command line option:

```
    --property "-Dhpss.ssm.SMConnections=1"
```

The default value for hpss.ssm.SMConnections is "2" and the maximum value is "5".

Diagnosis 10: The System Manager is using the same RPC program number as another application.

Resolution: This diagnosis should be suspected if a new server configuration was added manually. This diagnosis should also be suspected if the System Manager's server configuration has been modified recently, especially if it has been moved to a new host. In the process, it may have been assigned a new RPC program number.

Example error message from the SSM client's session log:

```
11:38:26 05-Oct-2006: Error: SSMUser.init.password: Can't
create RPC interface object.: 134.9.4.12:[536870913,1]
Reason: -10032 'Server returned RPC error'
11:38:26 05-Oct-2006: Error: HPSS Login: Could not complete
the call to the System Manager
```

An example error message from the HPSS error log:

```
Call to hpss_RPCOpenConnection to open an RPC connection to
System Manager failed: GetServiceName: can't get service
name: No such interface
```

Follow the procedure outlined above in Diagnosis 3 using the **rpcinfo** tool or use the unsupported **load_server_config** tool to determine the program number for each HPSS server verifying that no two servers are using the same program number.

Performance of the hpssgui is sluggish

Diagnosis 1: The **hpssgui** is being executed on a remote host and displayed back to the user's desktop using X.

Resolution: This is not the recommended configuration. Install the **hpssgui** on the user's desktop and execute it from there.

Diagnosis 2: The **hpssgui** polling rate is set inappropriately.

Resolution: Modify the refresh rates by using the following options on the **hpssgui** command line.

  -M "MO refresh rate"   number of seconds between refreshes of Managed Objects.

  -L "List refresh rate"   number of seconds between refreshes of lists.

  -W "Wait time"   number of seconds to wait for a new object or list.

See the **hpssgui** and **hpssadm** man page for more details.

Also, see the *Tuning the System Manager RPC thread pool and request pool sizes* section of the *HPSS Admin Guide* for information on tuning the System Manager's RPC thread pool and request queue sizes.

The hpssgui user windows aren't getting filled in

Diagnosis: The ssh tunnel is not forwarding X11 connections.

Resolution: Verify your X11 connections and ssh tunneling syntax:

- Windows users: remember to enable tunneling for X11 connections by running something like **X-Win32** or by configuring your SSH application [Edit->Settings->Tunneling->Check Tunnel X11 connections]. If using an application such as **Cygwin/X**, then you probably will have to use the **ssh -Y** option rather than **ssh -X** to properly enable X11 forwarding.

- Mac users: For users of Mac OS 10.4 and above, be sure you're using the **ssh -Y** option rather than **ssh -X** to enable X11 forwarding. If a user has used **ssh -X** then the *HPSS Login* screen comes up as a gray box which doesn't fill in.

- Later versions of SSH have a different X11 tunneling procedure. To get X11 to work between SSH clients and servers of different versions, you may need to use the **-Y** option, otherwise you may see odd behavior.

The hpssgui user cannot open windows, push buttons, or update fields

Diagnosis: The user does not have sufficient privileges.

Resolution: There are two levels of privilege for SSM users: admin and operator. Operator users are not allowed to open all SSM windows nor perform all operations. Many windows are view-only for operators.

Check the user's privilege level from the User Authority field of the *User Session Information* window. See the *User Session Information window* section of the *HPSS Admin Guide* for information on this window.

If the privilege level is wrong, correct it in the AUTHZACL table. See The hpssgui or hpssadm cannot connect to the System Manager for more details.

The hpssadm user cannot update fields or modify configurations

Diagnosis: The user does not have sufficient privileges.

Resolution: There are two levels of privilege for SSM users: admin and operator. Operator users are not allowed to perform all operations. Many structures are view-only for operators.

Check the user's privilege level from the User Authority field of the SSM user session structure. Use the **ssm info -session** command from **hpssadm** to display this structure.

If the privilege level is wrong, correct it in the AUTHZACL table. See The hpssgui or hpssadm cannot connect to the System Manager for more details.

The hpssgui or hpssadm cannot create new server configurations

Diagnosis 1: The user does not have sufficient privileges.

Resolution: See [The hpssgui user cannot open windows, push buttons, or update fields](#) or [The hpssadm user cannot update fields or modify configurations](#)

Diagnosis 2: A principal under which one or more of the servers must run does not exist.

Resolution: Create all the HPSS required principals in the Kerberos registry if using Kerberos authentication or in the UNIX password file if using UNIX authentication. This is normally done by **mkhpss** for new sites or by the conversion utilities for upgrading sites.

Note that the missing principal will not necessarily be the principal required for the new server for which the creation attempt failed. When any new server creation is attempted, the HPSS metadata library performs a sanity check to make certain all the principals have been created on the system. So, for example, if an attempt is made to create a new PVR server, but the hpssgk principal does not exist on the system, the creation will fail, even though the new PVR configuration does not need the hpssgk principal.

Note also that if a site uses non-default values for the principals for any server type, the corresponding environment variables must be defined in the HPSS `env.conf` file. For example, the HPSS_PRINCIPAL_GK environment variable is used to define the default principal used by the Gatekeeper server. The HPSS default principal environment variables are defined in `hpss_env_defs.h`.

Either hpssgui or hpssadm issues Java FileSystem Preference errors

Diagnosis: The Java preferences directory does not exist and the SSM user does not have permission to create it.

Example error 1:

```
Mar 1, 2005 4:02:33 PM
java.util.prefs.FileSystemPreferences$3 run
WARNING: Could not create system preferences directory.
System preferences are unusable.
Mar 1, 2005 4:04:47 PM java.util.prefs.FileSystemPreferences
checkLockFile0ErrorCode
WARNING: Could not lock System prefs. Unix error code
1109721886.
```

Example error 2:

```
        java.util.prefs.FileSystemPreferences
        checkLockFile0ErrorCode
        WARNING: Could not lock System prefs.Unix error code
        1221091336.
        Apr 22, 2004 9:34:08 AM
        java.util.prefs.FileSystemPreferences syncWorld
        WARNING: Couldn't flush system prefs:
                java.util.prefs.BackingStoreException:
        Couldn't get file lock.
```

Resolution: This is a known JDK 1.4 bug. The standard HPSS **hpssgui** and **hpssadm** startup scripts work around this problem so the problem should not occur unless a locally modified version of these scripts is used.

Java attempts to create the hidden directories:

- `.java`
- `.java/.systemPrefs`
- `.java/.userPrefs.`

in the system area at Java install time. On most UNIX systems, this means the `/etc` directory, which is normally writable only by *root*. If Java is installed by a non-root user, the creation of these directories will fail. In that case, The Java VM tries to create the directories at run time when any Java application is executed, but if the application is not being run by *root*, this, too, will fail. The application will be allowed to execute, but warning messages similar to those above will be issued over and over.

The standard **hpssgui** and **hpssadm** startup scripts work around this problem by redefining the java.util.prefs.systemRoot variable (which defaults to `/etc/.java/.systemPrefs`) to an area in the user's home directory, `${HOME}/.java/.systemPrefs`, and by creating this directory and the `${HOME}/.java/.userPrefs` directory if they do not already exist. Verify that the SSM user has access to creating these directories.

Another way around this problem is to run any Java application as the *root* user.

For more information see the Java Bug Parade for bug 4838770:

http://developer.java.sun.com/developer/bugParade/bugs/4838770.html

Columns or rows are missing from SSM lists

Diagnosis: Preference settings are filtering out the items.

Resolution: Check the Column View menu on the list window and be certain all the desired columns are selected.

Press the Preferences **Edit** button on the list window to bring up the preferences window for that list. Be certain that the filters are set as desired.

SSM cannot start HPSS servers

SSM must work with the Startup Daemon to start servers. See Cannot start a server for information on Startup Daemon problems related to server startup.

SSM cannot stop HPSS servers

Diagnosis 1: The target server may not be able to shut down gracefully.

Resolution: A server may have received a request to shut down, but cannot complete the request for some reason. To fix the problem, use the **Force Halt** button to force the server to shut down. This should only be done as a last resort when it is clear that the server will never complete a graceful shutdown. Some servers, such as the Core Server, may normally take as long as two minutes to shut down. Ensure you allow enough time for the normal shutdown to take place before using **Force Halt**.

Diagnosis 2: Force halt doesn't work.

Resolution: SSM works with the Startup Daemon for the force halt operation. See Cannot force halt a server for information on Startup Daemon problems related to force halt.

Communications problems exist between the System Manager and other HPSS servers

Diagnosis 1: Permissions are not set properly in the AUTHZACL table.

Resolution: Check to see that SSM and the target server configuration parameters are defined correctly and that the SSM principal has control permission in the AUTHZACL table for the target server.

See the *HPSS server security ACLs* section of the *HPSS Admin Guide* for detailed information on Access Control Lists (ACLs).

See The hpssgui or hpssadm cannot connect to the System Manager for an example of using the **hpss_server_acl** command.

Diagnosis 2: Multiple configurations for the SSM System Manager.

Resolution: If the basic server configuration file contains more than one entry for the SSM System Manager, other servers may not be able to find the System Manager and send it any notifications.

There should be exactly one entry for the SSM in the server list. Use the HPSS *Servers* window to check that there is only one executable server of type SSMSM. Also, check that the descriptive name field defined in the System Manager's basic configuration matches the HPSS_DESC_SSMSM environmental variable used by the **rc.hpss** script. By default, this variable is "SSM System Manager". The value can be overridden in the HPSS environment override file, `/var/hpss/etc/env.conf`.

Diagnosis 3: Stale endpoints

Resolution: Normally, HPSS servers remove their portmapper endpoints when they shut down. In some cases, stale endpoints may be left behind. To determine which RPC endpoints are being

maintained by the portmapper, use the following command:

```
rpcinfo -p
```

This will display program numbers, program versions, the protocol supported by the endpoint, and the port the program is listening on. HPSS servers are typically configured to use a specific range of program numbers (by default, 0x20000000 - 0x20000200; that is, 536870912 - 536871424 decimal). This range can be defined in environment variable HPSS_RPC_PROG_NUM_RANGE by editing env.conf.

If the HPSS program numbers have their default values, the following command pipeline would remove all HPSS endpoints:

```
/usr/sbin/rpcinfo -p | grep "^ 5368" | cut -c0-10 \
    | sed -e "s/^/rpcinfo -d/" | sed -e "s/$/ 1/" | sh
```

Before running such a command, you should ensure that the HPSS servers have been shut down. Otherwise, the HPSS servers left running will not be reachable since the portmapper will no longer know about them.

Names can be assigned to portmapper-managed programs by editing the file /etc/rpc. The name to appear in **rpcinfo** output must precede the program number and may not contain spaces.

Either repack or reclaim do not work from SSM

Diagnosis: Pathnames or environment variables (or both) are incorrectly set.

Resolution: Some HPSS functions, including **repack** and **reclaim**, are provided by command line utilities that can be run either directly from the shell, from a script or **cron** job, or from SSM. SSM determines the pathname for these executables from hard-coded defaults. To override these defaults, specify the desired pathname by the appropriate environment variable in the /var/hpss/etc/env.conf file. If SSM cannot start one of these utilities, make certain that either the utility is installed in the default location or that the alternate location is specified in the env.conf file. Also, verify that the permissions on the executable are correct.

If an alternate location is specified in env.conf, the System Manager must be restarted for the alternate location to take effect.

The default pathnames for the HPSS utilities which may be started from SSM are defined as follows:

Table 2. Utility default paths

Environment Variable	Utility	Default Path
HPSS_EXEC_RECLAIM (HPSS)	**reclaim** utility	/opt/hpss/bin/reclaim
HPSS_EXEC_REPACK (HPSS)	**repack** utility	/opt/hpss/bin/repack

1.2.11. Location Service problems

Clients unable to contact running Core Server

Diagnosis: Clients aren't using a valid authentication mechanism.

Resolution: Make sure each client is using an acceptable authentication mechanism as configured with your Core Server (or the one the client wishes to contact).

Core Server is unable to contact a server

Diagnosis 1: The server is not executing.

Resolution: Make sure the server is running or marked non-executable.

Diagnosis 2: A new server is in the process of being defined and is marked as executable.

Resolution: Mark the server as non-executable. The Location Service assumes that any server marked as executable should be running. In the case of Core Servers, it will periodically continue to try to contact them as long as they are marked executable.

1.3. HPSS user interface problems

The paragraphs below discuss interface problems with the Client API, FTP Daemon, and XFS problems.

1.3.1. Client API problems

For a description of how to obtain detailed information regarding errors encountered by the Client API, refer to the *Client API configuration* section of the *HPSS Admin Guide*.

Client API cannot initialize its security context

Diagnosis 1: The Client API cannot find the keytable entry for the user's principal in the HPSS keytable file.

Resolution: Verify that an entry exists for the principal in the HPSS keytable file.

Diagnosis 2: The Client API cannot access the HPSS Client keytable file.

Resolution: Ensure that the HPSS Client keytable file's permission allows read access to the Client API.

Diagnosis 3: The Client API is not accessing the correct HPSS keytable file.

Resolution: Verify the name of the HPSS keytable file. If the name is the default, verify that the environment variable **HPSS_KRB5_KEYTAB_FILE** or **HPSS_UNIX_KEYTAB_FILE** is not set. If the name is other than the default, use the environment variable to specify the name of the file to use, as specified in the *Client API configuration* section of the *HPSS Admin Guide*, or use the **hpss_SetConfiguration()** call as specified in the *HPSS Programmer's Reference Guide*.

Client API cannot load its thread state

Diagnosis: The Client API cannot initialize accounting information.

Resolution: If a Gatekeeper is configured but not running, the Client API will attempt to initialize accounting information (even if the Gatekeeper isn't doing account validation). Either start the Gatekeeper, unconfigure the Gatekeeper, or mark the Gatekeeper non-executable.

1.3.2. PFTP Daemon problems

For a description of how to obtain detailed information regarding errors encountered by the PFTP Daemon, refer to the *FTP Daemon configuration* section of the *HPSS Admin Guide.*

FTP Daemon cannot connect to the Core Server

Diagnosis 1: If the Parallel FTP client returns an error about not being able to obtain Audit information this is generally the result of the Client API being unable to locate one or more of the Core Servers. This may also occur if account validation has been set and the appropriate accounting information is missing. Insufficient information is returned to the Parallel FTP Daemon by the Client API to assist in additional diagnosis.

Resolution: Check to see if account validation is on and if so make sure that appropriate information is set for the **hpssftp** entity and the specific end client.

Diagnosis 2: The PFTP Daemon command line as specified in the `/etc/inetd.conf` file extends beyond the limit of input that will be read by the **inetd** daemon; therefore, command line arguments may be truncated.

Resolution: Shorten the length of the line in the `/etc/inetd.conf` file, either by removing some arguments or shortening pathnames or argument lengths.

For additional information that may help with this problem, see the *FTP Daemon configuration* section of the *HPSS Admin Guide.*

The user cannot log into the PFTP Daemon

Diagnosis 1: The user does not have a valid entry in the FTP password file (`/var/hpss/etc/passwd`).

Resolution: Insert the user's info into the FTP password file then use the **hpssuser** utility to create the user's password. Refer to the *FTP Daemon configuration* section of the *HPSS Admin Guide* for more information on PFTP configuration.

Diagnosis 2: The user info is not in the Kerberos Security and/or the LDAP Databases

Resolution: Use the **hpssuser** utility to create the Kerberos user account or contact the appropriate persons to accomplish this. Add the user and associated information to the LDAP Server.

All user file access and file creation is based on User ID hpssftp

Diagnosis: The principal **hpssftp** has incorrect access privileges to the Core Server AUTHZACL table entry.

Resolution: Set the ACL for the Core Server AUTHZACL table entry correctly.

PFTP file transfer performance is poor

Diagnosis 1: The buffer size being used by the PFTP Daemon is limiting the file transfer performance (this affects non-parallel transfers; that is, "put", "get", and "append").

Resolution: Adjust the performance tuning parameters in the `HPSS.conf` file under the **PFTP Client** = **\{ ... }** and **PFTP Client Interfaces = \{ ... }** sections.

Diagnosis 2: The PFTP Daemon is not using a high performance network for communication with the HPSS Movers (this affects non-parallel transfers; that is, "put", "get", and "append").

Resolution: Adjust the performance tuning parameters in the `HPSS.conf` file under the **PFTP Daemon** = **\{ Non-Parallel HostName = ... }** section.

PFTP Daemon crashes

Diagnosis: The PFTP Daemon core dumps and the core file indicates that it was terminated after receiving a SIGXFSZ signal (File size limit exceeded).

Resolution: When the PFTP Daemon's log file (`/var/hpss/ftp/adm/hpss_ftpd.log`) grows to a large size (more than 2 GB), a SIGXFSZ signal is generated, causing it to crash. Archive the log file and restart the PFTP Daemon.

1.3.3. VFS problems

VFS has been deprecated in favor of an analogous application called HPSSFS-FUSE. Consult documentation provided by HPSSFS-FUSE for assistance with troubleshooting application issues.

1.4. HPSS utility problems

1.4.1. General utility problems

Here is a list of items to check when a utility is not running as expected:

- Check command-line syntax. Most utilities will print a usage summary if they are invoked with the **-?** option. Some utilities require several parameters to be specified that may not be obvious.

- Make sure that default arguments are being overridden when necessary. Many utilities use default values for several of their parameters. If the parameter is not overridden with a specific value, unexpected behavior may result.

- Make sure necessary environment variables are set. Many HPSS utilities take either default or mandatory values from the environment.

- Check Kerberos credentials, especially in situations where "permission denied" errors are encountered. Some utilities take arguments specifying the name of a Kerberos principal and a keytab file to use for authentication as that principal (usually, **-p** and **-k**), while other utilities use the existing Kerberos credential context inherited from the parent process. Chances are, if a utility does not take principal and keytab parameters, the user must have valid Kerberos

credentials to use it.

Also, check the utility's man page.

1.4.2. HPSS metadata backup software

General problems

Don't: Manipulate the disk staging area

Because: It is inadvisable to manipulate the files in the backup system's disk staging area, since the backup programs could be in the process of reading from them and sending the data to tape. If the files in this area are deleted, data loss could occur since that data may not have been backed up to tape yet. Never assume that a file in the disk staging area represents a complete data object, since it may only represent part of an object; the rest may be on tape.

Backup programs will not run

Diagnosis: Configuration error

Resolution: Check the log files in the backup state directory for messages about configuration errors.

Programs terminate abnormally

Diagnosis: You are sharing resources between multiple databases' backups

Resolution: Beware of resource contention between the backup programs for different databases. Tape drives are not simultaneously sharable between different backup processes.

Remote devices do not work

Diagnosis: Configuration error

Resolution: See the section on using remote devices to make sure that you have them configured correctly. Check your **REMOTE_COMMAND** parameters manually on the command line to ensure that they can communicate with the remote host. Remember that the **REMOTE_COMMAND** parameter must be able to work without prompting for a password. Also, check that the **REMOTE_BIN_DIR** parameters are correct and that the programs contained in them are executable by the user ID under which the backup processes run (typically that of the database instance owner).

1.4.3. RTM

Unable to get connection to server

Diagnosis: One or more of the Core Servers, Movers, or Gatekeepers is not up.

Resolution: Restart the server in question and reissue the **rtmu** command.

Set context failed

Diagnosis: A valid user name or id have not been specified.

Resolution: Check your `/var/hpss/etc/env.conf` file for incorrect or omitted settings prior to executing **rtmu**.

Chapter 2. AVSR series (Account Validation Server error messages)

AVSR0101 **Internal Error (%s)**

Problem Description: An internal inconsistency was found.
System Action: None.
Administrator Action: Contact HPSS support.

AVSR0102 **Internal Error (Assertion Failed: %s)**

Problem Description: An assertion failed. This should never happen.
System Action: None.
Administrator Action: Contact HPSS support.

AVSR0103 **Cannot get transaction handle for database (%s)**

Problem Description: Cannot get transaction handle for database indicated by error info.
System Action: Operation fails.
Administrator Action: Examine the detailed error info in the HPSS log to determine the exact cause of the problem. Typically, the problem would be an incorrect database name or schema name provided to the utility.

AVSR0104 **Failed to register interface (%s)**

Problem Description: The account validation interface could not be registered with RPC runtime.
System Action: The server will exit with an error.
Administrator Action: Examine log messages in the HPSS logs. Contact HPSS support if needed.

AVSR0105 **Failed to unregister interface (%s)**

Problem Description: The account validation service could not be unregistered from RPC runtime.
System Action: None. This occurs during shutdown, which will continue.
Administrator Action: Examine log message in the HPSS logs. Contact HPSS support if needed.

AVSR0106 **Can't get local ID from trusted realm table (%s)**

Problem Description: There was a problem getting the local realm ID from the trusted realm table.
System Action: The operation is retried. The server will exit with an error during startup.
Administrator Action: Make sure the local realm ID has been set up properly in the trusted realm table.

AVSR0107 **Failed to initialize a pthread mutex (%s)**

Problem Description: A fatal error occurred while trying to initialize a required mutex.
System Action: The server exits with an error.
Administrator Action: Restart the server. If this condition persists, contact HPSS support.

AVSR0108 **Failed to lock a pthread mutex (%s)**

Problem Description: A fatal error occurred while attempting to lock a mutex.
System Action: The server exits with an error.
Administrator Action: Restart the server. If this condition persists, contact HPSS support.

AVSR0109 **Failed to unlock a pthread mutex (%s)**

Problem Description: A fatal error occurred while attempting to unlock a mutex.
System Action: The server exits with an error.
Administrator Action: Restart the server. If this condition persists, contact HPSS support.

AVSR0112 **Can't read accounting policy from database (%s)**

Problem Description: Error detected in trying to read in the accounting policy record.
System Action: Accounting terminated with error.
Administrator Action: Examine the detailed error info in the HPSS log to determine the exact cause of the problem. Typically, the problem would be an incorrect database name or schema name provided to the utility.

AVSR0113   **Site AVAL initialization failed (%s)**

Problem Description: The site-written account validation policy module returned an unexpected error during initialization.
System Action: The server will exit with an error.
Administrator Action: Determine why the site-written module failed and then restart the server.

AVSR0114   **Error during site AVAL shutdown (%s)**

Problem Description: The site-written account validation policy module returned an unexpected error during shutdown.
System Action: None. The server continues to exit as if the error did not occur.
Administrator Action: Determine why the site-written module failed.

AVSR0115   **Check accounting policy (%s)**

Problem Description: The accounting policy metadata record was set up improperly. This usually reflects an unknown accounting style.
System Action: If this occurs during server startup, the server exits with an error. Otherwise, an error is returned to the client.
Administrator Action: Edit the accounting policy record. Make sure the style of accounting is correct.

AVSR0116   **Out of memory (object: %s)**

Problem Description: Could not allocate a block of virtual memory.
System Action: If this occurs during server startup, the server exits with an error. Otherwise an error is returned to the client.
Administrator Action: If the server exits, restart it. Determine if the system is under heavy memory load.

AVSR0117   **Fatal error while processing request (%s)**

Problem Description: A fatal error occurred while processing a request. This may or may not have been previously reported.
System Action: The server exits with an error.
Administrator Action: Determine why the server exited. This is usually caused by a mutex failure or running out of virtual memory. If the problem persists, contact HPSS support.

AVSR0118   **Fatal authorization checking error (%s)**

Problem Description: While performing authorization checking for an incoming client request, a fatal error occurred.
System Action: The server exits with an error.
Administrator Action: Determine why the server exited. This is usually caused by a mutex failure or running out of virtual memory. If the problem persists, contact HPSS support.

AVSR0119   **Can't get local site info from Core Server (%s)**

Problem Description: A call to hpss_LocateSiteByName to find the site information failed.
System Action: Operation terminated with error.
Administrator Action: Examine the error code in the message to determine cause of failure. Make sure site info is set up correctly. Contact HPSS support if needed.

AVSR0120   **Can't read global config from metadata database (%s)**

Problem Description: Cannot read the global configuration record from the database in error info.
System Action: Server exits with error at startup.
Administrator Action: Examine the detailed error info in the HPSS log to determine the exact cause of the problem. Typically, the problem would be an incorrect database name or schema name provided to the utility.

AVSR0121   **Can't read accounting policy from metadata database (%s)**

Problem Description: Cannot read the accounting policy record from the database in error info.
System Action: Server exits with error at startup.
Administrator Action: Examine the detailed error info in the HPSS log to determine the exact cause of the problem. Typically, the problem would be an incorrect database name or schema name provided to the utility.

AVSR0122 **Can't read storage subsystem from metadata database (%s)**

Problem Description: Cannot read the storage subsystem record from the database in error info.
System Action: Server exits with error at startup.
Administrator Action: Examine the detailed error info in the HPSS log to determine the exact cause of the problem. Typically, the problem would be an incorrect database name or schema name provided to the utility.

AVSR0123 **Can't initialize connection block (%s)**

Problem Description: An error occurred while trying to initialize a connection control block to the specified server.
System Action: The server exits with an error during startup.
Administrator Action: Make sure the specified server info is correct and that the server is available. Contact HPSS support if needed.

AVSR0124 **Can't locate Gatekeeper config from subsystem (%s)**

Problem Description: No executable Gatekeeper could be found for the subsystem even though one is specified in the configuration.
System Action: The system will attempt to locate another Gatekeeper.
Administrator Action: Make sure each subsystem that specifies a Gatekeeper has a valid Gatekeeper defined and running for it.

AVSR0125 **Can't read all Gatekeeper configs from subsystem (%s)**

Problem Description: An error occurred while trying to read a configuration record of a Gatekeeper that supports account validation.
System Action: The server exits with an error.
Administrator Action: Examine the HPSS logs for error details. This could be the result of an improper configuration specifying the wrong database or other invalid data.

AVSR0126 **No executable Gatekeeper found for account validation**

Problem Description: No executable Gatekeepers are defined which support account validation.
System Action: The server exits with an error.
Administrator Action: If you are using account validation, you must define at least one Gatekeeper. If you are not using account validation, disable it on the *Accounting Policy* screen. Restart the server.

AVSR0127   **Can't destroy bad RPC connection to Gatekeeper (%s)**

Problem Description: An error occurred trying to clean up a bad connection to the Gatekeeper.
System Action: Error logged and operation fails.
Administrator Action: Examine the specific error to determine the problem. Make sure the RPC runtime environment is properly operational. Contact HPSS support if needed.

AVSR0128   **Invalid Gatekeeper server list returned by Core Server (%s)**

Problem Description: An empty Gatekeeper server list was returned from the Core Server. This may indicate a defect in the Core Server. This operation is retried a limited number of times.
System Action: Error logged and operation fails.
Administrator Action: If this is persistent, contact HPSS support.

AVSR0129   **Unexpected error binding to Gatekeeper (%s)**

Problem Description: Could not obtain a connection to the GateKeeper.
System Action: Error logged and operation fails.
Administrator Action: Make sure the GateKeeper is running and that RPC runtime is working correctly. If needed, contact HPSS support.

AVSR0130   **Unable to connect to site (%s)**

Problem Description: Could not obtain a connection to the GateKeeper to perform account validation at the site indicated by error info.
System Action: Error logged and operation fails.
Administrator Action: Make sure the GateKeeper is running and that RPC runtime is working correctly. If needed, contact HPSS support.

AVSR0131   **Can't contact LDAP registry at (%s)**

Problem Description: An error occurred while trying to contact the specified LDAP registry.
System Action: If this is the local registry and the error occurred during startup, the server may exit with an error; otherwise, an error will be returned to the caller.
Administrator Action: Make sure the LDAP registry specified can be reached and that this server has access privileges to it. Restart the server.

AVSR0132   **Can't read acct validation metadata in database (%s)**

Problem Description: An error occurred while trying to read an account validation metadata record.
System Action: An error is returned to the client.
Administrator Action: Check the HPSS logs for detailed information. Could be caused by a bad configuration such as specifying an incorrect database name.

AVSR0133   **Can't init local connection manager handle (%s)**

Problem Description: Can't initialize local connection manager handle.
System Action: An error is returned to the client.
Administrator Action: Contact HPSS support.

AVSR0134   **Failed to initialize a read/write lock (%s)**

Problem Description: A fatal error occurred while trying to initialize a read/write lock.
System Action: The server exits with an error.
Administrator Action: Restart the server. If this condition persists, contact HPSS support.

AVSR0135   **Failed to lock a read/write lock for reading (%s)**

Problem Description: A fatal error occurred while attempting to lock a read/write lock for reading.
System Action: The server exits with an error.
Administrator Action: Restart the server. If this condition persists, contact HPSS support.

AVSR0136   **Failed to lock a read/write lock for writing (%s)**

Problem Description: A fatal error occurred while attempting to lock a read/write lock for writing.
System Action: The server exits with an error.
Administrator Action: Restart the server. If this condition persists, contact HPSS support.

AVSR0137   **Failed to unlock a read/write lock (%s)**

Problem Description: A fatal error occurred while attempting to unlock a read/write lock.
System Action: The server exits with an error.
Administrator Action: Restart the server. If this condition persists, contact HPSS support.

AVSR0601   **Account validation initializing**

Problem Description: Account validation is registering its interfaces and initializing memory structures.
System Action: None.
Administrator Action: None.

AVSR0602   **Account validation initialized**

Problem Description: Account validation has initialized properly.
System Action: None.
Administrator Action: None.

AVSR0603   **Account validation shutting down**

Problem Description: Account validation has started to shut down and is unregistering its service.
System Action: None.
Administrator Action: None.

AVSR0604   **Account validation is shut down**

Problem Description: Account validation has unregistered its service and cleaned up.
System Action: None.
Administrator Action: None.

AVSR0605   **Account validation reinitialized**

Problem Description: Account validation has reinitialized properly.
System Action: None.
Administrator Action: None.

AVSR0701   **Entering API: %s**

Problem Description: The specified client request has started.
System Action: None.
Administrator Action: None.

AVSR0702   **Leaving API: %s**

Problem Description: A client request has completed.
System Action: None.
Administrator Action: None.

AVSR0801   **Entering: %s**

Problem Description: The routine specified has been entered.
System Action: None.
Administrator Action: None.

AVSR0802   **Leaving: %s**

Problem Description: The routine specified has returned.
System Action: None.
Administrator Action: None.

AVSR0803   **Connection is busy, caller must wait (%s)**

Problem Description: Connection is busy.
System Action: An error is returned to the client.
Administrator Action: Wait a while before retrying the connection.

AVSR0804   **Adding new site to site table (%s)**

Problem Description: A new site is added to the site table.
System Action: None.
Administrator Action: None.

AVSR0900 **Returning cached account validation API info (%s)**

Problem Description: The specified routine is returning cached information rather than calling the Gatekeeper account validation service for this request.
System Action: None.
Administrator Action: None.

AVSR0901 **Returned from account validation API %s**

Problem Description: The specified routine is returning information to the client that has just been returned from the Gatekeeper account validation service for this request.
System Action: None.
Administrator Action: None.

AVSR0902 **Bypassing account validation API**

Problem Description: Bypassing account validation.
System Action: None.
Administrator Action: None.

AVSR0903 **Minor admin mistake. Gatekeeper returned HPSS_EBYPASS. (%s)**

Problem Description: Account validation has recently been turned off, and the Gatekeeper has been recycled, but this server has not been recycled.
System Action: The system will handle the request as if it were bypassed.
Administrator Action: Recycle this server at your convenience.

AVSR0904 **Caching results (%s)**

Problem Description: Results from calling the Gatekeeper API specified are being cached locally.
System Action: None.
Administrator Action: None.

AVSR0905 **Bypassing account validation**

Problem Description: Account validation is being bypassed for this site.
System Action: None.
Administrator Action: None.

AVSR0906   **No Gatekeeper found for this subsystem ID:%d**

Problem Description: No Gatekeeper could be found for the subsystem of the current server.
System Action: None.
Administrator Action: None.

AVSR0907   **Reusing connection (%s)**

Problem Description: Reusing existing connection to server.
System Action: None.
Administrator Action: None.

AVSR0908   **Rebuilding connection (%s)**

Problem Description: Building new connection to site.
System Action: None.
Administrator Action: None.

AVSR0909   **Bypassing accounting at site (%s), no Gatekeepers.**

Problem Description: Bypassing accounting at site since no Gks configured.
System Action: None.
Administrator Action: None.

AVSR0910   **Initializing connection (%s)**

Problem Description: Initializing connection to server.
System Action: None.
Administrator Action: None.

AVSR0911   **Account validation is being bypassed at site (%s)**

Problem Description: Account validation is being bypassed at site.
System Action: None.
Administrator Action: None.

AVSR0912   **Connection established (%s)**

Problem Description: Connection established to account validation server for site.
System Action: None.
Administrator Action: None.

AVSR0913   **Calling account validation API %s**

Problem Description: Calling account validation API.
System Action: None.
Administrator Action: None.

AVSR0914   **UNIT TEST: Bypassing connection attempt**

Problem Description: None.
System Action: None.
Administrator Action: None.

AVSR0915   **MM detailed err: (%s)**

Problem Description: Detailed information from a database failure.
System Action: Operation fails.
Administrator Action: Examine the detailed error text and any other associated messages in the log to determine the cause of database failure. Contact HPSS support if needed.

Chapter 3. COMM series (Common error messages)

COMM0001 **Error reading global configuration record**

Problem Description: An error has been encountered reading the global configuration record at startup time.
System Action: The server aborts.
Administrator Action: Check DB2. Check that a global configuration table exists and that the global configuration record has been created.

COMM0002 **Error reading subsystem configuration record: SubSystem Id = *%d*.**

Problem Description: An error has been encountered reading a subsystem configuration record at startup time.
System Action: The server aborts.
Administrator Action: Check DB2. Check that the subsystem configuration table exists and that the expected number of subsystem configuration records have been created.

COMM0003 **Error reading server generic configuration: Descriptive Name = *%s*.**

Problem Description: An error has been encountered reading the generic configuration of a server using the server's descriptive name. A server usually only reads its own configuration this way.
System Action: The server aborts.
Administrator Action: Check DB2. Check that the server generic configuration table exist and that the expected server generic configuration records have been created. Check that the correct descriptive name is being used.

COMM0004 **Error reading server generic configuration: Server Type = *%s*, SubSystem Id = *%d*.**

Problem Description: An error has been encountered while attempting to read the generic configuration of a server using the server's type and subsystem. The Servers within a subsystem attempt to read the configuration of the other servers using this method. For instance, the MPS uses the server type and the subsystem to find the Core Server within its subsystem.
System Action: The server aborts.
Administrator Action: Check DB2. Check that the server generic configuration table exists and that the expected server generic configuration records have been created. Ensure that a server of the expected type has been created in the indicated subsystem.

COMM0005 **Error reading server generic configuration: Server Id = *%d*.**

Problem Description: An error was encountered while attempting to read the generic configuration of a server using the server's ID.
System Action: The server aborts.
Administrator Action: Check DB2. Check that the server generic configuration table exists and that the expected server generic configuration records have been created. Check that a server with the given ID has been created.

COMM0006 **Error reading server specific configuration: Descriptive Name = *%s*.**

Problem Description: An error was encountered while attempting to read the specific configuration of a server. A server usually only attempts to read its own specific configuration record.
System Action: The server aborts.
Administrator Action: Check DB2. Check that the server specific configuration table exists and that the expected server specific configuration records have been created.

COMM0007 **Configuration error: missing server: Server Type = *%s*, Subsystem Id = *%d*.**

Problem Description: A server which is required to exist cannot be found. For instance, a Core Server must exist within a subsystem. If the MPS cannot find this Core Server, it will log this error.
System Action: The server aborts.
Administrator Action: Check that a server of the specified type has been created in the given subsystem. Remember that subsystem *0* is not a valid subsystem ID. Ensure that the server is marked as executable in its server generic configuration record.

COMM0008 **Configuration error: multiple servers: Server Type = *%s*, Subsystem Id = *%d*.**

Problem Description: More servers than are allowed for a valid configuration have been found. For instance, one and only one Core Server is allowed to exist within a subsystem. If the MPS finds more than one Core Server, it will log this error.
System Action: The server aborts.
Administrator Action: Ensure that multiple servers of the specified type have not been created in the given subsystem. Remember that subsystem *0* is used to indicate that a server does not belong to a subsystem.

COMM0009 **Server type mismatch between generic configuration and executable: Descriptive Name = *%s*.**

Problem Description: A server has been started using a descriptive name which belongs to a server of a different type. For instance, using the "Core Server" as the descriptive name for the MPS.
System Action: The server aborts.
Administrator Action: Contact HPSS support.

COMM0010 **Failure in initializing account validation.**

Problem Description: An error was returned while initializing account validation.
System Action: The server aborts.
Administrator Action: If account validation is enabled, ensure that an accounting policy has been configured.

COMM0011 **Error inserting request list entry, code: %d.**

Problem Description: An error was returned from the call to insert a request list entry into the RTM request list. This is likely due to a software bug: either the server calling the RTM routine has provided invalid input arguments, or the RTM library routine has a bug.
System Action: The server logs an error. If a memory or mutex error caused the failure, the server may crash.
Administrator Action: Contact HPSS support.

COMM0012   **Error deleting request list entry.**

Problem Description: An error was returned while attempting to delete a request list entry from the RTM request list. This is likely due to a software bug. Either the server calling the RTM routine has provided invalid input arguments, or the RTM library routine has a bug.

System Action: The server logs an error. If a mutex error caused the failure, the server may crash.

Administrator Action: Contact HPSS support.

COMM0013   **Error updating request list entry,state: %d.**

Problem Description: An error was returned from the call to update a request list entry in the RTM request list. This is likely due to a software bug. Either the server calling the RTM routine has provided invalid input arguments, or the RTM library routine has a bug.

System Action: The server logs an error. If a mutex error caused the failure, the server may crash.

Administrator Action: Contact HPSS support.

COMM0014   **Error inserting wait list entry, wait reason: %d.**

Problem Description: An error was returned from the call to insert a waitlist entry into an RTM request list entry. This is likely due to running out of memory or a software bug. Either the server calling the RTM routine has provided invalid input arguments, or the RTM library routine has a bug.

System Action: The server logs an error. If a memory or mutex error caused the failure, the server may crash.

Administrator Action: If you determine that more memory is needed, provide more memory. Otherwise, contact HPSS support.

COMM0015   **Error deleting wait list entry.**

Problem Description: An error was returned from the call to delete a waitlist entry from an RTM request list entry. This is likely due to a software bug. Either the server calling the RTM routine has provided invalid input arguments, or the RTM library routine has a bug.

System Action: The server logs an error. If a mutex error caused the failure, the server may crash.

Administrator Action: Contact HPSS support.

COMM0016   **Request list entry missing.**

Problem Description: An internal check inside the server has found that a request entry is not marked valid as expected. This is due to a software bug.
System Action: The server logs an error.
Administrator Action: Contact HPSS support.

COMM0017   **Severe error, mutex lock operation failed.**

Problem Description: A call to pthread_mutex_lock has not succeed.
System Action: The error is logged.
Administrator Action: Contact HPSS support.

COMM0018   **Severe error, mutex unlock operation failed.**

Problem Description: A call to pthread_mutex_unlock has not succeed.
System Action: The error is logged.
Administrator Action: Contact HPSS support.

COMM0019   **Reinit on COS %d bypassed due to hierarchy id change.**

Problem Description: A server has been reinitialized and has attempted to reread the hierarchy metadata. This is only supported if none of the hierarchy IDs have changed.
System Action: Reinitialization of the hierarchy metadata is bypassed.
Administrator Action: Restart all servers that depend on the class of service metadata (such as the Core Server and MPS).

COMM0020   **Configuration error, storage class %d refers to nonexisting migration policy.**

Problem Description: A storage class has been found which refers to a nonexistent migration policy.
System Action: The server aborts.
Administrator Action: Check the storage class configuration for an invalid migration policy. Change the storage class to refer to a valid migration policy or create the referenced migration policy.

COMM0021   **Configuration error, storage class %d refers to nonexisting purge policy.**

Problem Description: A storage class has been found which refers to a nonexistent purge policy.
System Action: The server aborts.
Administrator Action: Check the storage class configuration for an invalid purge policy. Change the storage class to refer to a valid purge policy or create the referenced purge policy.

COMM0022   **Error updating wait list entry, wait reason: %d**

Problem Description: Unable to update wait list entry for the given wait reason.
System Action: The error is logged.
Administrator Action: Contact HPSS support.

COMM0023   **Call to RTM initialization routine failed, routine = %s.**

Problem Description: An error was returned from a call to one of the RTM initialization routines. This is due to a software bug.
System Action: The server aborts.
Administrator Action: Contact HPSS support.

COMM0024   **Call to mm_Initialize to initialize metadata manager failed: %s.**

Problem Description: The mm_Initialize function, which initializes the database interface library, has returned an error.
System Action: The server aborts.
Administrator Action: Make sure DB2 is running and accessible by the *hpss* user. Contact HPSS support for help.

COMM0025   **Call to hpss_RPCCreateThreadPool to create a thread pool failed.**

Problem Description: An attempt has been made to create a thread pool. This attempt has failed and an error has been returned.
System Action: The server receiving the error may crash.
Administrator Action: Restart the server. If the error persists, contact HPSS support.

COMM0026   **Call to hpss_RPCRegisterThreadPool to register a thread pool failed.**

Problem Description: An attempt has been made to register a thread pool. This attempt has failed and an error has been returned.

System Action: The server receiving the error may crash.

Administrator Action: Restart the server. Ensure that the system security mechanism is functioning properly. If the error persists, contact HPSS support.

COMM0027   **Call to hpss_GetServerInterface to look for interface information failed.**

Problem Description: An attempt has been made to get a server's interface configuration data. This is a fundamental operation that, under normal operating circumstances, should never fail.

System Action: The server will most likely crash.

Administrator Action: Ensure that the system security mechanism is functioning properly. Restart the server, if appropriate. If the error persists, contact HPSS support.

COMM0028   **Call to hpss_RPCRegisterService to register RPC service %s failed: %s.**

Problem Description: A server's attempt to register its interface has failed.

System Action: The server will most likely crash.

Administrator Action: Ensure that the system security mechanism is functioning properly. Restart the server, if appropriate. If the error persists, contact HPSS support.

COMM0029   **Call to hpss_RPCAllocateConnection to allocation RPC connection to %s failed: %s.**

Problem Description: A server's attempt to allocate an RPC connection has failed.

System Action: The server will most likely crash.

Administrator Action: Ensure that the system security mechanism is functioning properly. Restart the server, if appropriate. If the error persists, contact HPSS support.

COMM0030 **Call to hpss_RPCInitConnection to initialize RPC services failed: %s.**

Problem Description: A server's attempt to initialize an RPC connection has failed.
System Action: The system will most likely crash.
Administrator Action: Ensure that the system security mechanism is functioning properly. Restart the server, if appropriate. If the error persists, contact HPSS support.

COMM0031 **Call to hpss_RPCOpenConnection to open an RPC connection to %s failed: %s.**

Problem Description: A server has failed to establish a connection with another server. It may be the case that the other server is not running.
System Action: The server will most likely retry its attempt to connect to the other server.
Administrator Action: Investigate the reason why the other server is not running or why communication with the server fails. Most often the connection will be eventually established and no administrator action is necessary.

COMM0032 **Call to hpss_RPCCloseConnection to close an RPC connection failed: %s.**

Problem Description: A server's attempt to close its connection to another server has failed. This is not a serious error and can be considered informative in nature.
System Action: None
Administrator Action: None

COMM0033 **Call to hpss_RPCUnregisterService to unregister RPC service failed: %s.**

Problem Description: A server failed to unregister its service interface. This error is not serious and the error message can be considered to be informative in nature.
System Action: None
Administrator Action: If this error message appears multiple times, ensure that your system's security services are operating properly.

COMM0034   **Call to hpss_RPCSetLoginCred to set %s login credential failed: %s.**

Problem Description: A server's attempt to add additional authentication mechanisms to the existing server login credential has failed.
System Action: The system will log this error message and then continue.
Administrator Action: Ensure that your system security mechanisms are functioning properly. If the error persists, contact HPSS support.

COMM0035   **Call to hpss_RPCFreeConnection to free RPC connection failed: %s.**

Problem Description: A server's attempt to free the resources associated with a connection has failed. Freeing connections is most commonly done when a server is shutting down.
System Action: The server logs this message and then continues.
Administrator Action: If this error message is seen multiple times, ensure that your system's security services are operating properly.

COMM0036   **MMLIB error text: %s**

Problem Description: An MMLIB error text message describing an previously logged error.
System Action: The metadata operation will fail.
Administrator Action: Contact HPSS Support.

COMM0037   **Call to hpss_RPCServerListen to process RPC requests failed: %s.**

Problem Description: A server's attempt to begin its RPC communication processing over its registered interface has failed.
System Action: The server will most likely crash.
Administrator Action: Restart the server if it has crashed. If the problem persists, ensure that the system's security services and DB2 are operating correctly.

COMM0038   **Call to %s failed with RPC runtime error: %s.**

Problem Description: A server has encountered some sort of runtime error related to RPCs.
System Action: It is most likely that the server will continue.
Administrator Action: If the problem persists, ensure that the system's security services are operating correctly.

COMM0039   **Call to hpss_SECGetApplCreds to get security registry information failed: %s.**

Problem Description: A server's attempt to get credentials for one of its clients has failed.
System Action: The server will return an error to the client.
Administrator Action: None

COMM0040   **Call to hpss_SECCallerAuthorized to check client authorization for failed: %s.**

Problem Description: A server has detected that a client has attempted to perform an activity that the client is not authorized to perform.
System Action: This inappropriate activity is duly noted in the logs.
Administrator Action: None

COMM0041   **Call to hpss_SECAudit to log an auditable event failed: %s.**

Problem Description: A server's attempt to create a security audit log entry has failed.
System Action: The system attempts to log the fact that it was unable to create a security audit log entry.
Administrator Action: Ensure that the system's security services are operating correctly.

COMM0042   **Call to hpss_RPCGetConnectionContext to get the connection context failed: %s.**

Problem Description: A server's attempt to obtain the connection context data for a newly connected client has failed.
System Action: This failure is duly noted in the logs and the server continues.
Administrator Action: Ensure that the system's security services are operating correctly.

COMM0043   **Call to hpss_RPCMalloc to allocate memory failed.**

Problem Description: A server's attempt to allocate more memory has failed. If this error is persistent, it indicates one of two situations: the system simply does not have enough available memory or a software bug is causing the server to allocate memory without bound.

System Action: This is a very fundamental error. The server will most likely crash.

Administrator Action: Restart the server. If the error is persistent, determine whether your system has sufficient memory and add more if not. Otherwise, contact HPSS support.

COMM0044   **Call to hpss_ConnMgrInit to initialize a connection manager failed: %s.**

Problem Description: A server's attempt to create state for an instance of the connection manager has failed.

System Action: This failure is noted in the log and the server continues.

Administrator Action: None

COMM0045   **Call to hpss_ConnMgrDestroy to destroy a connection manager failed: %s.**

Problem Description: The connection manager could not be destroyed.

System Action: The failure is noted and the server will continue to shut down.

Administrator Action: None

COMM0046   **Call to hpss_ConnMgrGrabConn to grab a connection from a connection manager failed: %s.**

Problem Description: A server's attempt to obtain connection information from the connection manager has failed.

System Action: The server logs the event, pauses for a moment, and then tries again.

Administrator Action: None

COMM0047   **Call to hpss_ConnMgrReleaseConn to release a connection from a connection manager failed: %s.**

Problem Description: A server's request to the connection manager to close a connection has failed.

System Action: The server logs the event, pauses for a moment, and then tries again.

Administrator Action: None

COMM0048   **gethostname call failed**

Problem Description: A call to get the hostname failed.

System Action: The system reaction may range from functional failure to cosmetic depending upon the context, other log messages will be logged indicating the result.

Administrator Action: Generally this points to a DNS or network issue. Verify the identified host can be contacted from the initiating server.

COMM0049   **Call to hpss_GetHostByName failed**

Problem Description: A call to get the hostname failed.

System Action: The system reaction may range from functional failure to cosmetic depending upon the context, other log messages will be logged indicating the result.

Administrator Action: Generally this points to a DNS or network issue. Verify the identified host can be contacted from the initiating server.

COMM0050   **Call to mm_InitHashAlgorithm failed (%d).**

Problem Description: The MMLIB partition hashing algorithm cannot be initialized.

System Action: The system cannot start as database partitions cannot be identified.

Administrator Action: Check the HPSS logs and verify db2 is healthy.

COMM0051   **Call to hpss_EndpointFromLocMap to get endpoint for a connection to %s failed: %s.**

Problem Description: An attempt to get an endpoint to a given hostname failed for the specified reason.

System Action: The connection will fail. This may be retried or may cause an application operation to fail.

Administrator Action: Verify that the DNS information to the target host has not been modified, that ep.conf is correct, remove the client's location cache file (~/.hpss_ls_cache) to force a refresh.

COMM0052   **Call to hpss_RPCGetMallocContext to get allocation context failed.**

Problem Description: The Core Server's attempt to get a thread allocation context has failed.

System Action: The error is logged and an error is returned to the client.

Administrator Action: None

COMM0053   **Call to hpss_RPCSetMallocContext to set allocation context failed.**

Problem Description: The Core Server's attempt to establish a thread allocation context has failed.
System Action: The event is logged and the server continues.
Administrator Action: None

COMM0054   **Call to hpss_SECInitAuthzVector failed: %s.**

Problem Description: A server's attempt to get the list of clients who are authorized to connect to it has failed.
System Action: This is a fundamental operation and so the server will most likely crash.
Administrator Action: Restart the server. If the problem persists, ensure that the system's security service is operating properly.

COMM0055   **System call %s failed with error %d: %s.**

Problem Description: The specified system call failed with the indicated error.
System Action: Various, depending upon the system call involved.
Administrator Action: Contact HPSS Support.

COMM0056   **Call to hpss_SECGetCredsByName failed: %s.**

Problem Description: A server's attempt to build a credential that describes a client has failed.
System Action: The event is logged and an error is returned to the client.
Administrator Action: None

COMM0057   **Call to hpss_SECGetCredsByUid failed: %s.**

Problem Description: A server's attempt to obtain credentials for a user has failed.
System Action: The is a fundamental operation and the server will crash.
Administrator Action: Restart the server. Ensure that the system's security service is operating properly.

COMM0058   **Call to hpss_SetSecondaryMechs to set security mechanism failed.**

Problem Description: A server's attempt to set the credentials for the secondary security mechanisms specified by its generic server configuration entry has failed.
System Action: The server/program experiencing the error condition will exit.
Administrator Action: If the server/program exits, restart it. Ensure that the system's security service is operating properly.

COMM0059   **Call to mm_ReadFileFamily was unsuccessful.**

Problem Description: A server's attempt to read file family metadata failed.
System Action: In the Core Server, this causes file family caching to fail. This will cause certain actions that rely upon file family caching, such as setting the file family of a file, to fail.
Administrator Action: Check the condition of DB2, restart the Core Server. Contact HPSS Support.

COMM0060   **Call to shrink size of cursor manager table unsuccessful.**

Problem Description: A server's attempt to shrink the size of the cursor manager table failed.
System Action: None. This function causes memory usage to shrink when the table becomes sparse, but if the call to shrink fails, the memory will remain in use.
Administrator Action: If the condition persists, contact HPSS support.

COMM0061   **Call to grow size of cursor manager table unsuccessful.**

Problem Description: A server's attempt to grow the size of the cursor manager table failed.
System Action: This could cause an operation that relies upon the cursor manager facility to fail. The operation may be retried.
Administrator Action: If the condition persists, contact HPSS support.

COMM0062   **Could not remove id %d.**

Problem Description: A server's attempt to remove an item from the cursor manager table failed.
System Action: None. This generally means the item was already automatically removed because it was stale.
Administrator Action: If the condition persists, contact HPSS support.

COMM0063   **Could not end transaction for id %d.**

Problem Description: A server's attempt to end an ongoing transaction stored in the cursor manager table failed. This could be because the transaction was aborted, or because the transaction cleanup failed.
System Action: None. The condition is logged.
Administrator Action: If the condition persists, contact HPSS support.

COMM0064   **Error Setting RPC Port Range: %s.**

Problem Description: A server's attempt to set an RPC port range failed.
System Action: The server/program experiencing the error condition will exit.
Administrator Action: If the server/program exits, restart it. Ensure that the system's available port range and firewall rules are set to properly support the configured port range.

COMM0065   **%s: Archive of log %s: %s.**

Problem Description: This log indicates the log archive status. The status string will indicate the result.
System Action: If the status result is not success, then the log was not properly archived.
Administrator Action: If the status result is not success, then investigate the stated cause of the failure and other related HPSS log messages.

COMM0066   **%s: Archive of log %s to HPSS as %s: %s.**

Problem Description: This log indicates the log archive status, including the HPSS file name. The status string will indicate the result.
System Action: If the status result is not success, then the log was not properly archived.
Administrator Action: If the status result is not success, then investigate the stated cause of the failure and other related HPSS log messages.

COMM0067   **Request Queue Error signaling condition**

Problem Description: The request queue failed to signal a condition.
System Action: This can cause delays in request queue processing. System operations continue.
Administrator Action: Contact HPSS support.

COMM0068   **Request Queue Error in condition wait**

Problem Description: The request queue failed to signal a condition.
System Action: This can cause delays in request queue processing. System operations continue.
Administrator Action: Contact HPSS support.

COMM0069   **Request Queue Reaper thread started**

Problem Description: None.
System Action: The thread that identifies stale request queues has started.
Administrator Action: None.

COMM0070   **Request Queue Reaper thread stopped**

Problem Description: None.
System Action: The thread that identifies stale request queues has stopped.
Administrator Action: None.

COMM0071   **Request Queue Worker thread started**

Problem Description: None.
System Action: The thread that process request queue entries has started.
Administrator Action: None.

COMM0072   **Request Queue Worker thread stopped**

Problem Description: None.
System Action: The thread that process request queue entries has stopped.
Administrator Action: None.

COMM0073   **Request Queue Ignoring already activated entry**

Problem Description: This is an error case where a worker thread was given a request queue entry that was already in the middle of being processed. This should never happen.
System Action: The request is ignored. System operations continue.
Administrator Action: Contact HPSS Support.

COMM0074 **Request Queue Discovery thread started**

Problem Description: None.
System Action: The request queue discovery thread has started.
Administrator Action: None.

COMM0075 **Request Queue Discovery thread stopped**

Problem Description: None.
System Action: The request queue discovery thread has stopped.
Administrator Action: None.

COMM0076 **Request Queue Ignoring already activated entry**

Problem Description: This is an error case where a discovery thread was given a request queue entry that was already in the middle of being processed. This should never happen.
System Action: The request is ignored. System operations continue.
Administrator Action: Contact HPSS Support.

COMM0077 **Request Queue Failure notifying request of completion**

Problem Description: The request queue failed to notify the client of request completion.
System Action: The system will continue processing requests. However, a client waiting on this request completion message may be degraded until it times out.
Administrator Action: This is generally due to a broken connection / network issue that causes the notify message to be dropped. Review network diagnostics for the cause of the drop.

COMM0078 **Request Queue Request being finished is missing**

Problem Description: A request being finished and cleaned up was not found in the request queue.
System Action: Processing continues.
Administrator Action: Contact HPSS Support.

COMM0079   **Squelch timer ended for *%s*, squelched %d messages**

Problem Description: None.
System Action: The squelch timer for the given log message anded. The number of squelched (repeated, not logged) messages is included.
Administrator Action: None.

COMM0080   **Picky logger message hash table failed**

Problem Description: The picky logger module could not be initialized.
System Action: The picky logger module will not be available. Some messages will be logged more often than desired.
Administrator Action: Contact HPSS Support.

COMM0081   **Unable to reinit basic server config security audit for %s**

Problem Description: The basic server reinitialization failed for the security audit.
System Action: The prior basic server security audit will be retained, reinitialization will continue.
Administrator Action: Contact HPSS support.

COMM0082   **Error allocating MM transaction handle**

Problem Description: An attempt to allocate a transaction handle to be used in metadata access operations failed.
System Action: Log this error message and terminate the associated operation.
Administrator Action: Examine the specific error code for the cause of the failure. Contact HPSS support if needed.

COMM0083   **Unable to reinit basic server thread and request queue for %s**

Problem Description: The basic server reinitialization failed to change the thread and queue count.
System Action: The prior basic server thread and queue size will be retained.
Administrator Action: Contact HPSS support.

COMM2000   **System call failed %s with %s**

Problem Description: A system call failed. The system cannot properly operate without system administrator intervention.
System Action: The server in question will stop.
Administrator Action: Review the error and take corrective action.

COMM2001   **No more locks available for %s**

Problem Description: A server is unable to acquire a lock in the lock file. The system cannot properly operate without system administrator intervention.
System Action: The affected server will exit.
Administrator Action: Identify any processes holding a lock on the file and take corrective action as needed.

COMM2002   **%d server clones for %s**

Problem Description: Multiple copies of an HPSS server are running. The system cannot properly operate without system administrator intervention.intervention.
System Action: The affected server will exit.
Administrator Action: Identify any processes holding a lock on the file and take corrective action as needed.

COMM2003   **Call to set %s login credential for %s failed: %s**

Problem Description: An attempt to authenticate a server principal has failed. The system cannot properly operate without system administrator intervention.
System Action: The server will exit.
Administrator Action: Review the error message and take corrective action.

COMM2004   **%s failed in %s: %s %s**

Problem Description: The server failed to read the log policy.
System Action: If the server is just starting, this may be a fatal error. Otherwise, the server will use either the default or last read log policy and continue to execute.
Administrator Action: Review the error message and take corrective action.

COMM2005 **%s: Log Policy %d not found — trying the default**

Problem Description: The server cannot find the specified log policy by its ID. It will default back to the default log policy.

System Action: The function will attempt to use the default log policy. If there are no further logs, then it was successful.

Administrator Action: Review the configured log policy ID for the server. This could happen in a normal situation where a log policy in use by a server was removed as the server was re-reading it, for example.

COMM2006 **%s failed! %s**

Problem Description: An error occurred in one of the functions to initialize logging.

System Action: Depending on the error it may be a fatal. If not, logging may not function correctly. For example, log messages may not be translated based on your locale.

Administrator Action: Review the error message and take corrective action.

COMM2007 **Log policy set to *%s* (ID=%PRId32) To Syslog (%c%c%c%c%c%c%c%c)**

Problem Description: None.

System Action: The logging policy is set.

Administrator Action: None.

Chapter 4. CORE series (Core Server error messages)

CORE0001   **Cannot open %s**

Problem Description: This error is seen if an open, or opendir attempt, fails to open the Db2 primary log directory, or fails to open the Db2 mirror log directory, or fails to open the Db2 diagnostic log, or fails to open the Db2 log data file.
System Action: An alarm message is sent to the *Alarms and Events* screen. Metadata space monitoring will not be performed.
Administrator Action: Ensure that all of the above mentioned log files are correctly configured. Contact HPSS support if needed.

CORE0002   **Configuration information missing: %s**

Problem Description: The call to CheckLogCondition has not been supplied a pathname to the Db2 mirror log file. HPSS requires that a Db2 mirror log file be used.
System Action: The metadata monitoring routines will endlessly complain.
Administrator Action: Ensure that a Db2 mirror log file is properly configured. Contact HPSS support if needed.

CORE0003   **Call to hpss_SECInitAuthzVector failed**

Problem Description: The call to hpss_SECInitAuthzVector routine to build the authorized caller list failed.
System Action: Log this error message and terminate the Core Server.
Administrator Action: Examine error codes to determine the specific cause of failure. Contact HPSS support if needed.

CORE0004   **Unexpected nil Request ID**

Problem Description: The Core Server routines that periodically run ensure that all is well with the Core Server's metadata have detected that the Db2 mirror log file is missing.
System Action: The metadata monitoring routines will endlessly complain.
Administrator Action: Ensure that a Db2 mirror log file is properly configured. Contact HPSS support if needed.

CORE0005   **Call to hpss_SECGetLocalRealm failed**

Problem Description: The call to hpss_SECGetLocalRealm failed to get the local realm information.
System Action: Log this error message and terminate server.
Administrator Action: Examine error codes in an attempt to determine the specific cause of failure. Contact HPSS support if needed.

CORE0006   **Call to pthread_cond_init failed**

Problem Description: Call to pthread_cond_init to initialize a condition variable failed.
System Action: Log this error message and terminate server.
Administrator Action: Examine error codes to determine specific cause of failure. Contact HPSS support if needed.

CORE0007   **Call to hpss_RPCInitConnections failed: %s**

Problem Description: Call to hpss_RPCInitConnections routine to initialize the HPSS connection manager failed.
System Action: Log this error message and terminate server.
Administrator Action: Examine error codes to determine specific cause of failure. Contact HPSS support if needed.

CORE0008   **Could not initialize Class Of Service memory cache**

Problem Description: Initializing the internal Class of Server cache failed.
System Action: Log this error message and terminate server.
Administrator Action: Examine error codes to determine specific cause of failure. Contact HPSS support if needed.

CORE0009   **Could not initialize Hierarchy memory cache**

Problem Description: Initialization of the internal cached hierarchy table failed.
System Action: Log this error message and terminate server.
Administrator Action: Examine error codes to determine specific cause of failure. Contact HPSS support if needed.

CORE0010   **Call to pthread_mutex_init failed**

Problem Description: Call to pthread_mutex_init to initialize a mutex variable failed.
System Action: Log this error message and terminate server.
Administrator Action: Examine error codes to determine specific cause of failure. Contact HPSS support if needed.

CORE0011   **Received a %s signal in core_SignalThread.**

Problem Description: The Core Server received the indicated signal in its signal processing thread.
System Action: The signal is trapped and the Core Server is terminated.
Administrator Action: For SIGQUIT, SIGTERM, SIGHUP, this indicates a normal termination request. For SIGDANGER this normally indicates a system that is low on paging space.

CORE0012   **Could not initialize Storage Class memory cache**

Problem Description: Initialization of the internal cached storage class table failed.
System Action: Log this error message and terminate server.
Administrator Action: Examine error codes to determine specific cause of failure. Contact HPSS support if needed.

CORE0013   **Db2 log error. Look at line %d in %s**

Problem Description: The metadata space monitoring routines read through the db2diag.log file looking for a specific class of errors - they are looking for any of the family of messages that begin with "ADM18". At least one such message has been found and is being reported.
System Action: This error is reported.
Administrator Action: Ensure that Db2 is operating properly. Examine the relevant Db2 logs for errors. Contact HPSS support if needed.

CORE0014   **Malloc failed**

Problem Description: A malloc system call to allocate space failed.
System Action: Log this error message and terminate server.
Administrator Action: Contact HPSS support. This should not happen and may indicate an HPSS software problem.

CORE0015   **Core Server startup params are MaxActiveCopyIO %d, MaxTotActiveIO %d, MaxThrds %d**

Problem Description: There is no problem. This informational message is logged at startup time to provide the values of the indicated startup parameters.
System Action: Log this error message.
Administrator Action: None

CORE0016   **mm_FreeAutoTranHandle failed**

Problem Description: A call to the mm_FreeAutoTranHandle routine to free an auto tran handle to the metadata database failed.
System Action: Log this error message and terminate the associated operation.
Administrator Action: Examine error codes to determine specific cause of failure. This is an unexpected situation and will likely require contacting HPSS support.

CORE0017   **Can't seek to %s in local file %s**

Problem Description: One of the metadata monitoring routines is attempting to seek to the end of a Db2 log file or it is attempting to seek to the current position in a log file. The seek attempt has failed.
System Action: This error message is logged in an attempt to alert the system administrator that Db2 may be having difficulty with its log files.
Administrator Action: Ensure that the Db2 log files are being processed properly. Contact HPSS support if needed.

CORE0018   **Can't read local file %s**

Problem Description: The metadata monitoring routine CheckDB2DiagLog has attempted to read the position information from the db2diag.log. This read attempt has failed.
System Action: The Core Server logs this error message and then continues.
Administrator Action: Ensure that the Db2 log files are being processed correctly.

CORE0019   **Db2 Primary and Secondary log files don't match**

Problem Description: The metadata monitoring routines are attempting to ensure that the required Db2 log files are present. The CheckLogCondition function cannot find matching primary and mirror log names.
System Action: The Core Server will complain endlessly about this problem. HPSS requires that primary and mirrored Db2 log files be used.
Administrator Action: Ensure that the Db2 log files are present and properly configured. Contact HPSS support if needed.

CORE0020   **Call to pthread_create failed**

Problem Description: Attempt to create a pthread failed.
System Action: Log this error message and terminate server.
Administrator Action: Examine error codes to determine the specific cause of this failure. Contact HPSS support if needed.

CORE0021   **The security realm ID returned is *0* - not allowed.**

Problem Description: When looking up the Realm ID for the local realm, an invalid value of 0 was returned.
System Action: Log this message and then terminate the Core Server.
Administrator Action: Ensure that HPSS is configured properly. Correct the configuration as needed.

CORE0022   **Core Server Shutdown Complete**

Problem Description: This is one of the messages that is routinely logged while the Core Server is shutting down. The intent of this message is to reassure the administrators that the Core Server is "making progress" towards its shutdown goal.
System Action: The Core Server continues to shut down.
Administrator Action: No action is required.

CORE0023   **Error in call to pthread_cond_broadcast**

Problem Description: A call to pthread_cond_broadcast failed.
System Action: Log this error message and terminate the server.
Administrator Action: Likely an HPSS software problem. Contact HPSS support.

CORE0024   **Error in call to pthread_cond_signal**

Problem Description: A call to pthread_cond_signal failed.
System Action: Log this error message and terminate the server.
Administrator Action: Likely an HPSS software problem. Contact HPSS support.

CORE0025   **Error in call to pthread_cond_(timed)wait**

Problem Description: A call to pthread_cond_wait with a timeout failed.
System Action: Log this error message and terminate the server.
Administrator Action: Likely an HPSS software problem. Contact HPSS support.

CORE0026   **Error in writing security audit record**

Problem Description: A call to hsec_Audit to write an audit record to the audit log failed.
System Action: Log message and continue processing current request without logging the audit record.
Administrator Action: Examine the specific error to determine the cause of the failure and correct. If needed, contact HPSS support.

CORE0028   **Request entry information**

Problem Description: No problem. Informative message indicating a particular RPC was called.
System Action: Log this error message.
Administrator Action: If you do not want to log this message, turn off REQUEST logging in the server.

CORE0029   **Request exit information**

Problem Description: No problem. Informative message indicating exit from a particular RPC.
System Action: Log this error message.
Administrator Action: If you do not want to log this message, turn off REQUEST logging in the server.

CORE0030   **Storage Class %d definition missing**

Problem Description: The Core Server is attempting to initialize the storage class information for a subsystem, but has encountered an error.
System Action: The Core Server logs the above error message which indicates the offending storage class, and then the Core Server terminates.
Administrator Action: Carefully examine the configuration data associated with the indicated storage class. Correct the error and then try again.

CORE0031   **SOID create failed**

Problem Description: A call to SOID_Create to create a new object identifier failed.
System Action: Log this error message and terminate the associated operation.
Administrator Action: Examine the specific error to determine the cause of the failure and correct. If needed, contact HPSS support.

CORE0032   **Could not get host address and set address structure, details: %s**

Problem Description: A call to decrypt the authorization ticket failed.
System Action: Log this error message and terminate the associated operation.
Administrator Action: Examine the specific error to determine the cause of the failure and correct. If needed, contact HPSS support.

CORE0033   **Error in creating UUID**

Problem Description: A call to uuid_create to create a UUID failed.
System Action: Log this error message and terminate the server.
Administrator Action: Likely an HPSS software problem. Contact HPSS support.

CORE0034   **Error return from uuid_equal**

Problem Description: A call to uuid_equal to compare UUIDs failed.
System Action: Log this error message and terminate the server.
Administrator Action: Likely an HPSS software problem. Contact HPSS support.

CORE0035   **Error in locking mutex**

Problem Description: Call to pthread_mutex_lock failed.
System Action: Log this error message and terminate the server.
Administrator Action: Likely an HPSS software problem. Contact HPSS support.

CORE0036   No WaitSet slot available

Problem Description: No wait slot is available in the rtmu wait list. The first one in the list is reused.
System Action: None, just an event message.
Administrator Action: Contact HPSS support. This is an informative message that should be trapped in HPSS integration testing. It would indicate a needed change to the length of the rtmu list structure. This should not be seen in a production system.

CORE0037   Hierarchy %d definition missing

Problem Description: The Core Server is attempting to initialize the hierarchies for this subsystem and has discovered an inconsistency.
System Action: The Core Server logs the above error message which indicates the hierarchy that is in error. The Core Server then terminates.
Administrator Action: Fix or supply the indicated hierarchy and then try to start the Core Server.

CORE0039   Error returned by %s

Problem Description: Generic message indicating an unexpected return from a called function.
System Action: The Core Server halts.
Administrator Action: Examine the specific information in the log message to identify the cause of the failure. Contact HPSS support if needed.

CORE0040   Error in unlocking mutex

Problem Description: This represents an internal error in the Core Server logic.
System Action: The Core Server will crash at the point of this error in order to produce diagnostic output.
Administrator Action: Contact HPSS support.

CORE0041   Statebits set not supported %#PRIx64

Problem Description: An attempt to set one or more server state bits which are not settable.
System Action: Log this error message and terminate the operation.
Administrator Action: Contact HPSS support. This should not happen in an HPSS production system.

CORE0043   **Core Server is reinitializing**

Problem Description: The Core Server is going through a reinitialization process.
System Action: Log this error message.
Administrator Action: None. Just an informative message.

CORE0044   **Class Of Service %d definition missing**

Problem Description: The Core Server is attempting to initialize its COS cache with information it has read from its specific configuration record. Unfortunately an error has occurred while doing this.
System Action: The Core Server logs this error message and then terminates.
Administrator Action: Ensure that COS configuration data is available for the indicated COS and then restart the Core Server. It may be necessary to contact HPSS support for assistance.

CORE0045   **Error - invalid**

Problem Description: A Core Server API was called with invalid parameters.
System Action: Log this error message and terminate the operation.
Administrator Action: Contact HPSS support. This should not happen in a production system.

CORE0046   **Core Server shutting down - waiting for client I/O to finish - Total: %d, Migration: %d, Time: %d**

Problem Description: The Core Server is waiting for the termination of all active I/O before completing a shutdown request.
System Action: Log this error message.
Administrator Action: The server will wait for up to 3 minutes for I/O to complete. If you want to terminate immediately issue a FORCE HALT to the server.

CORE0047   **Call to hpss_RPCUnregisterService failed**

Problem Description: A call to unregister the server interface failed.
System Action: Log this error message and continue shutdown.
Administrator Action: Examine the specific error code for the cause of the failure. Contact HPSS support if needed.

CORE0048   **Reinitialization of COS failed**

Problem Description: Reinitialization of the cached COS table failed during server reinitialization.
System Action: Log this error message and bypass the failed part of the reinitialization by using existing cached information.
Administrator Action: Examine the specific error code for the cause of the failure. Contact HPSS support if needed.

CORE0049   **Core Server shutting down - please be patient**

Problem Description: The Core Server has received a shutdown request and is terminating.
System Action: Log this error message.
Administrator Action: None required. This is an informative message.

CORE0050   **Core Server halting**

Problem Description: The Core Server is terminating based on a force halt request.
System Action: Log this error message.
Administrator Action: None. This is an informative message.

CORE0052   **Error starting MM transaction**

Problem Description: Error in calling mm_StartTransaction to start up a metadata transaction.
System Action: Log this error message and terminate the associated operation.
Administrator Action: Examine the specific error code for the cause of the failure. Contact HPSS support if needed.

CORE0053   **Error ending MM transaction**

Problem Description: A call to mm_EndTransaction to end a metadata transaction failed.
System Action: Log this error message and terminate the associated operation.
Administrator Action: Examine the specific error code for the cause of the failure. Contact HPSS support if needed.

CORE0054   **Invalid connection handle**

Problem Description: Connection handle provided on a server RPC is invalid.
System Action: Log this error message and terminate the associated operation.
Administrator Action: Examine the specific error code for the cause of the failure. Contact HPSS support if needed.

CORE0055   **Call to pthread_mutex_destroy failed**

Problem Description: A failure occurred in the multi-threading library. This is likely an indication of a bug in HPSS.
System Action: The Core Server will crash.
Administrator Action: Contact HPSS support.

CORE0056   **Call to pthread_cond_destroy failed**

Problem Description: A failure occurred in the multi-threading library. This is likely an indication of a bug in HPSS.
System Action: The Core Server will crash.
Administrator Action: Contact HPSS support.

CORE0057   **Call to add a transaction callback failed**

Problem Description: A call to add a transaction callback to be processed at the end of the associated transaction failed.
System Action: Log this error message and terminate the associated operation.
Administrator Action: Examine the specific error code for the cause of the failure. Contact HPSS support if needed.

CORE0059   **Call to pthread_join failed**

Problem Description: A call to the pthread_join routine to synchronize the existing thread with activity in associated threads failed.
System Action: Log this error message and terminate the associated operation.
Administrator Action: Examine the specific error code for the cause of the failure. Contact HPSS support if needed.

CORE0060   **Call to pthread_get_expiration failed**

Problem Description: A call to pthread_get_expiration to set up a timer failed.
System Action: Log message and terminate the server.
Administrator Action: Likely an HPSS software problem. Contact HPSS support.

CORE0061　**Error generating hash key from UUID**

Problem Description: A call to uuid_hash to generate a hash key from a UUID failed.
System Action: Log message and terminate the server.
Administrator Action: Likely an HPSS software problem. Contact HPSS support.

CORE0062　**Core Server shutting down - doing final accounting**

Problem Description: The Core Server is shutting down and this is an informative message telling everyone that it is going to try to update the accounting statistics before it terminates.
System Action: The Core Server will terminate.
Administrator Action: No action is required.

CORE0063　**Core Server shutting down - unregistering services - closing connections to other servers**

Problem Description: The Core Server is shutting down and this is an informative message telling everyone that the Core Server is about to unregister its interfaces.
System Action: The Core Server will terminate.
Administrator Action: No action is required.

CORE0064　**Error reading core server specific config record**

Problem Description: Attempt to read the Core Server specific configuration record failed at startup.
System Action: Log this error message and terminate the server.
Administrator Action: Examine the log for the associated DEBUG message which will provide details on the associated metadata read failure. Contact HPSS support if needed.

CORE0065　**core_ServerAbort called:**

Problem Description: The Core Server is terminating due to a problem the server has detected.
System Action: Log this error message and terminate the server.
Administrator Action: This is an informative message. Additional messages will be logged which give the details of why the server has terminated.

CORE0066   **Request is not supported**

Problem Description: An request to set a server administration option attempted to set an option that the server does not support.
System Action: Log this error message and terminate the request.
Administrator Action: This should not happen in an HPSS production system. Contact HPSS support.

CORE0067   **Error getting space usage for database %s**

Problem Description: The monitor thread failed to get information from the data base in terms of space used and free.
System Action: Log this error message.
Administrator Action: Examine the specific error code to determine the cause of the failure. Contact HPSS support if needed.

CORE0068   **Space usage in tablespace %s of database %s has exceeded critical threshold of %d%%; usage at %d%%**

Problem Description: The amount of space used in the indicated tablespace has exceeded the critical threshold.
System Action: Log this error message and continue.
Administrator Action: This indicates that additional space needs to be added to the indicated tablespace.

CORE0069   **Space usage in tablespace %s of database %s has exceeded warning threshold of %d%%; usage at %d%%**

Problem Description: The amount of space used in the indicated tablespace has exceeded the warning threshold.
System Action: Log this error message.
Administrator Action: This indicates that additional space needs to be added to the indicated tablespace.

CORE0070   **A bit in BitVector %s (0x%016PRIx64) is not supported.**

Problem Description: A request to either set or get information about attributes of the core managed object has provided an invalid bit selection vector which references invalid attributes.
System Action: Log this error message and terminate the request.
Administrator Action: This should not happen in an HPSS production system. Contact HPSS support.

CORE0071   **MM error, detailed info = %s**

Problem Description: This message provides detailed MM diagnostic information in the form of a DEBUG message.
System Action: Log this error message.
Administrator Action: This message along with an associated ALARM message provides detailed information on an MM failure. Use this info to diagnose the cause of the MM failure. Contact HPSS support if needed.

CORE0072   **Failed to start thread to monitor metadata space usage**

Problem Description: Startup of the background thread that monitor metadata space usage failed.
System Action: Log this error message and terminate the server.
Administrator Action: Examine the specific error code for the cause of the failure. Contact HPSS support if needed.

CORE0073   **hpss_MaskCreate failed**

Problem Description: A call to the macro CORE_CREATE_MASK has failed.
System Action: The Core Server halts.
Administrator Action: Examine the specific error code for the cause of the failure. Collect all of the relevant log file information. Contact HPSS support if needed.

CORE0074   **Sanity check error,**

Problem Description: A code check has caught a situation that should not happen in the server.
System Action: Log this error message and terminate the server.
Administrator Action: This should not happen in a production system. Contact HPSS support.

CORE0075   **Entering %s**

Problem Description: Informative message indicating entry into an RPC routine.
System Action: Log this error message.
Administrator Action: None

CORE0076   **Exiting %s**

Problem Description: Informative message indicating exit from an RPC routine.
System Action: Log this error message.
Administrator Action: None

CORE0077   **Error initializing special change owner list**

Problem Description: A message from the core logging routine indicating that a common log message has an invalid number which exceeds the range for allowed messages.
System Action: Log this error message.
Administrator Action: This should not happen in an HPSS production system. Contact HPSS support.

CORE0078   **Number of special change owner users exceeds max**

Problem Description: During initialization the Core Server gets the list of *special* users and puts this list into a global variable. However, the number of entries in this list is longer than the space allocated for the list.
System Action: The Core Server truncates the list of *special* users to the number of entries that it has allocated. The Core Server continues.
Administrator Action: You should change the value in environment variable HPSS_SPEC_USER_LIST_LENGTH to match the number of special users you wish to support.

CORE0079   **RPC failure, detailed err = %s**

Problem Description: The Core Server has attempted to interact with the Gatekeeper, but has received an RPC error.
System Action: The Core Server returns an error and continues.
Administrator Action: Ensure that the Gatekeeper is running correctly.

CORE0082   **Error in setting up accounting control info:**

Problem Description: During initialization the Core Server obtains, or derives, the highest "Unique" value from the account log records. It does this by first counting the number of records in the account log file, and then, if any records are found, reading the highest Unique value from these records. If an error should occur while either counting the records, or reading the maximum Unique value, this error message is logged.

System Action: The Core Server will halt.

Administrator Action: Ensure that Db2 has been started and is running properly. Contact HPSS support if needed.

CORE0083   **COS change set up error:**

Problem Description: During initialization the Core Server determines the number of streams that will be used to perform change COS operations. It derives this number by first counting the number of records in the BFS COS Change table, and then obtaining the maximum stream count value from the records in the BFS COS Change table. However, if an error occurs during either of these operations, this error message is logged. In addition, a variation of this message is logged if, after determining the stream count, the Core Server decides to reset this stream count value.

System Action: If the Core Server detects an error while counting the number of records in the BFS Change COS table, or while determining the maximum value of the stream ID, the Core Server will halt. However, if it is simply resetting the stream count value, it will continue.

Administrator Action: If the Core Server halts, ensure that Db2 is running and behaving properly. Contact HPSS support if needed.

CORE0084   **Tape aggregation on, adjusting open file cache:**

Problem Description: During initialization the Core Server has detected that tape aggregation has been selected, and now it is determining the number of open files needed, and it is determining the maximum number of open files allowed for aggregation. This is an informational message telling the administrator these values.

System Action: The Core Server logs the appropriate message and continues.

Administrator Action: No action is needed.

CORE0085   **Log message index out of range**

Problem Description: It has been determined that the message index in a call to core_LogMsg is out of range.
System Action: The Core Server logs this message and continues.
Administrator Action: Collect the appropriate log information and contact HPSS support. This is not a serious problem, but this information will help to correct it.

CORE0086   **Database %s %s is missing**

Problem Description: This log message is generated by the metadata monitoring subsystem whenever that subsystem detects that a Db2 view, constraint, or trigger is missing.
System Action: The Core Server halts.
Administrator Action: The administrator must determine why Db2 is not properly configured. Contact HPSS support if needed.

CORE0087   **Database %s %s is inactive**

Problem Description: This log message is generated by the metadata monitoring subsystem whenever that subsystem detects that a Db2 view, or trigger is inactive.
System Action: The Core Server halts.
Administrator Action: The administrator must determine why Db2 is not properly configured. Contact HPSS support if needed.

CORE0088   **Database %s %s table name is wrong**

Problem Description: This log message is generated by the metadata monitoring subsystem whenever that subsystem detects that a Db2 table name, associated with a constraint or a trigger, is wrong.
System Action: The Core Server halts.
Administrator Action: The administrator must determine why Db2 is not properly configured. Contact HPSS support if needed.

CORE0089   **Could not read Core Server log policy: %s**

Problem Description: An attempt to read the Core Server's log policy failed.
System Action: The Core Server will print a warning and use the default log policy.
Administrator Action: Determine the problem based on the returned error message.

CORE0090 **Database trigger %s event is wrong**

Problem Description: This log message is generated by the metadata monitoring subsystem whenever that subsystem detects that a Db2 trigger event is wrong.
System Action: The Core Server halts.
Administrator Action: The administrator must determine why Db2 is not properly configured. Contact HPSS support if needed.

CORE0091 **Database schema errors forcing Core Server shutdown**

Problem Description: This message is logged whenever the Core Server schema checking function, core_CheckSchema returns an error.
System Action: The Core Server halts.
Administrator Action: The administrator must determine why Db2 is not properly configured. Contact HPSS support if needed.

CORE0092 **Unable to read schema element information for %s**

Problem Description: The Core Server received an error when it attempted to read one of the following: the config (cfg) views, the subsys views, the subsys constraints, or the subsys triggers.
System Action: The Core Server halts.
Administrator Action: The administrator must determine why Db2 is not properly configured. Contact HPSS support if needed.

CORE0093 **Core Server log policy should contain ALARM, EVENT, SECURITY and DEBUG**

Problem Description: The Core Server log policy should have the listed log types, minimally. Lacking these log types can restrict the ability of administrators and support to diagnose issues.
System Action: The Core Server continues.
Administrator Action: The administrator should review the Core Server log policy and reinitialize after correcting the enabled log types.

CORE0094 **Pthread_cond_(timed)wait succeeded after %d failures**

Problem Description: A Core Server thread waiting on a condition was successful after failing some number of times.
System Action: The Core Server continues.
Administrator Action: None

CORE0095 **Pthread_cond_(timed)wait failed after multiple retries**

Problem Description: A Core Server thread waiting on a condition failed after multiple retries.
System Action: The operation associated with the failure may fail; the Core Server continues.
Administrator Action: If this problem persists, contact HPSS support.

CORE0096 **Could not initailize cursor manager module**

Problem Description: The Core Server could not initialize the cursor manager module.
System Action: The Core Server will fail to start up.
Administrator Action: If this problem persists, contact HPSS support.

CORE0097 **Unable to obtain the hash value from associated transaction handle**

Problem Description: The Core Server could not identify a partition hash key from a provided transaction handle.
System Action: The operation associated with the problem will fail.
Administrator Action: If this problem persists, contact HPSS support.

CORE0098 **Error in initializing rwlock**

Problem Description: The Core Server could not initialize a pthread read-write mutex.
System Action: The operation associated with the problem will fail.
Administrator Action: If this problem persists, contact HPSS support.

CORE0099 **Error in destroying rwlock**

Problem Description: The Core Server could not destroy a pthread read-write mutex.
System Action: The operation associated with the problem may fail.
Administrator Action: If this problem persists, contact HPSS support.

CORE0100   **Error in locking rwlock for read**

Problem Description: The Core Server could not lock a pthread read-write mutex for read operations.
System Action: The operation associated with the problem may fail or be retried.
Administrator Action: If this problem persists, contact HPSS support.

CORE0101   **Error in locking rwlock for write**

Problem Description: The Core Server could not lock a pthread read-write mutex for write operations.
System Action: The operation associated with the problem may fail or be retried.
Administrator Action: If this problem persists, contact HPSS support.

CORE0102   **Error in unlocking rwlock**

Problem Description: The Core Server could not unlock a pthread read-write mutex.
System Action: The operation may fail, or the server may abort.
Administrator Action: If this problem persists, contact HPSS support.

CORE0104   **Got error (%d) opening Restrict Access file: %s.**

Problem Description: This error message informs us that an error occurred while attempting to open the indicated Restrict Access configuration file.
System Action: This is a configuration error. The indicated Restrict Access file could not be opened. The Core Server halts.
Administrator Action: Closely examine the Restricted Access file to ensure that the file system permissions allow the Core Server to access the file, that the file isn't locked by another process, and that there aren't other reasons that would block the Core Server from accessing the file.

CORE0109   **User %PRIu32 is being restricted from %s. RestrictAccess bits: %PRIx64**

Problem Description: The Core Server has noticed that a user is being restricted from accessing one of the Core Server APIs.

System Action: The indicated UID was entered into the Restricted Access File and now we detect this user attempting to use an API they are not supposed to have access to.

Administrator Action: Examine the Restrict Access file to understand why the user has been restricted. If the problem persists, communicate with the user about why the restriction is in place.

CORE0110   **Detected bad entry *%s* in the Restricted Access File.**

Problem Description: This message is logged if the Core Server detects a problem with one of the lines in the Restrict Access File. If the line doesn't begin with a UID, or, if the line contains an unrecognized symbol this message is logged.

System Action: In either of these cases the Core Server halts. This is considered to be a configuration problem.

Administrator Action: Closely examine the contents of the Restrict Access File and correct any problems

CORE0111   **The RestrictAccess table is empty.**

Problem Description: The Core Server has found the Restrict Access File and attempted to read. It has discovered that the Restrict Access File is empty.

System Action: This discovery is considered to be unusual but it is of little consequence. The Core Server continues.

Administrator Action: None.

CORE0112   **No RestrictAccess file configured. Environment variable %s is NULL.**

Problem Description: The Core Server examined environment variable HPSS_RESTRICT_ACCESS_FILE and found that it was empty. No Restrict Access Table will be built.

System Action: There is no requirement that a Restrict Access Table be constructed, so the Core Server continues.

Administrator Action: None.

CORE0113   **ra_IsAccessRestricted was called with a bad APIName value: %d**

Problem Description: This is an internal Core Server error that should never happen.
System Action: This error message is logged and the Core Server halts.
Administrator Action: Notify your HPSS system support representative. If possible, save the core file.

CORE0114   **The number of RAOptNames and the number of RAOptBits are not equal. This must be fixed.**

Problem Description: An internal consistency check has failed in the Core Server. This should never happen.
System Action: This error message is logged and the Core Server halts.
Administrator Action: Notify your HPSS system support representative. If possible, save the core file.

CORE0115   **Got error %d from %s. Check for garbage in the RestrictAccess config file.**

Problem Description: The Core Server is attempting to parse lines from the Restrict Access File and has encountered an error.
System Action: The Core Server halts. This is a configuration error.
Administrator Action: Closely examine the lines in the Restrict Access File and correct any errors.

CORE0116   **UID %u is in RestrictAccess config file %s more than once.**

Problem Description: The Core Server is parsing lines from the indicated Restrict Access File and has discovered that the indicated UID has already been entered into the Restricted Access Table.
System Action: This is a configuration error and the Core Server halts.
Administrator Action: Examine the Restricted Access File and ensure that each UID is only entered once.

CORE0117   **The Restrict Access file *%s* cannot be found. The Restrict Access mechanism is OFF.**

Problem Description: A pathname has been defined in environment variable HPSS_RESTRICT_ACCESS_FILE but the file cannot be found. Perhaps the file has been moved for editing purposes?
System Action: The Core Server continues.
Administrator Action: Either create the Restrict Access file at the specified file path or remove the HPSS_RESTRICT_ACCESS_FILE environment variable.

CORE0118   **Access Restricting is ON. Using Restrict Access File: *%s*.**

Problem Description: This is an informative message announcing that the Core Server's internal Restrict Access Table has been constructed and the Restrict Access mechanism is On.
System Action: None.
Administrator Action: None.

CORE0119   **The Restrict Access File line beginning with UID *%u* contains *%s* more than once. Fix this. Continuing...**

Problem Description: The Core Server has discovered a line in the Restrict Access File that contains a RestrictOperation (e.g. RestrictFileCreates) more than once.
System Action: This is a syntax error that should be fixed. The Core Server continues.
Administrator Action: Find the line in the Restrict Access File that contains the problem and fix it.

CORE0120   **Line %u in the Restrict Access File has a syntax error relating to comma usage. Continuing...**

Problem Description: While parsing the indicated line from the Restrict Access File the Core Server encountered a syntax error relating to comma usage. It discovered two or more consecutive commas with nothing between them.
System Action: This is a syntax error in the indicated line from the Restrict Access File and it should be fixed. The Core Server continues.
Administrator Action: Examine the indicated line in the Restrict Access File and fix the syntax error.

CORE0121   **User %PRIu32 is in the Restrict Access Table with RestrictAccess bits: 0x%lx (%s)**

Problem Description: This is an informative message. Whenever the Core Server finishes building the Restrict Access Table it issues this message for each entry in the table.
System Action: None.
Administrator Action: None.

CORE0122 **A previous iterator has already been set for the list called: %s. Halting previous iterator in %s before beginning new iteration.**

Problem Description: Calling code already began iterating across this hpss_ilist and did not finish the iteration before trying to start another iteration.
System Action: None
Administrator Action: None

CORE0123 **Error adding a node to an hpss_ilist_t called %s. The hpss_ilist_t is already too large.**

Problem Description: An attempt to add a node to a list via hpss_ilist_append, hpss_ilist_insert, hpss_ilist_prepend, or hpss_ilist_insert_index failed due to the list's size going past INT32_MAX.
System Action: None
Administrator Action: Contact HPSS support.

CORE0124 **Invalid job service type, *%x***

Problem Description: An attempt to abort a job indicated that the service type in the job was an invalid value.
System Action: The abort request is not processed and the abort request ends in an error.
Administrator Action: Contact HPSS support.

CORE0125 **Environment variable HPSS_RESTRICT_ACCESS_ERROR_CODE_VALUE (which holds the RestrictAccess error code value) has not been defined or is empty. Setting the error code value to %d.**

Problem Description: An attempt was made to access environment variable HPSS_RESTRICT_ACCESS_ERROR_CODE_VALUE, but this environment variable has not been defined or is empty.
System Action: Either the default RestrictAccess error code value will be used or if the core server is running and you try to change the RestrictAccess error code value to a empty value by reinitializing the core server and then selecting Refresh Restricted Access Table under the Operations menu on the SSM GUI, the system will set the error code value to its previous value.
Administrator Action: Either set a valid RestrictAccess error code or continue operating with the set value.

CORE0126   **Environment   variable   HPSS_RESTRICT_ACCESS_ERROR_CODE_VALUE contains a bad RestrictAccess error code value: %s.**

Problem   Description: Environment   variable HPSS_RESTRICT_ACCESS_ERROR_CODE_VALUE contains a bad value. This is not allowed.

System Action: The system prints the bad RestrictAccess error code value. If the core server is trying to start up and it encounters a bad error code value it will terminate. If the core server is running and you try to change the RestrictAccess error code value to a bad value by reinitializing the core server and then selecting Refresh Restricted Access Table under the Operations menu on the SSM GUI, then instead of terminating the system will set the error code value to its previous value.

Administrator Action: Correct the RestrictAccess error code value. If the core server is down, restart the system. Otherwise, reinitialize the core server and select Refresh Restricted Access Table under the Operations menu on the SSM GUI to use the corrected error code value.

CORE0127   **The RestrictAccess Error Code Value has been set to %d.**

Problem Description: The RestrictAccess Error Code Value has been assigned from environment variable HPSS_RESTRICT_ACCESS_ERROR_CODE_VALUE.
System Action: None
Administrator Action: None

CORE0128   **Failed to start request queue worker thread pool.**

Problem Description: The core server attempted to start a request queue worker thread pool and failed.
System Action: Core server will fail to start.
Administrator Action: Review process thread limitations and the core server request queue settings and try again.

CORE0129   **Failed to start request queue discovery thread pool.**

Problem Description: The core server attempted to start a request queue discovery thread pool and failed.
System Action: Core server will fail to start.
Administrator Action: If the error code associated with the failure is EAGAIN (11), verify system thread limits are high enough (as discussed in the pthread_create man page). Try to start the Core Server again. If it still fails or if the error code wasn't EAGAIN, contact HPSS support.

CORE0130 **Consistency failure: the computation of an elapsedTime yielded a result less than zero.**

Problem Description: When calculating a time difference, the Core Server wound up with a negative time. This should never happen.
System Action: An error message is generated.
Administrator Action: Contact HPSS support.

CORE0131 **Reinitialization of Hierarchy failed**

Problem Description: Reinitialization of the cached Hierarchy table failed during server reinitialization.
System Action: Log this error message and bypass the failed part of the reinitialization by using existing cached information.
Administrator Action: Examine the specific error code for the cause of the failure. Contact HPSS support if needed.

CORE0132 **Reinitialization of Storage Class failed**

Problem Description: Reinitialization of the cached Storage Class table failed during server reinitialization.
System Action: Log this error message and bypass the failed part of the reinitialization by using existing cached information.
Administrator Action: Examine the specific error code for the cause of the failure. Contact HPSS support if needed.

CORE0133 **Reinitialization of File Family failed**

Problem Description: Reinitialization of the cached File Family table failed during server reinitialization.
System Action: Log this error message and bypass the failed part of the reinitialization by using existing cached information.
Administrator Action: Examine the specific error code for the cause of the failure. Contact HPSS support if needed.

CORE0134   **One or more invalid COS in the allowed COS list**

Problem Description: One or more COS on the subsystem allowed Class of Service list is invalid.

System Action: Log this error message and terminate if we are initializing COS cache. If we are reinitializing, this error message is logged then the COS cache will rollback to the previous version of the cache.

Administrator Action: Open the Subsystem configuration menu. If the allowed COS list contains an invalid COS A message "Invalid values found in Subsystem" will be displayed with the COS id that is invalid. Save the configuration to remove the invalid entries. Reinitialize the core server.

CORE0135   **Unable to load read queue contexts and entries.**

Problem Description: There was an error loading persisted read requests.

System Action: The persisted read requests may not be loaded. Read queue contexts may not be available. Operations will continue.

Administrator Action: Contact HPSS support.

CORE0136   **Failure deleting error read queue entry.**

Problem Description: There was an error deleting read queue entries from metadata.

System Action: The persisted read requests may not be deleted. They may be loaded again later after a restart, after which it might time out.

Administrator Action: Contact HPSS support. There may be a database problem indicated in the logs that needs to be resolved. The rq_cleanup tool can be used to clean up persisted metadata.

CORE0137   **Reinitialization of Migration Policy Cache failed**

Problem Description: Reinitialization of the cached migration policy table failed during server reinitialization.

System Action: Log this error message and bypass the failed part of the reinitialization by using existing cached information.

Administrator Action: Examine the specific error code for the cause of the failure. Contact HPSS support if needed.

CORE0138   **Reinitialization of Purge Policy Cache failed**

Problem Description: Reinitialization of the cached purge policy table failed during server reinitialization.

System Action: Log this error message and bypass the failed part of the reinitialization by using existing cached information.

Administrator Action: Examine the specific error code for the cause of the failure. Contact HPSS support if needed.

CORE0139   **asprintf failed**

Problem Description: A malloc system call to allocate space failed, or other error occurred.

System Action: Log this error message and terminate server.

Administrator Action: Contact HPSS support. This should not happen and may indicate an HPSS software problem.

CORE0140   **The restrictions in the RestrictAccess config file (%s) could not be applied.**

Problem Description: The core server was parsing lines from the Restrict Access File and encountered an error that caused it to abort updating the Restricted Access Table.

System Action: This is a configuration error. If encountered while the core server is trying to start the core server halts. If encountered while trying to select Refresh Restricted Access Table under the Operations menu on the SSM, the Restricted Access Table will remain unchanged.

Administrator Action: Examine the Restricted Access File for correctness and either restart the core server, if down, or retry the Refresh Restricted Access Table operation.

CORE1001   **The client supplied PathName is too long. The maximum length allowed is %d.**

Problem Description: The upper limits on the length of FileNames and PathNames in HPSS are defined by the constants HPSS_MAX_FILE_NAME (256) and HPSS_MAX_PATH_NAME (1024) respectively. These lengths include the NULL character at the end. Apparently the FileName or PathName supplied exceeds the permissible length.

System Action: The incident is logged and the HPSS_ENAMETOOLONG error is returned to the client.

Administrator Action: None

CORE1002 **Object %PRIu64 read from the database was expected to be the parent directory.**

Problem Description: The Core Server has attempted to read the parent directory for a client-supplied object. However, the object read from the database was not a directory. Perhaps the object handle (if any) supplied by the client was not the correct, or intended, object handle.
System Action: The incident is logged and an error is returned.
Administrator Action: None

CORE1003 **Client with UID %PRIu32 who is not a TrustedUser or the owner of object %PRIu64 attempted to change the GroupObj.**

Problem Description: An attempt was made to change an object's GroupObj ACL entry. However, the user who attempted to perform this change is neither a TrustedUser nor the owner of the object. This is not allowed.
System Action: The error is logged and the Core Server continues.
Administrator Action: If the error persists, it may be worth finding out why this user, whose UID is given in the error message, is repeatedly attempting to perform this illegal operation.

CORE1004 **An attempt was made to use either the name . or .. during an object creation or a rename operation.**

Problem Description: A attempt was made to create an object named either '.' or '..', an attempt was made to rename '.' or '..', or an attempt was made to rename an existing object to either the name '.' or '..'. The names '.' and '..' have special meanings and cannot be used in these operations.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1005 **The BitfileId supplied to the %s API is all zeros. It should not be.**

Problem Description: A blank Bitfile ID has been provided to the indicated API. However, this API requires a valid Bitfile ID in order to perform the task at hand.
System Action: The error is logged and the API fails to complete the requested task.
Administrator Action: Contact HPSS support.

CORE1006   **The RealmId field must be zero, not %PRIu32, in ACL entries of type AnyOther, AnyOtherDelegate, MaskObj, and Unauthenticated.**

Problem Description: Whenever ACL entries of type AnyOther, AnyOtherDelegate, MaskObj, or Unauthenticated are sent to the Core Server, the RealmId field of the ACL entry must be zero. Apparently the RealmId field in an ACL entry of one of these types was nonzero.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1007   **Could not find a %s directory entry, but there are %d *other* object records.**

Problem Description: During initialization the Core Server could not find the RootOfRoots entry (/). The only time this should ever happen is when the Core Server initializes a completely empty database. However, the Core Server did detect other entries in the NSObject Table. This should never happen.
System Action: The error is logged and the Core Server continues.
Administrator Action: Contact HPSS support. This inconsistency must be reconciled.

CORE1008   **Creating and initializing NEW %s record %PRIu64.**

Problem Description: While initializing, the Core Server discovered that it had to make a new FilesetAttrs record. This is an informative message telling of this creation.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1009   **Illegal ObjRecord type (%d) was passed to %s.**

Problem Description: The Core Server performed a sanity check on the Type field of an Object record and discovered a major inconsistency.
System Action: Core Server halts.
Administrator Action: Ensure that Db2 is running properly and then restart the Core Server.

CORE1010   **A File object can only have an Object ACL.**

Problem Description: The Core Server performs a consistency check to ensure that the Type of the requested ACL is consistent with the type of the object. In this particular case it is insuring that the Type of the ACL is Object. It can do this because it knows that the Type of the object is File.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1011   **Tried to delete ACL entry type %d from the ObjectACL on object %lu.**

Problem Description: Certain Object ACLs are required to contain certain ACL entries. In this case a client attempted to delete one of these required ACL entries.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1012   **Illegal OptionFlags (0x%08x) parameter passed.**

Problem Description: Some APIs have an OptionFlags parameter. The bits turned on in the OptionFlags determine what actions the API will perform. The Core Server tested the bits in this OptionFlags parameter and discovered that one or more of the bits were illegal.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1013   **Error %d from MMLib routine %s. %s**

Problem Description: All calls to MMLib from the Name Service are processed by a single routine. This routine fills in the fields in the above message with the data appropriate for the detected error.
System Action: Core Server may halt or it may continue.
Administrator Action: If the Core Server has halted, collect the relevant data from the local HPSS log and then restart it.

CORE1014   **ACLType %d can only be used with a Directory or a FilesetRoot object. Not an object of type %d.**

Problem Description: A client has asked to receive an ACL of Type Initial Container or Initial Object. ACLs of these types can only be associated with either a Directory or a FilesetRoot. Apparently the client has requested either an Initial Container or an Initial Object ACL for an object whose type is neither Directory or FilesetRoot.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1015   **The function %s only operates on IC and IO ACLs.**

Problem Description: The Core Server has an internal function that only operates on Initial Container or Initial Objects ACLs. Apparently the input ACL was neither of these.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1016   **Initialization error. The call to hpss_Getenv failed to find environment variable %s.**

Problem Description: During initialization the Core Server assumes the existence of several environment variables. One or more of these environment variables were missing.
System Action: The Core Server halts.
Administrator Action: Ensure that the environment variable mentioned in the error message has been set. Restart the Core Server. If the error persists contact HPSS support.

CORE1017   **Attempt made to change to illegal fileset Type %d in fileset %lu.**

Problem Description: An attempt was made to change the fileset Type of the indicated fileset to an illegal type. Can't do that.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1018 **Could not find a DotDot directory entry, but there are %d *other* object records.**

Problem Description: During initialization the Core Server could not find the DotDot (..) directory entry in the RootOfRoots (/) fileset. The only time this should ever happen is during a cold start. However, the Core Server does not think this is a cold start because it has discovered other objects in the NSObject table. The Core Server will attempt to fix this situation by creating a new DotDot directory.
System Action: The error is logged and the Core Server continues.
Administrator Action: Contact HPSS support.

CORE1019 **Trouble establishing the RPC connection.**

Problem Description: The Core Server attempted to establish a connection to the client, but got a 'bad connection' error.
System Action: The error is logged and the Core Server continues.
Administrator Action: Ensure that your security mechanism is running properly.

CORE1020 **Got error %d trying to make an RPC connection.**

Problem Description: The Core Server attempted to establish a connection to the client, but got the indicated error.
System Action: The error is logged and the Core Server continues.
Administrator Action: Depending on the specific error, check your security mechanisms.

CORE1021 **There is no connection Data in the connection context.**

Problem Description: The Core Server attempts to pass the client's credentials down to lower layer routines, but something has apparently gone amiss during this attempt.
System Action: The error is logged and the Core Server continues.
Administrator Action: If the problem persists, check your security mechanism.

CORE1022 **%s attempted to %s a Text record of type %hhu, but got error %PRId32.**

Problem Description: The Core Server attempted to write a Text record, but discovered that a Text record of this type already exists. It attempted to delete the existing Text record and write the new one but failed.
System Action: The Core Server logs the event, returns an error to the client, and continues.
Administrator Action: If the error persists, contact HPSS support.

CORE1023   **Entering %s.**

Problem Description: This message is used to log the entry into many of the Core Server APIs. This message includes the client-supplied pathname among other things. This message is usually seen when REQUEST level log message tracing is turned on.
System Action: The message is logged and the Core Server continues.
Administrator Action: None

CORE1024   **The attempt to set the FilesetId failed because the ID %lu is illegal.**

Problem Description: The Core Server has been asked to create a fileset or to update an existing fileset ID. However, it has discovered that the client-supplied fileset ID is zero. A fileset ID with a value of zero is not allowed.
System Action: An error is returned to the client and the Core Server continues.
Administrator Action: No action is required.

CORE1025   **The attempt to change the RootOfRoots FilesetName failed because the SpecificConfig name *%s* doesn't match the GlobalFS name *%s*.**

Problem Description: An attempt was made to change the FilesetName of the RootOfRoots fileset. However, it was discovered that the FilesetName in the SpecificConfig record does not match the FilesetName in the GlobalFileset record. This shouldn't happen. The Core Server assumes that some other user is changing the FilesetName at this moment and gives up on the attempt.
System Action: The error is logged and the Core Server continues.
Administrator Action: If this problem persists contact HPSS support.

CORE1026   **Function %s was called, but was not given any work to perform: %s.**

Problem Description: The Core Server's SetAttributes interface was called, but the client did not specify any attribute fields to set or any fields that should be returned.
System Action: Although the call was harmless, the Core Server feels that the client should be informed that they are making a do-nothing call. And so, an error is returned. The Core Server continues.
Administrator Action: Unless this occurs frequently, no action is required. Were this to occur frequently, determine which client program is responsible for the behavior and notify the author.

CORE1027   **A NULL PathName was passed to %s.**

Problem Description: The Core Server's pathname parsing function has been called with a NULL pathname. This pathname parsing function can only be called internally and so it should not be possible for this function to be passed a NULL pathname.
System Action: The Core Server halts.
Administrator Action: Collect all of the relevant log information and then restart the Core Server.

CORE1028   **Length of SymLinkData was too short, too long, NULL, or a path component in the SymLinkData was too long.**

Problem Description: A client attempted to create a symbolic link entry, but the attempt failed in one or more of the following ways: did not supply any symbolic link data, the total length of the symbolic link data was too long, or one of the components of the symbolic link is too long.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1029   **While parsing a pathname it is possible that a symlink was encountered that points to itself. Dir ObjId %lu, Name %s.**

Problem Description: When parsing pathnames the Core Server maintains a count of the number of path components found in the pathname. This count has exceeded the maximum possible count. This can happen if the pathname contains a symbolic link that points back to some earlier point in the pathname.
System Action: The Core Server logs this anomaly and continues.
Administrator Action: If the problem persists contact the user associated with the pathname.

CORE1030   **Consistency failure. The HLOrigParentId in MetaObject %PRIu64 doesn't point to the parent of HardLink %PRIu64.**

Problem Description: There is an inconsistency in the metadata records which describe one of the HardLinks. This should be examined and, if possible, repaired.
System Action: The operational state is set to SUSPECT and the Core Server continues.
Administrator Action: Record all of the information and then contact HPSS support.

CORE1031   **Using the existing %s record. No initialization is necessary!**

Problem Description: As the Core Server initializes it examines several of its tables to ensure that they seem consistent. This is an informative message telling one and all that it thinks the indicated tables seem consistent and that there is no need to initialize them.
System Action: The message is logged and the Core Server continues.
Administrator Action: None

CORE1032   **Global FilesetName *%s* with FSId %lu does not match RootFilesetName *%s* in SpecificConfig table. Changing the SpecificConfig record!**

Problem Description: During initialization many consistency checks are performed. One of these checks is to ensure that the FilesetName kept in the SpecificConfig table is the same as the FilesetName kept in the corresponding GlobalFileset record. Apparently they did not compare. This message is to inform one and all that the Core Server is about to correct this inconsistency by changing the FilesetName in the SpecificConfig table.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1033   **Bit must be either 0 or 1 but was instead: %d in SetBit.**

Problem Description: SetBit was called to set a bit in a bit vector; however, the bit value supplied in this call to SetBit was not a simple 0 or a 1.
System Action: The Core Server halts.
Administrator Action: Restart the Core Server.

CORE1034   **Error %PRId32 was returned by hpss_SECGenAuthzTkt in MakeTicket.**

Problem Description: The Core Server was attempting to construct an access ticket and received an error from hpss_SECGenAuthzTkt.
System Action: The error is logged and the Core Server continues.
Administrator Action: Ensure that your security mechanism is functioning properly.

CORE1035   **Attempted to build a pathname to the object cache dump file. However, the pathname component %s plus the length of *%s* were > 120 characters.**

Problem Description: The Core Server has been asked to dump the contents of its object cache into a file. Someone is apparently doing some debugging. However, the pathname is too long to fit into the array that is supposed to hold this pathname.
System Action: The error is logged and the Core Server continues.
Administrator Action: Get the corresponding entry from the local HPSS log and contact HPSS support.

CORE1036   **Received error %d while attempting to open file *%s*.**

Problem Description: The Core Server has been asked to dump the contents of its object cache into a file. Someone is apparently doing some debugging. However, the Core Server received an error while trying to create the output file.
System Action: The error is logged and the Core Server continues.
Administrator Action: Get the corresponding entry from the local HPSS log and contact HPSS support.

CORE1037   **Error %PRId32 was returned by ns_Find while attempting to do an ns_GetAttrs.**

Problem Description: The Core Server called ns_Find to complete an ns_GetAttrs request, but received an error.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1038   **Consistency check failure. %s has an incorrect value.**

Problem Description: A consistency check has failed. A certain value was expected, but was not received.
System Action: In some cases the Core Server continues, and in other cases it halts.
Administrator Action: If the Core Server has halted, restart it.

CORE1039   **The client with UID %d and realm ID %d tried to set the BitfileId.**

Problem Description: The Core Server detected that some ordinary client has attempted to change or set the BitfileId. Only Trusted users are allowed to change or set the BitfileId.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1040   **Couldn't get an object handle to the DotDot directory: %d.**

Problem Description: While attempting to build an object handle to the parent directory, the Core Server Name Service received an error from ns_Find.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1041   **The CORE_storsubsys_config.StorSubsysId must not be zero!**

Problem Description: The Core Server performs many consistency checks during initialization. One of these checks is to ensure that the Storage Subsystem ID is not zero. It was zero.
System Action: The Core Server halts.
Administrator Action: Set the Subsystem ID to a correct and legal value. Restart the Core Server. If the problem persists contact HPSS support.

CORE1042   **%s doesn't match for fileset *%s* (%PRIu64).**

Problem Description: The Core Server performs many consistency checks during initialization. There is a series of these tests in which it compares UUIDs from the GlobalFileset table, the FilesetAttrs table, and the SpecificConfig table. One of these comparisons failed.
System Action: The Core Server halts.
Administrator Action: Restart the Core Server. If the problem persists contact HPSS support.

CORE1043   **Error %PRId32 from ns_Find while getting attributes for the %s directory.**

Problem Description: The client has requested that attributes be returned with the list of directory entries. While gathering these attributes for the "Dot" or "DotDot" directories the Core Server received an error.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1044   **Error %PRId32 from ns_OC_WaitForAccess while waiting for access to object %PRIu64.**

Problem Description: The Core Server has been asked to create a fileset of the type that requires that a Data Migration Gateway UUID be supplied. The Core Server has examined this supplied UUID and found that it is either zero or that it does not match the UUID of the Data Migration Gateway associated with this Core Server.
System Action: The Core Server returns an error and then continues.
Administrator Action: No action is required.

CORE1045   **Error %d from ns_Update while setting attributes in ns_SetAttrs.**

Problem Description: While attempting to set client attributes, an error was returned by ns_Update.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1046   **The input HardLinkObjId to %s should be zero, not %lu.**

Problem Description: An internal consistency check has failed. The value of a certain parameter is expected to be zero when attempting to fetch attributes for a Hard Link object.
System Action: The Core Server halts.
Administrator Action: Restart the Core Server.

CORE1047   **Root FSAttrs rec is MISSING for FS *%s* (%lu)! Creating it.**

Problem Description: During initialization many consistency checks are performed. One of these checks has revealed that there is no FilesetAttrs record for an existing GlobalFileset record. This message is to inform one and all of this unfortunate event, and further, to tell everyone that the Core Server is attempting to rectify this situation by creating a new FilesetAttrs record.
System Action: The Core Server sets its operational state to MAJOR and continues.
Administrator Action: If the error persists contact HPSS support.

CORE1048   **During initialization FilesetAttrs record with FilesetId %lu was found, but the corresponding GlobalFileset record could not be found. Trying to recover.**

Problem Description: During initialization many consistency checks are performed. One of these checks has revealed that there is no GlobalFileset record that corresponds to an existing FilesetAttrs record. This message is to inform one and all of this unfortunate event, and further, to tell everyone that the Core Server is attempting to recover.
System Action: The Core Server sets its operational state to SUSPECT and continues.
Administrator Action: If the error persists contact HPSS support.

CORE1049   **Error %d from ns_Find trying to read symbolic link in ns_ReadLink.**

Problem Description: The Core Server received an error from ns_Find while trying to read the requested symbolic link data.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1050   **The FilesetId (%lu) in the SpecificConfig record did not match any entry in the GlobalFileset table. I found a correct FilesetAttrs entry and changed the FilesetId and FilesetName in the SpecificConfig file to *%lu* and *%s*.**

Problem Description: During initialization the Core Server performs many consistency checks. One of these checks is to ensure that the RootOfRoots FilesetId found in the SpecificConfig record matches the FilesetId in the corresponding GlobalFileset record. They don't match. The Core Server will attempt to correct the situation by updating the record in the SpecificConfig record.
System Action: The Core Server sets its operational state to MAJOR and continues.
Administrator Action: If the error persists contact HPSS support.

CORE1051 **Didn't expect FilesetAttrs record with FS name *%s* to exist after creating GlobalFileset record.**

Problem Description: During initialization the Core Server performs many consistency checks. The Core Server is examining the records related to filesets and, after creating a new GlobalFileset record, did not expect to find an already existing FilesetAttrs record having the same FilesetId.
System Action: The Core Server sets its operational state to MINOR and continues.
Administrator Action: If the error persists contact HPSS support.

CORE1052 **FSHandle in FSAttrs rec *%s* doesn't match handle to Root fileset.**

Problem Description: During initialization the Core Server performs many consistency checks. In this check the Core Server is insuring that the RootOfRoots FilesetHandle found in the FilesetAttrs record matches an already existing RootOfRoots FilesetHandle. It doesn't match.
System Action: The Core Server halts.
Administrator Action: Restart the Core Server. If the error persists contact HPSS support.

CORE1053 **The %s must be %d not %d.**

Problem Description: During initialization the Core Server performs many consistency checks. In this check it was determined that either the Fileset Type was wrong or the StateFlags were wrong.
System Action: The Core Server halts.
Administrator Action: Restart the Core Server. If the error persists contact HPSS support.

CORE1054 **Global FS *%s* (%lu) exists, but has no matching FSAttrs FS, this is Ok if the Core Server is being run for the very first time on this database.**

Problem Description: During initialization the Core Server performs many consistency checks. During one of these checks it was discovered that there is no FilesetAttrs record that corresponds to the existing RootOfRoots GlobalFileset record. If this is a cold start then this is the expected behavior. In either case the Core Server will attempt to create a new RootOfRoots FilesetAttrs record.
System Action: The Core Server continues.
Administrator Action: If the error persists contact HPSS support.

CORE1055 **An unauthorized user attempted to insert a BitfileId.**

Problem Description: The Core Server will only insert BitfileIds for Trusted users.
System Action: The Core Server logs the infraction and continues.
Administrator Action: None

CORE1056 **Record %PRIu64 has a bad *Type* field (%PRIu8).**

Problem Description: During initialization the Core Server performs many consistency checks. In this particular consistency check the Core Server examines the Type of the RootOfRoots object record. The Type of this record must be FILESET_ROOT. It wasn't.
System Action: The Core Server halts.
Administrator Action: Restart the Core Server. If the error persists contact HPSS support.

CORE1057 **Attempted to insert a duplicate BitfileId into the database.**

Problem Description: The Bitfile ID provided to the specified API already exists in metadata.
System Action: The error is logged and the API fails to perform the requested task.
Administrator Action: Contact HPSS support.

CORE1058 **Error %PRId32 while initializing mutex %s.**

Problem Description: The Core Server attempted to initialize a mutex with a call to pthread_mutex_init but the call failed.
System Action: The Core Server halts.
Administrator Action: Ensure that your security mechanism is functioning properly and then restart the Core Server.

CORE1059 **The %s principal has connected to the Core Server, but does NOT have the W bit set on the Core Server's Security Object.**

Problem Description: The Core Server has determined that the SSM has connected to it. This is fine if and only if the Write bit has been set for this principal on the Core Server's Security Object ACL.
System Action: The Core Server halts.
Administrator Action: Ensure that the Write bit is set appropriately for the appropriate principal on the Core Server's Security Object ACL. Restart the Core Server. If the error persists contact HPSS support.

CORE1060 **The realm admin principal has connected to the Core Server, but does not have W permission on the Core Server's Security Object.**

Problem Description: This is a warning message telling one and all that the principal realm_admin has connected to the Core Server, and that the Core Server has discovered that realm_admin does not have Write permission. This is not a big deal, but it is unusual for realm_admin not to have Write permission.
System Action: The error is logged and the Core Server continues.
Administrator Action: Investigate the realm_admin principal on the Core Server's Security Object ACL.

CORE1061 **An invalid FilesetName was passed to %s.**

Problem Description: The fileset PathName passed to the Core Server was either NULL or contained no characters. This is illegal.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1062 **The %s principal has connected to the Core Server and has the W bit set on the Core Server's Security Object. This is not allowed.**

Problem Description: A client has connected to the Core Server and the Core Server has detected that the credentials for this client contain the Write bit. Only a very limited number of principals are allowed to have the Write bit on. This client is not one of these privileged clients.
System Action: The Core Server halts.
Administrator Action: Examine the Core Server's Security Object ACL. Why does this principal have Write permission?

CORE1063 **An attempt was made to create a HardLink to an object that isn't a File or HardLink.**

Problem Description: The client attempted to create a HardLink to an object that is not a File or a HardLink. This is an invalid action.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1064   **The ObjectId was not %PRIu64 as expected during initialization.**

Problem Description: During initialization many consistency checks are performed. One if these consistency checks is to ensure that the ObjectId in the RootOfRoots and DotDot directories is a certain value. If it isn't this value the system cannot run. Apparently it was not this value.
System Action: The error is logged and the Core Server halts.
Administrator Action: Restart the Core Server. If the error persists contact HPSS support.

CORE1065   **A TrustedUser with RealmId %PRIu32 cannot change the UID of an Object with RealmId %PRIu32.**

Problem Description: A TrustedUser is attempting to change the UID of an object. However, the RealmId from the TrustedUser's credentials does not match the RealmId of the object. Because of the ambiguity of ownership caused by UIDs and RealmIds, this change is not allowed.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1066   **The value of %s is out of range.**

Problem Description: Invalid values have been specified.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1067   **A rumble state record indicated that it contained no rumble records. This should never happen. %s.**

Problem Description: The rumble state record showed no rumble records. The rumble state record is invalid.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1068   **No Object attributes or fileset attributes were supplied to %s.**

Problem Description: Someone has attempted to create a fileset without supplying the information necessary for that type of fileset.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1069   **The EXCLUSIVE bit should never be on the ObjCacheFlags following the call to ns_OC_WaitForAccess.**

Problem Description: The Core Server has been given a BitfileId and has been asked to find the file that corresponds to this BitfileId. The Core Server has looked in its cache and hasn't found it, and so it has read the file from the database. After reading the file from the database the Core Server once again looks into the cache to ensure that the file hasn't appeared in the cache in the meantime. In this particular case it discovers that the file has indeed appeared in the cache. It then performs a consistency check — it compares the BitfileId found in the cached file with the BitfileId in the newly read file. The BitfileIds don't match. This should not happen.
System Action: The Core Server returns an error and continues.
Administrator Action: Note the ObjectId of the file and then attempt to ensure that this file is still valid.

CORE1070   **Unexpected object handle type (%d) in object %lu.**

Problem Description: A consistency check has failed. The Core Server was attempting to get the parent directory of an object that was not a directory. In this particular context this is illegal.
System Action: The Core Server halts.
Administrator Action: Restart the Core Server.

CORE1071   **The ObjectId sent to %s is less than or equal to zero.**

Problem Description: The Core Server was asked to return the pathname to an object given the objects ObjectId. However, the supplied ObjectId is less than, or equal to zero. This ObjectId is invalid.
System Action: The Core Server returns an error and continues.
Administrator Action: None

CORE1072   **Couldn't find FilesetRoot object with ID %lu.**

Problem Description: The Core Server searched its fileset cache table for an entry that it thought it would find, but did not find it.
System Action: The Core Server logs the anomaly and continues.
Administrator Action: None

CORE1073 **We unexpectedly found a rumble state record in the rumble state list. UID=%u, RumbleId=%s. %s.**

Problem Description: None
System Action: None
Administrator Action: None

CORE1074 **The list of default ACLs is bad. Expecting EntryType %s (%d), but got EntryType %d.**

Problem Description: An internal Core Server error has occurred. The Core Server expects the list of default ACL entries to be in a certain order. They weren't in this order.
System Action: The Core Server halts.
Administrator Action: Restart the Core Server. If the error persists contact HPSS support.

CORE1075 **Error %PRId32 from %d call to TraversePath.**

Problem Description: The Core Server is reporting an error that occurred while parsing a pathname.
System Action: The name serve logs the error and continues.
Administrator Action: None

CORE1076 **A FilesetAttrs record with FilesetHandle.UUID %PRIu32 was found in the Core Server's FilesetAttrs table.**

Problem Description: Each record in the FilesetAttrs table contains the UUID of the Core Server that owns those filesets. Each of these records should have exactly the same Core Server UUID. Apparently a record was found that contained some other UUID. This should never happen.
System Action: The Core Server halts.
Administrator Action: Record all of the information. Restart the Core Server. Contact HPSS support.

CORE1077 **The Core Server is being shut down through the quick-shut-down interface.**

Problem Description: This is simply an informative message telling one and all that the Core Server is shutting down and that it was instructed to do so through use of the quick-shut-down function in its Administrative interface.
System Action: The Core Server shuts down.
Administrator Action: None

CORE1078   **The object cache flags are invalid. Diagnostic information: ObjectId=%PRIu64, Flags=0x%08PRIx32, SharedAccessCount=%PRId32, OwningTransSN=%PRIu64, TransH=%s.**

Problem Description: The Core Server puts a random 128-character string into the Name field of each HardLink MetaObject. These Names must be unique. Apparently this one was not.
System Action: The Core Server halts.
Administrator Action: Restart the Core Server. If the problem persists contact HPSS support.

CORE1079   **An attempt was made to change the %s in a non HPSS_Only Fileset.**

Problem Description: Fields such as the FilesetId and GatewayUUID can only be changed in HPSS_Only filesets. Apparently this client attempted to change one of these fields in a fileset that isn't HPSS_Only.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1080   **A client is deleting a Comment from object record %lu.**

Problem Description: A client has asked the Core Server to update the Comment field with a zero length Comment. The Core Server interprets this as a request to delete the existing Comment.
System Action: The event is logged and the Core Server continues.
Administrator Action: None

CORE1081   **If a Fileset is RO or DESTROYED, only the StateFlags or RegisterBitmap field can be modified.**

Problem Description: A client has attempted to modify a field other than the StateFlags or RegisterBitmap fields in a ReadOnly or DESTROYED fileset. This is not allowed.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1082   **No sym link data was read from the sym link. ObjectId %lu.**

Problem Description: A sanity check has failed. While parsing a pathname we encountered a symbolic link, but our attempt to read the associated symbolic link data did not yield any symbolic link data. This should never happen.
System Action: The Core Server halts.
Administrator Action: Record all of the information. Restart the Core Server. Contact HPSS support.

CORE1083   **>>DBUG: %s**

Problem Description: None
System Action: None
Administrator Action: None

CORE1084   **Exiting %s.**

Problem Description: The Core Server is logging the exit from one of its APIs.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1085   **ACLs containing UNAUTHENTICATED entries cannot be modified. Delete the UNAUTHENTICATED entry in the ACL first.**

Problem Description: The Core Server has been asked to update, set, or delete ACL entries in an ACL which contains an unauthenticated ACL entry. Unauthenticated ACL entries are no longer used and so any attempt to modify an ACL which contains an unauthenticated ACL entry is not allowed. The client must first delete the unauthenticated ACL entry from this ACL, and then they will be allowed to modify the ACL.
System Action: The Core Server returns an error and then continues.
Administrator Action: No action is required.

CORE1086   **Foreign User %PRIu32 from RealmId %PRIu32 tried to create in directory %PRIu64 when the SET_GID bit was on.**

Problem Description: A client is attempting to create an object in a directory that has the SET_GID flag set. However, this client is foreign to this directory. Foreign users cannot create in directories that have the SET_GID flag set.
System Action: The Core Server logs the event and continues.
Administrator Action: None

CORE1087   **Core Server Admin:**

Problem Description: The Core Server MiscAdmin interface has been called to perform one of its miscellaneous functions. Each call to the MiscAdmin interface is logged with a message which describes the action that was requested and action that was taken.
System Action: The Core Server logs the event and continues.
Administrator Action: No action is required.

CORE1088   **The object name or the fileset name contains illegal characters.**

Problem Description: Sites are given the opportunity to configure the Core Server to not allow any object names or fileset names that contain unprintable characters. Apparently this site has chosen this option and some client has attempted to create a fileset or object with a name which contains unprintable characters. This error can also be returned when someone tries to create a path component that includes the path separator character.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1089   **Setting the Core Server %s state to %s.**

Problem Description: The Core Server allows the ability to manually set its Operational, Communication, and Software state. This is an informative message that someone has taken advantage of this ability and has manually set one of these states.
System Action: The event is logged and the Core Server continues.
Administrator Action: None

CORE1090   **A bad state value (%d) was supplied while trying to change the %s state.**

Problem Description: The Core Server allows the ability to manually set its Operational, Communication, and Software state. Someone tried to take advantage of this ability, but supplied a bad state value.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1091   **UID %PRIu32 received error %PRId32 from av_srv_ValidateAcct using RealmId %PRIu32, account %PRIu32, account flags 0x%08PRIx32. ObjId of Parent directory: %PRIu64.**

Problem Description: The Core Server called av_srv_ValidateAcct while trying to change either the account or the owner of an object. Unfortunately, av_srv_ValidateAcct returned an error.
System Action: The Core Server logs the event and continues.
Administrator Action: None

CORE1092   **A database deadlock condition was returned from %s. Retrying.**

Problem Description: Deadlocks are a rather routine fact of life that the Core Server must deal with. Apparently one of these deadlocks has occurred and the Core Server will retry.
System Action: The event is logged and the Core Server continues.
Administrator Action: None

CORE1093   **A ReadDir state record indicated that it contained no object records. This should never happen.**

Problem Description: The Core Server has performed a consistency check in its ReadDir function and this consistency check has failed. The Core Server maintains state which helps it to service ReadDir requests which require multiple buffer loads of data. It has found one of these state records and has examined its contents and has been dismayed to discover that it does not contain the expected contents. It expects that the record will contain at least one object record entry. It apparently does not.
System Action: The Core Server terminates.
Administrator Action: Save any core file that may have been produced and contact HPSS support. Restart the Core Server.

CORE1094   **The realm ID in the UserCreds is zero (FromContext is %d).**

Problem Description: The RealmId field of the input user credentials is zero. This is not allowed.
System Action: The Core Server logs this infraction and continues.
Administrator Action: None

CORE1095 **We unexpectedly found a ReadDir state record in the ReadDirState list. Offset=%PRIu64, DirBeingRead=%PRIu64, CursorType=%d, Flags=%PRIx32, UID=%PRIu32, ReadDirId=%s.**

Problem Description: The Core Server was processing a ReadDir request and started to add a new state record to its list of existing state records. However, it discovered that this supposedly new record was already on the list. This log message is an informative message that this unexpected event has taken place.
System Action: The Core Server logs the event, throws the new state record away, and then continues.
Administrator Action: No action is required.

CORE1096 **Error %d from %s creating %s %lu. %s**

Problem Description: During initialization the Core Server has discovered that a FilesetAttrs record was missing. It is attempting to recover from this problem by creating a new record, but when it attempted to write this new record to the database, it got an error. At this point it declared that enough was enough.
System Action: The Core Server halts.
Administrator Action: Collect all of the relevant log information. Ensure that Db2 is operating properly. Attempt to restart the Core Server. If the problem persists, contact HPSS support.

CORE1097 **Consistency check failed.**

Problem Description: The Core Server performs consistency checks at various points while processing ReadDir requests. One of these consistency checks has failed. An internal function may have been called to add an entry to a list and then discovered that the entry was already on the list, or, a situation may have occurred that was totally unexpected.
System Action: The Core Server logs this message and then terminates.
Administrator Action: Save any core file that may have been produced, contact HPSS support, and restart the Core Server.

CORE1098 **The time difference between the current time and the TimeLastAccessed from the ReadDirState was negative. I fixed it.**

Problem Description: To compute the age of a ReadDir state record the Core Server subtracted the time found in the ReadDir state record from the current time. The result of this calculation was negative. This should never happen. This log message is an informative message to let you know that this unusual event has occurred.

System Action: The Core Server sets the time in the ReadDir state record to the current time minus one. It then logs this message and continues.

Administrator Action: Determine whether the system clock is correct. If it is not, correct the time discrepancy. If this problem occurs frequently and the system clock is known to be correct, contact HPSS support.

CORE1099 **An attempt was made to get CompositePerms for the Parent object.**

Problem Description: The client has requested that the composite permissions for a parent directory be returned. This would require getting the parent of the current parent directory; however, HPSS does not do this.

System Action: The Core Server logs the event and continues.

Administrator Action: None

CORE1100 **Global variable CORE_atime_polcy contains a bad or unknown value.**

Problem Description: While attempting to update the atime in an object the Name Server discovered that the global variable CORE_atime_policy contains a bad or unknown value.

System Action: The Core Server cannot tolerate bad configuration values. The Core Server logs this message and then terminates.

Administrator Action: If possible look at the value in global variable CORE_atime_policy. Contact system support. Restart the Core Server.

CORE1101 **Consistency failure. An object of type directory was expected.**

Problem Description: ReadDir calls a subfunction that is supposed to return the parent object handle to the directory handle that is passed in. A consistency check at the top of this subfunction has detected that the Type of the handle that is passed in is not a directory. This should never happen.

System Action: The Core Server logs this message and then terminates.

Administrator Action: Save any core file that may have been generated. Restart the Core Server.

CORE1102   **Consistency failure. The transaction should not already be aborted.**

Problem Description: A consistency check has failed. Examination of the transaction handle that has been passed to one of the object cache function reveals that this transaction has already been aborted. This should never happen.

System Action: The Core Server halts.

Administrator Action: Collect all of the relevant log information. Save any core file that may have been produced. Restart the Core Server, and contact HPSS support.

CORE1103   **The time limit has expired while waiting for object cache entry %PRIu64 to become free. Diagnostic information: WAIT_EXCLUSIVE=%PRIu32, Flags=0x%08PRIx32, SharedAccessCount=%PRId32, TransSN=%PRIu64, TransH %s.**

Problem Description: Any thread requesting an object from the object cache may have to wait for that object to become available. These threads are only willing to wait for a certain amount of time, and so, it might happen that the thread's timeout value will expire before the object becomes available. When this happens, this message is logged. There are two forms of this message — these forms tell us the reason for the timeout. Either the object was in use, or the transaction hasn't dropped.

System Action: This message is logged and the Core Server continues.

Administrator Action: None

CORE1104   **No transaction handle was supplied, but we were asked to perform a modify on the object.**

Problem Description: A consistency failure has occurred in the object cache. An object cache function was asked to perform a create, modify, or delete on an object. However, no transaction handle was supplied for this operation. This should never happen.

System Action: The Core Server halts.

Administrator Action: Collect all of the relevant log information. Save any core file that may have been generated. Restart the Core Server. Contact HPSS support.

CORE1105   **Consistency failure. The supplied transaction handle is for an aborted transaction.**

Problem Description: A consistency check has failed. Examination of the transaction handle that has been passed to an object cache function reveals that this transaction has already been aborted.
System Action: This message is logged and the Core Server continues.
Administrator Action: None

CORE1106   **Consistency failure. The pointer to the object cache record is NULL.**

Problem Description: The Core Server object cache callback routine has been called with a NULL object cache record pointer. This should never happen.
System Action: The Core Server halts.
Administrator Action: Collect all of the relevant log information. Save any core file that may have been generated. Restart the Core Server. Contact HPSS support.

CORE1107   **Consistency failure. The transaction serial number is zero. This should never happen.**

Problem Description: The Core Server's object cache callback function has discovered that it has been called with a transaction handle whose serial number is zero. This should never happen.
System Action: The Core Server halts.
Administrator Action: Collect all of the relevant log information. Save any core file that may have been generated. Restart the Core Server. Contact HPSS support.

CORE1108   **Consistency failure. The transaction serial numbers do not match. This should never happen.**

Problem Description: The Core Server's object cache function used to gain exclusive access to an object has detected that the transaction handle serial ID in the object cache record does not match the transaction handle serial ID in the proffered transaction handle. This should never happen.
System Action: The Core Server halts.
Administrator Action: Collect all of the relevant log information. Save any core file that may have been generated. Restart the Core Server. Contact HPSS support.

CORE1109 **Sanity check failure: HPSS_ACLType has a value of %d.**

Problem Description: There are three Core Server ACL types: Initial Container, Initial Object, and Object. The input ACL type proffered to the ns_WriteACL function is none of these. This is a fatal error.
System Action: The Core Server halts.
Administrator Action: Collect all of the relevant log information. Save any core file that may have been generated. Restart the Core Server. Contact HPSS support.

CORE1110 **The object cache events create, delete, and modify are supposed to be mutually exclusive.**

Problem Description: The Core Server's object cache expects to be called to perform creates, modifications, or deletes on objects. However, it has been called to do two or more of these operations. This makes no sense.
System Action: The Core Server halts.
Administrator Action: Collect all of the relevant log information. Save any core file that may have been generated. Restart the Core Server. Contact HPSS support.

CORE1111 **The Name Server retried %PRIu32 times, but failed anyway.**

Problem Description: The Core Server's object cache function that is used to unlock cache entries was called to unlock an entry that was already unlocked. This should never happen.
System Action: The Core Server halts.
Administrator Action: Collect all of the relevant log information. Save any core file that may have been generated. Restart the Core Server. Contact HPSS support.

CORE1112 **Non NULL pointers to the old and new directories must be supplied when doing a Rename.**

Problem Description: An attempt is being made to rename an object. However, the pointer to the directory which contains the current object, or the pointer to the directory which will contain the newly named object, or both of these directories are NULL. This is not allowed.
System Action: The Core Server returns an error and continues.
Administrator Action: None

CORE1113   **Object cache operation (%u) not permitted when setting up callback.**

Problem Description: Consistency checks are performed in the Core Server's object cache to ensure that requested operations are consistent with operations that may already be taking place in the cache. For example if an object is in the cache as the result of a create request, it is not legal to delete it until the create has be resolved. Apparently some request has violated one of these rules.
System Action: The Core Server returns an error and continues.
Administrator Action: None

CORE1114   **Fileset %lu could not be found in the fileset cache.**

Problem Description: None
System Action: None
Administrator Action: None

CORE1115   **%PRIu32 is not an acceptable value for %s.**

Problem Description: This log message is used to point out that an unacceptable value has been used for an operation. For example a certain operation may require a value of READ, but instead got some other value.
System Action: In some cases the Core Server will halt, it other cases it will return an error and continue.
Administrator Action: If the Core Server has halted, collect all of the relevant log information. Save any core file that may have been generated. Restart the Core Server. Contact HPSS support.

CORE1116   **core_MiscAdmin function %s expected the length of the conformant array parameter to be %d, but instead it was %d.**

Problem Description: Certain of the core_MiscAdmin functions require that additional information be passed in or out through the conformant array parameter. The functions requiring the conformant array parameter are: delete an object cache entry, dump the object cache, flip the BFS empty COS flag, turn object cache tracing on, return performance logging status, the various printing options, set the communication state, set the software state, set the operational state, and get the realm ID. Apparently one of these functions was indicated, but without a conformant array parameter of the correct length.
System Action: The Core Server returns an error and continues.
Administrator Action: None

CORE1117   **Illegal function value (%d) passed to %s.**

Problem Description: The range of possible ADMIN functions is specified in `ns_Constants.h`. These constants have names of the form NS_ADMIN_*. Any function value outside of this range will receive this error.
System Action: The Core Server returns an error and continues.
Administrator Action: None

CORE1118   **An unauthorized user tried to perform admin functions.**

Problem Description: The Core Server detected an unauthorized client trying to use the Core Server's Administrative interface.
System Action: The error is logged and the Core Server continues.
Administrator Action: If there are repeated attempts by this client to use this API, take whatever action seems appropriate.

CORE1120   **Sanity Check failure: %s was called with a NULL ACLEntriesP value.**

Problem Description: The Core Server performs a sanity check at the top of the WriteACLEntries function. It ensures that it has been passed some ACL entries to write. Apparently this call did not contain any ACL entries.
System Action: The Core Server halts.
Administrator Action: Examine the log for any related messages. Restart the Core Server as appropriate.

CORE1121   **A bad Function value (%d) was passed to core_MiscAdmin by UID %PRIu32.**

Problem Description: This test was probably overkill and I doubt is anyone will ever see it. The range of possible ADMIN functions is specified in ns_Constants.h. These constants have names of the form NS_ADMIN_*. This log message indicates that someone attempted to use a function value outside of the allowable range. However, a test of the function range has already been made. See CORE1117 above.
System Action: The Core Server returns an error, the Core Server operational state is set to SUSPECT, and the Core Server continues running.
Administrator Action: Gather the associated log information and contact HPSS support.

CORE1122   An attempt was made to use one of the LEAVE_EXISTING constants in a SetACL operation.

Problem Description: None
System Action: None
Administrator Action: None

CORE1123   A search for a BitfileId in the Name Service object cache has failed. This should never happen.

Problem Description: This is a major failure. The Core Server found a file object in the object cache and then called a lower level routine to perform an operation on the object. However, the lower level routine could not find the object. This should be impossible.
System Action: The error is logged and then the Core Server halts.
Administrator Action: Collect all of the relevant log information. Save any core file that may have been generated. Restart the Core Server. Contact HPSS support.

CORE1124   The SharedAccessCount is $\Leftarrow$ 0. This should never happen.

Problem Description: The Core Server uses a counter to implement shared access to objects in the object cache. It has detected that this counter became negative. This should never happen.
System Action: The Core Server halts.
Administrator Action: Collect all of the relevant log information. Save any core file that may have been generated. Restart the Core Server. Contact HPSS support.

CORE1125   Deleting an object that should be in the bitfile list but the entire list is NULL.

Problem Description: The Core Server is deleting a file from its object cache and has reached the point in this operation where it wishes to delete the BitfileId from the BitfileId list. However the hash of this BitfileId leads it to an empty list. This should never happen.
System Action: The Core Server halts.
Administrator Action: Collect all of the relevant log information. Save any core file that may have been generated. Restart the Core Server. Contact HPSS support.

CORE1126   **Deleting an object that should be in the bitfile list, but this file is NOT in the list.**

Problem Description: The Core Server is deleting a file from its object cache and has reached the point in this operation where it attempting to delete the BitfileId from the BitfileId list. However it cannot find the BitfileId in the list. This should never happen.
System Action: The Core Server halts.
Administrator Action: Collect all of the relevant log information. Save any core file that may have been generated. Restart the Core Server. Contact HPSS support.

CORE1127   **The Directory and PathName are both NULL.**

Problem Description: A client called the indicated API, but did not supply either a directory or a pathname.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1128   **The Directory object handle is all zeros, and the Pathname is relative to this directory.**

Problem Description: None
System Action: None
Administrator Action: None

CORE1129   **%s: the pathname has too many components.**

Problem Description: A client has supplied a pathname which contains too many path components.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1130   **%s points to NULL.**

Problem Description: None
System Action: None
Administrator Action: None

CORE1131   **Could not find ObjectId %PRIu64 in %s.**

Problem Description: None
System Action: None
Administrator Action: None

CORE1132   **The IntendedOp parameter (%d) is bad.**

Problem Description: None
System Action: None
Administrator Action: None

CORE1133   **The client supplied BuffSize (%PRIu32) was too small in ns_ReadDir.**

Problem Description: A client has asked to read directory entries, but has supplied a buffer too small to hold a single entry.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1134   **Couldn't refresh object cache after transactional attempt to delete object %PRIu64 was aborted.**

Problem Description: None
System Action: None
Administrator Action: None

CORE1135   **Attempted to insert duplicate ObjectId %PRIu64 into the NS object cache.**

Problem Description: None
System Action: None
Administrator Action: None

CORE1136   **The transaction serial number from a transaction handle was zero.**

Problem Description: None
System Action: None
Administrator Action: None

CORE1137   **Cannot build a pathname for the DotDot entry (ObjId = %lu).**

Problem Description: The core server was asked to build a pathname for the DotDot entry, object ID = 2.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1138   **Error %d from RemoveLastLink. An illegal last link was discovered.**

Problem Description: In many of its client API routines the Core Server must remove the last component (or link) of a pathname so that the pathname may be parsed. This attempt to remove the last component failed.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1139   **Found a NULL DataP. This should never happen. Please contact your support representative about this event.**

Problem Description: None
System Action: None
Administrator Action: None

CORE1140   **Consistency failure. The pointer to the callback argument is NULL.**

Problem Description: None
System Action: None
Administrator Action: None

CORE1141   **A Name Server object was not removed from the object cache in a timely manner. Diagnostic information: ObjCacheRecP=%p, WaitListHeadP=%p, ObjectId=%lu, Flags=0x%08x, SharedAccessCount=%d, OwningTransSN=%lu.**

Problem Description: None
System Action: None
Administrator Action: None

CORE1142   **User %d attempted to use a stale ObjHandle with ObjectId %lu.**

Problem Description: The client attempted to delete or update a MetaObject, but the Core Server discovered that the "Original" object was gone. The client's object handle is stale.
System Action: The event is logged and the Core Server continues.
Administrator Action: None

CORE1143   **An attempt was made to deallocate the trashcan data structures while trashcans were enabled. This should never happen.**

Problem Description: The Core Server has received a request to deallocate trashcan data structures while trashcans are enabled. This is the result of an invalid operation and represents a bug in the code.
System Action: The Core Server aborts.
Administrator Action: Contact HPSS support.

CORE1144   **Consistency failure: a GarbageManThread was invoked, but its GarbageCan was empty. This should never happen.**

Problem Description: The Core Server has began processing trashcan incineration, but the thread's garbage can was empty. This should never happen and represents a bug in the code.
System Action: The Core Server aborts.
Administrator Action: Contact HPSS support.

CORE1145   **Trashcans are not enabled so no trashcan initialization was performed.**

Problem Description: The Core Server will log this when trashcans are disabled as an indicator that trashcans are not on. This is not an error but merely an informational message.
System Action: No trashcan initialization performed.
Administrator Action: None

CORE1146   **Zero trashcan threads are configured. No %s was performed.**

Problem Description: The Core Server will log this when no (0) trashcan incinerator threads are configured. Trashcan initialization will not be done, and any threads spawned will exit immediately. This is not an error but merely an informational message.
System Action: No trashcan initialization performed and worker threads will not run.
Administrator Action: None

CORE1147 **An attempt is being made to change the Type of the root fileset to a value other than HPSS_Only.**

Problem Description: The Core Server has received a client request to change the Type of the root fileset. The only legal Type for the root fileset is HPSS_Only. This is not the Type supplied by the client.
System Action: The Core Server logs the error and continues.
Administrator Action: None

CORE1148 **The RealmId of FOREIGN ACL entry types must be foreign, not zero.**

Problem Description: The RealmId field of any FOREIGN ACL entry types must be nonzero. How else can they be foreign?
System Action: The event is logged and the Core Server continues.
Administrator Action: None

CORE1149 **The RealmId field of *local* ACL entries must be %PRIu32, not %PRIu32.**

Problem Description: A client has submitted ACL entries of the type whose RealmId fields cannot be zero or, if they are nonzero, they must match the realm of the ACL. Evidently, one or more of the Client's ACL entries do not follow these rules.
System Action: The event is logged and the Core Server continues.
Administrator Action: None

CORE1150 **The TrashIncinerator terminated when it detected that a TrashIncinerator was already running.**

Problem Description: A request has come in to initialize or deinitialize trashcans or trashcan workers while the trashcan incinerator was running. This is an invalid scenario and represents a bug.
System Action: The Core Server aborts.
Administrator Action: Contact HPSS support.

CORE1151 **Consistency failure: the computation of the trashcan EligibleTime yielded a result less than zero.**

Problem Description: In calculating the time an object could become eligible for deletion based upon the current time and current settings, the Core Server wound up with a negative time. This should never happen.
System Action: The Core Server aborts.
Administrator Action: Contact HPSS support.

CORE1152 **The TrashIncinerator run has completed. Last run: %u successful deletes, %u unsuccessful deletes, %lu bytes. Grand totals: %u successful deletes, %u unsuccessful deletes, %lu bytes.**

Problem Description: The Core Server will log a message whenever the trash incinerator has finished running, either via running to completion or being asked to stop early based on some event. This message contains statistics about the run that just finished as well as statistics for the current server uptime.
System Action: None.
Administrator Action: None

CORE1153 **The EntryId must be set to zero in this type (%PRIu8) of ACL entry. ACL.EntryId=%PRIu32, ObjectId=%PRIu64.**

Problem Description: The EntryId must be zero in the indicated ACL entry type. Any exceptions result in an error.
System Action: The event is logged and the Core Server continues.
Administrator Action: None

CORE1154 **Field(s) %s were negative in Fileset %lu. %s set the values to zero in the FilesetAttrs file, but the value(s) should eventually be corrected.**

Problem Description: While updating the fileset attribute record, the Core Server detected that the indicated count field had a negative value. Counts cannot be negative. The purpose of this message is to inform everyone that the Core Server has set this negative count field to zero. In addition the Core Server advises that this count field should someday be set to the "correct" value. Correcting the counts in a large database can take a great deal of time and consequently should be scheduled appropriately. The utility **nsde** can be used to find the correct count values.
System Action: The Core Server logs the event and continues.
Administrator Action: During some quiet time the administrator could run **nsde** to gather the correct count values and then assign these values to the appropriate fileset records.

CORE1155 **The %s parameter contains an unexpected value.**

Problem Description: A badly formatted request to change a setting via the NS administrative interface has been detected. The change will not be made and the request will end in failure.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1156   **The TrashIncinerator could not run because the AChangeIsInProgress flag is set.**

Problem Description: A trashcan incinerator worker has determined that a change to the trashcan structure is in progress. The worker will not run. This is not an error but an informational message.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1157   **A Trash state record indicated that it contained no trash records. This should never happen.**

Problem Description: The Core Server has determined that no trash record entries are in the return trash entry buffer. This is an invalid scenario and represents a bug.
System Action: The Core Server aborts.
Administrator Action: Contact HPSS support.

CORE1158   **Attempted to insert duplicate Name/ParentId entry into the Name Server object cache. Name: %s ParentId: %lu.**

Problem Description: The Core Server was about to insert an entry into its object cache, but discovered that this entry already exists in the object cache. This should never happen.
System Action: The Core Server aborts.
Administrator Action: Contact HPSS support.

CORE1159   **Fatal error. Invalid hash algorithm seed. The hash algorithm seed for the global configuration (%u) must match the one stored in object record %PRIu64 (%PRIu64).**

Problem Description: A hash algorithm seed is used when generating database partition numbers. This hash algorithm seed is stored in three separate locations in the database. While initializing, the Core Server has discovered that the value of one of the hash algorithm seeds does not match the value stored in the global configuration table.
System Action: The Core Server aborts.
Administrator Action: Contact HPSS support.

CORE1160   **Root of Roots ObjectId should be %PRIu64, but is %PRIu64.**

Problem Description: The Root of Roots ObjectId should always be "1". However, during initialization, the Core Server has discovered that it is not "1". This should never happen.
System Action: The Core Server aborts.
Administrator Action: Contact HPSS support.

CORE1161   **DotDot ObjectId should be %PRIu64, but is %PRIu64.**

Problem Description: The ObjectId of the DotDot object record should always be "2". However, during initialization, the Core Server has discovered that the ObjectId is not "2". This should never happen.
System Action: The Core Server aborts.
Administrator Action: Contact HPSS support.

CORE1162   ******

Problem Description: This log message can be used for any purpose. Anyone wishing to log a message or cause a log message appear in the *Alarms and Events* window can use this log message number for this purpose.
System Action: The message is logged and the Core Server continues.
Administrator Action: The action will depend on the log message.

CORE1163   **We unexpectedly found a Trash state record in the ReadTrashState list. UID=%PRIu32, ReadDirId=%s.**

Problem Description: None
System Action: None
Administrator Action: None

CORE1164   **Running   NS_ADMIN_ERROR_TEST_OC_DUP_NAME_PARENT   test   for ObjectId=%PRIu64. About to sleep for %PRIu32s...**

Problem Description: None
System Action: None
Administrator Action: None

CORE1165   Completed   NS_ADMIN_ERROR_TEST_OC_DUP_NAME_PARENT   test ObjectId=%PRIu64. Disabling test bit.

Problem Description: None
System Action: None
Administrator Action: None

CORE1166   **The ParentId for Object %lu is not loaded yet.**

Problem Description: The Core Server is attempting to build a pathname, but the ParentId was not yet loaded for a component.
System Action: The Core Server aborts.
Administrator Action: Contact HPSS support.

CORE1167   **The client supplied pathname buffer is too small. The minimum length should be at least %d.**

Problem Description: The size of the pathname buffer was not large enough.
System Action: The incident is logged and HPSS_EINVAL is returned to the caller.
Administrator Action: None

CORE1169   **Error %PRId32 from hpss_SECUcredAudit in ns_SendSecAudit.**

Problem Description: The Core Server is attempting to make a security audit record, but has received an error in the attempt.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1171   **Error %PRId32 returned from pthread_cond_timedwait for %s.**

Problem Description: While attempting to set up a condition variable the Core Server received an error from pthread_cond_timedwait.
System Action: The Core Server shuts down.
Administrator Action: Ensure that your security mechanism is functioning properly and then restart the Core Server.

CORE1172   **%s: a component of the pathname is too long.**

Problem Description: A component of a client-supplied pathname is too long.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1174 **Error %PRId32 was returned by ns_Find. Name: %s.**

Problem Description: While parsing a client's path an error was received while attempting to fetch the indicated pathname component.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1175 **Error %PRId32 returned by ns_Find fetching sym link data.**

Problem Description: A symbolic link component was discovered in a pathname, but the attempt to read the associated symbolic link data failed.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1179 **A UserObj ACL entry could not be found in the ACL of type %d for object %lu.**

Problem Description: The Core Server searched through either an Initial Container ACL or an Initial Object ACL for the UserObj entry. It could not find a UserObj entry. There should always be a UserObj entry.
System Action: The Core Server sets its state to SUSPECT and continues.
Administrator Action: Contact HPSS support and provide this log message.

CORE1183 **Unknown EntryType %d.**

Problem Description: While scanning an object's list of ACL entries, the Core Server has discovered an EntryType that it does not recognize. This should be impossible.
System Action: The event is logged and the Core Server halts.
Administrator Action: Restart the Core Server. The offending ACL entry should be deleted.

CORE1188 **Error %PRId32 was returned by GetDotDot.**

Problem Description: While parsing a client's pathname one of the path components was discovered to be DotDot. While attempting to get the DotDot directory the Core Server received an error.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1189   **Error %PRId32 was returned by the recursive call to PathRecurser.**

Problem Description: The Core Server uses a recursive algorithm to parse pathnames. Either one of these recursive calls returned an error, or the Core Server is processing a symbolic link component.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1194   **Bad ACL EntryType %d detected.**

Problem Description: The client submitted an ACL entry whose EntryType is not in the legal range of valid EntryTypes.
System Action: The event is logged and the Core Server continues.
Administrator Action: None

CORE1197   **An attempt was made to add ACL(s) that would result in a higher MaskObj. Section %s.**

Problem Description: The result of calculating the new MaskObj after adding ACL entries would be to activate currently ineffective permissions. This is not allowed.
System Action: The event is logged and the Core Server continues.
Administrator Action: None

CORE1198   **An attempt was made to set the %s with illegal perms (0x%02x).**

Problem Description: One or more ACL entries were submitted to the Core Server containing illegal permission bits.
System Action: The event is logged and the Core Server continues.
Administrator Action: None

CORE1200   **Bad status %PRId32 from ns_SearchForName.**

Problem Description: The call to SearchForName did not return the expected result.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1201   **Not allowed to set field %s (%d).**

Problem Description: An attempt was made to set an attribute field that cannot be modified. Perhaps the field is a FilesetAttrs field which cannot be changed through this interface. If so, try the appropriate interface.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1202   **EntryId %PRIu32 is not a legal group for UID %PRIu32 in record %PRIu64.**

Problem Description: The client is trying to change the GroupObj, but is not a member of the group they are trying to change to.
System Action: The event is logged and the Core Server continues.
Administrator Action: None

CORE1203   **Only the owner or someone with %s permission can update the %s. Not UID %PRIu32.**

Problem Description: An attempt was made to set an attribute field that only the owner or a client with Control or Write permission can set.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1204   **Only a Trusted user can perform the indicated operation: %s.**

Problem Description: An attempt was made to set an attribute field that only a Trusted user can set.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1205   **Object is not of type file.**

Problem Description: An attempt was made to set a file attribute in a non-file object.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1207 **Error: GID %PRIu32 is not in GID list.**

Problem Description: A client attempted to set the GID field to a group that the client is not a member of.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1208 **User with UID %PRIu32 does not have permission to update the Comment.**

Problem Description: The indicated user attempted to update the Comment field, but does not have Write access to the object.
System Action: The event is logged and the Core Server continues.
Administrator Action: None

CORE1212 **Bad object type %d was passed to %s.**

Problem Description: An attempt is being made to create a new object, but the type of the object is not recognized by ns_Create.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1214 **Bad CORE_ATTR_ value %PRId32 was supplied.***

Problem Description: An attempt was made to set or fetch an attribute field; however, there is no attribute field that corresponds to one of the bits found in InAttrBits.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1216 **File %s already exists in directory %lu, %s.**

Problem Description: An attempt was made to create a link, but an object with that name already exists.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1217 **Error %d writing a text entry.**

Problem Description: An attempt was made to write symbolic link data or a Comment to the Text table, but an error was received from ns_WriteTextRecord.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1218   **Generation numbers %lu (Client) and %lu (ObjectRec) don't match for object 0x%016PRIx64.**

Problem Description: The Generation number in the client's object handle does not match the Generation number in the object record. They must match.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1219   **Directory permissions inadequate.**

Problem Description: The client does not have sufficient directory permissions to perform the requested operation.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1220   **File permissions inadequate.**

Problem Description: The permissions needed to access this object are inadequate.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1221   **ReadDir state list is too long. Current length: %d Max: %d.**

Problem Description: The number of concurrent ReadDirs is higher than the Core Server expects.
System Action: The trace message is logged and the Core Server continues.
Administrator Action: None

CORE1223   **A directory must be supplied to ReadDir. Not Type 0x%02x, %s.**

Problem Description: The client attempted to read entries from an object other than a directory. This just won't work.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1224   **Entering %s. Request from UID %PRIu32 RealmId %PRIu32. FilesetId %s, ObjId %s.**

Problem Description: This message announces the entry into one of the Core Server's fileset manipulation APIs: ns_DeleteFileset, ns_GetFilesetAttrs, or ns_SetFilesetAttrs.
System Action: The event is logged and the Core Server continues.
Administrator Action: None

CORE1225   **Rename to already existing file.**

Problem Description: An attempt was made to rename an object to a name that already exists.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1226   **Requested rename would create orphan.**

Problem Description: The requested rename, if carried out, would disconnect (orphan) a portion of the directory subtree.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1227   **Same directory, but different generation numbers.**

Problem Description: The client is attempting to rename an object leaving it in the same directory. However, the object handles to the old and new directories, while having the same ObjectId, have different Generation numbers. This is an error.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1229   **Error %d returned by ns_CheckACLs which was called from ns_AuthCheck.**

Problem Description: The Core Server is attempting to perform an authorization check and has received an error from ns_CheckACLs.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1231 **Unknown type (%d) encountered in ACL entry associated with record %PRIu64.**

Problem Description: While processing ACLs an unknown ACL "type" was encountered in the ns_CheckACL function in the indicated object record.
System Action: The Core Server sets its state to MAJOR and continues.
Administrator Action: None

CORE1232 **Error %PRId32 was returned from %s.**

Problem Description: This is a very general error message that has been used in a multitude of places in the Core Server.
System Action: The error is logged and depending on the error, the Core Server may either continue or it may halt.
Administrator Action: None

CORE1233 **%s got an HPSS_EEXIST error. Attempting to delete the existing Text record.**

Problem Description: The Core Server attempted to write a Text record, but discovered that a Text record of this type already exists. This message is to log the fact that this occurred.
System Action: The Core Server logs the event and continues.
Administrator Action: No action is necessary.

CORE1234 **Asked to delete non-existent ACL(s) entries from record %lu.**

Problem Description: A list of ACLs to be deleted was passed to the Core Server. At least one of these ACLs does not exist in the Core Server's database.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1235 **Illegal ACL perms (0x%02x) were detected in ACL entry of type %d.**

Problem Description: While updating ACLs the Core Server ensures that the client-supplied ACL permissions are valid. Apparently invalid permissions were detected.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1237   **The FilesetHandle for Junctions must be of type Directory.**

Problem Description: When creating a junction, an object handle known as the SubTreeHandle must be supplied. The Type of this SubTreeHandle must be of type Directory. Apparently this client's SubTreeHandle is of the wrong type.
System Action: The Core Server logs the error and continues.
Administrator Action: None

CORE1238   **Junction and Fileset objects can only be created, deleted, and updated by the Root user. Not %PRIu32.**

Problem Description: Junction and fileset objects can only be created, deleted, and updated by the root user or a trusted user with Write permission. Apparently this user did not have sufficient permission.
System Action: The error is logged and the Core Server continues.
Administrator Action: None

CORE1239   **Delete option %d was requested, but object type was %d.**

Problem Description: The ns_Delete API has an OptionFlags parameter that controls the behavior of the delete. Apparently this client set OptionFlags to a value that conflicts with the object being deleted.
System Action: The Core Server logs the error and continues.
Administrator Action: None

CORE1240   **Illegal Delete option %d was detected.**

Problem Description: The ns_Delete API has an OptionFlags parameter that controls the behavior of the delete. Apparently this user has set this OptionFlags parameter to an illegal value.
System Action: The Core Server logs the error and continues.
Administrator Action: None

CORE1242   **The UUID in the Core Server object handle does not match the Core Server's UUID.**

Problem Description: The Core Server verifies that the UUID in all object handles is the correct UUID. It has discovered one that isn't.

System Action: If the Core Server discovers a bad UUID in a client-supplied object handle, it merely logs the event and continues. However, if it discovers a bad UUID in its FilesetAttrs file, it halts.

Administrator Action: If the Core Server has halted, it may be necessary to find and repair the bad UUID in the FilesetAttrs file. Restart the Core Server if appropriate.

CORE1244   **An attempt was made to set the read-only field %s.**

Problem Description: Certain Object record fields are read-only. An attempt was made to set one of these fields.

System Action: The error is logged and the Core Server continues.

Administrator Action: None

CORE1245   **Addition of this object would cause the LinkCount field to overflow.**

Problem Description: The link count field is only 16-bits wide. Addition of this object would cause this field to overflow.

System Action: The event is logged and the Core Server continues.

Administrator Action: None

CORE1246   **Illegal Option 0x%08x was passed to %s.**

Problem Description: Certain Core Server APIs have an Option or OptionFlags parameter. Apparently the client supplied an illegal Option or OptionFlags value to the indicated function.

System Action: The Core Server logs the error and continue.

Administrator Action: None

CORE1247   **PathName too long while processing %s error: %d.**

Problem Description: While attempting to parse a client's input PathName the Core Server has encountered an error. When certain of these errors occur, the Core Server attempts to return the RemainingPath. However, it has discovered that the PathName is now too long to fit into the RemainingPath data structure. This can happen when PathNames contain symbolic links.

System Action: The Core Server logs the error and continues.

Administrator Action: None

CORE1250   **An attempt was made to delete the root fileset at location %d.**

Problem Description: The client has attempted to delete the root fileset. This is the only fileset that cannot be deleted.
System Action: The Core Server logs the event and continues.
Administrator Action: None

CORE1251   **%s cannot be NULL.**

Problem Description: Certain parameters cannot be NULL or empty. For example, if asking for output attributes, the parameter that will hold these attributes cannot be set to NULL. In addition, if making a fileset, the input fileset name cannot be empty.
System Action: The Core Server logs the event and continues.
Administrator Action: None

CORE1252   **%s mismatch from %s.**

Problem Description: There are several APIs which allow both a fileset handle and a FilesetId to be supplied. In these cases the Core Server ensures that the fileset handle and the FilesetId both point to the same fileset. In addition, during initialization the Core Server compares the handle to the root fileset found in the FilesetAttrs file against the "real" fileset root handle. If they don't compare, the above message results.
System Action: If the error is detected while comparing client-supplied fileset handles and FilesetIds, the Core Server logs the error and continues. However, if the error is detected during initialization, the Core Server halts.
Administrator Action: If the Core Server halts, it may be necessary to repair the bad FilesetAttrs field. The **nsde** tool can be used to make such repairs.

CORE1253   **The %s is/are required in the Input Attributes.**

Problem Description: Certain parameters are required when performing certain Core Server API functions. Apparently one or more of these parameters were omitted when the indicated function was requested.
System Action: The Core Server logs the error and continues.
Administrator Action: None

CORE1254   **String %s cannot be empty.**

Problem Description: When moving an object into the trash, the object's name and its parent name are expected to be non-empty. Any other usage is a violation of this function's conditions.
System Action: The rename into the trash fails, the Core Server logs the error and continues.
Administrator Action: Contact HPSS support.

CORE1256   **Unable to locate %s Cache entry that should be present.**

Problem Description: An internal consistency check has failed. The Core Server has searched its fileset cache for an entry that it thinks should be in the cache, but has not been able to find it.
System Action: In one case, the Core Server sets its state to SUSPECT and in another case it sets its state to MAJOR. In both cases, the Core Server logs the event and continues.
Administrator Action: None

CORE1257   **Error %d attempting to add Fileset to Cache.**

Problem Description: The Core Server attempted to add a new fileset entry to its cache, but suffered an error.
System Action: If this error is encountered during initialization, the Core Server halts. Otherwise the Core Server logs the error and continues.
Administrator Action: None

CORE1258   **Changing Fileset's %s from %PRIu32 to %PRIu32 in Fileset %PRIu64 with name %s.**
Changing Fileset's %s from 0x%PRIx32 to 0x%PRIx32 in Fileset %PRIu64 with name %s.

Problem Description: Whenever any fileset attributes are changed, the Core Server announces these changes. This is such an announcement.
System Action: The event is logged and the Core Server continues.
Administrator Action: None

CORE1259   **An attempt was made to delete the root directory.**

Problem Description: The Core Server received a client request to delete the root fileset. The root fileset cannot be deleted.
System Action: The Core Server logs the error and continues.
Administrator Action: None

CORE1260   **An attempt was made to set unsupported %s.**

Problem Description: The client attempted to set fileset StateFlag bits that are not supported.
System Action: The Core Server logs the error and continues.
Administrator Action: None

CORE1261   **Only a Trusted user can change the EntryId or RealmId fields in the USER_OBJ: ACL.EntryId=%PRIu32,   Obj.UID=%PRIu32, ACL.RealmId=%PRIu32, Obj.RealmId=%PRIu32, ObjectId=%PRIu64.**

Problem Description: An attempt was made to change the UID or RealmId fields of the USER_OBJ ACL entry. Only root is allowed to make such a change. All of the particulars of the attempt are in the log message.
System Action: The Core Server logs the error and continues.
Administrator Action: None

CORE1262   **Both the FilesetHandle and the FilesetId were NULL.**

Problem Description: A client is attempting to either delete a fileset, get fileset attributes, or set fileset attributes. When performing these operations the Core Server requires that the client supply a FilesetHandle or a FilesetId. Apparently the client supplied neither.
System Action: The Core Server logs the error and continues.
Administrator Action: None

CORE1266   **Attempting to change %s fileset name *%s* or FilesetId %lu to fileset name *%s* or FilesetId %lu.**

Problem Description: The client is attempting to change either the FilesetId, the fileset name, or both. This is an informative message announcing this attempt.
System Action: The Core Server logs the event and continues.
Administrator Action: None

CORE1267   **WARNING: %s is out of range (%d). Fixed.**

Problem Description: The Core Server keeps statistics on its fileset cache usage. If any of these statistics ever wander out of range, the Core Server fixes them. This message announces that such a statistic was found and fixed.
System Action: The Core Server logs the event and continues.
Administrator Action: None

CORE1270 **Error %PRId32 from hpss_uuid_to_string.**

Problem Description: An attempt was made to change a GatewayUUID in the indicated fileset. However, the Core Server could not decipher the GatewayUUID it found in its cache.
System Action: The Core Server logs the error and continues.
Administrator Action: It may be necessary to restart the Core Server.

CORE1271 **The HowMany parameter is zero.**

Problem Description: The ns_ReadFilesetAttrs, ns_ReadGlobalFilesets, and ns_ReadJunctionPathNames APIs all have a HowMany parameter. The HowMany parameter tells the Core Server how many entries are to be returned to the client. This parameter was detected to be zero.
System Action: The Core Server logs the error and continues.
Administrator Action: None

CORE1272 **The Fileset is marked DESTROYED and cannot be accessed. IntendedOp: 0x%08x, Perms: 0x%08x.**

Problem Description: The FilesetAttrs StateFlags for this fileset have the Destroyed bit on. A fileset whose StateFlags have the Destroyed bit on can only be accessed by very powerful users.
System Action: The Core Server logs the event and continues.
Administrator Action: None

CORE1273 **The Fileset permissions do not allow %s. From %s.**

Problem Description: An attempt was made to access a fileset whose FilesetAttrs StateFlags indicate that such access is not permitted. The FilesetAttrs StateFlags have bits which indicate Read permission, Write permission, and a Destroyed state. The client has apparently run afoul of these access bits.
System Action: The Core Server logs the error and continues.
Administrator Action: It may be necessary to change the access allowed by the StateFlags. The SSM can be used for this purpose.

CORE1276 **Attempt to set the FilesetName failed because the new name was too long.**

Problem Description: An attempt was made to change the fileset name, but the character length of the new name was longer than NS_FS_MAX_FS_NAME_LENGTH characters.
System Action: The Core Server logs the error and continues.
Administrator Action: None

CORE1278   **The random number generator won't generate non-zero numbers.**

Problem Description: The Core Server puts a nonzero random number into the GenerationNumber field of all object handles. It tests each number produced by the random number generator to ensure that zero is not used. If a zero is returned, the Core Server will retry 10 times to get a nonzero number. Apparently 10 consecutive zeros were returned.
System Action: The Core Server halts.
Administrator Action: Verify that the operating system is functioning properly. Restart the Core Server.

CORE1283   **Found %s entry in FS cache table. %s error. FSId=%PRIu64, ObjectId=%PRIu64.**

Problem Description: The Core Server was asked to add a fileset entry to its cache, but discovered that an entry with this same FilesetId already exists in the cache.
System Action: The Core Server logs the error and continues.
Administrator Action: None

CORE1285   **The %s was negative in the cached copy of Fileset %lu. The cached copy was corrected.**

Problem Description: For each type of object in a fileset, the Core Server maintains a Count in the FilesetAttrs record associated with that fileset. If any of the Counts in any of these filesets becomes negative, the Core Server sets this count to zero and logs this message.
System Action: The Core Server logs the error and continues.
Administrator Action: None

CORE1286   **The %s must be supplied in the %s when creating %s.**

Problem Description: When creating a fileset, the UID and GID must be supplied in the InAttrs parameter. Apparently one or the other or both were missing.
System Action: The Core Server logs the error and continues.
Administrator Action: None

CORE1289   **Couldn't find fileset %lu while trying to restore it.**

Problem Description: The Core Server was attempting to copy a fileset cache entry, but the fileset cache entry could no longer be found in the cache. This was unexpected.
System Action: The Core Server logs the event and continues.
Administrator Action: None

CORE1290   **Fileset cache entry not found in cache after seeing it in there.**

Problem Description: The Core Server was attempting to fetch a copy of a fileset cache entry, but could not find the entry after seeing it just a short time before. This was unexpected.
System Action: The Core Server logs the event and continues.
Administrator Action: None

CORE1295   **Couldn't find fileset %lu in the cache.**

Problem Description: The Core Server is attempting to update the Count fields in the cached copy of one of the FilesetAttrs records. However, it cannot find the record in the cache.
System Action: We log this interesting incident and continue.
Administrator Action: None

CORE1296   **Consistency   check   failure: Case=%PRIu32,   SourceL=%PRId32, SinkL=%PRIi32.**

Problem Description: When copying fileset cache fields there are two major cases and with these two major cases there are several sub-cases. Apparently we have encountered a case that is not covered by the existing code.
System Action: We attempt to log all of the relevant information and then the Core Server halts.
Administrator Action: Record the information and then restart the Core Server.

CORE1298   **Attempt to create %s by non-root/non-privileged client %PRIu32.**

Problem Description: Only the root user or a trusted user with write permission can create filesets or junctions.
System Action: The Core Server logs the event and continues.
Administrator Action: None

CORE1300   **Fileset record whose root object is at ObjectId %lu could not be found.**

Problem Description: The Core Server is searching for a fileset cache entry, but cannot find it in the cache. In this particular case, the Core Server is trying to find the entry by ObjectId.
System Action: The Core Server sets its operational state to SUSPECT, logs the event, and continues.
Administrator Action: None

CORE1301   **Attempt to link file in FS %lu to dir %lu in FS %lu.**

Problem Description: An attempt was made to create a link to a file in a fileset different from the one containing the file. This is not allowed.
System Action: The Core Server logs the error and continues.
Administrator Action: None

CORE1311   **Error %PRId32 from %s %s FS %s (%PRIu64).**

Problem Description: The Core Server is initializing. During this initialization process the Core Server has encountered an error while reading a FilesetAttrs record or while creating a GlobalFileset record.
System Action: The Core Server halts.
Administrator Action: Ensure that Db2 is functioning properly and then restart the Core Server.

CORE1315   **The FilesetCache was reloaded on %s.**

Problem Description: The Core Server has been asked to reload the fileset cache. This is a somewhat unusual request and so, it is worthy of logging.
System Action: The Core Server logs the event and continues.
Administrator Action: None

CORE1316   **An attempt was made to rename an object into a different fileset.**

Problem Description: Core Server objects can only be renamed within the same fileset. Apparently a client attempted to rename an object located in one fileset into some other fileset.
System Action: The Core Server logs the event and continues.
Administrator Action: None

CORE1317 **Consistency check failure. ObjRecord %lu is supposed to be a Junction.**

Problem Description: The Core Server is attempting to read all of the junction objects from the database. It examines each object as it is read. It has discovered an object that is not a junction. This should be impossible.
System Action: The Core Server halts.
Administrator Action: Contact HPSS support, providing this and any related log messages. Restart the Core Server.

CORE1321 **An invalid FilesetId (%lu) was passed to %s.**

Problem Description: The Core Server has been asked to change the root FilesetId, but the new FilesetId does not have the upper bit (in a 64-bit word) turned on.
System Action: The Core Server logs the error and continues.
Administrator Action: None

CORE1324 **Bad %s parameter(s) supplied to %s where %s = *%s*.**

Problem Description: The Core Server is about to modify either the fileset name or the FilesetId (or both) and is consistency checking the input parameters. Apparently one or more of them are NULL.
System Action: The Core Server halts.
Administrator Action: Restart the Core Server.

CORE1327 **An attempt was made to set the FamilyId.**

Problem Description: The FamilyId can only be set at object creation time. The Core Server has detected an attempt to set it in an existing object. This cannot be done.
System Action: The Core Server logs the error and continues.
Administrator Action: None

CORE1329 **Access denied:**

Problem Description: For all client requests, the Core Server checks the object access permissions to determine if the client has sufficient permission to perform the operation. Apparently this client did not have sufficient permission. The Core Server attempts to write a very detailed log entry with the hope that this log entry will help to determine the exact reason that access was denied to this client.
System Action: The Core Server logs the error and continues.
Administrator Action: None

CORE1336　**An attempt was made to add an UNAUTHENTICATED mask entry. These entries are obsolete.**

Problem Description: The client-supplied ACL to either ns_SetACL or ns_UpdateACL contained an Unauthenticated mask entry. Unauthenticated mask entries are obsolete.
System Action: The Core Server logs the event and continues.
Administrator Action: None

CORE1338　**A PathName parameter must be supplied when creating an object.**

Problem Description: Whenever any Core Server object is created, a PathName must be supplied. Apparently someone forgot this rule.
System Action: The name Server logs the event and continues.
Administrator Action: None

CORE1339　**PathName parameters must be supplied when renaming an object.**

Problem Description: When renaming an object both the old and new pathnames must be supplied. Apparently one or the other or both were not supplied.
System Action: The Core Server logs the event and continues.
Administrator Action: None

CORE1340　**User with UID %PRIu32 attempted to modify fileset %s which does not have the write bit on in the StateFlags.**

Problem Description: An attempt is being made to modify a ReadOnly fileset. Only the root user is allowed to do this.
System Action: The Core Server logs the event and continues.
Administrator Action: None

CORE1341　**An attempt was made to delete the root node of the fileset (ObjectId %lu) through the ns_Delete interface. This is not allowed. Use ns_DeleteFileset.**

Problem Description: The ns_Delete API cannot be used to delete the root nodes of filesets. Use ns_DeleteFileset instead.
System Action: The Core Server logs the event and continues.
Administrator Action: None

CORE1343   **The ACL attached to object record %lu is damaged. %s is missing.**

Problem Description: Every Initial Container and Initial Object ACL is supposed to contain a UserObj, GroupObj, and OtherObj ACL entry. Apparently the indicated ACL is missing at least one of these required ACL entries.
System Action: The Core Server sets its operational state to MAJOR, logs the event, and then continues.
Administrator Action: It would be interesting to look at the Initial Container and Initial Object ACLs on the indicated Object record to see if the required entries are indeed missing. If any are missing, the ACL should be repaired or recreated.

CORE1344   **ACL entries cannot be attached to object record %lu of type %d.**

Problem Description: A client has attempted to fetch or update ACL entries on an object of a type that does not support ACL entries.
System Action: The Core Server logs the event and continues.
Administrator Action: None

CORE1346   **Illegal ACLType value (0x%08x).**

Problem Description: There are three ACL types: Initial Container, Initial Object, and Object. It should be impossible to get any other type. Apparently the impossible has happened.
System Action: In some case the Core Server halts and in other cases it does not.
Administrator Action: Collect any related log messages and contact HPSS support. If the Core Server has halted, restart it.

CORE1348   **An attempt was made to delete %s ACLs, but ObjRecord %lu does not have any.**

Problem Description: An attempt was made to delete either an Initial Container ACL or an Initial Object ACL from the indicated Object record, but that Object record does not have an ACL of that kind.
System Action: The Core Server logs the event and continues.
Administrator Action: None

CORE1349 **An attempt was made to delete a NEEDED MaskObj from ObjRecord %lu.**

Problem Description: When an ACL contains certain ACL entries, a MaskObj ACL entry must also be added to the ACL. Anyone attempting to delete a MaskObj from an ACL that requires a MaskObj will receive the above error.
System Action: The Core Server logs the event and continues.
Administrator Action: None

CORE1350 **Added a MaskObj to ACL of type %d in ObjRecord %lu. It was missing.**

Problem Description: The Core Server is processing an ns_DeleteACL request on either an Initial Container or an Initial Object ACL and has reached the point where it is about to write the resulting ACL back to disk. However, before it writes the ACL, the Core Server examines the MaskObj ACL entry. It has discovered that this ACL requires a MaskObj, but doesn't have one. It is correcting this deficiency.
System Action: The Core Server logs the event and continues.
Administrator Action: None

CORE1351 **Illegal MaskObj calculation option (0x%08x) was passed to %s.**

Problem Description: The calculation of the MaskObj is controlled by three options: HPSS_ACL_DON'T_CALC_MASK, HPSS_ACL_CALC_MASK_IGNORE_ERRORS, and HPSS_ACL_PURGE_MASKED_PERMS. Only one of these options can be used at one time. Apparently someone tried to use more than one.
System Action: The Core Server logs the event and continues.
Administrator Action: None

CORE1352 **The supplied ACL entry does not match an existing ACL entry, but contains LEAVE_EXISTING type constants. ObjRecord %lu.**

Problem Description: The Core Server has received a request to update either an Initial Container or an Initial Object ACL. However, the client's input ACL contains an entry that does not match any of the existing entries. In addition, this input ACL entry contains one of the LEAVE_EXISTING constants. This ACL entry cannot be added to any ACL.
System Action: The Core Server logs the event and continues.
Administrator Action: None

CORE1353　　**Sanity check failure- an ACL was empty when it should never be. ACLType %PRIu32. ObjRecord %lu.**

Problem Description: The Core Server is attempting to update either an Initial Container or an Initial Object ACL. While attempting to find the end of an ACL, one of its internal pointers is discovered to be NULL.
System Action: The Core Server halts.
Administrator Action: Restart the Core Server. Examine the indicated ACL attached to the indicated Object record. The tools magic and nsde can be used to perform this examination.

CORE1355　　**While attempting to create an object of type %d, the %s entry from the parent dir %lu Initial Creation ACL was not found. This ACL should be repaired.**

Problem Description: The Core Server was attempting to create an object in a Directory that has either an Initial Container ACL or an Initial Object ACL. While building the new Object ACL from one of these Initial Creation ACLs, the Core Server discovered that the Initial Creation ACL did not contain either the UserObj, GroupObj, or the OtherObj ACL entries.
System Action: The Core Server logs the event, sets its state to SUSPECT, and continues.
Administrator Action: Examine the indicated ACL and attempt to make any needed repairs. The tools magic and nsde can be used to make these repairs.

CORE1359　　**A bad ObjectType (%d) was passed to %s.**

Problem Description: The Core Server has the following basic object types: directories, files, symbolic links, junctions, and hard links. A type other than one of these types has been discovered in an Object record.
System Action: The Core Server halts.
Administrator Action: Restart the Core Server.

CORE1362　　**An attempt was made to get SymLink data from an object that isn't a SymLink.**

Problem Description: A client is requesting that symbolic link data be returned from an object that is not a symbolic link.
System Action: The Core Server logs the event and continues.
Administrator Action: None

CORE1363   **Both the ObjectId and the BitfileId were %s in the call to %s.**

Problem Description: The PathName Cache entries are indexed by BitfileId and by ObjectId. A request to build a PathName may contain either a BitfileId or an ObjectId. It cannot contain both. A request was received that contained NULL for both of these parameters, or it contained non-NULL values for both of these parameters. Either case is illegal.
System Action: The Core Server halts.
Administrator Action: Contact HPSS support, providing this and any related log messages. Restart the Core Server.

CORE1364   **Received error %PRId32 from %s. FirstTime = %PRIu32.**

Problem Description: The Core Server is attempting to read a PathName Cache entry from disk to its cache, but has received an error.
System Action: In one case the Core Server halts, but in another case it continues.
Administrator Action: Ensure that Db2 is running correctly. Restart the Core Server as appropriate.

CORE1365   **Consistency check failure. Should never have reached this point.**

Problem Description: The Core Server is attempting to determine the 'order' of some ACL entries and is using a 'switch' statement to examine the ACL entry type field. It should be impossible to fall out of the switch statement.
System Action: The Core Server logs an alarm message and halts.
Administrator Action: Collect any relevant log messages and contact HPSS support. Restart the Core Server.

CORE2001   **Internal software error,**

Problem Description: An unexpected situation occurred in the BFS component of the Core Server. This situation usually indicates an HPSS software problem.
System Action: Often the Core Server crashes.
Administrator Action: Restart the server and contact HPSS support.

CORE2002   **Attempt to convert bad bitfile handle,**

Problem Description: A bitfile handle passed to the Bitfile Service is invalid.
System Action: An error is returned to the client and the Core Server continues.
Administrator Action: This is likely a client error. If the problem persists, attempt to investigate it. It may be necessary to contact HPSS support.

CORE2003   **Close call failed in connection shutdown UID %u GID %u**

Problem Description: A call to bfs_Close has failed while attempting to disconnect from a client.
System Action: This message, which includes the uid and gid of the file for which the close failed, is logged and processing continues.
Administrator Action: If the problem persists, attempt to investigate it. It may be necessary to contact HPSS support.

CORE2004   **Begin session to Storage Service failed**

Problem Description: A call to the BeginSession routine in the Storage Service component of the Core Server has failed.
System Action: The associated operation fails, an error is returned to the client, and a message is logged.
Administrator Action: If the problem persists, attempt to investigate it. It may be necessary to contact HPSS support.

CORE2005   **Bitfile striping is not yet implemented**

Problem Description: An invalid HPSS IOD indicating an attempt to stripe a transfer across multiple bitfiles was received. This is an unsupported capability. HPSS-provided clients do not use this.
System Action: Reject the request with HPSS_EINVAL error.
Administrator Action: Check for locally developed clients that are attempting to perform this type of operation.

CORE2006   **Initialization error. The call to hpss_Getenv failed to find environment variable %s.**

Problem Description: During initialization, the BFS attempted to retrieve a value from an environment variable, but the environment variable was empty.
System Action: The error is logged, and the Core Server halts.
Administrator Action: Ensure that the indicated environment variable is properly initialized, and then restart the Core Server.

CORE2007   **Elements of stripe are inconsistent**

Problem Description: An invalid HPSS IOD was received with an badly formed stripe address.
System Action: Reject the request with HPSS_EINVAL.
Administrator Action: This is a client error. This error should not occur in clients that have been provided by HPSS. Check for locally developed clients that are behaving improperly.

CORE2008   **Different files addressed, processed**

Problem Description: An invalid HPSS IOD was received with more than one bitfile addressed in the IOD.
System Action: Reject the request with HPSS_EINVAL.
Administrator Action: This is a client error. This error should not occur in clients that have been provided by HPSS. Check for locally developed clients that are behaving improperly.

CORE2009   **Only SSEG_ADDRESS allowed, this layer**

Problem Description: An invalid HPSS IOD was detected by the BFS component of the Core Server.
System Action: Reject the request with HPSS_EINVAL.
Administrator Action: This is a client error. This error should not occur in clients that have been provided by HPSS. Check for locally developed clients that are behaving improperly.

CORE2010   **Stripe address type is wrong type**

Problem Description: An invalid HPSS IOD was detected by the Core Server. This IOD contains an invalid type for the stripe address.
System Action: The request is rejected with an HPSS_EINVAL error.
Administrator Action: This is a client error. This error should not occur in clients that have been provided by HPSS. Check for locally developed clients that are behaving improperly.

CORE2011   **IOD LFT (Uid, Gid or RealmId) does not match user credentials**

Problem Description: An IOD associated with a local type file operation was received and the user identification information does not match the user's authenticated credentials.
System Action: Reject the request with HPSS_EPERM.
Administrator Action: None

CORE2012	**Only striped, network, LFT or shared memory addresses allowed**

Problem Description: An invalid HPSS IOD specifying a non-supported network address type was received.
System Action: Reject the request with HPSS_EINVAL.
Administrator Action: This is a client error. This error should not occur in clients that have been provided by HPSS. Check for locally developed clients that are behaving improperly.

CORE2013	**BFS tracing:**

Problem Description: There is no problem. This is a general trace message from the BFS component of the Core Server.
System Action: Log this error message.
Administrator Action: None

CORE2014	**Error processing storage segment unlink record**

Problem Description: A metadata operation that is processing a record in the DISKSEGUNLINK, TAPESEGUNLINK, or OBJSTORUNLINK tables failed.
System Action: The associated operation will be terminated with an error and the message is logged.
Administrator Action: Ensure that Db2 is operating correctly. If the problem persists, it may be necessary to contact HPSS support.

CORE2015	**Failure scheduling operation**

Problem Description: ENOENT errors were detected while attempting to unlink HPSS storage segments. This should happen infrequently, but can occur occasionally. The Core Server automatically recovers from this error.
System Action: The event is logged.
Administrator Action: If the error occurs frequently, it may warrant contacting HPSS support.

CORE2016	**End session call to Storage Service failed**

Problem Description: An attempt to end a session with the Storage Service component of the Core Server failed.
System Action: The associated operation terminates and the message is logged.
Administrator Action: Attempt to investigate the problem. If the problem persists, contact HPSS support.

CORE2017   **Error in processing migration record table**

Problem Description: A metadata error occurred while processing the BFMIGRREC table.
System Action: Terminate the associated operation and log this message.
Administrator Action: Attempt to investigate the problem. If the problem persists, contact HPSS support.

CORE2018   **Error in processing purge record table**

Problem Description: A metadata error occurred while processing the BFPURGEREC table.
System Action: Terminate the associated operation and Log this error message.
Administrator Action: Attempt to investigate the problem. If the problem persists, contact HPSS support.

CORE2019   **BFS open call failed**

Problem Description: A call to the bfs_Open routine in the Core Server failed.
System Action: The operation is terminated and the message is logged.
Administrator Action: Investigate the specific error code and contact HPSS support if needed.

CORE2020   **BFS close call failed**

Problem Description: A call to the bfs_Close routine in the Core Server failed.
System Action: The operation is terminated and the message is logged.
Administrator Action: Investigate the specific error code and contact HPSS support if needed.

CORE2021   **Error in UUID hash call, status = %d**

Problem Description: The uuid_hash function failed while attempting to hash an HPSS-provided SOID.
System Action: The message is logged and, depending on the situation, the Core Server may terminate.
Administrator Action: Restart the Core Server if it has crashed. If the problem persists, contact HPSS support.

CORE2022   **Socket creation (socket) failed, %s**

Problem Description: An attempt to create a UNIX network socket failed.

System Action: The associated operation is terminated and the message is logged.

Administrator Action: Examine the specific error code to determine the nature of the problem. If needed, contact HPSS support.

CORE2023   **Setting of socket option (setsockopt) failed**

Problem Description: An attempt to set options on a UNIX network socket failed.

System Action: The associated operation is terminated and the message is logged.

Administrator Action: Examine the specific error code to determine the nature of the problem. If needed, contact HPSS support.

CORE2024   **Socket connection request failed,**

Problem Description: An attempt to connect to a UNIX network socket failed.

System Action: The associated operation is terminated and the message is logged.

Administrator Action: Examine the specific error code to determine the nature of the problem. If needed, contact HPSS support.

CORE2025   **Writing data to socket failed**

Problem Description: Writing data to a UNIX network socket failed.

System Action: The associated operation is terminated and the message is logged.

Administrator Action: Examine the specific error code to determine the nature of the problem. If needed, contact HPSS support.

CORE2026   **No cache block for bitfile**

Problem Description: A search of the internal bitfile cache for a cache block for a bitfile failed.

System Action: Log this error message and terminate the Core Server.

Administrator Action: Restart the Core Server. This error indicates a software error in HPSS. Contact HPSS support.

CORE2027   **Open context allocate failed, max bitfiles open**

Problem Description: The maximum number of bitfiles is open, and a client is attempting to open another one.
System Action: The open request terminates with an error.
Administrator Action: Consider increasing the max open bitfiles parameter for the Core Server. This problem can also be caused by locally written client routines that inappropriately leave bitfiles open.

CORE2028   **Open context list is corrupted**

Problem Description: The open context list in the Core Server is corrupted.
System Action: A message is logged and Core Server terminates.
Administrator Action: This indicates an HPSS software problem. Restart the Core Server and contact HPSS support.

CORE2029   **BF handle on wrong connection, contact HPSS support, caller=%s**

Problem Description: While attempting to close a bitfile, the Core Server detected that the bitfile being closed is not open on the connection passed by the client.
System Action: Log a warning.
Administrator Action: This could be a problem in an HPSS client. If the problem persists, contact HPSS support.

CORE2030   **Read bitfile descriptor metadata error**

Problem Description: A metadata error occurred when reading a record from the BITFILE table.
System Action: The client request terminates and an error is returned.
Administrator Action: Examine the specific error code to determine the nature of the problem. If needed, contact HPSS support.

CORE2031   **Exclusive lock on bitfile failed**

Problem Description: An attempt to get an exclusive lock on a bitfile has failed.
System Action: This message is logged and the operation terminates.
Administrator Action: This error could very well be caused by an HPSS software problem. Contact HPSS support.

CORE2032   **Find bitfile cache failed**

Problem Description: An attempt to locate an entry in the bitfile cache failed.
System Action: Log this message and terminate the client request.
Administrator Action: This error could very well be caused by an HPSS software problem. Contact HPSS support.

CORE2033   **Error searching hierarchy table, id=%d**

Problem Description: An error occurred while searching for an entry in the internal BFS hierarchy table.
System Action: Log this message and terminate the client request.
Administrator Action: This could be caused by an invalid configuration. Look for a COS that points to a non-existent hierarchy and, if such a COS is found, correct the configuration. Otherwise contact HPSS support.

CORE2034   **Error searching sclass table, id=%d**

Problem Description: An error occurred searching for an entry in the internal BFS storage class table.
System Action: This error message is sent to the log and the operation terminates.
Administrator Action: This could be caused by an invalid configuration. Look for a hierarchy that points to a non-existent storage class and, if such a hierarchy is found, and correct the configuration. Otherwise contact HPSS support.

CORE2035   **Invalid bitfile handle**

Problem Description: An attempt to convert a user provided bitfile handle into a Core Serverinternal open context block has failed.
System Action: This error message is sent to the log and the associated operation terminates.
Administrator Action: This is probably caused by a user error. If the problem persists, check for problems with any locally developed clients.

CORE2036   **Storage segment get attributes call failed**

Problem Description: An attempt to get the attributes of a storage segment has failed in the Core Server.
System Action: Send this error message to the log and terminate the operation.
Administrator Action: Look through the log for specific error codes and contact HPSS support if needed.

CORE2037   **Virtual volume get attributes call failed**

Problem Description: An attempt to get virtual volume attributes in the Core Server failed.

System Action: Send this error message to the log and terminate the operation.

Administrator Action: Look through the log for specific error codes and contact HPSS support if needed.

CORE2038   **Invalid info in sclass table, class_id=%d**

Problem Description: This message is generated when the storage class type field is not disk or tape.

System Action: This error message is sent to the log and the Core Server terminates.

Administrator Action: This should not occur as long as standard HPSS facilities are being used to configure your storage classes. If error occurs, correct the bad configuration.

CORE2039   **Set current position not allowed**

Problem Description: A client is attempting to set the current position with a call to bfs_BitfileSetAttrs. This is not allowed.

System Action: The request terminates with the error HPSS_EINVAL.

Administrator Action: None

CORE2040   **Preallocate not allowed:**

Problem Description: An invalid prealloc call on a file is being attempted. Either the file is not open or the file is not stored in a hierarchy with disk as the top level.

System Action: Return HPSS_EINVAL to the caller.

Administrator Action: None

CORE2041   **BFS debug =**

Problem Description: Generic debug message. No problem.

System Action: Log this error message.

Administrator Action: None

CORE2042   **Bitfile set attributes call failed**

Problem Description: A bitfile set attrs call to the BFS component of the Core Server failed.
System Action: Log message and terminate the associated operation.
Administrator Action: Examine the specific error code to determine cause of problem and contact HPSS support if needed.

CORE2043   **Update bitfile descriptor metadata failed**

Problem Description: An attempt to update a record in the BITFILE table failed.
System Action: Log this message and terminate the associated operation.
Administrator Action: Examine the specific error code to determine the cause of the problem and contact HPSS support if needed.

CORE2044   **Failed to reload segment cache during transaction abort recovery**

Problem Description: The Core Server attempted to reload an entry into its segment cache, but the attempt failed.
System Action: Log this error message and terminate the Core Server.
Administrator Action: Attempt to examine the specific error code to determine cause of problem and contact HPSS support if needed.

CORE2045   **Failure in deleting COS change record**

Problem Description: The Core Server attempted to delete a record from the BFCOSCHANGE table. The attempt failed.
System Action: Log this error message and terminate the associated operation.
Administrator Action: Examine the error code to determine the cause of the failure and contact HPSS support if necessary.

CORE2046   **Max file size exceeds that allowed by COS %d**

Problem Description: An attempt was made to store a file that exceeds the maximum file size allowed by a COS.
System Action: This error message is logged and an error is returned to the user.
Administrator Action: None

CORE2047   **Failure in creating a COS change record**

Problem Description: An attempt to add a record to the BFCOSCHANGE table failed.
System Action: Log this message and terminate the associated operation.
Administrator Action: Examine the specific error code for the cause of the failure and contact HPSS support if needed.

CORE2048   **Space allocation during write operation failed, sclass=%d**

Problem Description: An out of storage space condition was encountered while attempting a write operation.
System Action: Log this error message and return HPSS_ENOSPACE to caller.
Administrator Action: Add more storage space to the storage class or adjust the migration and purge policies associated with the storage class.

CORE2049   **General bitfile diskmap operation failure**

Problem Description: A failure occurred while attempting to process one or more records in the BFDISKMAP table.
System Action: Log this error message and terminate the associated operation.
Administrator Action: Examine the specific error code for the cause of the problem and contact HPSS support if needed.

CORE2050   **Error in processing segment chkpt**

Problem Description: An error occurred while processing one or more records in the BFSSEGCHKPT table.
System Action: Log this error message and terminate the associated operation.
Administrator Action: Examine the specific error code for the cause of the problem and contact HPSS support if needed.

CORE2051   **Call to set storage segment attributes failed**

Problem Description: Either a call to set segment attributes, or a call to re-attach tape segments has failed. If the error is HPSS_ENOENT, something is seriously wrong, such as the metadata being inconsistent.
System Action: Log this error message and terminate the associated operation.
Administrator Action: Examine the specific error code to determine the cause of the failure and contact HPSS support if needed. If error is HPSS_ENOENT, definitely contact HPSS support.

CORE2052   **Truncation of bitfile failed**

Problem Description: The call to the Core Server routine that truncates bitfiles failed.
System Action: Log this error message and terminate the associated operation.
Administrator Action: This is possibly an HPSS software error. Contact HPSS support.

CORE2053   **Call to bfs_OpenFile to open a file failed**

Problem Description: A call to bfs_Open in the Core Server failed.
System Action: Log this error message and terminate the associated operation.
Administrator Action: This is possibly an HPSS software error. Contact HPSS support.

CORE2054   **Call to delete storage segments failed**

Problem Description: An attempt by the Core Server to delete storage segments has failed.
System Action: Log this error message and terminate the associated operation.
Administrator Action: This is possibly an HPSS software error. Contact HPSS support.

CORE2055   **Delete bitfile descriptor failed**

Problem Description: An attempt to delete a record from the BITFILE table failed.
System Action: Log this error message and terminate the associated operation.
Administrator Action: Examine the specific error code to determine cause of the error and contact HPSS support if needed.

CORE2056   **Add bitfile segment to metadata error**

Problem Description: An attempt to add a record to the BFTAPESEG, BFDISKSEG, BFOBJSTORSEG, or BFSSUNLINK table failed.
System Action: Log this error message and terminate the associated operation.
Administrator Action: Examine the specific error code to determine the cause of the error and contact HPSS support if needed.

CORE2057   **Delete bitfile segment from metadata error**

Problem Description: Attempt to delete a record from the BFTAPESEG, BFDISKSEG, or BFOBJSTORSEG table failed.
System Action: Log this error message and terminate the associated operation.
Administrator Action: Examine the specific error code to determine the cause of the error and contact HPSS support if needed.

CORE2058   **Update bitfile segment metadata error**

Problem Description: An attempt to update a record in the BFTAPESEG, BFDISKSEG, BFOBJSTORSEG, or BFDISKALLOCREC table failed.
System Action: Log this error message and terminate the associated operation.
Administrator Action: Examine the specific error code to determine the cause of the error and contact HPSS support if needed.

CORE2059   **Error in updating I/O statistics during close**

Problem Description: An error occurred trying to read or write the I/O statistics during a Core Server close operation.
System Action: Log this error message and terminate the associated operation.
Administrator Action: Examine the specific error code to determine the cause of the error and contact HPSS support if needed.

CORE2060   **Error in updating purge record**

Problem Description: An attempt to update a record in the BFPURGEREC table has failed.
System Action: Log this error message and terminate the associated operation.
Administrator Action: Examine the specific error code to determine the cause of the error and contact HPSS support if needed.

CORE2061   **Bad request type for copy: %d**

Problem Description: An invalid request type was received by the bfs_CopyData routine in the Core Server.
System Action: Log this error message and terminate the associated operation.
Administrator Action: This indicates an HPSS software problem. Contact HPSS support.

CORE2062   **Sink side passive in tape to tape copy**

Problem Description: This is a software error in HPSS. The 'source' side should have been 'passive'.
System Action: Log this error message and terminate the Core Server.
Administrator Action: This is an HPSS software problem. Contact HPSS support.

CORE2063   **Passive side of copy received error**

Problem Description: The passive side of a copy file operation in the Core Server received an error.
System Action: Log this error message and terminate the copy operation.
Administrator Action: Examine the specific error code to determine the cause of the failure and contact HPSS support if needed.

CORE2064   **Active side of copy operation failed**

Problem Description: The active side of a Core Server copy file operation received an error.
System Action: Log this error message and terminate the copy operation.
Administrator Action: Examine the specific error code to determine the cause of the failure and contact HPSS support if needed.

CORE2065   **Gap found in copy request**

Problem Description: The descriptors provided to the bfs_Copydata function are in error and do not map the file correctly.
System Action: Log this error message and terminate the Core Server.
Administrator Action: This is an HPSS software problem. Contact HPSS support.

CORE2066   **Non-null source/sink list in mover reply**

Problem Description: An incorrect reply has been received from the mover on a Core Server copy operation. The source/sink list should be NULL. The reply should come back in the request specific area of the IOR.
System Action: Log this error message and terminate the Core Server.
Administrator Action: This is an HPSS software problem. Contact HPSS support.

CORE2067   **Null request specific reply in mover reply**

Problem Description: The IOR reply from the mover does not have the request information in the request specific area.
System Action: Log this error message and terminate the Core Server.
Administrator Action: This is an HPSS software error. Contact HPSS support.

CORE2068   **Invalid request specific reply type: %d**

Problem Description: The IOR reply from the mover contains an invalid type. The only acceptable type is REPLY_LISTENLIST.
System Action: Log this error message and terminate the Core Server.
Administrator Action: This is an HPSS software error. Contact HPSS support.

CORE2069   **Null address list in mover reply**

Problem Description: The network address list in the mover reply is NULL.
System Action: Log this error message and terminate the Core Server.
Administrator Action: This is an HPSS software error. Contact HPSS support.

CORE2070   **Invalid stripe address list length: %d**

Problem Description: The count of srcsink descriptors in the address list received on a mover reply in a copy operation is invalid.
System Action: Log this error message and terminate the Core Server.
Administrator Action: This is an HPSS software error. Contact HPSS support.

CORE2071   **Invalid address type: %d**

Problem Description: The address type returned in the srcsink descriptor in a reply from the mover on a copy operation is invalid.
System Action: Log this error message and terminate the Core Server.
Administrator Action: This is an HPSS software error. Contact HPSS support.

CORE2072   **Wait on read sockets (select) failed**

Problem Description: The socket *select* operation used to collect replies from movers during a copy operation has failed.
System Action: Log this error message and terminate the copy operation.
Administrator Action: Examine the specific error code for the cause of the failure and contact HPSS support if needed.

CORE2073   **Accept of connection (accept) failed, %s**

Problem Description: A socket *accept* call used to accept connections from movers during a copy operation has failed.
System Action: Log this error message and terminate the copy operation.
Administrator Action: Examine the specific error code for the cause of the failure and contact HPSS support if needed.

CORE2074   **Could not find offset in mover replies, offset = %d.%d**

Problem Description: The next expected offset in the set of mover replies during a copy operation was not found.
System Action: Log this error message and terminate the operation.
Administrator Action: This is an HPSS software error. Contact HPSS support.

CORE2075   **Socket address assignment (bind) failed, %s**

Problem Description: A *bind* call used to assign addressing information to a socket during a copy operation has failed.
System Action: Log this error message and terminate the copy operation.
Administrator Action: Examine the specific error code for the cause of the failure and contact HPSS support if needed.

CORE2076   **Listen for connections (listen) failed, %s**

Problem Description: The *listen* call used to start listening for mover connections during a copy operation has failed.
System Action: Log this error message and terminate the copy operation.
Administrator Action: Examine the specific error code for the cause of the failure and contact HPSS support if needed.

CORE2077   **Determination of socket address (getsockname) failed, %s**

Problem Description: The call to *getsockname* which is used to get peer addressing information during a copy operation has failed.
System Action: Log this error message and terminate the copy operation.
Administrator Action: Examine the specific error code for the cause of the failure and contact HPSS support if needed.

CORE2078   **Truncate on open failed**

Problem Description: A Core Server attempt to truncate a file has failed.
System Action: Log this error message and terminate the operation.
Administrator Action: Examine the specific error code for the cause of the failure and contact HPSS support if needed.

CORE2079   **Data copy operation failed during %s**

Problem Description: The data copy operation of the indicated operation has failed.
System Action: Log this error message and terminate the associated operation.
Administrator Action: Examine the specific error code for the cause of the failure and contact HPSS support if needed.

CORE2080   **Required access ticket not provided**

Problem Description: A required request access token from the Name Service component of the Core Server was not provided.
System Action: Log this error message and terminate the associated operation.
Administrator Action: This is an HPSS software error. Contact HPSS support.

CORE2081   **Call to build a new bitfile descriptor failed (UserId=%u, RealmId=%u)**

Problem Description: A failure occurred while attempting to create a new bitfile descriptor.
System Action: Log this error message and terminate the associated operation.
Administrator Action: Examine the specific error code for the cause of the failure and contact HPSS support if needed.

CORE2082   **Create new bitfile metadata record failed**

Problem Description: An attempt to add a record to the BITFILE table failed.
System Action: Log this error message and terminate the associated operation.
Administrator Action: Examine the specific error code for the cause of the failure and contact HPSS support if needed.

CORE2083   **Read bitfile segments by bitfile error**

Problem Description: An attempt to read in the bitfile segments from the BFDISKSEG or BFTAPESEG tables has failed.
System Action: Log this error message and terminate the associated operation.
Administrator Action: Examine the specific error code for the cause of the failure and contact HPSS support if needed.

CORE2084   **Error in caching in bitfile disk maps**

Problem Description: An attempt to read in the bitfile disk maps from the BFDISKMAP table failed.
System Action: Log this error message and terminate the associated operation.
Administrator Action: Examine the specific error code for the cause of the failure and contact HPSS support if needed.

CORE2085   **Failure in creating a bitfile disk map**

Problem Description: An attempt to add a record to the BFDISKALLOCREC table failed.
System Action: Log this error message and terminate the associated operation.
Administrator Action: Examine the specific error code for the cause of the failure and contact HPSS support if needed.

CORE2086   **Failure in updating a bitfile disk map**

Problem Description: An attempt to update a record in the BFDISKMAP table failed.
System Action: Log this error message and terminate the associated operation.
Administrator Action: Examine the specific error code for the cause of the failure and contact HPSS support if needed.

CORE2087   **Failure in deleting a bitfile disk map**

Problem Description: An attempt to delete a record from the BFDISKMAP table failed.
System Action: Log this error message and terminate the associated operation.
Administrator Action: Examine the specific error code for the cause of the failure and contact HPSS support if needed.

CORE2088   **Failure in setting up connection to Gatekeeper**

Problem Description: The call to connect to the Gatekeeper has failed.
System Action: This error message is logged and the Core Server terminates.
Administrator Action: Restart the Core Server. Examine the specific error code for the cause of the failure and contact HPSS support if needed.

CORE2089   **Gatekeeper call %s failed**

Problem Description: A call to a Gatekeeper function has failed.
System Action: Log this error message indicating the failure.
Administrator Action: Examine the specific error code for the cause of the failure and contact HPSS support if needed.

CORE2090   **Attempt to unlock without holding lock**

Problem Description: An attempt to unlock a Core Server lock was attempted by a thread that did not hold the lock.
System Action: Log this error message and terminate the Core Server.
Administrator Action: This is an HPSS software problem. Contact HPSS support. Restart the Core Server.

CORE2091   **Bad unlock, invalid thread state**

Problem Description: A request to drop a an exclusive lock on a bitfile by a thread that did not hold the lock has been detected.
System Action: Log this error message and terminate the Core Server.
Administrator Action: This is an HPSS software problem. Contact HPSS support. Restart the Core Server.

CORE2092   **Name Service getname call failed**

Problem Description: A request to the Name Service component of the Core Server to generate a pathname from a bitfile ID has failed.
System Action: Log this error message.
Administrator Action: Examine the specific error code for the cause of the failure and contact HPSS support if needed.

CORE2093   **Name Service get fileset attributes call failed**

Problem Description: A request to the Name Service component of the Core Server to generate a fileset name from a fileset ID has failed.
System Action: Log this error message.
Administrator Action: Examine the specific error code for the cause of the failure and contact HPSS support if needed.

CORE2094   **Path=%s, Fileset=%s**

Problem Description: There is no problem. This message is used to put path and file information into the log.
System Action: Log this message.
Administrator Action: None

CORE2095   **Invalid storage segment list specified**

Problem Description: The storage segment list passed to the core_MigrateFile or core_PurgeFile routine is invalid.
System Action: Log this error message and terminate the operation.
Administrator Action: This is an HPSS software problem. Contact HPSS support.

CORE2096   **Invalid storage level specified**

Problem Description: The storage level passed to the core_MigrateFile routine is invalid.
System Action: Log this error message and terminate the migrate.
Administrator Action: This is an HPSS software problem. Contact HPSS support.

CORE2097   **Severe config error, Hierarchy %d has invalid migration list info**

Problem Description: The migration list in the associated hierarchy is invalid.
System Action: Log this error message and terminate the migrate.
Administrator Action: This is a configuration error. It should not happen if standard HPSS mechanisms (SSM) are being used to configure the system. Check the migration list in the indicated hierarchy and make corrections as appropriate.

CORE2098   **Requested storage segment on copy/move not found**

Problem Description: A storage segment does not exist that is the target of a migrate operation. This is merely a warning message and indicates that a prior operation may have already migrated the storage segment and it has been purged. This can occur because the MPS server builds its migration list without taking locks.

System Action: Log the warning and migrate the remainder of the indicated data.

Administrator Action: This should occur rarely. If the message appears frequently, contact HPSS support.

CORE2099   **Call to build bitfile cache failed**

Problem Description: During a Core Server open operation, loading the bitfile cache failed. This would normally be associated with a metadata operation failure.

System Action: Log this error message and terminate the open operation.

Administrator Action: Examine the specific error code for the cause of the failure and contact HPSS support if needed.

CORE2100   **Operation invalid for COS %d, OFlags=%d, ReadOps=%d, WriteOps=%d**

Problem Description: An file operation was attempted that is not allowed by the COS.

System Action: Log this error message and terminate the operation.

Administrator Action: This is a warning message. Ensure that the file open flags are set properly.

CORE2101   **Call to build bitfile open context failed**

Problem Description: During a Core Server open operation, building the internal open context failed.

System Action: Log this error message and terminate the open operation.

Administrator Action: Examine the specific error code for the cause of the failure and contact HPSS support if needed.

CORE2102   **Processing of open options failed**

Problem Description: During open processing, one of the open options (for example, truncate) failed.
System Action: Log this error message and terminate the open operation.
Administrator Action: Examine the specific error code for the cause of the failure and contact HPSS support if needed.

CORE2103   **Allocation of bitfile open context failed**

Problem Description: During open processing, the call to allocate a bitfile open context from the open list has failed.
System Action: Log this error message and terminate the open operation.
Administrator Action: Examine the specific error code for the cause of the failure and contact HPSS support if needed.

CORE2104   **Call to locate bitfile cache entry failed**

Problem Description: A failure occurred while attempting to locate an entry in the bitfile cache during an open operation.
System Action: Log this error message and terminate the open operation.
Administrator Action: None

CORE2105   **Call to initialize bitfile cache failed**

Problem Description: An attempt to load information into the bitfile cache from metadata failed during open file processing.
System Action: Log this error message and terminate the open operation.
Administrator Action: Examine the specific error code for the cause of the failure and contact HPSS support if needed.

CORE2106   **Closing file, not truncating final seg**

Problem Description: This is an informational message issued while a file is being closed. The Core Server determined that the final segment of the file should not be truncated.
System Action: None
Administrator Action: None

CORE2107   **Must open file for write if truncating**

Problem Description: During open processing, a request to truncate a file did not also indicate that the file was to be opened for writing. To perform a truncate, the open options must also include write.
System Action: Log this error message and return error HPSS_ECONFLICT to the client.
Administrator Action: None

CORE2108   **Invalid purge request,**

Problem Description: One or more parameters on a Core Server purge request are invalid.
System Action: Log this error message and return HPSS_EINVAL to client.
Administrator Action: None

CORE2109   **Unable to purge file, BFS_NO_PURGE flag is set**

Problem Description: A Core Server purge operation was requested against a file that has been purge locked.
System Action: Reject the purge request with HPSS_ENOPURGEFGLAG.
Administrator Action: None

CORE2110   **Request rejected, file reached max fragmentation allowed, file %s fileset %s UID %u GID %u User %s Host %s HostAddr %s**

Problem Description: An attempt to write to a file resulted in the file being stored on more than BFS_MAX_BITFILE_SEGMENTS storage segments.
System Action: The write request is terminated.
Administrator Action: This can happen when the size of a file is greater than the storage segment size multiplied by 10,000. This can be the result of a poor COS configuration or it can be the result of a client not providing file size hints when the file is stored. Consider changing the COS configuration to handle this more appropriately and also consider the possibility of forcing the file stores to go to tape when no COS hints are provided.

CORE2111   **Error collecting ss stats**

Problem Description: An error occurred while calling the storage statistics routine provided by the Storage Service component of the Core Server.
System Action: Log this error message and retry later.
Administrator Action: If error is persistent, examine error code to determine the cause of the failure and contact HPSS support if needed.

CORE2112 **Caching of migration policy tables failed**

Problem Description: At Core Server startup time, building the internal cache of migration policies failed.
System Action: Log this error message and terminate the Core Server.
Administrator Action: Examine the specific error code to determine the cause of the failure and contact HPSS support if needed. Restart the Core Server.

CORE2113 **Caching of purge policy tables failed**

Problem Description: At Core Server startup time, building the internal cache of purge policies failed.
System Action: Log this error message and terminate the Core Server.
Administrator Action: Examine the specific error code to determine the cause of the failure and contact HPSS support if needed. Restart the Core Server.

CORE2114 **Stage failed, all retries exhausted for file %s, fileset %s**

Problem Description: An error occurred staging a file. The core server has either reattempted and failed the stage from all valid alternate copies or has determined that there are no valid alternate copies.
System Action: The stage attempt is abandoned.
Administrator Action: This error indicates that a primary tape copy may be damaged and may need recovery processing.

CORE2115 **SS and BFS metadata are inconsistent**

Problem Description: A severe error has been detected that indicates that the Bitfile Service and Storage Service metadata are not in a consistent state for a bitfile.
System Action: Log this error message and terminate the write operation.
Administrator Action: It is highly likely that this is an HPSS software problem. Contact HPSS support.

CORE2116 **Bitfile Server IOR source, bad pointer**

Problem Description: An error was detected while processing the IOR returned from the Storage Service component of the Core Server during write processing.
System Action: Log this error message and terminate the Core Server.
Administrator Action: This is an HPSS software problem. Contact HPSS support. Restart the Core Server.

CORE2117   **Storage Server IOD sink, bad pointer**

Problem Description: An error was detected while processing the IOD that is to be returned to the caller of the Bitfile Service write operation.
System Action: Log this error message and terminate the Core Server.
Administrator Action: This is an HPSS software problem. Contact HPSS support. Restart the Core Server.

CORE2118   **Bitfile Server IOR sink, bad pointer**

Problem Description: An error was detected while processing the IOR that was returned from the Storage Service component of the Core Server during write processing.
System Action: Log this error message and terminate the Core Server.
Administrator Action: This is an HPSS software problem. Contact HPSS support. Restart the Core Server.

CORE2119   **No new segments to build**

Problem Description: A low-level Bitfile Service routine was called to write segments; however, it was discovered that there are no new segments to build. The write operation was an unneeded call. It was asked to write nothing.
System Action: Log a debug message.
Administrator Action: None

CORE2120   **Build overlapped segment error**

Problem Description: The process of building new segments failed during a write operation. This particular error occurred in an area of code where overlapping segments were being combined into a single new segment.
System Action: Log this error message and terminate the write operation.
Administrator Action: Examine the specific error code for the cause of the failure and contact HPSS support if needed.

CORE2121   **No IOD was built for Storage Server**

Problem Description: An error returned by bfs_WriteTapeBldSSIOD in function bfs_WriteTape. The Bitfile Service was attempting to build the IOD to be passed to the Storage Service.
System Action: Log this error message and terminate the write operation.
Administrator Action: Examine the specific error code for the cause of the failure and contact HPSS support if needed.

CORE2122   **Bitfile Server IOR source, bad pointer**

Problem Description: An error was detected while processing the IOR returned from the Storage Service component of the Core Server during write processing.
System Action: Log this error message and terminate the Core Server.
Administrator Action: This is an HPSS software problem. Contact HPSS support. Restart the Core Server.

CORE2123   **Max files in a tape aggregate was set to %lu from environment variable HPSS_MAX_FILES_IN_AGGR**

Problem Description: The maximum number of files allowed in a tape aggregate has been set to the value found in environment variable HPSS_MAX_FILES_IN_AGGR.
System Action: Log this informative message and continue.
Administrator Action: This is an informative message telling us that the maximum number of files allowed in a tape aggregate was set to the value found in environment variable HPSS_MAX_FILES_IN_AGGR.

CORE2124   **System crashed to prevent orphaning a storage segment**

Problem Description: During a tape write operation, a metadata error occurred while updating a Core Server checkpoint record to indicate that the specified storage segment is not to be deleted. Failure to make this update can result in orphaning the storage segment so, to prevent this, the server is terminated.
System Action: Log this error message and terminate the Core Server.
Administrator Action: Restart the Core Server. Also examine the specific error code to determine the cause of the prior failure. Contact HPSS support if needed.

CORE2125   **Check current write segment failed**

Problem Description: A call to the Storage Service component to determine if the current tape storage segment for a tape write operation is still writable has failed.
System Action: Log this error message and terminate the write operation.
Administrator Action: Examine the specific error code for the cause of the failure and contact HPSS support if needed.

CORE2126   **Find Append Segment for write failed**

Problem Description: During a tape operation, a failure occurred while examining existing tape storage segments to see if one of them could be selected and more data written at the end.
System Action: Log this error message and terminate the write operation.
Administrator Action: Examine the specific error code for the cause of the failure and contact HPSS support if needed.

CORE2127   **Call to Storage Service start tape seg copy function failed**

Problem Description: The call to the start mount function of the Storage Service component of the Core Server has failed.
System Action: Log this error message and terminate the associated operation.
Administrator Action: Examine the specific error code for the cause of the failure and contact HPSS support if needed.

CORE2128   **Error reading cos change record**

Problem Description: An error occurred trying to read a record from the BFCOSCHANGE table.
System Action: Log this error message and terminate the associated operation.
Administrator Action: Examine the specific error code for the cause of the failure and contact HPSS support if needed.

CORE2129   **Invalid HPSS COS specified, id = %d**

Problem Description: A user attempted to create a bitfile in a non-existent COS, or a storage class could not be found.
System Action: Log this error message and terminate the associated operation.
Administrator Action: None

CORE2130   **BFS create bitfile call failed**

Problem Description: A call to bfs_Create has failed in function bfs_ChangeCOSThread.
System Action: Log this error message and terminate the create operation.
Administrator Action: Examine the specific error code for the cause of the failure and contact HPSS support if needed.

CORE2131 **COS change delayed due to space limitations: Path=%s, Fileset=%s, target COS=%d**

Problem Description: Changing the COS of the specified file was delayed due to a space warning threshold condition in the storage class associated with the COS targeted for the change.
System Action: Delay COS change and retry later.
Administrator Action: If desired, add space or change the warning threshold for the target storage classes.

CORE2132 **Diskmap max size is not a power of two multiple of the min size**

Problem Description: The rule is that the diskmap maximum size must always be a power of two multiple of the minimum size. However, it appears that the Core Server has encountered a case where this rule is not being followed. This is a warning message to inform the administrator that this condition exists and that it should be corrected.
System Action: The Core Server continues.
Administrator Action: Collect the relevant log information and fix the problem. Contact HPSS support it needed.

CORE2133 **Environment variable %s is bad or its value is out of range**

Problem Description: The indicated environment variable is either syntactically bad or its value is out of range. This is bad.
System Action: The Core Server crashes.
Administrator Action: Fix the indicated environment variable. These environment variables are often found in /var/hpss/etc/env.conf.

CORE2134 **BFS unlink call failed**

Problem Description: An error occurred when the Core Server attempted to unlink a bitfile.
System Action: Log this error message and terminate the unlink operation.
Administrator Action: Examine the specific error code for the cause of the failure and contact HPSS support if needed.

CORE2135   **Error in processing acct summary file**

Problem Description: An error occurred while processing one or more records in the ACCTSUM table.
System Action: Log this error message and terminate the associated operation.
Administrator Action: Examine the specific error code for the cause of the failure and contact HPSS support if needed.

CORE2136   **Error in processing acct log file**

Problem Description: An error occurred while processing one or more records in the ACCTLOG table.
System Action: Log this error message and terminate the associated operation.
Administrator Action: Examine the specific error code for the cause of the failure and contact HPSS support if needed.

CORE2137   **Open files on connection shutdown, UID %u GID %u User %s Host %s HostAddr %s**

Problem Description: Just a warning. Indicates that a client operation is terminating without closing all open files.
System Action: Log warning message.
Administrator Action: In most cases, none. If this is seen often, it could indicate a poorly written local client that is not properly closing files.

CORE2138   **Failure in updating COS change record**

Problem Description: An error occurred while updating a record in the BFCOSCHANGE table.
System Action: Log this error message and terminate the associated operation.
Administrator Action: Examine the specific error code for the cause of the failure and contact HPSS support if needed.

CORE2139   **dropped COS change request after %d retries**

Problem Description: Repeated attempts to change the COS of a bitfile have failed and the COS change request for this file is being dropped. The number of retries is configurable and this message indicates that the indicated retry limit has been reached.
System Action: This is an informative warning message.
Administrator Action: Examine the specific error code to determine why the COS change for the bitfile is failing and initiate another COS change request for the bitfile after the problem has been resolved.

CORE2140   **SIGUSR1 signal, turning on empty COS change file**

Problem Description: This is an event message. It indicates that the admin has sent the Core Server a SIGUSR1 signal. This signal toggles the empty COS flag in the Core Server. In this case, the flag has been turned on and all COS change records will be deleted from the COS change file. The default behavior at core startup time is to not delete COS change records.
System Action: Log this error message.
Administrator Action: None

CORE2141   **SIGUSR1 signal, turning off empty COS change file**

Problem Description: This is an event message. It indicates that the admin has sent the Core Server a SIGUSR1 signal. This toggles the empty COS flag in the Core Server. In this case, the flag has been turned off and COS changes are performed.
System Action: Log this error message.
Administrator Action: None. Informatory message.

CORE2142   **Read retry cancelled; data has been modified; retry level %d no longer valid for file %s, fileset %s**

Problem Description: The Core Server attempted to read a file, but the data was inaccessible, so it identified an alternate level of the hierarchy from which to retry the read. But before it could begin the retry, it discovered that the file had been modified at the top of the hierarchy, so the alternate level was no longer valid. (It would be hard for this to happen. If the media at the top of the hierarchy is inaccessible for the read, how could anybody write to it? But just in case.)
System Action: Give up on the read.
Administrator Action: Determine the inaccessible volume from DEBUG level messages in the log file and take action to repair it or recover the data from it.

CORE2143   **Retrying read from level %d for file %s in fileset %s**

Problem Description: A read has failed and the core server is retrying the read from an alternate level of the hierarchy.
System Action: The Core Server will retry the read from the specified alternate level.
Administrator Action: Determine the inaccessible volume from DEBUG level messages in the log file and take action to repair it or recover the data from it.

CORE2144	**Invalid session provided by caller**

Problem Description: The caller has supplied an invalid session pointer.
System Action: This message is logged, the operation is terminated, and an error is returned to the client.
Administrator Action: None

CORE2145	**Error in sending response via callback, IP addr = %s, port = %s**

Problem Description: The Core Server is attempting to make a socket connection to the callback address, but has received an error while trying to do so. This log message contains the address and port number we are attempting to connect to.
System Action: The Core Server returns an error and continues.
Administrator Action: If the problem persists, check for any network problems. MPS Force Migrate uses callbacks for batch staging; so, if this occurs during a recover operation, the recover operation may need to be restarted.

CORE2146	**Error %d truncating final segment of file to size %PRIu64**

Problem Description: The Core Server is in the process of closing a file. In order to save disk space, it is attempting to truncate the final segment of the file to the smallest valid segment size which will still hold the actual data written in the segment. This truncation effort has failed.
System Action: It depends on just how the effort failed. If the Core Server was unable to truncate the segment at all, it just keeps the former size and keeps going. If the segment was truncated but then the attempt to write the new segment size to the disk map metadata in the BfDiskAllocRec table failed, then the enclosing transaction is aborted, which results in the segment keeping its old size after all, and as a side effect, means some I/O statistics which were being updated in the same transaction do not get updated after all. However, the Core Server keeps going and finishes closing the file.
Administrator Action: Examine the specific error code for the cause of the failure and contact HPSS support if needed.

CORE2147	**Closing file, truncating final seg to 0x%PRIx64**

Problem Description: This is an informational message issued while a file is being closed. The Core Server will attempt to truncate the final segment of the file before the close to the indicated size.
System Action: None.
Administrator Action: None

CORE2148   **Error %d extending final segment of file to size %PRIu64**

Problem Description: An application has attempted to write to or beyond the last segment of a file, or to extend the size of a file, and the last segment of the file had previously been truncated to save disk space. The Core Server is attempting to expand the segment to its normal size before proceeding with the write or file extension. The expansion attempt failed.

System Action: The Core Server will abort the transaction and the write or file extension will fail. The Core Server cannot allow the write or size extension unless the segment can first be expanded.

Administrator Action: Examine the specific error code for the cause of the failure and contact HPSS support if needed.

CORE2149   **Disk volume %s was not mounted for tape aggregation**

Problem Description: Batch migration noticed that a file it needed to read was located on a source disk that was not mounted. This should be rare. It may occur during system startup if MPS starts a batch migration, but not all of the disks are mounted.

System Action: The file is temporarily skipped. If it is skipped several times it will be migrated separately, outside of a batch.

Administrator Action: If this occurs consistently after the Core Server has been running for a while determine the status of the disk volume. Contact HPSS support if needed.

CORE2150   **Too many EOMs for a single tape aggregation batch**

Problem Description: While writing a tape aggregate, EOM was received several times, for several different cartridges. Since aggregates are not allowed to span tapes, this may occur if several tapes are nearly full and the aggregate is bigger than the free space available on any single tape. This should be fairly rare.

System Action: The aggregate is not written. The files are temporarily skipped and will be migrated later.

Administrator Action: If this occurs more than once, ensure that tape aggregation is not creating very large aggregates by inspecting the Disk Migration policy. If it is, lower the total aggregate size and force MPS to reread the policy. If this error continues to occur, contact HPSS support.

CORE2151   **Failed to release batch session**

Problem Description: After a batch migration operation completed, a batch session could not be released. This should not occur.
System Action: The session is abandoned and the Core Server continues normally.
Administrator Action: If there are other Core Server errors displayed at approximately the same time, investigate those further. If this error continues to occur, contact HPSS support with the error code.

CORE2152   **Batch migration I/O queue inactivity timeout reached for storage class %d**

Problem Description: A batch migration session has already migrated some files to a tape drive it has reserved. It expected to receive more files to migrate in a timely manner but did not. This usually indicates that batch migration candidates are not being sent quickly enough from MPS to the Core Server to keep a tape drive reasonably busy. It may also indicate that there is a resource contention issue in the Core Server.
System Action: The allocated tape drive is freed up so that other activities may use it. The Core Server will continue to wait for more files to migrate. If it receives more files, it will request another tape drive and continue. Note that releasing and re-acquiring the drive will impact batch migration performance.
Administrator Action: Ensure there are no communication issues between MPS and the Core Server and that the Core Server is not having resource contention issues. One way to check this is to examine *Alarms and Events* and the logs. Contact HPSS support if neither of these can be determined and this error continues to occur.

CORE2153   **Min segment size is greater than max segment size for storage class %d**

Problem Description: The indicated storage class configuration defines a minimum segment size which is greater than the maximum segment size. This is an invalid configuration which should not have been allowed if the storage class configuration were created and maintained using SSM.
System Action: None
Administrator Action: Correct the configuration of the indicated storage class.

CORE2154 **Max segment size is not a power of two multiple of min segment size for storage class %d; actual max size will be less than what is configured**

Problem Description: The maximum segment size in the indicated storage class configuration is not a power of two multiple of the minimum segment size. This configuration was valid under releases of HPSS prior to 7.1 but is invalid under 7.1.

System Action: The Core Server will not honor the actual maximum segment size configured for the storage class. Instead, the maximum segment size used will be the greatest power of two multiple of the minimum segment size which is less than the configured maximum segment size.

Administrator Action: Correct the configuration of the indicated storage class.

CORE2156 **List of batch migration candidates is invalid**

Problem Description: The batch migration code was passed an empty list of files to be migrated.

System Action: Abandon the migration attempt.

Administrator Action: Contact HPSS support. This is likely a programming error.

CORE2157 **Batch session invalid. It is not a migration session.**

Problem Description: The session passed to the batch migration function is not marked to be used for batch migration.

System Action: Abandon the migration attempt.

Administrator Action: Contact HPSS support. This is likely a programming error.

CORE2158 **Stage retry not attempted: COS not configured for auto stage retry, file %s, fileset %s**

Problem Description: A stage has failed but the Core Server will not attempt to retry the stage from another level because the Class of Service is not configured to auto stage retry.

System Action: None

Administrator Action: None, unless auto stage retry is desired, in which case modify the configuration of the indicated class of service.

CORE2159   **Retrying stage from level %d for file %s, fileset %s**

Problem Description: A stage has failed and the Core Server will attempt to retry the stage from the specified level of the hierarchy.
System Action: The Core Server will retry the stage.
Administrator Action: Determine the inaccessible volume from DEBUG level messages in the log file and take action to repair it or recover the data from it.

CORE2160   **Read failed, all retries exhausted for file %s, fileset %s**

Problem Description: A read has failed and the Core Server has attempted to retry the read from an alternate level of the hierarchy. Either no eligible alternate levels were identified, or if any were identified, the read attempts from them also failed.
System Action: The Core Server will give up on the read.
Administrator Action: Determine the inaccessible volume from DEBUG level messages in the log file and take action to repair it or recover the data from it.

CORE2161   **Read retry not attempted: COS not configured for auto read retry, file %s, fileset %s**

Problem Description: A read has failed but the Core Server will not attempt to retry the read from another level because the Class of Service is not configured to auto read retry.
System Action: The Core Server will give up on the read.
Administrator Action: None, unless auto read retry is desired, in which case modify the configuration of the indicated Class of Service.

CORE2162   **Level %d is not a valid retry candidate because its migration policy is not configured for Migrate Files (TAPE_COPIES)**

Problem Description: A read has failed and the Core Server is attempting to identify an eligible alternate level of the hierarchy from which to retry the read. The specified level is not eligible because the migration policy of the storage class there does "Migrate Volumes" instead of "Migrate Files".
System Action: The Core Server will not use the specified level for a retry.
Administrator Action: None, unless the migration policy of the storage class at the specified level was configured this way unintentionally, in which case modify the policy.

CORE2163   **Cannot clear all disk segments**

Problem Description: The core server was requested to clear all of the disk segments of a file and was unable to do so.
System Action: Abandon the clear attempt.
Administrator Action: Contact HPSS support. This is likely a programming error.

CORE2164   **There is no connection Data in the connection context**

Problem Description: The core server information is missing from the connection context. This is probably just because the client dropped the connection prematurely.
System Action: Abandon the operation.
Administrator Action: None

CORE2165   **There is no connection BFS_data in the connection context**

Problem Description: The BFS-specific portion of the core server information is missing from the connection context. This is probably just because the client dropped the connection prematurely.
System Action: Abandon the operation.
Administrator Action: None

CORE2166   **The connection is in the process of being closed**

Problem Description: The client is trying to close the connection, but the core server had already begun to start a new batch session or to open a file.
System Action: The core server will cancel the process of starting the new batch session or opening the file.
Administrator Action: None

CORE2167   **BFS Connection was not cleaned up properly**

Problem Description: The client dropped the connection and the core server was supposed to close all the open sessions and files, but it was unable to do so.
System Action: None; just issue this alarm and clean up the remainder of the resources used by the connection.
Administrator Action: None

CORE2168   **Stage failed; caller specified FromStorageLevel; not retrying**

Problem Description: A stage failed, but the core server will not retry from an alternate level because the calling function specified the level from which to stage. Only specialized tools like recover may specify the from-stage level, and the core server leaves it to these tools to decide whether to retry the stage from another level.
System Action: Abandon the stage attempt.
Administrator Action: None

CORE2169   **COS change failed: dest total bytes %PRIu64 in COS %d does not match src total bytes %PRIu64 in COS %d for file %s, fileset %s**

Problem Description: A Change Class of Service attempt failed. The failure was detected by determining that the old and new files do not have the same number of bytes.
System Action: Abandon the COS change attempt.
Administrator Action: Examine the HPSS log file for related entries which could explain the failure.

CORE2170   **CopyFile failed: dest total bytes %s does not match src total bytes %s for file %s, fileset %s**

Problem Description: An internal HPSS copy failed. The failure was detected by determining that the old and new files do not have the same number of bytes.
System Action: Abandon the copy attempt.
Administrator Action: Examine the HPSS log file for related entries which could explain the failure.

CORE2171   **Changing COS, file %s, fileset %s, src COS=%d, dest COS=%d, stream_id %d**

Problem Description: The core server is beginning a Change Class of Service operation for the specified file. The COS change request was submitted via the standard hpss_FileSetCOS API, which adds the request to the bfcoschange metadata table and allows the core server optionally to process the requests in parallel streams.
System Action: None; informatory message.
Administrator Action: None

CORE2172   **Changing COS, file %s, fileset %s, src COS=%d, dest COS=%d, client call**

Problem Description: The core server is beginning a Change Class of Service operation for the specified file. The COS Change request was submitted via the core_BitfileChangeCOS API, which processes one change COS request at a time and does not use the bfcoschange metadata table.
System Action: None; informatory message.
Administrator Action: None

CORE2173   **Cannot determine region, path %s fileset %s available info: %s**

Problem Description: The Core Server cannot determine the region in which a requested write should begin.
System Action: Log this error message and abandon the write attempt.
Administrator Action: Contact HPSS support.

CORE2174   **Too many regions, more than %d, path %s fileset %s available info: %s**

Problem Description: The write would create too many regions in the file.
System Action: Log this error message and abandon the write attempt.
Administrator Action: Try to store the file in a COS where the top storage class has a larger segment size or in a COS which uses VLSS allocation so that fewer regions are needed.

CORE2175   **hpss_net_getnameinfo failed: %s**

Problem Description: hpss_net_getnameinfo has failed.
System Action: None
Administrator Action: Contact HPSS support.

CORE2176   **Changing BFID during COS Change rename operation failed**

Problem Description: Failure occurred updating the bitfile metadata with the new identifier as a part of a COS change.
System Action: Abandon the COS change attempt.
Administrator Action: Examine the HPSS log file for related entries which could explain the failure.

CORE2177   **%s bitfile hash record metadata error**

Problem Description: An error occurred trying to insert, update, read, or delete a bitfile hash metadata record.
System Action: The associated operation is terminated and an error is returned to the client.
Administrator Action: Examine the specific error code for the cause of the failure. Contact HPSS support if needed.

CORE2178   **Error invalidating bitfile hash information**

Problem Description: An error occurred trying to invalidate a bitfile hash because the contents of the file has been modified.
System Action: The associated operation is terminated and an error is returned to the client.
Administrator Action: Examine the specific error code for the cause of the failure. Contact HPSS support if needed.

CORE2179   **Cannot %s bitfile hash arguments**

Problem Description: An error occurred trying to encode or decode file hash arguments for network transfer.
System Action: The associated operation is terminated and an error is returned to the client.
Administrator Action: Examine the specific error code for the cause of the failure. Contact HPSS support if needed.

CORE2180   **Failure allocating hash state for migration**

Problem Description: An error occurred trying to allocate a file hash state context.
System Action: The associated operation is terminated and an error is returned to the client.
Administrator Action: Examine the specific error code for the cause of the failure. Contact HPSS support if needed.

CORE2181   **Successfully verified digest for file %s, fileset %s, hash type %s, hash %s**

Problem Description: A hash for the specified file was successfully validated during migration.
System Action: None
Administrator Action: None

CORE2182 **Failure verifying file %s, fileset %s, hash type %s, provided hash %s, generated hash %s**

Problem Description: hpss_net_getnameinfo has failed.
System Action: The associated migration operation is terminated and an error is returned to the client.
Administrator Action: Examine the specific error code for the cause of the failure. Contact HPSS support if needed.

CORE2183 **Failure finalizing bitfile hash**

Problem Description: An error was encountered trying to finalize a hash context.
System Action: The associated migration operation is terminated and an error is returned to the client.
Administrator Action: Examine the specific error code for the cause of the failure. Contact HPSS support if needed.

CORE2184 **Skipping validation on partial file copy, file %s, fileset %s, bytes %lu, copy bytes %lu**

Problem Description: Hash generation or validation for the specified file can not be performed because of a partial data copy or migration.
System Action: None
Administrator Action: None

CORE2185 **Batch request %s is now also %s**

Problem Description: A new batch stage request identifier was created for the specified request identifier.
System Action: None.
Administrator Action: None.

CORE2186 **Skipping %s on striped file copy, file %s, fileset %s, hash type %s, COS %d, dest level %d**

Problem Description: Hash generation or validation for the specified file can not be performed because the destination storage level is a striped tape storage class.
System Action: Migrates the file without file hash generation or validation.
Administrator Action: If the specified COS consists of a striped tape COS, ensure that there is no file hash algorithm defined for the COS. If the COS is correct then a user has set the file hash without specifying the skip flag.

CORE2187   Failure combining contiguous bitfile tape segments. Segment hashes do not match. First segment has segment hash %d, second segment has segment hash %d

Problem Description: None
System Action: None
Administrator Action: None

CORE2188   Media Access : %s begin : BFID x'%s' : %s : %s

Problem Description: None
System Action: None
Administrator Action: None

CORE2189   Media Access : %s end : read {%s} : wrote {%s} : BFID x'%s' : %s : %s : Result %s (%d)

Problem Description: None
System Action: None
Administrator Action: None

CORE2190   Media Access : Read data : {%s} : BFID x'%s' : %s : %s : connection : *%s* : application: *%s* : UID : %PRIu32 : GID : %PRIu32 : COSId: %PRIu32 : Time : %s : Bytes Moved : %PRIu64 : Result %s (%d)
Media Access : Write data : {%s} : BFID x'%s' : %s : %s : connection : *%s* : application: *%s* : UID : %PRIu32 : GID : %PRIu32 : COSId: %PRIu32 : Time : %s : Bytes Moved : %PRIu64 : Result %s (%d)

Problem Description: None
System Action: None
Administrator Action: None

CORE2191   Batch Media Access : %s begin

Problem Description: None
System Action: None
Administrator Action: None

CORE2192   **Batch Media Access : %s end : read {%s} : wrote {%s} : Result %s (%d)**

Problem Description: None
System Action: None
Administrator Action: None

CORE2193   **Failure adding job**

Problem Description: None
System Action: None
Administrator Action: None

CORE2194   **Invalidating bitfile file hash BFID x'%s'**

Problem Description: The BFS is removing a file hash associated with the bitfile. This is logged as an informational message when the system or a user interacts with the bitfile in such a way that causes the hash information to be rendered unusable.
System Action: Deletion of bitfile hash information for the specified bitfile.
Administrator Action: If bitfile hashes are being unexpectedly and undesireably invalidated, investigate user behavior to determine the cause and determine if that behavior can be changed.

CORE2195   **Unable to update bitfile file hash flags**

Problem Description: The BFS was attempting to update the bitfile file hash flags for some bitfile, but could not do so for reasons indicated in the log message.
System Action: System will log a minor alarm. The application writing the bitfile will receive an error on close.
Administrator Action: This is most likely due to either a database issue or software problem. Investigate whether the database environment is having other issues. Contact HPSS support.

CORE2196   **Detected a backseek or truncate during an ongoing file hash, disabling ongoing file hash**

Problem Description: The BFS detected that the current operation against a file being written with an ongoing file hash violated the constraints allowing for hashing operations to continue.

System Action: System will disable ongoing file hashing for the file. The file will not receive a checksum on close.

Administrator Action: If a file hash is desired, investigate the behavior of the application writing data into HPSS. The application must avoid appending to existing files, concurrent write operations or writing prior to the current data length.

CORE2197   **COS %u is configured for file hashing, but file hashing is not supported due to %s**

Problem Description: The BFS detected that the COS configuration does not allow for file hashing to occur during migration. This is an informative message for the administrator.

System Action: No action is taken by the system, this information is logged for informational purposes only.

Administrator Action: File hashing may be disabled to avoid seeing the log message, or else if file hashing is desired then a hierarchy with a storage class configuration that supports file hashing during migration should be used.

CORE2198   **Fewer than 2 files could be written to aggregate**

Problem Description: Fewer than 2 full files were written to a tape aggregate during batch migration. This is usually the result of the tape going to EOM during the migration. The minimum number of files allowed in an aggregate is 2. This is an informative message for the administrator.

System Action: The core server will fail the batch migration and the MPS will later retry migrating all of the requested files.

Administrator Action: No action is necessary.

CORE2199   **A rehome operation was attempted on file %s and may not be complete. It is possible the file was left with no data resident at level 0 disk. The file should be examined and, if necessary, staged manually to disk. After the file is staged, the checkpoint should be removed manually.**

Problem Description: If a rehome file operation fails after the data is copied to the temporary destination file and the original file is purged off level 0, the original file may be left with no data resident at level 0.

System Action: The system will report the error at every restart until the checkpoint is removed.

Administrator Action: The administrator should determine whether the file has data resident at level 0. If not, and if it is desired to have the file resident at level 0, the administrator should stage the file manually. The checkpoint for the file should then be removed manually from the bfssegchkpt table.

CORE2200   **Failed to determine if any data was on tape.**

Problem Description: We could not determine whether there was no data on tape for a stage or read request.

System Action: The request will go through the normal discovery mechanism, rather than being considered disk only.

Administrator Action: No action is necessary.

CORE2201   **Exceeded active IO %d/%d or copy limit %d/%d**

Problem Description: The number of requests in the system has exceeded configured limits.

System Action: The system returns a retryable error to the application. The application may retry the request. However, this may delay operations.

Administrator Action: If this error is logged repeatedly, check the job load on the system for stuck jobs, applications for bad behavior, or

CORE2202   **Purge after migration: BFID x'%s' : %s : %s**

Problem Description: This is an informational message.

System Action: If the return code was 0, the file was purged after migration; otherwise, the purge after migration failed and the reason is shown in parenthesis.

Administrator Action: If the return code was 0, no action is necessary; otherwise, the problem preventing the purge may need to be addressed. The purge will be attempted again according to the configured purge policy.

CORE2203   **Failure building object store key**

Problem Description: A failure occurred trying to generate an object key name.
System Action: The associated migration operation is terminated.
Administrator Action: Examine the specific error code for the cause of the failure. Contact HPSS support if needed.

CORE2204   **Failure building object store metadata**

Problem Description: A failure occurred trying to generate metadata for an object store object.
System Action: The associated migration operation is terminated.
Administrator Action: Examine the specific error code for the cause of the failure. Contact HPSS support if needed.

CORE2205   **Failure restoring archived object store object**

Problem Description: A failure occurred trying to restore an object from at object store archive.
System Action: The associated recall operation is terminated and an error is returned to the client.
Administrator Action: Examine the specific error code for the cause of the failure. Contact HPSS support if needed.

CORE2206   **Object store segment upload %s failure, segment %s**

Problem Description: A failure occurred during an object store upload operation.
System Action: The associated migration operation is terminated.
Administrator Action: Examine the specific error code for the cause of the failure. Contact HPSS support if needed.

CORE2207   **Object store upload check point %s failure, %s**

Problem Description: A failure occurred during an object store upload check point operation.
System Action: The associated migration operation is terminated.
Administrator Action: Examine the specific error code for the cause of the failure. Contact HPSS support if needed.

CORE2208   **Object store account lookup failure, account %PRIu32, sclass %PRIu32**

Problem Description: A failure occurred looking up an object store account mapping for the specified HPSS account and storage class.
System Action: The associated operation is terminated and an error is returned to the client, if possible.
Administrator Action: Examine the specific error code for the cause of the failure. Contact HPSS support if needed.

CORE2209   **Object store segment start upload failure, bitfile %s, offset %PRIu64**

Problem Description: A failure occurred trying to start an object store upload.
System Action: The associated upload operation is terminated.
Administrator Action: Examine the specific error code for the cause of the failure. Contact HPSS support if needed.

CORE2210   **Object store migration post update failure, bitfile %s, offset %PRIu64**

Problem Description: A failure occurred trying to update migration metadata after an object store upload.
System Action: The associated migration operation is terminated.
Administrator Action: Examine the specific error code for the cause of the failure. Contact HPSS support if needed.

CORE2211   **No object store account configured for, account %PRIu32, COS %PRIu32, level %PRIu32**

Problem Description: A failure occurred because there was no configuration located that mapped the specified HPSS account, COS and storage level to an object store account.
System Action: The associated operation is terminated and an error is returned to the client.
Administrator Action: Configure the needed account mapping or ask the user not to use the specified COS. Contact HPSS support if needed.

CORE2212   **Data access to object store is currently prohibited, COS %PRIu32, level %PRIu32**

Problem Description: The access to the object store configured for the specified COS and storage level is currently prohibited.
System Action: The associated operation is terminated and an error is returned to the client.
Administrator Action: Change the associated COS and storage class to allow access. Additional access fee may apply. Consulted your object store provider for details. Contact HPSS support if needed.

CORE3001   **Requested change to tape size is too large for a non-empty tape %s. (TapeSize = %lu; DeltaTapeSize = %lu)**

Problem Description: The requested change in tape size would set the tape size to zero (or less). Yet the tape is not empty.
System Action: The system will not alter the tape size.
Administrator Action: This indicates a bug; please contact HPSS support.

CORE3003   **The specified value for the environment variable %s is invalid. Please define it as a positive integer.**

Problem Description: The specified environment variable contains an invalid value.
System Action: The system will use a default value, if there is one. Otherwise the Core Server will crash.
Administrator Action: Inspect the value of the specified environment variable and ensure it is a positive integer value.

CORE3004   **Error while positioning tape volume %s. Use *lspvhist* to examine the PV History for details.**

Problem Description: An error occurred while a tape drive was positioning the specified tape volume.
System Action: The tape is dismounted and the corresponding I/O job is aborted.
Administrator Action: Use lspvhist to examine the specified volume. If an error other than EOM occurred, consider repacking the tape volume.

CORE3005   **Disk free space maps have been dumped successfully**

Problem Description: This is an informational message.
System Action: None
Administrator Action: None

CORE3006   **Disk space allocation partially successful, wanted %u segments, allocated %u, tried %u disks**

Problem Description: A number of allocation attempts on various HPSS disk VVs failed, likely because not enough contiguous was available. This is an informational message that is emitted when the Core Server's "Log ENOSPACE Details (debug only)" setting is enabled.
System Action: None
Administrator Action: It is recommended to output these detailed disk allocation debugging messages only when investigating a specific allocation problem. Do not run the HPSS system configured to output these log messages during normal operations.

CORE3007   **%lu%% of disk free space has been mapped**

Problem Description: No problem, information only.
System Action: No problem, information only.
Administrator Action: None needed.

CORE3008   **Disk free space map generated for: %s, storage class: %d, extents: %d, free space: %lu, time: %.2f, rate: %.0f**

Problem Description: No problem, information only.
System Action: No problem, information only.
Administrator Action: None needed. This message provides statistics about the generation of a free space map for the named disk virtual volume. It provides the name of the volume, the storage class ID, the number of disk extents that were processed, the amount of free space that was mapped (in bytes), the time consumed to map the volume (in seconds) and the rate the volume was mapped, in extents per second.

CORE3009   **All disk free space maps have been generated**

Problem Description: This is an announcement that the Storage Server's disk free space maps have all been generated.
System Action: The Core Server continues.
Administrator Action: No action is necessary.

CORE3010 **Disk space allocation failed, allocated zero segments, tried %u disks**

Problem Description: A space allocation request couldn't be satisfied by any available disk VVs. This is an informational message that is emitted when the Core Server's "Log ENOSPACE Details (debug only)" setting is enabled.
System Action: None
Administrator Action: It is recommended to output these detailed disk allocation debugging messages only when investigating a specific allocation problem. Do not run the HPSS system configured to output these log messages during normal operations.

CORE3011 **FATAL: Error initializing:**

Problem Description: An initialization procedure for some component has failed. The component name is given in the log message.
System Action: Server halts.
Administrator Action: Check the log for errors logged by the failing initialization procedure. Investigate and correct the problem in the named component. If the problem persists, contact HPSS support.

CORE3012 **FATAL: Inconsistent PV mount list**

Problem Description: A list of mounted PVs is inconsistent. It does not match a list previously processed.
System Action: Server halts.
Administrator Action: Look for and save any core file and restart the Core Server. Contact HPSS support.

CORE3013 **Disk space allocation succeeded, allocated %u segments, but tried %u disks**

Problem Description: Allocation of disk space was successful, but a number of intermediate allocation attempts failed, likely due to not enough contiguous free space on some disk VVs. This is an informational message that is emitted when the Core Server's "Log ENOSPACE Details (debug only)" setting is enabled.
System Action: None
Administrator Action: It is recommended to output these detailed disk allocation debugging messages only when investigating a specific allocation problem. Do not run the HPSS system configured to output these log messages during normal operations.

CORE3014   **Disk space allocation failed on %s**

Problem Description: An intermediate disk allocation attempt failed, likely due to not enough contiguous free space on the specified disk VV. This is an informational message that is emitted when the Core Server's "Log ENOSPACE Details (debug only)" setting is enabled.

System Action: None

Administrator Action: It is recommended to output these detailed disk allocation debugging messages only when investigating a specific allocation problem. Do not run the HPSS system configured to output these log messages during normal operations.

CORE3015   **FATAL: Checksum error in disk free space map**

Problem Description: Each disk free space is kept in the Core Server's memory. Each element of the map is checksummed against accidental corruption. The server has found an element whose checksum does not compare correctly with the element's data.

System Action: Server halts.

Administrator Action: This may be an indication of memory corruption or a logic error. Look for and save any core file and restart. Contact HPSS support.

CORE3016   **Disk space allocation failed, needed %PRIu64 clusters, got %PRIu32 extents**

Problem Description: This is low-level, debug-level information about a failed intermediate disk allocation attempt. This is an informational message that is emitted when the Core Server's "Log ENOSPACE Details (debug only)" setting is enabled.

System Action: None

Administrator Action: It is recommended to output these detailed disk allocation debugging messages only when investigating a specific allocation problem. Do not run the HPSS system configured to output these log messages during normal operations.

CORE3017   **Disk space allocation failed, allocated offset %PRIu64, length %PRIu64**

Problem Description: This is low-level, debug-level information about an intermediate disk allocation attempt that could allocate part of the overall requested disk space. This is an informational message that is emitted when the Core Server's "Log ENOSPACE Details (debug only)" setting is enabled.

System Action: None

Administrator Action: It is recommended to output these detailed disk allocation debugging messages only when investigating a specific allocation problem. Do not run the HPSS system configured to output these log messages during normal operations.

CORE3018   **Disk space allocation failed, needed more extent slots**

Problem Description: An intermediate disk allocation attempt failed due to not enough contiguous space on a disk VV. This is an informational message that is emitted when the Core Server's "Log ENOSPACE Details (debug only)" setting is enabled.

System Action: None

Administrator Action: It is recommended to output these detailed disk allocation debugging messages only when investigating a specific allocation problem. Do not run the HPSS system configured to output these log messages during normal operations.

CORE3019   **Disk space allocation failed, out of space**

Problem Description: This message indicates that a block of disk space that matches the requested size was not available. This is an informational message that is emitted when the Core Server's "Log ENOSPACE Details (debug only)" setting is enabled.

System Action: HPSS attempts to use blocks of smaller sizes to allocate enough space to match the original request. If that fails, it will try alternate disk VVs.

Administrator Action: It is recommended to output these detailed disk allocation debugging messages only when investigating a specific allocation problem. Do not run the HPSS system configured to output these log messages during normal operations.

CORE3020   **FATAL: Cannot remove transaction callback**

Problem Description: An error was returned by MMLIB indicating that a transaction callback function that was expected to have been registered on a transaction, was missing.
System Action: Server halts.
Administrator Action: Contact HPSS support. This error indicates a logic error in the server.

CORE3021   **Disk volume %s cannot be repacked because it is DOWN**

Problem Description: A disk VV set to the DOWN VV condition cannot be read and, thus, cannot be Repacked.
System Action: The repack request will fail.
Administrator Action: Set the specified disk VV to RO, RW, or RWC.

CORE3022   **Disk volume %s cannot be repacked because it is OFFLINE**

Problem Description: A disk VV set to Offline cannot be read and, thus, cannot be repacked.
System Action: The repack request will fail.
Administrator Action: Set the specified disk VV Online.

CORE3023   **Disk volume %s cannot be mounted because it is DOWN**

Problem Description: A disk VV set to the DOWN VV condition cannot be mounted.
System Action: The disk VV will not be mounted and any I/O to the volume will fail.
Administrator Action: Set the specified disk VV to RO, RW, or RWC.

CORE3024   **Disk volume %s cannot be mounted because it is OFFLINE**

Problem Description: A disk VV set to Offline cannot be mounted.
System Action: The disk VV will not be mounted and any I/O to the volume will fail.
Administrator Action: Set the specified disk VV to RO, RW, or RWC.

CORE3025 **Error in metadata:**

Problem Description: An inconsistency has been detected in the Core Server's metadata.
System Action: HPSS_EFAULT is returned and the function fails.
Administrator Action: The variable part of this log message contains information pointing out the nature of the inconsistency. Isolate and correct the metadata failure offline. If the problem persists, contact HPSS support.

CORE3026 **Caller not authorized for this function**

Problem Description: The client's access permission credentials do not match the server's Security ACL.
System Action: HPSS_EPERM is returned to the client.
Administrator Action: Inspect the log for information about the client. Check the client's principal identity and compare to the server's Security object ACL.

CORE3027 **Error returned by %s**

Problem Description: This is a general purpose log message that documents an error reported from a lower level procedure. The failing procedure is named in the log message. The error code returned by the lower level procedure is logged in the message header in most cases.
System Action: An error is returned to the client.
Administrator Action: This is probably the most frequently issued log message from the Core Server. The HPSS log should contain an error message, prior to this message, from a lower level procedure that first detected an error. It should be possible to reconstruct a chain of error returns from the procedure in error through various Core Server procedures until the error is returned to the Core Server client. Error codes may change during this process and will be recorded in the log message headers. Action to be taken is determined by analysis of the original error.

CORE3028 **Disk space maps built, but with errors**

Problem Description: The Core Server is attempting to build its disk space maps, but has encountered an error. This is a message informing everyone that this has occurred. Some of the disks may not be available.
System Action: The Core Server continues.
Administrator Action: This problem must be eventually corrected. If necessary, contact HPSS support.

CORE3029　　**Cannot map disk storage segment space, %s**

Problem Description: The Core Server is attempting to build a disk map and has discovered one of a number of possible inconsistencies-- one of the Ending addresses is less than or equal to one of the starting addresses; the free space calculation underflowed; the segment starting location was less than one; the segment starting and ending locations were equal; the ending location was greater than the number of clusters; or, the segments overlapped.
System Action: The Core Server abandons the attempt to create this disk map, returns an error, and continues.
Administrator Action: This problem is most likely the result of bad metadata and will very likely require intervention. Contact HPSS support.

CORE3030　　**Disk segment extents overlap detected on %s**

Problem Description: The Core Server has detected overlapping assigned space when attempting to create a new disk storage segment.
System Action: The server discards the new segment to prevent any actual overlap of data and issues this alarm. This prevents the error from causing damage to files on disk.
Administrator Action: This problem is most likely the result of bad metadata and will very likely require intervention. Contact HPSS support.

CORE3031　　**Did not return a segment's space to the free space map**

Problem Description: This is not an error. The server is noting a somewhat unusual condition in the log in case it becomes important to some later debugging effort.
System Action: None
Administrator Action: None

CORE3032　　**Offset: %PRIu64, Length: %PRIu64**

Problem Description: This message follows an Alarm that indicates that overlapping disk extents were found in a disk's metadata. This message details the offsets and lengths of the extents involved.
System Action: The server discards the new segment to prevent any actual overlap of data and issues this alarm. This prevents the error from causing damage to files on disk.
Administrator Action: This problem is most likely the result of bad metadata and will very likely require intervention. Contact HPSS support.

CORE3033   **Invalid argument: %s**

Problem Description: This is a general purpose debugging message that documents an invalid argument. The procedure that detected the error is recorded in the log message header. The name of the invalid argument and other information is given in the log message text.
System Action: An error, usually HPSS_EINVAL, is returned to the client.
Administrator Action: None - this is a server debugging message.

CORE3034   **Duplicate entry error detected during create**

Problem Description: This is a general purpose debugging message used when a metadata manager procedure reports a duplicate entry error during a record creation step.
System Action: HPSS_EEXIST is returned to the client.
Administrator Action: This error suggests that the client may be repeating create functions or otherwise confused.

CORE3035   **Invalid address type**

Problem Description: An invalid address type was detected during the initial parsing of an IOD.
System Action: HPSS_EINVAL is returned to the client.
Administrator Action: The client has attempted an I/O operation using an invalid IOD. Check for more log messages associated with this error if necessary.

CORE3036   **Server *execute* flag is not set, server type: *%s*, subsystem ID: *%d***

Problem Description: The specified server is not configured to be executable.
System Action: The Core Server will mark the storage volumes associated with the server Offline. And the I/O job will be aborted.
Administrator Action: Examine the configuration of the specified HPSS server. If appropriate, mark the server as Executable.

CORE3037   **RPC failed:**

Problem Description: An error was returned in the RPC status field of an RPC to another server, usually a PVL.

System Action: In the case of a PVL, the PVL binding is discarded and a new connection is created to the PVL. The server waits indefinitely for the new PVL connection. In the case of SSM, the SSM binding is discarded and messages to SSM are lost until the connection is re-established.

Administrator Action: If the problem repeats, check the status of the PVL. This log message can be expected when the PVL is taken down and brought back up, but should not persist. If the problem persists, contact HPSS support.

CORE3038   **Segment state change blocked**

Problem Description: An attempt to change a storage segment state to allocated was blocked by the state of the associated storage map.

System Action: HPSS_EBUSY is returned to the client.

Administrator Action: None - this is a server debugging message.

CORE3039   **Segment not extendable**

Problem Description: An attempt to change a storage segment state to allocated failed.

System Action: HPSS_EINVAL is returned to the client.

Administrator Action: None - this is a server debugging message.

CORE3040   **Pointer %s is invalid, value: %p**

Problem Description: An attempt was made to create a new storage server session. The server found that one or more of the client's connection context pointers is invalid.

System Action: HPSS_EFAULT is returned to the client.

Administrator Action: This error is very unlikely to appear. If this error is observed, note if it occurs regularly or rarely. Contact HPSS support if this problem is frequent.

CORE3041   **VV elements inconsistent:**

Problem Description: The physical volumes that are to make up a virtual volume are not consistent with each other.

System Action: HPSS_EINVAL is returned to the client.

Administrator Action: If the problem persists, look for the reason the client is specifying inconsistent sets of physical volumes in VV create functions.

CORE3042   **Error creating SOID or UUID**

Problem Description: An error occurred in a library procedure that creates a SOID or UUID.
System Action: HPSS_EFAULT is returned to the client.
Administrator Action: This is an unexpected but recoverable error. Check the log for other indications of problems. If the problem persists, contact HPSS support.

CORE3043   **No space remaining, storage class %d**

Problem Description: An attempt to create a storage segment has failed due to lack of free storage space. This error is also reported if a storage segment owner field is full and an additional owner cannot be added. The associated storage class is given in the message.
System Action: HPSS_ENOSPACE is returned to the client.
Administrator Action: Make free space available to the system.

CORE3044   **Too many bitfile disk allocation recs, n: %u**

Problem Description: More than one bitfile disk allocation row points to the disk storage segment to be moved.
System Action: The disk segment move operation fails with HPSS_ERANGE.
Administrator Action: This is a defect in the BFS metadata. Contact HPSS support.

CORE3045   **Cannot find a suitable VV for tape move segment target, SC: %u, Fam: %u, L: %lu**

Problem Description: During a tape storage segment move operation (tape repack), the server was not able to find a tape virtual volume that could accept the segment.
System Action: HPSS_ENOSPACE is returned to repack.
Administrator Action: Check the supply of unwritten or partially written tape VVs in the indicated storage class. If the "Fam" value is nonzero, then there must be a writable tape in the family and it must not be in use when repack runs, or, there must be unwritten tapes in the storage class.

CORE3046   **Volume not mounted**

Problem Description: An attempt was made to perform I/O on a virtual volume that is not mounted.
System Action: HPSS_ENOMOUNT or HPSS_EPERM is returned to the client.
Administrator Action: Check the log for corresponding messages from the storage segment layer. If the request comes from the storage segment layer, it has made an error; contact HPSS support. If the request comes directly from a client, it is a client error.

CORE3047   **Could not position tape %s while %s**

Problem Description: An error was detected while trying to position a virtual or physical volume.
System Action: An error is returned to the client. The exact error depends on how the positioning operation failed. The error code will be in the log message header.
Administrator Action: Check the log for similar and related errors. This may be an indication of a more serious problem.

CORE3048   **Media addressing error:**

Problem Description: This is a general purpose log message that reports an error in a volume address.
System Action: An error is returned to the client.
Administrator Action: The log message text contains additional information about the error. Check the log for similar and related errors.

CORE3049   **Volume state incorrect for function**

Problem Description: The operational state of a physical volume is not appropriate for the attempted function. For example, an attempt has been made to read a scratched volume.
System Action: An error is returned to the client.
Administrator Action: None - this is a server debugging message.

CORE3050   **Still waiting for PVL job %d to complete**

Problem Description: A PVL mount job is taking too long to complete.
System Action: The server keeps waiting. A user's I/O operation is blocked.
Administrator Action: Investigate the status of the PVL job using the PVL SSM tools.

CORE3051   **Resource not available,**

Problem Description: The requested resource has been made administratively unavailable.

System Action: An error is returned to the client.

Administrator Action: If you want to make the resource available again, change the Admin State of the resource to ST_UNLOCKED.

CORE3052   **Transaction aborted**

Problem Description: A transaction aborted in a function that does not return an error. The abort reason is given in the message.

System Action: Depends on circumstance.

Administrator Action: None - this is a debug message. The log message is delivered to the log because the function in which the transaction took place does not return an error to any client. The purpose of the message is to prevent the error from going unreported. If the error repeats, contact HPSS support.

CORE3053   **Error in IOD/IOR:**

Problem Description: An IOD returned by the mover is badly formatted or contains some other unexpected error. Additional information about the nature of the error is included in the variable part of the message.

System Action: An error is returned for the I/O operation.

Administrator Action: Check the log for related errors from the mover. If the problem persists, contact HPSS support.

CORE3054   **Cluster length for new disk VV %s was set to %lu bytes**

Problem Description: While creating a new disk virtual volume, the system was not able to use the storage class Storage Segment Size value for the new disk's Cluster Length. Doing so would have caused the disk to contain more clusters than the system can support.

System Action: The server calculated a new larger value for Cluster Length that met all of the server's requirements and then created the volume.

Administrator Action: Examine the finished disk volume to verify that the revised value for Cluster Length is suitable.

CORE3055   **Cache miss — cache entry was marked destroyed**

Problem Description: An object that was expected to be found in the memory cache was not found.
System Action: Server action varies. In some cases this problem is recovered.
Administrator Action: Depends on the situation. In some cases this error is expected by the server and recovered. In other cases an examination of the log may reveal associated problems.

CORE3056   **Could not build a disk storage map for %s**

Problem Description: The Core Server encountered a problem while building an in-memory free space map for a disk volume.
System Action: The Core Server sets the disk's VV condition to DOWN and continues onward to building another disk volume's free space map.
Administrator Action: This problem is most likely the result of bad metadata or storage class misconfiguration. Contact HPSS support.

CORE3057   **Error creating/connecting socket, details:**

Problem Description: An error was returned from a socket create or connect system call.
System Action: The calling function fails and an error is returned.
Administrator Action: The error code field of the log entry contains the error code returned by the HPSS socket support library function. The variable text portion of the message contains additional information about the error.

CORE3058   **A segment in the input array is not on the right VV**

Problem Description: Repack sent a tape storage segment to the Core Server to be moved to another volume. The Core Server determined that the segment is not on the VV that is being repacked.
System Action: The segment is left out of the list of segments to be moved. Repack continues.
Administrator Action: This is probably caused by a metadata defect, or a program error. Contact HPSS support.

CORE3059   **The selected VV was not suitable:**

Problem Description: This is an internal diagnostic message that does not necessarily mean that any problem exists. The server is looking for a tape VV to move segments to, and has seen some candidates that have been determined to be not suitable targets. The server is logging the reason why the targets are not suitable in case this information may be valuable later.
System Action: The continues to look for a suitable target VV.
Administrator Action: No action required.

CORE3060   **Length error**

Problem Description: A segment copy or move ended in error because the number of bytes moved or copied was not correct.
System Action: An error is returned to the client.
Administrator Action: An investigation of the log may yield more information about the error. If the error persists, contact HPSS support.

CORE3061   **IOR replies not consistent**

Problem Description: An inconsistency was noted while processing an IOR from the lower level of the server, or from a mover.
System Action: An error is returned in the IOR being built.
Administrator Action: Check the log for indications of related errors from lower levels of the Core Server or from the mover.

CORE3062   **Time out error:**

Problem Description: The event noted in the variable part of the log message timed out.
System Action: Depends on the event, but usually an error is returned to the client.
Administrator Action: Investigate the operation of the part of the system given in the variable part of the message.

CORE3063   **I/O Error:**

Problem Description: An I/O request is out of range or similar error.
System Action: An error code is returned to the client.
Administrator Action: Try to determine which user file had this error and check that the file is properly recorded.

CORE3064   **Object attribute change not supported**

Problem Description: An attempt was made to change an object attribute. The server does not support changing the requested attribute.
System Action: An error is returned to the client.
Administrator Action: None unless the error persists. Check the log to learn the object that the change refers to and where the request came from.

CORE3065   **Could not mount volume: %s**

Problem Description: An error occurred while trying to mount the volume named in the message.
System Action: An error is returned for the function requesting the mount operation.
Administrator Action: Check the log for additional information from the PVL or PVR (or both) to determine the cause of the error.

CORE3066   **Cache entry is busy:**

Problem Description: The server is trying to delete a batch of disk storage segments, but cannot include all of the candidate segments in the batch. This is somewhat unusual, but not serious. The server notes this condition as it may be useful for some later debugging purpose.
System Action: The server fails to delete the batch of segments. The batch will be retried later. Errors of this sort seldom repeat.
Administrator Action: Contact HPSS support only if the error is repeating frequently. Occasional appearances of this error are not a cause for concern.

CORE3067   **PVL dismount failed on %s**

Problem Description: The PVL returned an error from a pvl_DismountVolume job.
System Action: The server logs the error and continues. Dismount errors cannot be recovered. This error does not cause an error to be returned to the client.
Administrator Action: Check the log for additional details. Check SSM PVL displays for tape dismount errors, and for information about the tape, or job, listed in the message. If the problem persists, contact HPSS support.

CORE3068   **Adjusted SC %u free space by 0x%PRIx64**

Problem Description: This is not an error. The server is logging that it adjusted the free space statistics by the approximate amount of free space that is represented by disk storage segments in the unlink table. This is space that will be returned to the free space pool, but is not available at the time the statistics were collected. The server adjusts the statistics so that the Migration/Purge Server will not launch a purge of files on disk while a significant amount of disk space is waiting to be returned to the pool.
System Action: None.
Administrator Action: None required. If this condition persists for a long time, there may be a problem with the background disk storage segment deletion function. In that case, contact HPSS support.

CORE3069   **Unable to recover from missing mover error while mounting tapes**

Problem Description: The server is attempting to mount a tape virtual volume, but it getting errors while connecting to the tape movers, or some similar problem. The server retries several times, but has failed each time and has given up.
System Action: No more tape mount attempts will occur for the specific I/O job.
Administrator Action: Check the mover host to make sure the mover is running. Check configuration files to make sure the movers are properly configured. If this problem persists, contact HPSS support.

CORE3070   **Cannot connect to mover %s on %s, port %d, reason: %s**

Problem Description: An error occurred while attempting to make a connection to a mover. The name of the host on which the mover runs, and the mover's port number are included in the message.
System Action: HPSS_ECONN is returned to the client.
Administrator Action: Check the mover host to make sure the mover is running. Check configuration files to make sure the movers are properly configured. movers are connected to the Core Server with UNIX sockets, so this is probably not a security problem.

CORE3071   **Error from send_iod sending to mover %s on %s**

Problem Description: An error was returned by send_iod, the function that sends IODs to movers. The Physical Volume name, device ID and host name are included in the log message.

System Action: The error code returned by send_iod is returned to the client.

Administrator Action: This error indicates a low-level error in the socket connection between the Core Server and the mover. Check the log for additional messages inserted by send_iod. Make sure the appropriate movers are running. If the problem persists, contact HPSS support.

CORE3072   **Error from recv_ior receiving from mover %s on %s**

Problem Description: An error was returned by recv_ior, the function that receives IORs from movers. The Physical Volume name, device ID and host name are included in the log message.

System Action: The error code returned by recv_ior is returned to the client.

Administrator Action: This error indicates a low-level error in the socket connection between the Core Server and the mover. Check the log for additional messages inserted by recv_ior. Make sure the appropriate movers are running. If the problem persists, contact HPSS support.

CORE3073   **Could not %s volume %s**

Problem Description: The AdministrativeState of a volume is set to "locked", preventing any use of the volume.

System Action: HPSS_ELOCKED is returned to the client.

Administrator Action: Check the Condition of the named volume. The variable part of the message tells you if the operation in question was a read or a write, disk or tape and the name of the volume.

CORE3074   **Cannot connect to RAIT Engine on %s, port %d, reason: %s**

Problem Description: An error occurred while attempting to make a connection to a RAIT Engine. The name of the host on which the Engine runs, and the Engine's port number are included in the message.

System Action: HPSS_ECONN is returned to the client.

Administrator Action: Check the RAIT Engine host to make sure the RAIT Engine is running. Check configuration files to make sure the RAIT Engines are properly configured. RAIT Engines are connected to the Core Server with UNIX sockets, so this is probably not a security problem.

CORE3075   **Disk %s is not usable and remains OFFLINE.**

Problem Description: A disk VV is Offline and HPSS has attempted to set it Online. The attempt to set the disk VV Online has failed.

System Action: The Core Server will wait for a period of time and then try to again set the disk VV Online.

Administrator Action: Examine the disk VV and its associated mover. Ensure that they're working correctly and that the Core Server can contact them across the network.

CORE3076   **Unrecognized non blocking delay units, (unit type = %d)**

Problem Description: An invalid wait time unit has been specified in the Core Server's resource lock manager.

System Action: The resource lock manager will fail to wait for a resource lock. This may cause an I/O job to fail.

Administrator Action: This is indicative of a bug in the software. Contact HPSS support if this occurs.

CORE3077   **Database function %s returned an error while %s**

Problem Description: This message is used to report errors returned by the metadata manager library, which drives the database.

System Action: An error is usually returned to the Core Server client.

Administrator Action: The error will include the name of the function that had the error and the task it was trying to accomplish at the time. The log message header also contains the name of the function in which the error was reported and the line number where the error occurred. All of this information should be considered to determine the cause of the problem. No specific instructions can be given to diagnose the underlying problem. Following this message, if DEBUG logging is enabled, you should find an additional message that contains the detailed error text from the database system that describes the error.

CORE3078   **Database function %s returned an error for PV %s while %s**

Problem Description: This message is used to report errors returned by the metadata manager library, which drives the database. The error is associated with a specific PV whose name is reported in the message.
System Action: An error is usually returned to the Core Server client.
Administrator Action: The error will include the name of the function that had the error and the task it was trying to accomplish at the time. The log message header also contains the name of the function in which the error was reported and the line number where the error occurred. All of this information should be considered to determine the cause of the problem. No specific instructions can be given to diagnose the underlying problem. Following this message, if DEBUG logging is enabled, you should find an additional message that contains the detailed error text from the database system that describes the error.

CORE3079   **Database function %s returned the NO DATA error while %s**

Problem Description: The database returned the NO DATA error when an attempt was made to read a metadata record. In most cases the server was not expecting an error.
System Action: The server returns an error to the client.
Administrator Action: The error will include the name of the function that had the error and the task it was trying to accomplish at the time. The log message header also contains the name of the function in which the error was reported and the line number where the error occurred. All of this information should be considered to determine the cause of the problem. No specific instructions can be given to diagnose the underlying problem. Following this message, if DEBUG logging is enabled, you should find an additional message that contains the detailed error text from the database system that describes the error. Based on all of this information, the administrator will have to make a judgment about the severity of the error. This error may indicate, for instance, an inconsistency in the metadata database. It may also indicate merely that a request was made to read a non-existent object.

CORE3080   **Failed to change tape cartridge %s to EOM**

Problem Description: An attempt to change the Condition of a tape VV to EOM failed.
System Action: The tape Condition is not changed.
Administrator Action: This message is displayed on *Alarms and Events* when an EOM change fails and either the system ordered the change, or the Administrator ordered the change and the change was deferred. Additional messages should be found in the log to explain the failure.

CORE3081   **Session handle invalid - no matching session for object *%s***

Problem Description: The session handle presented by the client is invalid.
System Action: An error is returned to the client.
Administrator Action: None. If the problem persists, contact HPSS support.

CORE3082   **Database function %s returned a deadlock error. Will be retried.**

Problem Description: The server is trying to perform a database read or update operation and got a deadlock error from Db2. The causes of this error are complex and go well beyond the scope of this document.
System Action: The server may retry the operation, depending on the situation in which the error occurs.
Administrator Action: The administrator probably cannot do anything to mitigate this error. The error may be sensitive to workload, so lessening the workload may help, if that is possible. Occasional appearances of this error are acceptable, but frequent occurrences are not. Contact HPSS support if this problem is frequent or persistent.

CORE3083   **Database function %s returned a lock timeout error. Will be retried.**

Problem Description: The server is trying to perform a database read or update operation and got a lock timeout error from Db2. The causes of this error are complex and go well beyond the scope of this document.
System Action: The server may retry the operation, depending on the situation in which the error occurs.
Administrator Action: The administrator probably cannot do anything to mitigate this error. The error may be sensitive to workload, so lessening the workload may help, if that is possible. Occasional appearances of this error are acceptable, but frequent occurrences are not. Contact HPSS support if this problem is frequent or persistent.

CORE3084   **Cannot change VV condition: %s**

Problem Description: The requested change to a VV Condition cannot be performed.
System Action: The VV Condition change fails.
Administrator Action: The log message will show the reason the change could not be performed. Check the state of the VV in detail to understand the reason.

CORE3085   ***%s on %s has been dropped from the list of usable RAIT Engines***

Problem Description: The Core Server could not send/receive data to/from the specified RAIT Engine.
System Action: The system will internally mark the RAIT Engine as invalid and will stop using it for tape I/O.
Administrator Action: Ensure the RAIT Engine is functioning correctly and that the Core Server host can contact the RAIT Engine host via the network. Then reinit the Core Server.

CORE3086   **Disk storage map not ready**

Problem Description: The needed disk storage map was not ready for use when another part of the server needed it.
System Action: HPSS_EAGAIN is issued by the server, or the server waits a while then retries.
Administrator Action: In most cases the server, or the client, retries the operation after waiting a while for the map to become available. It should not be possible for this error to occur for more than a few minutes after the server first starts to run. If it does, contact HPSS support.

CORE3087   **No disk maps in the storage class**

Problem Description: No disk storage map could be found for the storage class.
System Action: The server returns an error.
Administrator Action: In most cases the server, or the client, retries the operation after waiting a while for the map to become available. It should not be possible for this error to occur for more than a few minutes after the server first starts to run. If it does, contact HPSS support.

CORE3088   **One or more disk storage maps not initialized**

Problem Description: One or more of the disk storage maps could not be initialized.
System Action: The initialization function waits 5 minutes, then tries again.
Administrator Action: This is a serious error that may indicate a defect in the Core Server's disk storage segment metadata, or another serious error. Contact HPSS support.

CORE3089   **Tape cartridge %s has been changed to EOM**

Problem Description: Not a problem.
System Action: None; correct operation.
Administrator Action: A server generated change to a VV, setting the Condition to EOM, was successful. The VV that was changed is named in the message. This message is generated when the server orders the VV Condition change, or when an Administrator ordered change was deferred.

CORE3090   **%s %s is write protected, Condition changed to Read-Only**

Problem Description: A disk or tape VV was found to be write protected.
System Action: The Core Server changes the VV to Read-Only Condition to prevent further attempts to write the VV.
Administrator Action: Examine the VV to determine if the write protection is desired and correct.

CORE3091   **Tape cartridge %s could not be mounted, Condition changed to DOWN**

Problem Description: A VV condition has been changed to Down and this is an informational message telling us of this change.
System Action: The Core Server continues.
Administrator Action: No action is required.

CORE3092   **Could not align tape %s while %s**

Problem Description: An error was reported while attempting to write tape marks to align a tape volume.
System Action: The tape read or write operation fails.
Administrator Action: The tape volume will be dismounted in an attempt to reset its state and potentially mount it on other tape drives.

CORE3093   **Failed to disable tape drive %d**

Problem Description: The server is attempting to disable a tape drive after failing to make a connection to a tape mover. It was not able to disable the tape drive.
System Action: The server will retry, but probably won't be successful.
Administrator Action: Check the condition of tape movers, the PVL, and PVRs. Basic communication has failed in the system. It is likely that this error will occur along with a variety of other errors that suggest a general communications failure. Contact HPSS support if restarting the servers does not clear the problem.

CORE3094   **Out of RAIT Engine connections, RE: %u host: %s**

Problem Description: The server was not able to make a new connection to a RAIT Engine.

System Action: The I/O operation that needed the connection fails.

Administrator Action: Other than to reduce workload in the system, the administrator cannot mitigate this problem. Contact HPSS support if the problem persists.

CORE3095   **Disk volume %s could not be mounted, set to OFFLINE**

Problem Description: A wide variety of circumstances can cause the server to set a disk virtual volume to "OFFLINE". This message informs the administrator that the change in state has taken place.

System Action: None; this is a message describing an event that completed correctly.

Administrator Action: The event that caused the server to change the VV state will precede this message in the log.

CORE3096   **Out of disk mover connections, mover: %s host: %s**

Problem Description: The server was not able to make a new connection to a disk mover.

System Action: The I/O operation that needed the connection fails.

Administrator Action: Other than to reduce workload in the system, the administrator cannot mitigate this problem. Contact HPSS support if the problem persists.

CORE3097   **Cannot upgrade resource lock**

Problem Description: The server notes this condition in the log in case it becomes valuable for later debugging. The server was attempting to obtain resource locks on several resources needed to perform a disk segment move operation, but was not able to obtain them without waiting.

System Action: The disk move operation is associated with disk repack. Repack will retry the operation at some later time.

Administrator Action: The problem normally clears itself. If it persists, contact HPSS support.

CORE3098   **Deferred state change completed on %s volume %s**

Problem Description: This is not an error. The server is informing the administrator that a virtual volume state change that was blocked while the VV was in use has completed.
System Action: The server completes the state change.
Administrator Action: None

CORE3099   **Allocation requires a block that is too large**

Problem Description: A request to allocate disk space has asked for more space than the free space map can map.
System Action: The server will try to allocate the space from another VV.
Administrator Action: If this error persists, or causes a failure in a user disk write, the configuration of the disk storage classes and the disk volumes should be examined for irregularities. A storage class may be configured to allocate space at sizes larger than the disk volumes are configured to provide.

CORE3100   **Invalid composite address ignored in: PV: %s, Element: %d, Type: 0x%x**

Problem Description: The types of absolute addresses associated with two or more tape physical volumes don't match correctly. They should all be Logical Block Addresses or all Cookies.
System Action: A tape write operation will probably fail.
Administrator Action: Make sure all "fast locate" settings on tape drives match.

CORE3101   **No mover provides support for file system %d**

Problem Description: A file system is defined in metadata, but a mover cannot be found that has been matched to the file system.
System Action: A disk space allocation may fail.
Administrator Action: Adjust metadata to associate a mover with each file system.

CORE3102   **Duplicate reply from PVL for volume %s, job %d**

Problem Description: The server received a duplicate reply from the PVL about a disk or tape mount job that is in progress.
System Action: The server discards the duplicate reply.
Administrator Action: If this is a rare occurrence, no action is necessary. If this happens frequently, contact HPSS support.

CORE3103   **Unmatched reply from PVL for volume %s, job %d**

Problem Description: The server received a reply from the PVL that cannot be matched to an outstanding PVL mount job.
System Action: The server discards the reply.
Administrator Action: If this is a rare occurrence, no action is necessary. If this happens frequently, contact HPSS support.

CORE3104   **Unable to force PVL job %d to complete, PV: %s**

Problem Description: The server attempted to resynchronize itself with the PVL, but was not completely successful.
System Action: A PVL mount job will fail.
Administrator Action: If this is a rare occurrence, no action is necessary. If this happens frequently, contact HPSS support.

CORE3105   **PVL job %d vanished, PV: %s**

Problem Description: The server discovered an unfinished PVL mount job that the PVL does not have in its list of jobs.
System Action: The PVL mount job fails in the Core Server.
Administrator Action: If this is a rare occurrence, no action is necessary. If this happens frequently, contact HPSS support.

CORE3106   **A reply was generated for PVL job %d, volume %s**

Problem Description: The server discovered a PVL mount job that the PVL considers to be done, but the server sees as incomplete. After some period of time, the server generates a reply message based on the job status provided by the PVL.
System Action: The PVL mount job will probably complete without error.
Administrator Action: If this is a rare occurrence, no action is necessary. If this happens frequently, contact HPSS support.

CORE3107   **ResourceLock field was non-zero**

Problem Description: The server discovered a resource lock in a cache entry's resource lock field, when it didn't expect to find one.
System Action: A disk storage segment operation fails.
Administrator Action: If this is a rare occurrence, no action is necessary. If this happens frequently, contact HPSS support.

CORE3108   **Failed to change Condition of write protected %s %s to Read-Only**

Problem Description: The server was unable to change the Condition of a tape VV to Read-Only after receiving a write protection error on the VV.
System Action: The change operation fails.
Administrator Action: The name of the VV is given in the message. Examine the VV using SSM and attempt to change the Condition to Read-Only. Contact HPSS support if this cannot be done.

CORE3109   **Failed to change Condition of unmountable tape cartridge %s to DOWN**

Problem Description: The server was unable to change the Condition of a tape VV to Down.
System Action: The change operation fails.
Administrator Action: The name of the VV is given in the message. Examine the log for information about the error. Examine the VV using SSM and attempt to change the Condition to Down. Contact HPSS support if this cannot be done.

CORE3110   **Deferred state change failed on %s volume %s**

Problem Description: The server was unable to change the Condition of a disk or tape VV.
System Action: The change operation fails.
Administrator Action: The name of the VV is given in the message. Examine the VV using SSM and look for irregularities. Check the log for messages that explain the error. Contact HPSS support if this problem cannot be explained.

CORE3111   **Failed to set unmountable disk volume %s to OFFLINE**

Problem Description: The server was unable to set the OFFLINE flag in a disk volume.
System Action: The "set offline" operation fails.
Administrator Action: The name of the VV is given in the message. Examine the log for information about the error. Examine the VV using SSM and attempt to set the "OFFLINE" flag. Contact HPSS support if this cannot be done.

CORE3112   **Move segment source segment may be orphaned**

Problem Description: While preparing to move a tape storage segment to a new volume, the Core Server was unable to find any file that points to the segment.
System Action: Repack continues, leaving the segment on the source tape VV.
Administrator Action: Contact HPSS support.

CORE3113   **No bitfiles were locked by move segment**

Problem Description: While preparing to move a tape storage segment to a new volume, the Core Server was unable to lock any of the files that point to the segment.

System Action: Repack continues, leaving the segment on the source tape VV.

Administrator Action: Retry the repack operation at a later time. If the problem persists, contact HPSS support.

CORE3114   **PV %s was not properly mounted**

Problem Description: A tape was not mounted as expected. It may have been only partially mounted.

System Action: The I/O job will fail.

Administrator Action: Examine the specified VV to ensure that it can be successfully mounted. If the problem continues, but not as a result of failed tape hardware, contact HPSS support.

CORE3115   **Cannot unlock a file after moving a segment**

Problem Description: After copying a tape storage segment, the Core Server was unable to unlock the file.

System Action: Repack continues, leaving the segment on the source tape VV.

Administrator Action: This is an unexpected error. Retry the repack operation at a later time. If the problem persists, contact HPSS support.

CORE3116   **Sink segment was removed**

Problem Description: After copying a tape storage segment, the Core Server encountered an error and removed the sink segment.

System Action: None

Administrator Action: This is an unexpected error. Retry the repack operation at a later time. If the problem persists, contact HPSS support.

CORE3117 **Cannot find any free space, SC: %u, Fam: %u, L: %lu, R: %d, P: %d**

Problem Description: The Core Server was unable to find sufficient free disk or tape storage space to meet an allocation request.

System Action: None

Administrator Action: The message contains details about the requested space — Storage Class, Family, Length in bytes (L) and flags that are useful for understanding certain details (R, P). The administrator should check the free space in the indicated storage class. If this message appears for a tape storage class, look at the value of "R". If R is nonzero, the request was for tape space for repack output. Survey the tapes with **dump_sspvs** to understand the availability of tapes in the storage class for **repack** to write. If R is zero, the request was for a migration, or for a direct to tape operation. Survey the tapes with **dump_sspvs** to understand the availability of those sorts of tapes.

CORE3118 **Repack tape read operation on volume %s timed out**

Problem Description: A "move tape segment" operation for a tape **repack** job has noticed that the data read portion of the tape to tape copy is not progressing or is progressing too slowly.

System Action: The Core Server aborts the move tape move segment operation and will return HPSS_ETIMEDOUT to repack. Metadata changes are rolled back.

Administrator Action: Look for non-responsive tape devices, failed movers, or other possible causes. When it is safe to do so, the server will wait for the read operation to complete, before returning to **repack**.

CORE3119 **Still waiting for repack tape read to finish on volume %s**

Problem Description: A "move tape segment" operation for a tape **repack** job has noticed that the data read portion of the tape to tape copy is not progressing, or progressing too slowly. The operation has failed and the server is waiting for the data read operation to complete before returning to **repack**.

System Action: HPSS will continue to wait indefinitely for the data read portion to complete or for an I/O error to occur. Until then, this message will be repeated from time to time.

Administrator Action: Look for non-responsive tape devices, failed movers, or other possible causes. The server will wait for the tape read operation to complete, or to return an error, before returning to **repack**. This message will be repeated from time to time until the blocked tape read completes or returns an error.

CORE3120   **Tape VV %s dismounted after OFFLINE, NOTREADY or EOM error**

Problem Description: The server dismounted a tape VV after one of the indicated errors occurred, or after reaching EOM.
System Action: This dismount takes place.
Administrator Action: The name of the VV is given in the message. On EOM, no action is required — this is a normal state change for a tape VV. After an OFFLINE or NOTREADY error, examine the log for information about the error. Contact HPSS support if the cause of the error is not understood.

CORE3121   **RAIT Engine terminated prematurely: %s**

Problem Description: The server sensed a RAIT Engine termination when it was waiting for a reply message.
System Action: The tape I/O operation fails.
Administrator Action: The event the server was waiting for is listed in the message. Examine the log for supporting information. Contact HPSS support if this becomes a persistent problem.

CORE3122   **Could not communicate with *%s* on %s**

Problem Description: An error was returned by send_iod, the function that sends IODs to RAIT Engines. The RAIT Engine ID and host name are included in the message.
System Action: The error code returned by send_iod is returned to the client.
Administrator Action: This error indicates a low-level error in the socket connection between the Core Server and the RAIT Engine. Check the log for additional messages inserted by send_iod. Make sure the appropriate RAIT Engines are running. If the problem persists, contact HPSS support.

CORE3123   **No RAIT Engines are available for use**

Problem Description: An error was returned by recv_ior, the function that receives IORs from RAIT Engines. The RAIT Engine ID and host name are included in the message.
System Action: The error code returned by recv_ior is returned to the client.
Administrator Action: This error indicates a low-level error in the socket connection between the Core Server and the RAIT Engines. Check the log for additional messages inserted by recv_ior. Make sure the appropriate RAIT Engines are running. If the problem persists, contact HPSS support.

CORE3124 **Error parsing mover or RAIT Engine IOR: %s**

Problem Description: An error was returned by an IOR parser. The parse was unable to parse an IOR returned by a disk or tape mover or a RAIT Engine.
System Action: The read or write operation fails. The server aborts the transfer and no data is considered to have been moved, no matter how long the transfer.
Administrator Action: Additional information about the reason for the parsing error is included in the message. The log may contain additional information. These errors are usually not correctable by the Admin. If the problem persists, contact HPSS support.

CORE3125 **PVL did not mount PV %s in PVL job %d**

Problem Description: The PVL elected not to mount one of the tapes of a RAIT VV.
System Action: The tape I/O operation will continue assuming the PV is not necessary.
Administrator Action: The Admin should examine the log for additional information that explains the reason the tape was not mounted. Additional action, such as setting the PV to DOWN may be needed.

CORE3126 **PV %s missing in non-RAIT mount job, job id = %d**

Problem Description: The PVL failed to mount a tape PV that was needed in a non-RAIT I/O operation.
System Action: The tape I/O operation fails with a mount error.
Administrator Action: The Admin should examine the log for additional information that explains the reason the tape was not mounted. This error should be reported to HPSS support as it represents a logic error in either the Storage Server or the PVL.

CORE3127 **Tape %s was not mounted, RAIT read or write continues**

Problem Description: The PVL elected not to mount one of the tapes of a RAIT VV.
System Action: The tape I/O operation will continue assuming the PV is not necessary.
Administrator Action: The Admin should examine the log for additional information that explains the reason the tape was not mounted. Additional action, such as setting the PV to DOWN may be needed.

CORE3128   **%u PVs were mounted, minimum is %u, VV: %s**

Problem Description: The server found that the minimum number of PVs were not mounted in a RAIT VV.

System Action: The tape I/O operation fails with a mount error.

Administrator Action: The Admin should examine the log for additional information that explains the reason the tape was not mounted. This error should be reported to HPSS support as it represents a logic error in either the Storage Server or the PVL.

CORE3129   **PV %s left out of PVL job %d**

Problem Description: The server is noting in the log that it is leaving a PV out of a PVL mount job.

System Action: This is not an error. The server continues.

Administrator Action: This is a diagnostic message placed in the log in case the PVL mount job fails in some unexpected way. No action is necessary.

CORE3130   **Too many PVs are unmountable in VV %s**

Problem Description: The server is has discovered that there are not enough mountable PVs to satisfy the requirements of a tape read or write operation.

System Action: The I/O operation fails with a mount error.

Administrator Action: This error indicates a logic error in the Storage Server. Save the system log associated with this event. Contact HPSS support.

CORE3131   **Write error flag set in tape %s; tape PV is now Down**

Problem Description: A RAIT tape VV was partially mounted during a write operation. The unmounted portions of the tape will not participate in any further write operations to the RAIT tape VV. The specified tape PV will remain Down until the tape is repacked and reclaimed.

System Action: HPSS will no longer write to the specified tape until the corresponding RAIT tape VV is repacked and reclaimed.

Administrator Action: Repack and reclaim the specified tape.

CORE3132   **Dismounting and remounting tape %s**

Problem Description: The server is has discovered a tape VV is mounted in a way that is not suitable for the operation at hand. For instance, it may be a RAIT volume mounted for reading that is being written, and some of the needed PVs are not mounted.

System Action: The server dismounts the VV and then starts a new mount job.

Administrator Action: This is a diagnostic message placed in the log in case the PVL mount job fails in some unexpected way. No action is necessary.

CORE3133   **Cannot change Condition of %s, %s**

Problem Description: The server has decided it cannot change the Condition of a PV in a RAIT volume. The message gives the name of the PV and the reason for the failure.

System Action: The PV/VV Condition change fails.

Administrator Action: This error occurs when the Admin attempts to change a PV's Condition to Read-Write from Read-Only or Down. If the VV has been written since it was changed to Read-Only or Down, the PV has been left out of a write operation and cannot be added to the group of writable PVs. Short of repacking the VV and reclaiming it, this situation cannot be changed.

CORE3134   **Disk VV %s dismounted after OFFLINE or NOTREADY error**

Problem Description: The server dismounted a disk VV after one of the indicated errors occurred.

System Action: This dismount takes place.

Administrator Action: The name of the VV is given in the message. Examine the log for information about the error. Contact HPSS support if the cause of the error is not understood.

CORE3135   **Mount error flag set in tape %s**

Problem Description: Not a problem. The server is noting the successful setting of a "Mount Error" flag in a RAIT PV.

System Action: None

Administrator Action: This is an Event message noting the change in state of the PV/VV.

CORE3136   **Read error flag set in tape %s**

Problem Description: Not a problem. The server is noting the successful setting of a "Read Error" flag in a RAIT PV.
System Action: None
Administrator Action: This is an Event message noting the change in state of the PV/VV.

CORE3137   **Could not set mount error flag set in tape %s**

Problem Description: The server was not able to set the "Mount Error" flag in the named PV.
System Action: The VV/PV Condition change fails.
Administrator Action: Additional information about the error will be found in the log. If this information does not explain the failure, contact HPSS support.

CORE3138   **Could not set read error flag set in tape %s**

Problem Description: The server was not able to set the "Read Error" flag in the named PV.
System Action: The VV/PV Condition change fails.
Administrator Action: Additional information about the error will be found in the log. If this information does not explain the failure, contact HPSS support.

CORE3139   **Write error flag set in tape %s; tape PV is now read-only**

Problem Description: Not a problem. The server is noting the successful setting of a "Write Error" flag in a RAIT PV.
System Action: The RAIT tape write operation fails.
Administrator Action: This is an Event message noting a RAIT write error and change in state of the PV/VV. Additional information will be available in the log. The action to be taken by the Admin depends on the detailed cause of the error.

CORE3140 **RAIT VV %s forced to read-only by write errors**

Problem Description: Not a problem. The server is noting that a RAIT VV it was writing had been forced into a Read-Only condition by accumulated write errors. As the number of PVs that cannot be written increases, at some point the minimum number of writable PVs cannot be met and the VV Condition is changed.
System Action: The RAIT tape write operation fails.
Administrator Action: This is an Event message noting a RAIT write error and change in state of the PV/VV. Additional information will be available in the log. The action to be taken by the Admin depends on the detailed cause of the error.

CORE3141 **The client terminated the transfer**

Problem Description: The server is noting that a RAIT tape write operation failed, but not because of a media write error. In this case the server assumes the client terminated the transfer.
System Action: The RAIT tape write operation fails.
Administrator Action: Additional information will be available in the log, including a full set of IODs and IORs sent to and received from the tape movers and RAIT Engines. This information must be examined in detail to learn the reason for the failure. Contact HPSS support for help.

CORE3142 **Previous disk mount failed, VV is changing to OFFLINE**

Problem Description: The server is noting that it was waiting for a disk mount to complete, when an error was raised in the mount job and the server decided to change the VV Condition to Down. Subsequent disk mount attempts will post this error in the log.
System Action: The disk read or write operation fails with a mount error.
Administrator Action: Additional information will be available in the log. Examine the state of the disk volume in question. Contact HPSS support for additional help.

CORE3143 **PVL mount job %d timed out — trying to mount %s**

Problem Description: A PVL disk mount job has timed out. The server waits a limited time for disk mount jobs to complete, then raises the HPSS_EMOUNT_TIMEOUT error.
System Action: The disk read or write operation fails with a mount error.
Administrator Action: Additional information will be available in the log. Examine the state of the disk volume in question. Contact HPSS support for additional help.

CORE3144 **Tape read error, PV: *%s*, Mover: *%s*, DevID: %d, DevName: *%s*, DevType: *%s*, DrvAddr: *%s*, at Sec: %d, Off: %lu, ETL: %lu, ATL: %lu**

Problem Description: An error occurred on the indicated tape physical volume (PV) while reading from a tape virtual volume.

System Action: The read error is logged in the PV History and the PV is flagged as having experienced a read error.

Administrator Action: Additional information will be available in the PV History. Examine the state of the tape volume in question. If the read error is repeatable, repack the volume.

CORE3145 **Tape write error, PV: *%s*, Mover: *%s*, DevID: %d, DevName: *%s*, DevType: *%s*, DrvAddr: *%s*, at Sec: %d, Off: %lu, ETL: %lu, ATL: %lu**

Problem Description: An error occurred on the indicated tape physical volume (PV) while writing to a tape virtual volume (VV).

System Action: The read error is logged in the PV History and the PV is permanently set to a read-only (RO) state. HPSS may also alter the state of the entire tape VV.

Administrator Action: If the volume in question is a RAIT volume: if setting the indicated PV to RO state brings the entire RAIT virtual volume below the storage class's Minimum Write Parity threshold, the entire RAIT volume is effectively no longer writable. Consider repacking the tape volume.

CORE3146 **Tape mount error, PV: *%s***

Problem Description: HPSS was not able to mount the indicated tape physical volume (PV).

System Action: The mount error is logged in the PV History and the PV is flagged as having experienced a mount error. Several actions will be taken, depending on circumstances: *a.)* If writing to a RAIT virtual volume (VV), and enough PVs within the RAIT VV are mounted to successfully begin the write, the PV will be set to a permanent DOWN state. If setting the indicated PV to an unusable state brings the entire RAIT VV below the storage class's `Minimum Write Parity` threshold, the entire RAIT volume is effectively no longer writable. *b.)* If reading from a RAIT VV, the read will continue if enough PVs within the RAIT VV have mounted. *c.)* If reading from a non-RAIT VV, the read will fail.

Administrator Action: If the error is repeatable on a RAIT VV, consider repacking the tape volume.

CORE3147   **Tape position error, PV: *%s*, Mover: *%s*, DevID: %d, DevName: *%s*, DevType: *%s*, DrvAddr: *%s*, at Sec: %d, Off: %lu**

Problem Description: HPSS failed to position a tape physical volume (PV) to the correct location.

System Action: The positioning error is logged in the PV History. The state of the tape virtual volume (VV) may be altered to EOM or DOWN, depending on the nature of the positioning failure.

Administrator Action: Additional information will be available in the log. Examine the state of the tape VV in question. Contact HPSS support for additional help.

CORE3148   **Tape write tm error, PV: *%s*, Mover: *%s*, DevID: %d, DevName: *%s*, DevType: *%s*, DrvAddr: *%s*, at Sec: %d, Off: %lu**

Problem Description: HPSS was unable to write a tape mark to a tape physical volume (PV).

System Action: The failure is logged in the PV History. The state of the tape virtual volume (VV) may be altered to EOM, depending on the nature of the tape mark failure.

Administrator Action: Additional information will be available in the log. Examine the state of the tape volume in question. Contact HPSS support for additional help.

CORE3149   **Media or device error %s occurred while reading tape %s**

Problem Description: HPSS was unable to read the tape virtual volume (VV) that contains the indicated tape physical volume.

System Action: Depending on the nature of the read failure, HPSS may alter the tape VV's state.

Administrator Action: Additional information will be available in the log. Examine the state of the tape volume in question. Contact HPSS support for additional help.

CORE3150   **Client error %s caused a tape read to fail while reading %s**

Problem Description: The client told HPSS to cancel the tape read attempt. This is an informational message.

System Action: None

Administrator Action: None

CORE3151 **Media or device error %s occurred while reading RAIT tape volume %s**

Problem Description: HPSS was unable to read a the RAIT virtual volume (VV) that contains the indicated tape physical volume.

System Action: Depending on the nature of the read failure, HPSS may alter the RAIT VV's state.

Administrator Action: Additional information will be available in the log. Examine the state of the tape volume in question. If the read error is repeatable and you determine that it is *not* caused by a tape drive, repack the volume.

CORE3152 **Client error %s caused a RAIT tape read to fail while reading %s**

Problem Description: The client told HPSS to cancel the tape read attempt. This is an informational message.

System Action: None

Administrator Action: None

CORE3153 **Client data was recovered while reading RAIT tape %s**

Problem Description: A tape read error occurred, but HPSS was able to read through the error by regenerating the data from parity.

System Action: The system logs that the event occurred.

Administrator Action: Additional information will be available in the log. Examine the state of the tape volume in question. If the error is repeatable and not due to a tape drive failure, consider repacking the tape volume.

CORE3154 **Media or device error %s occurred while writing tape %s**

Problem Description: HPSS was unable to write the tape virtual volume (VV) that contains the indicated tape physical volume.

System Action: Depending on the nature of the write failure, HPSS may alter the tape VV's state.

Administrator Action: Additional information will be available in the log. Examine the state of the tape volume in question. Contact HPSS support for additional help.

CORE3155 **Client error %s caused a tape write to fail while writing %s**

Problem Description: The client told HPSS to cancel the tape write attempt. This is an informational message.

System Action: None

Administrator Action: None

CORE3156 **Media or device error %s occurred while reading disk %s**

Problem Description: HPSS was unable to read from the disk virtual volume (VV) that contains the indicated disk physical volume.

System Action: Depending on the nature of the read failure, HPSS may alter the disk VV's state.

Administrator Action: Additional information will be available in the log. Examine the state of the disk volume in question. Contact HPSS support for additional help.

CORE3157 **Client error %s caused a disk read to fail while reading %s**

Problem Description: The client told HPSS to cancel the disk read attempt. This is an informational message.

System Action: None

Administrator Action: None

CORE3158 **Media or device error %s occurred while writing disk %s**

Problem Description: HPSS was unable to write to the disk virtual volume (VV) that contains the indicated disk physical volume.

System Action: Depending on the nature of the write failure, HPSS may alter the disk VV's state.

Administrator Action: Additional information will be available in the log. Examine the state of the disk volume in question. Contact HPSS support for additional help.

CORE3159 **EOM reached while writing tape volume %s**

Problem Description: While writing to a tape volume, end of media (EOM) was reached. This is an informational message.

System Action: HPSS alters the tape VV's state to EOM.

Administrator Action: None

CORE3160 **Unexpected error %s while %s %s**

Problem Description: An unexpected, atypical I/O error occurred.

System Action: Various actions are taken depending on the nature of the specific error condition.

Administrator Action: Additional information will be available in the log. Examine the state of the media volume in question. Contact HPSS support for additional help.

CORE3161   **TestMap failed on %s**

Problem Description: This debug message specifies why a tape volume was considered and ultimately rejected for an I/O operation. This is an informational message.
System Action: None
Administrator Action: None

CORE3162   **TestMap failed on %s, %u, %u**

Problem Description: This debug message specifies why a tape volume was considered and ultimately rejected for an I/O operation. This is an informational message.
System Action: None
Administrator Action: None

CORE3163   **TestMap failed on %s, %lu, %lu**

Problem Description: This debug message specifies why a tape volume was considered and ultimately rejected for an I/O operation. This is an informational message.
System Action: None
Administrator Action: None

CORE3164   **Disk VV %s has too many clusters, the free space map cannot be built**

Problem Description: When attempting to build the free space map for a disk, the server found a larger number of clusters on the disk than it is capable of mapping.
System Action: The server does not build the free space map and sets the disk to DOWN.
Administrator Action: The disk will have to be emptied of files and removed from the system, then re-created. The server will enforce rules so that the new disk's configuration meets all of the server's requirements.

CORE3165   **Disk volume %s has been set to OFFLINE status because of a device or mover failure**

Problem Description: This is an EVENT message. Look for recent log messages that explain the reason this action was taken.
System Action: The Core Server sets the OFFLINE flag in the disk VV.
Administrator Action: Look for log messages that explain the reason the system took this action. They should appear immediately before this message.

CORE3166   **Disk mover failed but could not set disk volume %s to OFFLINE status**

Problem Description: The Core Server captured a disk mover failure, but was not able to set the corresponding disk VV to OFFLINE during the error recovery.
System Action: The disk VV remains ONLINE.
Administrator Action: Inspect the log to find the reason the Core Server was unable to set the OFFLINE flag in the VV.

CORE3167   **Mover %s on %s failed while reading or writing disk %s**

Problem Description: The Core Server captured an error from a disk mover caused by termination of the mover.
System Action: The Core Server sets the OFFLINE flag in the disk VV and dismounts the disk VV. The client read or write operation gets the HPSS_EMEDIA_OFFLINE error.
Administrator Action: Find the cause for the disk mover failure. When it is corrected, restart the movers and clear the OFFLINE flag in the disk VV.

CORE3168   **Mover %s on %s failed while reading or writing tape %s**

Problem Description: The Core Server captured an error from a tape mover caused by termination of the mover.
System Action: The Core Server dismounts the tape VV, puts an entry in the PV History database table detailing the error and returns the HPSS_EMEDIA_OFFLINE error to the client operation.
Administrator Action: Find the cause for the tape mover failure. When it is corrected, restart the movers.

CORE3169   **Device Not Ready error from %s while %s**

Problem Description: The Core Server received a Device Not Ready error from a disk or tape mover while performing the indicated operation.
System Action: Disk VVs are set offline and dismounted. Tape VVs are dismounted and a PV History entry is made to record the details of the error. The client operation fails with the Not Ready error.
Administrator Action: Check the status of the indicated movers and devices and make the device ready. In the case of disk VVs, clear the OFFLINE flag when the device is ready.

CORE3170   **Write Protect error from %s while writing the %s**

Problem Description: The Core Server received a Write Protect error from a disk or tape mover.
System Action: Disk and tape VVs are set to Read Only to prevent subsequent write attempts. A tape PV History entry is made to record the details of the error.
Administrator Action: Examine the state of the disk or tape device or media to determine the cause of the error.

CORE3171   **Metadata update skipped for %s**

Problem Description: This is a diagnostic message put into the log to aid in understanding of the error flow in the server after specific events. This is not, in itself, an indication of an error.
System Action: The system does not update a VV's metadata.
Administrator Action: None

CORE3172   **Reminder: Disk VV %s is OFFLINE - may cause read and write errors**

Problem Description: This message is displayed periodically in *Alarms and Events* when one disk VV is Offline. This is an informational message.
System Action: The Core Server will not assign new I/O to the disk volume while it is Offline. The Core Server will attempt to automatically set the listed disk volume back Online. If there are problems in contacting the mover or controller that owns the disk volume, the Core Server may be unsuccessful in returning the disk to service.
Administrator Action: If you know that the disk volume will be out of service for an extended period, set the volume's VV Condition to DOWN in the **hpssgui**'s *Core Server Disk Volume* window.

CORE3173   **Reminder: Disk VVs %s are OFFLINE - may cause read and write errors**

Problem Description: This message is displayed periodically in *Alarms and Events* when a few disk VVs are Offline. This is an informational message.
System Action: The Core Server will not assign new I/O to the disk volumes while they are Offline. The Core Server will attempt to automatically set the listed disk volumes back Online. If there are problems in contacting the movers or controllers that own the disk volumes, the Core Server may be unsuccessful in returning the disks to service.
Administrator Action: If you know that the disk volumes will be out of service for an extended period, set the volumes' VV Conditions to DOWN in the **hpssgui**'s *Core Server Disk Volume* window.

CORE3174   **Reminder: there are %u OFFLINE Disk VVs - may cause read and write errors. Use *dump_sspvs* to list the offline disks.**

Problem Description: This message is displayed periodically in *Alarms and Events* when many disk VVs are Offline. This is an informational message.
System Action: The Core Server will not assign new I/O to the disk volumes while they are Offline. The Core Server will attempt to automatically set the listed disk volumes back Online. If there are problems in contacting the movers or controllers that own the disk volumes, the Core Server may be unsuccessful in returning the disks to service.
Administrator Action: If you know that the disk volumes will be out of service for an extended period, set the volumes' VV Conditions to DOWN in the **hpssgui**'s *Core Server Disk Volume* window.

CORE3175   **Disk VV %s has been set OFFLINE by the operator**

Problem Description: This is an informational message indicating that a previously-Online disk has been marked as Offline by an HPSS administrator.
System Action: HPSS will no longer use the specified disk volume for reads nor writes until the volume is placed back into Online status.
Administrator Action: None

CORE3176   **Disk VV %s has been set ONLINE by the operator**

Problem Description: This is an informational message indicating that a previously-Offline disk has been returned to Online status by an HPSS administrator.
System Action: HPSS will resume using the disk volume for reads and writes.
Administrator Action: None

CORE3177   **Disk VV %s has been automatically set back ONLINE by the server**

Problem Description: This is an informational message indicating that a previously-Offline disk has automatically been returned to Online status by HPSS.
System Action: HPSS will resume using the disk volume for reads and writes.
Administrator Action: None

CORE3178   **Metadata for %s is invalid; configured as *%s*, defaulting to *%s***

Problem Description: This is an informational message indicating that some configuration value, as stored in metadata, is outside the acceptable range and that an appropriate default value will be used instead.
System Action: None
Administrator Action: Correct the configuration.

CORE3179   **A database partition key is required, but was not provided.**

Problem Description: A database partition was not correctly specified. This is an indication of a bug.
System Action: Various, depending on the nature of the malformed metadata query.
Administrator Action: Contact HPSS support.

CORE3180   **Failed to %s %s resource *%s***

Problem Description: The Core Server failed to create or delete the specified disk or tape resource.
System Action: The resource is not created or deleted. Depending upon the error the system may continue processing other requests in the list or may abort the remainder of the requests. The request will need to be retried once the error is fixed.
Administrator Action: Review the HPSS logs preceding the failure. In many cases preceding logs should indicate something about the nature of the error like a mismatched media type or an invalid class of service.

CORE3181   **Aborting %s request due to too many consecutive failures; correct the request and try again**

Problem Description: The Core Server aborted a batch create or delete resource request due to too many consecutive errors. Any further items in the list will not be processed.
System Action: Any further items are not created or deleted. The request will need to be retried once the error is fixed.
Administrator Action: Review the request and the HPSS logs. In many cases preceding logs should indicate something about the nature of the error like a mismatched media type or an invalid class of service. Correct the request parameters and retry.

CORE3182   **Continuing %s resource request, %d out of %d**

Problem Description: None. The Core Server is reporting progress towards completing the operation.
System Action: System continues processing.
Administrator Action: None

CORE3183   **Completed storage %s for %d of %d requests (%d %s)**

Problem Description: The Core Server completed a create or delete resource request. The log indicates the number of successful items, the total number of items, and number of items which had been previously processed.
System Action: This log will appear as an EVENT in the case of no errors and an ALARM otherwise.
Administrator Action: None

CORE3184   **Failed to automatically set disk volume %s back ONLINE**

Problem Description: The Core Server was unable to automatically return an Offline disk to service.
System Action: After a short delay, HPSS will again attempt to set the disk back Online.
Administrator Action: If you know that the disk volume will be out of service for an extended period, set the volume's VV Condition to DOWN in the **hpssgui**'s *Core Server Disk Volume* window.

CORE3185   **Failed to find requested VV in disk metadata (%d) or tape metadata (%d) or object store metadata (%d)**

Problem Description: The Core Server was unable to find a requested VV in metadata.
System Action: None
Administrator Action: None

CORE3186   **Drive schedule reorder failed**

Problem Description: A request to issue a recommended access order (RAO) request failed.
System Action: The schedule will be reordered based upon section offset ordering. Requests will continue and the system will retry with RAO in future requests.
Administrator Action: If persistent errors occur, RAO may be disabled for the tape queue. Contact HPSS support if persistent errors occur.

CORE3187   **Unable to initialize media stats**

Problem Description: Unable to retrieve media statistics for the device.
System Action: Processing will continue using defaulted values for the media statistics. This may cause scheduling to run more or less often than it otherwise normally would, potentially impacting overall performance.
Administrator Action: Contact HPSS support.

CORE3188   **Unable to read valid storage class metadata for sclass=%d, continuing with max vvs to write as %d**

Problem Description: The system failed to retrieve storage class metadata.
System Action: The system continues to run using a default number of VVs to write. This can cause excessive tape write usage during this time period until the error is resolved. This can result in read requests taking longer than usual.
Administrator Action: Contact HPSS support.

CORE3189   **Device type %s %s has an invalid RAO limit (%d)**

Problem Description: The system has identified a tape device defined with invalid recommended access order (RAO) limits.
System Action: The system fails to detect a working RAO device, which causes it to fall back to section offset ordering. This message may appear each time a tape is mounted on the affected drive until the problem is resolved.
Administrator Action: Contact HPSS support.

CORE3190   **Session aborted by %s**

Problem Description: This is an event message indicating that the server or operator has aborted a session. This may be the result of some other system action.
System Action: The system continues processing other sessions. The aborted session will not be run. If it was a client session, the client application will receive an error back.
Administrator Action: None required. If sessions appear to be aborted in suspicious circumstances, review Core Server log entries for more info and contact HPSS support.

CORE3191 **Invalid socket preference type (%d) detected, using any available socket**

Problem Description: An internal VV tracking mechanism was unexpectedly missing.
System Action: The tape dismount will occur as requested.
Administrator Action: If this error occurs frequently, contact HPSS support.

CORE3192 **Failed creating JSON object %s in %s**

Problem Description: Not enough memory was available to construct a JSON object during a VV schedule status dump.
System Action: HPSS will not update the JSON VV schedule status file.
Administrator Action: None

CORE3193 **Invalid disk segment cache max memory percentage specified in the environment (%s). Reverting to the default (%lf%%).**

Problem Description: The value of the HPSS_CORE_DISKSEGCACHE_MEM_PERCENT environment variable is invalid.
System Action: HPSS will revert to the default value of 1% of total system memory.
Administrator Action: Set the value of the environment variable to something in the range (0.0,100.0].

CORE3194 **%d entries in the LRU List couldn't be found in the disk segment cache.**

Problem Description: HPSS attempted to purge a disk storage segment cache entry that had been deleted in between cache entry purge selection and the actual purge attempt.
System Action: None
Administrator Action: None

CORE3195 **Duplicate purge request for the %s cache will not execute.**

Problem Description: A cache purge request was made while the cache was already in the middle of being purged.
System Action: The subsequent cache purge request is ignored.
Administrator Action: None

CORE3196   **Size of %s cache after full purge attempt: %lu**

Problem Description: This is an informational message that occurs after a full cache purge attempt. The message is not indicative of a problem.
System Action: None
Administrator Action: None

CORE3197   **Full aggregate segment move has invalid write length, got: %lu expected: %lu**

Problem Description: This is a DEBUG message that provides further detailed information about a Repack attempt.
System Action: None
Administrator Action: Look for related messages in the hpssgui Alarms & Events.

CORE3198   **Full aggregate segment move has invalid next byte address, found: %lu expected maximum: %lu**

Problem Description: This is a DEBUG message that provides further detailed information about a Repack attempt.
System Action: None
Administrator Action: Look for related messages in the hpssgui Alarms & Events.

CORE3199   **Skipping deletion of a tape storage segment because volume %s is involved in another transaction.**

Problem Description: This is an informational message that occurs when attempting to unlink files from an already-busy tape volume.
System Action: The system will unlink the files on the busy volume at a later time.
Administrator Action: None

CORE3200   **Incrementing max lock delay on lock type *%s*, max delay is now %u seconds.**

Problem Description: This is an informational message that occurs after increasing the amount of time to delay waiting for a Core Server resource lock. The message is not indicative of a problem.
System Action: None
Administrator Action: None

CORE3201   **Handing off inactive VV, unchanged since %PRIi64, UUID *%s*.**

Problem Description: This is a DEBUG message that gives details about how tape sessions are managed internally by the Core Server. The message is not indicative of a problem.
System Action: None
Administrator Action: None

CORE3202   **Skipping handoff check due to busy session lock, UUID *%s*.**

Problem Description: This is a DEBUG message that gives details about how tape sessions are managed internally by the Core Server. The message is not indicative of a problem.
System Action: None
Administrator Action: None

CORE3203   **Checking complete session, UUID *%s*, session changed at %PRIi64, handoff threshold %PRIi64.**

Problem Description: This is a DEBUG message that gives details about how tape sessions are managed internally by the Core Server. The message is not indicative of a problem.
System Action: None
Administrator Action: None

CORE3204   **Could not find the I/O Job in the JobTable for Request ID %s.**

Problem Description: This is a DEBUG message that gives more detail about the Core Server's internal tracking of I/O jobs.
System Action: None
Administrator Action: Look for related messages in the hpssgui Alarms & Events.

CORE3205   **Detected an I/O Job that has been aborted.**

Problem Description: This is a DEBUG message that occurs after an I/O job has been aborted. The message is not indicative of a problem.
System Action: None
Administrator Action: None

CORE3206   **Request ID %s has no abortable tasks; not aborting.**

Problem Description: A request was received for an I/O job that isn't currently performing an abortable operation.
System Action: The abort request will be ignored.
Administrator Action: Re-examine the I/O job and ensure it's currently responsible for an abortable operation. If so, wait awhile and then attempt to abort the I/O job again. If it is still not abortable, contact HPSS support.

CORE3207   **Unabortable I/O Job with Request ID %s has these transfer flags: %s**

Problem Description: This is a DEBUG message that provides further details related to message CORE3206.
System Action: None
Administrator Action: See description of CORE3206.

CORE3208   **%s tape VV %s — unable to notify PVL about %u of the tape PVs in the VV. The PVL's tape drive read quota will be offset until the VV is dismounted.**

Problem Description: When switching from reading to writing, or from writing to reading, a tape volume, the Core Server notifies the PVL. This message indicates that the Core Server was not able to successfully notify the PVL.
System Action: The system may not correctly honor the tape drive read quota.
Administrator Action: As tapes dismount, the problem will resolve itself. If the read quota continues to be offset, even after the specified tape has dismounted, contact HPSS support.

CORE3209   **Disabling drive request ordering support on %s, not supported on drive %d**

Problem Description: This is a DEBUG message that gives details about internal Core Server tape I/O queueing that's part of Tape Ordered Recall. The message is not indicative of a problem.
System Action: The system will not query the specified drive for optimal I/O ordering information.
Administrator Action: None

CORE3210 **Disabling drive request ordering support on %s, failed %d times on drive %d**

Problem Description: This is a DEBUG message that gives details about internal Core Server tape I/O queueing that's part of Tape Ordered Recall. It indicates that a drive that should be able to provide I/O ordering information has failed to do so.
System Action: The system will not query the specified drive for optimal I/O ordering information.
Administrator Action: Examine the specified tape drive. Ensure it is configured and operating correctly.

CORE3211 **Cartridge %s is no longer mounted in expected drive %d**

Problem Description: This is a DEBUG message that can occur if a tape is unexpectedly remounted in a different tape drive. This message is not indicative of a problem.
System Action: None
Administrator Action: None

CORE3212 **%2$u segment with no corresponding BFTAPESEG rows was found while repacking tape %1$s**
%2$u segments with no corresponding BFTAPESEG rows were found while repacking tape %1$s

Problem Description: This message indicates that orphan tape storage segments were encountered during Repack.
System Action: The system will *not* repack the orphan tape storage segments.
Administrator Action: Contact HPSS support.

CORE3213 **%2$u file could not be locked while repacking tape %1$s**
%2$u files could not be locked while repacking tape %1$s

Problem Description: Some number of files were already busy when Repack began. These files could not be locked nor Repacked.
System Action: The system will not Repack the busy files.
Administrator Action: Wait until the files on the source tape are not busy. Attempt the Repack at a later time.

CORE3214   **Repack is skipping SSID %s on tape %s: no available bitfile tape segments**

Problem Description: This is a DEBUG message that indicates that a specific tape storage segment is an orphan.
System Action: The system will *not repack an orphan tape storage segment.*
_Administrator Action: Contact HPSS support.

CORE3215   **VV total size is too large. (PV size) * (Number of PVs) must be less than 2^64. PV size = %PRIu64, Number of PVs = %PRIu32**

Problem Description: While creating a new VV, the VV total size overflows the unsigned 64-bit integer container.
System Action: Creation of the VV fails.
Administrator Action: Either reduce the size of the media or the number of PVs in the VV.

CORE3216   **Storage class %PRIu32 not found while creating VV**

Problem Description: While creating a new VV, the storage class could not be found.
System Action: Creation of the VV fails.
Administrator Action: If it appears that the storage class does in fact exist, you may have a more nuanced issue. Contact your support representative.

CORE3217   **VV cannot be added to storage class %PRIu32 because it will overflow the storage class size. VV size = %PRIu64, SClass size = %PRIu64**
VV cannot be added to storage class %PRIu32 because it will overflow the storage class size

Problem Description: Disk storage class total capacity is limited to 2^64-1 bytes and tape storage class total capacity is limited to 2^64-1 VVs. Adding this VV would violate this limit.
System Action: Creation of the VV fails.
Administrator Action: Put the VV in another storage class or reduce its size so that it will not violate the limits.

CORE3218 **Disk VV I/O metrics would underflow while decrementing at I/O end. (OperationsInProgress = %PRIu32, DecrementAmount = %PRIu32, VV = %s)**

Problem Description: At disk I/O end, I/O metrics are decremented by the stripe width of the I/O. In this case, the amount to decrement was greater than the amount of ongoing I/O recorded in the I/O metrics.
System Action: I/O metric decrementing is skipped. I/O metrics may be skewed — which may lead to improper load balancing across disk Movers and disk VVs — until the Core Server is restarted.
Administrator Action: Contact HPSS support if this is a frequent occurrence.

CORE3219 **Disk MVR I/O metrics would underflow while decrementing at I/O end. (OperationsInProgress = %PRIu32, DecrementAmount = %PRIu32, MoverID = %PRIu32)**

Problem Description: At disk I/O end, I/O metrics are decremented by the stripe width of the I/O. In this case, the amount to decrement was greater than the amount of ongoing I/O recorded in the I/O metrics.
System Action: I/O metric decrementing is skipped. I/O metrics may be skewed — which may lead to improper load balancing across disk Movers and disk VVs — until the Core Server is restarted.
Administrator Action: Contact HPSS support if this is a frequent occurrence.

CORE3220 **The supplied string's length, %PRIu64 characters, is too short to represent the time in the current locale's standard representation.**

Problem Description: The current locale's standard time representation is longer than an internal string length.
System Action: Instead of a properly formed time string, "<UNKNOWN>" will be output instead.
Administrator Action: Contact HPSS support so that the internal time string can be lengthened.

CORE3221 **Failed to append an entry to the Disk Op Change Queue. Trimming the queue.**

Problem Description: The Disk Op Change Queue is full; a new entry could not be appended.
System Action: The system forces a trim of the queue, which means all records about updates to the disk mover and VV metrics are deallocated and no longer available to be output during a server state dump.
Administrator Action: None

CORE3222   **Media Access : Repack data start : %s**

Problem Description: None.
System Action: Logging journaling information about a media access during repack.
Administrator Action: None.

CORE3223   **Media Access : Repack data end : %s : Result %s (%d)**

Problem Description: None.
System Action: Logging journaling information about a media access during repack.
Administrator Action: None.

CORE3224   **Empty session journal**

Problem Description: A session finished indicating volume journal entries, but it was empty.
System Action: None.
Administrator Action: Contact HPSS Support.

CORE3225   **EndOfTape.Version=%u,   EndOfTape.Parition=%d, EndOfTape.Section=%PRId32,   EndOfTape.Offset=%PRIu64, SrcAddr.Section=%PRId32, end section=%PRId32, written length=%PRIu64, bytes_between_tapemarks=%PRIu64, verify_flags=%PRIu64**

Problem Description: No problem, information only.
System Action: No problem, information only.
Administrator Action: This might help troubleshoot issues with tools like lbp_verify.

CORE3226   **Tape request sorting for volume %s is now %s, device %d**

Problem Description: No problem, information only.
System Action: No problem, information only.
Administrator Action: This could help identify how data is being read from a tape volume.

CORE3227   **Client IOD\n**

Problem Description: No problem, information only.
System Action: No problem, information only.
Administrator Action: This could help identify the contents of the IOD structure.

CORE3228   **Client IOR\n**

Problem Description: No problem, information only.
System Action: No problem, information only.
Administrator Action: This could help identify the contents of the IOR structure.

CORE3229   **Mover %d\n**

Problem Description: No problem, information only.
System Action: No problem, information only.
Administrator Action: This could help identify the contents of the IOD structure.

CORE3230   **Mover %d\n**

Problem Description: No problem, information only.
System Action: No problem, information only.
Administrator Action: This could help identify the contents of the IOR structure.

CORE3231   **Passive reply IOR\n**

Problem Description: No problem, information only.
System Action: No problem, information only.
Administrator Action: This could help identify the contents of the IOR structure.

CORE3232   **RAIT Engine %d**

Problem Description: No problem, information only.
System Action: No problem, information only.
Administrator Action: This could help identify the contents of the IOD structure of a request on a particular RAIT engine.

CORE3233   **RAIT Engine %d**

Problem Description: No problem, information only.
System Action: No problem, information only.
Administrator Action: This could help identify the contents of the IOR structure of a request on a particular RAIT engine.

CORE3234   **Object store %s is not usable and remains OFFLINE.**

Problem Description: An object store VV is Offline and HPSS has attempted to set it Online. The attempt to set the VV Online has failed.
System Action: The Core Server will wait for a period of time and then try to again set the VV Online.
Administrator Action: Examine the connection from the mover to the object store and the connection from the Core Server to the mover.

CORE3235   **Reminder: Object store VV %s is OFFLINE - may cause read and write errors**

Problem Description: This message is displayed periodically in *Alarms and Events* when one object store VV is Offline. This is an informational message.
System Action: The Core Server will not assign new I/O to the object store volume while it is Offline. The Core Server will attempt to automatically set the listed object store volume back Online. If there are problems in contacting the mover or object store endpoint for the object store volume, the Core Server may be unsuccessful in returning the object store to service.
Administrator Action: If you know that the object volume will be out of service for an extended period, set the volume's VV Condition to DOWN in the **hpssgui**'s *Core Server Object Store Volume* window.

CORE3236   **Reminder: Object store VVs %s are OFFLINE - may cause read and write errors**

Problem Description: This message is displayed periodically in *Alarms and Events* when a few object store VVs are Offline. This is an informational message.
System Action: The Core Server will not assign new I/O to the object store volumes while they are Offline. The Core Server will attempt to automatically set the listed object store volumes back Online. If there are problems in contacting the movers or object store endpoints for the object store volumes, the Core Server may be unsuccessful in returning the object stores to service.
Administrator Action: If you know that the object store volumes will be out of service for an extended period, set the volumes' VV Conditions to DOWN in the **hpssgui**'s *Core Server Object Store Volume* window.

CORE3237   **Reminder: there are %u OFFLINE Object store VVs - may cause read and write errors. Use *dump_sspvs* to list the offline object stores.**

Problem Description: This message is displayed periodically in *Alarms and Events* when many object store VVs are Offline. This is an informational message.
System Action: The Core Server will not assign new I/O to the object store volumes while they are Offline. The Core Server will attempt to automatically set the listed object store volumes back Online. If there are problems in contacting the movers or object store endpoints for the object store volumes, the Core Server may be unsuccessful in returning the object stores to service.
Administrator Action: If you know that the object store volumes will be out of service for an extended period, set the volumes' VV Conditions to DOWN in the **hpssgui**'s *Core Server Object Store Volume* window.

CORE3238   **Skipping deletion of a object store storage segment because volume %s is involved in another transaction.**

Problem Description: This is an informational message that occurs when attempting to unlink files from an already-busy object store volume.
System Action: The system will unlink the files on the busy volume at a later time.
Administrator Action: None

CORE3239   **Invalid object store segment cache max memory percentage specified in the environment (%s). Reverting to the default (%lf%%).**

Problem   Description: The   value   of   the
HPSS_CORE_OBJSTORSEGCACHE_MEM_PERCENT   environment   variable   is
invalid.
System Action: HPSS will revert to the default value of 1% of total system memory.
Administrator Action: Set the value of the environment variable to something in the range (0.0,100.0].

CORE3240   **Object store volume %s could not be mounted, set to OFFLINE**

Problem Description: A wide variety of circumstances can cause the server to set a object store virtual volume to "OFFLINE". This message informs the administrator that the change in state has taken place.
System Action: None; this is a message describing an event that completed correctly.
Administrator Action: The event that caused the server to change the VV state will precede this message in the log.

CORE3241   **Object store volume %s has been set to OFFLINE status because of a device or mover failure**

Problem Description: This is an EVENT message. Look for recent log messages that explain the reason this action was taken.
System Action: The Core Server sets the OFFLINE flag in the object store VV.
Administrator Action: Look for log messages that explain the reason the system took this action. They should appear immediately before this message.

CORE3242   **Object store VV %s has been automatically set back ONLINE by the server**

Problem Description: This is an informational message indicating that a previously-Offline object store has automatically been returned to Online status by HPSS.
System Action: HPSS will resume using the object store volume for reads and writes.
Administrator Action: None

CORE3243   **Object store VV %s dismounted after OFFLINE or NOTREADY error**

Problem Description: The server dismounted a object store VV after one of the indicated errors occurred.
System Action: This dismount takes place.
Administrator Action: The name of the VV is given in the message. Examine the log for information about the error. Contact HPSS support if the cause of the error is not understood.

CORE3244   **Object store VV %s has been set OFFLINE by the operator**

Problem Description: This is an informational message indicating that a previously Online object store has been marked as Offline by an HPSS administrator.
System Action: HPSS will no longer use the specified object store volume for reads nor writes until the volume is placed back into Online status.
Administrator Action: None

CORE3245   **Media or device error %s occurred while reading object store %s**

Problem Description: HPSS was unable to read from the object store virtual volume (VV) that contains the indicated object store physical volume.
System Action: Depending on the nature of the read failure, HPSS may alter the object store VV's state.
Administrator Action: Additional information will be available in the log. Examine the state of the object store volume in question. Contact HPSS support for additional help.

CORE3246   **Client error %s caused a object store read to fail while reading %s**

Problem Description: The client told HPSS to cancel the object store read attempt. This is an informational message.
System Action: None
Administrator Action: None

CORE3247   **Mover %s on %s failed while reading or writing object store %s**

Problem Description: The Core Server captured an error from a object store mover caused by termination of the mover.
System Action: The Core Server sets the OFFLINE flag in the object store VV and dismounts the object store VV. The client read or write operation gets the HPSS_EMEDIA_OFFLINE error.
Administrator Action: Find the cause for the object store mover failure. When it is corrected, restart the movers and clear the OFFLINE flag in the object store VV.

CORE3248   **Object store VV %s has been set ONLINE by the operator**

Problem Description: This is an informational message indicating that a previously-Offline object store VV has been returned to Online status by an HPSS administrator.
System Action: HPSS will resume using the object store volume for reads and writes.
Administrator Action: None

CORE3249   **Media or device error %s occurred while writing object store %s**

Problem Description: HPSS was unable to write to the object store virtual volume (VV) that contains the indicated object store physical volume.
System Action: Depending on the nature of the write failure, HPSS may alter the object store VV's state.
Administrator Action: Additional information will be available in the log. Examine the state of the object store volume in question. Contact HPSS support for additional help.

CORE3250   **Object store restore notification processing failure**

Problem Description: This message indicates a failure in the processing of an object store restore notification event.
System Action: The Core Server logs the issue and ignores the notification. The notification polling logic should eventually notice that the restore has completed. At this point, staging of the object can proceed.
Administrator Action: Find the cause for the object store restore notification failure. Contact HPSS support if this issue cannot be resolved and is a frequent occurrence.

CORE3251   **Object store restore notification event**

Problem Description: This is an informational message indicating an object store restore notification event.
System Action: The Core Server logs the message and continues processing notifications.
Administrator Action: None

CORE3252   **Previous object store mount failed, VV is changing to OFFLINE**

Problem Description: The server is noting that it was waiting for a object store mount to complete, when an error was raised in the mount job and the server decided to change the VV Condition to Down. Subsequent object store mount attempts will post this error in the log.
System Action: The object store read or write operation fails with a mount error.
Administrator Action: Additional information will be available in the log. Examine the state of the object store in question and check for network connectivity issues. Contact HPSS support for additional help.

CORE3253   **Object store volume %s could not be mounted, set to OFFLINE**

Problem Description: A wide variety of circumstances can cause the server to set a object store virtual volume to "OFFLINE". This message informs the administrator that the change in state has taken place.
System Action: None; this is a message describing an event that completed correctly.
Administrator Action: The event that caused the server to change the VV state will precede this message in the log.

CORE3254   **Object store mover failed but could not set object store volume %s to OFFLINE status**

Problem Description: The Core Server captured a object store mover failure, but was not able to set the corresponding object store VV to OFFLINE during the error recovery.
System Action: The object store VV remains ONLINE.
Administrator Action: Inspect the log to find the reason the Core Server was unable to set the OFFLINE flag in the VV.

CORE3255   **Failed to automatically set object store volume %s back ONLINE**

Problem Description: The Core Server was unable to automatically return an Offline object store to service.
System Action: After a short delay, HPSS will again attempt to set the object store back Online.
Administrator Action: If you know that the object store volume will be out of service for an extended period, set the volume's VV Condition to DOWN in the **hpssgui**'s *Core Server Object Store Volume* window.

CORE4001   **Call to Bitfile Service routine %s failed**

Problem Description: A call has been made to the Bitfile Service portion of the Core Server and this call has failed.
System Action: The error is logged and returned to the client.
Administrator Action: None

CORE4002   **Call to Name Service routine %s failed**

Problem Description: A call has been made to the Name Service portion of the Core Server and this call has failed.
System Action: The error is logged and returned to the client.
Administrator Action: None

CORE4003   **OptionFlags (for purge lock and purge on migration) may not be set from this interface**

Problem Description: An application program has attempted to set or clear the purge lock or purge on migration flag by a call to the core server function core_SetAttrs, which is called from the client API functions hpss_FileSetAttributes, hpss_FileSetAttributesHandle, hpss_FileSetAttributesSOID, and hpss_SetAttrHandle. The purge lock or purge on migrate flag may not be modified via these functions. The purge lock flag may be modified only via the client API hpss_PurgeLock function while the purge on migrate flag may be modified only via the client API hpss_PurgeOnMigrate function.
System Action: The error is logged and returned to the client.
Administrator Action: None

CORE4011   **MM transaction unexpectedly aborted**

Problem Description: The Client API did not receive an error from any lower level routine, but the transaction was marked as being aborted.
System Action: This anomaly is logged and an error is returned to the client.
Administrator Action: None

CORE4015   **Error encoding variable length attributes:**

Problem Description: Attributes to be returned from an HPSS Core Server API cannot properly be encoded for transmission to a client program. This is likely an indication of a bug.
System Action: The Core Server continues.
Administrator Action: Contact HPSS support.

CORE4016   **Error decoding variable length attributes:**

Problem Description: Attributes to be sent to an HPSS Core Server API cannot properly be decoded.
System Action: The Core Server continues attempts to satisfy the API request.
Administrator Action: Examine the nature of the error and correct the underlying problem.

CORE4017   **Invalid HPSS File Family ID, ID = %d**

Problem Description: Both CreateFile and bfs_BitrileSetAttrsNOpen make a call to hpss_LocateFamily to obtain the Family ID for this file. However, the call to hpss_LocateFamily has returned an error.
System Action: The Core Server continues.
Administrator Action: None

CORE4018   **Error inserting new persistent transaction: %d**

Problem Description: An error has occurred in the Cursor Manager module which caused the cursor to fail to be stored. The calling operation will fail.
System Action: The Core Server continues.
Administrator Action: None

CORE4019   **Error retrieving persistent transaction, ID=%d**

Problem Description: An error has occurred in the Cursor Manager module which caused the cursor to fail to be retrieved. The calling operation will fail.
System Action: The Core Server continues.
Administrator Action: None

CORE4020   **Invalid credentials to access persistent transaction: ID=%d, pUID=%d, rUID=%d**

Problem Description: The request to access a persistent transaction stored in the Cursor Manager module did not contain the same security credentials as the persistent transaction. The request will fail.
System Action: The Core Server continues.
Administrator Action: None

CORE4021   **XML Retrieved from %s is too large. HPSS_XML_SIZE Must Be Increased**

Problem Description: A request for UDA information resulted in a result size that was larger than HPSS_XML_SIZE. The result has been truncated.
System Action: The Core Server continues.
Administrator Action: In some cases, support may be required if HPSS_XML_SIZE should be increased to accommodate a larger than expected UDA value which must be stored.

CORE4022　**No trashcan hints provided by the client: Options=%d Directory=(%PRIu64) Path=%s User=%s**

Problem Description: A delete or rename request has come in without proper trashcan hints. This may be due to a problem in the application or a bug in the HPSS Client API.
System Action: The delete or rename fails and the Core Server continues.
Administrator Action: Attempt to gather HPSS and Client API logging for the operation. Contact HPSS support. If a custom application has been written, the way the delete operation is being issued should be scrutinized.

CORE4023　**Invalid trashcan option flags specified: Options=%d**

Problem Description: A delete or rename request has come in with invalid option flags. The option flags are included in the log. This represents an error in the Client API.
System Action: The delete or rename fails and the Core Server continues.
Administrator Action: Attempt to gather HPSS and Client API logging for the operation. Contact HPSS support.

CORE4024　**Creating new trashcan directory: Options=%d User=%s Parent=(%PRIu64)**

Problem Description: A delete or rename request has come in and requires a new trashcan directory. This is an informational log message and does not indicate an error.
System Action: A new trashcan directory is created.
Administrator Action: None

CORE4025　**Error locating trashcan directory: Directory=(%PRIu64) Path=%s**

Problem Description: The Core Server has failed to locate the trashcan directory based upon incoming directory and path information.
System Action: The delete or rename request will fail and the Core Server continues.
Administrator Action: Contact HPSS support.

CORE4026　**Failed creating trashcan directory: User=%s Parent=(%PRIu64) Path=%s**

Problem Description: The Core Server has failed to create a required trashcan directory.
System Action: The delete or rename request will fail and the Core Server continues.
Administrator Action: Contact HPSS support.

CORE4027   **Request ID %s is a duplicate or invalid**

Problem Description: None
System Action: None
Administrator Action: None

CORE4028   **connection: *%s* application: *%s* client PID: *%u* entering %s.**

Problem Description: None
System Action: None
Administrator Action: None

CORE4029   **connection: *%s* application: *%s* client PID: *%u* exiting.**

Problem Description: None
System Action: None
Administrator Action: None

CORE4030   **Request ID %s now being processed by request queue, request type *%s*.**

Problem Description: None
System Action: None
Administrator Action: None

CORE4031   **Request ID %s finished processing by request queue, request type *%s*.**

Problem Description: None
System Action: None
Administrator Action: None

CORE4032   **Request ID %s in request queue references an invalid request type, %u.**

Problem Description: The indicated request ID references an invalid request type. This is due to a software error.
System Action: The request indicated by Request ID will fail.
Administrator Action: Contact HPSS support.

CORE4033 **Request ID %s has been complete but inactive for too long, removing.**

Problem Description: The indicated request ID is part of a job that completed, but the client has never returned.
System Action: The system will remove the indicated request ID. The client may retry if it is still running.
Administrator Action: Review client application status. If the problem persists, contact HPSS support.

CORE4034 **Request ID %s I/O bounds are being discovered by the request queue, request type *%s*.**

Problem Description: None
System Action: None
Administrator Action: None

CORE4035 **Discovery complete for request ID %s, request type *%s*.**

Problem Description: None
System Action: None
Administrator Action: None

CORE4036 **Optimizing VV %s, length = %d, unoptimized requests = %d.**

Problem Description: None
System Action: None
Administrator Action: None

CORE4037 **Continuing to work on VV %s.**

Problem Description: None
System Action: None
Administrator Action: None

CORE4038 **Unable to pair duplicate read request, non-matching bitfile %s (%s)**

Problem Description: A read request came in which matches a queued read request waiting to be paired. The incoming request does not match the bitfile of the queued request.
System Action: The incoming read is rejected.
Administrator Action: Likely this is an application issue. If this issue persists, gather application logs and contact HPSS support.

CORE4039   **Unable to discover boundaries for paired read %s**

Problem Description: A read request came in which matches a queued read request waiting to be paired. The system could not parse the IOD to identify the I/O boundaries.
System Action: The incoming read is rejected.
Administrator Action: Prior log messages would indicate more specific reasons for the failure. It is possible that it is a malformed IOD or a metadata error.

CORE4040   **Unable to pair duplicate read request, source VV %s does not match expected VV %s for bitfile %s**

Problem Description: A read request came in which matches a queued read request waiting to be paired. The incoming request is not against the same volume as the queued request.
System Action: The incoming read is rejected.
Administrator Action: Likely this is an application issue. If this issue persists, gather application logs and contact HPSS support.

CORE4041   **Unable to pair duplicate read request, incoming offset % PRIu64 does not match expected offset % PRIu64 for bitfile %s**

Problem Description: A read request came in which matches a queued read request waiting to be paired. The incoming request is not against the same offset as the queued request.
System Action: The incoming read is rejected.
Administrator Action: Likely this is an application issue. If this issue persists, gather application logs and contact HPSS support.

CORE4042   **Unable to pair duplicate read request, incoming transfer length % PRIu64 does not match expected length % PRIu64 for bitfile %s**

Problem Description: A read request came in which matches a queued read request waiting to be paired. The incoming request is not the same length as the queued request.
System Action: The incoming read is rejected.
Administrator Action: Likely this is an application issue. If this issue persists, gather application logs and contact HPSS support.

CORE4043   **Read Queue Context %s has missed too many reads, timing out remaining requests**

Problem Description: The read queue context specified has missed a number of ready read requests. Ready read requests consume system time that could be used by some other read request.

System Action: All additional requests for this read queue context will be timed out.

Administrator Action: No action needed. Applications may need to be investigated to determine why they missed ready read operations.

CORE4044   **Loading queued read requests**

Problem Description: None.
System Action: All persisted read requests are being loaded into memory.
Administrator Action: No action needed.

CORE4045   **Finished loading % PRIu64 queued read requests in % PRIu64 read queue contexts**

Problem Description: None.
System Action: All persisted read requests have been loaded into memory.
Administrator Action: No action needed.

CORE4046   **Unable to persist read queue item**

Problem Description: The specific item was not persisted in metadata. It will be lost if the core server goes down.
System Action: The item is not persisted and cannot be loaded.
Administrator Action: No action needed.

CORE4047   **Unable to read persisted read queue items**

Problem Description: The core server cannot read read queue items from the database.
System Action: Read queue items will not be loaded. Applications waiting on the read will be unable to resume using the read
Administrator Action: No action needed.

CORE4048   **Unable to read persisted read queues**

Problem Description: The read queues in the database cannot be read.
System Action: The read queues cannot be loaded. Any applications which were waiting on those read queues will receive an error.
Administrator Action: No action needed.

CORE4049   **Unable to create read queue item from metadata**

Problem Description: The read queue item loaded from the database cannot be inserted into memory.
System Action: The system skips using this read queue item. The item is still in metadata and will be destroyed when the read queue is destroyed. An application waiting on this item will not see it as loaded in the queue and it will never come ready.
Administrator Action: No action needed.

CORE4050   **Dropping stale request queue %s, last used %d**

Problem Description: The read queue is being dropped rather than loaded because it is stale.
System Action: The system removes the read queue from metadata. The queue is not loaded.
Administrator Action: No action needed.

CORE4051   **Failed to initialize context %s**

Problem Description: The read queue context failed to be initialized.
System Action: The read queue context could not be loaded and will not be available. The read requests will be dropped.
Administrator Action: No action needed. Contact HPSS support if it persists.

CORE4052   **Failed to destroy request queue %s**

Problem Description: The read queue context could not be destroyed.
System Action: The read queue context could not be destroyed. The request queue may remain in the system and occupy memory. It will be removed after the next core server restart.
Administrator Action: No action needed. Contact HPSS support if it persists.

CORE4053   **Cannot find VV %s in list in request hash table**

Problem Description: A read queue worker is trying to find the list of requests for the specified VV, but there are no entries in the hash table for the VV. The VV cannot be processed.
System Action: This could mean that a read request will not be processed, or it could be a data structure out of sync with the system state.
Administrator Action: The problem may resolve as structures are cleaned up. If not, restart the core server if necessary. Gather logging and SIGHUP information for HPSS support.

CORE4054   **Reference taken, count on %s is now %d: %s**

Problem Description: No problem, information only.
System Action: A reference on the specified read queue context was taken. There is no problem. This is a trace message.
Administrator Action: There is no problem.

CORE4055   **Reference given, count on %s is now %d: %s**

Problem Description: No problem, information only.
System Action: A reference on the specified read queue context was given. There is no problem. This is a trace message.
Administrator Action: There is no problem.

CORE4056   **Ending change COS thread - configured: %PRIu32, current: %PRIu32, stream %PRIu32**

Problem Description: No problem, information only.
System Action: The number of configured change COS threads has changed and the total running is too high. The current thread is being ended.
Administrator Action: There is no problem.

CORE4057   **Adjusted change COS threads - added: %PRIu32, new maximum: %PRIu32**

Problem Description: No problem, information only.
System Action: The number of configured change COS threads has increased. The number of new threads added and the maximum number of threads is shown.
Administrator Action: There is no problem.

CORE4058   **Failure deleting read queue entry item.**

Problem Description: There was an error deleting a read queue entry item from metadata.
System Action: This is an informational log message and is unlikely to indicate a serious issue.
Administrator Action: The system should recover from this situation.

CORE5001   **Assertion failed: %s**

Problem Description: Denotes an internal inconsistency. This error should never occur.
System Action: None. The Core Server will continue.
Administrator Action: Report the error to HPSS support and recycle the Core Server.

CORE5002   **Failed to read location maps: %s**

Problem Description: Could not free a transaction handle against a database.
System Action: In most cases, the Core Server will terminate with an error.
Administrator Action: Make sure the database is operational. Restart the Core Server.

CORE5003   **Failed to read server metadata: %s**

Problem Description: The server table could not be read.
System Action: The select will fail. Servers may not be able to be contacted by clients.
Administrator Action: The log message will include information from Db2 about the failure. Address the database issue and the map will be updated the next time it is refreshed.

CORE5004   **Failed to read location maps from metadata: %s**

Problem Description: Could not free a transaction handle against a database.
System Action: In most cases, the Core Server will terminate with an error.
Administrator Action: Make sure the database is operational. Restart the Core Server.

CORE5005   **Zero server id in config metadata: %s**

Problem Description: A zero (nil) server ID was encountered while reading server configurations.
System Action: The server information represented by the ID will not be put into the location map cache until the problem is fixed.
Administrator Action: Fill in the server's ID with SSM. The maps will be reread periodically so recycling the Core Server is not needed.

CORE5006   **No local Root Core Server found in config metadata: %s**

Problem Description: The Core Server cannot find a local root core server in the configuration metadata.
System Action: The Core Server will terminate with an error.
Administrator Action: Make sure the database is operational. Restart the Core Server.

CORE5007   **Too many Root Core Servers found in config metadata: %s**

Problem Description: The Core Server is having trouble reading the location map information.
System Action: This error increases in severity over time. If it occurs too many times in a row during startup or reinitialization, the Core Server terminates. Otherwise, the Core Server will continue to process requests with the information already stored in its cache.
Administrator Action: Make sure the database is running and that the Core Server has read access to the general server configuration table.

CORE5008   **Server is under heavy connection load: %s**

Problem Description: The Core Server is under heavy request load.
System Action: The server will reject requests above its thread limit. Clients will attempt to rebind to replicated Core Servers, if available.
Administrator Action: Update the connection limits for the Core Server. If multiple Core Servers are configured, verify that all configured core servers are included in ep.conf on client systems.

CORE5009   **Prior error condition cleared: %s**

Problem Description: The previously reported heavy load condition has ceased.
System Action: None.
Administrator Action: Look through the log to determine when the load started and see if a cause can be identified. If that cause is likely to occur again, update the connection limits for the Core Server. If multiple Core Servers are configured, verify that all configured core servers are included in ep.conf on client systems.

CORE5010   **Entering API: %s**

Problem Description: The specified API RPC request is starting
System Action: None
Administrator Action: None

CORE5011   **Leaving API: %s**

Problem Description: The specified API RPC request is finished
System Action: None
Administrator Action: None

CORE5012   **Loading location map info: %s**

Problem Description: The Core Server has started loading local and remote location map information.
System Action: None. Client requests will be processed once this information has been loaded
Administrator Action: None

CORE9998   **\n**

Problem Description: No problem, information only.
System Action: No problem, information only.
Administrator Action: This could help identify the contents of the IOD structure.

CORE9999 \n

Problem Description: No problem, information only.

System Action: No problem, information only.

Administrator Action: This could help identify the contents of the IOR structure.

Chapter 5. GKSR series (Gatekeeper error message)

GKSR0001   **>>>> Gatekeeper Server Initialization has completed! <<<<**

Problem Description: None.
System Action: None.
Administrator Action: None.

GKSR0002   **NULL Output Control Number parameter passed to %s.**

Problem Description: A NULL output control number was passed to this function.
System Action: The request will fail.
Administrator Action: Internal Gatekeeper error. Contact HPSS support.

GKSR0004   **Found duplicate entry (ControlNo=%s) in the GK cache table in %s.**

Problem Description: The Gatekeeper is attempting to insert a new entry into its cache and the new entry's identifier (ControlNo) is already in the cache.
System Action: The error is returned and the Gatekeeper continues.
Administrator Action: None.

GKSR0005   **The DefaultWaitTime (%d) must be set to a value greater than 0.**

Problem Description: The Gatekeeper either is receiving a request to change the DefaultWaitTime to an unsupported value, or the DefaultWaitTime is bad in the Gatekeeper's specific configuration record.
System Action: If the Gatekeeper is receiving a request to change the DefaultWaitTime to an unsupported value, then it will return an error and continue. If the DefaultWaitTime is bad in the Gatekeeper's specific configuration record, then the Gatekeeper will halt.
Administrator Action: Don't attempt to set or change the DefaultWaitTime in the Gatekeeper's Type-specific Configuration record to a value less than 1. Fix the Gatekeeper's specific configuration record to have a value greater than zero.

GKSR0006   **The HowMany parameter is zero in %s.**

Problem Description: The HowMany parameter to the gk_Query API is zero which is invalid.
System Action: The Gatekeeper returns an error and continues.
Administrator Action: Check the application.

GKSR0007   **An attempt to get the user credentials failed with error %d.**

Problem Description: There was a problem getting the user's credentials.
System Action: The Gatekeeper returns an error and continues.
Administrator Action: None.

GKSR0008   **Unable to locate GK Cache entry with ControlNo *%s* that should be present: %s.**

Problem Description: The Gatekeeper attempted to look up the entry with the specified ControlNo identifier in the cache, but the expected entry was not found.
System Action: The error is returned and the Gatekeeper continues. This error may occur when the Gatekeeper is restarted in the middle of a request (for example, the file was opened, but not yet closed).
Administrator Action: None.

GKSR0009   **The DefaultWaitTime defined in the GK's managed object is zero and needs to be modified to a value greater than zero. Instead using *%d* as the DefaultWaitTime.**

Problem Description: The Gatekeeper's site policy module is returning zero for the WaitTime on a create, open, or stage request that it wants retried. This indicates that it wants the Gatekeeper to use the value stored in the managed object; however, the Gatekeeper discovered that the value is zero, so it instead picks a default which is displayed in this error message.
System Action: The Gatekeeper will log an error and continue with its own default wait time value (10 seconds).
Administrator Action: Fix the Gatekeeper's managed object screen to have a value greater than zero.

GKSR0010   **An unauthorized user attempted to modify the GK specific config managed object data.**

Problem Description: None.
System Action: None.
Administrator Action: None.

GKSR0012 **There was no connection data in the ConnectionContext.**

Problem Description: hpss_EnterConnection did not return the expected data.
System Action: The Gatekeeper returns an error and continues.
Administrator Action: None.

GKSR0013 **The Gatekeeper Site Interface (%s) returned error (%d) during initialization: %s**

Problem Description: The Gatekeeper gk_site_Init interface returned an error during initialization.
System Action: The Gatekeeper halts.
Administrator Action: Check the gatekeeping site policy code.

GKSR0016 **Error %d from hpss_InitServer during initialization.**

Problem Description: The specified error occurred when hpss_InitServer was called.
System Action: The Gatekeeper halts.
Administrator Action: Check status of the HPSS security interface. Restart Gatekeeper.

GKSR0017 **Error %d from uuid_create in %s.**

Problem Description: The specified error occurred when uuid_create was called to create a Gatekeeper Cache entry identifier.
System Action: The Gatekeeper halts.
Administrator Action: Check status of the HPSS UUID interface. Restart Gatekeeper.

GKSR0022 **An unauthorized user attempted to read the GK Entry Cache table.**

Problem Description: An unauthorized user tried to read the Gatekeeper's cache via the gk_Query API.
System Action: The Gatekeeper returns an error and continues.
Administrator Action: None.

GKSR0024   **CRASH was called from file %s at line number %d.**

Problem Description: The Gatekeeper has encountered an unrecoverable error and is shutting down.
System Action: The Gatekeeper halts.
Administrator Action: Examine the error messages and take corrective action. Restart the Gatekeeper.

GKSR0026   **Received an unexpected NULL entry from %s in %s.**

Problem Description: The Gatekeeper attempted to find an entry in its cache and hit an unexpected error condition due most likely to a coding bug.
System Action: The Gatekeeper halts.
Administrator Action: Inform HPSS support of this problem. Restart the Gatekeeper.

GKSR0027   **Processing unknown request type (%d) in %s.**

Problem Description: The Gatekeeper attempted to process an unknown request type. Valid request types are create, open, and stage.
System Action: The Gatekeeper halts.
Administrator Action: Make sure that the Gatekeeper was compiled with the correct include files. Restart the Gatekeeper.

GKSR0033   **Bit parameter must be either 0 or 1 but was instead: %d in SetBit.**

Problem Description: SetBit was called to set a bit in a bit vector; however, the bit value was neither 0 nor 1.
System Action: The Gatekeeper halts.
Administrator Action: Restart the Gatekeeper.

GKSR0035   **Error %d from pthread_create creating %s.**

Problem Description: The attempt to create the specified thread failed when the call to pthread_create failed with an error.
System Action: The Gatekeeper shuts down.
Administrator Action: Ensure the HPSS thread interface is functioning properly and then restart the Gatekeeper.

GKSR0036   **The initiate request with UID=%d RealmId=%d AuthorizedCaller=%d RequestType=%d was called with a nil HostAddr. Contact HPSS support. The GK will continue.**

Problem Description: The Gatekeeper received a zero-filled HostAddr attribute from the Core Server for the create, open, or stage request. This indicates that HPSS had a problem filling in the host socket address.
System Action: The event is logged and the Gatekeeper continues.
Administrator Action: Ensure that the network is up. Inform HPSS support of this problem.

GKSR0037   **The site policy is returning HPSS_EUSER_DENY for UID=%PRIu32 RealmID=%PRIu32 RequestType=%s. This indicates that the gatekeeping site policy is denying a particular user access.**

Problem Description: The Gatekeeper received an HPSS_EUSER_DENY error code from the site routine for the create, open, or stage request. This indicates that the gatekeeping site policy is denying a particular user access.
System Action: The event is logged as a TRACE record. The error status is returned to the Core Server. The Core Server returns the error status to the Client API where it is mapped into an EACCES error code which is returned to the calling application.
Administrator Action: The gatekeeping site policy code is denying a user access. Verify that this is the desired result.

GKSR0038   **The site policy is returning HPSS_ETHRESHOLD_DENY for UID=%PRIu32 RealmID=%PRIu32 RequestType=%s. This indicates that the gatekeeping site policy is denying a particular request due to a threshold limit.**

Problem Description: The Gatekeeper received an HPSS_ETHRESHOLD_DENY error code from the site routine for the create, open, or stage request. This indicates that the gatekeeping site policy is denying a particular request due to a threshold limit.
System Action: The event is logged as a TRACE record. The error status is returned to the Core Server. The Core Server returns the error status to the Client API where it is mapped into an EBUSY error code which is returned to the calling application.
Administrator Action: The gatekeeping site policy code is denying access due to a threshold limit. Take the necessary steps to decrease the load.

GKSR0039 **Invalid request code (%d) setting up an RTM request entry in %s.**

Problem Description: The Gatekeeper attempted to create an RTM request entry with an invalid request code.
System Action: The Gatekeeper logs an error and continues.
Administrator Action: Make sure that the Gatekeeper was compiled with the correct include files. Restart the Gatekeeper if necessary.

GKSR0040 **Error %d from %s removing RTM request entry (request code *%d*) in %s.**

Problem Description: The Gatekeeper attempted to destroy an RTM request entry and got an error from the RTM library.
System Action: The Gatekeeper logs an error and continues.
Administrator Action: Make sure that the Gatekeeper and RTM library were compiled with the correct include files. Restart the Gatekeeper if necessary.

GKSR0041 **Bad INDEX value (%d) was supplied in %s.**

Problem Description: An attempt was made to set an attribute field; however, there is no attribute field that corresponds to one of the bits found in InEntryBits.
System Action: The error is logged and the Gatekeeper continues.
Administrator Action: Check the application.

GKSR0042 **The supplied Descriptive Name is too long in InitializeServer**

Problem Description: During initialization the Gatekeeper's descriptive name was discovered to be longer than (HPSS_MAX_DESC_NAME - 1).
System Action: The Gatekeeper shuts down.
Administrator Action: Make sure the Gatekeeper's descriptive name in the generic configuration file is correct and less than (HPSS_MAX_DESC_NAME - 1) characters in length.

GKSR0043 **Error %d from %s updating the RTM request entry wait reason to *%d* in %s.**

Problem Description: The Gatekeeper attempted to update an RTM request entry's wait reason and got an error.
System Action: The Gatekeeper logs an error and continues.
Administrator Action: Make sure that the Gatekeeper and RTM library were compiled with the correct include files. Restart the Gatekeeper if necessary.

GKSR0044   **Invalid wait reason (%d) setting up an RTM request entry in %s.**

Problem Description: The Gatekeeper attempted to update an RTM request entry's wait reason and the wait reason was invalid.
System Action: The Gatekeeper logs an error and continues.
Administrator Action: Make sure that the Gatekeeper and RTM library were compiled with the correct include files. Restart the Gatekeeper if necessary.

GKSR0045   **Got an impossible NotificationType (%d) in NotifySSM.**

Problem Description: A consistency check has failed. There are a limited number of Notification Types and this is one that the Gatekeeper does not recognize.
System Action: The Gatekeeper shuts down.
Administrator Action: Ensure that the Gatekeeper was compiled using the correct include files. Restart the Gatekeeper.

GKSR0046   **Error %d from %s deleting RTM wait entry (wait reason *%d*) in %s.**

Problem Description: The Gatekeeper attempted to delete a wait entry from an RTM request entry and got an error from the RTM library.
System Action: The Gatekeeper logs an error and continues.
Administrator Action: Make sure that the Gatekeeper and RTM library were compiled with the correct include files. Restart the Gatekeeper if necessary.

GKSR0047   **Error %d from %s inserting RTM wait entry (wait reason *%d*) in %s.**

Problem Description: The Gatekeeper attempted to insert a wait entry from an RTM request entry and got an error from the RTM library.
System Action: The Gatekeeper logs an error and continues.
Administrator Action: Make sure that the Gatekeeper and RTM library were compiled with the correct include files. Restart the Gatekeeper if necessary.

GKSR0048   **Error %d attempting to contact SSM in %s.**

Problem Description: The Gatekeeper attempted to send a message to the SSM and it failed. The notification thread will sleep until the connection to the SSM is restored.
System Action: The Gatekeeper logs a debug error and continues.
Administrator Action: None.

GKSR0049   **Entering procedure %s request from UID %d.**

Problem Description: This informative REQUEST message announces the entry into one of the Gatekeeper's API functions.
System Action: The event is logged and the Gatekeeper continues.
Administrator Action: None.

GKSR0050   **Attempting to terminate a create request via gk_Close.**

Problem Description: The Core Server is attempting to terminate a create request through the close mechanism. Create requests should be terminated via the gk_CreateComplete API.
System Action: The event is logged and the Gatekeeper returns an error and continues.
Administrator Action: Make sure that the Gatekeeper and Core Server were compiled with the correct include files. Restart the Gatekeeper or Core Server if necessary.

GKSR0051   **Attempting to terminate a create request via gk_StageComplete.**

Problem Description: The Core Server is attempting to terminate a create request through the stage mechanism. Create requests should be terminated via the gk_CreateComplete API.
System Action: The event is logged and the Gatekeeper returns an error and continues.
Administrator Action: Make sure that the Gatekeeper and Core Server were compiled with the correct include files. Restart the Gatekeeper or Core Server if necessary.

GKSR0052   **Attempting to terminate an open request via gk_CreateComplete.**

Problem Description: The Core Server is attempting to terminate an open request through the create mechanism. Open requests should be terminated via the gk_Close API.
System Action: The event is logged and the Gatekeeper returns an error and continues.
Administrator Action: Make sure that the Gatekeeper and Core Server were compiled with the correct include files. Restart the Gatekeeper or Core Server if necessary.

GKSR0053   **Attempting to terminate an open request via gk_StageComplete.**

Problem Description: The Core Server is attempting to terminate an open request through the stage mechanism. Open requests should be terminated via the gk_Close API.
System Action: The event is logged and the Gatekeeper returns an error and continues.
Administrator Action: Make sure that the Gatekeeper and Core Server were compiled with the correct include files. Restart the Gatekeeper or Core Server if necessary.

GKSR0054   **Attempting to terminate a stage request via gk_Close.**

Problem Description: The Core Server is attempting to terminate a stage request through the close mechanism. Stage requests should be terminated via the gk_StageComplete API.
System Action: The event is logged and the Gatekeeper returns an error and continues.
Administrator Action: Make sure that the Gatekeeper and Core Server were compiled with the correct include files. Restart the Gatekeeper or Core Server if necessary.

GKSR0055   **Attempting to terminate a stage request via gk_CreateComplete.**

Problem Description: The Core Server is attempting to terminate a stage request through the create mechanism. Stage requests should be terminated via the gk_StageComplete API.
System Action: The event is logged and the Gatekeeper returns an error and continues.
Administrator Action: Make sure that the Gatekeeper and Core Server were compiled with the correct include files. Restart the Gatekeeper or Core Server if necessary.

GKSR0056   **Administrative request to lock state is not supported in %s.**

Problem Description: This is a message logging the fact that the Gatekeeper has been asked to change its administrative state to lock which isn't supported by the Gatekeeper.
System Action: The request is logged and the Gatekeeper continues.
Administrator Action: This action is not supported.

GKSR0057   **Gatekeeper is reinitializing.**

Problem Description: The Gatekeeper is going through a reinitialization process.
System Action: The event is logged and the Gatekeeper reinitializes.
Administrator Action: None. Just an informative message.

GKSR0058   **Error %d while initializing mutex %s in %s.**

Problem Description: The Gatekeeper attempted to initialize a mutex with a call to pthread_mutex_init but the call failed.
System Action: The Gatekeeper halts.
Administrator Action: Ensure the HPSS thread interface is functioning properly and then restart the Gatekeeper.

GKSR0059   **Attempting to terminate a create request via mismatch API request type *%d*.**

Problem Description: The Core Server is attempting to terminate a create request through an unknown type of mechanism. Create requests should be terminated via the gk_CreateComplete API.
System Action: The event is logged and the Gatekeeper returns an error and continues.
Administrator Action: Make sure that the Gatekeeper and Core Server were compiled with the correct include files. Restart the Gatekeeper or Core Server if necessary.

GKSR0060   **Attempting to terminate an open request via mismatch API request type *%d*.**

Problem Description: The Core Server is attempting to terminate an open request through an unknown type of mechanism. Open requests should be terminated via the gk_Close API.
System Action: The event is logged and the Gatekeeper returns an error and continues.
Administrator Action: Make sure that the Gatekeeper and Core Server were compiled with the correct include files. Restart the Gatekeeper or Core Server if necessary.

GKSR0061   **Attempting to terminate a stage request via mismatch API request type *%d*.**

Problem Description: The Core Server is attempting to terminate a stage request through an unknown type of mechanism. Stage requests should be terminated via the gk_StageComplete API.

System Action: The event is logged and the Gatekeeper returns an error and continues.

Administrator Action: Make sure that the Gatekeeper and Core Server were compiled with the correct include files. Restart the Gatekeeper or Core Server if necessary.

GKSR0062   **The site policy is returning HPSS_EDQUOT for UID=%PRIu32 RealmID=%PRIu32 RequestType=*%s*. This indicates that the gatekeeping site policy is denying a particular request due to a quota limit.**

Problem Description: The Gatekeeper received an HPSS_EDQUOT error code from the site routine for the create, open, or stage request. This indicates that the gatekeeping site policy is denying a particular request due to a quota limit.

System Action: The event is logged as a TRACE record and returned to the client and calling application as an EDQUOT error code.

Administrator Action: The gatekeeping site policy code is denying access due to a quota limit. Work with users in violation or adjust the quota policy to resolve the quota violation. This could include adjusting the quota or reducing the total size of files managed by HPSS for the user or group.

GKSR0063   **Error %d from %s initializing the account validation interface in %s.**

Problem Description: An error was returned by av_Initialize during initialization.

System Action: The Gatekeeper halts.

Administrator Action: Check status of the Account Validation Service and the HPSS security interface. Restart Gatekeeper.

GKSR0064   **An illegal switch value (%d) was used in %s. Bits: 0x%08x%08x.**

Problem Description: The Gatekeeper was asked to change a non-existent field in its specific configuration record. These fields are selected using bit vectors. If this request was made from the SSM there may be a problem with the SSM.

System Action: The error is logged and the Gatekeeper continues.

Administrator Action: If the request is coming from the SSM and the error persists, restart the SSM.

GKSR0065   **Error %d was returned by pthread_cond_init for %s in %s.**

Problem Description: During initialization the Gatekeeper was attempting to initialize the condition variable, but received the indicated error from pthread_cond_init.
System Action: The Gatekeeper shuts down.
Administrator Action: Ensure the HPSS thread interface is functioning properly and then restart the Gatekeeper.

GKSR0066   **Error %d returned from pthread_cond_wait for %s in %s.**

Problem Description: The Gatekeeper was attempting to wait on the condition variable, but received the indicated error from pthread_cond_wait.
System Action: The Gatekeeper shuts down.
Administrator Action: Ensure the HPSS thread interface is functioning properly and then restart the Gatekeeper.

GKSR0067   **Error %d returned by pthread_create for %s in %s.**

Problem Description: The Gatekeeper attempted to create the specified thread but received an error.
System Action: The Gatekeeper shuts down.
Administrator Action: Ensure the HPSS thread interface is functioning properly and then restart the Gatekeeper.

GKSR0068   **Error %d from sigwait in SignalThread.**

Problem Description: The Gatekeeper called sigwait in its signal handling thread and received an error.
System Action: The error is logged and the Gatekeeper continues.
Administrator Action: Ensure that the operating system is functioning properly.

GKSR0069   **Received a %s signal in SignalThread.**

Problem Description: The Gatekeeper signal handling thread has caught a signal that it was registered for. This message tells which type of signal was caught.
System Action: Depends on the type of signal that was caught. Most signals cause the Gatekeeper to shut down.
Administrator Action: Restart the Gatekeeper if appropriate.

GKSR0070   **GKTRACE: %s.**

Problem Description: This is a special message used by the Gatekeeper while debugging or doing timing tests. One of the fields of this message is always the microsecond time.
System Action: None.
Administrator Action: None.

GKSR0072   **Error %d was returned from %s in %s.**

Problem Description: This is a very general error message that has been used in a multitude of places in the Gatekeeper generally to give additional DEBUG information to a previous error log.
System Action: The error is logged and depending on the error, the Gatekeeper either continues or halts.
Administrator Action: None.

GKSR0073   **Reset managed object field %s to zero since it was about to go negative.**

Problem Description: If any of the fields in the Gatekeeper's administrative statistic counts are about to overflow, the Gatekeeper resets the particular count to zero and logs this message.
System Action: The Gatekeeper logs the event and continues.
Administrator Action: None.

GKSR0074   **Error %d from hpss_uuid_compare while searching the cache to verify the new entry being added doesn't already exist in %s.**

Problem Description: The specified error occurred when uuid_compare was called to compare two UUIDs.
System Action: The Gatekeeper halts.
Administrator Action: Check status of the HPSS UUID interface. Restart Gatekeeper.

GKSR0075   **ShutDown: shutting down the Site Interface.**

Problem Description: This is an informative message announcing that the Gatekeeper is about to call gk_site_Shutdown to shut down the gatekeeping Site Interface.
System Action: The event is logged and the Gatekeeper will continue shutting down.
Administrator Action: Restart the Gatekeeper if appropriate.

GKSR0077   **Error %d from %s while shutting down the GK Site Interface.**

Problem Description: The Gatekeeper received an error shutting down the gatekeeping Site Interface (gk_site_Shutdown).
System Action: The event is logged and the Gatekeeper will continue shutting down.
Administrator Action: Check the gatekeeping Site Interface.

GKSR0078   **Error %d from %s while shutting down the Account Validation Service.**

Problem Description: The Gatekeeper received an error shutting down the Account Validation Service (av_Shutdown).
System Action: The event is logged and the Gatekeeper will continue shutting down.
Administrator Action: Check the Account Validation Service.

GKSR0084   **Exiting procedure %s.**

Problem Description: The Gatekeeper is logging the exit from one of its APIs.
System Action: The Gatekeeper continues.
Administrator Action: None.

GKSR0085   **Bad switch value (%d) supplied as a parameter to SetServerState.**

Problem Description: The Gatekeeper has supplied a bad switch value to SetServerState. This should be impossible.
System Action: The Gatekeeper shuts down.
Administrator Action: Restart the Gatekeeper.

GKSR0086   **The GK_READ_SITE_POLICY bit (%d) is ON but the corresponding ReadSitePolicy Data is not set to TRUE. Returning error %d in %s.**

Problem Description: The caller (generally SSM) is attempting to set the bit value to reread the site policy; however, the corresponding data value is not valid.
System Action: The Gatekeeper continues.
Administrator Action: The caller (SSM) is calling the gk_admin_GKSetAttrs API incorrectly.

GKSR0088   **Invalid SSM Connection State, GK_SSMConnectState = %d for %s in %s.**

Problem Description: The Gatekeeper detected an invalid SSM connection state.
System Action: The Gatekeeper shuts down.
Administrator Action: Restart the Gatekeeper. Examine the Gatekeeper core file.

GKSR0090   **Received Administrative request to set admin state to %s in %s.**

Problem Description: This is a message logging the fact that the Gatekeeper has been asked to change its administrative state.
System Action: The action will depend on the administrative state that was set.
Administrator Action: Administrator action will depend on the administrative state that was set.

GKSR0092   **Reset the CacheChainLength of the cache table entry *%d* to zero since it was about to go negative.**

Problem Description: The Gatekeeper maintains a CacheChainLength field for each entry of the cache for debug and performance analysis. If this field is about to go negative, then the Gatekeeper will reset the particular count to zero and log this message.
System Action: The Gatekeeper logs the event and continues.
Administrator Action: None.

GKSR0093   **The GK is being asked to retry the request (%s) which is NOT in the retry state. The state is *%d* in %s. If the state is *%d* then the request has already been allowed through.**

Problem Description: The Gatekeeper is being asked to retry a request which is not in the retry state. If the state is GK_GO then the request has already be permitted and is waiting to be completed; this could happen if the GK was restarted before the request was completed.
System Action: The Gatekeeper logs the event and continues.
Administrator Action: None.

GKSR0095   **The site policy is returning Error=%d for UID=%PRIu32 RealmID=%PRIu32 RequestType=%s.**

Problem Description: The Gatekeeper received an error code that is not HPSS_RETRY, HPSS_EUSER_DENY, nor HPSS_ETHRESHOLD_DENY from the site routine for the create, open, or stage request. This indicates that the gatekeeping site policy is having an internal problem.

System Action: The event is logged as a TRACE record. The error status is returned to the Core Server. The Core Server will issue a WARNING alarm and then retry several times before returning an error to the Client API. The Client API will map the error into an EIO error code which is returned to the calling application.

Administrator Action: The gatekeeping site policy code is having an internal problem.

GKSR0096   **Invalid Connection Type (%d) passed to %s.**

Problem Description: The Gatekeeper has supplied a bad TermConnectType switch value to TerminateConnection. This should be impossible.

System Action: The Gatekeeper shuts down.

Administrator Action: Restart the Gatekeeper.

GKSR0098   **The input ControlNo parameter is nil (zero filled) in %s for RequestType %d.**

Problem Description: The input parameter (InControlNoP) to the Gatekeeper was a nil UUID for the specified type of request (create, open, stage).

System Action: The Gatekeeper returns an error and continues.

Administrator Action: Check the Core Server.

GKSR0099   **ControlNo %s could not be found. Perhaps the GK was bounced while the Core Server was terminating this request of type %d.**

Problem Description: The Gatekeeper is being asked to terminate a request which is not in its cache. This could happen if the GK was restarted before the request was completed.

System Action: The Gatekeeper logs the event and continues.

Administrator Action: None.

GKSR0107   **Failed to insert RTM entry with wait reason %d.**

Problem Description: Gatekeeper failed to insert an RTM entry.

System Action: Gatekeeper continues.

Administrator Action: Contact HPSS support.

GKSR0108   **Failed to update RTM entry with wait reason %d.**

Problem Description: Gatekeeper failed to update an RTM entry.
System Action: Gatekeeper continues.
Administrator Action: Contact HPSS support.

GKSR0109   **Failed to delete RTM entry from list.**

Problem Description: Gatekeeper failed to delete an RTM entry.
System Action: Gatekeeper continues.
Administrator Action: Contact HPSS support.

GKSR0110   **Error %d while locking mutex %s in %s.**

Problem Description: The Gatekeeper attempted to lock a mutex and received an error from pthread_mutex_lock.
System Action: The Gatekeeper shuts down.
Administrator Action: Ensure the HPSS thread interface is functioning properly and then restart the Gatekeeper.

GKSR0111   **Error %d while unlocking mutex %s in %s.**

Problem Description: The Gatekeeper has attempted to unlock a mutex and received an error from pthread_mutex_unlock.
System Action: The Gatekeeper shuts down.
Administrator Action: Ensure the HPSS thread interface is functioning properly and then restart the Gatekeeper.

GKSR0112   **Error %d from pthread_cond_signal %s in %s.**

Problem Description: The Gatekeeper attempted to issue a condition signal and received an error from pthread_cond_signal.
System Action: The Gatekeeper shuts down.
Administrator Action: Ensure the HPSS thread interface is functioning properly and then restart the Gatekeeper.

GKSR0114   **Failed to insert RTM entry into list, request code %d.**

Problem Description: Gatekeeper failed to insert an RTM entry.
System Action: Gatekeeper continues.
Administrator Action: Contact HPSS support.

GKSR0115 **The call to %s failed while trying to lock or unlock a mutex in %s.**

Problem Description: The Gatekeeper receive a mutex error from a call to a real time monitoring library routine.
System Action: The Gatekeeper shuts down.
Administrator Action: Ensure the HPSS thread interface is functioning properly and then restart the Gatekeeper.

GKSR0116 **The call to %s failed while trying to get space in %s.**

Problem Description: The Gatekeeper received an HPSS_ENOMEM error from a call to a real time monitoring library routine.
System Action: The Gatekeeper shuts down.
Administrator Action: Ensure the real time monitoring service is functioning properly and then restart the Gatekeeper.

GKSR0117 **An unauthorized user tried to use the GK server %s interface.**

Problem Description: An unauthorized user tried to use one of the Gatekeeper's gatekeeping APIs.
System Action: The Gatekeeper returns an error and continues.
Administrator Action: None.

GKSR0118 **An unauthorized user tried to modify the GK server state data in %s.**

Problem Description: An unauthorized user tried to modify the Gatekeeper's state.
System Action: The Gatekeeper returns an error and continues.
Administrator Action: None.

GKSR0119 **The call to malloc failed while trying to get space for %s in %s.**

Problem Description: The Gatekeeper received an error from a call to malloc memory.
System Action: The Gatekeeper shuts down.
Administrator Action: Ensure that the operating system is functioning properly and then restart the Gatekeeper.

GKSR0120 **%s server for subsys %d is non-executable**

Problem Description: The Gatekeeper was started, however it is non-executable.
System Action: The Gatekeeper shuts down.
Administrator Action: Mark the Gatekeeper as executable, and try to start it again.

GKSR0121 **An unauthorized user tried to read the GK server state data in %s.**

Problem Description: An unauthorized user tried to read the Gatekeeper's state.
System Action: The Gatekeeper returns an error and continues.
Administrator Action: None.

GKSR0122 **An unauthorized user tried to read the GK managed object data in %s.**

Problem Description: An unauthorized user tried to read the Gatekeeper's managed object.
System Action: The Gatekeeper returns an error and continues.
Administrator Action: None.

GKSR0123 **Error %d from mm_CreateAutoTransHandle getting global database (%s) handle in ReadConfig.**

Problem Description: The Gatekeeper attempted to get a transaction handle for the global database and received an error.
System Action: The Gatekeeper halts.
Administrator Action: Ensure that DB2 is functioning properly and restart the Gatekeeper.

GKSR0124 **MMLIB error getting global database handle - %s.**

Problem Description: The Gatekeeper attempted to get a transaction handle for the global database and received an error. The error message includes text returned by mm_error_inq_text.
System Action: The Gatekeeper halts.
Administrator Action: Ensure that DB2 is functioning properly and then restart the Gatekeeper.

GKSR0125   **MMLIB error reading global config record - %s**

Problem Description: The Gatekeeper attempted to read the global config record and received an error. The error message includes text returned by mm_error_inq_text.
System Action: The Gatekeeper halts.
Administrator Action: Ensure that DB2 is functioning properly and then restart the Gatekeeper.

GKSR0126   **MMLIB error reading generic config record - %s**

Problem Description: The Gatekeeper attempted to read the generic config record and received an error. The error message includes text returned by mm_error_inq_text.
System Action: The Gatekeeper halts.
Administrator Action: Ensure that DB2 is functioning properly and then restart the Gatekeeper.

GKSR0127   **MMLIB error reading specific config record - %s**

Problem Description: The Gatekeeper attempted to read the specific config record and received an error. The error message includes text returned by mm_error_inq_text.
System Action: The Gatekeeper halts.
Administrator Action: Ensure that DB2 is functioning properly and then restart the Gatekeeper.

GKSR0128   **MMLIB error selecting SSM server type config - %s**

Problem Description: The Gatekeeper attempted to select the SSM server type config and received an error. The error message includes text returned by mm_error_inq_text.
System Action: The Gatekeeper halts.
Administrator Action: Ensure that DB2 is functioning properly and then restart the Gatekeeper.

GKSR0129   **MMLIB error reading SSM generic config records - %s**

Problem Description: The Gatekeeper attempted to read SSM server generic config records and received an error. The error message includes text returned by mm_error_inq_text.
System Action: The Gatekeeper halts.
Administrator Action: Ensure that DB2 is functioning properly and then restart the Gatekeeper.

GKSR0130   **Cannot read %s servers for subsys %d**

Problem Description: None.
System Action: None.
Administrator Action: None.

GKSR0131   **Cannot select SSM servers for type %s subsys %d**

Problem Description: None.
System Action: None.
Administrator Action: None.

GKSR0132   **Cannot read GK server configuration for GK %s**

Problem Description: None.
System Action: None.
Administrator Action: None.

GKSR0133   **No SSM server %s found for subsys %d**

Problem Description: None.
System Action: None.
Administrator Action: None.

GKSR0134   **Server type %s for subsys %d is non-executable**

Problem Description: None.
System Action: None.
Administrator Action: None.

GKSR0135 **Unable to read GK server metadata**

Problem Description: None.
System Action: None.
Administrator Action: None.

GKSR0136 **Error %d from %s shutting down the Real Time Monitoring service in %s.**

Problem Description: While trying to shut down, the Gatekeeper got an error from rtm_Shutdown.
System Action: The Gatekeeper continues to shut down.
Administrator Action: None.

GKSR0137 **Unable to read GK metadata from global config**

Problem Description: None.
System Action: None.
Administrator Action: None.

GKSR0138 **ShutDown: shutting down the Real Time Monitoring service.**

Problem Description: The Gatekeeper is shutting down the Real Time Monitoring service and this is an informative message.
System Action: The Gatekeeper will continue to shut down.
Administrator Action: None.

GKSR0139 **ShutDown: Unregistering %s service.**

Problem Description: The Gatekeeper is shutting down the specified service and this is an informative message.
System Action: The Gatekeeper will continue to shut down.
Administrator Action: None.

GKSR0140 **ShutDown: shutting down the Account Validation service.**

Problem Description: The Gatekeeper is shutting down the Account Validation Service and this is an informative message.
System Action: The Gatekeeper will continue to shut down.
Administrator Action: None.

GKSR0141   **MM transaction failed, error = %d.**

Problem Description: A Gatekeeper transaction failed; tranLogError was called to report the error.
System Action: The Gatekeeper returns control to the caller of tranLogError.
Administrator Action: Check the status of the Account Validation Service.

GKSR0142   **MM transaction error - %s.**

Problem Description: A Gatekeeper transaction failed; tranLogError was called to report the error. The error message includes text returned by mm_error_inq_text.
System Action: The Gatekeeper returns control to the caller of tranLogError.
Administrator Action: Check the status of the Account Validation Service.

GKSR0143   **Cannot initialize RTM library**

Problem Description: None.
System Action: None.
Administrator Action: None.

GKSR0144   **Cannot start MMLIB.**

Problem Description: None.
System Action: None.
Administrator Action: None.

Chapter 6. MMLIB series (Metadata Manager library error messages)

MMLIB001   **%s returned %d**

Problem Description: An error occurred processing an SQL transaction or a C API.
System Action: The process continues executing.
Administrator Action: The error message provides diagnostic information for why a problem occurred. If the problem persists, contact HPSS support.

MMLIB003   **Heap exhausted at line %d in file %s**

Problem Description: This is logged when there is not enough system memory to complete an MMLIB operation.
System Action: The system crashes and generates a core dump.
Administrator Action: Free up some memory and try again. If the problem persists, contact HPSS support.

MMLIB004   **Error locking or unlocking mutex**

Problem Description: An error occurred while locking or unlocking a mutex.
System Action: The system crashes and generates a core dump.
Administrator Action: Contact HPSS support.

MMLIB005   **Assertion failed: %s**

Problem Description: The software checked to see if a condition was true and it was not.
System Action: The server crashes and generates a core dump.
Administrator Action: Contact HPSS support.

MMLIB006   **SQLDisconnect failed, sqlstate: %s**

Problem Description: The software tried to disconnect from the database but was unable to.
System Action: The process continues executing.
Administrator Action: This problem should not occur. If the problem persist, contact HPSS support.

MMLIB007   **SQLFreeHandle failed, sqlstate: %s**

Problem Description: There was an error trying to free up Db2 resources.
System Action: The process continues executing.
Administrator Action: This problem should not occur. If the problem persist, contact HPSS support.

MMLIB008   **SQLFreeStmt(SQL_CLOSE) failed, sqlstate: %s**

Problem Description: There was an error trying to properly end Db2 processing.
System Action: The process continues executing.
Administrator Action: This problem should not occur. If the problem persist, contact HPSS support.

MMLIB009   **Now using up to %d database connections**

Problem Description: This is an informational message which indicates the number of connections used by Db2 increased.
System Action: The process continues executing.
Administrator Action: No action required.

MMLIB010   **Last Error Text: %s**

Problem Description: This is logged after an MMLIB operation fails and indicates the error text associated with the last operation.
System Action: The process continues executing.
Administrator Action: If the problem persists, the information logged may provide good diagnostic information to understand the problem.

MMLIB011   **DB connection has been busy %ld seconds, taken by %s at line %d, %s an uncommitted transaction**

Problem Description: A Db2 transaction has taken longer than expected to complete and has exceeded the one hour timeout.
System Action: The process continues executing.
Administrator Action: If the problem persists, the information logged may provide good diagnostic information to understand the problem.

MMLIB012   **Server shutdown due to MM lib critical error**

Problem Description: This is logged when a severe issue occurs.
System Action: The server crashes and generates a core dump.
Administrator Action: Contact HPSS support.

Chapter 7. MOVR series (Mover error messages)

MOVR0001   **Internal software error:**

Problem Description: The Mover experienced an unexpected internal logic error.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0002   **Error range check failure on device %PRIu32**

Problem Description: The Mover detected an invalid I/O range beyond the capability of the disk device.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0003   **Device ID %PRIu32 out of range**

Problem Description: A request specified a device identifier that is out of the range of valid device identifiers.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine the source of the request and the cause of invalid device identifier.

MOVR0004   **Device %PRIu32 not configured**

Problem Description: A request specified a device identifier that does not correspond to a device that is configured for the Mover.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine the source of the request and the cause of invalid device identifier.

MOVR0005   **Invalid SelectionFlags 0x%PRIx64**

Problem Description: A request specified an invalid value for the SelectionFlags parameter.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine the source of the request and the cause of invalid selection flags.

MOVR0006   **Change of unsettable device attribute, SelFlags = 0x%PRIx64**

Problem Description: A request to set device object attributes specified changing an unsettable attribute.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine the source of the request and the cause of invalid selection flags.

MOVR0007   **Invalid device attribute value: attribute %d, value %d**

Problem Description: A request to set device object attributes specified an invalid attribute value.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine the source of the request and the cause of invalid attribute value.

MOVR0008   **Bad request specific info type: sub-function %d, type %d**

Problem Description: A device specific request contained an information type that was invalid for the operation requested.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine the source of the request and the cause of the invalid information type.

MOVR0009   **Bad device specific subtype: %d**

Problem Description: A device specific request contained an invalid request subtype.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine the source of the request and the cause of the invalid subtype.

MOVR0010   **Device %PRIu32, volume %.8s is not currently open**

Problem Description: A request that requires a device to have previously been opened was attempted on a device that had not previously been opened.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine the source of the request and the cause of the request being made when the device was not open.

MOVR0011   **Error reading device %PRIu32, volume %.8s, section %d, offset %lu**

Problem Description: An error was encountered while reading data from a device.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Perform problem determination on the device or medium, and verify that the request was for a valid data position. Check the system error logs on the suspected node, have the customer engineer check the drive for problems or make sure that the drive has been regularly cleaned with a cleaning cartridge.

MOVR0012   **Error writing device %PRIu32, volume %.8s, section %d, offset %lu**

Problem Description: An error was encountered while writing data to a device.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Perform problem determination on the device or medium, and verify that the request was for a valid data position. (For sequential media, this error may be generated at end-of-media.)

MOVR0013   **Device %PRIu32 in unwritable position, volume %.8s, section %d, offset %PRIu64**

Problem Description: An attempt was made to write to a tape at an invalid position.

System Action: The current request is aborted and an error indication is returned to the client specification.

Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0014   **Device %PRIu32 in unreadable position, volume %.8s, section %d, offset %PRIu64**

Problem Description: An attempt was made to read from a tape at an invalid position.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0015   **Absolute addressing not supported on device %PRIu32, type 0x%x**

Problem Description: An attempt was made to perform absolute positioning on a device that does not support absolute positioning.

System Action: This message is logged, and the tape is positioned using the relative positioning information provided.

Administrator Action: Verify that the device is configured to support absolute positioning and that the Mover was built with any required device specific interface code enabled. If the device and Mover are properly configured, determine the source of the request and the cause of the invalid request specification.

MOVR0016   **Open of device %PRIu32 (%s) failed**

Problem Description: An attempt to access a device could not be satisfied because the device file could not be opened.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Perform problem determination on the device or medium. Verify that the correct device name is configured for the drive and that the user ID under which the Mover is running has read and write access to the device.

MOVR0017   **Rewind of device %PRIu32 failed**

Problem Description: A tape rewind operation failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Perform problem determination on the device or medium.

MOVR0018   **Read of label on device %PRIu32 failed, return value = %d**

Problem Description: An attempt to read the media volume label failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Perform problem determination on the device or medium.

MOVR0019   **Verification of label on device %PRIu32 failed: "%.6s%.2s" and "%.8s"**

Problem Description: The volume label specified did not match the volume label written on the media.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0020   **Unload of device %PRIu32 failed**

Problem Description: An unload operation failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Perform problem determination on the device or medium.

MOVR0021   **Forward space file failed on device %PRIu32, volume %.8s, count %d**

Problem Description: An attempt to position a tape forward a number of tape marks failed.
System Action: The current positioning information is reset and an attempt is made to retry the positioning operation.
Administrator Action: Perform problem determination on the device or medium, and verify that the target position is a valid data position.

MOVR0022   **Reverse space file failed on device %PRIu32, volume %.8s, count %d**

Problem Description: An attempt to position a tape backward a number of tape marks failed.

System Action: The current positioning information is reset and an attempt is made to retry the positioning operation.

Administrator Action: Perform problem determination on the device or medium, and verify that the target position is a valid data position.

MOVR0023   **Header read on device %PRIu32, volume %.8s, section %d failed, return value = %d. Retrying with relative address.**

Problem Description: An attempt to read a tape section header failed.

System Action: The current positioning information is reset and an attempt is made to retry the positioning operation.

Administrator Action: Perform problem determination on the device or medium, and verify that the target position is a valid data position.

MOVR0024   **Forward space record failed on device %PRIu32, volume %.8s, count %d**

Problem Description: An attempt to position a tape forward a number of blocks failed.

System Action: The current positioning information is reset and an attempt is made to retry the positioning operation.

Administrator Action: Perform problem determination on the device or medium, and verify that the target position is a valid data position.

MOVR0025   **Label write on device %PRIu32 failed, return value = %d**

Problem Description: An attempt to write a volume label failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Perform problem determination on the device or medium (for sequential media, this error may be generated at end-of-media).

MOVR0026   **Header write on device %PRIu32, volume %.8s, section %d failed, return value = %ld**

Problem Description: An attempt to write a tape section header failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Perform problem determination on the device or medium (for sequential media, this error may be generated at end-of-media).

MOVR0027   **Tape mark write on device %PRIu32, volume %.8s failed SCSI status %s, sense %s**

Problem Description: An attempt to write a tape mark failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Perform problem determination on the device or medium (for sequential media, this error may be generated at end-of-media).

MOVR0028   **Attempt to obtain timer expiration date failed**

Problem Description: A request to obtain the time at which the timer is to periodically notify the HPSS Storage System Manager of the current state of the Mover failed.
System Action: The Mover terminates.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0029   **Tape drive sync failed on device %PRIu32, volume %.8s, SCSI status %s, sense %s**

Problem Description: An attempt to sync failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Perform problem determination on the device or medium.

MOVR0030   **Could not read object buffer status from device %PRIu32, SCSI status %s, sense %s**

Problem Description: An attempt to read the object buffer status from the device failed after writing a tape mark, so this tape mark will not be used as a valid rollback location.
System Action: The current request continues.
Administrator Action: Perform problem determination on the device.

MOVR0031   **Logical object location unknown for device %PRIu32**

Problem Description: The logical object location is unknown, so a valid rollback point cannot be created.
System Action: The current request continues.
Administrator Action: Perform problem determination on the device.

MOVR0032   **Could not get tape absolute position for device %PRIu32**

Problem Description: An attempt to query the current absolute position of a tape failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Perform problem determination on the device or medium.

MOVR0033   **Error polling socket descriptor**

Problem Description: An error occurring polling a network socket descriptor.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine if the client aborted the transfer. If not, perform problem determination on both ends of the connection to determine the cause of the failure.

MOVR0034   **I/O error on socket descriptor**

Problem Description: An error occurring performing I/O on a network socket.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine if the error corresponds to an aborted request or perform problem determination on the network.

MOVR0035   **Disk array flush failed for device %PRIu32**

Problem Description: An attempt to flush data to a device failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0036   **Failure initializing performance logging: %s**

Problem Description: A failure occurred trying to initialize performance logging.

System Action: Operation continues.

Administrator Action: Determine if the performance logging file and directory have the appropriate permissions.

MOVR0037   **Invalid source/sink reply list in IOR**

Problem Description: An invalid source/sink reply list was detected while freeing memory allocate to an IOR.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0038   **Invalid request specific reply in IOR**

Problem Description: An invalid request specific reply entry was detected while freeing memory allocated to an IOR.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0039   **Invalid function %d specified in IOD**

Problem Description: A request specified an unrecognized function.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0040   **Invalid shared memory id %s**

Problem Description: The Mover TCP/IP listen process was started with an invalid shared memory identifier.
System Action: The Mover terminates execution.
Administrator Action: Internal Mover error. contact HPSS support.

MOVR0041   **Could not bind to address %s, port %s**

Problem Description: The Mover TCP/IP listen process could not create the listen port with the address specified in the Mover's configuration metadata.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine if the Mover is already running.

MOVR0042   **No available request table slots**

Problem Description: A request could not be satisfied because the Mover request table is full.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine the cause for the large number of outstanding Mover operations.

MOVR0043   **Could not receive IOD**

Problem Description: An error was detected while attempting to receive an IOD.
System Action: The IOD is ignored.
Administrator Action: Determine the source of the invalid IOD or the system error causing the failure of the Mover to receive it.

MOVR0044   **Could not send IOR**

Problem Description: An error was detected while attempting to send an IOR.
System Action: Various actions depending on the situation.
Administrator Action: Determine the client receiving the IOR and verify that the request is still outstanding.

MOVR0045   **Could not allocate memory for IOR**

Problem Description: Memory could not be allocated to hold the status of a request.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0046   **Bad request slot %ld**

Problem Description: The Mover detected an invalid request table slot number.
System Action: Operation continues.
Administrator Action: Internal Mover error, contact HPSS support.

MOVR0047   **Bad IP port: %d**

Problem Description: The Mover TCP/IP listen port was started with an invalid TCP/IP port number.
System Action: The Mover terminates execution.
Administrator Action: Verify that the Mover configuration metadata is correct.

MOVR0048   **Source/Sink offset mismatch, mover offset %PRIu64**

Problem Description: A transfer offset specified in the Mover side of a transfer had no corresponding entry on the client side of a transfer.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0049   **Invalid stripe address at mover offset %PRIu64, %PRIu64**

Problem Description: A Mover side stripe address contained an invalid offset.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0050   **Invalid address type: %d**

Problem Description: A request specified an invalid address type.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0051   **Invalid source/sink descriptor list length, source length: %PRIu32 sink length: %PRIu32**

Problem Description: A request specified a negative source/sink descriptor length.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0052 **Zero source/sink descriptor length**

Problem Description: A request specified a source/sink descriptor length of zero.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0053 **Invalid device stripe list length: %d**

Problem Description: A request specified an invalid device stripe list length (not equal to 1).

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0054 **Stripe parameters out of range: block size %PRId64, width %PRId64**

Problem Description: A request specified stripe parameters that would make the arithmetic needed to process the stripe impossible.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0055 **Hit end of source/sink list, length was %u, found %u**

Problem Description: A request specified a source/sink list that contained less entries than indicated by the specified list length.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0056   **Verification of IOD failed**

Problem Description: A request specified an invalid IOD. A previous message indicates the specific error.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0057   **Attempt to obtain device failed**

Problem Description: An attempt to gain control of a device failed. A previous message indicates the specific error.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0058   **Tape open failed for device %PRIu32**

Problem Description: An attempt to open a tape device failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0059   **Tape close failed for device %PRIu32, volume %.8s**

Problem Description: An attempt to close a tape device failed.
System Action: Operation continues.
Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0060   **Tape position failed for device %PRIu32, volume %.8s**

Problem Description: An attempt to change the position of a tape failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0061   **Tape read failed for device %PRIu32, volume %.8s**

Problem Description: An attempt to initiate a read for a tape failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0062   **Tape write failed for device %PRIu32, volume %.8s**

Problem Description: An attempt to initiate a write for a tape failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0063   **Error calculating next transfer offset, current: %PRIu64**

Problem Description: The Mover could not determine the next offset within a transfer for which it is responsible.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0064   **Error determining client address, offset: %PRIu64**

Problem Description: The Mover could not determine the client address for the next part of a transfer.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0065   **Error sending data to client, offset: %PRIu64**

Problem Description: An error was encountered while trying to send data to the client.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0066   **Error receiving data from client, offset: %PRIu64**

Problem Description: An error was encountered while trying to receive data from the client.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0067   **Could not initialize MM library: %s**

Problem Description: An error was encountered while trying to initialize the database interface.
System Action: The server aborts.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0068   **Unexpected I/O length for device %PRIu32: received %PRIu64, expected %PRIu64**

Problem Description: The amount of data transferred to or from a device did not match the expected amount.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Perform problem determination on the device or medium, and verify that the target position is a valid data position.

MOVR0069   **Block size specified, %d, does not match current section, %d**

Problem Description: A write request specified a block size that did not match the block size of the current section.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0070   **Begin section failed**

Problem Description: An error was encountered while trying to initialize a tape section.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0071   End section failed

Problem Description: An error was encountered while trying to end a tape section.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0072   Invalid performance logging event %u

Problem Description: An invalid performance logging event was encountered.

System Action: Operation continues.

Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0073   GetTransferDescriptor() failed

Problem Description: The Mover could not get a handle to use to transfer data to or from a client.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0074   Could not send data to client, address %s, port %s

Problem Description: An error was encountered while attempting to send data to a client using pdata over TCP/IP.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine if the client aborted the transfer. If not, perform problem determination on both ends of the transfer to determine the cause of the failure.

MOVR0075   Could not initialize listen list for pdata push

Problem Description: An error was encountered while attempting to initialize the listen list.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine if the client aborted the transfer. If not, perform problem determination on both ends of the transfer to determine the cause of the failure.

MOVR0076   **OpenClientConnection() failed**

Problem Description: The Mover could not open a data connection to a client.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0077   **SocketOpenConnection() failed**

Problem Description: The Mover could not create a TCP/IP connection to a client.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine if the client aborted the transfer. If not, perform problem determination on both ends of the transfer to determine the cause of the failure.

MOVR0078   **BlockSignal() failed**

Problem Description: An attempt to disable the delivery of a signal failed.
System Action: Operation continues.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0079   **UnBlockSignal() failed**

Problem Description: An attempt to enable the delivery of a signal failed.
System Action: Operation continues.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0080   **Null *ReqSpecInfo* pointer in IOD**

Problem Description: A request was received for which request specified information was required, but the request specific information pointer in the IOD was NULL.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0081   **Invalid request specific info type: %d**

Problem Description: The request specific information type specified in an IOD does not match that required for the requested operation.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0082   **Tape read label failed for device %PRIu32**

Problem Description: The Mover could not read the medium volume label.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine underlying cause of the error; a preceding message will describe the specific failure.

MOVR0083   **Invalid section number: %d**

Problem Description: A request specified a position that included an invalid section number.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0084   **Invalid block size: %d**

Problem Description: A request specified an invalid media block size.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0085   **Could not build *vol1* label for device %PRIu32**

Problem Description: The Mover could not build a VOL1 volume label.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0086   **Could not build *hdr1* for device %PRIu32**

Problem Description: The Mover could not build a HDR1 section header.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0087   **Could not build *hdr2* for device %PRIu32**

Problem Description: The Mover could not build a HDR2 section header.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0088   **Tape label initialization failed for device %PRIu32**

Problem Description: The Mover could not write the volume label to a tape.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0089   **AsyncRead() failed for device %PRIu32, volume %.8s**

Problem Description: An attempt to initiate an asynchronous read operation failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0090   **AsyncWrite() failed for device %PRIu32, volume %.8s**

Problem Description: An attempt to initiate an asynchronous write operation failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0091   **ssm_ServerNotify() failed**

Problem Description: An attempt to send notification of server object attribute changes failed.

System Action: The Mover determines whether a new binding handle is required for further communication with the Storage System Manager.

Administrator Action: Determine if the Storage System Manager is running. If not, perform problem determination on both ends to determine the cause of the failure.

MOVR0092   **ssm_MoverNotify() failed**

Problem Description: An attempt to send notification of Mover object attribute changes failed.

System Action: The Mover determines whether a new binding handle is required for further communication with the Storage System Manager.

Administrator Action: Determine if the Storage System Manager is running. If not, perform problem determination on both ends to determine the cause of the failure.

MOVR0093   **ssm_DeviceNotify() failed**

Problem Description: An attempt to send notification of device object attribute changes failed.

System Action: The Mover determines whether a new binding handle is required for further communication with the Storage System Manager.

Administrator Action: Determine if the Storage System Manager is running. If not, perform problem determination on both ends to determine the cause of the failure.

MOVR0094   **SendNotifyRequest() failed**

Problem Description: The Mover could not forward a notification request to the Mover SSM notification thread.

System Action: The notification request is dropped.

Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0095   **Hit end of stripe list too soon, length was %d, found %d**

Problem Description: An IOD contained a stripe list that was shorter that the specified list length.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0096   **Volume ID mismatch: device = %.8s, request = %.8s**

Problem Description: A request specified a volume identifier that did not match the currently mounted medium.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0097   **Bad blocks per file: device %PRIu32, volume %.8s, offset %PRIu64, blocks per file = %d**

Problem Description: A request specified a number of blocks between tape marks that would cause the section to be ended before the current tape position.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0098   **Could not select %s server metadata: %s**

Problem Description: An attempt to read a servers metadata failed.

System Action: The server logs the error and continues processing if possible.

Administrator Action: Determine the problem based on the returned error message.

MOVR0099   **Could not read log policy metadata: %s**

Problem Description: An attempt to read the Mover's log policy failed.

System Action: Server exits.

Administrator Action: Determine the problem based on the returned error message.

MOVR0100 **Injecting EOM for %s at %d:%PRIu64**

Problem Description: Configured EOM injection event has been triggered.
System Action: The tape is not EOM; however, the volume is marked as EOM due to the settings in `/var/hpss/tmp/hpss_mvr_simulate_eom`.
Administrator Action: If EOM simulation was not desired, remove the `/var/hpss/tmp/hpss_mvr_simulate_eom` file or disable HPSS_MVR_SIMULATE_EOM in the Mover environment or `env.conf`.

MOVR0101 **Could not select mover device metadata: %s**

Problem Description: An attempt to read the Mover's metadata failed.
System Action: Server exits.
Administrator Action: Determine the problem based on the returned error message.

MOVR0102 **Could not read mover device metadata: %s**

Problem Description: An attempt to read the Mover's metadata failed.
System Action: Server exits.
Administrator Action: Determine the problem based on the returned error message.

MOVR0103 **Source/sink list longer than list length**

Problem Description: An IOD contained a source/sink descriptor list that was longer than the specified list length.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0104 **Stripe address list longer than list length**

Problem Description: An IOD contained a stripe address list that was longer than the specified list length.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0105   **Error joining thread**

Problem Description: An error occurred trying to join a thread.
System Action: Action taken is situation dependent.
Administrator Action: Determine the problem based on the returned error message and contact HPSS Support.

MOVR0106   **Error waiting on SAN device I/O**

Problem Description: The Mover could not connect to a SAN device.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Verify the SAN device is operating correctly

MOVR0107   **Could not read mover configuration**

Problem Description: The Mover could not read the necessary configuration information.
System Action: The Mover terminates execution.
Administrator Action: Determine if the Mover's configuration metadata contains correct metadata file names and correct Mover identifiers.

MOVR0108   **Could not initialize mover state**

Problem Description: The Mover could not initialize the shared memory and semaphores required for interprocess communication.
System Action: The Mover terminates execution.
Administrator Action: Determine if error was caused by system resource exhaustion (shared memory, semaphores). If not, internal Mover error - contact HPSS support.

MOVR0109   **Could not initialize device descriptors**

Problem Description: The Mover could not initialize the device table.
System Action: The Mover terminates execution.
Administrator Action: Determine if DB2 is running. If so, determine if the Mover's configuration metadata contains correct metadata file names and correct Mover identifiers.

MOVR0110   **Mover listen process exited, status 0x%x**

Problem Description: The Mover TCP/IP listen process terminated unexpectedly.
System Action: The Mover terminates execution.
Administrator Action: Determine if cause of process termination contained in preceding log messages. If not, there is an internal Mover error - contact HPSS support.

MOVR0111   **Write attempt is not block aligned, section %d, offset %PRIu64**

Problem Description: A write request specified that has a starting position that is not block aligned.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0112   **IgnoreSignal() failed**

Problem Description: An attempt to ignore a signal failed.
System Action: Operation continues.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0113   **Device %PRIu32 not ready, metadata flags = 0x%x**

Problem Description: A request was received for a device that is currently configured as not ready for I/O.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine if device configuration metadata is correct. If so, determine the source of the request and the cause of the invalid request.

MOVR0114   **Device %PRIu32 not readable, metadata flags = 0x%x**

Problem Description: A read request was received for a device that is configured as not ready for read requests.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine if device configuration metadata is correct. If so, determine the source of the request and the cause of the invalid request.

MOVR0115   **Device %PRIu32 not writeable, metadata flags = 0x%x**

Problem Description: A write request was received for a device that is configured as not ready for write requests.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine if device configuration metadata is correct. If so, determine the source of the request and the cause of the invalid request.

MOVR0116   **Error determining CRC type**

Problem Description: An error occurred determining the block CRC type from the provided hash context.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0117   **Device %PRIu32, volume %.8s not opened for reading**

Problem Description: A read request was received for a device that was not opened for reading.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0118   **Attempt to write to protected media, device %PRIu32, volume %.8s**

Problem Description: A write request was received for a tape volume that is write protected.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine the source of the request and the cause of the invalid request. Determine if the volume was write protected in error.

MOVR0119   **SocketCloseConnection() failed**

Problem Description: An attempt to close a TCP/IP connection failed.
System Action: Operation continues.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0120   **ClientCloseConnection() failed**

Problem Description: An attempt to close a client connection failed.
System Action: Operation continues.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0121   **Client tape position not aligned on block boundary, operation not permitted on volume %.8s**

Problem Description: A request was received for a device that is currently not (logically) positioned on a block boundary.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0122   **Could not gain control of device %PRIu32**

Problem Description: The Mover could not get control of a device.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0123   **Child process exited with nonzero status code**

Problem Description: A Mover request handling process terminated with a nonzero exit status.
System Action: Operation continues.
Administrator Action: Determine if cause of process termination contained in preceding log messages. If not, there is an internal Mover error - contact HPSS support.

MOVR0124   **Could not send mover protocol SAN3P address, address %s, port %s**

Problem Description: An attempt to communicate with a SAN device failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Verify that the SAN device is operating. If so, there is an internal Mover error - contact HPSS support.

MOVR0125   **Too many devices configured for mover**

Problem Description: The device configuration contains more devices for the Mover than can be handle by the Mover's device table.
System Action: The device is not added to the Mover's device table.
Administrator Action: Verify the device configuration metadata is correct.

MOVR0126   **Could not create auto commit handle for database %s: %s**

Problem Description: An attempt to create a database handle failed.
System Action: The Mover terminates execution.
Administrator Action: Verify that the database is running.

MOVR0127   **Could not receive mover protocol SAN3P address, address %s, port %s**

Problem Description: An attempt to communicate with a SAN device failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Verify that the SAN device is operating. If so, there is an internal Mover error - contact HPSS support.

MOVR0128   **Unable to get device path for SAN3P device %s (%s)**

Problem Description: Unable to convert the SAN3P device UUID to a path name.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Verify that the SAN device is operation. If so, there is an internal Mover error - contact HPSS support.

MOVR0129   **Unable to open SAN3P configuration file %s**

Problem Description: An attempt to initialize the Mover SAN3P configuration file failed.
System Action: The Mover continues executing.
Administrator Action: Verify that the file exists and is readable by the Mover.

MOVR0130   **Could not verify callers authorization**

Problem Description: An attempt to determine if a client is authorized to perform an operation failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Verify that the Mover's configuration metadata is correct.

MOVR0131   **Caller not authorized**

Problem Description: A client requested an operation that it does not have authorization to perform.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0132   **Error at line %d in SAN3P configuration file %s**

Problem Description: An attempt to read the SAN3P configuration file failed.
System Action: Operation continues.
Administrator Action: Correct the error at the indicated line.

MOVR0133   **Host name lookup failed on %s in the SAN3P configuration file**

Problem Description: An attempt to read the SAN3P configuration file failed.
System Action: Operation continues.
Administrator Action: Verify the host name is correct.

MOVR0134   **SAN Device ID %d [%s] not found in configuration file**

Problem Description: The SAN3P configuration file is incorrect.
System Action: Operation continues.
Administrator Action: Verify that the configuration file is correct.

MOVR0135   **Error determining CRC length for algorithm %s**

Problem Description: The Mover could not determine the digest length needed for the specified hash algorithm.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0136   **Change on unsettable mover attribute, SelectionFlags = 0x%PRIx64**

Problem Description: A request attempted to change an unsettable Mover object attributes.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0137   **Change on unsettable server attribute, SelectionFlags = 0x%PRIx64**

Problem Description: A request attempted to change an unsettable server object attributes.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0138   **Invalid mover attribute value: attribute %d, value %d**

Problem Description: A requested specified an invalid Mover object attribute.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0139   **Invalid server attribute value: attribute %d, value %d**

Problem Description: A requested specified an invalid server object attribute.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0140   **Failure starting client stripe request for component stripe index %u**

Problem Description: A failure occurred trying to start a component of a client stripe transfer.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine underlying cause of the error by examining the accompanying error code.

MOVR0141   **Shared memory initialization completion failed**

Problem Description: The Mover could not complete the initialization of the shared memory used to hold Mover state.

System Action: The Mover terminates execution.

Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0142   **Query absolute position failed on device %PRIu32, volume %.8s, section %d offset %PRIu64**

Problem Description: An attempt to query the current absolute position of a 3490/3590 tape failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Perform problem determination on the device or medium.

MOVR0143   **Set absolute position failed on device %PRIu32, volume %.8s, section %d offset %PRIu64**

Problem Description: An attempt to set the current absolute position of a 3490/3590 tape failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Perform problem determination on the device or medium.

MOVR0144 **Stripe data transfer failure for stripe index %PRIu32, offset %PRIu64, length %PRIu64**

Problem Description: The Mover could not successfully perform a client stripe data transfer.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine underlying cause of the error by examining the accompanying error code.

MOVR0145 **Client stripe width %PRIu64 is beyond the limit of %PRIu64**

Problem Description: The Mover could not successfully perform a client stripe data transfer.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine which client is making the request and reduce the stripe width to be below or equal to the limit."

MOVR0146 **Could not get pdata header, offset %lu, address %s, port %s**

Problem Description: An attempt to send a message failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Perform problem determination on the device or medium.

MOVR0147 **Invalid pdata push data port list**

Problem Description: An attempt to send a message failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Perform problem determination on the device or medium.

MOVR0148 **Tape flush failed for device %PRIu32, volume %.8s**

Problem Description: An attempt to flush previously written data to a tape failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0149   **Tape display failed for device %PRIu32**

Problem Description: An attempt to display a message on a tape drive failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0150   **SAN I/O error: media block size is 0 in address message**

Problem Description: A SAN3P error occurred.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Ensure the media is OK and the cause of the invalid message.

MOVR0151   **Could not set position %PRIu64 for SAN Device %s**

Problem Description: The attempt to set a position failed.
System Action: Operation continues.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0152   **Could not set open SAN Device %s**

Problem Description: A SAN device had an error.
System Action: The current request is aborted.
Administrator Action: Determine if the device has a problem. If not, perform problem determination to determine the cause of the failure.

MOVR0153   **Unable to verify label for SAN Device %s, Volume %s**

Problem Description: A SAN device had an error.
System Action: The current request is aborted.
Administrator Action: Determine if the device has a problem. If not, perform problem determination to determine the cause of the failure.

MOVR0154   **3rd party I/O error on SAN Volume %s, device %PRIu32, volume %.8s, Offset %PRId64**

Problem Description: A SAN device had an error.
System Action: The current request is aborted.
Administrator Action: Determine if the device has a problem. If not, perform problem determination to determine the cause of the failure.

MOVR0155   **Mover administrative process exited, status 0x%x**

Problem Description: The Mover process terminated unexpectedly.
System Action: The Mover terminates execution.
Administrator Action: Determine if cause of process termination contained in preceding log messages. If not, there is an internal Mover error - contact HPSS support.

MOVR0156   **Initialization of signal set (sigemptyset) failed**

Problem Description: An attempt to clear a signal set failed.
System Action: The Mover terminates execution.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0157   **Addition to signal set (sigaddset) failed**

Problem Description: An attempt to add a signal to a signal set failed.
System Action: The Mover terminates execution.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0158   **Setting of signal mask (sigprocmask) failed**

Problem Description: An attempt to set a signal mask failed.
System Action: The Mover terminates execution.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0159   **Error resetting CRC for algorithm %s**

Problem Description: An attempt to reset the accumulated hash value for a block CRC failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0160   **Setting of signal action (sigaction) failed**

Problem Description: An attempt to set the disposition of a signal failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0161   **Invalid CRC parameters: algorithm %s, block size %PRIu32, offset %PRIu32**

Problem Description: An CRC blocking request encountered invalid parameters supplied in a protocol message.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine if the current version of HPSS software is running on all Mover and client systems and contact HPSS support.

MOVR0162   **Memory allocation (malloc) failed**

Problem Description: An attempt to allocate memory failed.

System Action: The current request is aborted and an error indication is returned to the client, or the Mover terminates execution.

Administrator Action: Determine if error was caused by system resource exhaustion (memory). If not, there is an internal Mover error - contact HPSS support.

MOVR0163   **Socket creation (socket) failed**

Problem Description: An attempt to create a socket failed.

System Action: The current request is aborted and an error indication is returned to the client, or the Mover terminates execution.

Administrator Action: Determine if error was caused by system resource exhaustion (sockets, file descriptors). If not, internal Mover error - contact HPSS support.

MOVR0164   **Connection establishment (connect) failed, address %s, port %s**

Problem Description: An attempt to establish a TCP/IP connection to the specified IP address and TCP/IP port failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine if the client aborted the transfer. If not, perform problem determination on both ends to determine the cause of the failure.

MOVR0165   **Setting of socket option (setsockopt(%s)) failed**

Problem Description: An attempt to set socket option failed.
System Action: The current request is aborted and an error indication is returned to the client, or the Mover terminates execution.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0166   **Close of socket (close) failed**

Problem Description: An attempt to close a socket failed.
System Action: Operation continues.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0167   **Unable to set O_NONBLOCK on socket**

Problem Description: An attempt to set non-blocking I/O for a socket descriptor failed.
System Action: The Mover terminates execution.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0168   **%s device %s for device %PRIu32, return value %zd: SCSI status %s, sense %s**

Problem Description: An attempt to read or write a tape or disk device failed with the specified error code and message.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Note the error code and message and do diagnostics on the specified device.

MOVR0169   **Retrieval of current time (gettimeofday) failed**

Problem Description: An attempt to query the current time failed.
System Action: Operation continues. Statistics may not be maintained for the Mover timestamps.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0170   **Invalid selection of mover protocol and pdata push**

Problem Description: The passive data transfer options selected are mutually exclusive.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine why mutually exclusive data transfer options are selected.

MOVR0171   **Invalid selection of pdata push for active request**

Problem Description: An invalid request for the pdata push protocol was selected for an active request.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine why an invalid request was selected.

MOVR0172   **Wait on available socket (select) failed**

Problem Description: The system call select() failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine if the client aborted the transfer. If not, perform problem determination on both ends to determine the cause of the failure.

MOVR0173   **Connection accept (accept) failed**

Problem Description: An attempt to accept a connection on a socket failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0174   **Socket listen (listen) failed**

Problem Description: An attempt to listen for connections on a socket failed.

System Action: The current request is aborted and an error indication is returned to the client, or the Mover terminates execution.

Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0175   **Bind (bind) on Unix domain socket %s failed**

Problem Description: An attempt to bind to a UNIX domain socket name failed.
System Action: The Mover terminates execution.
Administrator Action: Internal Mover error. Contact HPSS support. If the Mover had previously been run under another user ID and not gracefully shut down, the socket might still be reserved. The UNIX domain socket names may need to be removed by a user with appropriate privilege (for instance, root).

MOVR0176   **Attachment of shared memory failed, ID = %d**

Problem Description: An attempt to attach to a shared memory segment failed.
System Action: The current request is aborted and an error indication is returned to the client, or the Mover terminates execution.
Administrator Action: Determine if the client aborted the transfer. If not, perform problem determination on both ends to determine the cause of the failure.

MOVR0177   **Release of shared memory (shmdt) failed, ID = %d**

Problem Description: An attempt to detach from a shared memory segment failed.
System Action: Operation continues.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0178   **Shared memory control operation failed, ID = %d**

Problem Description: An attempt to perform a shared memory control operation failed.
System Action: Operation continues.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0179   **Shared memory allocation (shmget) failed**

Problem Description: An attempt to allocate a shared memory segment failed.
System Action: The current request is aborted and an error indication is returned to the client, or the Mover terminates execution.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0180   **Semaphore control operation (semctl) failed**

Problem Description: An attempt to perform a semaphore control operation failed.
System Action: Depends on the situation. It is possible the Mover will terminate execution.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0181   **Semaphore operation (semop) failed**

Problem Description: An attempt to perform a system semaphore operation failed.
System Action: The Mover terminates execution.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0182   **Semaphore allocation (semget) failed**

Problem Description: An attempt to allocate a system semaphore failed.
System Action: The Mover terminates execution.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0183   **Get device size failed: %s, device %PRIu32, volume %.8s**

Problem Description: A system call to query the size of the device failed.
System Action: Import of the disk volume fails.
Administrator Action: Check for proper operation of the specified disk.

MOVR0184   **Thread creation (pthread_create) failed**

Problem Description: An attempt to create a thread failed.
System Action: The Mover terminates execution.
Administrator Action: Determine if error was caused by system resource exhaustion (memory, paging space). If not, there is an internal Mover error - contact HPSS support.

MOVR0185   **Mutex initialization (pthread_mutex_init) failed**

Problem Description: An attempt to create a mutex failed.
System Action: The Mover terminates execution.
Administrator Action: Determine if error was caused by system resource exhaustion (memory, paging space). If not, there is an internal Mover error - contact HPSS support.

MOVR0186   **Mutex lock (pthread_mutex_lock) failed**

Problem Description: An attempt to lock a mutex failed.
System Action: The current request is aborted and an error indication is returned to the client, or the Mover terminates execution.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0187   **Mutex unlock (pthread_mutex_unlock) failed**

Problem Description: An attempt to unlock a mutex failed.
System Action: The current request is aborted and an error indication is returned to the client, or the Mover terminates execution.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0188   **Condition variable initialization (pthread_cond_init) failed**

Problem Description: An attempt to create a condition variable failed.
System Action: The Mover terminates execution.
Administrator Action: Determine if error was caused by system resource exhaustion (memory, paging space). If not, there is an internal Mover error - contact HPSS support.

MOVR0189   **Wait on condition variable (pthread_cond_wait) failed**

Problem Description: An attempt to wait on a condition variable failed.
System Action: The current request is aborted and an error indication is returned to the client, or the Mover terminates execution.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0190   **Signal of condition variable (pthread_cond_signal) failed**

Problem Description: An attempt to signal a thread waiting on a condition variable failed.
System Action: The current request is aborted and an error indication is returned to the client, or the Mover terminates execution.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0191   **Wait on signal (sigwait) failed**

Problem Description: An attempt to wait for the delivery of a signal failed.
System Action: Operation continues.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0192   **Process creation (fork) failed**

Problem Description: An attempt to create a process failed.
System Action: The Mover closes the TCP/IP connection or the Mover terminates execution.
Administrator Action: Determine if error was caused by system resource exhaustion (memory, paging space, processes). If not, internal Mover error - contact HPSS support.

MOVR0193   **Program execution (exec) failed for %s**

Problem Description: An attempt to execute a new program failed.
System Action: The Mover terminates execution.
Administrator Action: Verify that the Mover executables are present and that the Mover configuration metadata is correct.

MOVR0194   **Signal send operation (kill) failed**

Problem Description: An attempt to send a signal failed.
System Action: The Mover terminates execution.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0195   **Cleanup of child process (wait) failed**

Problem Description: An attempt to clean up after a terminated child process failed.
System Action: The Mover terminates execution.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0196   **Setting of process group ID (setpgid) failed**

Problem Description: An attempt to set the process group ID failed.
System Action: The Mover terminates execution.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0197   **Retrieval of local time (localtime) failed**

Problem Description: An attempt to query the current time failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0198   **Media block size (%zu) > mover buffer size (%zu)**

Problem Description: The media block size for the specified device is greater than the configured Mover buffer size.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Verify that the Mover's configuration metadata is correct. Determine the source of the request and the cause of the invalid request.

MOVR0199   **Could not initialize passive side of mover**

Problem Description: The Mover could not perform initialize required for passive side processing.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0200   **Mover passive wait failed, offset = %PRIu64**

Problem Description: An attempt to wait for an active side request failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine whether the transfer was aborted.

MOVR0201   **Could not send passive reply, offset = %PRIu64**

Problem Description: An attempt to send a passive side reply failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine whether the transfer was aborted.

MOVR0202   **Could not send passive completion**

Problem Description: An attempt to send a passive side completion message failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine whether the transfer was aborted.

MOVR0203   **Could not complete active handshake, offset = %PRIu64**

Problem Description: An attempt to perform an active side handshake failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine whether the transfer was aborted.

MOVR0204   **Could not send active completion**

Problem Description: An attempt to send an active side completion message failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine whether the transfer was aborted.

MOVR0205   **Open failed for device %PRId32**

Problem Description: An attempt to open a device special file failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0206   **Read failed for device %PRId32, volume %.8s**

Problem Description: An attempt to initiate a read from a device failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0207   **Write failed for device %PRId32, volume %.8s**

Problem Description: An attempt to initiate a write to a device failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0208   **Error waiting on device I/O**

Problem Description: An error was encountered while performing device I/O.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0209   **Error receiving SAN initiator address, address %s, port %s**

Problem Description: An attempt to receive a Mover protocol SAN initiator address from the specified client address failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine whether the transfer was aborted.

MOVR0210   **Position failed for device %PRIu32, volume %.8s**

Problem Description: An attempt to change the media position failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0211   **Could not determine transfer info, offset = %PRIu64**

Problem Description: An attempt to calculate the control information for the next part of a transfer failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0212   **Could not determine transfer type, offset = %PRIu64**

Problem Description: An attempt to determine the transfer mechanism to be used for the next part of a transfer failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0213   **Could not setup initiator listen, offset = %PRIu64**

Problem Description: An attempt to establish a listen port failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine if error was caused by system resource exhaustion (memory, sockets, file descriptors). If not, there is an internal Mover error - contact HPSS support.

MOVR0214   **Initiator send failed, offset = %PRIu64**

Problem Description: An attempt to perform an initiator send to a client failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0215   **Initiator receive failed, offset = %PRIu64**

Problem Description: An attempt to perform an initiator receive from a client failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0216   **Disk open failed for device %PRIu32**

Problem Description: An attempt to open a disk device failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Verify that the device name specified in the device configuration metadata is correct and that the Mover user ID under which the Mover is running has read and write access.

MOVR0217   **Disk close failed for device %PRIu32**

Problem Description: An attempt to close a disk device failed.

System Action: Operation continues.

Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0218   **Disk read failed for device %PRIu32**

Problem Description: An attempt to initiate a read from a disk device failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0219   **Disk write failed for device %PRIu32**

Problem Description: An attempt to initiate a write to a disk device failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0220   **Disk read label failed for device %PRIu32**

Problem Description: An attempt to read the volume label from a disk device failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Perform problem determination on the device or medium.

MOVR0221   **Disk label initialization failed for device %PRIu32**

Problem Description: An attempt to write the volume label to a disk device failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Perform problem determination on the device or medium.

MOVR0222   **Disk synchronous read failed for device %PRIu32, volume %.8s**

Problem Description: An attempt to perform a synchronous read from a disk failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Perform problem determination on the device or medium, and verify that the request was for a valid data position.

MOVR0223   **Disk synchronous write failed for device %PRIu32**

Problem Description: An attempt to perform a synchronous write from a disk failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Perform problem determination on the device or medium, and verify that the request was for a valid data position.

MOVR0224   **Disk clear failed for device %PRIu32**

Problem Description: An attempt to clear part of a disk device failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Perform problem determination on the device or medium, and verify that the request was for a valid data position.

MOVR0225   **Address out of range, device = %d, offset = %PRIu64, length = %PRIu64**

Problem Description: A request specified a starting address and length that are out of range for the specified device.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0226   **Error waiting for asynchronous I/O to complete, device = %PRIu32, volume = %.8s**

Problem Description: An error was encountered performing disk I/O.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Perform problem determination on the device or medium.

MOVR0227   **Error sending pdata header, transfer offset %lu, length %zu**

Problem Description: An error was encountered sending a parallel transfer data header.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine if the client aborted the transfer. If not, perform problem determination on both ends of the connection.

MOVR0228   **No common data transport types**

Problem Description: A request contained no data transport options that the Mover supports.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0229   **Close failed for device %PRIu32, volume %.8s**

Problem Description: An attempt to close a device failed.

System Action: Operation continues.

Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0230   **Read label failed for device %PRIu32, volume %.8s**

Problem Description: An attempt to read a media volume label failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0231   **Volume label initialization failed for device %PRIu32, volume %.8s**

Problem Description: An attempt to write a media volume label failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0232   **Display failed for device %PRIu32, volume %.8s**

Problem Description: An attempt to display a message on a device failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0233   **Flush failed for device %PRIu32, volume %.8s**

Problem Description: An attempt to flush previously written data to the medium failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0234   **Write tape mark failed for device %PRIu32, volume %.8s**

Problem Description: An attempt to write a tape mark failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0235   **Release failed for device %PRIu32**

Problem Description: An attempt to free a device failed.

System Action: Operation continues.

Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0236   **Asynchronous I/O resulted in %zd bytes, instead of %zu bytes for device %PRIu32**

Problem Description: An attempt to perform I/O for a tape device resulted in an unexpected length.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0238   **Error initializing file hash context**

Problem Description: An attempt to initialize a hashing context for a write request failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0239   **Error initializing mover buffers**

Problem Description: An attempt to allocate internal Mover buffers failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine if error was caused by system resource exhaustion (memory). If not, there is an internal Mover error - contact HPSS support.

MOVR0240   **Error initializing client transport**

Problem Description: An error occurred trying to initialize a client data transport context.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine if error was caused by system resource exhaustion (memory). If not, there is an internal Mover error; contact HPSS support.

MOVR0241   **Failure setting CRC parameters for device %PRIu32, block offset %lu**

Problem Description: An attempt to set block CRC parameters for a device failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0242   **Failure getting CRC parameters for protocol message**

Problem Description: An attempt to get block CRC parameters for the local device failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0243   **Invalid disk label parameters: block size %u, blocks %lu, start %lu**

Problem Description: A request to write a disk media label contained invalid parameters.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Verify that the device configuration is correct.

MOVR0244 **Tape volume label is not in ANSI format on device %PRIu32, volume %.8s**

Problem Description: The current medium's volume label is not in the ANSI format.
System Action: Indication of this error is returned to the client.
Administrator Action: No action.

MOVR0245 **Tape volume label was not written by HPSS on device %PRIu32**

Problem Description: The current medium contains an ANSI volume label that was not written by HPSS.
System Action: Indication of this error is returned to the client.
Administrator Action: No action.

MOVR0246 **Close of device %PRIu32 failed**

Problem Description: An attempt to close a device failed.
System Action: Operation continues.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0247 **Block size mismatch on device %PRIu32. The metadata has %PRIu32, but the disk label has %PRIu32**

Problem Description: The block size specified in device metadata does not match the block size contained in the media label (disk only).
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Verify that the device configuration metadata is correct.

MOVR0248 **Start block mismatch on device %PRIu32. The metadata has %PRIu64, but the disk label has %PRIu64**

Problem Description: The disk media label specifies a nonzero starting block number.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Verify that the device configuration metadata is correct.

MOVR0249 **Block count mismatch on device %PRIu32. The metadata has %PRIu64, but the disk label has %PRIu64**

Problem Description: The block count specified in device metadata does not match the block count contained in the media label (disk only).
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Verify that the device configuration metadata is correct.

MOVR0250 **Error building volume label for device %PRIu32**

Problem Description: An attempt to build a media volume label for a disk failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0251 **Failure setting CRC parameters for client, address %s, port %s**

Problem Description: An attempt to set block CRC parameters for a peer device failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0252 **Failure updating file hash after processing %lu of %lu bytes**

Problem Description: An attempt to update a file hash failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0253 **Multiple tape devices not supported for file hash requests**

Problem Description: An I/O request that specified multiple tape devices and requested file hashing was encountered.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0254   **Pdata push not a supported protocol for LBP enabled tape**

Problem Description: An attempt to request file hashing for a push I/O request was encountered.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine the client requesting the service and disable push requests with file hashing.

MOVR0255   **Error allocating CRC block mapping**

Problem Description: An attempt to generate a block CRC generation mapping failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine if error was caused by system resource exhaustion (memory). If not, there is an internal Mover error - contact HPSS support.

MOVR0256   **Failure aligning receive buffer, offset %lu, length %zd**

Problem Description: An attempt to align a receive buffer on the appropriate block boundary failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0257   **Invalid completion messages bytes moved %lu, expected %lu**

Problem Description: An invalid count of bytes moved was encountered in an I/O operation completion message.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0258   **Error sending LFT data at transfer offset %lu**

Problem Description: An attempt to transfer data via an LFT send failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0259   **Error performing passive handshake**

Problem Description: An attempt to perform a passive side Mover protocol handshake failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine whether the transfer was aborted.

MOVR0260   **Invalid mover protocol control address type: %d**

Problem Description: An address type was specified that is not supported for Mover protocol control communications. The only currently supported address type for Mover protocol communications is TCP/IP.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0261   **Invalid mover protocol data address type: %d**

Problem Description: An address type was specified in a Mover protocol message that is not supported. Currently supported address types are TCP/IP, IPI-3 and Shared Memory.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0262   **Could not send mover protocol initiator message, address %s, port %s**

Problem Description: An attempt to send a Mover protocol initiator message to the specified client address failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine whether the transfer was aborted.

MOVR0263   **Could not receive mover protocol initiator message, address %s, port %s**

Problem Description: An attempt to receive a Mover protocol initiator message from the specified client address failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine whether the transfer was aborted.

MOVR0264   **Could not send mover protocol completion message, address %s, port %s**

Problem Description: An attempt to send a Mover protocol completion message to the specified client address failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine whether the transfer was aborted.

MOVR0265   **Could not receive mover protocol completion message, address %s, port %s**

Problem Description: An attempt to receive a Mover protocol completion message from the specified client address failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine whether the transfer was aborted.

MOVR0266   **Could not send mover protocol IP address, address %s, port %s**

Problem Description: An attempt to send a Mover protocol TCP/IP address to the specified client address failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine whether the transfer was aborted.

MOVR0267   **Could not receive mover protocol IP address, address %s, port %s**

Problem Description: An attempt to receive a Mover protocol TCP/IP address from the specified client address failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine whether the transfer was aborted.

MOVR0268   **Invalid transfer id %lx: offset %lu, address %s, port %s**

Problem Description: A parallel data header with an invalid transfer identifier was received from the specified IP address.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: If the error was generated during a transfer between HPSS components (that is, HPSS Mover and HPSS Mover or PFTP/NFS clients or when data transfer handled internally to HPSS Client API Library), this is an internal error; contact HPSS support. If this transfer was between an HPSS Mover and user code using the Mover Protocol, no action required due to programming error.

MOVR0269   **Invalid transfer offset %lu: offset %lu, address %s, port %s**

Problem Description: A parallel data header with an invalid transfer offset was received from the specified IP address.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: If the error was generated during a transfer between HPSS components (that is, HPSS Mover and HPSS Mover or PFTP/NFS clients or when data transfer handled internally to HPSS Client API Library), this is an internal error; contact HPSS support. If this transfer was between an HPSS Mover and user code using the Mover Protocol, no action required due to programming error.

MOVR0270   **Mover protocol address type mismatch: message %d, address %d**

Problem Description: The address types specified in a Mover protocol initiator message and the following address message do not match.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0271   **Attempt to get socket address (getsockname) failed**

Problem Description: An attempt to determine the local addressing information for a socket failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0272   **Error performing initiator socket send at offset %PRIu64**

Problem Description: An attempt to send data via TCP/IP as the transfer initiator failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine whether the transfer was aborted.

MOVR0273   **Error performing initiator socket receive at offset %PRIu64**

Problem Description: An attempt to receive data via TCP/IP as the transfer initiator failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine whether the transfer was aborted.

MOVR0274   **Invalid transfer range %lu: offset %lu, range %lu, address %s, port %s**

Problem Description: A parallel data header with an invalid data range was received from the specified IP address.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: If the error was generated during a transfer between HPSS components (that is, HPSS Mover and HPSS Mover or PFTP/NFS clients or when data transfer handled internally to HPSS Client API Library), this is an internal error; contact HPSS support. If this transfer was between an HPSS Mover and user code using the Mover Protocol, no action required due to programming error.

MOVR0275   **Error sending socket initiator data at offset %PRIu64, address %s, port %s**

Problem Description: An attempt to send data via TCP/IP as the transfer initiator failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine whether the transfer was aborted.

MOVR0276   **Error receiving socket initiator data at offset %PRIu64, address %s, port %s**

Problem Description: An attempt to send data via TCP/IP as the transfer initiator failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine whether the transfer was aborted.

MOVR0277   **Error receiving pdata header, transfer offset %lu, length %zu**

Problem Description: An attempt to receive a parallel data header via TCP/IP failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0278   **SAN 3rd party I/O cancel initiated for device %PRIu32**

Problem Description: The initiator was signaled to cancel the request.

System Action: Operation continues.

Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0279   **Could not set socket options**

Problem Description: An attempt to set options on a socket failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0280   **Could not initialize socket**

Problem Description: An attempt to create a TCP/IP endpoint failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0281   **Control address not provided with initiator request**

Problem Description: A passive side Mover requested to be the transfer responder, but did not provide a control address in the IOD.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0282   **Passive length %PRIu64 greater than active %PRIu64**

Problem Description: The passive side of transfer responded to the active side initiator messages with a length greater than that provided by the active side Mover.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0283   **Selecting on write descriptor failed, address %s, port %s**

Problem Description: An attempt to select on a file descriptor (associated with the specified client address) for writing failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine whether the transfer was aborted.

MOVR0284   **Selecting on read descriptor failed, address %s, port %s**

Problem Description: An attempt to select on a file descriptor (associated with the specified client address) for reading failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine whether the transfer was aborted.

MOVR0285   **Select on descriptor lists failed**

Problem Description: An attempt to select on a list of file descriptors failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine whether the transfer was aborted.

MOVR0286   **Metadata transaction failed**

Problem Description: A metadata transaction failure occurred in the specified location.
System Action: The current metadata transaction fails.
Administrator Action: Determine why the transaction was aborted.

MOVR0287   **hpss_InitServer() failed**

Problem Description: An attempt to perform the HPSS common server initialization failed.
System Action: The Mover terminates execution.
Administrator Action: Verify that the Mover's configuration metadata is correct.

MOVR0288   **Invalid volume type: %d**

Problem Description: The volume flags specified in a device address indicate an invalid volume format type. The currently supported types are HPSS and UniTree.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0289   **Wrong block on UniTree tape: received %u, expected %u**

Problem Description: While reading a UniTree formatted tape, the Mover read a block other than the block that was expected.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Perform problem determination on the device or medium.

MOVR0290   **Invalid security token received from host %s, port %s**

Problem Description: After a new connection to the Mover was established, an invalid security token was passed from the Mover client.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0291   **Invalid device type, device %PRIu32**

Problem Description: The Mover detected a device configuration entry that contained an invalid device type.
System Action: Operation continues.
Administrator Action: Verify that the device configuration metadata is correct.

MOVR0292   **Could not receive mover protocol shared memory address, address %s, port %s**

Problem Description: An attempt to receive a Mover protocol shared memory address from the specified client address failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine whether the transfer was aborted.

MOVR0293   **Could not send mover protocol shared memory address, address %s, port %s**

Problem Description: An attempt to send a Mover protocol shared memory address to the specified client address failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine whether the transfer was aborted.

MOVR0294   **Could not receive passive completion**

Problem Description: An attempt to receive a completion message by a passive side Mover failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine whether the transfer was aborted.

MOVR0295   **Could not receive active completion**

Problem Description: An attempt to receive a completion message by an active side Mover failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine whether the transfer was aborted.

MOVR0296 **Error sending SAN Device Address**

Problem Description: An error occurred while sending the SAN addressing info to the initiator.
System Action: Operation continues.
Administrator Action: No action.

MOVR0297 **Error receiving SAN Device Address**

Problem Description: An error occurred receiving the SAN addressing info from the initiator.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine whether the transfer was aborted.

MOVR0298 **Shared memory request out of bounds, offset %lu, length %lu, shared memory offset %u, shared memory length %zu**

Problem Description: A request specified using shared memory for the data transfer mechanism and the specified offset and length would be beyond the boundaries of the shared memory segment.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0299 **Start block mismatch on SAN device %s, volume %s: start block %lu**

Problem Description: A SAN3P address message with an invalid starting block was received.
System Action: The current SAN3P request fails with an error.
Administrator Action: Determine the state of the SAN volume and determine the state of the Mover that sent the address message with the invalid starting block.

MOVR0300   **Error determining number of bytes to send**

Problem Description: An attempt to determine how much data can be sent in the next transmission and how much of that will be overhead due to including a CRC with the buffer failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0301   **LBP Verify halted due to recurring errors**

Problem Description: While running LBP verify, multiple device errors were encountered most likely indicating an issue that should be addressed.
System Action: The current LBP verify task will end.
Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0304   **Device UUID does not match mover UUID**

Problem Description: An attempt to create a device specified a Mover identifier that does not match the identifier of the current Mover.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR0307   **Select on socket timed out**

Problem Description: An attempt to select on a socket did not complete successfully within the specified time out period.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine whether the transfer was aborted.

MOVR0309   **Error receiving SAN3P completion response**

Problem Description: An attempt to receive a Mover protocol completion message from the specified client address failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine whether the transfer was aborted.

MOVR0310   **Error sending SAN3P completion response**

Problem Description: An attempt to send a Mover protocol completion message to the specified client address failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine whether the transfer was aborted.

MOVR0311   **Invalid port range: start %d, end %d**

Problem Description: The values specified for the start and end of the port range to be used by the Mover when making TCP/IP connections are invalid.

System Action: The Mover will not initialize.

Administrator Action: Correct the port range values in the Mover specific configuration are correct.

MOVR0312   **Exhausted local connect port range**

Problem Description: The Mover attempted to use the entire configure port range when making a TCP/IP connection, but failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Perform problem determination on the TCP/IP resources to determine the cause of the error.

MOVR0313   **Mover buffer overrun: offset %lu, length %lu, size %zu**

Problem Description: The Mover detected an internal bookkeeping error, that would have caused a non-deterministic transfer error.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0314 **Read request failed for device %PRIu32**

Problem Description: A Mover read request returned with an unsuccessful return code.

System Action: Operation continues; request has already completed - this message is generated as a WARNING alarm to allow a visual notification to operators and administrators that a request has failed.

Administrator Action: Determine the cause of the failure: this message can be triggered by normal user behavior (for example, interrupting an in-progress transfer so that the Mover fails in its attempt to send data to the client). Take actions appropriate to that cause, if necessary.

MOVR0315 **Write request failed for device %PRIu32**

Problem Description: A Mover write request returned with an unsuccessful return code.

System Action: Operation continues; request has already completed - this message is generated as a WARNING alarm to allow a visual notification to operators and administrators that a request has failed.

Administrator Action: Determine the cause of the failure: this message can be triggered by normal user behavior (for example, interrupting an in progress transfer so that the Mover fails in its attempt to send receive data from the client). Take actions appropriate to that cause, if necessary.

MOVR0316 **Passive side type mismatch: passive %d, active %d**

Problem Description: A reply from the passive side of a transfer (either an HPSS client or another Mover) attempt to use a different transfer mechanism than that specified by the active side Mover).

System Action: The current request is aborted and an error indication returned to the client.

Administrator Action: If the error was generated during a transfer between HPSS components (that is, HPSS Mover and HPSS Mover or PFTP/NFS clients or when data transfer handled internally to HPSS Client API Library), this is an internal error; contact HPSS support. If this transfer was between an HPSS Mover and user code using the Mover Protocol, no action required due to programming error.

MOVR0317   **Device %PRIu32 start offset %PRIu64 not a multiple of block size %PRIu32**

Problem Description: The starting disk offset configured for the specified device is not a multiple of the media block size specified for that same device.
System Action: The Mover generates the alarm message, and aborts its initialization process.
Administrator Action: Correct the device configuration and restart the Mover.

MOVR0318   **Modifying device shared use flag not supported**

Problem Description: An attempt was made to change the SHARED_USE flag of a device, which is not allowed (whether a device allows multiple concurrent Mover tasks to access it can only be set in the device configuration metadata).
System Action: The Mover rejects the request and returns an error indication to the caller.
Administrator Action: To modify the device's SHARED_USE flag, shut down the Mover controlling the device and the PVL, then update the device configuration to reflect the desired change and restart the servers.

MOVR0319   **System configuration request (sysconf) failed**

Problem Description: An attempt to query an operating system parameter failed. In particular, the Mover attempts to query the system's memory page size (to page align its data buffers).
System Action: The Mover rejects the request and returns an error indication to the caller.
Administrator Action: Perform operating system specific problem determination to discover the cause of the failure.

MOVR0320   **Send notification to Mover TCP parent process failed**

Problem Description: An attempt to send notification of a managed object change from the Mover Request process to the Mover TCP parent process failed.
System Action: The Mover rejects the request and returns an error indication to the caller.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0321   **TCP Process device get attributes failed, device %PRIu32**

Problem Description: A request to query device attribute values from the Mover TCP parent process failed.
System Action: The Mover rejects the request and returns an error indication to the caller.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0322   **TCP Process device set attributes failed, device %PRIu32**

Problem Description: A request to set device attribute values to the Mover TCP parent process failed.
System Action: The Mover rejects the request and returns an error indication to the caller.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0323   **TCP Process device create failed, device %PRIu32**

Problem Description: A request to create a device to the Mover TCP parent process failed.
System Action: The Mover rejects the request and returns an error indication to the caller.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0324   **TCP Process device delete failed, device %PRIu32**

Problem Description: A request to delete a device to the Mover TCP parent process failed.
System Action: The Mover rejects the request and returns an error indication to the caller.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0325   **TCP Process Mover get attributes failed**

Problem Description: A request to query the Mover specific attribute values from the Mover TCP parent process failed.
System Action: The Mover rejects the request and returns an error indication to the caller.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0326   **TCP Process Mover set attributes failed**

Problem Description: A request to set the Mover specific attribute values to the Mover TCP parent process failed.
System Action: The Mover rejects the request and returns an error indication to the caller.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0327   **TCP Process Server get attributes failed**

Problem Description: A request to query the generic attribute values from the Mover TCP parent process failed.
System Action: The Mover rejects the request and returns an error indication to the caller.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0328   **TCP Process Server set attributes failed**

Problem Description: A request to set the generic attribute values to the Mover TCP parent process failed.
System Action: The Mover rejects the request and returns an error indication to the caller.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0329   **Send notification information request failed**

Problem Description: An attempt to send a notification request failed.
System Action: The notification is lost, and the current request may be rejected (if communication of this notification was required for processing of the request).
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0330   **Receive notification information request failed**

Problem Description: An attempt to receive a notification request failed.
System Action: The notification is lost, current request may be rejected (if communication of this notification was required for processing of the request).
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0331   **String scan failed (sscanf(%s, %s, ...))**

Problem Description: An attempt to parse a string (via sscanf()) failed. Currently this indicates that the Mover TCP parent process control address could not be determined by the Mover Request process.
System Action: The alarm is generated, and the Mover initialization is halted.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0332   **Mover client security initialization failed**

Problem Description: An attempt to initialize the Mover security service in either the Mover parent process or Mover Request process failed.
System Action: The alarm is generated, and the Mover initialization is halted.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0333   **Mover context establishment failed with host %s**

Problem Description: An attempt to establish the Mover security context between the Mover parent process and the Mover TCP parent process failed.
System Action: The alarm is generated and the Mover initialization is halted.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0336   **Block size mismatch on SAN device %s, volume %s: address %d, label %d**

Problem Description: A failure occurred because of a mismatch between the configured device block size and the block size specified by the SAN3P disk label for this device.
System Action: The alarm is generated, the request is rejected and an error indication returned to the caller.
Administrator Action: Verify that the SAN3P device label has not been corrupted.

MOVR0337   **Could not create listen port**

Problem Description: An attempt to create a TCP/IP listen port failed.
System Action: The alarm is generated and the Mover execution is terminated.
Administrator Action: Perform problem determination on the Mover node to determine cause of the failure.

MOVR0338   **Could not send data, address %s, port %s**

Problem Description: An attempt to send listen port information from the Mover TCP parent process to the Mover parent process failed.
System Action: The alarm is generated and the Mover execution is terminated.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0339   **Could not receive data, address %s, port %s**

Problem Description: An attempt to receive listen port information from the Mover TCP parent process by the Mover parent process failed.
System Action: The alarm is generated and the Mover execution is terminated.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0340   **Invalid object class in notification request: %u**

Problem Description: A notification information message contained an invalid object class.
System Action: The request is rejected, and an error indication is returned to the caller.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0341   **Could not convert "%s" to IP address**

Problem Description: The Mover Request process could not convert the address returned by the Mover TCP parent process to a valid IP address.
System Action: The Mover execution is terminated.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0342   **Could not send Mover shared memory information**

Problem Description: The Mover parent process could not send the Mover shared memory image to the Mover TCP parent.
System Action: The Mover execution is terminated.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0343   **Invalid TCP/IP port %u received from remote Mover process**

Problem Description: The Mover parent process detected an invalid IP port number returned by the Mover TCP parent.
System Action: The Mover execution is terminated.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0351 **Foreign label on SAN device %s, volume %s**

Problem Description: The label written to the first block of the device does not appear to have been written by HPSS.
System Action: The related request is cancelled.
Administrator Action: Perform problem determination on the drive.

MOVR0353 **Tape device %u, configured with shared use enabled**

Problem Description: An tape device is configured to allow access by multiple concurrent Mover tasks.
System Action: Mover execution is terminated.
Administrator Action: Reset the SHARED_USE flag on the tape device.

MOVR0359 **Volume label is not in ANSI format on SAN device %s, volume %s**

Problem Description: A failure occurred because the volume label found on the specified SAN3P device is not in ANSI format.
System Action: The alarm is generated, the request is rejected and an error indication returned to the caller.
Administrator Action: Verify that the SAN3P volume label has not been corrupted.

MOVR0360 **Could not initialize asynchronous I/O services**

Problem Description: Could not perform asynchronous I/O initialization processing.
System Action: The current Mover task exits, and the connection to the caller will be closed.
Administrator Action: Perform problem determination on the operating system to determine the cause of not being able to initialize asynchronous I/O.

MOVR0361 **Attempt to overwrite disk label detected, device %PRIu32, offset %PRIu64**

Problem Description: The Mover detected an attempt to overwrite the volume label on a disk device during a normal I/O operation.
System Action: The request is rejected and an error indication is returned to the caller.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0362 **Attempt to write before disk label detected, device %PRIu32, offset %PRIu64, start offset %PRIu64**

Problem Description: The Mover detected an attempt to write before the configured starting disk offset the volume label on a disk device during a normal I/O operation.
System Action: The request is rejected and an error indication is returned to the caller.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0363 **User I/O is attempting to read the disk label on device %PRIu32, offset %PRIu64. This is not allowed**

Problem Description: The Mover detected an attempt to read the disk label by a user.
System Action: The request is rejected and an error indication is returned to the caller.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0364 **Attempt to read before disk label detected, device %PRIu32, offset %PRIu64, start offset %PRIu64**

Problem Description: The Mover detected an attempt to read before the configured starting disk offset.
System Action: The request is rejected and an error indication is returned to the caller.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0365 **Clock skew too great with Mover host %s**

Problem Description: The difference between the clocks on the node running the Mover Request process and the node running the Mover TCP processes is greater than the maximum allowed (currently 5 minutes).
System Action: The Mover execution is terminated.
Administrator Action: Adjust the clock on one or both nodes so that they are within the allowable variance.

MOVR0366   **Encryption key mismatch on Mover host %s**

Problem Description: The encryption key stored on the node running the Mover TCP processes does not match the encryption key in the Mover's type specific configuration.
System Action: The Mover execution is terminated.
Administrator Action: Ensure that both encryption key values are the same.

MOVR0367   **Zero block size detected in tape positioning request**

Problem Description: The Mover detected an attempt to position a tape volume within a tape section that included a zero block size value.
System Action: The request is rejected (as the Mover cannot complete a tape block positioning request if it does not know the size of the block) and an error indication is returned to the caller.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0368   **Request for locked or disabled device: id %d**

Problem Description: The Mover received a request to perform an operation on a device that is either administratively locked or has been operationally disabled (possibly due to I/O errors on the device).
System Action: The request is rejected and an error indication is returned to the caller.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0369   **Error receiving LFT data at transfer offset %lu**

Problem Description: An attempt to transfer data via an LFT receive failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0370   **LFT not currently supported by mover**

Problem Description: The Mover was not built with support for local file transfers.
System Action: The request is rejected and an error indication is returned to the caller.
Administrator Action: Verify that the Mover should be capable of supporting local file transfers and that the Mover TCP executable being used supports these transfers (for example, *hpss_mvr_gpfs*).

MOVR0371   **Open of LFT file (%s) failed**

Problem Description: The Mover could not open the specified file for a local file transfer.

System Action: The request is rejected and an error indication is returned to the caller.

Administrator Action: Verify that the Mover should be able to open the specified file for the requested access. If so, contact HPSS support.

MOVR0372   **Close of LFT file (%s) failed**

Problem Description: The Mover could not close the specified file for a local file transfer.

System Action: Operation continues.

Administrator Action: Internal HPSS error. Contact HPSS support.

MOVR0373   **Read from LFT file (%s) failed**

Problem Description: The Mover could not read data from the specified file for a local file transfer.

System Action: The request is rejected and an error indication is returned to the caller.

Administrator Action: Verify that the file can be read external to HPSS. If so, contact HPSS support.

MOVR0374   **Write to LFT file (%s) failed**

Problem Description: The Mover could not write data to the specified file for a local file transfer.

System Action: The request is rejected and an error indication is returned to the caller.

Administrator Action: Verify that the file can be written external to HPSS. If so, contact HPSS support.

MOVR0375   **Lseek() in LFT file (%s) failed**

Problem Description: The Mover could not set the read/write pointer in the specified file for a local file transfer.

System Action: The request is rejected and an error indication is returned to the caller.

Administrator Action: Verify that the file can be accessed external to HPSS. If so, contact HPSS support.

MOVR0376 **Local File Path Unix file (%s) could not be opened**

Problem Description: The Mover could not open the local path configuration file used to control local file transfers.

System Action: The Mover's internal control structures for local file transfers are not built, causing all such transfers to fail.

Administrator Action: Verify that the file can be read external to HPSS. If so, contact HPSS support.

MOVR0377 **Local File Path Unix file (%s) read error**

Problem Description: The Mover could not read an entry from the local path configuration file used to control local file transfers.

System Action: The Mover's internal control structures for local file transfers will potentially be incomplete, possibly causing some transfers to fail.

Administrator Action: Verify that the file can be read external to HPSS. If so, contact HPSS support.

MOVR0378 **Local File Path Unix file (%s) has bad format**

Problem Description: The Mover could not parse an entry from the local path configuration file used to control local file transfers.

System Action: The Mover's internal control structures for local file transfers will potentially be incomplete, possibly causing some transfers to fail.

Administrator Action: Verify that the entries in the local path configuration file are formatted correctly. If so, contact HPSS support.

MOVR0379 **Path (%s) not a mover local file path**

Problem Description: The file pathname passed to the Mover for a local file transfer did not match any of the path prefixes contained in the local path configuration file.

System Action: The request is rejected and an error indication is returned to the caller.

Administrator Action: Determine whether a prefix matching this pathname should be added to the local path configuration file.

MOVR0380   **Could not send request descriptor table**

Problem Description: The Mover could not send the Mover's request table from a remote Mover process to the Mover parent process.

System Action: The request to query the Mover's request information fails and an error indication is returned to the caller.

Administrator Action: Verify that there are no connectivity problems between the two machines over which the Mover is distributed. If no problems are detected, contact HPSS support.

MOVR0381   **Could not receive request descriptor table**

Problem Description: The Mover could not receive the request table from a remote Mover process.

System Action: The request to query the Mover's request information fails and an error indication is returned to the caller.

Administrator Action: Verify that there are no connectivity problems between the two machines over which the Mover is distributed. If no problems are detected, contact HPSS support.

MOVR0382   **Initiator error reading SAN3P data. Offset =%PRIu64**

Problem Description: The Mover could not read the next portion of data in a SAN3P transfer.

System Action: The current SAN3P request fails with an error.

Administrator Action: This can be caused by either a failure reading a SAN-attached disk or a communications problem with the SAN3P client. Determine if the disk is experiencing problems and if the SAN3P client is behaving properly.

MOVR0383   **Initiator error writing SAN3P data. Offset =%PRIu64**

Problem Description: The Mover could not write the next portion of data in a SAN3P transfer.

System Action: The current SAN3P request fails with an error.

Administrator Action: This can be caused by either a failure reading a SAN-attached disk or a communications problem with the SAN3P client. Determine if the disk is experiencing problems and if the SAN3P client is behaving properly.

MOVR0384   **Real time monitoring initialization failed**

Problem Description: The Mover could not perform initialization required to support real time monitoring.
System Action: The Mover terminates execution.
Administrator Action: Verify that the Mover configuration is correct.

MOVR0385   **Real time monitoring shutdown processing failed**

Problem Description: The Mover could not perform processing to shut down the real time monitoring capability during Mover shutdown.
System Action: Operation continues though this error only occurs during an abort of the Mover.
Administrator Action: No action. The Mover is in the process of aborting.

MOVR0386   **Connection failed to Unix domain socket %s**

Problem Description: The Mover could not perform a connection to a UNIX domain socket.
System Action: An internal Mover communication request fails.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0387   **I/O error on SAN3P device %s, volume %s, block %PRIu64, block offset %PRIu32**

Problem Description: An attempt to transfer data via SAN3P failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0388   **Could not query device state, device %PRIu32**

Problem Description: An error occurred while trying to obtain tape drive status information.
System Action: The request it rejected and an error indication is returned to the client.
Administrator Action: Perform problem determination on the drive.

MOVR0390 **Could not send pdata header, address %s, port %s**

Problem Description: An error occurred while trying to send a parallel data header to the client to request the transfer of data.

System Action: The current request fails and an error indication is returned to the caller.

Administrator Action: Determine if the client aborted the transfer. If not, perform problem determination on both ends of the transfer to determine the cause of the failure.

MOVR0391 **Error opening SCSI device %PRIu32 (%s): %s**

Problem Description: An error occurred while opening a SCSI tape device for pass through processing.

System Action: The current request fails and an error indication is returned to the caller.

Administrator Action: Perform problem determination on the drive and contact HPSS support.

MOVR0392 **Error closing SCSI device %PRIu32 (%s): %s**

Problem Description: An error occurred while closing a SCSI tape device used for pass through processing.

System Action: This error indication is logged.

Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0393 **Error reserving device %PRIu32, SCSI status %s, sense %s**

Problem Description: An error occurred while reserving a SCSI tape device for exclusive use.

System Action: The current request fails and an error indication is returned to the caller.

Administrator Action: Perform problem determination on the drive, determine if drive is being used by another application and contact HPSS support.

MOVR0394   **Error releasing device %PRIu32, SCSI status %s, sense %s**

Problem Description: An error occurred while releasing an exclusive reservation on a SCSI tape device.
System Action: This error indication is logged.
Administrator Action: Perform problem determination on the drive, determine if drive is being used by another application and contact HPSS support.

MOVR0395   **Error trying to stat device %PRIu32 (%s)**

Problem Description: An error occurred while obtaining status for the specified disk device.
System Action: This error indication is logged.
Administrator Action: Check the device name in the configuration to ensure that it refers to an existing device.

MOVR0398   **Could not set drive/driver to use variable block sizes, device %PRIu32**

Problem Description: An attempt to set a tape device to use variable block size failed. This error can only occur on Linux platforms.
System Action: The current request is aborted and an error indication is returned to client.
Administrator Action: Verify that the drive and driver are capable of supporting variable block sizes.

MOVR0399   **Could not set drive/driver to SCSI-2 mode, device %PRIu32**

Problem Description: An attempt to set a tape device to use SCSI-2 mode failed. This error can only occur on Linux platforms.
System Action: The current request is aborted and an error indication is returned to client.
Administrator Action: Verify that the drive and driver are capable of supporting SCSI-2 mode.

MOVR0403   **Device does not support logical block identifiers, device %PRIu32**

Problem Description: The device configuration indicated that it should use logical block positioning, but the device does not support that function.
System Action: Logical block position will be disabled.
Administrator Action: Disable logical block positioning on the HPSS device configuration window.

MOVR0405   **Invalid absolute address type**

Problem Description: An invalid logical block address was passed to the Mover.
System Action: The current request is aborted and an error indication is returned to client.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0406   **Tape file verification error: device %PRIu32, volume %s, position %d:%lu, blocks in section %u, bytes moved %lu, transfer length %lu**

Problem Description: A tape read encountered an end of tape section but the number of blocks in the section doesn't match that of a full section. If this is not the last section for the transfer, then this error is logged. This situation could potentially be caused by a positioning error.
System Action: The device is marked as suspect.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0407   **Error obtaining SAN3P device %PRIu32 [%s]: %s**

Problem Description: An error occurred trying to get the device name for the specified SAN3P device.
System Action: The current request is aborted and an error indication is returned to client.
Administrator Action: Perform problem determination on the device and connectivity. Verify that the device UUID is found in the `/var/tmp/hpss_san3p.0.ids` file. If it is not, remove the file and reissue the request.

MOVR0408   **Device %PRIu32 currently exists in device cache**

Problem Description: An error occurred creating a new Mover device because the request was for a device identifier for an existing device.
System Action: The create request will fail.
Administrator Action: Ensure that the no other devices exist for the device identifier specified in the create. If no duplication is found recycle the Mover to allow it to reread the current device configuration information.

MOVR0409   **Non character device %PRIu32 (%s) encountered, type 0%o**

Problem Description: A non-character device name was encountered for one of the Mover devices. Character devices are required on all platforms, with the exception of Linux. This is because all data needs to be written to media at the completion of each I/O request. On Linux, the O_DIRECT flag is used with block devices to ensure that this happens.
System Action: This warning messages is logged.
Administrator Action: The specified device name should be changed to a character device.

MOVR0410   **Invalid IP address family type(s) [%d, %d]**

Problem Description: A non-IPv4 IP address was encountered trying to compare socket addresses.
System Action: The socket that correspond to the address will not be used for data or control transmissions.
Administrator Action: Determine if a non-IPv4 interface has been enabled. Otherwise, it might be an internal Mover error. Contact HPSS support.

MOVR0411   **Error opening SAN Device %s**

Problem Description: An error occurred trying to open the specified SAN3P disk device.
System Action: The current request is aborted and an error indication is returned to client.
Administrator Action: Perform problem determination on the device.

MOVR0412   **Error on %s for SAN Device %s, Offset %PRId64**

Problem Description: A generic SAN3P disk I/O error occurred.
System Action: The current request is aborted and an error indication is returned to client.
Administrator Action: Perform problem determination on the device.

MOVR0413   **Positioning error on %s for SAN Device, Offset %PRId64**

Problem Description: An error occurred trying to position the specified SAN3P disk device.
System Action: The current request is aborted and an error indication is returned to client.
Administrator Action: Determine if the offset looks correct given the size of the physical device. Perform problem determination on the device.

MOVR0414   **Error reading SAN Device %s, Length %d, Offset %PRId64**

Problem Description: An error occurred trying to read from the specified SAN3P disk device.

System Action: The current request is aborted and an error indication is returned to client.

Administrator Action: Perform problem determination on the device.

MOVR0415   **Error writing SAN Device %s, Length %d, Offset %PRId64**

Problem Description: An error occurred trying to write to the specified SAN3P disk device.

System Action: The current request is aborted and an error indication is returned to client.

Administrator Action: Perform problem determination on the device.

MOVR0416   **Attempt to get name for address (getnameinfo) %s failed: %s**

Problem Description: An error occurred trying to get a numeric host name for the specified IP address.

System Action: The Mover will fail to start.

Administrator Action: Ensure that name resolution is working correctly for the remote Mover interfaces.

MOVR0417   **Attempt to get address for name (getaddrinfo) %s failed: %s**

Problem Description: An error occurred trying to get IP address information for the specified name.

System Action: The Mover will be unable to send notifications to SSM causing lost manage object updates.

Administrator Action: Ensure that name resolution is working correctly for the Mover interfaces.

MOVR0418   **Error invalid data address id %u, max id %u**

Problem Description: A sanity check error occurred trying to track the interface usage.

System Action: This error indication is logged.

Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0419   **Error data address in use count underflow**

Problem Description: Sanity check error occurred trying to track the interface usage.
System Action: This error indication is logged.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0422   **Error reading configuration page for device %PRIu32, %s**

Problem Description: An error occurred trying to read the SCSI device configuration mode page.
System Action: No LBA support is assumed and this error indication is logged
Administrator Action: Perform problem determination on the device.

MOVR0423   **Attempt to get port failed: %s**

Problem Description: An error occurred trying to get the port associated with a network endpoint.
System Action: The current request is aborted and an error indication is returned to the client, or the Mover terminates execution.
Administrator Action: Determine if error was caused by system network problem. If not, there is an internal Mover error - contact HPSS support.

MOVR0424   **Attempt to set port failed: %s**

Problem Description: An error occurred trying to set the port associated with a network endpoint.
System Action: The current request is aborted and an error indication is returned to the client, or the Mover terminates execution.
Administrator Action: Determine if error was caused by system network problem. If not, there is an internal Mover error - contact HPSS support.

MOVR0425   **Error locate support is required for SAMFS volumes, device %PRIu32**

Problem Description: An error occurred trying to position a SAMFS tape for reading either because the specified logical block address is invalid of the drive has locate support disable.
System Action: The current request is aborted and an error indication is returned to the client, or the Mover terminates execution.
Administrator Action: Enable locate support for the specified device. If locate support is already enabled for the device, contact HPSS support.

MOVR0426   **Error positioning SAMFS volume, device %PRIu32**

Problem Description: An error occurred trying to position a SAMFS tape for reading.

System Action: The current request is aborted and an error indication is returned to the client, or the Mover terminates execution.

Administrator Action: Perform problem determination on the device and contact HPSS support.

MOVR0427   **Could not verify *ustar* header,**

Problem Description: An error occurred trying to read the 'tar' header from a SAMFS tape.

System Action: The current request is aborted and an error indication is returned to the client, or the Mover terminates execution.

Administrator Action: Perform problem determination on the device and contact HPSS support.

MOVR0428   **Block CRC verification failure, address %s, port %s**

Problem Description: An error occurred trying to validate a block CRC using data sent from the specified IP address.

System Action: The current request is aborted and an error indication is returned to the client, or the Mover terminates execution.

Administrator Action: Perform problem determination on the device and contact HPSS support.

MOVR0429   **Error advancing logical block address, device %PRIu32, volume %.8s, logical block address %#x:%s, section %d, offset %lu**

Problem Description: An error occurred trying to calculate a logical block address while reading a SAMFS tape.

System Action: The current request is aborted and an error indication is returned to the client, or the Mover terminates execution.

Administrator Action: Internal Mover error - contact HPSS support.

MOVR0430   **Disk size mismatch on device %PRIu32: start offset %lu, bytes %lu, size %lu**

Problem Description: The configured size of the specified device exceeds the actual size.

System Action: Import of the disk volume fails.

Administrator Action: Check to ensure that the proper size was used to configure the device.

MOVR0431   **Error unknown disk label format on device %PRIu32: format *%c***

Problem Description: An invalid label format identifier was encountered.
System Action: Varies.
Administrator Action: Check the configuration of the specified device and contact HPSS support.

MOVR0432   **Disk device %PRIu32 configured with nonzero starting offset %lu**

Problem Description: A disk device was found with a nonzero starting offset value.
System Action: The message is informative only. The system will continue to function normally.
Administrator Action: Contact HPSS support about procedures to resolve the issue.

MOVR0434   **Unexpected results checking for unwritten tape for device %PRIu32, status %s, sense %s**

Problem Description: The system call fails while trying to determine if a prior tape read has failed because the tape was never written.
System Action: Varies
Administrator Action: Perform device diagnostic on the specified device.

MOVR0435   **Invalid block size on device %PRIu32: block size %u**

Problem Description: The media block size was not a power of two and at least 512 bytes.
System Action: Import of the disk volume fails.
Administrator Action: Adjust the block size configuration for the specified device.

MOVR0436   **Error unknown disk label format on SAN device %s, volume %s: format *%c***

Problem Description: An invalid label format identifier was encountered on a SAN3P volume.
System Action: The corresponding SAN3P I/O operation fails.
Administrator Action: Check the configuration of the specified device and contact HPSS support.

MOVR0437   **Invalid client timeout (%s)**

Problem Description: An invalid value was provided via the MVR_CLIENT_TIMEOUT environment setting.
System Action: Operation continues.
Administrator Action: Correct the invalid environment setting.

MOVR0438   **Retrying SCSI command for device %PRIu32: line %u of %s() - %s**

Problem Description: An attempt to issue a SCSI command to the specified device failed.
System Action: The request is retried a limited number of times and then the request is aborted and an error indication is returned to the client.
Administrator Action: Note the error code and message and do diagnostic on the specified device or correct configuration problems.

MOVR0439   **Error spacing for device %PRIu32, op %s, count %u - %s**

Problem Description: An attempt to perform relative positioning on the specified device failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Note the error code and message and do diagnostic on the specified device.

MOVR0440   **Hash request %u begins prior to data offset %lu, request offset %lu**

Problem Description: An hash request was found to start prior to the current data offset.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0441   **Error decoding hash entry %u, start offset %lu, data offset %lu**

Problem Description: An error was encountered while trying to decode a hash request entry.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0442   **Error appending hash entry %u, length %lu, data offset %lu**

Problem Description: An error was encountered while trying to append data to the current hash context.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0443   **Error encoding hash entry %u**

Problem Description: An error was encountered while trying to encode a hash request entry.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0444   **Error deleting hash entry %u**

Problem Description: An error occurred trying to delete a hash context.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0445   **Invalid hash request was encountered, request %p, reply %p**

Problem Description: An invalid hash request was encountered.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0446   **Invalid hash list was encountered, request %p, reply %p**

Problem Description: An invalid hash request list was encountered.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0447   **Invalid hash length was encountered, request %u, reply %u**

Problem Description: An invalid hash request length was encountered.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0448   **Invalid gap offset was encountered, request %u, gap %u, gap offset %lu, file offset %lu**

Problem Description: An invalid file gap offset was encountered in the specified hash request index.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0449   **Error appending hash with zeros, request %u, gap %u**

Problem Description: An error occurred trying to append a hash with zeros that correspond to a file gap.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0450   **Error creating %s CRC context**

Problem Description: An error occurred creating a hash context for the specified algorithm.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0451   **Error appending to %s CRC context**

Problem Description: An error occurred appending to a hash context of the specified algorithm type.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0452   **Error finalizing %s CRC context, expected %PRId32, received %PRId32**

Problem Description: An invalid digest length was returned while trying to finalize a hash context of the specified algorithm type.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0453   **Unsupported hash type "%d" block protection for device %PRIu32**
Hinted hash type "%d" unsupported "%d" block protection for device %PRIu32
Unsupported LBP algorithm type %d for device %PRIu32

Problem Description: The device specified does not support the hash type that was requested (or the type is not recognized by HPSS)
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: This is most likely a simple configuration error. Make sure the configured LBP hash function is supported by the device.

MOVR0454   **CRC for block is invalid, device %PRIu32, expected 0x%x, received 0x%x**

Problem Description: The generated block CRC doesn't match the expected value.
System Action: If strict validation is enabled, the current request is aborted and an error indication is returned to the client. Otherwise, the CRC may be flipped and tried again.
Administrator Action: If the error occurs for a local device, then do diagnostic on the specified device. If the error occurs due to a block transfer via the network (signified by a *0* device identifier), then contact HPSS support.

MOVR0455   **Expected block protection to be enabled for device %PRIu32**

Problem Description: An attempt to read or write a tape control block unexpectedly found logical block protection disabled for the specified device.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Perform device diagnostic on the specified device and if no issue is present then contact HPSS support.

MOVR0456   **Error reading protection mode page for device %PRIu32, SCSI status %s, sense %s**

Problem Description: An error occurred trying to reading the device protection mode page for the specified device.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Perform device diagnostic on the specified device and if no issue is present then contact HPSS support.

MOVR0457   **Error %s protection for device %PRIu32, SCSI status %s, sense %s**

Problem Description: An error occurred trying to update the device protection mode page for the specified device.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Perform device diagnostic on the specified device and if no issue is present then contact HPSS support.

MOVR0458   **Device %PRIu32 does not support block protection**

Problem Description: The specified device doesn't support logical block protection.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Correct the configuration to disable block protection for volumes to be mounted via the specified device.

MOVR0459   **Error enabling block protection for device %PRIu32**
                   Error disabling block protection for device %PRIu32
                   Error setting up block protection for device %PRIu32

Problem Description: An attempt to enable/disable logical block protection failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0460   **CRC validation failure, device %PRIu32, position %d:%lu, bytes %lu**

Problem Description: An attempted read request failed because the block CRC couldn't be verified.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Perform device diagnostic on the specified device and if no issue is present then contact HPSS support.

MOVR0461   **Error generating block CRC for device %PRIu32, volume %.8s**

Problem Description: An attempt to create a block CRC for the specified device and volume failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0462   **Requested sections are invalid for device %PRIu32**

Problem Description: An attempt to calculate an LBA for the specified device failed because the requested tape section was prior to the current tape section.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine underlying cause of the error - the IOD should contain the device address that was used for the LBA calculation.

MOVR0463   **Calculated section is invalid for device %PRIu32**

Problem Description: An attempt to calculate an LBA for the specified device failed because the generated LBA was greater than what can be presented in a 4 byte value.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine underlying cause of the error - the IOD should contain the device address that was used for the LBA calculation.

MOVR0464   **Error getting block CRC for buffer pointer %p**

Problem Description: An attempt to get a device block CRC for the block that begins at the specified offset failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0465   **Tape recommended access order failed for device %PRIu32**

Problem Description: An error occurred while trying to obtain RAO information for the specified device.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR0466   **Error generating recommended access order (RAO) for device %PRIu32, SCSI status %s, sense %s**

Problem Description: An error occurred while trying to generate RAO information for the specified device.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Perform problem determination on the drive, determine if drive is being used by another application and contact HPSS support.

MOVR0467   **Error reading recommended access order (RAO) for device %PRIu32, SCSI status %s, sense %s**

Problem Description: An error occurred while trying to read RAO information for the specified device.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Perform problem determination on the drive, determine if drive is being used by another application and contact HPSS support.

MOVR0468   **Error getting section remainder after guard check failure, device %PRIu32**

Problem Description: The SCSI response from the specified device appears to be invalid.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Perform problem determination on the drive, determine if drive is being used by another application and contact HPSS support.

MOVR0469   **Unexpected end of media encountered during verification, device %PRIu32**

Problem Description: End of media was returned by the device before verifying the Logical Block Protection on the number of expected sections.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Perform problem determination on the drive, determine if drive is being used by another application and contact HPSS support.

MOVR0470   **Error verifying tape section for device %PRIu32, %s**
Error verifying tape section for device %PRIu32, SCSI status %s
Error verifying tape section for device %PRIu32, SCSI status %s, sense %s

Problem Description: There was an issue while verifying the Logical Block Protection.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Perform problem determination on the drive, determine if drive is being used by another application and contact HPSS support.

MOVR0471   **Error recording verification failure "%s", for device %PRIu32, volume %.8s, section %d**

Problem Description: Memory allocation failed for the failure record.

System Action: Error indication is returned. Operation continues.

Administrator Action: Memory has been exhausted on the Mover. Free up memory to eliminate this error.

MOVR0472   **Error verifying tape section for device %PRIu32, volume %.8s, section %d**

Problem Description: There was an issue while verifying the Logical Block Protection at the specified location.
System Action: Operation continues.
Administrator Action: Perform problem determination on the drive, determine if drive is being used by another application and contact HPSS support.

MOVR0473   **Error verifying tape for device %PRIu32, volume %.8s**

Problem Description: There was an issue while verifying the Logical Block Protection at the specified location.
System Action: Operation continues.
Administrator Action: Perform problem determination on the drive, determine if drive is being used by another application and contact HPSS support.

MOVR0474   **Error performing request validity checks, device %PRIu32, volume %.8s**

Problem Description: There was an issue with the request sent to the Mover.
System Action: The request will be aborted.
Administrator Action: Internal error. Contact HPSS support.

MOVR0475   **Error calling fsync() on file descriptor %u for device %PRIu32: %s**

Problem Description: The system call fsync() failed to sync data to the sparse file associated with the specified device.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0476   **Marking device %PRIu32 suspect (device error count %d) due to previous error**

Problem Description: An error has triggered HPSS to mark the associated device as *suspect*.
System Action: Device is marked suspect and operation continues.
Administrator Action: Perform problem determination on the device in question.

MOVR0477   Invalid passive timeout (%s)

Problem Description: The environment variable MVR_PASSIVE_TIMEOUT is not valid.
System Action: The default timeout will be used.
Administrator Action: Correct the environment variable MVR_PASSIVE_TIMEOUT. The expected format is a positive integer which represents the timeout in seconds.

MOVR0478   Mover log policy should contain ALARM, EVENT, SECURITY and DEBUG

Problem Description: The Mover log policy should have the listed log types enabled. Lacking these log types can restrict the ability of administrators and support to diagnose issues.
System Action: This is only a warning. The Mover will continue to operate as normal.
Administrator Action: The Mover log policy should be reviewed and reinitialized with these log types enabled.

MOVR0479   Mover verification LBA cross-check failure, device %PRIu32 volume %.8s, expected final LBA %PRIu64 and ended at LBA %PRIu64

Problem Description: The amount of data verified on the medium is not the expected amount.
System Action: Operation continues; however, the verify operation will fail.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0480   Mover verification block cross-check failure, device %PRIu32 volume %.8s, expected block count %PRIu64 and ended at block count %PRIu64

Problem Description: The amount of data verified on the medium is not the expected amount.
System Action: Operation continues; however, the verify operation will fail.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR0481   Issuing WRITE FILEMARK with count of %d at offset %d:%PRIu64 on volume %s

Problem Description: The Mover issued a WRITE FILEMARK SCSI command.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR0482 **Allowed for CRC for block is invalid, device %PRIu32, expected 0x%x, received 0x%x**

Problem Description: The flipped, generated block CRC doesn't match the expected value.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: If the error occurs for a local device, then do diagnostic on the specified device. If the error occurs due to a block transfer via the network (signified by a *0* device identifier), then contact HPSS support.

MOVR0483 **Notify Receive Failure in %s**

Problem Description: The Mover has failed to receive the notify payload.

System Action: Operation continues. In certain cases, such as a timeout or connection failure, the Mover may stop.

Administrator Action: None.

MOVR0484 **Notify Send Failure in %s**

Problem Description: The Mover has failed to send the notify payload.

System Action: Operation continues. In certain cases, such as a timeout or connection failure, the Mover may stop.

Administrator Action: None.

MOVR1001 **Request for attributes of device %PRIu32**

Problem Description: The Mover received a request to query the attributes of a device.

System Action: Operation continues.

Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1002 **Request to set attributes of device %PRIu32**

Problem Description: The Mover received a request to alter the attributes of a device.

System Action: Operation continues.

Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1003   **Request for generic server attributes**

Problem Description: The Mover received a request to query the generic attributes common to all servers.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1004   **Request to set generic server attributes**

Problem Description: The Mover received a request to alter the generic attributes common to all servers.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1005   **Request for Mover attributes**

Problem Description: The Mover received a request to query the Mover specific attributes.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1006   **Request to set Mover attributes**

Problem Description: The Mover received a request to alter the Mover specific attributes.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1007   **IOD request for attributes of device %PRIu32**

Problem Description: The Mover received an IOD request to query the attributes of a device.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1008   **IOD request to set attributes of device %PRIu32**

Problem Description: The Mover received an IOD request to alter the attributes of a device.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1009   **Device specific load request for device %PRIu32**

Problem Description: The Mover received a request to load a removable media volume for a device.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1010   **Device specific unload request for device %PRIu32**

Problem Description: The Mover received a request to unload a removable media volume from a device.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1011   **Device specific flush request for device %PRIu32**

Problem Description: The Mover received a request to flush data previously written to the storage medium.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1012   **Device specific request to write a tape mark for device %PRIu32**

Problem Description: The Mover received a request to write a tape mark.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1013   **Device specific request to load a message to the display of device %PRIu32**

Problem Description: The Mover received a request to send a message to a device's display.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1014   **Device specific request to read the volume label on the medium loaded in device %PRIu32**

Problem Description: The Mover received a request to read the volume label from a device.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1015   **Device specific request to write the volume label on the medium loaded in device %PRIu32**

Problem Description: The Mover received a request to write the volume label to a device.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1016   **Device specific request has a NULL pointer for the information structure**

Problem Description: The Mover received a device specific request that did not contain any request specific information.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1017   **Device specific request has an invalid sub function of %d**

Problem Description: The Mover received a device specific request that specified an invalid device specific function.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1018   **Beginning read request**

Problem Description: The Mover received a request to read data.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1019   **Beginning write request**

Problem Description: The Mover received a request to write data.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1020   **Exiting request for attributes of device %PRIu32**

Problem Description: The Mover is exiting a request to query the attributes of a device.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1021   **Exiting request to set attributes of device %PRIu32**

Problem Description: The Mover is exiting a request to alter the attributes of a device.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1022   **Exiting request for generic server attributes**

Problem Description: The Mover is exiting a request to query the generic attributes common to all servers.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1023 **Exiting request to set generic server attributes**

Problem Description: The Mover is exiting a request to alter the generic attributes common to all servers.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1024 **Exiting request for Mover attributes**

Problem Description: The Mover is exiting a request to query the Mover specific attributes.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1025 **Exiting request to set Mover attributes**

Problem Description: The Mover is exiting a request to alter the Mover specific attributes.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1026 **Exiting IOD request for attributes of device %PRIu32**

Problem Description: The Mover is exiting an IOD request to query the attributes of a device.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1027 **Exiting IOD request to set attributes of device %PRIu32**

Problem Description: The Mover is exiting an IOD request to alter the attributes of a device.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1028   **Exiting device specific request for device %PRIu32**

Problem Description: The Mover is exiting a device specific request.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1029   **Exiting device specific load request for device %PRIu32**

Problem Description: The Mover is exiting a device specific load request.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1030   **Exiting device specific unload request for device %PRIu32**

Problem Description: The Mover is exiting a device specific unload request.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1031   **Exiting device specific flush request for device %PRIu32**

Problem Description: The Mover is exiting a device specific flush request.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1032   **Exiting device specific request to write a tape mark for device %PRIu32**

Problem Description: The Mover is exiting a device specific write tape mark request.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1033   **Exiting device specific request to load a message to the display of device %PRIu32**

Problem Description: The Mover is exiting a device specific load display request.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1034   **Exiting device specific request to read the volume label on the medium loaded in device %PRIu32**

Problem Description: The Mover is exiting a device read label request.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1035   **Exiting device specific request to write the volume label on the medium loaded in device %PRIu32**

Problem Description: The Mover is exiting a device write label request.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1036   **Exiting read request. %PRIu64 bytes read**

Problem Description: The Mover is exiting a read request.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1037   **Exiting write request. %PRIu64 bytes written**

Problem Description: The Mover is exiting a write request.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1038 **Device specific request to clear a portion of device %PRIu32**

Problem Description: The Mover received a request to zero a part of a disk device.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1039 **Exiting device specific request to clear a portion of device %PRIu32**

Problem Description: The Mover is exiting a clear request.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1040 **SAN3P I/O: device %s, block offset %u, buffer address %p, position %lu, length %ld, bytes moved %ld, number of operations %u**

Problem Description: The Mover performed a SAN3P disk I/O.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1041 **Request to create device %PRIu32**

Problem Description: The Mover received a request to create a device.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1042 **Exiting request to create device %PRIu32**

Problem Description: The Mover is exiting a create device request.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1043   **Request to delete device %PRIu32**

Problem Description: The Mover received a request to delete a device.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1044   **Exiting request to delete device %PRIu32**

Problem Description: The Mover is exiting a delete device request.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1045   **Absolute position to 0x%x issued for device %PRIu32**

Problem Description: The Mover issued an absolute position for the device.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1046   **Rewind issued for device %PRIu32**

Problem Description: The Mover issued a rewind for the device.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1047   **Valid security context from host %s, port %s**

Problem Description: The Mover received a valid security context.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1048   **Positioning device %PRIu32, %d:%lu → %d:%lu absolute address = %#x/%s**

Problem Description: This trace message indicates the beginning of a tape device position operation.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1049 **Completed positioning for device %PRIu32, %d:%lu absolute address = %#x in %lu.%06ld seconds**

Problem Description: This trace message indicates the completion of a tape device positioning operation. Any required absolute positioning overhead is included in the elapsed seconds.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1050 **Completed absolute position for device %PRIu32, absolute address = %#x in %lu.%06ld seconds**

Problem Description: This trace message indicates the completion of a tape device absolute positioning operation.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1051 **Access to SAN group %d devices not enabled**

Problem Description: Indicates that SAN3P transfers are disabled because the indicated group identifier is not a configured group for this Mover.
System Action: Operation continues.
Administrator Action: If this is not expected, troubleshoot your SAN configuration.

MOVR1052 **Request aborted due to EOM, address %s, port %s**

Problem Description: Passive I/O was aborted per request via a Mover protocol message.
System Action: Request is aborted. Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1054 **Verified SAMFS ustar header for %s, device = %d, volume = %.8s, absolute address = %#x, offset = %lu**

Problem Description: Reports the result of a successful header verification for a SAMFS tape archive member.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1055   **Advancing logical block address for device %PRIu32, from %#x to %#x, bytes %lu**

Problem Description: Reports the result from advancing a logical block by the specified number of bytes.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1056   **Request for size of device %PRIu32**

Problem Description: The Mover received a request to obtain the size of a disk device.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1057   **Exiting request for size of device %PRIu32**

Problem Description: The Mover is exiting a request to obtain the size of a disk device.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1058   **Reading of tape label failed on device %PRIu32 because this tape has never been written**

Problem Description: The Mover received a request to read the label from a tape that has never been written.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1059   **Received abort after reading %zu of %lu bytes, address %s, port %s**

Problem Description: The Mover received an abort request for an ongoing network read.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1060 **Enabling block protection for device %PRIu32**
Disabling block protection for device %PRIu32

Problem Description: Logical block protection is being enabled or disabled for the specified device.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1061 **Hash request adjustment, moved = %lu, index = %u, offset = %lu, length = %lu, delta = %lu**

Problem Description: A write request ended prematurely and the requested hash value will be returned based on a prior hash check point entry.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required, but the fact that a write was ended prematurely may or may not be indicative of other issues.

MOVR1062 **Request for the recommended access order (RAO) for device %PRIu32**

Problem Description: A request for RAO information was issued for the specified device.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1063 **Exiting request for the recommended access order (RAO) for device %PRIu32**

Problem Description: A request for RAO information completed for the specified device.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1067 **Request to verify Logical Block Protection for device %PRIu32**

Problem Description: A request for LBP verification was issued for the specified device.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR1068   **Exiting request to verify Logical Block Protection for device %PRIu32**

Problem Description: A request for LBP verification completed for the specified device.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR2001   **End of media reached while writing to device %PRIu32, volume %.8s, section %d, offset %lu**

Problem Description: A write to tape failed, an End of media indication will be returned.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR2002   **Mover terminating**

Problem Description: The Mover is terminating execution.
System Action: The Mover terminates.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR2003   **Mover reinitializing**

Problem Description: The Mover is performing reinitialization.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR2005   **Mover received signal %d**

Problem Description: The Mover received a signal.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR2006 **Mover initialized**

Problem Description: The Mover has been initialized.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR2007 **Marking device %PRIu32 disabled (device error count %d) due to previous error**

Problem Description: The Mover has disabled the specified tape device due to receiving an error during a write request. Note that the Mover will disable the device if the error is detected in the first tape section (before or in the act of writing the first tape mark), which could be caused by a bad tape volume. However, this action prevents a bad tape drive from causing a number of tape volumes from being marked at end-of-media (EOM).
System Action: The Mover marks the device as disabled, and will notify the PVL that the device has been disabled when it unloads the tape from the drive.
Administrator Action: Perform problem determination procedures to determine if the error was caused by a bad tape volume or by the drive.

MOVR2008 **Locking device %PRIu32**

Problem Description: No problem. HPSS is simply reporting that it is locking the device.
System Action: Device is locked and operation continues.
Administrator Action: No action required.

MOVR2009 **Unlocking device %PRIu32**

Problem Description: No problem. HPSS is simply reporting that it is unlocking the device.
System Action: Device is unlocked and operation continues.
Administrator Action: No action required.

MOVR2010   **Cannot find matching TAOS device for TAOS-enabled device ID % PRIu32**

Problem Description: The tape device configuration indicates that the device supports TAOS; however, there is no associated TAOS changer device available. The associated TAOS device should have the same vital product data (VPD) as the tape drive.

System Action: TAOS will not be used; however, operations will continue. Any reordering request will use offset-based reordering.

Administrator Action: If the tape device should have an associated TAOS changer device, troubleshoot the Spectra Library robotics TAOS feature. If the tape device should not have an associated TAOS device, then disable the TAOS device flag in the HPSS Tape Device Configuration.

MOVR2011   **Cannot get vital product data for TAOS-enabled SCSI device %PRIu32 (%s): %s**

Problem Description: The tape device configuration indicates that the device supports TAOS; however, HPSS is unable to retrieve the vital product information for the tape device.

System Action: TAOS will not be used; however, operations will continue.

Administrator Action: Run device_scan on the Mover to determine if the device has the expected vital product data - labeled as the identifier string. Troubleshoot the device. Contact HPSS support if the problem persists.

MOVR2012   **No TAOS device is available, TAOS is not available for this device, device %PRIu32 (%s)**

Problem Description: The device configuration indicates that TAOS support is desired; however, no TAOS device has been associated with the HPSS tape device.

System Action: TAOS will not be used; however, operations will continue.

Administrator Action: The TAOS device was likely not found when the HPSS tape device was opened, but operations are continuing. An alarm will indicate the nature of the TAOS device error. If this problem persists, contact HPSS support.

MOVR2013   **Unable to get VHF data to check clean state, device %PRIu32 (%s): %s**

Problem Description: The tape device could not return the very high frequency data page. The Mover cannot report whether the device needs to be cleaned.

System Action: The tape mover will report that the tape device does not need to be cleaned. If this is incorrect, it could cause a minor delay in mount performance as drive cleaning is interrupted.

Administrator Action: If the problem persists, contact HPSS support. This could be a drive firmware issue or a software issue.

MOVR2014   **Forcibly setting device clean flag, device % PRIu32**

Problem Description: This is an informational log. There is an environment setting causing a device to be marked as required cleaning.

System Action: The system will cause the device to be avoided in favor of other available devices, regardless of its actual need to be cleaned.

Administrator Action: If this behavior is not desired, remove the device from the comma-separated list of devices in HPSS_MVR_DEVICE_NEEDS_CLEAN and restart the Mover.

MOVR2015   **Failed to calculate direct positioning for device %PRIu32, relsection = %d, reloffset = %PRIu64, current section = %d**

Problem Description: The device configuration indicates that we should use fast positioning; however, the calculation for the destination block has failed.

System Action: Fast positioning will not be used. Tape positioning will proceed with section header verification.

Administrator Action: Prior logs from the Mover should indicate the nature of the calculation problem. If the problem persists, contact HPSS support.

MOVR2016   **Device specific HTTP ping request for device %PRIu32**

Problem Description: The Mover received a request to ping an object store endpoint.

System Action: Operation continues.

Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR2017   **Device specific object upload start request for device %PRIu32**

Problem Description: The Mover received a request to start a multipart object upload.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR2018   **Device specific object upload complete request for device %PRIu32**

Problem Description: The Mover received a request to complete a multipart object upload.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR2019   **Device specific object upload abort request for device %PRIu32**

Problem Description: The Mover received a request to abort a multipart object upload.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR2020   **Device specific object upload status request for device %PRIu32**

Problem Description: The Mover received a request to acquire the status of a multipart object upload.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR2021   **Device specific object delete request for device %PRIu32**

Problem Description: The Mover received a request to delete an object store object.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR2022   **Device specific object status request for device %PRIu32**

Problem Description: The Mover received a request to status an object store object.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR2023   **Device specific object restore request for device %PRIu32**

Problem Description: The Mover received a request to restore an object store object from archive.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR2024   **Device specific HTTP ping request for device %PRIu32**

Problem Description: The Mover is exiting a device specific request to ping an object store endpoint.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR2025   **Device specific object upload start request for device %PRIu32**

Problem Description: The Mover is exiting a device specific request to start a multipart object upload.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR2026   **Device specific object upload complete request for device %PRIu32**

Problem Description: The Mover is exiting a device specific request to complete a multipart object upload.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR2027   **Device specific object upload abort request for device %PRIu32**

Problem Description: The Mover is exiting a device specific request to abort a multipart object upload.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR2028   **Device specific object upload status request for device %PRIu32**

Problem Description: The Mover is exiting a device specific request to acquire the status of a multipart object upload.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR2029   **Device specific object delete request for device %PRIu32**

Problem Description: The Mover is exiting a device specific request to delete an object store object.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR2030   **Device specific object status request for device %PRIu32**

Problem Description: The Mover is exiting a device specific request to status an object store object.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR2031   **Device specific object restore request for device %PRIu32**

Problem Description: The Mover is exiting a device specific request to restore an object store object from archive.
System Action: Operation continues.
Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR2032   **S3 operation failure**

Problem Description: The Mover experienced an S3 operation failure.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Perform diagnostic on the specified object store connection and if no issue is present then contact HPSS support.

MOVR2033   **Unexpected S3 HTTP server identifier *%s*, device id %d**

Problem Description: The Mover got an unexpected server identifier trying to communicate with an HTTP server corresponding to an S3 device end point.
System Action: Operation continues.
Administrator Action: Determine if the server identifier is expected based on your configuration. If needed, make the appropriate configuration changes.

MOVR2034   **Write gap initialization failure**

Problem Description: The Mover is trying to initialize a process gap state more than once.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Internal error. Contact HPSS support.

MOVR2035   **Write gap processing failure, device id %d**

Problem Description: The Mover experienced an error processing gap information for object store PUT of a sparse object
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine if error was caused by system resource exhaustion (memory). If not, there is an internal Mover error - contact HPSS support.

MOVR2036   **Attempt to initialize I/O for device failed**

Problem Description: An attempt to initialize an I/O for device failed. A previous message indicates the specific error.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR2037   **Attempt to complete I/O for device failed**

Problem Description: An attempt to complete I/O for a device failed. A previous message indicates the specific error.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR2038   **Unsupported object store device type %PRIu32, device id %d**

Problem Description: The Mover encounted a requested that was made for an unsupported device type

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Internal Mover error. Contact HPSS support.

MOVR2039   **Unsupported object store request type %PRIu32**

Problem Description: The Mover encounted a requested that contained data for an unsupport object store type.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Internal Mover error. Contact HPSS support.

MOVR2040   **Invalid or unsupported object store device name, device name *%s*, device id %d**

Problem Description: The Mover was unable to parse the supplied device name into a valid supported object store URL.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Examine the device name in the Mover device configuration and ensure is conforms to the expected format.

MOVR2041   **Object store open failed for device %PRIu32**

Problem Description: An attempt to open an object store device failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Verify that the device name specified in the device configuration metadata is correct and that the Mover has connectivity to the configured object store.

MOVR2042   **Object store close failed for device %PRIu32**

Problem Description: An attempt to close an object store device failed.
System Action: Operation continues.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR2043   **Object store initialization failed for device %PRIu32**

Problem Description: An attempt to initialize an object store device failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Perform problem determination on the device or medium.

MOVR2044   **Object store read failed for device %PRIu32**

Problem Description: An attempt to initiate a read from an object store device failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR2045   **Object store write failed for device %PRIu32**

Problem Description: An attempt to initiate a write to an object store device failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR2046   **Unable to set object store specific parameters for device %PRIu32**

Problem Description: An attempt to set specific configuration parameters for an object store device failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

MOVR2047   **Object store clear failed for device %PRIu32**

Problem Description: An attempt to clear part of an object store device failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Perform problem determination on the connection from the Mover to the object store, and verify that the request was for a valid data position.

MOVR2048   **Unable start object store I/O for device%PRIu32**

Problem Description: An attempt to start I/O to an object store device failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Perform problem determination on the object store configuration and the connection from the Mover to the object store.

MOVR2049   **Unable to complete object store I/O**

Problem Description: An attempt to complete I/O to an object store device failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Perform problem determination on the object store configuration and the connection from the Mover to the object store.

MOVR2050   **Object store synchronous read failed for device %PRIu32, volume %.8s**

Problem Description: An attempt to perform a synchronous read from an object store failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Perform problem determination on the object store connection, and verify that the request was for a valid data position.

MOVR2051   **Object store synchronous write failed for device %PRIu32**

Problem Description: An attempt to perform a synchronous write to an object store failed.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Perform problem determination on the object store connection, and verify that the request was for a valid data position.

MOVR2052   **Object store (%s) operation failure for device %PRIu32**

Problem Description: An attempt to perform the specified object store operation failed.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Perform problem determination on the object store connection and configuration.

MOVR2053   **Object store status: %PRIu32, code %s, message %s**

Problem Description: The Mover issues and HTTP command an object store and gets this error reply status.

System Action: Operation continues.

Administrator Action: The purpose of this message is to help administrators determine actions to take for failures. No intervention is required.

MOVR2054   **Invalid sink descriptor list length for object store, sink length: %PRIu32**

Problem Description: A object store write request specified sink descriptor length that wasn't one.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Determine the source of the request and the cause of the invalid request.

MOVR2055   **Invalid gap descriptor**

Problem Description: An invalid gap descriptor was found in a non-object store write sink descriptor.

System Action: The current request is aborted and an error indication is returned to the client.

Administrator Action: Internal Mover error. Contact HPSS support.

MOVR2056   **S3 xml trace:**

Problem Description: The Mover performed a S3 command that generated xml data.

System Action: Operation continues.

Administrator Action: The purpose of this message is to inform administrators of actions taken. No intervention is required.

MOVR2057 **Insufficient mover buffer size (%PRIu64) to support object store device %PRIu32**

Problem Description: The configured mover buffer size is insufficient to support the specified object store device.

System Action: The current request is aborted, an error indication is returned to the client, and the operational state of the mover is set to indicate a warning.

Administrator Action: Increase the mover buffer size to at least 64KiB and restart the mover.

MOVR2058 **Failure getting AIO config: %s**

Problem Description: An attempt to obtain AIO configuration failed.

System Action: The current request is aborted and an error indication is returned to the client, or the Mover terminates execution.

Administrator Action: Determine source of the error and correct the issues. If the problem persists, contact HPSS support.

MOVR2059 **Failure starting AIO request**

Problem Description: An error was encountered while trying to start an AIO request.

System Action: The current request is aborted and an error indication is returned to the client, or the Mover terminates execution.

Administrator Action: Determine source of the error and correct the issues. If the problem persists, contact HPSS support.

MOVR2060 **Failure getting AIO control block**

Problem Description: An error occurred trying to get an AIO control block.

System Action: The current request is aborted and an error indication is returned to the client, or the Mover terminates execution.

Administrator Action: Determine if the default AIO time out is too aggressive. If so, use the HPSS_MVR_AIO_OP_TIMEOUT environment setting to increase the default value (60 seconds). Contact HPSS support if the problem persists.

MOVR2061 **Failure submitting AIO request**

Problem Description: An error was encountered while trying to submit an AIO request.

System Action: The current request is aborted and an error indication is returned to the client, or the Mover terminates execution.

Administrator Action: Determine if error was caused by system resource exhaustion. If not, internal Mover error - contact HPSS support.

MOVR2062 **Failure completing AIO request**

Problem Description: An error was encountered while trying to complete an AIO request.

System Action: The current request is aborted and an error indication is returned to the client, or the Mover terminates execution.

Administrator Action: Determine source of the error and correct the issues. If the problem persists, contact HPSS support.

MOVR2063 **Failure during AIO queue setup**

Problem Description: An error was encountered while trying to setup an AIO context.

System Action: The current request is aborted and an error indication is returned to the client, or the Mover terminates execution.

Administrator Action: Determine if error was caused by system resource exhaustion. If not, internal Mover error - contact HPSS support.

MOVR2064 **Failure releasing AIO queue**

Problem Description: An error was encountered while trying to release AIO context resources.

System Action: The Mover terminates.

Administrator Action: Internal Mover error. Contact HPSS support.

MOVR2065 **Failure joining AIO completion thread**

Problem Description: An error was encountered while trying to join an AIO completion thread.

System Action: The Mover terminates.

Administrator Action: Internal Mover error. Contact HPSS support.

MOVR2066   **AIO request found in an invalid state**

Problem Description: An invalid AIO context state was encountered while trying to start an AIO request.
System Action: The current request is aborted and an error indication is returned to the client, or the Mover terminates execution.
Administrator Action: Internal Mover error. Contact HPSS support.

MOVR2067   **AIO completion failure: device offset %lld, I/O length %lu**

Problem Description: An error was encountered while completing an AIO operation.
System Action: The current request is aborted and an error indication is returned to the client, or the Mover terminates execution.
Administrator Action: Troubleshoot the device. Contact HPSS support if the problem persists.

MOVR2068   **AIO unexpected resulting length: got %lu, expected %lu**

Problem Description: An error was encountered while checking the amount of data moved by an AIO operation.
System Action: The current request is aborted and an error indication is returned to the client, or the Mover terminates execution.
Administrator Action: Troubleshoot the device. Contact HPSS support if the problem persists.

MOVR2069   **Failure getting AIO events**

Problem Description: An error was encountered while trying to get AIO completion events.
System Action: The current request is aborted and an error indication is returned to the client, or the Mover terminates execution.
Administrator Action: Determine if error was caused by system resource exhaustion. If not, internal Mover error - contact HPSS support.

MOVR2070   **Failure creating AIO context for device %PRIu32**

Problem Description: An error was encountered while trying to create an AIO context for the specified device.
System Action: The current request is aborted and an error indication is returned to the client.
Administrator Action: Verify that the HPSS and system device configuration is correct. Contact HPSS support if the problem persists.

MOVR2071   **LibAIO is configured for device %PRIu32, but Direct I/O is disabled**

Problem Description: LibAIO is configured for the specified device, but Direct I/O is disabled.

System Action: Operation continues.

Administrator Action: Verify that this configuration is really intended. Without Direct I/O enabled, the LibAIO request submission can become blocking (and thus no longer asynchronous) which can limit the amount of parallel I/O achieved and result in poor performance.

MOVR9998   \n

Problem Description: No problem. Simple trace message to log the IOD.

System Action: Operation continues.

Administrator Action: The purpose of this message is to log the contents of the IOD structure.

MOVR9999   \n

Problem Description: No problem. Simple trace message to log the IOR.

System Action: Operation continues.

Administrator Action: The purpose of this message is to log the contents of the IOR structure.

Chapter 8. MPSR series (Migration/Purge Server error messages)

MPSR0001   **System call failed: %s.**
System call failed: clock_gettime.
System call failed: fopen: %s
System call failed: fprint.
System call failed: gettimeofday.
System call failed: rename %s
System call failed: sigprocmask.
System call failed: sigwait.
System call failed: strndup.
System call failed: uuid_hash.

Problem Description: An operating system function call returned an error status.
System Action: Usually aborts the Migration/Purge Server.
Administrator Action: Look at system call error; fix the problem; restart MPS server.

MPSR0002   **COS in bitfile descriptor does not exist in MPS internal cache. Perhaps a COS was created/deleted without MPS restart? (BfDesc.COSID = %u).**

Problem Description: The force migration (used by **recover**) has encountered a situation where the bitfile descriptor and the MPS's internal cache for a given COS are inconsistent. This could happen if a COS was added or deleted without a restart of the MPS.
System Action: The file won't be force migrated / recovered.
Administrator Action: Restart MPS server and retry.

MPSR0003   **Address of connect context error.**

Problem Description: The call to hpss_EnterConnection returned an error status.
System Action: Returns HPSS_EBADCONN to the calling routine.
Administrator Action: Examine HPSS logs to determine problem. Contact HPSS support if needed.

MPSR0004   **Invalid type passed to mps_SSMMPSSClassNotify (%u).**

Problem Description: Invalid type passed to mps_SSMMPSSCLassNotify. The valid types are 0, 1, and 2.
System Action: Aborts Migration/Purge Server.
Administrator Action: Restart the Migration/Purge Server if not restarted automatically, save off the MPS core file along with a copy of the MPS binary that matches the core file, and contact HPSS support.

MPSR0005   **Disk migration failure (SClassID %u, HierID %u, FamilyID %u, SubSysID %u).**

Problem Description: core_MigrateFile returned an error status.
System Action: For both disk and tape migration, MPS retries the core_MigrateFile call according to the error limit specified in the Core API Failures field on the MPS configuration. If the configured number of consecutive calls fails during a disk migration run, MPS will skip to the next hierarchy. This number of consecutive failures during a tape migration run leads MPS to abort the run.
Administrator Action: Make sure there is sufficient free space in the target storage class. For disk migration, verify that none of the source volumes are locked. Check for a media failure in either the source or target storage classes. Check for network problems. Check the log to locate the problem and contact HPSS support.

MPSR0006   **Invalid migration policy runtime interval *%d* - will use *1000000* instead (SClassID %u, SubSysID %u, PolicyID %u).**

Problem Description: The runtime interval in the specified migration policy is out of range.
System Action: Use 1,000,000 minutes instead of the specified value.
Administrator Action: Check and repair the migration policy, then restart MPS.

MPSR0007   **Error locking mutex.**

Problem Description: pthread_mutex_lock returned an error status.
System Action: Restart MPS and contact HPSS support.
Administrator Action: If the Migration/Purge Server has not already restarted automatically, restart it manually. If you know which request might have encountered the mutex problem, retry the request. If the problem persists, contact HPSS support.

MPSR0008   **Error unlocking mutex.**

> *Problem Description:* pthread_mutex_lock returned an error status.
> *System Action:* Aborts Migration/Purge Server.
> *Administrator Action:* If the Migration/Purge Server has not already restarted automatically, restart it manually. If you know which request might have encountered the mutex problem, retry the request. If the problem persists, contact HPSS support.

MPSR0009   **Entered MPS API.**

> *Problem Description:* None, informational.
> *System Action:* None
> *Administrator Action:* None

MPSR0010   **Error creating AutoTranHandle (DB %s).**

> *Problem Description:* MPS cannot obtain a database handle.
> *System Action:* Aborts the MPS.
> *Administrator Action:* Check that the database is running. Check the database and system configurations. Check the maximum number of database handles. Contact HPSS support.

MPSR0011   **Error freeing AutoTranHandle.**

> *Problem Description:* MPS cannot free a database handle.
> *System Action:* Aborts the MPS.
> *Administrator Action:* Check that the database is running. Check the database and system configurations. Contact HPSS support.

MPSR0012   **MPS initialize connection error.**

> *Problem Description:* Migration/Purge Server cannot connect to the Core Server or SSM.
> *System Action:* None, informational.
> *Administrator Action:* Verify that the Core Server and SSM are configured and running.

MPSR0013   **Metadata read error: class of service (COSID <unknown>).**
Metadata read error: class of service (COSID %u).

Problem Description: Migration/Purge Server cannot read successfully a particular Class of Service or a hierarchy from metadata.
System Action: Aborts Migration/Purge Server if it is just starting up. Do nothing except log the message if the problem occurs after the startup is completed.
Administrator Action: Verify and correct the Class of Service and hierarchy configuration.

MPSR0014   **Invalid combination of type and notification passed(%u - %u).**

Problem Description: Bad combination of the RunType and NotifyType found in mps_SSMMPSSClassNotify routine. This is a programming error.
System Action: Aborts Migration/Purge Server.
Administrator Action: Contact HPSS support.

MPSR0015   **Error closing cursor.**

Problem Description: MPS cannot free a database cursor.
System Action: Aborts the MPS.
Administrator Action: Check that the database is running. Check the database and system configurations. Contact HPSS support.

MPSR0016   **Failure in hpss_InitServer (%d).**

Problem Description: hpss_InitServer returned an error status.
System Action: The tape migration run will abort.
Administrator Action: Verify server and system configuration, restart MPS.

MPSR0017   **The MPS was unable to notify the SSM about an MPS server update.**

Problem Description: The MPS was unable to notify the SSM about a server update; for example, a change in operational state, status, or other information.
System Action: The MPS will continue to run, but SSM may not reflect the latest update.
Administrator Action: Refresh the SSM *Servers* window, the MPS *Basic Server Information* window, or both.

MPSR0018   **Server shutdown complete.**

Problem Description: MPS has been shut down through SSM or via a signal.
System Action: The MPS process will exit and will not be eligible for restart by the startup daemon.
Administrator Action: None

MPSR0019   **Metadata read error: bitfile descriptor.**

Problem Description: Can't read bitfile descriptor record from metadata.
System Action: Aborts Migration/Purge Server.
Administrator Action: Check Db2; correct the problem and restart Migration/Purge Server.

MPSR0020   **Disk migration continuation calculation (BytesToMigrate %lu, SlowestTransferRate %u, MinMinutesDiskMigrIO %u, MinNumberBytesToXfer %lu).**

Problem Description: Trace information pertaining to the disk migration continuation calculation.
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0021   **Metadata read error: checkpoint info (SClassID %u, Type %u).**

Problem Description: Can't read MPS checkpoint records from metadata file.
System Action: Aborts Migration/Purge Server.
Administrator Action: Check Db2; correct the problem and restart Migration/Purge Server.

MPSR0022   **Disk migration skip result (SClassID %u, HierID %u, FamilyID %u, SubSysID %u, BytesToMigrate %lu, Skip *%s*, AlreadySkipped *%s*, SkippedTime %lu, CurrentTime %lu, StartTime %u, RuntimeIntervalSecs %u).**

Problem Description: Trace information pertaining to disk migration continuation.
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0023   **Metadata read error: Storage-Maps-by-Space (SClassID %u).**

Problem Description: Failed to read Storage-Maps-by-Space record from metadata.
System Action: Aborts Migration/Purge Server.
Administrator Action: Check Db2; correct the problem and restart Migration/Purge Server.

MPSR0024   **Metadata read error: migration policy (PolicyID %u, SubSysID %u).**

Problem Description: Can't read the migration policy metadata.
System Action: Aborts Migration/Purge Server.
Administrator Action: Check Db2 and migration policy table; correct the problem and restart Migration/Purge Server.

MPSR0025   **Metadata read error: purge policy (PolicyID %u, SubSysID %u).**

Problem Description: Can't read the purge policy metadata.
System Action: Aborts Migration/Purge Server.
Administrator Action: Check Db2 and purge policy table; correct the problem and restart Migration/Purge Server.

MPSR0026   **Metadata read error: storage class (SClassID %u).**

Problem Description: Can't read storage class metadata.
System Action: Aborts Migration/Purge Server.
Administrator Action: Check Db2 and storage class configuration table; correct the problem and restart Migration/Purge Server.

MPSR0027   **Metadata read error: Storage Segments-by-VV.**

Problem Description: Failed to read storage segments for a particular virtual volume.
System Action: Aborts Migration/Purge Server.
Administrator Action: Check Db2; correct the problem and restart Migration/Purge Server.

MPSR0028   **Invalid notification type passed (%u).**

Problem Description: Invalid NotifyType passed to mps_SSMMPSSClassNotify. This is a programming error.
System Action: Aborts Migration/Purge Server.
Administrator Action: Restart MPS and contact HPSS support.

MPSR0029   **Storage class type not defined in metadata (SClassID %u, Type %u).**

Problem Description: The type of the storage class is not DISK, nor TAPE.
System Action: Aborts Migration/Purge Server.
Administrator Action: Restart MPS and contact HPSS support.

MPSR0030   **Metadata write error: Checkpoint info (SClassID %u, Type %u).**

Problem Description: Failed to write to MPS checkpoint file.
System Action: None, MPS will continue to function.
Administrator Action: Check Db2 and the checkpoint table.

MPSR0031   **Bitfile rewritten while copies in progress (SClassID %u, HierID %u, SourceLevel %u, TargetLevel %u).**

Problem Description: MPS has detected that a file has been rewritten while it was being migrated. This is not a problem, but rather a condition which, if it is occurring frequently, will result in inefficient use of system resources. MPS will have to migrate this file again.
System Action: None
Administrator Action: Revisit the parameters in the migration policy. Files in this class of service may be remaining active longer than expected and it may be desirable to increase the last read interval, last update interval, or both.

MPSR0032   **Bitfile rewritten to new hierarchy during migration run (SClassID %u, OldHierID %u, SourceLevel %u, TargetLevel %u).**

Problem Description: MPS has detected that a file has been rewritten to a new class of service while it was being migrated. This is not a problem, but rather a condition which, if it is occurring frequently, MPS will have to migrate this file again.
System Action: None
Administrator Action: Revisit the parameters in the migration policy. Files in this class of service may be remaining active longer than expected and it may be desirable to increase the last read interval, last update interval, or both.

MPSR0033   **Error in mm_Initialize.**

> *Problem Description:* MPS cannot initialize the metadata library.
> *System Action:* The MPS exits during startup.
> *Administrator Action:* Check that the database is running. Check the database and system configurations. Contact HPSS support.

MPSR0034   **Disk migration is ignoring the delay threshold policy setting since all migration targets are disk (SClassID %u, HierID %u, SubSysID %u).**

> *Problem Description:* Trace information pertaining to disk migration continuation.
> *System Action:* None
> *Administrator Action:* None, this is an informational message only.

MPSR0035   **Failure in pthread_cond_init.**

> *Problem Description:* Failed to initialize a mutex condition variable.
> *System Action:* Aborts Migration/Purge Server.
> *Administrator Action:* Check HPSS logs for details; fix problem; restart Migration/Purge Server.

MPSR0036   **Failure in pthread_cond_wait.**

> *Problem Description:* Failed to wait on a mutex condition variable.
> *System Action:* Aborts Migration/Purge Server.
> *Administrator Action:* Check HPSS logs for details; fix problem; restart Migration/Purge Server.

MPSR0037   **Failure in pthread_create.**

> *Problem Description:* Failed to create a thread object and thread.
> *System Action:* Aborts Migration/Purge Server.
> *Administrator Action:* Check MPS thread pool limit. Check HPSS logs for details; fix problem; restart Migration/Purge Server.

MPSR0038   **Failure in pthread_detach.**

> *Problem Description:* Failed to mark a thread object for deletion.
> *System Action:* Aborts Migration/Purge Server.
> *Administrator Action:* Check HPSS logs for details; fix problem; restart Migration/Purge Server.

MPSR0039   **Failure in pthread_mutex_init.**

Problem Description: Failed to initialize a mutex.
System Action: Aborts Migration/Purge Server.
Administrator Action: Check HPSS logs for details; fix problem; restart Migration/Purge Server.

MPSR0040   **MPS register initialization error.**

Problem Description: Can't register Migration/Purge Server interface.
System Action: Aborts Migration/Purge Server.
Administrator Action: Check HPSS logs for details and HPSS configuration; fix the problem; restart Migration/Purge Server.

MPSR0041   **Bitfile open exclusively during migration run (SClassID %u, HierID %u, SourceLevel %u, TargetLevel %u).**

Problem Description: MPS has detected that a file is being held open exclusively during a migration run. This is not a problem but rather a condition which will prevent this bitfile from being migrated.
System Action: None
Administrator Action: Revisit the parameters in the migration policy. Files in the class of service may be remaining active longer than expected and it may be desirable to increase the last read interval, last update interval, or both.

MPSR0042   **Bitfile deleted during migration run (SClassID %u, HierID %u, SourceLevel %u, TargetLevel %u).**

Problem Description: MPS has detected that a file was deleted during a migration run. This is not a problem, but rather a condition which, if it is occurring frequently, will result in inefficient use of system resources.
System Action: None
Administrator Action: Revisit the parameters in the migration policy. Files in this class of service may be remaining active longer than expected and it may be desirable to increase the last read interval, last update interval, or both.

MPSR0043   **SSM MPS reinitializing.**

Problem Description: None, informational.
System Action: As part of the Reinitializing process the COS Hierarchy cache, SClassTable cache, the migration and purge policies, the allowed COS in the subsystem configuration, the MPS server specific configuration and MPS server basic configuration will be updated in the MPS server based on the information in the relevant databases.
Administrator Action: None

MPSR0044   **Tape migration start (SClassID %u, SubSysID %u).**

Problem Description: None, informational.
System Action: None
Administrator Action: None

MPSR0045   **Unable to end session with Core.**

Problem Description: The call to core_EndSession failed; could be caused by a bad connection, or RPC runtime problems or a bad session handle passed by the mps_Tape.c.
System Action: None
Administrator Action: Check that the Core is running. Check HPSS logs for RPC runtime errors.

MPSR0046   **Unable to open session with Core.**

Problem Description: The call to core_BeginSession failed; could be caused by a bad connection, or RPC runtime problems or Server memory exhausted.
System Action: Aborts the current tape migration run and go back to WAITING state.
Administrator Action: Check that the Core is running. Check HPSS logs for RPC runtime errors.

MPSR0047   **Disk purge failure (SClassID %u, SubSysID %u).**

Problem Description: The call to core_PurgeFile returned an error status.
System Action: For disk purge, MPS retries the core_PurgeFile call according to the error limit specified in the Core API Failures field on the MPS configuration. If the configured number of consecutive calls fail during a disk purge run, MPS will abort the run.
Administrator Action: Check that Core is running. Check for network problems. Check the log to locate the problem and contact HPSS support.

MPSR0048   **Incorrect number of copies made (SClassID %u, HierID %u, SubSysID %u, SourceLevel %u, TargetLevel %u, Copies %u, PathName %s:%s).**

Problem Description: An internal check has failed regarding the number of copies which disk migration has made for a bitfile.
System Action: Aborts Migration/Purge Server.
Administrator Action: Contact HPSS support.

MPSR0049   **Server startup complete.**

Problem Description: None, informational.
System Action: None
Administrator Action: None

MPSR0050   **Tape migration error (SClassID %u, SubSysID %u).**

Problem Description: The Migration/Purge Server aborts the current tape migration run. There must be some other messages that described the real problem logged before this one.
System Action: For tape migration, MPS retries the core_MigrateFile call according to the error limit specified in the Core API Failures field on the MPS configuration. If the configured number of consecutive calls fail during a disk purge run, MPS will abort the run.
Administrator Action: Make sure there is sufficient free space in the target storage class. Check for a media failure in either the source or target storage classes. Check for network problems. Check the log to locate the problem and contact HPSS support.

MPSR0051   **Tape migration end (SClassID %u, SubSysID %u, %lu bytes migrated, %lu moved laterally, %lu extra).**

Problem Description: None, informational.
System Action: None
Administrator Action: None

MPSR0052   **Disk migration is ignoring the delay threshold policy setting due to an internal error or a configuration error. Verify the transfer rate of each of the hierarchy's target storage classes and fix (if needed). If the transfer rates are correct, report this issue to HPSS support. (SClassID %u, HierID %u, SubSysID %u)**

Problem Description: An unexpected error occurred when calculating if there's enough data to continue disk migration. When encountering this error, the migration will ignore the continuation threshold setting and thus migration will continue looking for candidates.
System Action: None
Administrator Action: Verify the transfer rates for all the hierarchy's target storage classes and fix (if needed). If the transfer rates are correct, contact HPSS support.

MPSR0053   **Disk migration skip result (SClassID %u, HierID %u, FamilyID %u, SubSysID %u, BytesToMigrate %lu, Skip %s, BuildListCount %u, MostRecentCandidate %u, FilesConsidered %u, Level %u, CurrentListCount %u).**

Problem Description: Trace information pertaining to disk migration continuation.
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0054   **Unexpected value: %s = %d**

Problem Description: The server encountered a variable with an unexpected value (such as an underflow). This likely indicates a software bug.
System Action: The server will reset its state to a valid and known configuration.
Administrator Action: If the problem occurs frequently, contact HPSS support.

MPSR0056   **Cannot connect to server: %s.**

Problem Description: MPS cannot connect to a server of which it is a client.
System Action: None
Administrator Action: Restart the server to which the MPS cannot connect.

MPSR0057   **Maximum storage classes exceeded (Count %u).**

Problem Description: The total number of storage classes defined in metadata is more than the number allowed in hpss_limits.idl.
System Action: Ignores those storage classes that are defined behind the limit.
Administrator Action: Contact HPSS support.

MPSR0058   **Tape migration could not get VV Attributes (SubSysID %u, VVID %s, ServerID %u).**

Problem Description: Tape volume migration was unable to get the specified virtual volume's attributes (this failure comes from core_GetVVAttrs). In this case, the virtual volume is specified by SOID (ObjectID and ServerID).
System Action: Aborts the migration run.
Administrator Action: Verify that the Core Server is running. Resolve any server connection issues the system may be having. Contact HPSS support.

MPSR0059   **Memory allocation failed (size %lu).**

Problem Description: There isn't enough memory for Migration/Purge Server to allocate memory.
System Action: Aborts Migration/Purge Server.
Administrator Action: Check the system and allocate more memory for Migration/Purge Server; restart Migration/Purge Server.

MPSR0060   **Metadata read error: hierarchy (HierID %u).**

Problem Description: MPS cannot read a particular hierarchy from metadata.
System Action: Aborts Migration/Purge Server.
Administrator Action: Verify the MPS and hierarchy configurations, verify the hierarchy metadata file exists and that it has the correct ACL. Finally, verify that Db2 is running.

MPSR0061   **Metadata read error: all storage classes.**

Problem Description: Migration/Purge isn't able to read the storage class metadata.
System Action: Aborts Migration/Purge Server.
Administrator Action: Check the storage class table; fix the problem; restart Migration/Purge Server.

MPSR0062   **Reread migration policy (SClassID %u, PolicyID %u, SubSysID %u).**

Problem Description: None, informational.
System Action: None
Administrator Action: None

MPSR0063   **Disk migration start (SClassID %u, SubSysID %u).**

Problem Description: None, informational.
System Action: None
Administrator Action: None

MPSR0064   **Disk migration end (SClassID %u, SubSysID %u, Files %u, Bytes %lu, Errors %d, Aborted Files %u, Busy Files %u).**

Problem Description: None, informational.
System Action: None
Administrator Action: None

MPSR0065   **Disk purge start (SClassID %u, SubSysID %u).**

Problem Description: None, informational.
System Action: None
Administrator Action: None

MPSR0066   **Disk purge end (SClassID %u, SubSysID %u, Files %u, Bytes %lu, %u of %u Locks Expired, Errors %d, Ended Early *%s*).**
Disk purge end (SClassID %u, SubSysID %u, Files %u, Bytes %lu, unknown of unknown Locks Expired, Errors %d, Ended Early *%s*).

Problem Description: None, informational.
System Action: None
Administrator Action: Purge lock information can be listed using the Purge List Utility (plu). Refer to the **plu** man page for more information on the **plu** utility.

MPSR0067   **Hierarchy not found (HierID = %u).**

Problem Description: MPS has been unable to locate a metadata record in its cache for a hierarchy referenced in another metadata record. MPS has discovered that it is running with an inconsistent set of class of service, hierarchy, and storage class metadata.
System Action: Aborts Migration/Purge Server.
Administrator Action: Check configuration, restart MPS and contact HPSS support.

MPSR0068   **Class of service not found (COSID = %u).**

Problem Description: MPS has been unable to locate a metadata record in its cache for a class of service referenced in another metadata record. This is an internal MPS error. MPS has discovered that it is running with an inconsistent set of hierarchy, class of service, and storage class metadata.
System Action: Aborts Migration/Purge Server.
Administrator Action: Check configuration; restart Migration/Purge Server.

MPSR0069   **Storage class not found in class of service (COSID = %u, SClassID = %u).**

Problem Description: A storage class has been found which is not referenced by any class of service.
System Action: None, informational.
Administrator Action: Check class of service and hierarchy configurations.

MPSR0070   **Storage class not found in hierarchy (HierID = %u, SClassID = %u).**

Problem Description: MPS has been unable to locate a metadata record for a given storage class within a hierarchy where it thinks it should be.
System Action: Aborts Migration/Purge Server.
Administrator Action: Check configuration, restart MPS and contact HPSS support.

MPSR0071   **MPS Force Migrate: Expected to batch stage %u items, but the entire batch failed (SubSysID %u, Batch Status List Length %u, Thread %lu, Stage RequestID %s)**

Problem Description: Processing of an entire batch of stage callbacks for force migration failed.

System Action: The Core Server isn't ready or can't communicate with the Migration/Purge Server.

Administrator Action: Verify that the Core Server is configured and running and able to connect to the Migration/Purge Server. Refer to HPSS Server Cannot Communicate With Another HPSS Server for help with some typical server communication issues.

MPSR0072   **Reread purge policy (SClassID %u, PolicyID %u, SubSysID %u).**

Problem Description: None; informational
System Action: None
Administrator Action: None

MPSR0073   **MPS Force Migrate: Retrying items skipped due to BUSY or NO SPACE issues. (Thread %lu)**

Problem Description: Force migration is retrying files that encountered errors due to the system being busy (that is, hit the maximum number of simultaneous stage requests) or level 0 disk running out of space.

System Action: None
Administrator Action: None, this is an informational message only.

MPSR0074   **hpss_SECAudit failed.**

Problem Description: The call to hsec_Audit returned an error status.
System Action: Log message and returns HPSS_EPERM to the calling routine.
Administrator Action: Check HPSS logs for detailed info; fix the problem.

MPSR0075   **Initialize caller auth vector failed.**

Problem Description: Can't Initialize caller auth vector.
System Action: Aborts Migration/Purge Server.
Administrator Action: Verify and fix the security setups for HPSS; restart Migration/Purge Server.

MPSR0076   **Storage class not found in any hierarchy (SClassID = %u).**

Problem Description: MPS has been unable to locate a metadata record for a given storage class within any active hierarchy it knows of.
System Action: Aborts Migration/Purge Server.
Administrator Action: Check configuration, restart MPS and contact HPSS support.

MPSR0077   **Disk migration skipping bitfile because virtual volume condition is *down* (SClassID %u, HierID %u, SubSysID %u, SourceLevel %u, TargetLevel %u, PathName %s:%s).**

Problem Description: Disk migration cannot migrate the specified bitfile because the disk volume on which the bitfile resides is locked.
System Action: Disk migration skips the bitfile and proceeds to the next. This condition does not count against the MPS's Core API error limit for the migration run.
Administrator Action: Unlock the disk volume, if so desired.

MPSR0078   **Failure in hpss_RPCUnregisterService.**

Problem Description: Can't unregister Migration/Purge interface or connection manager services before aborting the Migration/Purge server.
System Action: None
Administrator Action: Check logs for detailed errors. Contact HPSS support if needed.

MPSR0079   **Tape migration skipping volume because virtual volume condition is *down* (SClassID %u, VVID %s, ServerID %u).**

Problem Description: Tape migration cannot process the specified EOM virtual volume because it is locked.
System Action: The virtual volume is skipped.
Administrator Action: Unlock the virtual volume, if so desired.

MPSR0080   **There is no storage class specified for this MPS.**

Problem Description: There is no storage classes specified for this Migration/Purge Server.
System Action: Terminates the Migration/Purge Server.
Administrator Action: If this isn't intentional, fix the problem and restart Migration/Purge Server.

MPSR0081   **Caller authorization failed.**

> *Problem Description:* The Caller isn't authorized to make the API calls.
> *System Action:* Returns error status to caller.
> *Administrator Action:* Verify the ACL; fix the problem if this isn't intentional.

MPSR0083   **Storage class warning threshold exceeded (SClassID %u, SubSysID %u).**

> *Problem Description:* The warning threshold of a particular storage class exceeded the value specified in the storage class configuration.
> *System Action:* None
> *Administrator Action:* Review the allocation of storage space for the storage class to determine whether additional space can be allocated. If the storage class is configured to support migration/purge, review the migration/purge policy to determine whether they can be tuned to free up more space sooner. A force migration/purge may be used to free up eligible space immediately.

MPSR0084   **MPS Force Migrate: Ran out of space while staging bitfile. (Thread %lu, Requestor %u, Stage RequestID %s, BFID (%s))**

> *Problem Description:* Force migration ran out of space staging the specified bitfile.
> *System Action:* The force migration process will retry later (after kicking off a purge and migrating what has been staged thus far). If nothing is purgeable or space is not available (or both), then the file will be flagged as a stage failure in the force migration table.
> *Administrator Action:* Free up space in the appropriate storage class. The utility using force migration (such as **recover**) will need to be rerun to retry the failures.

MPSR0085   **Storage class critical threshold exceeded (SClassID %u, SubSysID %u).**

> *Problem Description:* The critical threshold of a particular storage class exceeded the value specified in the storage class configuration.
> *System Action:* None
> *Administrator Action:* Review the allocation of storage space for the storage class to determine whether additional space can be allocated. If the storage class is configured to support migration/purge, review the migration/purge policy to determine whether they can be tuned to free up more space sooner. A force migration/purge may be used to free up eligible space immediately.

MPSR0086   **Migration record found for nonexistent file.**

Problem Description: A migration record was found for a bitfile which no longer exists. This is an internal HPSS error.
System Action: None
Administrator Action: Contact HPSS support.

MPSR0087   **Purge record found for nonexistent file.**

Problem Description: A purge record was found for a bitfile which no longer exists. This is an internal HPSS error.
System Action: None
Administrator Action: Contact HPSS support.

MPSR0089   **Failure in pthread_mutex_trylock.**

Problem Description: A call to pthread_mutex_trylock failed.
System Action: Aborts Migration/Purge Server.
Administrator Action: Contact HPSS support if the problem persists.

MPSR0090   **Failure in pthread_join.**

Problem Description: A call to pthread_join failed.
System Action: Aborts Migration/Purge Server.
Administrator Action: Contact HPSS support if problem persists.

MPSR0091   **Failure in pthread_mutex_destroy.**

Problem Description: A call to pthread_mutex_destroy failed.
System Action: Aborts Migration/Purge Server.
Administrator Action: Contact HPSS support if problem persists.

MPSR0092   **Failure in pthread_cond_timedwait.**

Problem Description: A call to pthread_cond_timedwait failed.
System Action: Aborts Migration/Purge Server.
Administrator Action: Contact HPSS support if problem persists.

MPSR0093   **Failure in pthread_cond_broadcast.**

Problem Description: A call to pthread_cond_broadcast failed.
System Action: Aborts Migration/Purge Server.
Administrator Action: Contact HPSS support if problem persists.

MPSR0094   **Failure in pthread_cond_destroy.**

Problem Description: A call to pthread_cond_destroy failed.
System Action: Aborts Migration/Purge Server.
Administrator Action: Contact HPSS support if problem persists.

MPSR0095   **Failure in pthread_cond_signal.**

Problem Description: A call to pthread_cond_signal failed.
System Action: Aborts Migration/Purge Server.
Administrator Action: Contact HPSS support if problem persists.

MPSR0096   **Failure in pthread_get_expiration.**

Problem Description: A call to pthread_get_expiration_np failed.
System Action: Aborts Migration/Purge Server.
Administrator Action: Contact HPSS support if problem persists.

MPSR0097   **Error deleting migration record.**

Problem Description: An error occurred while deleting a migration record.
System Action: None
Administrator Action: Contact HPSS support if problem persists.

MPSR0098   **Error deleting purge record.**

Problem Description: An error occurred while deleting a purge record.
System Action: None
Administrator Action: Contact HPSS support if problem persists.

MPSR0099   **Storage class critical threshold cleared (SClassID %u, SubSysID %u).**

Problem Description: A storage class critical threshold condition as been cleared.
System Action: Clears Migration/Purge Server's status if no other problems exist.
Administrator Action: None

MPSR0100   **Storage class warning threshold cleared (SClassID %u, SubSysID %u).**

Problem Description: A storage class warning threshold condition has been cleared.
System Action: Clears Migration/Purge Server's status if no other problems exist.
Administrator Action: None

MPSR0101   **Tape lateral move error (SClassID %u, SubSysID %u).**

Problem Description: core_MoveSegment returned an error status.
System Action: During tape migration, MPS retries the call according to the error limit specified in the Core API Failures field on the MPS configuration. If the configured number of consecutive calls fail during a tape migration run, the run is aborted.
Administrator Action: Make sure there is sufficient free space in the storage class for which the lateral move failed. Check for a media or network failure. Check the log to locate the problem and contact HPSS support.

MPSR0102   **Underflow error.**

Problem Description: MPS has encountered an underflow error.
System Action: None, but migration or purge may not move the correct number of bytes.
Administrator Action: Restart MPS. Contact HPSS support.

MPSR0103   **Failure decoding the return parameters during Stage Batch Callback processing.**

Problem Description: Force Migration encountered an error from xdr_bfs_callback_ret_msg_t while processing stage callbacks.
System Action: Force migration will mark the record as a stage failure and continue.
Administrator Action: The utility using force migration (such as **recover**) will need to be rerun to retry the failures.

MPSR0104 **Time has gone backwards by a small amount. Migration/purge will run as normal.**

Problem Description: MPS observes a small discrepancy between the system clock and a migration checkpoint. The MPS assumes that the host on which it is running has just booted and has not yet synchronized its system clock with an NTP server. This is an informational message.
System Action: Migration continues as normal, as though the discrepancy does not exist.
Administrator Action: None

MPSR0105 **Failure receiving message.**

Problem Description: MPS cannot read from a socket. A message sent to the MPS was lost. The MPS reads from a socket when processing stage callbacks for force migration.
System Action: Force migration will mark the record as a stage failure and continue.
Administrator Action: The utility using force migration (such as **recover**) will need to be rerun to retry the failures.

MPSR0106 **Metadata read error: migration record (SClassID %u).**

Problem Description: MPS cannot read from the migration record table.
System Action: Migration run is aborted.
Administrator Action: Check migration record table; restart MPS.

MPSR0107 **Metadata read error: purge record (SClassID %u): %s.**

Problem Description: MPS cannot read from the purge record table.
System Action: Purge run aborts.
Administrator Action: If this error message repeats with high frequency, check the purge record table and restart MPS.

MPSR0108 **Tape migration calling core_GetTapeVolumeAttrs.**

Problem Description: Tape migration is calling core_GetVVAttrs.
System Action: None, informational.
Administrator Action: None

MPSR0109   **Tape migration core_GetTapeVolumeAttrs complete.**

Problem Description: Tape migration has returned from core_GetVVAttrs.
System Action: None, informational.
Administrator Action: None

MPSR0110   **Tape file migration skipping volume which has become active (SClassID %u, HierID %u, SubSysID %u, SourceLevel %u, TargetLevel %u, TotalNumReads %d, Volume %s).**

Problem Description: Tape file migration has detected that its source volume has become active during a migration. In an effort to avoid conflicting with a user's access to this volume, it will be skipped. The volume will be reconsidered for migration during the next run.
System Action: Volume is skipped for migration until the next run.
Administrator Action: If this is happening frequently, consider increasing the migration runtime interval. Otherwise, this situation is benign. If user activity is consistently denying migration from a set of tape volumes, consider altering the Max Active File Delay in the tape migration policy.

MPSR0111   **Could not make local connection to Core Server.**

Problem Description: MPS could not connect to Core Server.
System Action: Aborts the migration run.
Administrator Action: Verify that the Core Server is configured and running.

MPSR0112   **Failure initializing internal resource.**

Problem Description: The MPS is unable to initialize a necessary internal hash table.
System Action: Aborts Migration/Purge Server.
Administrator Action: Restart the Migration/Purge Server if not restarted automatically, save off the MPS core file along with a copy of the MPS binary that matches the core file, and contact HPSS support.

MPSR0113   **Metadata read error: threshold policy (SClassID %u, SubSysID %u).**

Problem Description: A threshold policy specified by a storage class cannot be read from metadata.
System Action: Aborts Migration/Purge Server
Administrator Action: Check the storage class configuration. Check Db2. Contact HPSS support. Restart MPS.

MPSR0114   **Configuration error: no default migration policy (PolicyID %u, SClassID %u).**

Problem Description: The default migration policy, specified for a storage class, cannot be read from metadata.
System Action: Aborts Migration/Purge server.
Administrator Action: Verify the migration policy file name in the HPSS configuration. Check Db2. Correct the configuration problem. Restart MPS.

MPSR0115   **Configuration error: no default purge policy (PolicyID %u, SClassID %u).**

Problem Description: The default purge policy which is specified for a storage class cannot be read from metadata.
System Action: Aborts Migration/Purge server.
Administrator Action: Verify the purge policy file name in the HPSS configuration. Check Db2. Correct the configuration problem. Restart MPS.

MPSR0116   **Migration building candidate list (SClassID %u, HierID %u, FamilyID %u, SubSysID %u, MostRecentCandidate %u, MigrationAlreadyRunning %u, AlreadyExistingCandListCount %u, CurrentSLevel %u).**

Problem Description: Disk migrating has begun building a list of migration candidates.
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0117   **Migration candidate list complete (SClassID %u, HierID %u, FamilyID %u, SubSysID %u, Candidates %u).**

Problem Description: Disk migration has finished building a list of migration candidates
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0118   **Disk migration creating threads (SClassID %u, HierID %u, FamilyID %u, SubSysID %u, Threads %u).**

Problem Description: Disk migration is creating the migration threads
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0119 **Disk migration threads complete (SClassID %u, HierID %u, FamilyID %u, SubSysID %u, Threads %u).**

Problem Description: All of the disk migration threads are complete.
System Action: None, informational.
Administrator Action: None

MPSR0120 **Migration thread calling core_OpenFile (SClassID %u, HierID %u, FamilyID %u, SubSysID %u, SourceLevel %u, TargetLevel %u).**

Problem Description: Disk migration is calling core_OpenFile.
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0121 **Migration thread core_OpenFile complete (SClassID %u, HierID %u, FamilyID %u, SubSysID %u, SourceLevel %u, TargetLevel %u).**

Problem Description: Disk migration has returned from core_OpenFile.
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0122 **Migration thread calling core_MigrateFile (SClassID %u, HierID %u, FamilyID %u, SubSysID %u, SourceLevel %u, TargetLevel %u).**

Problem Description: Disk migration is calling core_MigrateFile.
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0123 **Migration thread core_MigrateFile complete (SClassID %u, HierID %u, FamilyID %u, SubSysID %u, SourceLevel %u, TargetLevel %u).**

Problem Description: Disk migration has returned from core_MigrateFile.
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0124 **Migration thread calling core_CloseFile (SClassID %u, HierID %u, FamilyID %u, SubSysID %u, SourceLevel %u, TargetLevel %u).**

Problem Description: Disk migration is calling core_CloseFile
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0125   **Migration thread core_CloseFile complete (SClassID %u, HierID %u, FamilyID %u, SubSysID %u, SourceLevel %u, TargetLevel %u).**

Problem Description: Disk migration has returned from core_CloseFile
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0126   **Disk purge building candidate list (SClassID %u, SubSysID %u).**

Problem Description: Disk purge has begun building a list of purge candidates.
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0127   **Disk purge candidate list complete (SClassID %u, SubSysID %u, Candidates %u).**

Problem Description: Disk purge has finished building a list of purge candidates.
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0128   **Disk purge calling core_OpenFile (SClassID %u, SubSysID %u).**

Problem Description: Disk purge is calling core_OpenFile.
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0129   **Disk purge core_OpenFile complete (SClassID %u, SubSysID %u).**

Problem Description: Disk purge has returned from core_OpenFile
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0130   **Disk purge calling core_PurgeFile (SClassID %u, SubSysID %u).**

Problem Description: Disk purge is calling core_PurgeFile
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0131   **Disk purge core_PurgeFile complete (SClassID %u, SubSysID %u).**

Problem Description: Disk purge has returned from core_PurgeFile.
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0132   **Disk purge calling core_CloseFile (SClassID %u, SubSysID %u).**

Problem Description: Disk purge is calling core_CloseFile.
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0133   **Disk purge core_CloseFile complete (SClassID %u, SubSysID %u).**

Problem Description: Disk purge has returned from core_CloseFile.
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0134   **Tape migration selecting a source VV (SClassID %u, SubSysID %u).**

Problem Description: Tape migration is selecting a source VV.
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0135   **Tape migration source VV selection complete (SClassID %u, SubSysID %u).**

Problem Description: Tape migration has finished selecting a source VV.
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0136   **Tape migration calling core_OpenFile (SClassID %u, SubSysID %u).**

Problem Description: Tape migration is calling core_openFile
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0137   **Tape migration core_OpenFile complete (SClassID %u, SubSysID %u).**

Problem Description: Tape migration has returned from core_OpenFile.
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0138   **Tape migration calling core_MigrateFile (SClassID %u, SubSysID %u).**

Problem Description: Tape migration is calling core_MigrateFile.
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0139   **Tape migration core_MigrateFile complete (SClassID %u, SubSysID %u).**

Problem Description: Tape migration has returned from core_MigrateFile.
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0140   **Tape migration calling core_CloseFile (SClassID %u, SubSysID %u).**

Problem Description: Tape migration is calling core_CloseFile.
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0141   **Tape migration core_CloseFile complete (SClassID %u, SubSysID %u).**

Problem Description: Tape migration has returned from core_CloseFile.
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0142   **Tape migration calling core_MoveSegment (SClassID %u, SubSysID %u).**

Problem Description: Tape migration is calling core_MoveSegment
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0143   **Tape migration core_MoveSegment complete (SClassID %u, SubSysID %u).**

Problem Description: Tape migration has returned from core_MoveSegment.
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0144   **Tape migration building candidate list (SubSysID %u).**

Problem Description: Tape migration has begun building a list of segments on the selected VV.
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0145   **Tape migration candidate list complete (SubSysID %u, Segments %u).**

Problem Description: Tape migration has finished building a list of segments on the selected VV.
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0146   **Server self-aborting due to previous error.**

Problem Description: MPS is aborting itself due to an error.
System Action: The MPS process exits.
Administrator Action: This should always be accompanied by at least one other MPS error message, describing the problem. Use that message to diagnose and solve the problem.

MPSR0147   **COS in bitfile descriptor does not point to same hierarchy as migration record (BfDesc.COSID = %u, COS[%u].HierID = %u, MigRec.HierID = %u, BitfileID = %s).**
COS in bitfile descriptor does not point to same hierarchy as migration record (BfDesc.COSID = %u, COS[%u].HierID = %u, MigRec.HierID = %u, BitfileID = <BAD_SOID>).
Auto Change COS in bitfile descriptor does not point to same hierarchy as migration record (BfDesc.COSID = %u, COS[%u].HierID = %u, MigRec.HierID = %u, BitfileID = %s). This most likely is a temporary condition.
Auto Change COS in bitfile descriptor does not point to same hierarchy as migration record (BfDesc.COSID = %u, COS[%u].HierID = %u, MigRec.HierID = %u, BitfileID = BAD_SOID). This most likely is a temporary condition.

Problem Description: Disk migration has encountered a situation where the bitfile descriptor and the migration record for a given bitfile are inconsistent.
System Action: If occurred during Auto Change COS, this is an informational log regarding a temporary condition; otherwise, aborts Migration/Purge server.
Administrator Action: This is an internal HPSS error. If not during Auto Change COS, contact HPSS support.

MPSR0148   **Tape file migration start (SClassID %u, SubSysID %u).**

Problem Description: A tape file migration run is beginning.
System Action: A tape file migration run starts.
Administrator Action: None, this is an informational message only.

MPSR0149   **Tape file migration end (SClassID %u, SubSysID %u, Files %lu, Bytes %lu, Volumes %lu, Active %u, Down %u, Errors %d, Aborted Files %lu).**

Problem Description: A tape file migration run is ending.
System Action: A tape file migration run ends.
Administrator Action: None, this is an informational message only.

MPSR0150   **Tape file migration failure (SClassID %u, HierID %u, SubSysID %u).**

Problem Description: An error occurred during a tape file migration run.
System Action: After the number of Core Server API errors specified in the MPS configuration, the migration run is aborted.
Administrator Action: Use accompanying error messages to diagnose the problem.

MPSR0151   **Tape file migration could not get file extended attributes (SClassID %u, HierID %u, SubSysID %u).**

Problem Description: An error occurred at the call to core_BitfileGetXAttrs.
System Action: After the number of Core Server API errors specified in the MPS configuration, the migration run is aborted.
Administrator Action: Use accompanying error messages to diagnose the problem.

MPSR0152   **Tape file migration skipping volume because virtual volume condition is *down* (SClassID %u, HierID %u, SubSysID %u, SourceLevel %u, TargetLevel %u, Volume %s).**
Tape file migration skipping volume because virtual volume condition is *down* (SClassID %u, HierID %u, SubSysID %u, SourceLevel %u, TargetLevel %u, Volume <unknown>).

Problem Description: Tape file migration is skipping the specified tape volume because it is locked.
System Action: The locked tape volume is skipped.
Administrator Action: Unlock the tape volume, if so desired.

MPSR0153 **Tape file migration building volume list (SClassID %u, HierID %u, SubSysID %u).**

Problem Description: Tape file migration has begun building a list of tape VVs.
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0154 **Tape file migration volume list complete (SClassID %u, HierID %u, SubSysID %u, Volumes %u).**

Problem Description: Tape file migration has finished building a list of tape VVs.
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0157 **Tape file migration calling core_BitfileGetXAttrs (SubSysID %u).**

Problem Description: Tape file migration has called core_BitfileGetXAttrs to determine the home VV on which a migration candidate resides.
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0158 **Tape file migration core_BitfileGetXAttrs complete (SubSysID %u).**

Problem Description: Tape file migration has returned from core_BitfileGetXAttrs.
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0159 **Tape file migration creating thread (SClassID %u, HierID %u, SubSysID %u, Thread %u).**

Problem Description: Tape file migration has created a migration thread for a VV.
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0160   **Tape file migration thread complete (SClassID %u, HierID %u, SubSysID %u, Thread %u).**

Problem Description: A tape file migration thread has completed.
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0161   **Unexpected duplicate entry error.**

Problem Description: The MPS found an unexpected duplicate entry in an internal hash table.
System Action: Aborts Migration/Purge Server.
Administrator Action: Restart the Migration/Purge Server if not restarted automatically, save off the MPS core file along with a copy of the MPS binary that matches the core file, and contact HPSS support.

MPSR0162   **MPS Force Migrate: Busy failure staging bitfile. (Thread %lu, Requestor %u, Stage RequestID %s, BFID (%s))**

Problem Description: The specified Bitfile ID got a "busy retry" error on stage. It will get this when the Core Server is processing a lot of stages and hits the limit: Active Copy IO Max plus the maximum number of additional background stages allowed by the Core Server.
System Action: None.
Administrator Action: "Busy retry" errors will be retried a couple times; after which they will be marked as stage failures and the utility using force migration (such as **recover**) will need to be rerun to retry the failures. If you get a lot of these errors, consider increasing the Core Server's Maximum Active Copy Request setting.

MPSR0163   **MPS Force Migrate: Batch Stage Callback processing complete. (Thread %lu, Processed %u, Staged %u, Busy Errors %u, No Space Errors %u, Callback Errors %u, TooManyPurgeLockErrors %s)**

Problem Description: Processing of a batch of stage callbacks for force migration is complete. This is a trace message about the progress of force migration.
System Action: None.
Administrator Action: None, this is an informational message only.

MPSR0164   **MPS Force Migrate: Canceled force migration request during process stage callbacks step. (Thread %lu, Aborted I/O RequestID %s)**

Problem Description: None. Informational message about the force migrate operation being canceled.
System Action: The MPS will quiesce the force migration thread. This means that the MPS will stop as soon as it can.
Administrator Action: This action was probably due to an HPSS administrator stopping a recover; verify recover progress and possibly restart later.

MPSR0165   **Unable to find Bitfile ID (%s).**

Problem Description: The MPS is unable to find a particular, expected Bitfile ID in an internal hash table.
System Action: Aborts Migration/Purge Server.
Administrator Action: Restart the Migration/Purge Server if not restarted automatically, save off the MPS core file along with a copy of the MPS binary that matches the core file, and contact HPSS support.

MPSR0166   **Tape file migration competing with user read (SClassID %u, HierID %u, SubSysID %u, SourceLevel %u, TargetLevel %u, TotalNumReads %d, Volume %s).**

Problem Description: A user is attempting to read data from a tape that is being used for tape migration.
System Action: Tape migration on this tape may be abandoned temporarily.
Administrator Action: None, this is an informational message only.

MPSR0167   **I failed to start a batch session with the Core Server. You will experience degraded migration performance (SClassID %u, HierID %u, SubSysID %u).**

Problem Description: The server failed to start a batch session with the CoreServer.
System Action: In the case of disk migration, migration will continue, but in single file mode. In the case of tape file migration, migration will likely fail.
Administrator Action: Examine HPSS logs to determine exact cause of error. Contact HPSS support if needed.

MPSR0168 **I failed to end a batch session with the Core Server. Unless this occurs repeatedly, you may safely ignore this error (SClassID %u, HierID %u, SubSysID %u).**

Problem Description: The server failed to end a batch session that it had previously constructed with the Core Server.
System Action: None
Administrator Action: Ignore isolated cases of this error. If the error occurs repeatedly and frequently, examine HPSS logs to determine the exact cause of the error.

MPSR0169 **MMLIB text: %s**

Problem Description: Detailed information from Db2 on metadata operation failure.
System Action: None
Administrator Action: Use information in message along with other HPSS log messages to diagnose the database failure. Contact HPSS support if needed.

MPSR0170 **Disk migration continues for Storage Class %u (SubSysID %u).**

Problem Description: The current migration from disk continues to run. This occurs every runtime interval until the migration finishes.
System Action: New candidate files for migration are discovered by the MPS.
Administrator Action: None, this is an informational message only.

MPSR0171 **Invalid state passed to disk migration PrepareNotification aggregator (SClassID %u, FamilyID %u, SubSysID %u).**

Problem Description: A call to the mps_PrepareNotification information aggregator has been made incorrectly.
System Action: None
Administrator Action: Contact HPSS support.

MPSR0172 **Cannot find Hierarchy %u in aggregator list (SubSysID %u).**

Problem Description: The storage hierarchy could not be found in one of the Migration/Purge server's internal hierarchy lists.
System Action: The Migration/Purge server may abort itself.
Administrator Action: Restart the Migration/Purge server, if necessary, and contact HPSS support.

MPSR0173   **Invalid storage class ID (SClassID = %u).**

Problem Description: No Storage Class ID has been passed into the disk migration aggregator. This is a sanity check and should not occur unless inadequate local code modifications have been made.
System Action: None
Administrator Action: Contact HPSS support.

MPSR0174   **Invalid storage class index (SClassIDx = %u).**

Problem Description: An invalid storage class index has been passed into the disk migration aggregator. This is a sanity check and should not occur unless inadequate local code modifications have been made.
System Action: None
Administrator Action: Contact HPSS support.

MPSR0175   **Migration thread calling core_MigrateBatch (SClassID %u, HierID %u, FamilyID %u, SubSysID %u, SourceLevel %u, TargetLevel %u, NumCandidates %u, Thread %lu, BatchType %u, SessionID %s).**

Problem Description: This is an informational message.
System Action: None
Administrator Action: None

MPSR0176   **Migration thread core_MigrateBatch complete (SClassID %u, HierID %u, FamilyID %u, SubSysID %u, SourceLevel %u, TargetLevel %u, NumCandidates %u, Thread %lu, BatchType %u, SessionID %s).**

Problem Description: This is an informational message.
System Action: None
Administrator Action: None

MPSR0177   **A subordinate batch migration thread has an invalid session ID (SessionID = %s).**

Problem Description: A subordinate batch migration thread has found that it has no session ID. This situation cannot occur under normal circumstances and likely indicates a software bug.
System Action: Aborts Migration/Purge Server.
Administrator Action: Restart the Migration/Purge Server if not restarted automatically, save off the MPS core file along with a copy of the MPS binary that matches the core file, and contact HPSS support.

MPSR0178   **Reached a list boundary unexpectedly: Conformant Array.**
Reached a list boundary unexpectedly: Batch Candidate List.

Problem Description: An internal data structure is an unexpected size. This indicates a software bug.
System Action: None
Administrator Action: Contact HPSS support.

MPSR0179   **Metadata read error: bitfile owner of tape segment (SClassID %u).**

Problem Description: The system could not retrieve the bitfile ID associated with a certain tape segment.
System Action: The system continues onward, ignoring the problematic tape segment.
Administrator Action: If the problem occurs on a frequent or continual basis, contact HPSS support.

MPSR0180   **Metadata read error: no bitfile associated with storage segment on tape volume %s (SClassID %u).**

Problem Description: There is no bitfile ID associated with a certain tape segment. This likely indicates a metadata inconsistency.
System Action: The system continues onward, ignoring the problematic tape segment.
Administrator Action: Contact HPSS support.

MPSR0181   **Unable to migrate a file in a batch: migrating as a single file instead.**

Problem Description: The server has run across a file that either is not a valid batch migration candidate or has experienced too many batch migration errors.
System Action: The server will migrate the file as a single file rather than as part of a batch.
Administrator Action: None

MPSR0182   **%d out of %d batch migration candidates must be migrated as single files (SClassID %u, HierID %u, FamilyID %u, SubSysID %u, SourceLevel %u, TargetLevel %u).**

Problem Description: This is an informational message.
System Action: None
Administrator Action: None

MPSR0183   **Unexpected negative value: %s = %d**

Problem Description: The server has run across a variable that should never contain a negative value and, yet, does. This likely indicates a software bug.
System Action: The server will reset its state to a valid and known configuration.
Administrator Action: If the problem occurs frequently, contact HPSS support.

MPSR0184   **Cannot find Family %u in list (SubSysID %u).**

Problem Description: A family could not be found in the disk migration's file family list.
System Action: The server will self-heal and continue onward.
Administrator Action: Contact HPSS support.

MPSR0185   **Please be patient: shutdown delayed by running migrations, waiting until migrations are aborted.**

Problem Description: The server has been told to shut itself down while migrations are currently running.
System Action: The server will tell all the running migrations to stop, wait for them to stop, and then shut itself down.
Administrator Action: Wait patiently. If it is imperative for the MPS to stop immediately, use the SSM GUI **Force Halt** button.

MPSR0186   **Unable to migrate a file in a batch due to the file being busy: will try again later in a new batch.**
Unable to migrate a file in a batch due to the file being aborted: will try again later in a new batch.

Problem Description: The server has run across a file that, temporarily, cannot be migrated as part of a batch.
System Action: The server will set the file aside and try again later to migrate the file as part of a batch.
Administrator Action: None

MPSR0187 **Unable to migrate a file because of a hash verification failure: will try again later.**

Problem Description: The server has run across a file that cannot be migrated because of a hash verification failure.
System Action: The server will continue trying to migrate the file.
Administrator Action: Consulting the logging information to determine the file that caused the failure and determine the nature of the validation failure.

MPSR0188 **Unexpected error code: %d. Please contact HPSS support.**

Problem Description: An unexpected error code was received.
System Action: None
Administrator Action: Contact HPSS support.

MPSR0189 **Hierarchy %u in COS %u is constructed incorrectly. Please contact HPSS support. (NextLevel = %u not equal to TargetLevel = %u)**

Problem Description: The hierarchy is constructed such that the target migration level is not the next level in the hierarchy. The rules for tape migration state that migration may not skip levels in the hierarchy.
System Action: The migration aborts.
Administrator Action: Ensure that no files have been migrated using the hierarchy. If files have been migrated, contact HPSS support immediately. In addition, reconstruct the hierarchy so that, as displayed by the SSM GUI, the specified migration target level is located directly below its source level.

MPSR0190 **There are more families migrating than allowed by the migration policy. (SClassID %u, SubSysID %u)**

Problem Description: As the MPS is going about the task of refreshing its internal candidate lists, it has noticed that there are migrations running for more families than allowed by the migration policy.
System Action: The MPS will only refresh the candidate lists for as many families as are allowed by the migration policy.
Administrator Action: The source of this situation is likely a bug. Contact HPSS support.

MPSR0191 **Refreshing currently running migrations. (SClassID %u, SubSysID %u)**

Problem Description: This is an informational message and does not indicate a problem.
System Action: The MPS is refreshing its internal candidate lists.
Administrator Action: None

MPSR0192 **Finished refreshing currently running migrations. (SClassID %u, SubSysID %u)**

Problem Description: This is an informational message and does not indicate a problem.
System Action: The MPS has finished refreshing its internal candidate lists.
Administrator Action: None

MPSR0193 **MPS Force Migrate (%lu): The first line of the input file should be a positive integer representing the number of migration streams to use.**

Problem Description: The first line of the MPS Force Migrate input file is not a positive integer.
System Action: The Force Migrate attempt will abort.
Administrator Action: As the first line in the MPS Force Migrate input file, enter the number of migration streams to use for the MPS Force Migrate session.

MPSR0194 **MPS Force Migrate (%lu): Bitfile ID #%d could not be converted to binary from text.**

Problem Description: The MPS Force Migrate input file contains a malformed bitfile ID.
System Action: The input file's line containing the bad Bitfile ID will be skipped.
Administrator Action: Examine and correct the bitfile ID on the specified line number of the input file. The bitfile ID should be in Db2 hex format.

MPSR0195 **MPS Force Migrate (%lu): Bitfile ID #%d looks to be too long. It should only be %u hex characters long.**

Problem Description: The MPS Force Migrate input file contains a malformed bitfile ID.
System Action: The input file's line containing the bad bitfile ID will be skipped.
Administrator Action: Examine and correct the bitfile ID on the specified line number of the input file. The bitfile ID should be in Db2 hex format.

MPSR0196   **MPS Force Migrate (%lu): I am unable to open bitfile %d in the input file. I'll skip it.**

Problem Description: The MPS could not read the specified metadata for the bitfile ID on the specified line number of the MPS Force Migrate input file.
System Action: The Force Migrate attempt will abort.
Administrator Action: Determine the cause for the metadata read failure. If necessary, contact HPSS support in order to repair the metadata. Otherwise, remove the offending bitfile ID from the input file.

MPSR0197   **MPS Force Migrate (%lu): I couldn't read the hierarchy metadata for bitfile %d in the input file.**
MPS Force Migrate (%lu): I couldn't read the COS metadata for bitfile %d in the input file.
MPS Force Migrate (%lu): I couldn't read the bitfile metadata for bitfile %d in the input file.

Problem Description: The MPS could not read the specified metadata for the bitfile ID on the specified line number of the MPS Force Migrate input file.
System Action: The Force Migrate attempt will abort.
Administrator Action: Determine the cause for the metadata read failure. If necessary, contact HPSS support in order to repair the metadata. Otherwise, remove the offending bitfile ID from the input file.

MPSR0198   **MPS Force Migrate (%lu): Finished.**

Problem Description: This is an informational message.
System Action: None
Administrator Action: None

MPSR0199   **MPS Force Migrate (%lu): I couldn't find any bitfile IDs in the input file.**

Problem Description: The MPS could not find any bitfile IDs in the MPS Force Migrate input file.
System Action: The Force Migrate attempt will abort.
Administrator Action: Ensure that the input file contains at least one bitfile ID.

MPSR0200   **MPS Force Migrate (%1$lu): I found %2$PRIu64 file to force migrate.**
MPS Force Migrate (%1$lu): I found %2$PRIu64 files to force migrate.

Problem Description: This is an informational message.
System Action: None
Administrator Action: None

MPSR0201   **MPS Force Migrate (%lu): %u of %u files migrated. I'm finished.**
MPS Force Migrate (%lu): %u of %u files migrated.
MPS Force Migrate (%lu): %u of %PRIu64 files staged.

Problem Description: This is an informational message.
System Action: None
Administrator Action: None

MPSR0202   **MPS Force Migrate (%lu): I only staged %d files before running out of space. I'll migrate just these files.**

Problem Description: The top level disk storage class ran out of free space while the MPS was staging files to it.
System Action: The MPS will only migrate the files it has thus far staged. It will neither attempt to migrate more files nor attempt to find more files in the input that are already in the top storage level.
Administrator Action: Free up space in the appropriate storage class or stop submitting tape-only data to the MPS force migrate until the storage class has free space.

MPSR0203   **Tape file migration migrating from active volume (SClassID %u, SubSysID %u, Volume %s).**

Problem Description: The MPS has chosen to migrate from a tape volume that a user is reading or writing. This occurs when there are one or more files on the tape volume that are old enough to have crossed the migration policy's Max Active File Delay threshold.
System Action: HPSS will interleave the user and migration requests for the tape.
Administrator Action: If this occurs frequently, consider adjusting the appropriate tape migration policy's Last Read Interval, Last Update Interval, Max Active File Delay, or all of these.

MPSR0204   **MPS Force Migrate (%lu): Staging files to disk. This may take awhile.**

Problem Description: This is an informational message.
System Action: The MPS will attempt to stage all bitfiles in the input to the top level of the hierarchy.
Administrator Action: None

MPSR0205 **MPS Force Migrate (%lu): Starting.**

Problem Description: This is an informational message.
System Action: None
Administrator Action: None

MPSR0206 **MPS Force Migrate (%lu): Stopping because stop file exists.**

Problem Description: This is an informational message.
System Action: None
Administrator Action: None

MPSR0207 **Time has gone backwards by a large amount (%d s). Migration/purge will suspend until the system clock and server are repaired.**

Problem Description: The MPS has observed a large discrepancy (greater than five minutes) between the system clock and an MPS checkpoint.
System Action: All migration and purge will remain suspended until the problem is repaired.
Administrator Action: If the system clock is incorrect, fix the system clock. Otherwise, empty the MPS checkpoint table. Mark the MPS repaired.

MPSR0208 **The system clock still appears to be incorrect (%d s). Migration/purge remain suspended.**

Problem Description: The MPS has been marked as repaired after noticing a large discrepancy between the system clock and a migration checkpoint. Yet, the discrepancy remains.
System Action: All migration and purge will remain suspended until the problem is repaired.
Administrator Action: If the system clock is incorrect, fix the system clock. Otherwise, empty the MPS checkpoint table. Then mark the MPS repaired.

MPSR0209   **The HPSS environment is configured for too many purge threads: %d. The maximum is %u. Continuing with %u purge threads per storage class. The HPSS environment is configured for too few purge threads: %d. The minimum is %u. Continuing with %u purge thread per storage class.**

Problem Description: The number of purge threads per storage class can be customized via the HPSS_MPS_PURGE_PARALLELISM environment variable. This message is output when an HPSS sets the environment variable to an invalid value: less than one or more than ten.

System Action: If HPSS_MPS_PURGE_PARALLELISM is set to significantly more than ten, the MPS falls back to the default number of purge threads per storage class: two. If the environment variable is set to slightly more than the maximum, the MPS falls back to ten purge threads per storage class. If the variable's value is set to zero or less, then the MPS uses the minimum number of purge threads per storage class: one.

Administrator Action: Set the HPSS_MPS_PURGE_PARALLELISM environment variable to a value in the range [1,10] and restart the MPS.

MPSR0210   **An error was encountered while retrieving a ServerID from a SOID: %d**

Problem Description: An unexpected error was received.
System Action: None
Administrator Action: Contact HPSS support.

MPSR0211   **An error was encountered while converting a SOID to a string: %d**

Problem Description: An unexpected error was received.
System Action: None
Administrator Action: Contact HPSS support.

MPSR0212   **An error was encountered while converting a UUID to a string: %d**

Problem Description: An unexpected error was received.
System Action: None
Administrator Action: Contact HPSS support.

MPSR0214   **%c is not a valid hex character.**

Problem Description: The algorithm is expecting a character that represents a hexadecimal character: 0-9 and A-F.
System Action: None
Administrator Action: Use information in message along with other HPSS log messages to diagnose the failure. Contact HPSS support if needed.

MPSR0215   **Ending early because MMLIB has been shut down.**
Ending storage class initialization early because MMLIB has been shut down.
Ending tape migration early because MMLIB has been shut down.
Ending Auto Change COS early because MMLIB has been shut down.
Ending force migrate early because MMLIB has been shut down.
Ending purge early because MMLIB has been shut down.
Ending migration early because MMLIB has been shut down.

Problem Description: The MPS is ending the specified metadata activity early because MMLIB had been shut down.
System Action: The MPS is probably shutting down.
Administrator Action: None if the intention is to shut down; otherwise, contact HPSS support.

MPSR0216   **Exited MPS API.**

Problem Description: None. Informational message indicating that the specified MPS API is exiting.
System Action: None
Administrator Action: None

MPSR0217   **Metadata read error: force migrate.**

Problem Description: There was a metadata error reading the force migrate table.
System Action: MPS will quit processing force migration records for this thread or may not be able to update a particular record.
Administrator Action: Use information in message along with other HPSS log messages to diagnose the database failure. Contact HPSS support if needed.

MPSR0218   **MPS Force Migrate: Unable to read the bitfile associated storage metadata. Skipping it. (Thread %lu, Requestor %u, BFID (%s): %s:%s)**

Problem Description: The MPS is unable to read the bitfile metadata for the specified bitfile. The force migration record is updated with the error. The MPS will skip this bitfile and continue onto the next.
System Action: The MPS will skip this bitfile and continue forward.
Administrator Action: Use information in message along with other HPSS log messages to diagnose the database failure. After fixing the problem, rerun the utility using force migration (such as **recover**).

MPSR0219　　**Metadata write error: Force Migrate info.**

Problem Description: There was a metadata error updating a force migrate record.
System Action: The MPS will continue.
Administrator Action: Use information in message along with other HPSS log messages to diagnose the database failure. Contact HPSS support if needed. After fixing the problem, rerun the utility using force migration (such as **recover**).

MPSR0220　　**Error starting metadata transaction.**

Problem Description: There was an error starting a metadata transaction.
System Action: Log this error message and terminate the associated operation.
Administrator Action: Use information in message along with other HPSS log messages to diagnose the database failure. Contact HPSS support if needed. After fixing the problem, rerun the utility using force migration (such as **recover**).

MPSR0221　　**MPS Force Migrate: Stage Progress: %u files have been staged. (Thread %lu, CallBackAddrID %s, TooManyPurgeLockErrors %s, RanOutOfSpace %s, ReadCallBackErrorCount %u, TotalBusyRetryCount %u, TotalNoSpaceCount %u)**

Problem Description: None. Informational progress message.
System Action: None
Administrator Action: None

MPSR0222　　**MPS Force Migrate: Due to unsuccessful hierarchy lookup using COS, skipping BFID (%s): %s:%s (Thread %lu, Requestor %u, FM State %u)**

Problem Description: The MPS is unable to progress on the specified bitfile due to an issue looking up the hierarchy. The force migration record is updated with the error. The MPS will skip this bitfile and continue onto the next.
System Action: The MPS will skip this bitfile and continue forward.
Administrator Action: Use information in message along with other HPSS log messages to diagnose the failure. After fixing the problem, rerun the utility using force migration (such as **recover**).

MPSR0223 **MPS Force Migrate: Unable to get the Bitfile extended attributes. Skipping it. (SClassID %u, HierID %u, SubSysID %u, Thread %lu, Requestor %u, BFID (%s): %s:%s)**

Problem Description: The MPS is unable to get the extended attributes for the specified bitfile. The force migration record is updated with the error. The MPS will skip this bitfile and continue onto the next.
System Action: The MPS will skip this bitfile and continue forward.
Administrator Action: Use information in message along with other HPSS log messages to diagnose the failure. After fixing the problem, rerun the utility using force migration (such as **recover**).

MPSR0224 **MPS Force Migrate: Starting. (Thread %lu, RequestID %s, MaxPerBatchStage %u, OrigVVID %s, SrcVVID %s)**

Problem Description: None. Informational progress message. A Force Migration thread has started.
System Action: None
Administrator Action: None

MPSR0225 **MPS Force Migrate: Staged only %u files before hitting a resource issue. Initiating force migration on just these files. (Out of Space %u, Core Server I/O Busy %u, Thread %lu)**

Problem Description: The MPS wasn't able to stage all the force migration candidates before running into a resource issue. It could be out of space at the top storage level, the Core Server is busy with I/O, or both. The MPS will continue forward with force migrating the candidates that it was able to stage and will retry staging failed candidates a few times.
System Action: The MPS will not be able to stage any more files to the top storage level until space is made available, the system isn't as busy, or both.
Administrator Action: If encountering space issues, consider adding more resources to the top storage level, decreasing the Purge Policy settings (which indicate at what percentage purge will start and how far down to purge the storage class) or both. If encountering busy issues, consider increasing the Maximum Active Copy Requests or run force migration when the system isn't as busy.

MPSR0226   **MPS Force Migrate: Unable to start force migration. Please check supporting logs for more details. (Thread %lu)**

Problem Description: The MPS is unable to initiate the force migration.
System Action: The MPS can't perform the request.
Administrator Action: Use information in message along with other HPSS log messages to diagnose the failure. After fixing the problem, rerun the utility using force migration (such as **recover**).

MPSR0227   **MPS Force Migrate: This file is already at destination level 0 thus migration is not needed. (Thread %lu, Requestor %u, BFID (%s))**

Problem Description: None. Informational progress message. Staging the specified bitfile got it to its destination level and thus it doesn't need to be migrated.
System Action: The MPS will continue forward skipping migrating this bitfile.
Administrator Action: None

MPSR0228   **MPS Force Migrate: Finished a batch. %u candidates migrated. (Thread %lu)**

Problem Description: None. Informational progress message.
System Action: None
Administrator Action: None

MPSR0229   **MPS Force Migrate (disk): %u of %u files migrated. (SClassID %u, HierID %u, SubSysID %u, Errors %d, Thread %lu)**

Problem Description: None. Informational progress message.
System Action: None
Administrator Action: None

MPSR0230   **MPS Force Migrate (tape): %u of %u files migrated. (SClassID %u, HierID %u, SubSysID %u, Bytes %lu, Errors %d, Thread %lu)**

Problem Description: None. Informational progress message.
System Action: None
Administrator Action: None

MPSR0231   **MPS Force Migrate: Received request to cancel active force migration. (Thread %lu, OrigVVID %s, SrcVVID %s)**
MPS Force Migrate: Received request to abort active force migration. (Thread %lu, OrigVVID %s, SrcVVID %s)

Problem Description: None. Informational message.
System Action: The MPS will quiesce the force migration thread associated with the Original (retired or damaged) VVID and Source (stage from) VVID. (Note: The Source VVID may be NULL indicating any Source VVID). This means that the MPS will stop as soon as it can. If it's a cancel request, then it will wait until the current "in flight" items are complete. If it's an abort request, then it will attempt to abort any "in flight" items. For both cancel and abort, it won't stage or migrate new candidates associated with the force migration thread.
Administrator Action: This action was probably due to an HPSS administrator stopping a recover; verify recover progress and possibly restart later.

MPSR0232   **MPS Force Migrate: Canceled force migration request during migration of candidates step. (Thread %lu, RequestID %s, OrigVVID %s, SrcVVID %s)**
MPS Force Migrate: Canceled force migration request during reading force migrate metadata step. (Thread %lu, RequestID %s, OrigVVID %s, SrcVVID %s)
MPS Force Migrate: Canceled force migration request during stage of candidates step. (Thread %lu, RequestID %s, OrigVVID %s, SrcVVID %s)

Problem Description: None. Informational message.
System Action: The MPS will quiesce the force migration thread associated with the Original (retired or damaged) VVID and Source (stage from) VVID. (Note: The Source VVID may be NULL indicating any Source VVID). This means that the MPS will stop as soon as it can; it will wait until the current "in flight" items are complete and won't stage or migrate new candidates associated with the force migration thread.
Administrator Action: This action was probably due to an HPSS administrator stopping a recover; verify recover progress and possibly restart later.

MPSR0233   **MPS Force Migrate: Canceling force migration request during migration of disk file candidates step. (Thread %lu, RequestID %s, OrigVVID %s, SrcVVID %s)**

MPS Force Migrate: Canceling force migration request during migration of tape file candidates step. (Thread %lu, RequestID %s, OrigVVID %s, SrcVVID %s)

Problem Description: None. Informational message.

System Action: The MPS will quiesce the force migration thread associated with the Original (retired or damaged) VVID and Source (stage from) VVID. (Note: The Source VVID may be NULL indicating any Source VVID). This means that the MPS will stop as soon as it can; it will wait until the current "in flight" items are complete and won't stage or migrate new candidates associated with the force migration thread.

Administrator Action: This action was probably due to an HPSS administrator stopping a recover; verify recover progress and possibly restart later.

MPSR0234   **Invalid argument.**

Problem Description: An MPS function was called with invalid arguments.

System Action: The MPS may stop progressing on a particular request.

Administrator Action: Use information in message along with other HPSS log messages to diagnose the failure.

MPSR0235   **MPS Force Migrate: Thread %lu was found in the FM Thread List, but it wasn't running; removing from thread list.**

Problem Description: Internal problem. An MPS force migration thread ID was found in the MPS's list of force migration (FM) threads; however, it couldn't find an associated running thread.

System Action: None

Administrator Action: Monitor for other occurrences; contact HPSS support.

MPSR0236   **MPS Force Migrate: Unable to purge unlock %u force migration candidates. Consider running the HPSS plu utility. (Thread %lu)**

Problem Description: The force migration thread was unable to purge unlock a number of force migration candidates.
System Action: Files may remain purged locked.
Administrator Action: Consider running the HPSS **plu** utility to unlock any purge locked files that the administrator believes should no longer be locked. It could be that the file was deleted during the force migrate/recover process and thus the MPS was unable to purge unlock the file. Note: some operations (for example, force migration and recover) require the file to be purge locked, so make sure those operations are complete or are in a retry state.

MPSR0237   **MPS Force Migrate: Unable to purge lock the bitfile. (Thread %lu, Requestor %u, BFID (%s): %s:%s)**

Problem Description: The force migration thread was unable to purge lock a force migration candidate.
System Action: Files can't be force migrated until they are purge locked. If the MPS can't purge lock 25 bitfiles within a force migration batch, then it will stop trying and cancel the current force migration (for example, **recover**) request.
Administrator Action: Consider running the HPSS **plu** utility to see any purge locked files that the administrator believes should no longer be locked. Note: some operations require the file to be purge locked, so make sure those operations are complete before retrying the **recover** or other force migration operation.

MPSR0238 **MPS Force Migrate: Reached a limit of %u purge lock failures for this batch of force migration candidates. Staged only %u files; initiating force migration on just these files. Please check supporting logs for more details. (Thread %lu)**

Problem Description: The force migration thread was unable to purge lock a number of force migration candidates resulting in hitting a limit. This limit gives the administrator a chance to figure out why so many files are locked and thus unable to force migrate (for example, **recover**).
System Action: Files can't be force migrated until they are purge locked. If the MPS can't purge lock 25 bitfiles within a force migration batch, then it will stop trying, fail requests it hasn't tried, and migrate those that were previously successful.
Administrator Action: Consider running the HPSS **plu** utility to see any purge locked files that the administrator believes should no longer be locked. Note: some operations require the file to be purge locked, so make sure those operations are complete before retrying the **recover** or other force migration operation.

MPSR0239 **MPS Force Migrate: Thread %lu was not found in the FM Thread List because it was empty.**

Problem Description: Internal problem. An MPS force migration thread ID was not found in the MPS's list of force migration (FM) threads because the list is empty.
System Action: None
Administrator Action: Monitor for other occurrences; contact HPSS support.

MPSR0240 **Disk migration failure (SClassID %u, HierID %u, FamilyID %u, SubSysID %u, Force Migrate).**

Problem Description: core_MigrateFile returned an error status during a force migrate operation. Force Migrate is used by **recover**.
System Action: For both disk and tape file force migration, MPS retries the core_MigrateFile call according to the error limit specified in the Core API Failures field on the MPS configuration. If the configured number of consecutive calls fails during a disk migration run, MPS will skip to the next hierarchy. This number of consecutive failures during a tape migration run leads MPS to abort the run.
Administrator Action: Make sure there is sufficient free space in the target storage class. For disk migration, verify that none of the source volumes are locked. Check for a media failure in either the source or target storage classes. Check for network problems. Check the log to locate the problem and contact HPSS support.

MPSR0241   **Tape file migration failure (SClassID %u, HierID %u, SubSysID %u, Force Migrate).**

Problem Description: An error occurred during a tape file force migrate run. Force Migrate is used by **recover**.

System Action: After the number of Core Server API errors specified in the MPS configuration, the migration run is aborted.

Administrator Action: Use accompanying error messages to diagnose the problem.

MPSR0242   **MPS Force Migrate: %u bitfiles were unable to be staged due to the system being busy. Please retry force migration later. (Thread %lu)**

Problem Description: The specified number of bitfiles got a "busy retry" error on stage and retries were unsuccessful. It will get this when the Core Server is processing a lot of stages and hits the limit: Active Copy IO Max plus the maximum number of additional background stages allowed by the Core Server.

System Action: Busy errors will be retried a couple times; after which they will be marked as stage failures and the utility using force migration (such as **recover**) will need to be rerun to retry the failures.

Administrator Action: Consider increasing the Core Server's Maximum Active Copy Request setting.

MPSR0243   **MPS Force Migrate: The MPS was unable to finish processing all the force migrate records due to a metadata problem. Please check supporting logs for more details and then rerun force migration after problem resolved. (Thread %lu)**

Problem Description: The MPS was unable to finish processing all the force migrate records due to a metadata problem.

System Action: None.

Administrator Action: Check supporting logs (**recover**, HPSS, Db2) for more details and then rerun force migration after problem resolved.

MPSR0244   **MPS Force Migrate: Due to unsuccessful stage, skipping BFID (%s): %s:%s (Thread %lu, Requestor %u, Stage RequestID %s, FM State %u)**

Problem Description: The MPS was unable to progress on the specified bitfile due to an issue staging the file. The force migration record is updated with the error. The MPS will skip this bitfile and continue on to the next.
System Action: The MPS will skip this bitfile and continue forward.
Administrator Action: Use information in message along with other HPSS log messages to diagnose the failure. After fixing the problem, rerun the utility using force migration (such as **recover**).

MPSR0245   **MPS Force Migrate: Requesting purge due to out of space issues. (SClassID %u, SubSysID %u, Thread %lu)**

Problem Description: Force migration is requesting to start up purge due to running out of space while staging files. Purge will not run if it is disabled or suspended.
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0246   **MPS Force Migrate: Finished reading all records. (Thread %lu, RequestID %s, Pass %u, OrigVVID %s, SrcVVID %s)**

Problem Description: None. Informational message reporting that it completed pass number *X* reading all the records in the ready state.
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0247   **MPS Force Migrate: Stopping force migration due to not being able to purge after encountering NO SPACE errors while staging files. Please purge or create more free space at level 0 and then rerun force migration. (SClassID %u, Hier ID %u, SubSysID %u, Thread %lu)**

Problem Description: The top level disk storage class ran out of free space while the MPS was staging files to it. And MPS wasn't able to purge the disk storage class to help create more space.
System Action: The MPS will stop staging and will migrate the files it has thus far staged.
Administrator Action: Free up or add more space in the appropriate storage class. The utility using force migration (such as **recover**) will need to be rerun to retry the failures.

MPSR0248   **MPS Force Migrate: Marking a set of force migrate records as failed. (Thread %lu, Num Records %u, TooManyPurgeLockErrors %s, Busy %s, DontRetryErrors %s)**

Problem Description: This is an informational message that occurs when force migration is failing a set of records. It provides additional information for force migration failure scenarios.
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0249   **MPS Force Migrate: Unable to update a set of metadata records. The utility using force migration (such as recover) will need to be rerun to retry the incomplete requests. (State %u, Error %d, StartIndex %u, EndIndex %u)**

Problem Description: The MPS was not able to update a set of force migration records (from StartIndex to EndIndex) with the appropriate State and Error.
System Action: The MPS force migration thread will continue until done; however, the utility using force migration (such as **recover**) might not know that the MPS is done and could wait on these files indefinitely.
Administrator Action: Use the information in the message along with other HPSS log messages to diagnose the failure. After fixing the problem, rerun the utility using force migration (such as **recover**) to retry the incomplete requests.

MPSR0250   **MPS Force Migrate: Canceling a force migration run due to metadata errors. The utility using force migration (such as recover) will need to be rerun to retry any incomplete requests. Please check supporting logs for more details. (Thread %lu)**

Problem Description: The MPS is unable to continue the force migration due to metadata problems.
System Action: The MPS will cancel the force migration. The utility using force migration (such as **recover**) will not know that the MPS has canceled the force migration and could wait on these files indefinitely.
Administrator Action: Use information in message along with other HPSS log messages to diagnose the failure. After fixing the problem, rerun the utility using force migration (such as **recover**).

MPSR0251   **MPS Force Migrate: Unable to open the bitfile in order to purge lock it. (Thread %lu)**

Problem Description: The MPS is unable to open the specified bitfile and thus cannot purge lock it.

System Action: The MPS will still attempt to force migrate the file unless the purge lock failure limit has been reached. There's a small chance that the file could be purged before it's migrated in which case the migration for this file will fail.

Administrator Action: Use information in message along with other HPSS log messages to diagnose the failure. After fixing the problem, rerun the utility using force migration (such as **recover**). It could be that the file was already open by some other application when the MPS attempted to open it.

MPSR0252   **MPS Force Migrate: Canceled force migration request. (Thread %lu, RequestID %s)**

Problem Description: None. Informational message that the force migrate operation has been canceled.

System Action: None

Administrator Action: This action was probably due to an HPSS administrator stopping or restarting a failed recover; verify recover progress and possibly restart later.

MPSR0253   **Metadata read error: PVs-by-VV.**

Problem Description: Failed to read physical volume metadata for a particular virtual volume.

System Action: None

Administrator Action: Check Db2.

MPSR0254   **MPS Force Migrate: Unable to update a set of metadata records. The utility using force migration (such as recover) will need to be rerun to retry the incomplete requests. (State %u, Error %d)**

Problem Description: The MPS was not able to update a set of force migration records with the appropriate State and Error.

System Action: The MPS force migration thread will continue until done; however, the utility using force migration (such as **recover**) might not know that the MPS is done and could wait on these files indefinitely.

Administrator Action: Use the information in the message along with other HPSS log messages to diagnose the failure. After fixing the problem, rerun the utility using force migration (such as **recover**) to retry the incomplete requests.

MPSR0255 **Bitfile is not migrateable (SClassId %u, SubSysId %u, ActiveFile %u, FileAge %d, MaxAge %d, MaxActiveFileDelay = %d, mm_ReadBitfile Status %d, Bitfile ID %s)**

Problem Description: A bitfile was skipped during a tape file migration run.
System Action: This is a diagnostic trace message. No action is needed.
Administrator Action: If the site has files that haven't migrated for a long time and the files are in a storage class using tape file migration, this trace log could help HPSS support diagnose the problem.

MPSR0256 **VV is not migrateable (SClassId %u, SubSysId %u, ReadTimeDiff %d, UpdateTimeDiff %d, OldestCandDiff %d, MaxAge %d, LastReadIntervalInSeconds %u, LastUpdateIntervalInSeconds %u, MaxActiveFileDelay = %d, Volume %s)**

Problem Description: A volume was skipped during a tape file migration run.
System Action: This is a diagnostic trace message. No action is needed.
Administrator Action: If the site has files that haven't migrated for a long time and the files are in a storage class using tape file migration, this trace log could help HPSS support diagnose the problem.

MPSR0257 **Disk migration get candidates start (SClassID %u, HierID %u, FamilyID %u, SubSysID %u, MigrRecordCursor %s, MigrRecordSelect %u, RecordCreateTime %u, MaxRecords %u).**

Problem Description: Disk migration is getting a list of migration candidates.
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0259 **MPS Force Migrate: Canceled a force migration run due to communication errors. The utility using force migration (such as recover) will need to be rerun to retry any failed requests. (Thread %lu, OrigVVID %s, SrcVVID %s) Please check supporting logs for more details.**

Problem Description: The MPS is unable to continue the force migration due to communication problems.
System Action: The MPS will cancel the force migration. This will most likely cause the Core Server to report socket errors about sending callback responses for stages associated with the force migration.
Administrator Action: Use information in message along with other HPSS log messages to diagnose the failure. After fixing the problem, rerun the utility using force migration (such as **recover**).

MPSR0260 **Disk migration aborted I/O (SClassID %u, HierID %u, FamilyID %u, SubSysID %u, Force Migrate %s, Thread %lu).**
Tape migration aborted I/O (SClassID %u, HierID %u, FamilyID %u, SubSysID %u, Force Migrate %s, Thread %lu).

Problem Description: Migration I/O has been aborted.
System Action: The migration will end and will not be automatically restarted. Migration will resume normally according to the migration policy.
Administrator Action: None.

MPSR0261 **Migration worker thread not found (SClassID %u, HierID %u, SubSysID %u, Thread %lu)**

Problem Description: A migration worker thread was expected to be in a list, but could not be found.
System Action: None.
Administrator Action: None.

MPSR0262 **Tape file migration failure due to aborted I/O; will retry on next migration run. (SClassID %u, HierID %u, SubSysID %u, Force Migrate %s, Thread %lu).**

Problem Description: Tape file migration I/O has been aborted.
System Action: The migration will end and will not be automatically restarted. Migration will resume normally according to the migration policy.
Administrator Action: None.

MPSR0263 **Abort I/O Request Failed (Abort I/O RequestID %s, Thread %lu, Status %d)**

Problem Description: An attempt to abort migration I/O failed.
System Action: The migration I/O will continue.
Administrator Action: Attempt the abort again. If it fails again, notify HPSS support.

MPSR0264 **Building tape file migration candidate list (SClassID %u, HierID %u, SubSysID %u, MigrRecordSelect %u, CurrentSLevel %u).**

Problem Description: Informational message.
System Action: None.
Administrator Action: None.

MPSR0265 **Tape file migration candidate list complete (SClassID %u, HierID %u, SubSysID %u, Candidates %u).**

Problem Description: Informational message.
System Action: None.
Administrator Action: None.

MPSR0266 **Error returned by %s().**

Problem Description: An unexpected error was returned from the specified function call.
System Action: None.
Administrator Action: Notify HPSS support.

MPSR0267 **No migration candidate list will be built because there are no migration targets (SClassId %u, HierId %u, SubSysId %u).**

Problem Description: The hierarchy specified in the error message contains no levels to which to migrate from the specified storage class.
System Action: Migration will not execute for the specified storage class and hierarchy.
Administrator Action: Verify that the configuration for the specified hierarchy is correct.

MPSR0268 **Disk migration candidate list empty (SClassID %u, HierID %u, FamilyID %u, SubsysID %u).**

Problem Description: The migration list for the specified storage class is empty.
System Action: Disk migration for the specified storage class will not continue.
Administrator Action: None.

MPSR0269 **Error locking read-write lock for reading.**

Problem Description: The appropriate lock could not be taken.
System Action: The MPS will crash.
Administrator Action: Notify HPSS support.

MPSR0270 **Error locking read-write lock for writing.**

Problem Description: The appropriate lock could not be taken.
System Action: The MPS will crash.
Administrator Action: Notify HPSS support.

MPSR0271   **Error unlocking read-write lock.**

Problem Description: The appropriate lock could not be released.
System Action: The MPS will crash.
Administrator Action: Notify HPSS support.

MPSR0272   **Failure in pthread_rwlock_tryrdlock.**

Problem Description: The appropriate lock could not be taken.
System Action: The MPS will crash.
Administrator Action: Notify HPSS support.

MPSR0274   **Ending a read-optimized batch ordered by parent ID with %u candidates due to encountering a sentinel.**
Ending a read-optimized batch ordered by create time with %u candidates due to encountering a sentinel.

Problem Description: A tape aggregate was prematurely shortened due to Ordered Migration configuration.
System Action: None.
Administrator Action: None.

MPSR0275   **Ending a batch ordered by parent ID with %u candidates due to a change in ordering type.**
Ending a batch ordered by create time with %u candidates due to a change in ordering type.

Problem Description: A tape aggregate was prematurely shortened due to Ordered Migration configuration.
System Action: None.
Administrator Action: None.

MPSR0276 **Added migration candidates for %u of %u total directories to %.0f%% full candidate list. (SClassID %u, HierID %u, Family ID %u)**

Problem Description: If a migration candidate list is completely filled to its maximum size, it's possible that only some directories' candidates are being migrated. This message reports on how many directories' candidates are and are not being migrated.
System Action: None.
Administrator Action: If this occurs sporadically or for regular-but-short periods of time, no action is necessary. If this occurs for mostly full candidate lists, no action is necessary. However, if this occurs on a regular, ongoing basis or for an extended period of time for empty or mostly empty candidate lists, contact HPSS support.

MPSR0277 **Unable to find a target Auto Change Class of Service for file *%s:%s* currently in SClassID %u, COSID %u with data length of %lu. Will not Auto Change COS.**

Problem Description: Unable to find a target Class of Service (COS) for a disk migration candidate which is eligible for Auto Change COS.
System Action: This file was not Auto Change COSed and was migrated using the current hierarchy.
Administrator Action: Review HPSS Class of Service Minimum/Maximum File Size settings in each COS to verify that a target COS exists for all file size ranges. Keep in mind that the MPS will only target COSes without **Force Selection** on.

MPSR0278 **Auto Change COS failed (SClassID %u, Current COSID %u, Target COSID %u, BitfileID %s).**
Auto Change COS failed (SClassID %u, Current COSID %u, Target COSID %u, BitfileID BAD_SOID).

Problem Description: Unable to change the Class of Service (COS) for the specified disk migration candidate which was eligible for Auto Change COS.
System Action: This file was not Auto Change COSed and was migrated using the current hierarchy.
Administrator Action: Review HPSS Class of Service Minimum/Maximum File Size settings in each COS to verify that a target COS exists for all file size ranges. Keep in mind that the MPS will only target COSes without **Force Selection** on. If this occurs on a regular, ongoing basis or for an extended period of time, contact HPSS support.

MPSR0279   **Disk Auto Change COS submitted (SClassID %u, SubSysID %u, Files %u, Bytes %lu).**

Problem Description: None, informational.
System Action: None.
Administrator Action: None.

MPSR0280   **MPS-PURGE-TRACE: Bitfile ID(%s) : Current Storage Level %u : ReadTime %u : WriteTime %u : CheckTime %u : CurrentTime %u : LastAccessInterval %u : FileSize %PRIu64 : Purge %s**

Problem Description: Trace information pertaining to the disk purge information for a file.
System Action: None.
Administrator Action: None.

MPSR0281   **MPS-PURGE-TRACE: Candidate Summary: Candidate ListCount = %u : TotalNumPurgeRecords = %u : TargetBytesToPurge = %PRIu64 : mps_DiskPurgeGetCandidates ReturnCode = %d : SummaryRunResults = %d**

Problem Description: Trace information pertaining to the disk purge information.
System Action: None.
Administrator Action: None.

MPSR0282   **MPS-PURGE-TRACE: Starting Purge Thread : List Count = %u : SClassIndex = %u : SClassID = %u**

Problem Description: Trace information pertaining to the disk purge information.
System Action: None.
Administrator Action: None.

MPSR0283   **MPS-PURGE-TRACE: Breaking loop: MPS_PENDING_SUSPEND = %d : MPS_PENDING_DISABLE = %d**

Problem Description: Trace information pertaining to the disk purge information.
System Action: None.
Administrator Action: None.

MPSR0284   **MPS-PURGE-TRACE: No more candidates or reached purge target. TargetBytesToPurge = %PRIu64 : BytesPurged = %PRIu64 : HeadP = %s**

Problem Description: Trace information pertaining to the disk purge information.
System Action: None.
Administrator Action: None.

MPSR0285   **MPS-PURGE-TRACE: Current State: List Count = %u : PurgeCandidateP = %s : CandidateListP→Head = %s**

Problem Description: Trace information pertaining to the disk purge information.
System Action: None.
Administrator Action: None.

MPSR0286   **MPS-PURGE-TRACE: Purge record with no matching bitfile (%s)**

Problem Description: Trace information pertaining to the disk purge information for a bitfile.
System Action: None.
Administrator Action: None.

MPSR0287   **MPS-PURGE-TRACE: Cannot open bitfile (%s) exclusively, skipping**

Problem Description: Trace information pertaining to the disk purge information.
System Action: None.
Administrator Action: None.

MPSR0288   **MPS-PURGE-TRACE: Too many BFS Errors: %u of out %u**

Problem Description: Trace information pertaining to the disk purge information.
System Action: None.
Administrator Action: None.

MPSR0289   **MPS-PURGE-TRACE: exiting purge worker thread**

Problem Description: Trace information pertaining to the disk purge information.
System Action: None.
Administrator Action: None.

MPSR0290   **Failed to Auto Change COS *%u* files(s) (SClassID %u, HierID %u, FamilyID %u). Please check the MPS report log and HPSS log for specific file failure details.**

Problem Description: Unable to find a target Class of Service (COS) for a set of disk migration candidates which were eligible for Auto Change COS.
System Action: These files were not Auto Change COSed and were migrated using the current hierarchy.
Administrator Action: Review HPSS Class of Service Minimum/Maximum File Size settings in each COS to verify that a target COS exists for all file size ranges. Keep in mind that the MPS will only target COSes without **Force Selection** on.

MPSR0291   **The attempt to use environment variable HPSS_MAX_FILES_IN_AGGR failed-- either bad syntax or the value is out of range.**

Problem Description: Environment variable HPSS_MAX_FILES_IN_AGGR has a problem.
System Action: The environment variable HPSS_MAX_FILES_IN_AGGR has been defined but the Migration/Purge Server cannot use it because either the contents are unreadable or because the value it contains is out of range. This is a serious problem that must be fixed before the Migration/Purge Server can continue. Environment variables are often defined and found in `/var/hpss/etc/env.conf`. One solution might be to comment-out the environment variable. If the value is out of range consider using a value in the range 2 to 100000.
Administrator Action: This environment variable must be found and fixed.

MPSR0292   **A subordinate batch migration thread is in an inconsistent state (SClassID %u, HierID %u, Thread %lu).**

Problem Description: The batch migration subordinate thread is in an inconsistent state.
System Action: The MPS will continue moving forward with batch migration cleanup noting the inconsistent state via this log. If this log persists, contact HPSS support.
Administrator Action: Check logs for detailed errors. Contact HPSS support if needed.

MPSR0293 **Storage class does not have a purge policy (SClassID %u).**

Problem Description: None, informational.
System Action: None.
Administrator Action: None.

MPSR0294 **Could not read Migration/Purge Server log policy: %s**

Problem Description: An attempt to read the Migration/Purge Server's log policy failed.
System Action: The Migration/Purge Server will print a warning and use the default log policy.
Administrator Action: Determine the problem based on the returned error message.

MPSR0295 **Error adding a node to an hpss_ilist_t called %s. The hpss_ilist_t is already too large.**

Problem Description: An attempt to add a node to a list failed due to the list's size going past INT32_MAX.
System Action: The Migration/Purge Server will print a warning and stop reading COS IDs from the database.
Administrator Action: Contact HPSS support if needed.

MPSR0296 **A previous iterator has already been set for the list called: %s. Halting previous iterator before beginning new iteration.**

Problem Description: Calling code already began iterating across this hpss_ilist and did not finish the iteration before trying to start another iteration.
System Action: None
Administrator Action: None

MPSR0297 **MPS Force Migrate: Not able to perform requested abort due to invalid MPS Job ID.**

Problem Description: An attempt to abort force migration I/O failed.
System Action: The migration I/O will continue.
Administrator Action: Attempt the abort again. If it fails again, notify HPSS support.

MPSR0298   **MPS Force Migrate: Calling core_StageCallBack (Thread %lu, Stage RequestID %s)**

Problem Description: Force migration is calling core_StageCallBack.
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0300   **MPS Force Migrate: Aborting batch stage (Thread %lu, Stage RequestID %s)**

Problem Description: Force migration is aborting the batch stage request
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0301   **MPS Force Migrate: Calling mps_AbortForceMigration (MPSJobID %s)**

Problem Description: Force migration is calling mps_AbortForceMigration.
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0302   **MPS Force Migrate: Calling core_AbortJobByRequestId (MPSJobID %s, Abort I/O RequestID %s)**

Problem Description: Force migration is calling core_AbortJobByRequestId.
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0303   **Error updating JSON object when writing MPS report**

Problem Description: Cannot update JSON Object for a complete MPS Report record.
System Action: Aborts Migration/Purge Server.
Administrator Action: Restart the Migration/Purge Server if not restarted automatically, save off the MPS core file along with a copy of the MPS binary that matches the core file. If the problem persists, contact HPSS support.

MPSR0304   **Reinitialization of COS Hierarchy failed**

Problem Description: Reinitialization of the cached COS Hierarchy structure failed during server reinitialization.

System Action: Log this error message and bypass the failed part of the reinitialization by using existing cached information.

Administrator Action: Examine the specific error code for the cause of the failure. Contact HPSS support if needed.

MPSR0305   **Reinitialization of Storage Class failed**

Problem Description: Reinitialization of the cached Storage Class table failed during server reinitialization.

System Action: Log this error message and bypass the failed part of the reinitialization by using existing cached information.

Administrator Action: Examine the specific error code for the cause of the failure. Contact HPSS support if needed.

MPSR0306   **Environment variable HPSS_MPS_MIGR_PURGE_PAUSE_SECS was set to invalid value (%d), overriding with default value (%d) (SClassID %u**

Problem Description: The HPSS_MPS_MIGR_PURGE_PAUSE_SECS environment variable wasn't set to a valid value.

System Action: The migration/purge run will move forward with default value.

Administrator Action: Check the value of HPSS_MPS_MIGR_PURGE_PAUSE_SECS environment variable.

MPSR0307   **Trouble retrieving environment variable HPSS_MPS_MIGR_PURGE_PAUSE_SECS so overriding with default value (%d) (SClassID %u)**

Problem Description: Problems retrieving the HPSS_MPS_MIGR_PURGE_PAUSE_SECS environment variable.

System Action: The migration/purge run will move forward with default value.

Administrator Action: Check the existence of HPSS_MPS_MIGR_PURGE_PAUSE_SECS environment variable. If the problem persists, contact HPSS support.

MPSR0308 **Migration state changed from %s(%u) to %s(%u). (SClassID %u, SubSysID %u)**

Problem Description: Storage Class migration state changed.
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0309 **Purge state changed from %s(%u) to %s(%u). (SClassID %u, SubSysID %u)**

Problem Description: Storage Class purge state changed.
System Action: None
Administrator Action: None, this is an informational message only.

MPSR0310 **MPS migration run pausing %d seconds before starting (SClassID %u)**

Problem Description: An MPS migration run is pausing before startup
System Action: The migration run sleeps.
Administrator Action: This is an informative message on how long a migration run will pause before starting it's work after the MPS has been (re)started.

MPSR0311 **MPS purge run pausing %d seconds before starting (SClassID %u)**

Problem Description: An MPS purge run is pausing before startup
System Action: The purge run sleeps.
Administrator Action: This is an informative message on how long a purge run will pause before starting it's work after the MPS has been (re)started.

MPSR0312 **Purge Statistics (SClassID %u, SubSysID %u): Found %PRIu64 purgeable file(s), %PRIu64 file(s) skipped due to being exempt, %PRIu64 file(s) not purgeable, %PRIu64 queries to the database %.4lf seconds, %.4lf seconds spent querying the purge candidates**

Problem Description: The Migration/Purge Server logs a message when a purge run is complete. This message contains statistics about the purge run that just finished.
System Action: None.
Administrator Action: None.

MPSR0313   **The attempt to use environment variable %s failed-- either bad syntax or the value is out of range. Attempted value was: %s, and we are expecting a value between %u and %u inclusively. Using default value: %u**
Environment variable %s was not found. Using default value: %u

Problem Description: Environment variable has a problem.
System Action: The environment variable has been defined but either the contents are unreadable or the value it contains is out of range. The default value will be used.
Administrator Action: This environment variable should be found and fixed.

MPSR0314   **The attempt to call *core_GetStorageClassStats* failed.**

Problem Description: Unable to get Storage Class statistics from the Core Server process.
System Action: The call failed and statistics are not computed on this loop iteration.
Administrator Action: This is a trace message, no admin action should be required. If the message occurs repeatedly and frequently, verify that the Core Server is configured and running.

MPSR0315   **Storage Class Id %u is not found.**

Problem Description: Unable to locate the Storage Class in the local storage class table. Most likely the Storage Class does not belong to a Class Of Service which is enabled for this subsystem, and we should ignore it.
System Action: The Storage Class Id is skipped.
Administrator Action: None. Informational only.

MPSR0316   **The attempt to call *mps_SSMMPSSClassNotify* failed (SClassID %u, SClassIdx %u**

Problem Description: Unable to notify the SSM about changes in the Storage Class usage.
System Action: The last reported totals are rolled back to original values.
Administrator Action: None. We assume the totals will be updated on the next loop iteration.

MPSR0317   **The attempt to call *mps_SSMMPSSClassNotify* failed to notify thresholds exceeded**

Problem Description: Unable to notify the SSM about storage class threshold values being exceeded.
System Action: The call failed.
Administrator Action: If the error occurs repeatedly and frequently, examine HPSS logs to determine the exact cause of the error.

MPSR0318   **Stopping Migration (Thread %lu).**

Problem Description: A migration thread is stopping.
System Action: None.
Administrator Action: None.

Chapter 9. PVLS series (Physical Volume Library Server error messages)

PVLS0001   **Entering: %s**

Problem Description: The PVL is tracing the execution of a specific request. The name of the routine that is being entered will be part of the message text. This is not an error condition.
System Action: None
Administrator Action: None

PVLS0002   **Exiting: %s**

Problem Description: The PVL is tracing the execution of a specific request. The name of the routine that is being exited will be part of the message text. This is not an error condition, but an error code may be displayed along with the message.
System Action: None
Administrator Action: None

PVLS0003   **Calling: %s%s**

Problem Description: The PVL is tracing the execution of an upcoming specific request. The name of the routine that is being called will be part of the message text. This is not an error condition.
System Action: None
Administrator Action: None

PVLS0004   **Returned from %s%s**

Problem Description: A function called internally by the PVL recording subroutine call return values.
System Action: None
Administrator Action: None

PVLS0005   **Job canceled, client notify failed: Job ID = %d**

Problem Description: The PVL was unable to notify its client of a mount. JobID is the internal PVL job ID associated with the canceled job.
System Action: The client's mount job is aborted.
Administrator Action: Check HPSS log for an indication of why the PVL was unable to contact its client.

PVLS0006   **Connection opened: client UUID = %s**

Problem Description: A client to the PVL opened its connection to the PVL.
System Action: None
Administrator Action: None

PVLS0007   **Connection closed**

Problem Description: A client to the PVL closed its connection to the PVL.
System Action: None
Administrator Action: None

PVLS0008   **Dismount reason: client request%s**

Problem Description: The PVL is dismounting a cartridge as per client request.
System Action: The cartridge will be put away.
Administrator Action: None

PVLS0009   **Dismount reason: label written%s**

Problem Description: The PVL is dismounting a cartridge after a label has been written.
System Action: The cartridge will be put away.
Administrator Action: None

PVLS0010   **Dismount reason: no request ready%s**

Problem Description: The PVL is dismounting a cartridge from a drive because the cartridge is not considered active.
System Action: The cartridge will be put away.
Administrator Action: If this error continues, investigate the source of the mount request.

PVLS0011 **Dismount reason: no request pending%s**

Problem Description: The PVL is dismounting a cartridge from a drive because there is no request pending for that cartridge.
System Action: The cartridge will be put away.
Administrator Action: If this error continues, investigate the source of the unaccounted for mounted cartridges. It may be due to an application other than HPSS or failing dismounts.

PVLS0012 **PVL Initialized**

Problem Description: The PVL is initialized and up.
System Action: None
Administrator Action: None

PVLS0013 **PVL Shutdown%s**

Problem Description: The PVL is shutting itself down.
System Action: The PVL will terminate itself as gracefully as possible.
Administrator Action: If shutdown reason is unknown, investigate reason for termination in log.

PVLS0014 **PVL JOB STATE: Job ID = %d, Job State (%s → %s)**

Problem Description: The PVL is logging a job state change.
System Action: None
Administrator Action: None

PVLS0015 **Memory allocation failed: %s = %zu**

Problem Description: The PVL was unable to get additional space for an internal structure.
System Action: Varies depending on the reason for the requested space.
Administrator Action: Check to see if the PVL has grown too large to gather more space. Not being able to malloc space is very serious. Consider restarting the PVL. Investigate other servers and system resources for system-wide conditions.

PVLS0016   **Job deleted on restart, inconsistent: Job ID = %d**

Problem Description: Upon restart of the PVL, it tries to restart jobs that were in progress when the PVL went down. This message is generated when an inconsistency in the state of a restarting job is detected.
System Action: The job with an inconsistent state is aborted.
Administrator Action: None

PVLS0017   **Job deleted on restart, non-MOUNT: Job ID = %d**

Problem Description: Upon restart of the PVL, it tries to restart jobs that were in progress when the PVL went down. This message is generated to trace when recovering a partial import, export, move, or re-label job.
System Action: The job with partial import aborted and the cartridge ejected. The job with partial export is backed out if possible. The job with partial move is undetermined. The job with the partial re-label is retried.
Administrator Action: Operation may need to be retried.

PVLS0018   **Job deleted on restart, not committed: Job ID = %d**

Problem Description: Upon restart of the PVL, it tries to restart jobs that were in progress when the PVL went down. This message is generated to trace when recovering an uncommitted job.
System Action: The job that is uncommitted is aborted.
Administrator Action: None

PVLS0019   **Job deleted on restart, synchronous mount: Job ID = %d**

Problem Description: Upon restart of the PVL, it tries to restart jobs that were in progress when the PVL went down. This message is generated to trace when recovering a synchronous mount job.
System Action: The job is aborted.
Administrator Action: None

PVLS0020   **Dismount reason: invalid deferred label import type%s**

Problem Description: A deferred label was not written on the tape because the import type selected for the existing label on the tape is invalid.
System Action: The PVL will dismount the cartridge and the SS will EOM the VV.
Administrator Action: Re-import the tape cartridge with a valid deferred label type and recreate resources for the VV.

PVLS0021   **PVR config data missing, will not contact PVR: PVR ID = %u**

Problem Description: A failure occurred while trying to get information about a PVR out of metadata configuration files.
System Action: The PVL will continue working without any connection to the PVR in question.
Administrator Action: Check that PVL configuration files are set up properly in regard to PVR connections. Check that the PVR specific metadata exists for all PVR servers in the generic server metadata. Once corrected, the PVL will have to be restarted to affect a connection with the PVR in question.

PVLS0022   **SIGNAL: %d**

Problem Description: The PVL handled a signal.
System Action: None
Administrator Action: None; informational.

PVLS0023   **Job deleted on restart, drive queue inconsistent: Job ID = %d**

Problem Description: An attempt to rebuild the PVL's drive queue as it was coming up has failed.
System Action: The PVL deletes the offending job and attempts to continue.
Administrator Action: None

PVLS0024   **Count of jobs recovered on restart: %u**

Problem Description: A count of the number of jobs recovered after a restart of the PVL.
System Action: None
Administrator Action: None; informational.

PVLS0025   **Count of jobs deleted on restart: %u**

Problem Description: A count of the number of jobs deleted after a restart of the PVL.
System Action: None
Administrator Action: None;informational

PVLS0026   **Number of drives changed. Total drive count in PVL: %d**

Problem Description: Upon initialization, drive creation and drive deletion, the PVL reports the number of drives in the system.
System Action: On start-up, drive creation and drive deletion, the newly calculated count of drives will be used to update metadata.
Administrator Action: For the create and delete drive cases, check metadata logs for any errors. Check PVL configuration file for consistency. For the start-up case, no action is required.

PVLS0027   **Drive in use, Drive ID = %d**

Problem Description: The PVL is trying to set drive attributes or is trying to delete a busy drive.
System Action: Either the drive attributes will not be set or the drive will not be deleted.
Administrator Action: Either retry setting drive attributes or deleting the drive once the drive is not in a busy state.

PVLS0028   **Job recovered, mounting: Job ID = %d, JobState = %u**

Problem Description: Upon restart of the PVL, it tries to restart jobs that were in progress when the PVL went down. This message is generated when a mount wsn't completed (for example, Cartridge Wait, Drive Wait, Mount Wait) and will be recovered.
System Action: The job will be resumed.
Administrator Action: None

PVLS0029   **Job recovered, mounted: Job ID = %d, JobState = %u**

Problem Description: Upon restart of the PVL, it tries to restart jobs that were in progress when the PVL went down. This message is generated for jobs in which the mount was completed (for example, Mounted, In Use) and will be recovered.
System Action: The job will be recovered.
Administrator Action: None

PVLS0030   **Dismount reason: Job recovered, dismounting%s**

Problem Description: Upon restart of the PVL, it tries to restart jobs that were in progress when the PVL went down. This message is generated when a dismount or abort wasn't completed and will be recovered.
System Action: The job will be retried.
Administrator Action: None

PVLS0031   **Dismount reason: restart, no request pending%s**

Problem Description: Upon restart of the PVL, it tries to restart jobs that were in progress when the PVL went down. This message is generated when the PVL is dismounting a cartridge for which no request was pending.
System Action: PVL will cancel the job.
Administrator Action: Operation may need to be retried.

PVLS0032   **Dismount reason: unknown%s**

Problem Description: The reason for dismounting a cartridge, drive, or job was unknown due to a programming error in the PVL.
System Action: The PVL will dismount the cartridge, drive, or job.
Administrator Action: Internal PVL error. Contact HPSS support.

PVLS0033   **Dismount reason: mounted on wrong drive%s**

Problem Description: The PVL is dismounting a cartridge from a drive because it was requested on a specific drive other than the one on which it was mounted.
System Action: The cartridge will be put away.
Administrator Action: This condition can occur if a drive is marked as "Locked" in the PVL, but not actually taken offline in the robot. In this case the robot may still mount a tape to the drive and tell the PVL, but the PVL will not accept the mount. The administrator should ensure that the drive state in the PVL matches the actual state of the drive in the robot. This condition can also occur if HPSS is sharing a robot with other tape software. In this case, the PVR configuration option which indicates that "The Client Selects Drives" must be set or the PVR may mount a tape in one of the robot's drives that is being used by other tape software. After toggling the option in the PVR configuration, the PVL and PVR must be restarted.

PVLS0034   **PVL ACTIVITY STATE: Job ID = %d, vol = %s, Activity State (%s → %s)**

Problem Description: The PVL is logging an activity state change.
System Action: None
Administrator Action: None

PVLS0035   **Drive assigned: Job ID = %d, Drive ID = %d, vol = %s**

Problem Description: Informational log telling the association between drive and volume.
System Action: None
Administrator Action: None; informational

PVLS0036   **Drive disabled on PVL restart: Drive ID = %d, OperationalState = %u**

Problem Description: An informational log on PVL restart that a drive had previously been disabled.
System Action: None
Administrator Action: Informational only; verify that expected drives are disabled.

PVLS0037   **Gave up dismount after many tries: Job ID = %d, cart = %s**

Problem Description: The PVL was unable to contact a PVR and gave up after many retries.
System Action: The request is aborted. This occurs only on dismount requests.
Administrator Action: Check the state of the PVR controlling the specified drive.

PVLS0038   **Dismount reason: mount failed%s**

Problem Description: The PVL is dismounting a cartridge from a drive because the job failed to mount all the cartridges it requested.
System Action: The cartridge will be put away.
Administrator Action: NONE

PVLS0039   **Dismount reason: wrong volume on drive%s**

Problem Description: The PVL is dismounting a cartridge from a drive because the internal label on the cartridge does not match the cartridge ID which the PVR supplied to the PVL.
System Action: The cartridge will be put away.
Administrator Action: Inspect cartridge for internal/external label mismatch.

PVLS0040   **Dismount reason: unlabeled%s**

Problem Description: The PVL is dismounting a cartridge from a drive because an unlabeled tape was mounted in the drive and there is no pending import.
System Action: The cartridge will be put away.
Administrator Action: This will normally occur when a blank cartridge is manually placed in a drive. It is possible for this error to occur when attempting to import tapes using operator mounted drives. In this case the PVL will not accept the tape unless the PVR's configuration option is set to specify that "The PVR Does Not Notify The Client When a Tape is Mounted." If the option is toggled, the PVL and PVR must be restarted.

PVLS0041   **Dismount reason: foreign label%s**

Problem Description: The PVL is dismounting a cartridge from a drive because it contains a non-HPSS label (such as a standard ANSI label), and the volume is not identified as a foreign volume OR the cartridge contains an HPSS label and the volume is identified as a foreign volume.
System Action: The cartridge will be put away.
Administrator Action: If this occurs mounting a tape that is part of the HPSS system, the tape or drive may be failing. If the intent is to import a pre-labeled tape the import request must correctly identify it as either HPSS or foreign. If the error occurs while trying to import a scratch tape, then it is likely that the tape was not fully degaussed or has some user data on it. If this is the case, the tape must be manually erased before HPSS will overwrite it during an import. It is not necessary to erase all data on the tape, simply mount it in a drive that is not part of the HPSS system and write two tape marks at the beginning of the tape. Then retry the HPSS import operation.

PVLS0042   **Dismount reason: non-labeled%s**

Problem Description: The PVL is dismounting a cartridge from a drive because the tape has data on it and no internal label.
System Action: The cartridge will be put away.
Administrator Action: If the intent is to import it as a scratch tape, the tape must be manually erased before HPSS will overwrite it during an import. It is not necessary to erase all data on the tape, simply mount it in a drive that is not part of the HPSS system and write two tape marks at the beginning of the tape. Then retry the HPSS import operation.

PVLS0043   **Dismount reason: wrong PVR%s**

Problem Description: The PVL is dismounting a cartridge from a drive because it was mounted on a drive controlled by the wrong PVR.
System Action: The cartridge will be put away.
Administrator Action: If this is an import operation the operator must specify the correct PVR, or mount the volume on a drive in the intended PVR.

PVLS0044   **Cache Overflow**

Problem Description: The PVL ran out of space in its array of cached messages to deliver to its clients.

System Action: A background thread attempts to deliver queued messages to PVL clients. When the queue of messages is full, the PVL will wait 1 minute for the background thread to clear the queue. In the meantime, any new messages will be discarded until space is cleared in the message queue.

Administrator Action: Check the status of PVL clients SSM and Core Server. Often this error occurs when communication between the SSM and PVL breaks down. If the error continues, consider recycling the SSM.

PVLS0045   **Fixed volume mounted: Drive ID = %d, vol = %s**

Problem Description: Informational log that a fixed media drive (for example, disk) has been found. This trace message is logged during initialization for enabled drives or when a drive is later enabled.

System Action: None

Administrator Action: None; informational.

PVLS0046   **Assertion failed: %s**

Problem Description: An assertion failed; a text description of why the assertion failed is also provided.

System Action: The PVL terminates immediately.

Administrator Action: Examine HPSS logs and restart the PVL.

PVLS0047   **Internal error: %s**

Problem Description: An internal table or structure is inconsistent or damaged.

System Action: None

Administrator Action: Check logs for errors. Check PVL and PVR configuration files for consistency.

PVLS0048   **Client attempted to mount a volume it does not have allocated: Job ID = %d, vol = %s, AllocationStatus = %d**

Problem Description: Attempted an operation on a cartridge that is not allocated to the client.

System Action: The operation request will fail.

Administrator Action: Check logs for errors. Check PVL, PVR, and Core Server/Storage Server for consistency.

PVLS0049   **Volume allocated to another client: vol = %s%s**

Problem Description: Attempted an operation on a cartridge which is allocated to another client.
System Action: The operation request will fail.
Administrator Action: This error indicates a serious inconsistency between the PVL and Core Server/Storage Server. If no data is on the volume in question, attempt to export the volume from the system, then re-import it.

PVLS0050   **Cache underflow**

Problem Description: A message was not available to send to the SSM when expected.
System Action: None
Administrator Action: None

PVLS0051   **No drives in this PVR (%s) can service the media type for the specified operation: %s**

Problem Description: There are no drives that can service the media type for the requested operation.
System Action: On a *Move* operation, the client request will continue, but the cartridge will not be able to be mounted until a mountable drive for the cartridge is configured in the system; for all other operation types, the client request will fail.
Administrator Action: Check the log for the drive type specified and compare that with the drives configured in the PVL.

PVLS0052   **Invalid drive count for drive option: vol = %s, drive_cnt = %d**

Problem Description: The mount drive list is bad when adding a volume to a mount job.
System Action: Mount job will not be committed to the PVL.
Administrator Action: Check the volume or Storage Class configuration.

PVLS0053   **Job not found in queue: %s**

Problem Description: A job related to an operation (mount, dismount, set attributes) was not found.
System Action: Operation fails. Many times this error will occur when an SSM job screen has been brought up. The job completes while the job screen is still displayed, when the screen is dismissed an error occurs as the SSM queries for the non-existent job before dismissing the screen.
Administrator Action: None

PVLS0054   **Drive Type conflict: Drive ID = %d, vol = %s**

Problem Description: The type of the volume does not match the drive type.
System Action: The client request will fail.
Administrator Action: Check the PVL drive configuration and compare to volume media types.

PVLS0055   **Operation improper for this job type: Job ID = %d, Job type = %u**

Problem Description: The requested operation is a multi-mount job but the job type does not reflect the correct state.
System Action: The client request will fail.
Administrator Action: If this recurs it may reflect an error in the client request or an internal PVL error.

PVLS0056   **Operation invalid in this job state: Job ID = %d, Job State = %u**

Problem Description: The requested operation is a multi-mount job but the job state does not reflect the correct state.
System Action: The client request will fail.
Administrator Action: If this recurs it may reflect an error in the client request or an internal PVL error.

PVLS0057   **Operation requested by improper client: %s**

Problem Description: Client requesting current operation is not the client which initiated the operation.
System Action: The request fails.
Administrator Action: None

PVLS0058   **Invalid Drive ID: %d%s**

Problem Description: The drive specified in the operation was not found.
System Action: The client request will fail.
Administrator Action: If error recurs, check the PVL drive configuration.

PVLS0059   **Mounted on a disabled drive: Job ID = %d, Drive ID = %d, vol = %s**

Problem Description: The PVR has completed a mount on a drive which is no longer enabled. This can occur if a drive is disabled after the PVL has dispatched the currently active drive list to the PVR.
System Action: The PVL will return an error to the PVR and the PVR will mount the cartridge in another drive.
Administrator Action: None

PVLS0060   **Job recovery failed due to metadata inconsistency: %s**

Problem Description: On restart, a job was not recovered due to activity/job inconsistency.
System Action: Job is removed and any resources held by job are released.
Administrator Action: None

PVLS0061   **No jobs found to recover**

Problem Description: An informational trace log that on restart, no jobs were found to recover.
System Action: None
Administrator Action: None; informational.

PVLS0062   **Drive/Job metadata inconsistency: %s**

Problem Description: On restart, while recovering activities, the drive table is inconsistent with information in the activity.
System Action: Job is removed and any resources held by job are released.
Administrator Action: None

PVLS0063   **PVR Server ID not located for specified object: PVR ID = %u %s**

Problem Description: An operation requested a PVR which is not found in the PVL's PVR table.
System Action: The client request will fail.
Administrator Action: Check the PVL configuration. A new PVR may have been added, so the PVL may have to be recycled in order for the new PVR to be included in the PVL's table.

PVLS0064   **DriveList excludes all enabled drives: vol = %s**

Problem Description: The drive list specified by the client does not include an available (unlocked) drive.
System Action: The client request fails.
Administrator Action: Check the status of the drives in the system.

PVLS0065   **Volume not found in metadata: vol = %s%s**

Problem Description: The volume does not exist or a metadata read error occurred while attempting to access it.
System Action: The client request will fail.
Administrator Action: If error recurs, check metadata logs for errors.

PVLS0066   **Cartridge already included in this job: Job ID = %d, vol = %s**

Problem Description: A multi-mount job requested two mounts for the same cartridge (two sides on the same cartridge).
System Action: The client request will fail.
Administrator Action: None

PVLS0067   **Import canceled due to mount failure: cart = %s**

Problem Description: The mount failed while importing cartridge.
System Action: The import request fails.
Administrator Action: Check specific mount error message for mount failure reason.

PVLS0068   **ImportType invalid or not supported: cart = %s, ImportType = %u**

Problem Description: The import type passed to the PVL is invalid.
System Action: The import request fails.
Administrator Action: None

PVLS0069   **Import cartridge already exists: vol = %s**

Problem Description: An import operation is already in progress for this cartridge.
System Action: The client request fails.
Administrator Action: If error recurs, check the jobs in the PVL for import status. Also check the log for the origin of the duplicate import requests.

PVLS0070   **Volume not found in job: Job ID = %d, vol = %s**

Problem Description: The client attempts to dismount a volume in a particular job but the volume does not exist in that job.
System Action: The client request fails.
Administrator Action: Check the PVL and CS/SS for consistency.

PVLS0071   **Function not allowed for Generic object%s**

Problem Description: An operation (mount, import, export, allocate volume, checkin/checkout) was requested for the generic object.
System Action: The client request fails.
Administrator Action: None

PVLS0072   **Not enough drives of this type (in this PVR) for this request%s**

Problem Description: When a drive is made unavailable, the PVL will check existing jobs for a drive starvation condition.
System Action: If a job will end up in a drive starvation condition because the number of available drives is below the number that the job requires, the job is canceled.
Administrator Action: Determine if there are available drives which can be brought online (unlocked) to satisfy multi-volume jobs. Note: repack operations will require twice as many drives as the volume stripe width in the job.

PVLS0073   **All drives of this type are disabled: vol = %s**

Problem Description: All the drives for the requested operation are disabled.
System Action: The client request will fail.
Administrator Action: Determine if there are available drives which can be brought online (unlocked) to satisfy mount requests.

PVLS0074   **Number of volumes changed: VolCount = %u**

Problem Description: On restart, the total number of volumes in the PVL changed.
System Action: Sets the metadata to the new value and notifies SSM.
Administrator Action: None

PVLS0075   **Gave up pvr_MountCompleted after many tries: Job ID = %d, Drive ID = %d, cart = %s**

Problem Description: Unable to connect to the PVR in order to notify the server that a mount completed.
System Action: The mount process will continue without notifying the PVR.
Administrator Action: Check the state of the PVR, check log for general communication problems.

PVLS0076   **Drive Queue inconsistent, job removed from queue temporarily: %s**

Problem Description: On restart, the job entry has a drive field which is inconsistent. Clear the field.
System Action: Will attempt to reconstruct the drive list at a later stage of job recovery.
Administrator Action: None

PVLS0077   **Move: Cartridge already in destination PVR: PVR ID = %u**

Problem Description: Attempting to move a cartridge into a PVR it already resides in.
System Action: The client request will fail.
Administrator Action: None

PVLS0078   **Drive disabled: Drive ID = %d**

Problem Description: A drive was administratively locked.
System Action: None
Administrator Action: Informational only; verify that expected drives are disabled.

PVLS0079   **Operation invalid on non-removable media: %s**

Problem Description: Volume or Drive set attributes operation on invalid type.
System Action: The client request will fail.
Administrator Action: None

PVLS0080   **Drive already exists: Drive ID = %d**

Problem Description: Attempt to create a drive which already exists.
System Action: The client request will fail.
Administrator Action: Check the current drive configuration for duplicate info.

PVLS0081   **Mover config data missing, will not contact Mover: Mover ID = %u, Drive ID = %d**

Problem Description: Unable to get Mover server information from metadata.
System Action: PVL will be unable to communicate with Mover.
Administrator Action: Check logs for metadata errors, may have to recycle PVL.

PVLS0082   **Drive released: Drive ID = %d, vol = %s**

Problem Description: This is an informational trace log about a drive being released (that is, the drive state is going to 'Free').
System Action: None
Administrator Action: None; informational.

PVLS0083   **Non-removable import failed - VolumeID not found: vol = %s**

Problem Description: The non-removable import (usually disk) failed because the PVL doesn't have a reference to it in its internal drive table.
System Action: The import request fails.
Administrator Action: The drive must first be created before it can be imported. The PVL provides an API to create a drive. Check the PVL drives metadata; PVL may have to be recycled.

PVLS0084   **Function not allowed while volume is allocated: vol = %s**

Problem Description: An operation (such as export or write label) was attempted on a volume that still has storage resources allocated.
System Action: The operation fails.
Administrator Action: Delete storage resources from the volume and retry the operation.

PVLS0085   **Dismount reason: label verified%s**

Problem Description: Label verified on import; informational.
System Action: The label is read and determined to be identical to its requested import label. No write I/O is carried out on the cartridge.
Administrator Action: Note that a label is *not* written in this case. If you are using pre-labeled cartridges, they will not have an HPSS format label. In this case the label type will be recorded as "foreign" in HPSS metadata.

PVLS0086   **Dismount reason: label types differ%s**

Problem Description: The import is not type scratch or overwrite and the label read from cartridge does not match the import request.
System Action: The import request fails.
Administrator Action: If you're sure there's nothing valid on the cartridge, set the import type to scratch and retry the import. If a media density change is being made, set the import type to overwrite.

PVLS0087   **Unload Failed: Possible Causes: Device reserved, Mover down, hardware/communication. LOCKING the DRIVE will exit loop: Job ID = %d, Drive ID = %d, vol = %s**

Problem Description: The PVL issued a device unload request to the Mover and the call failed.
System Action: The dismount will pend until the call completes or until the drive Administrative State is Locked.
Administrator Action: Possible causes are: socket communication error, Mover down, drive is busy. The drive's administrative state can be locked which will result in the PVL job completing. The cartridge may remain in the drive and will have to be manually dismounted and inventoried before it is again available to the system.

PVLS0088   **Connection re-established %s**

Problem Description: A connection to the Core Server has been re-established.
System Action: Previously held callbacks to Core Server can resume.
Administrator Action: None

PVLS0089 **Drive already in use for mount, Job ID = %d, Drive ID = %d, vol = %s**

Problem Description: The PVR returned a mount completed on a drive the PVL believes has a cartridge mounted or in the process of being dismounted. Return an error to PVR which will cause the cartridge to be mounted in another drive.
System Action: The cartridge will be put away.
Administrator Action: None

PVLS0090 **Dismount of volume Deferred: Job ID = %d → %d, Drive ID = %d, vol = %s**

Problem Description: Status message, delaying dismount of specified volume.
System Action: None; informational only.
Administrator Action: None

PVLS0091 **Volume mounted (was Dismount Deferred): vol = %s**

Problem Description: Status message, requested volume was already mounted (in deferred dismount state).
System Action: None
Administrator Action: None

PVLS0092 **Defer Dismounts in PVR: %s**

Problem Description: Status message, during initialization note that this PVR allows dismounts to be deferred.
System Action: None
Administrator Action: None

PVLS0093 **Do Not Defer Dismounts in PVR: %s**

Problem Description: Status message, during initialization note that this PVR does not allow dismounts to be deferred.
System Action: None
Administrator Action: None

PVLS0094 **Dismount reason: Dismounting deferred volume%s**

Problem Description: Status message, physically dismounting a volume which was in deferred dismount state.
System Action: None
Administrator Action: None

PVLS0095   **Job dismounted/deleted on restart, deferred dismount: Job ID = %d**

Problem Description: Status message, on restart physically dismount cartridges in deferred dismount state.
System Action: None
Administrator Action: None

PVLS0096   **RAIT volume group API error: mismatched tolerate values, Job ID = %d, vol = %s, group_ent→Tolerate = %d, Tolerate = %d**

Problem Description: A RAIT group configuration has mismatched tolerate values.
System Action: Adding this volume to a RAIT group will fail.
Administrator Action: None

PVLS0097   **Cartridge is busy in another job: cart = %s**

Problem Description: A PVL job cannot import a volume because there is already another job working on importing the volume.
System Action: Importing the volume will fail (for all jobs except the first).
Administrator Action: None

PVLS0098   **Gave up Elevate: Drive Disabled: Job ID = %d, Drive ID = %d, vol = %s**

Problem Description: For some reason (probably hardware error) the PVL has not been able to elevate a cartridge from a drive. The PVL drive was locked via an administrator which allowed the PVL job to complete.
System Action: Job completes, drive is disabled.
Administrator Action: Depending on library type, the cartridge may or may not be dismounted. The administrator should investigate the drive and cartridge status.

PVLS0099   **Dismounted activity still in job: Job ID = %d, Drive ID = %d, vol = %s, JobState = %u**

Problem Description: A debug message. An activity is dismounted but it still remains on the defer dismount queue.
System Action: None
Administrator Action: Cancel the defer dismount job.

PVLS0100   **Activity Released: Job ID = %d, Drive ID = %d, vol = %s**

Problem Description: Debug message used to track activity release.
System Action: None
Administrator Action: None

PVLS0101   **Shelf Tape in PVR: %s**

Problem Description: Status message, during initialization note that this PVR supports the Shelf Tape feature.
System Action: None
Administrator Action: None

PVLS0102   **Do Not Shelf Tape in PVR: %s**

Problem Description: Status message, during initialization note that this PVR does not support the Shelf Tape feature.
System Action: None
Administrator Action: None

PVLS0103   **Recover shelf tape request: Job ID = %d**

Problem Description: This is not an error. This message shows up when recycling the PVL process. It indicates there are pending Check In requests in the job queue.
System Action: None
Administrator Action: None

PVLS0105   **Not enough drives unlocked or configured to satisfy job: Job ID = %d**

Problem Description: There are not enough drives in the PVR to satisfy the mount request.
System Action: Mount request will fail.
Administrator Action: Configure PVL with additional drives in order to satisfy subsequent mount requests.

PVLS0106   **Activity previously in mount pending is now dismount pending: Job ID = %d, Drive ID = %d, vol = %s**

Problem Description: Not an error case, it just notes (Event) that an activity which was in mount pending state before the PVL requested the PVR mount was found in dismount pending state after the PVR mounted the cartridge.
System Action: Cartridge is dismounted and activity released.
Administrator Action: This should be an infrequent case and is caused by canceling a job before the PVR mount completes.

PVLS0107   **Mover has directed PVL to disable drive due to hardware considerations: Drive ID = %d**

Problem Description: The PVL has directed the Mover to unload a drive and the Mover has returned a hardware error.
System Action: Drive is automatically disabled.
Administrator Action: Investigate the state of the drive. The cartridge may still be loaded. Manually unload drive or call for service.

PVLS0108   **The PVR reports mounting a cartridge in a drive which the PVL records in use by another cartridge: Job ID = %d, Drive ID = %d, vol = %s**

Problem Description: This has occurred during a communication breakdown. The mount response from the PVR has been delayed and polling is turned on for the drive. While the PVR sleeps and then reconnects, the poller detects the cartridge, completes the mount, I/O completes, cartridge dismounts and a new cartridge is mounted.
System Action: If the PVL does not have a job for the PVR reported mount, dismount the cartridge. If the PVL does have a job, attempt to clear a drive of the same type by dismounting a cartridge in deferred dismount and reissuing the PVR mount.
Administrator Action: Monitor the situation. If a problem continues, check communication pathways. You may have to mount problem cartridge through library specific utilities. Consider increasing the polling interval.

PVLS0109 **The activity associated with the PVR cartridge mount does not exist in the PVL: Job ID = %d, Drive ID = %d, vol = %s**

Problem Description: This has occurred during a communication breakdown. The mount response from the PVR has been delayed and polling is turned on for the drive. While the PVR sleeps and then reconnects, the poller detects the cartridge, completes the mount, I/O completes, cartridge dismounts and a new cartridge is mounted.

System Action: If the PVL does not have a job for the PVR reported mount, dismount the cartridge. If the PVL does have a job, attempt to clear a drive of the same type by dismounting a cartridge in deferred dismount and reissuing the PVR mount.

Administrator Action: Monitor the situation. If a problem continues, check communication pathways. You may have to mount problem cartridge through library specific utilities.

PVLS0110 **Dismount failed: PVR returned error. LOCKING DRIVE will exit the dismount loop: Job ID = %d, Drive ID = %d, cart = %s**

Problem Description: The PVR has returned an error from the Dismount Cartridge call.

System Action: The PVL will retry the dismount, increasing time between attempts in five second intervals up to a one minute maximum.

Administrator Action: If the dismount errors persist, locking the drive will exit the dismount loop. Inspect the drive, cartridge, and library for errors.

PVLS0111 **Dismount reason: SSM requested%s**

Problem Description: An administrative dismount via the SSM.
System Action: The cartridge is dismounted.
Administrator Action: None; informational accounting logging only.

PVLS0112 **The number of PVR servers configured in metadata exceeded PVL internal PVR table size (%u). Terminating**

Problem Description: The number of PVRs in the system has exceeded a PVL internal table size.
System Action: The PVL terminates.
Administrator Action: Contact HPSS support or if source available, increase constant MAX_PVRsize and recompile the PVL.

PVLS0113   **Drive Disabled: Consecutive mount errors on drive has exceeded specified limit: Drive ID = %d**

Problem Description: The number of consecutive drive timeout errors for a specific drive has been exceeded. This number is PVR configured and applies to all drives managed by that PVR.
System Action: The drive is disabled.
Administrator Action: Investigate the cause of drive timeout errors. Possibly caused by library server software or drive failure.

PVLS0114   **Drive Error Count Incremented due to mount timeout error: Job ID = %d, Drive ID = %d, vol = %s**

Problem Description: A mount failed due to a mount timeout error.
System Action: None
Administrator Action: Investigate the cause of the mount timeout error. Possibly caused by library server software or drive failure.

PVLS0115   **Attempt to decrement Available Drive Count less than 0: Drive ID = %d**

Problem Description: This is a Debug log that the PVL wasn't able to decrement the Available Drives when Drive/Job metadata is discovered inconsistent (drive state is Free but has an activity) during job recovery.
System Action: PVL will mark the drive state as In Use, but won't be able to decrement the Available Drives.
Administrator Action: See PVLS0062; this is additional information regarding that problem.

PVLS0116   **Job's activity list inconsistent during recovery phase: Job ID = %d**

Problem Description: During restart job recovery a job/activity inconsistency was detected.
System Action: Job will not be recovered.
Administrator Action: None

PVLS0117   **Volume is NOT labeled. Either import again or export and import: vol = %s**

Problem Description: The import for this volume did not successfully complete the labeling of the cartridge.
System Action: This error occurs when attempting to allocate a volume. The allocation will fail.
Administrator Action: The volume should be imported again and the label written. Alternatively the volume may be exported and re-imported.

PVLS0118   **RAIT Volume Group error: %s**

Problem Description: A RAIT job is in an unexpected state during either job submission or job recovery.
System Action: If the error occurs during PVL job submission, the job will be rejected; if the error occurs during PVL recovery, the job will be dismounted.
Administrator Action: Resubmit the job if possible.

PVLS0119   **RAIT volume group API error: invalid value specified in RAIT group configuration, Job ID = %d, vol = %s, Tolerate = %d, Tag = %d**

Problem Description: An invalid RAIT volume configuration was specified while creating a mount job.
System Action: The operation will fail.
Administrator Action: None

PVLS0120   **RAIT Volume Group Update: Job ID = %d, vol = %s, JobState = %u, ActState = %u, gcnt = %d, mcnt = %d, mfails = %d, tag = %d, tol = %d**

Problem Description: Informational log that a PVL structure has been updated with new RAIT group data.
System Action: None
Administrator Action: None; informational.

PVLS0121   **PVR is not ready yet; request will suspend: cart = %s, PVR Name = %s**

Problem Description: The PVR is not accepting requests from the PVL.
System Action: The PVR is in the process of starting and not yet accepting requests.
Administrator Action: Wait for a bit. If the error continues, investigate the PVR status.

PVLS0122   **PVR is not ready yet; request will suspend: PVR ID = %u, PVR Name = %s**

Problem Description: The PVR is not accepting requests from the PVL.
System Action: The PVR is in the process of starting and not yet accepting requests.
Administrator Action: Wait for a bit. If the error continues, investigate the PVR status.

PVLS0123 **Dismount failed: PVR returned error: Job ID = %d, Drive ID = %d, cart = %s**

Problem Description: Dismount request to the STK PVR failed due to TRANSIT error.
System Action: The dismount job completes.
Administrator Action: Investigate the STK cartridge status. It may be stuck in drive or pass-thru port.

PVLS0124 **PVR is not ready yet; request will suspend: Drive ID = %d, PVR Name = %s**

Problem Description: The PVR is not accepting requests from the PVL.
System Action: The PVR is in the process of starting and not yet accepting requests.
Administrator Action: Wait for a bit. If the error continues, investigate the PVR status.

PVLS0125 **Metadata read call successful but record count is zero**

Problem Description: A PVR was not located in metadata.
System Action: PVL will not attempt to communicate with any PVR.
Administrator Action: Inspect metadata for PVRs.

PVLS0126 **An executable SSM was NOT found**

Problem Description: An executable SSM was not located in metadata.
System Action: PVL will not attempt to communicate with a SSM.
Administrator Action: Inspect metadata for executable SSM.

PVLS0127 **A NULL UUID detected**

Problem Description: An executable SSM was found in metadata but its UUID is invalid.
System Action: PVL will not attempt to communicate with a SSM.
Administrator Action: Inspect executable SSM metadata configuration.

PVLS0128 **mm_CreateAutoTranHandle call failed: %s**

Problem Description: The call to create an auto transaction failed.
System Action: Calling procedure fails.
Administrator Action: Investigate metadata server status.

PVLS0129   **Metadata Select call failed: %s**

Problem Description: Retrieve metatdata call failed.
System Action: Calling procedure fails.
Administrator Action: Investigate metadata server status.

PVLS0130   **Metadata Read Record call failed: %s**

Problem Description: Retrieve metadata call failed.
System Action: Calling procedure fails.
Administrator Action: Investigate metadata server status.

PVLS0131   **Transaction infrastructure failed and issued tran_ServerAbort**

Problem Description: Transaction infrastructure failure.
System Action: PVL terminates.
Administrator Action: Investigate metadata server. Check status of all servers.

PVLS0132   **PVL DEBUG: %s**

Problem Description: Supporting Debug log for other logs and activities.
System Action: None
Administrator Action: Correlate these logs with other PVL logs; use for debugging PVL problems by turning on DEBUG in the PVL's log policy.

PVLS0133   **Admin drive change: %s**

Problem Description: Event noting the locking or unlocking of a drive.
System Action: Drive scheduler accounts for drive status change.
Administrator Action: Determine if drive status change is an expected result of administrative change.

PVLS0134   **Dismount reason: Client cancels all jobs%s**

Problem Description: The PVL is cancelling all jobs for a given client.
System Action: None
Administrator Action: None; informational. The Core Server will do this when connecting to the PVL for the first time; so upon a Core Server (re)start.

PVLS0135   **Cartridge exists in metadata with a different media type: vol = %s**

Problem Description: An import was attempted for an existing PVL volume in metadata, but the media type of the existing volume and import request do not match. This may occur when attempting to move up to a higher density format with the same form factor (that is, same cartridge with higher density drive).
System Action: The operation fails.
Administrator Action: If moving to higher density drive, export the volume. Re-import the cartridge using the "Overwrite" import option.

PVLS0136   **Transaction infrastructure received an error**

Problem Description: The metadata library transaction infrastructure received an error.
System Action: None
Administrator Action: Review logs for database problems.

PVLS0137   **Dismount reason: At least one volume in job failed to mount%s**

Problem Description: At least one volume in a mount job failed to mount. Report the specific volume name which failed to mount.
System Action: Operation fails.
Administrator Action: Using the volume name reported in the error log, investigate the cause of failure by checking HPSS log and library specific log entries.

PVLS0138   **Communication error to PVR, volume shelf status unavailable: vol = %s**

Problem Description: The PVL was unable to communicate with the PVR. Unable to retrieve shelf status.
System Action: Volume information is returned without shelf status included.
Administrator Action: Investigate the cause of communication failure with the PVR by checking HPSS log and PVR process status.

PVLS0139   **Invalid Flag value: Flag = %u%s**

Problem Description: An invalid flag relating to shelf status was an input argument.
System Action: Operation fails.
Administrator Action: This error would denote a coding logic error. Contact HPSS support.

PVLS0140   **PVL Shutdown pends while calls active: Active call count=%u**

Problem Description: An informative event log that the PVL shut down is waiting for active calls to complete before it can completely shut down.
System Action: None
Administrator Action: If the administrator gets tired of waiting, they can do a HALT.

PVLS0141   **Disk read LABEL failed: Drive ID = %d, vol = %s**

Problem Description: This message occurs when the PVL fails to read a disk label on import.
System Action: The disk volume import fails.
Administrator Action: Verify that the hardware can read a label from the disk volume and retry the import.

PVLS0142   **Disk Volume LABEL Mismatch: Label = %s, metadata = %s**

Problem Description: The existing disk label doesn't match what HPSS has stored in metadata for a given disk volume.
System Action: For disk, the PVL won't overwrite a label unless the option is overwrite and the volume labels *match*. The PVL will *not* overwrite a existing different label in *any* case. The PVL leaves it up to the administrator to remove disk labels outside of HPSS.
Administrator Action: Verify the disk label and correct if needed; disk labels need to be removed outside of HPSS.

PVLS0145   **MVR is not ready yet. Request will suspend: Drive ID = %d%s**

Problem Description: The PVL attempted to inform the associated Mover about a newly created device/drive, but received an error that the Mover was not ready.
System Action: The PVL will continue to retry notifying the Mover about the new device/drive. The PVL will not allow this new device/drive to be used until the associated Mover and associated PVR (if needed) have successfully been notified about the new device/drive.
Administrator Action: Bring up the associated Mover. If it is already running, check for communication problems between the PVL and Mover.

PVLS0146   **Tape Drive w/o associated PVR detected: %s**

Problem Description: The PVL detected a Tape Drive that didn't have a PVR associated with it.
System Action: The PVL can't finish creating or deleting this tape device/drive.
Administrator Action: Verify and correct the drive metadata to have a PVR associated with it.

PVLS0147   **Running w/o MVR metadata for Drive: Drive ID = %d**

Problem Description: The Mover device metadata is missing for a device/drive.
System Action: The PVL will stop initializing its internal drive list.
Administrator Action: Verify and correct the device/drive metadata. You may have to delete the device/drive and then recreate it.

PVLS0148   **Disk volume must be exported before operation can occur: vol = %s**

Problem Description: The PVL detected that a disk device/drive for which deletion is requested is unallocated, but the PVL volume still exists. This isn't allowed.
System Action: The PVL won't allow disk delete until the volume is removed (CS resource deleted (unallocated) and the volume exported).
Administrator Action: Delete CS resources and export the volume.

PVLS0149   **Mover reports Device Unknown: Drive ID = %d**

Problem Description: The PVL is attempting to notify the associated Mover about a device/drive deletion and the Mover doesn't know about the drive. This is not considered an error to the PVL; it could be that the Mover was started or restarted during the device/drive deletion and thus found out about the deletion before the PVL was able to notify it.
System Action: None
Administrator Action: None; informative.

PVLS0150   **PVL Volume must be UNALLOCATED before operation can occur: vol = %s**

Problem Description: The PVL detected that a disk device/drive for which deletion is requested is still allocated and the PVL volume still exists. This isn't allowed.
System Action: The PVL won't allow disk delete until the volume is removed (CS resource deleted (unallocated) and the volume exported).
Administrator Action: Delete CS resources and export the volume.

PVLS0151　　**Attempting to delete a previously deleted or non-existent drive: Drive ID = %d**

Problem Description: The PVL detected that a device/drive that is requesting deletion doesn't exist.
System Action: The PVL won't delete the drive.
Administrator Action: Investigate why the client is deleting a device/drive that the PVL doesn't know about.

PVLS0153　　**Delete drive failed: %s**

Problem Description: The drive cannot be deleted because the drive state is not clear or the drive flag is an invalid value.
System Action: The requested drive will not be deleted.
Administrator Action: Check the PVL drive configuration and retry drive delete. If that fails, contact HPSS support.

PVLS0154　　**Previous Drive Delete notification will be Aborted, Try Later: Drive ID = %d**

Problem Description: The PVL hasn't been able to notify the device/drive associated Mover or PVR (or both) about the deletion of a drive that is now being created. It will now abort that notification.
System Action: The PVL will abort notifying the Mover, PVR, or both about the deletion of the drive that the administrator is now requesting to create; the creation will not occur.
Administrator Action: Retry the creation.

PVLS0155　　**Previous Drive Create/Delete notification will be Aborted, Try Later: Drive ID = %d**

Problem Description: The PVL hasn't been able to notify the device/drive associated Mover or PVR or both) about the creation of a drive that is now being deleted. It will now abort that notification.
System Action: The PVL will abort notifying the Mover, PVR, or both about the creation of the drive that the administrator is now requesting to delete; the deletion will not occur.
Administrator Action: Retry the deletion.

PVLS0156   **Drive Notify failed: %s notify for Drive ID %d update failed (will retry later)**

Problem Description: The PVL was unable to notify the Mover or PVR (or both) associated with a device/drive about the creation or deletion of a device/drive. This log will give more details about the notification problem, how many times it will retry the notification, and when it abandons the notification.
System Action: The PVL will continue to try notifying the Mover, PVR, or both until a retry count is exhausted.
Administrator Action: Bring up and/or fix the associated Mover, PVR, or both.

PVLS0157   **Enforce Home Location in PVR: PVR Name = %s**

Problem Description: This message shows up during the PVL initialization phase. It indicates the SCSI PVR supports the Enforce Home Location feature.
System Action: None
Administrator Action: None

PVLS0158   **Do Not Enforce Home Location in PVR: PVR Name = %s**

Problem Description: This message shows up during the PVL initialization phase. It indicates the SCSI PVR does not support the Enforce Home Location feature.
System Action: None
Administrator Action: None

PVLS0159   **Update drive failed: %s**

Problem Description: The drive cannot be updated because the drive state is not clear or the drive flag is an invalid value.
System Action: The requested drive will not be updated.
Administrator Action: Check the PVL drive configuration and retry drive update. If that fails, contact HPSS support.

PVLS0162   **Invalid media type specified: %s**

Problem Description: This message occurs when an invalid media type (that is, something other than disk or tape) is detected when updating drive metadata or when adding volumes to a job.
System Action: The specified operation fails.
Administrator Action: Verify the media type in the configuration or in metadata, then retry the operation.

PVLS0163   **Existing volume metadata (PVR UUID) is out of sync with import information: vol = %s**

Problem Description: This message occurs when reimporting a volume that already exists in metadata and the PVR UUID in metadata differs from the PVR UUID specified in the import.
System Action: The import fails.
Administrator Action: Correct the import configuration and retry the import.

PVLS0164   **Disk write LABEL failed: Drive ID = %d, vol = %s**

Problem Description: This message occurs when there is an error writing a label on a disk volume during import.
System Action: The disk import fails.
Administrator Action: Verify that a label can be written on the disk volume and that the correct import type is selected, then retry the import.

PVLS0165   **Media type is not disk: cart = %s**

Problem Description: This message occurs during disk import if the volume is detected to be a tape volume.
System Action: The disk import fails.
Administrator Action: None

PVLS0166   **Job canceled: Job ID = %d**

Problem Description: This message occurs when an import, export, or move job is canceled while the job is waiting for a volume mount to complete.
System Action: The import, export, or move is canceled.
Administrator Action: None

PVLS0167   **PVL not accepting jobs: PVL Admin State = %u%s**

Problem Description: This message occurs when the PVL administrative state is not unlocked before an import, export, move, or write label operation is attempted.
System Action: The import, export, move, or write label fails.
Administrator Action: Change the PVL administrative state to unlocked and retry the operation.

PVLS0168   **Invalid mount mode: %u**

Problem Description: This message occurs when an invalid mount mode (that is, something other than read or write) is detected when attempting to select a drive in which to mount a volume.
System Action: The mount fails.
Administrator Action: None

PVLS0169   **Drive type not found: %s**

Problem Description: This message occurs when a drive type entry is not found for an activity that is updating its mount mode or when a drive type entry is not found when updating a quota recall limit.
System Action: The update operation fails.
Administrator Action: None

PVLS0170   **PVL TRACE: %s**

Problem Description: Supporting Trace log for other logs and activities.
System Action: None
Administrator Action: Correlate these logs with other PVL logs; use for debugging PVL problems by turning on TRACE in the PVL's log policy.

PVLS0171   **Invalid drive quota recall limit: %d**

Problem Description: This message occurs when the drive quota recall limit is being updated an an invalid value is detected.
System Action: The update operation fails.
Administrator Action: None

PVLS0172   **PVL INFO: %s**

Problem Description: Supporting Info log for logging time that a specific PVL action occurred.
System Action: None; informational.
Administrator Action: None; informational.

PVLS0173   **Init MVR(%s) ConnHandle Host %s for DriveID %d Failed, retries left = %d**

Problem Description: The PVL had an issue initializing a connection handle to the Mover during a drive/device resync operation.

System Action: Initializing a connection handle to the Mover will be retried the specified number of times.

Administrator Action: Investigate possible connection, firewall, system, etc. conditions that may be preventing contact to the Mover.

PVLS0174   **Sync(%s) MVR Host %s for DriveID %d Failed, retries left = %d**

Problem Description: The PVL had an issue contacting the Mover when resyncing device/drive data.

System Action: The PVL will retry the resync operation the specified number of times.

Administrator Action: Investigate possible connection, firewall, system, etc. conditions that may be preventing contact to the Mover.

PVLS0175   **Abandoning Contact(%s) MVR Host %s for DriveID %d, retries left = %d**

Problem Description: The PVL had an issue contacting the Mover when resyncing device/drive data.

System Action: The PVL will abandon trying to contact the Mover.

Administrator Action: Investigate possible connection, firewall, system, etc. conditions that may be preventing contact to the Mover.

PVLS0176   **Sync(%s) PVR %s for DriveID %d Failed, retries left = %d**

Problem Description: The PVL had an issue contacting the PVR when resyncing device/drive data.

System Action: The PVL will retry the resync operation the specified number of times.

Administrator Action: Investigate possible connection, firewall, system, etc. conditions that may be preventing contact to the PVR.

PVLS0177   **Abandoning Contact(%s) to PVR %s for DriveID %d, retries left = %d**

Problem Description: The PVL had an issue contacting the PVR when resyncing device/drive data.

System Action: The PVL will abandon trying to contact the PVR.

Administrator Action: Investigate possible connection, firewall, system, etc. conditions that may be preventing contact to the PVR.

PVLS0178   **Unable to validate the PVL's AUTHZACL table entries. PVL cannot successfully initialize.**

Problem Description: The PVL has a configuration problem.
System Action: The PVL will not start up until this error is resolved.
Administrator Action: Correct the PVL's Security ACLs (stored in the AUTHZACL table). Consult the *HPSS Administrative Guide* for set up.

PVLS0179   **Both the default authz vector and the AUTHZACL table have no entries for the PVL. This may cause operational problems.**

Problem Description: The PVL has a configuration problem.
System Action: The PVL will start up but alert the admin that there could be operational issues.
Administrator Action: Consult the *HPSS Admin Guide* for additional information about configuring the PVL's Server Security ACL's.

PVLS0180   **The default authz vector has no entries for the PVL. This may cause operational problems.**

Problem Description: The PVL has a configuration problem.
System Action: The PVL will start up but alert the admin that there could be operational issues.
Administrator Action: Consult the *HPSS Admin Guide* for additional information about configuring the PVL's Server Security ACL's.

PVLS0181   **The AUTHZACL table must be set up before the PVL can successfully initialize. There are currently no ACL entries for the PVL in the AUTHZACL table.**

Problem Description: The PVL has a configuration problem.
System Action: The PVL will not start up until this error is resolved.
Administrator Action: Correct the PVL's Security ACLs (stored in the AUTHZACL table). Consult the *HPSS Administrative Guide* for set up.

PVLS0182   **The AUTHZACL table must be corrected before the PVL can successfully initialize. The following expected ACL entry does NOT exist for the PVL in the AUTHZACL table: EntryType=%s Perms=0x%x EntityId=%d RealmId=%d.**

Problem Description: The PVL has a configuration problem.
System Action: The PVL will not start up until this error is resolved.
Administrator Action: Correct the PVL's Security ACLs (stored in the AUTHZACL table). Consult the *HPSS Admin Guide* for set up.

PVLS0183   **The AUTHZACL table must be corrected before the PVL can successfully initialize. The following ACL entry in the AUTHZACL table does NOT have the expected permission (0x%x) for the PVL: EntryType=%s Perms=0x%x EntityId=%d RealmId=%d.**

Problem Description: The PVL has a configuration problem.
System Action: The PVL will not start up until this error is resolved.
Administrator Action: Correct the PVL's Security ACLs (stored in the AUTHZACL table). Consult the *HPSS Admin Guide* for set up.

PVLS0184   **The AUTHZACL table contains the following unexpected entry for the PVL: EntryType=%s Perms=0x%x EntityId=%d RealmId=%d.**

Problem Description: The PVL has a configuration problem.
System Action: The PVL will not start up until this error is resolved.
Administrator Action: Correct the PVL's Security ACLs (stored in the AUTHZACL table). Consult the *HPSS Admin Guide* for set up.

PVLS0185   **Successfully validated the PVL's entries in the AUTHZACL table.**

Problem Description: Informational message shown when validating PVL authorization vector.
System Action: None; informational only.
Administrator Action: None

PVLS0186   **Not allowed to set Mounted Volume for tape drive: Drive ID = %d**

Problem Description: The mounted volume in a tape drive can only be set via a mount operation, not via setting a drive attribute.
System Action: Drive attribute won't change.
Administrator Action: Check the PVL drive configuration; this attribute is not settable other than by a mount operation.

PVLS0187   **Volume imported, cannot reset Mounted Volume: Drive ID = %d, vol = %s**

Problem Description: The mounted volume in a disk drive has already been imported and cannot be reset unless the volume is first exported.
System Action: Drive attribute won't change.
Administrator Action: Check the PVL drive configuration; this attribute is not settable until the existing mounted volume is first exported.

PVLS0188   **Unsupported option, cannot modify PVR: Drive ID = %d**

Problem Description: Modifying the PVR via setting drive attributes is not supported for this drive.
System Action: Drive attribute won't change.
Administrator Action: Check the PVL drive configuration; setting this attribute is not supported.

PVLS0189   **Unsupported option, cannot modify drive type: Drive ID = %d**

Problem Description: Modifying the drive type via setting drive attributes is not supported for this drive.
System Action: Drive attribute won't change.
Administrator Action: Check the PVL drive configuration; setting this attribute is not supported.

PVLS0190   **Unable to modify drive administrative state due to pending PVR/Mover notification: Drive ID = %d**

Problem Description: Modifying the drive administrative state while a PVR or Mover notification is pending is not allowed.
System Action: Drive attribute won't change.
Administrator Action: Check network connectivity to the PVR or Mover, or restart the PVL if the notification continues to pend.

PVLS0191   **Unsupported option, cannot modify drive pool ID for disk drive: Drive ID = %d**

Problem Description: Modifying the drive pool ID for a disk drive is not allowed.
System Action: Drive attribute won't change.
Administrator Action: Check the PVL drive configuration; this attribute is not settable for disk drives.

PVLS0192   **Drive pool is unavailable for drive: Drive ID = %d, Drive Pool ID = %d**

Problem Description: The drive pool ID is not available for this drive type.
System Action: Drive attribute won't change.
Administrator Action: Check the PVL drive configuration for the proper drive type and pool ID.

PVLS0193   **Cannot set drive pool ID for drive: Drive ID = %d**

Problem Description: The PVL is unable to set the drive pool ID for the specified drive.
System Action: Drive attribute won't change.
Administrator Action: Check the PVL drive configuration.

PVLS0194   **Unsupported option, cannot modify drive flag: Drive ID = %d**

Problem Description: Modifying the drive flag is not allowed.
System Action: Drive attribute won't change.
Administrator Action: Check the PVL drive configuration; this attribute is not settable for any drives.

PVLS0195   **%s drive failed: drive (PVL) argument not set**

Problem Description: The drive cannot be created or updated because the drive (PVL) structure argument is not set.
System Action: The requested drive will not be created or updated.
Administrator Action: Retry drive creation or update. If that fails, contact HPSS support.

PVLS0196   **%s drive failed: device (Mover) argument not set**

Problem Description: The drive cannot be created because the device (Mover) structure argument is not set.
System Action: The requested drive will not be created.
Administrator Action: Retry drive creation. If that fails, contact HPSS support.

PVLS0197   **%s drive failed: drive ID/device ID argument mismatch**

Problem Description: The drive cannot be created because the drive (PVL) and device (Mover) IDs are mismatched.
System Action: The requested drive will not be created.
Administrator Action: Retry drive creation. If that fails, contact HPSS support.

PVLS0198   **%s drive failed: drive ID/device ID of 0 is invalid**

Problem Description: The drive cannot be created because the drive (PVL) or device (Mover) ID is 0.
System Action: The requested drive will not be created.
Administrator Action: Check the PVL drive and Mover device configurations and retry drive creation. If that fails, contact HPSS support.

PVLS0199   **%s drive failed: drive type/device type mismatch**

Problem Description: The drive cannot be created because the drive's type and device's type are mismatched.
System Action: The requested drive will not be created.
Administrator Action: Check the PVL drive and Mover device configurations and retry drive creation. If that fails, contact HPSS support.

PVLS0200   **%s drive failed: Mover ID in drive and device metadata are mismatched**

Problem Description: The drive cannot be created because the Mover ID in the drive (PVL) and device (Mover) metadata are mismatched.
System Action: The requested drive will not be created.
Administrator Action: Check the PVL drive and Mover device configurations and retry drive creation. If that fails, contact HPSS support.

PVLS0201   **%s drive failed: Mover ID of 0 detected in drive data**

Problem Description: The drive cannot be created because the Mover ID in the PVL drive metadata is not set.
System Action: The requested drive will not be created.
Administrator Action: Check the PVL drive configuration and retry drive creation. If that fails, contact HPSS support.

PVLS0202   **Create drive failed: device limit (%d) reached**

Problem Description: The drive cannot be created because the drive's or device's device limit has been reached.
System Action: The requested drive will not be created.
Administrator Action: Check the PVL drive configuration and retry drive creation. If that fails, contact HPSS support.

PVLS0203   **Create drive failed: Mover disk device media block size is 0**

Problem Description: The drive cannot be created because the device media block size in the Mover data is not set.
System Action: The requested drive will not be created.
Administrator Action: Check the Mover device configuration and retry drive creation. If that fails, contact HPSS support.

PVLS0204   **Create drive failed: unknown media class (%d) in Mover data**

Problem Description: The drive cannot be created because the media class specified in the Mover device data is unknown.
System Action: The requested drive will not be created.
Administrator Action: Check the Mover device configuration and retry drive creation. If that fails, contact HPSS support.

PVLS0205   **Create drive failed: invalid device flags (%d) in Mover data**

Problem Description: The drive cannot be created because the Mover's device flags are invalid.
System Action: The requested drive will not be created.
Administrator Action: Check the Mover device configuration and retry drive creation. If that fails, contact HPSS support.

PVLS0206   **Create drive failed: %s notification pends, Drive ID = %d**

Problem Description: The drive cannot be created because there is a deleted drive with the same drive ID as this one that still has a notification pending to either the Mover or PVR (or both).
System Action: The requested drive will not be created.
Administrator Action: Check network connectivity to the Mover and PVR and retry the drive creation. If that fails, contact HPSS support.

PVLS0207   **Create drive failed: invalid drive flags (%d) in PVL data, Drive ID = %d**

Problem Description: The drive cannot be created because the PVL's drive flags are invalid.
System Action: The requested drive will not be created.
Administrator Action: Check the PVL drive configuration and retry drive creation. If that fails, contact HPSS support.

PVLS0208　　**Create drive failed: reason unknown, Drive ID = %d**

Problem Description: The drive cannot be created because a deleted drive's configuration still exists, its flag is not clear, and the reason cannot be determined.
System Action: The requested drive will not be created.
Administrator Action: Check the PVL drive configuration and retry drive creation. If that fails, contact HPSS support.

PVLS0209　　**Create drive failed: could not insert record into %s table, %s = %d**

Problem Description: The drive cannot be created because the PVL drive record could not be inserted into the Db2 PVLDRIVE table or the Mover device record could not be inserted into the Db2 MOVERDEVICE table.
System Action: The requested drive will not be created.
Administrator Action: Check Db2 logs for any errors and retry drive creation. If that fails, contact HPSS support.

PVLS0210　　**Create drive failed: could not insert record into DRIVEQUOTA table, PVR ID = %d, drive type = %s**

Problem Description: The drive cannot be created because the drive quota record could not be inserted into the Db2 DRIVEQUOTA table.
System Action: The requested drive will not be created.
Administrator Action: Check Db2 logs for any errors and retry drive creation. If that fails, contact HPSS support.

PVLS0211　　**Update drive failed: drive not locked, Drive ID = %d**

Problem Description: The drive cannot be updated because the administrative state of the drive is not locked.
System Action: The requested drive will not be updated.
Administrator Action: Lock the administrative state of the drive and retry drive update. If that fails, contact HPSS support.

PVLS0212　　**Update drive failed: drive state is not Free, Drive ID = %d, Job ID = %d**

Problem Description: The drive cannot be updated because the drive state is not Free and there is a job currently assigned to the drive.
System Action: The requested drive will not be updated.
Administrator Action: Retry the drive update. If that fails, contact HPSS support.

PVLS0213 **Update drive failed: drive state is not Free, Drive ID = %d**

Problem Description: The drive cannot be updated because the drive state is not Free.
System Action: The requested drive will not be updated.
Administrator Action: Retry the drive update. If that fails, contact HPSS support.

PVLS0214 **Update drive failed: OVERRIDE, only Mover and Device Name updates allowed, Drive ID = %d**

Problem Description: The drive cannot be updated because the override flag is only valid for Mover and Device Name updates.
System Action: The requested drive will not be updated.
Administrator Action: Revert modifications on all fields other than Mover and Device Name and retry the drive update. If that fails, contact HPSS support.

PVLS0215 **%s drive failed: PVL activity references drive type (%s), Drive ID = %d**

Problem Description: The drive cannot be updated/deleted because there is an activity that still references the drive.
System Action: The requested drive will not be updated/deleted.
Administrator Action: Wait for the job to finish and retry the drive update/delete. If that fails, contact HPSS support.

PVLS0216 **Update drive failed: unable to contact Mover, Drive ID = %d**

Problem Description: The drive cannot be updated because the PVL cannot contact the Mover associated with the drive.
System Action: The requested drive will not be updated.
Administrator Action: Check network connectivity to the Mover and retry the drive update. If that fails, contact HPSS support.

PVLS0217 **%s drive failed: unable to determine PVL volume status, vol = %s**

Problem Description: The drive cannot be updated/deleted because the PVL cannot read the volume from metadata.
System Action: The requested drive will not be updated/deleted.
Administrator Action: Check HPSS logs and retry the drive update/delete. If that fails, contact HPSS support.

PVLS0218   **Update drive failed: source Mover for drive contacted, Force arg invalid, Drive ID = %d**

Problem Description: The drive cannot be updated because the FORCE option is not allowed for this drive.
System Action: The requested drive will not be updated.
Administrator Action: None

PVLS0219   **%s drive failed: could not %s record in %s table, %s = %d**

Problem Description: The drive cannot be updated/deleted because the PVL drive record could not be updated in the Db2 PVLDRIVE table or the Mover device record could not be updated/deleted in the Db2 MOVERDEVICE table.
System Action: The requested drive will not be updated/deleted.
Administrator Action: Check Db2 logs for any errors and retry drive update/delete. If that fails, contact HPSS support.

PVLS0220   **%s drive failed: could not %s record in DRIVEQUOTA table, PVR ID = %d, drive type = %s**

Problem Description: The drive cannot be updated/deleted because the drive quota record could not be updated/deleted in the Db2 DRIVEQUOTA table.
System Action: The requested drive will not be updated/deleted.
Administrator Action: Check Db2 logs for any errors and retry drive update/delete. If that fails, contact HPSS support.

PVLS0221   **bad drive state (not *clear*), Drive ID = %d, Drive State = %u**

Problem Description: The drive cannot be updated/deleted because the drive state is not *clear*.
System Action: The drive will not be updated/deleted.
Administrator Action: Check network connectivity to the Mover and PVR and retry the drive update/delete. If that fails, contact HPSS support.

PVLS0222   **%s notification pends, Drive ID = %d**

Problem Description: The drive cannot be updated/deleted because there is a drive that has been created with the same drive ID as this one that still has a notification pending to either the Mover or PVR (or both).
System Action: The requested drive will not be updated/deleted.
Administrator Action: Check network connectivity to the Mover and PVR and retry the drive update/delete. If that fails, contact HPSS support.

PVLS0223   **Mover or PVR notification aborting, retry later. Drive ID = %d**

Problem Description: The drive cannot be updated/deleted because there was some previous notification that was aborted that has not yet processed.
System Action: The requested drive will not be updated/deleted.
Administrator Action: Check network connectivity to the Mover and PVR, wait for the previous notification to abort, and retry the drive update/delete. If that fails, contact HPSS support.

PVLS0224   **invalid drive flags (%d) in PVL data, Drive ID = %d**

Problem Description: The drive cannot be updated/deleted because the PVL's drive flags are invalid.
System Action: The requested drive will not be updated/deleted.
Administrator Action: Check the PVL drive configuration and retry the drive update/delete. If that fails, contact HPSS support.

PVLS0225   **Activity in invalid state found when checking deferred dismount timeout, Job ID = %d, vol = %s**

Problem Description: An activity in an invalid state was found in the deferred dismount job.
System Action: This should be a short-lived error state, so no action will be taken by the system other than to log a message that this state was seen.
Administrator Action: If this message is seen repeatedly over several minutes or hours, restart the PVL.

PVLS0226   **Activity in invalid state found during job recovery, Job ID = %d, vol = %s**

Problem Description: An activity in an invalid state was found during job recovery when starting the PVL.
System Action: The activity and its containing job and drive structures will be cleared out by the PVL.
Administrator Action: If this message is seen every time the PVL is started, contact HPSS support.

PVLS0227   **Media type is not fixed: cart = %s**

Problem Description: This message occurs during object store import if the volume is detected to support removable media.
System Action: The object store import fails.
Administrator Action: None

PVLS0228   **Communication with object store endpoint failed: Drive ID = %d, vol = %s**

Problem Description: This message occurs when the PVL fails to get successful acknowledgment of Object Store connectivity from the Mover.
System Action: The object store volume import fails.
Administrator Action: Check the network connectivity from the Mover to the Object Store and retry the import.

Chapter 10. PVRR series (Physical Volume Recent Request error messages)

PVRR0001 **hpss_PVrr SUCCESSFUL.**

Problem Description: The hpss_PVrr tool was successful.
System Action: None.
Administrator Action: None.

PVRR0002 **hpss_PVrr PV Name cannot be NULL.**

Problem Description: There was no provided PV Name.
System Action: The tool cannot run.
Administrator Action: See the man page for usage information.

PVRR0003 **hpss_PVrr Global DB name is NULL & HPSS_GLOBAL_DB_NAME env not set.**

Problem Description: The hcfg database name was not provided or set.
System Action: The tool cannot run.
Administrator Action: See the man page for usage information.

PVRR0004 **hpss_PVrr Schema name is NULL & HPSS_MM_SCHEMA_NAME env not set.**

Problem Description: The database schema was not provided or set.
System Action: The tool cannot run.
Administrator Action: See the man page for usage information.

PVRR0005 **hpss_PVrr Principal Name is NULL & HPSS_PRINCIPAL_SSM env not set.**

Problem Description: The HPSS principal name was not provided or set.
System Action: The tool cannot run.
Administrator Action: See the man page for usage information.

PVRR0006   **hpss_PVrr   Authentication   Mechanism   is   NULL   & HPSS_PRIMARY_AUTHN_MECH env not set.**

Problem Description: The HPSS authentication mechanism was not provided or set.
System Action: The tool cannot run.
Administrator Action: See the man page for usage information.

PVRR0007   **hpss_PVrr hpss_ParseAuthnMechTypeFromString() call failed; status =**

Problem Description: The HPSS authentication mechanism type string could not be converted to a type.
System Action: The tool cannot run.
Administrator Action: See the man page for usage information.

PVRR0008   **hpss_PVrr hpss_ParseAuthString() call failed; status =**

Problem Description: The HPSS authentication string could not be converted to a type.
System Action: The tool cannot run.
Administrator Action: See the man page for usage information.

PVRR0009   **hpss_PVrr hpss_RPCSetLoginCred() call failed.**

Problem Description: The attempt to authenticate with HPSS failed.
System Action: The tool cannot run.
Administrator Action: Review the provided credentials, verify the servers are running, review the HPSS security log files, and try again.

PVRR0010   **hpss_PVrr mm_ReadServer() call failed for core server**

Problem Description: Failed to read the core server configuration information.
System Action: The core server configuration cannot be read from the database. The tool cannot run.
Administrator Action: Verify that Db2 is running. Contact HPSS support if it continues.

PVRR0011   **hpss_PVrr mm_ReadPVLPV() call failed**

Problem Description: Failed to read the PVL PV metadata information.
System Action: The PVL PV information cannot be read from the database. The tool cannot run.
Administrator Action: Verify that Db2 is running. Contact HPSS support if it continues.

PVRR0012   **hpss_PVrr util_getTranHandle() call failed**

Problem Description: Unable to get a transaction handle for a metadata operation.
System Action: The tool cannot run.
Administrator Action: Verify that Db2 is running. Contact HPSS support if it continues.

PVRR0013   **hpss_PVrr mm_ReadStorSubsysCfg() call failed**

Problem Description: Failed to read the storage subsystem configuration.
System Action: The storage subsystem configuration cannot be read from the database. The tool cannot run.
Administrator Action: Verify that Db2 is running. Contact HPSS support if it continues.

PVRR0014   **hpss_PVrr util_getTranHandle() call for subsystem database failed**

Problem Description: Unable to get a transaction handle for a metadata operation.
System Action: The tool cannot run.
Administrator Action: Verify that Db2 is running. Contact HPSS support if it continues.

PVRR0015   **hpss_PVrr mm_ReadTapeSSPV() call failed**

Problem Description: Failed to read the storage service PV metadata.
System Action: The storage service PV cannot be read from the database. The tool cannot run.
Administrator Action: Verify that Db2 is running. Contact HPSS support if it continues.

PVRR0016   **hpss_PVrr mm_ReadTapeVV() call failed**

Problem Description: Failed to read the storage service VV metadata.
System Action: The storage service VV cannot be read from the database. The tool cannot run.
Administrator Action: Verify that Db2 is running. Contact HPSS support if it continues.

PVRR0017   **hpss_PVrr PV Name is too long.**

Problem Description: The provided PV name is too long. The PV should be 6 characters.
System Action: The tool cannot run.
Administrator Action: Correct the input PV Name.

Chapter 11. PVRS series (Physical Volume Repository Server error messages)

PVRS0000   **Invalid error**

Problem Description: None. The error reported is not a legal error.
System Action: None
Administrator Action: None

PVRS0001   **Metadata manager error**

Problem Description: PVR unable to communicate with metadata manager.
System Action: Transaction aborted.
Administrator Action: Check Metadata server status and logs for info.

PVRS0002   **Device error:**

Problem Description: The PVR has been notified by the PVL that an operation that the PVL had asked it to accomplish did not complete because of a device error.
System Action: The cartridge is placed in a pending operation state.
Administrator Action: Check HPSS and Operating System logs for information on failing device.

PVRS0003   **Metadata error**

Problem Description: The PVR has encountered a metadata error.
System Action: The PVR will shut down.
Administrator Action: The metadata error will be logged, consult the log messages for more information. Check Db2 diagnostic logging.

PVRS0004   **Entering pvr_Mount**

Problem Description: A trace message indicating the PVR is entering the specified function.
System Action: None
Administrator Action: None; informational.

PVRS0005   **Exiting pvr_Mount**

Problem Description: A trace message indicating the PVR is exiting the specified function.
System Action: None
Administrator Action: None; informational.

PVRS0006   **Entering pvr_MountComplete**

Problem Description: A trace message indicating the PVR is entering the specified function.
System Action: None
Administrator Action: None; informational.

PVRS0007   **Exiting pvr_MountComplete**

Problem Description: A trace message indicating the PVR is exiting the specified function.
System Action: None
Administrator Action: None; informational.

PVRS0008   **Entering pvr_DismountCart**

Problem Description: A trace message indicating the PVR is entering the specified function.
System Action: None
Administrator Action: None; informational.

PVRS0009   **Exiting pvr_DismountCart**

Problem Description: A trace message indicating the PVR is exiting the specified function.
System Action: None
Administrator Action: None; informational.

PVRS0010   **Entering pvr_DismountDrive**

Problem Description: A trace message indicating the PVR is entering the specified function.
System Action: None
Administrator Action: None; informational.

PVRS0011   **Exiting pvr_DismountDrive**

Problem Description: A trace message indicating the PVR is exiting the specified function.
System Action: None
Administrator Action: None; informational.

PVRS0012   **Entering pvr_Inject**

Problem Description: A trace message indicating the PVR is entering the specified function.
System Action: None
Administrator Action: None; informational.

PVRS0013   **Exiting pvr_Inject**

Problem Description: A trace message indicating the PVR is exiting the specified function.
System Action: None
Administrator Action: None; informational.

PVRS0014   **Entering pvr_Eject**

Problem Description: A trace message indicating the PVR is entering the specified function.
System Action: None
Administrator Action: None; informational.

PVRS0015   **Exiting pvr_Eject**

Problem Description: A trace message indicating the PVR is exiting the specified function.
System Action: None
Administrator Action: None; informational.

PVRS0016   **Entering pvr_Audit**

Problem Description: A trace message indicating the PVR is entering the specified function.
System Action: None
Administrator Action: None; informational.

PVRS0017   **Exiting pvr_Audit**

Problem Description: A trace message indicating the PVR is exiting the specified function.
System Action: None
Administrator Action: None; informational.

PVRS0018   **Entering pvr_ServerGetAttrs**

Problem Description: A trace message indicating the PVR is entering the specified function.
System Action: None
Administrator Action: None; informational.

PVRS0019   **Exiting pvr_ServerGetAttrs**

Problem Description: A trace message indicating the PVR is exiting the specified function.
System Action: None
Administrator Action: None; informational.

PVRS0020   **Entering pvr_ServerSetAttrs**

Problem Description: A trace message indicating the PVR is entering the specified function.
System Action: None
Administrator Action: None; informational.

PVRS0021   **Exiting pvr_ServerSetAttrs**

Problem Description: A trace message indicating the PVR is exiting the specified function.
System Action: None
Administrator Action: None; informational.

PVRS0022   **Entering pvr_PVRGetAttrs**

Problem Description: A trace message indicating the PVR is entering the specified function.
System Action: None
Administrator Action: None; informational.

PVRS0023   Exiting pvr_PVRGetAttrs

Problem Description: A trace message indicating the PVR is exiting the specified function.
System Action: None
Administrator Action: None; informational.

PVRS0024   Entering pvr_PVRSetAttrs

Problem Description: A trace message indicating the PVR is entering the specified function.
System Action: None
Administrator Action: None; informational.

PVRS0025   Exiting pvr_PVRSetAttrs

Problem Description: A trace message indicating the PVR is entering the specified function.
System Action: None
Administrator Action: None; informational.

PVRS0026   Entering pvr_CartridgeGetAttrs

Problem Description: A trace message indicating the PVR is entering the specified function.
System Action: None
Administrator Action: None; informational.

PVRS0027   Exiting pvr_CartridgeGetAttrs

Problem Description: A trace message indicating the PVR is exiting the specified function.
System Action: None
Administrator Action: None; informational.

PVRS0028   Entering pvr_CartridgeSetAttrs

Problem Description: A trace message indicating the PVR is entering the specified function.
System Action: None
Administrator Action: None; informational.

PVRS0029   **Exiting pvr_CartridgeSetAttrs**

Problem Description: A trace message indicating the PVR is exiting the specified function.
System Action: None
Administrator Action: None; informational.

PVRS0030   **Entering pvr_ListAllCart**

Problem Description: A trace message indicating the PVR is entering the specified function.
System Action: None
Administrator Action: None; informational.

PVRS0031   **Exiting pvr_ListAllCart**

Problem Description: A trace message indicating the PVR is exiting the specified function.
System Action: None
Administrator Action: None; informational.

PVRS0032   **Repository Cartridge Threshold Exceeded**

Problem Description: The number of cartridges in a PVR has exceeded a configuration threshold. A Threshold describing when to issue this alarm is configured into each PVR. It describes the maximum number of cartridges allowed in a PVR over which, an alarm will be generated.
System Action: Alarm generated as a warning when the threshold is exceeded. Alarm generated with no severity when the threshold is reset.
Administrator Action: Review the number of cartridges in the PVRs. Adjust inject and eject policies to stay within configured thresholds.

PVRS0033   **Repository Cleaning Cartridge Threshold**

Problem Description: Unused
System Action: Unused
Administrator Action: Unused

PVRS0034   **Error notifying SSM of attribute change**

Problem Description: A PVR internal request to notify the SSM was received which was not a valid operation.
System Action: Log entry generated, no corrective action taken.
Administrator Action: None

PVRS0035   **Malloc returned NULL**

Problem Description: In `pvr_pending_mounts.c`, a malloc used to get space to store a pending mount failed. In `pvr_notify.c` and `operator.c` a malloc to prepare thread arguments failed. In `stk.c` a number of possible malloc failure points exist.
System Action: In `pvr_pending_mounts.c` the mount request is not sent to the SSM screen. In `pvr_notify.c` SSM notification is abandoned. In `stk.c` the System-Action depends on where in the code the malloc failed. In `operator.c` the ManageMount thread is not called.
Administrator Action: Check to see if the PVR has grown too large to gather more space. Not being able to get malloc space is very serious. Consider restarting the PVR. Check OS logs for system-wide error conditions.

PVRS0036   **Entering pvr_ListPendingMounts**

Problem Description: A trace message indicating the PVR is entering the specified function.
System Action: None
Administrator Action: None; informational.

PVRS0037   **Exiting pvr_ListPendingMounts**

Problem Description: A trace message indicating the PVR is exiting the specified function.
System Action: None
Administrator Action: None; informational.

PVRS0038   **The PVR has been initialized**

Problem Description: The PVR is initialized and up.
System Action: None
Administrator Action: None; informational.

PVRS0039   **The PVR has been shutdown**

Problem Description: The PVR is terminating.
System Action: None
Administrator Action: None; informational.

PVRS0040   **Error starting or destroying a thread**

Problem Description: The PVR tried to fork a thread for a specific operation, but was unable to do so.
System Action: System-Action varies from termination of the PVR, to loss of the SSM notify thread or mount waiting thread.
Administrator Action: The inability to create a thread indicates possible operating system problems or overuse. Once system problems are fixed, restart PVR to ensure consistency.

PVRS0041   **Client connection opened**

Problem Description: A client to the PVR successfully opened a connection to the PVR.
System Action: None
Administrator Action: None; informational.

PVRS0042   **Client connection closed**

Problem Description: A client to the PVR closed its connection to the PVR.
System Action: None
Administrator Action: None; informational.

PVRS0043   **Ejecting cartridge**

Problem Description: The PVR is ejecting a cartridge and logging specifics about that cartridge.
System Action: None; informational.
Administrator Action: None

PVRS0044   **Security Error**

Problem Description: Unused
System Action: Unused
Administrator Action: Unused

PVRS0045   **PVR Shutdown**

Problem Description: The PVR is shutting itself down.
System Action: The PVR will terminate itself as gracefully as possible.
Administrator Action: If shutdown reason is unknown, investigate reason for termination log. For example, the PVR might shut down if the PVR Security ACLs are incorrectly configured.

PVRS0046   **putenv function call failed during initialization**

Problem Description: The STK PVR got an error calling the 'putenv' system call to set the ACSAPI_SSI_SOCKET environment variable. This environment variable needs to be set if there will be multiple STK PVRs running on the same platform with associated multiple SSI and MINI_EL processes.
System Action: The PVR will exit.
Administrator Action: Examine the log for the errno associated with the putenv system call failure.

PVRS0047   **PVR will be communicating to SSI over port:**

Problem Description: The 'Alternate SSI Port' is set in the STK PVR configuration. The STK PVR is reporting that it will use the specified port for communicating to the SSI.
System Action: None
Administrator Action: None; informational.

PVRS0048   **Cartridge in move transit state, retry move**

Problem Description: Upon startup of the PVR, the PVR reports each cartridge that was left in Mount Pending state. The administrator will need to retry the move operation on these cartridges.
System Action: Verify that the cartridges are in the destination library.
Administrator Action: Retry the move operation for each cartridge reporting this message.

PVRS0049   **uuid_create_nil call failed**

Problem Description: The PVR got a failure calling the HPSS uuid_create_nil library call.
System Action: None
Administrator Action: Collect HPSS error log and contact HPSS support.

PVRS0050   **The number of Drives assigned to this PVR:**

Problem Description: The PVR is reporting the number of drives it knows about. This log appears whenever the PVR is (re)initialized. This will occur when drives are added or deleted in addition to PVR server startup.
System Action: None
Administrator Action: None; informative.

PVRS0051   **Drive busy in PVR, DriveTableInit postponed**

Problem Description: The PVL is attempting to reinitialize the PVR to delete a drive, but that drive is currently busy. The PVR logs the drive ID and returns HPSS_EBUSY to the PVL which will then retry the request. The PVL has already deleted the device/drive metadata; the PVR just needs to remove the drive from its internal drive list/cache
System Action: The request will be delayed. The PVL will continue trying to inform the PVR about the deletion. Once the drive isn't busy, the PVR will delete it from its cache.
Administrator Action: Verify that the drive is locked and all jobs associated with the drive are complete.

PVRS0052   **Calloc returned NULL**

Problem Description: The PVR has failed to allocate a memory buffer.
System Action: The PVR will shut down.
Administrator Action: Verify that memory usage is not at critical levels on the system. If the problem continues, contact HPSS Support.

PVRS0053   **PVR count of device paths:**

Problem Description: The PVR is reporting the number of device paths it knows about. This log appears whenever the PVR is started.
System Action: None
Administrator Action: None; informative.

PVRS0054   **Configuration error:**

Problem Description: The PVR is reporting that it cannot find any working drives.
System Action: The PVR will shut down.
Administrator Action: Verify that the permissions on the changer device(s) and the username in the PVR configuration allow the PVR to discover the expected drive(s).

PVRS0065   **logMessage2:**

Problem Description: Generally a debug log reporting supporting information for an Alarm or Event.
System Action: Supporting log information.
Administrator Action: Look for and obtain these HPSS logs in support of some other problem or event.

PVRS0066   **Realloc returned NULL**

Problem Description: The PVR got a failure from the 'realloc' system call.
System Action: The PVR will exit.
Administrator Action: Check HPSS logs for the errno value from this system call.

PVRS0093   **Drive ID does NOT exist in DriveTable**

Problem Description: The PVR was unable to get the drive address from the Drive ID. This generally occurs when the Drive ID was not found in the PVR's internal drive table; it could also occur if the 'DriveIdToDriveAddr' function is incorrectly called.
System Action: The mount completion or the dismount may fail.
Administrator Action: Verify that the mount or dismount succeeds.

PVRS0141   **Robot unable to find cartridge**

Problem Description: Robotics failed to locate a requested cartridge.
System Action: Mount or dismount will fail.
Administrator Action: Investigate robotics for lost cartridge. Use robot specific utilities outside of HPSS to query cartridge location.

PVRS0142   **STK unable to dismount cartridge due to audit, will retry**

Problem Description: An ongoing audit made dismounting a cartridge impossible.
System Action: Dismount will be retried.
Administrator Action: None

PVRS0143   **STK library unavailable**

Problem Description: The STK library is offline.
System Action: Requests in this library will fail.
Administrator Action: Investigate reason for offline library.

PVRS0144   **STK drive offline**

Problem Description: The STK drive identified is offline.
System Action: Requests destined for this drive will not complete.
Administrator Action: Investigate reason for offline drive.

PVRS0145   **STK LSM offline**

Problem Description: The LSM containing the identified drive is offline.
System Action: Requests destined for this LSM will not complete.
Administrator Action: Investigate reason for offline LSM.

PVRS0146   **STK unable to eject cartridge(s)**

Problem Description: An eject from an STK library failed for one of many possible reasons.
System Action: The eject requests fail.
Administrator Action: Investigate HPSS and ACSLS logs for details on failure.

PVRS0147   **STK unable to eject cartridge(s), will retry**

Problem Description: An attempted eject from an STK library failed in a recoverable manner.
System Action: The eject is retried.
Administrator Action: Investigate HPSS and ACSLS logs for details on failure.

PVRS0148   **STK library unavailable, will retry**

Problem Description: The STK library is offline.
System Action: The PVR believes the offline state of the library is temporary and will retry.
Administrator Action: None

PVRS0149   **STK drive offline, will retry**

Problem Description: The STK drive identified is offline.
System Action: The PVR believes the offline state of the drive is temporary and will retry the request. If possible the cartridge will be retried in a different drive.
Administrator Action: If the error message continues, investigate the hardware.

PVRS0150   **STK LSM offline, will retry**

Problem Description: The STK LSM identified is offline.
System Action: The PVR believes the offline state of the LSM is temporary and will retry the request.
Administrator Action: None

PVRS0151   **STK CAP offline, will retry**

Problem Description: An STK CAP (Cartridge Access Port) is offline.
System Action: The PVR believes the offline state of the CAP is temporary and will retry the request.
Administrator Action: None

PVRS0152   **STK CAP offline**

Problem Description: An STK CAP (Cartridge Access Port) is offline.
System Action: The PVR aborts the request.
Administrator Action: Investigate logs and STK console logs for a reason for the CAP being offline.

PVRS0153   **STK unable to mount cartridge due to audit, will retry**

Problem Description: Unused
System Action: Unused
Administrator Action: Unused

PVRS0154   **STK silo is full, operation failed**

Problem Description: A request to add cartridges to an STK LSM failed because it was full of cartridges.
System Action: The request fails.
Administrator Action: Examine site policies regarding the population of LSMs with cartridges.

PVRS0155   **STK audit in progress, operation failed**

Problem Description: A request arrived during an STK audit, which couldn't be completed during the audit.
System Action: The request fails.
Administrator Action: Abort the audit or wait until it completes and retry.

PVRS0156   **STK hardware defined in HPSS does not exist**

Problem Description: An invalid (non-existent) piece of hardware, or location in hardware was referenced by a request.
System Action: The request fails.
Administrator Action: Investigate PVR and STK configuration and hardware logs to determine the source and reason for invalid components or locations being referenced.

PVRS0157   **STK detected duplicate cartridge label**

Problem Description: A cartridge label was read, and it was found to be a duplicate within the STK robotics.
System Action: The request fails and an alarm is generated.
Administrator Action: Investigate the labels on both cartridges claiming to be the one in question.

PVRS0158   **STK software unable to communicate with LMU**

Problem Description: The PVR was unable to communicate with the STK Library Management Unit (LMU). The LMU receives and processes all requests for robotic movement for attached LSMs.
System Action: The request fails and an alarm is generated.
Administrator Action: The inability to communicate with an LMU means that no robotic actions can be requested of the STK hardware. This is a serious problem, and the LMU hardware and connections to the LMU should be looked at. This condition will occur if the STK SSI daemon is not running on the same machine as the HPSS PVR. It can also occur if ACSLS is not running, is a different level than the SSI daemon, or is running on a different machine than expected by the SSI. See the STK ACSLS Administration Guide for detailed instructions about properly configuring ACSLS and the SSI.

PVRS0159   **STK found cartridge in unexpected location**

Problem Description: A cartridge was found in a location different than where STK's metadata described.
System Action: The request fails and an alarm is generated.
Administrator Action: Investigate to find out how cartridges are being misplaced (human movement of cartridges when an LSM is down is likely). Consider performing audits to ensure location consistency.

PVRS0160   **STK cartridge has a missing or unreadable external label**

Problem Description: A cartridge was found with an unreadable external (paper label adhered to outside of cartridge).
System Action: The request fails and an alarm is generated.
Administrator Action: Make sure that robotic cameras are functioning correctly. If so, eject the cartridge in question and repair the label.

PVRS0161   **STK cartridge in use or locked by non-HPSS application**

Problem Description: The cartridge in question is either not an HPSS cartridge, or is considered in-use by the STK robotics software.
System Action: Action varies, typically the request will fail. An alarm is always generated.
Administrator Action: Investigate the cartridge identified to see if it is a valid HPSS cartridge, and how it is being used currently.

PVRS0162   **STK denied access to cartridge or command**

Problem Description: STK robotics software has refused a PVR request claiming that the PVR shouldn't have access to the cartridge or command issued.
System Action: The request will fail and an alarm is generated.
Administrator Action: STK console logs for details as to the reason for access denial.

PVRS0163   **STK attempted to mount media in incompatible drive**

Problem Description: An attempt was made to mount a cartridge in a drive that can not handle its media type.
System Action: The request will fail and an alarm is generated.
Administrator Action: Investigate the configuration information for both the cartridge and drive in question.

PVRS0164 **STK ACS offline or idle**

Problem Description: A request was made to an STK complex which is currently not taking requests.
System Action: The request will fail and an alarm is generated.
Administrator Action: Bring the ACS back online after investigating the reason that it was idled or taken offline.

PVRS0165 **STK has no CAP with priority greater than 0 that is not in automatic enter mode**

Problem Description: A request was made which required a Cartridge Access Port (CAP). An appropriate CAP was not available.
System Action: The request will fail and an alarm is generated.
Administrator Action: Use the STK ACSLS console to configure CAPS accordingly.

PVRS0166 **STK port is offline**

Problem Description: A request was made to an a library using a port that is offline.
System Action: The request will fail and an alarm is generated.
Administrator Action: Use the STK ACSLS console to investigate and configure the port correctly.

PVRS0167 **STK gave unexpected return code**

Problem Description: The STK ACSLS software has responded to the STK PVR with an undocumented response that is not expected by the PVR.
System Action: The request will fail and an alarm is generated.
Administrator Action: Investigate STK ACSLS error logs for the source of the unexpected response.

PVRS0168 **PVR unable to contact PVL, will retry**

Problem Description: Unused
System Action: Unused
Administrator Action: Unused

PVRS0169   **PVR reconnected to PVL**

Problem Description: Unused
System Action: Unused
Administrator Action: Unused

PVRS0170   **Unable to determine number of cartridges, using old value**

Problem Description: The PVR failed in its attempt to access metadata to determine how many cartridges it managed.
System Action: The PVR will use the number of cartridges it last thought were in the library.
Administrator Action: Determine why PVR metadata is inaccessible.

PVRS0171   **Number of cartridges changed since PVR was last started**

Problem Description: When restarting, the PVR accessed metadata to determine the number of cartridges it managed and found that the number had changed since the PVR went down.
System Action: The PVR will use the new number of cartridges as reported by the PVRs metadata and will update configuration metadata to agree with the new number.
Administrator Action: It is suggested that operations modifying the number of cartridges in a PVR be accomplished when the PVR is up.

PVRS0172   **Mutex (un)lock failed**

Problem Description: Unused
System Action: Unused
Administrator Action: Unused

PVRS0173   **Unable to set cleaning cartridge attributes**

Problem Description: Unused
System Action: Unused
Administrator Action: Unused

PVRS0174   **Software error detected**

Problem Description: An error was detected in the specific robotic PVR during the set response or get response logic that handles responses traveling from PVR to subsystem (stk:ACSLS).
System Action: Varies; typically the current request fails.
Administrator Action: This error should never occur. If it does contact HPSS support.

PVRS0175   **STK drive in use or locked by non-HPSS application**

Problem Description: A request was made to the STK ACSLS software to use a drive which ACSLS believes is in use.
System Action: The request fails.
Administrator Action: Investigate ACSLS console logs.

PVRS0176   **STK drive not currently mounted**

Problem Description: A dismount request was requested to a drive that ACSLS believes is dismounted.
System Action: The dismount request fails.
Administrator Action: Investigate ACSLS console and PVR logs to determine whether the PVR really thinks the drive is occupied. Physically inspect the drive for a cartridge.

PVRS0177   **PVR Check Config:**

Problem Description: The PVR has a configuration problem.
System Action: The PVR will not start if the configuration issue is severe.
Administrator Action: The error log will inform the administrator about the area with the configuration problem; the administrator should correct the issue. For example, the PVR's Security ACLs (stored in the AUTHZACL table) might have one or more invalid ACL entries; if the minimal entries aren't configured correctly, the PVR will not start up. Consult the *HPSS Admin Guide* for additional information about configuring the PVR's Server Security ACLs.

PVRS0178   **PVR Event:**

Problem Description: The PVR has an non-error event that it wants to log.
System Action: None
Administrator Action: None

PVRS0220   **PVL requested mount to unknown drive**

Problem Description: Unused
System Action: Unused
Administrator Action: Unused

PVRS0221   **Unable to open Metadata file**

Problem Description: Unused
System Action: Unused
Administrator Action: Unused

PVRS0222   **Unable to read PVR Server Specific Configuration information**

Problem Description: Unused
System Action: Unused
Administrator Action: Unused

PVRS0223   **Unable to update PVR Server Specific Configuration information**

Problem Description: Unable to read or update metadata.
System Action: `pvr_checkin_checkout.c`: cartridge checkin fails because metadata update fails.
Administrator Action: Investigate metadata call failures. Check metadata server status and check logs.

PVRS0224   **Unable to read Cartridge metadata:**

Problem Description: Unable to read metadata.
System Action: Operations fail.
Administrator Action: Investigate metadata call failures. Check that metadata serve is up and check logs.

PVRS0225   **Unable to update Cartridge metadata:**

Problem Description: Unable to edit metadata.
System Action: Operations fail.
Administrator Action: Investigate metadata call failures. Check that metadata server is up and check logs.

PVRS0226   **Unable to create a new entry in Cartridge metadata**

Problem Description: Unable to edit metadata.
System Action: Cartridge inject fails.
Administrator Action: Investigate metadata call failures. Check that metadata server is up and check logs.

PVRS0227   **Unable to delete an existing entry in Cartridge metadata**

Problem Description: Unused
System Action: Unused
Administrator Action: Unused

PVRS0228   **Unable to confirm client's identity**

Problem Description: Unused
System Action: Unused
Administrator Action: Unused

PVRS0229   **Client requested mount of a cartridge side that does not exist**

Problem Description: Client believes media has more sides than it does.
System Action: Mount fails.
Administrator Action: Export cartridge and re-import.

PVRS0230   **The PVR was told that it mounted a cartridge which is not defined in metadata**

Problem Description: Volume mounted doesn't exist in metadata.
System Action: Error logged.
Administrator Action: Physically check for the cartridge in drive. May have to manually dismount drive. Investigate logs to determine origin of mount request.

PVRS0231   **The PVR was told that a cartridge was mounted, but was not told which drive**

Problem Description: Drive isn't known for the mount.
System Action: Continues, drive isn't displayed.
Administrator Action: Ignore, unless recurring.

PVRS0232   **The PVR was unable to find the Drive**

Problem Description: The PVR was unable to get the Drive ID from the Drive Address. This generally occurs when the Drive Address was not found in the PVR's internal drive table; it could also occur if the 'DriveAddrToDriveID' function is incorrectly called.
System Action: The mount request may not occur.
Administrator Action: Investigate HPSS logs; verify drive address.

PVRS0234   **PVR signal handling thread encountered an error and is exiting**

Problem Description: Signal handler thread is not running.
System Action: PVR continues but won't handle signals.
Administrator Action: None, unless recurring.

PVRS0235   **Unable to read PVR Generic Server Configuration**

Problem Description: Unused
System Action: Unused
Administrator Action: Unused

PVRS0236   **Unable to read SSM Generic Server Configuration**

Problem Description: Unused
System Action: Unused
Administrator Action: Unused

PVRS0237   **Unable to read PVL Generic Server Configuration**

Problem Description: Unused
System Action: Unused
Administrator Action: Unused

PVRS0238   **Unable to read the Generic cartridge metadata**

Problem Description: Unused
System Action: Unused
Administrator Action: Unused

PVRS0239   **Reissuing mount request that was pending when PVR was terminated**

Problem Description: This cartridge has a mount pending. The PVR will reissue the mount request. This will put the cartridge back in the pending mount queue. It will also reissue Robotic and SSM commands to get the cartridge mounted.
System Action: PVR will attempt to reissue mount request.
Administrator Action: None; informational.

PVRS0240   **Reissuing dismount request that was pending when PVR was terminated**

Problem Description: This cartridge has a dismount pending. The PVR will reissue the dismount request.
System Action: PVR will reissue the dismount request.
Administrator Action: None; informational.

PVRS0241   **Reissuing eject request that was pending when PVR was terminated**

Problem Description: This cartridge has an eject pending. The PVR will reissue the eject request.
System Action: PVR will reissue the eject request.
Administrator Action: None; informational.

PVRS0242   **Could not initialize security services**

Problem Description: Security initialization failed.
System Action: PVR terminates.
Administrator Action: Check the local HPSS log for more information. Check status of other servers as this may be a systemic failure.

PVRS0243   **Unexpected abort from Metadata transaction**

Problem Description: Metadata transaction was aborted.
System Action: In some cases the aborted transaction is critical and the PVR will terminate. In other cases the transaction aborts and the operation fails but the PVR continues.
Administrator Action: Investigate logs for origin of transaction abort reason.

PVRS0244   **A cartridge was unexpectedly found mounted**

Problem Description: Non-HPSS software mounted an HPSS cartridge.
System Action: None
Administrator Action: None

PVRS0245   **The PVR was asked to eject a cartridge that had already been removed from the robot**

Problem Description: The cartridge is not in the library.
System Action: Eject continues.
Administrator Action: None

PVRS0246   **Invalid Drive Address in STK PVR**

Problem Description: Drive ID in the wrong format.
System Action: Operation will fail.
Administrator Action: Check metadata drive address.

PVRS0248   **Error loading drive information from metadata**

Problem Description: Didn't get a full list of drives from the PVL for this PVR.
System Action: May continue in degraded mode.
Administrator Action: Investigate, the PVR may not be running with full set of drives known.

PVRS0249   **Mount failed, no drives in the robot are empty and online, or the robot is offline**

Problem Description: No drives available for mount request. The PVL has sent down a request for a mount but there isn't a drive available. This shouldn't be a recurring error since the PVR should offline a drive which fails.
System Action: The mount request will suspend and be retried later.
Administrator Action: None, unless error is recurring. If recurring, check drive status. If a deferred dismount job exists, cancel it which should free up available drives.

PVRS0250   **Unexpected software failure accessing mutex**

Problem Description: Failed to initialize HPSS mutex.
System Action: None
Administrator Action: None

PVRS0255   **No drives are defined in Metadata for this PVR**

Problem Description: Unable to read PVL drive list from metadata. No drives will be defined for this PVR.
System Action: None
Administrator Action: Investigate metadata server status. PVR may have to be restarted.

PVRS0256   **STK mount failed, no drives in the robot are empty and online, or the robot is offline**

Problem Description: Unused
System Action: Unused
Administrator Action: Unused

PVRS0257   **STK drive in use or locked by non-HPSS application, will retry**

Problem Description: Unused
System Action: Unused
Administrator Action: Unused

PVRS0258   **Cartridge mounted**

Problem Description: The PVR is reporting the mount of a cartridge in a drive address.
System Action: None
Administrator Action: None; informational.

PVRS0259   **Cartridge not readable in drive, will retry in another drive**

Problem Description: The PVR thought the mount was a success but the PVL was unable to read the label. A second possibility is that the number of retries attempts has been reached and the operation fails.
System Action: The PVR will attempt to mount the cartridge in a different drive.
Administrator Action: Monitor cartridge, if this error continues in different drives, the cartridge may be damaged.

PVRS0260   **Cartridge mount retry limit reached, mount failed**

Problem Description: The number of mount retry attempts has been reached and the operation fails.
System Action: Mount fails.
Administrator Action: If error recurring, investigate log to determine the drive which is causing the failure.

PVRS0261   **No additional drives available to retry mount, mount failed**

Problem Description: There are no additional drives available in which to retry a failed mount, so the operation fails.
System Action: Mount fails.
Administrator Action: If error recurring, investigate log to determine if there is a problem with the cartridge.

PVRS0262   **The PVR detected a drive that is offline, informing PVL**

Problem Description: PVR advising PVL that a drive it thinks is online should be set to offline.
System Action: The PVL will lock the drive.
Administrator Action: Monitor, if multiple drives are locked it may be due to a library software problem.

PVRS0265   **hpss_InitServer failed, PVR failed to initialize, terminating**

Problem Description: PVR is reporting that it was unable to initialize due to some previous error.
System Action: The PVR will fail to start.
Administrator Action: Investigate previous error messages from the PVR.

PVRS0266   **Unable to read PVL server specific metadata**

Problem Description: Unused
System Action: Unused
Administrator Action: Unused

PVRS0267   **Repository Cartridge Threshold OK**

Problem Description: The PVR is reporting that the cartridge threshold is now okay (that is, within threshold limits).
System Action: None
Administrator Action: None; informational.

PVRS0273   **PVR unable to connect to SSM**

Problem Description: Connection to SSM is bad.
System Action: Connection restore is attempted.
Administrator Action: None, unless error recurring. Investigate logs and SSM status.

PVRS0274   **PVR reestablished connection to SSM**

Problem Description: Successfully connected to SSM, previously disconnected.
System Action: None
Administrator Action: None

PVRS0275   **PVR unable to connect to PVL**

Problem Description: Unable to communicate with the PVL.
System Action: PVR will periodically attempt to reconnect to the PVL.
Administrator Action: Check PVL state, inspect logs for cause.

PVRS0276   **PVR reestablished connection to PVL**

Problem Description: Successfully connected to PVL, previously disconnected.
System Action: None
Administrator Action: None

PVRS0277   **PVR request timed out, no response from robot**

Problem Description: Request sent to STK library, no response.
System Action: Mount will be retried.
Administrator Action: Investigate HPSS and robot specific logs for cause. Set the PVR status to repaired to initiate the mount retry immediately.

PVRS0278 **PVR waiting for mount status change before continuing**

Problem Description: A robot returned an error attempting to mount volume.
System Action: Mount request will be retried at intervals.
Administrator Action: Investigate HPSS and robot specific logs for cause. Set the PVR status to repaired to initiate the mount retry immediately.

PVRS0279 **Drive already in job, remove from mount drive list**

Problem Description: Status message, notes that a drive was removed from available drives to be used for this job.
System Action: None
Administrator Action: None

PVRS0282 **Fatal initialization error:**

Problem Description: Various initialization errors for the server on startup.
System Action: The server will terminate.
Administrator Action: Investigate, is this a happening to other servers. Possibly an ACL problem. If the error continues, contact HPSS support.

PVRS0284 **acs_response: Bad response type returned**

Problem Description: The invalid response type value is returned in message.
System Action: None
Administrator Action: Use the return value to check STK documentation for error cause.

PVRS0286 **AML RPC failure**

Problem Description: PVR could not send a request to the DAS server component or it did not reply.
System Action: None
Administrator Action: Verify that TCP/IP services are started on both workstation and the AMU controller OS/2 PC. Issue an **rpcinfo -p** command from the workstation to verify that the RPC services are started correctly. Verify that the environment variable DAS_SERVER specifies the DAS server IP address or host name and that the host name can be resolved into an IP address.

PVRS0287   **AML aci parameter invalid**

Problem Description: PVR sent a request to the DAS with incorrect parameters.
System Action: None
Administrator Action: Check the HPSS log file for additional information; this error indicates that the AML PVR may have passed incorrect data to DAS.

PVRS0288   **AML volume not found of this type**

Problem Description: PVR sent a request for a volume and the media type was mismatched.
System Action: None
Administrator Action: Check the AMU AMS Log window and the AMU AMS configuration to verify that the volume and media type matched. User can issue the **dasadmin view** command to check the attribute of the volume.

PVRS0289   **AML drive not in Grau ATL**

Problem Description: PVR requested a drive that was not in the AMU AMS configuration.
System Action: None
Administrator Action: Verify that the drive configuration in the DAS server configuration file matches the AMU AMS configuration and physical configuration in the archive.

PVRS0290   **AML requested drive is in use**

Problem Description: The drive requested by the AML PVR is in use.
System Action: None
Administrator Action: This indicates a tape is mounted into the drive from outside of HPSS. Check to verify that the drive is unlocked and "polling" is on. This should disallow the attempts to use the drive reserved for HPSS.

PVRS0291   **AML robot has a physical problem with the volume**

Problem Description: PVR issued a request to move a volume, but the handling failed, or bar code could not be read.
System Action: None
Administrator Action: If the robot move the volume to the EIF station, examine the cartridge, make sure the label is still attached and in good condition; issue the **dasadmin insert** command to put the cartridge back to the tower, retry to issue the command again.

PVRS0292   **AML internal error in the AMU**

Problem Description: An invalid return code from the AMU.
System Action: None
Administrator Action: Analyze the AMU AMS Log window to determine the cause of the error. Correct the error if possible, and if the problem persists, contact your DAS support representative, since this may require restarting DAS to clear the error.

PVRS0293   **AML DAS was unable to communicate with the AMU**

Problem Description: The DAS server issued a request to the AMU AMS, but it did not response.
System Action: System-Action: None
Administrator Action: Use the AMU AMS Log window to determine the problem, and correct as necessary.

PVRS0294   **AML robotic system is not functioning**

Problem Description: The AML robot system is not functioning.
System Action: None
Administrator Action: Verify that the robot is online, and the AMU AMS Log window does not have robot errors. Correct the errors as necessary.

PVRS0295   **AML AMU was unable to communicate with the robot**

Problem Description: The robot did not response to the AMU request.
System Action: None
Administrator Action: Verify that the robot is online, and the AMU AMS Log window does not have communication errors. Correct the communication errors as necessary.

PVRS0296   **AML DAS system is not active**

Problem Description: DAS server is not active.
System Action: None
Administrator Action: Verify that the DAS server is active; start or restart DAS server. If the DAS initialization fails, verify that the AMU software is running and that the TCP/IP services is started.

PVRS0297 **AML drive did not contain an unloaded volume**

Problem Description: PVR issued a dismount request but the drive did not unload or eject the volume and the robot could not move the volume.
System Action: None
Administrator Action: Try to issue the **mt -f /dev/rmtxx rewoffl** command to unload the tape to verify that the drive is still capable of unloading a tape.

PVRS0298 **AML invalid registration**

Problem Description: A request made by a client which is not defined in the DAS server configuration file.
System Action: If the Client Name is changed, the AML PVR needs to be recycled to pick up the new change.
Administrator Action: Verify that the Client Name set in the AML PVR Server Type Specific configuration is the same as the client name defined in the DAS server configuration file.

PVRS0299 **AML invalid hostname or ip address**

Problem Description: The supplied host name or TCP/IP address of the client's request did not match the DAS server/client configuration.
System Action: If the Client Name or Host Name is changed, the AML PVR needs to be recycled to pick up the new change.
Administrator Action: Verify that the Client Name and Host Name in the AML PVR Server Type Specific Configuration match those in the DAS server configuration file.

PVRS0300 **AML area name does not exist**

Problem Description: PVR issued a request that required an insert or eject area not configured for the PVR or not in the AMU AMS configuration.
System Action: User needs to recycle the AMP PVR after the reconfiguration of the `AML_EjectPort.conf` and `AML_InsertPort.conf` so that the device_Init function can pick up the new changes.
Administrator Action: Verify that AMU AMS is configured for the requested insert or eject area; verify that the `/var/hpss/etc/AML_EjectPort.conf` and `/var/hpss/etc/AML_InsertPort.conf` are matched with the AMU MAS configuration.

PVRS0301   **AML client is not authorized to make this request**

Problem Description: A request was made for an operation that required access privilege of "complete". Since the requesting client has only the "basic" access rights, the request is refused.
System Action: If the Client Name is changed, the AML PVR needs to be recycled to pick up the new change.
Administrator Action: Verify the access privilege of the client.

PVRS0302   **AML dynamic area became full, insertion stopped**

Problem Description: A request was made to insert a volume into a dynamically defined area, which was full or was not set correctly to provide bin selections for insert requests.
System Action: None
Administrator Action: Verify that the AMU AMS archive positions for the particular media type are available and defined as an AMU DYNAMIC storage type. Configure the storage area accordingly and retry.

PVRS0303   **AML drive is currently available to another client**

Problem Description: PVR tried to access a drive that is not configured for the PVR.
System Action: None
Administrator Action: Verify that the drive status is UP for the requesting client and that the drive is not assigned to another client.

PVRS0304   **AML client does not exist**

Problem Description: Client name is not defined in the DAS server configuration file.
System Action: If the Client Name is changed, the AML PVR needs to be recycled to pick up the new change.
Administrator Action: Verify that the client name id defined in the DAS configuration file. Make the necessary correction.

PVRS0305   **AML dynamic area does not exist**

Problem Description: A request involves a dynamic insert or eject area that may not be defined in the DAS server configuration file or may not be defined as a logical range in the AMU AMS configuration.

System Action: If the `/var/hpss/etc/AML_InsertPort.conf` or `/var/etc/hpss/etc/AML_EjectPort.conf` is modified, then AML PVR must be recycled so device_Init function can pick up the new port assignments.

Administrator Action: Verify that the areas are defined in the DAS server configuration file, physically in the robot, and logically defined in the AMU AMS configuration.

PVRS0306   **AML no request exists with this number**

Problem Description: Request ID does not exist.
System Action: None
Administrator Action: This error only occurs if the **dasadmin cancel** command was issued with an incorrect request ID.

PVRS0307   **AML retry attempts exceeded**

Problem Description: Number of retries was exceeded.
System Action: None
Administrator Action: View the AMU AMS Log window to determine the problems.

PVRS0308   **AML AML requested volser is not mounted**

Problem Description: A request was sent to dismount an unmounted volume.
System Action: None
Administrator Action: View the AMU AMS Log window for additional information.

PVRS0309   **AML requested volser is in use**

Problem Description: The requested volume is in use.
System Action: None
Administrator Action: Monitor logs to understand why the volume is in use.

PVRS0310   **AML no space available to add range**

Problem Description: DAS configuration cannot add a new volser range.
System Action: None
Administrator Action: Reconfigure the DAS server configuration file as necessary.

PVRS0311   **AML range or object was not found**

Problem Description: The requested resource is not configured or available in the archive.
System Action: If the `/var/hpss/etc/AML_InsertPort.conf` or `/var/etc/hpss/etc/AML_EjectPort.conf` file is modified, then AML PVR must be recycled so device_Init function can pick up the new port assignments.
Administrator Action: Verify that the resource is defined in the DAS server configuration file and the archive is configured accordingly.

PVRS0312   **AML request was cancelled by aci_cancel()**

Problem Description: A previously issued request was cancelled by a **dasadmin cancel** or shutdowns command.
System Action: None
Administrator Action: None

PVRS0313   **AML internal DAS error**

Problem Description: DAS server component encountered an internal error and cannot continue.
System Action: None
Administrator Action: Check the AMU AMS Log window for additional information. If necessary, correct the errors and restart the DAS server.

PVRS0314   **AML internal ACI error**

Problem Description: ACI component encountered an unrecoverable error.
System Action: None
Administrator Action: View the HPSS log to determine the error, since the error probably originated from the AML PVR itself.

PVRS0315   **AML for a query more data are available**

Problem Description: Unused
System Action: Unused
Administrator Action: Unused

PVRS0316   **AML things don't match together**

Problem Description: Unused
System Action: Unused
Administrator Action: Unused

PVRS0317   **AML volser is still in another pool**

Problem Description: Volume is already defined in another scratch pool.
System Action: None
Administrator Action: Specify the correct pool name, or undefine the volume and redefine it to the correct pool.

PVRS0318   **AML drive in cleaning**

Problem Description: PVR requested a drive is currently being cleaned.
System Action: None
Administrator Action: Wait until the drive clean operation is completed.

PVRS0319   **AML The aci request timed out**

Problem Description: PVR call to DAS/ACI was not returned after 10 minutes (default).
System Action: None
Administrator Action: Examine the AMU AMS Log window to determine the timeout errors.

PVRS0320   **AML the robot has a problem with handling the device**

Problem Description: (This error code is not explained anywhere in the EMASS AML documents).
System Action: None
Administrator Action: Examine the AMU AMS Log window for more information.

PVRS0321   **AML Internal Errors**

Problem Description: AML returned an unknown error to the PVR.
System Action: None
Administrator Action: Examine the HPSS log file and the AMU AMS Log window to determine the errors.

PVRS0322   **Cannot create pipe for interprocess communication**

Problem Description: AML wasn't able to create a pipe for interprocess communication.
System Action: PVR can't continue.
Administrator Action: Examine the AMU AMS Log window for communication errors. Examine HPSS error logs for supporting error logs. Check if the system file table is full; check if the process exceeded the limit for open files.

PVRS0323   **Cannot fork() a process**

Problem Description: PVR was unable to make the 'fork' system call.
System Action: PVR can't continue request.
Administrator Action: Examine HPSS error logs for supporting error logs. Examine system logs. Check system resources: the system or user may be unable to create another process due to resources or system- or user-imposed limits.

PVRS0324   **Cannot write to pipe**

Problem Description: PVR was unable to make the 'write' system call to a pipe.
System Action: PVR can't continue request.
Administrator Action: Examine the AMU AMS Log window for communication errors. Examine HPSS error logs for supporting error logs. Check system resources.

PVRS0325   **Cannot read from pipe**

Problem Description: PVR was unable to make the 'read' system call to a pipe.
System Action: PVR can't continue request.
Administrator Action: Examine the AMU AMS Log window for communication errors. Examine HPSS error logs for supporting error logs. Check system resources.

PVRS0326   **Cannot query AML database**

Problem Description: AML PVR cannot query the cartridge.
System Action: PVR can't continue request.
Administrator Action: Check if the cartridge is already in a drive or whether or not it exists.

PVRS0327   **Cannot read AML Eject port config file**

Problem Description: AML PVR is unable to process the configuration file. The error log will report which symbol it expected at which line.
System Action: PVR will continue to the next line of the configuration file.
Administrator Action: Verify validity of the configuration file.

PVRS0328   **AML Eject port is full**

Problem Description: AML PVR Eject port is full.
System Action: None
Administrator Action: Clear the eject port.

PVRS0329   **Cannot waitpid on child process**

Problem Description: PVR was unable to make the 'waitpid' system call.
System Action: PVR abandons wait.
Administrator Action: Examine HPSS error logs for supporting error logs. Examine system logs. Check system resources.

PVRS0330   **Entering pvr_CheckIn**

Problem Description: A trace message indicating the PVR is entering the specified function.
System Action: None
Administrator Action: None; informational.

PVRS0331   **Exiting pvr_CheckIn**

Problem Description: A trace message indicating the PVR is exiting the specified function.
System Action: None
Administrator Action: None; informational.

PVRS0332   **Entering pvr_CheckOut**

Problem Description: A trace message indicating the PVR is entering the specified function.
System Action: None
Administrator Action: None; informational.

PVRS0333   **Exiting pvr_CheckOut**

Problem Description: A trace message indicating the PVR is exiting the specified function.
System Action: None
Administrator Action: None; informational.

PVRS0334   **Entering pvr_ListPendingCheckIn**

Problem Description: A trace message indicating the PVR is entering the specified function.
System Action: None
Administrator Action: None; informational.

PVRS0335   **Exiting pvr_ListPendingCheckIn**

Problem Description: A trace message indicating the PVR is exiting the specified function.
System Action: None
Administrator Action: None; informational.

PVRS0336   **Entering pvr_CancelPendingCheckIn**

Problem Description: A trace message indicating the PVR is entering the specified function.
System Action: None
Administrator Action: None; informational.

PVRS0337   **Exiting pvr_CancelPendingCheckIn**

Problem Description: A trace message indicating the PVR is exiting the specified function.
System Action: None
Administrator Action: None; informational.

PVRS0338   **Checking out cartridge**

Problem Description: PVR is logging metadata associated with a cartridge being checked out.
System Action: None
Administrator Action: None; informational.

PVRS0339   **The PVR was asked to check out a cartridge that had already been removed from the robot**

Problem Description: Unused
System Action: Unused
Administrator Action: Unused

PVRS0340   **Reissuing check in request that was pending when PVR was terminated**

Problem Description: This cartridge has a check in pending. The PVR will reissue the check in request.
System Action: PVR will reissue the check in request.
Administrator Action: None; informational.

PVRS0341   **Reissuing check out request that was pending when PVR was terminated**

Problem Description: This cartridge has a check out pending. The PVR will reissue the check out request.
System Action: PVR will reissue the check out request.
Administrator Action: None; informational.

PVRS0344   **Failed to initialize check in queue**

Problem Description: Failed to start a thread to handle the check in requests. This problem occurs during PVR initialization phase. It only happens on the PVR that supports Shelf Tape feature. The problem is caused by system can not allocate resources for this PVR process.
System Action: The PVR process will not start.
Administrator Action: Terminate the nonessential processes to free up resources and restart the PVR process.

PVRS0345   **Cartridge has not been checked in**

Problem Description: If a referenced file is on a shelved tape, the request will show up in the *Tape Check-in Requests* window. After a configured time period, if the tape has not been checked back into the library, this minor warning message will be displayed in the *Alarms and Events* window.
System Action: Periodically prints out minor error message in the *Alarms and Events* window.
Administrator Action: Retrieve the tape from the offline shelf and put back into the library.

PVRS0346   **Checking out cartridge, need to be unloaded**

Problem Description: Whenever a tape is checked out from a tape library, this message displayed in the *Alarms and Events* window to remind the system administrator to remove the tape from the tape library's I/O port.
System Action: None
Administrator Action: Remove the tape from the tape library's I/O port.

PVRS0350   **Eject Request Timed Out**

Problem Description: A eject request has timed out. The library may not have ejected the cartridge or the ejected response may have been lost.
System Action: Error returned.
Administrator Action: Investigate the status of the library and the cartridge.

PVRS0351   **Metadata Lookup Call for drive info Failed**

Problem Description: A PVL drive metadata lookup call failed.
System Action: Drive is eliminated from the available pool.
Administrator Action: Investigate the metadata server status.

PVRS0352   **No drives in PVR available for mount, skipping pending mount on startup**

Problem Description: There is not a drive available (correct type and unlocked) to service a pending mount on PVR restart.
System Action: Error generated.
Administrator Action: Investigate the status of drives. Investigate the metadata server status.

PVRS0353   **NO CAPs were found with priority set. HPSS EJECTS will fail. See STK PVR Appendix for information on setting CAP priority**

Problem Description: If a HPSS eject is attempted, it will fail because a priority has not been assigned to any CAPs.
System Action: HPSS export will fail if export attempted.
Administrator Action: Assign a priority to CAP before attempting an HPSS export.

PVRS0354   **CAP priority is NOT set. This CAP will NOT be used for HPSS Ejects(See STK PVR Appendix for information on setting CAP priority)**

Problem Description: The reported CAP will not be used for HPSS Exports.
System Action: HPSS will use a CAP with priority assigned.
Administrator Action: Assign priority to CAP if it is intended for HPSS export use.

PVRS0355   **STK Robot eject failed due to CAP in use or library busy. Check CAP priority, it must be set for HPSS Eject to succeed(See STK PVR Appendix for information on setting CAP priority)**

Problem Description: The eject failed due to CAP full or library busy.
System Action: Eject will be retried.
Administrator Action: Unload CAP (if full), investigate status of library.

PVRS0356   **STK volume ejects are done asynchronously. The volume(s) will be physically moved to a CAP and should be removed.**

Problem Description: The STK PVR is (or will be) ejecting one or more volumes. The volumes will be physically moved to a CAP and should be removed.
System Action: None
Administrator Action: Watch for and then remove volumes from CAP.

PVRS0357   **ACSLM has lost contact with CSI/SSI. Check for ssi and mini_el running on your PVR associated platform and check your ACSLS platform servers(csi)**

Problem Description: Communication error.
System Action: Error returned.
Administrator Action: Investigate Communication pathway, ACSLS servers.

PVRS0358   **The query volume call reports a volume in drive but the acs_dismount call reports no volume in drive. Potential hardware error. Manually inspect library for cartridge location.**

Problem Description: The query volume call reports a volume in drive but the acs_dismount call reports no volume in drive.
System Action: Potential hardware error.
Administrator Action: Manually inspect library for cartridge location.

PVRS0359   **An Invalid ACSLS Packet Version value(2, 3 or 4 is valid) found in PVR Server Configuration. Using default value(3).**

Problem Description: Configuration error.
System Action: PVR will use default value of "3".
Administrator Action: Correct server metadata value.

PVRS0360   **The number of Shelf cartridges in this PVR:**

Problem Description: PVR is reporting the number of shelf cartridges currently in this PVR.
System Action: None
Administrator Action: None; informational.

PVRS0362   **Exporting cartridge**

Problem Description: The PVR is exporting a cartridge and logging specifics about that cartridge.
System Action: None; informational.
Administrator Action: None

PVRS0363   **An executable PVL was NOT located in General Configuration Metadata file.**

Problem Description: Unused
System Action: Unused
Administrator Action: Unused

PVRS0364   **A Pending Mount has exceeded its Retry Time Limit. Mount Aborted.**

Problem Description: Pending mount request has exceeded retry time limit.
System Action: Mount request fails.
Administrator Action: Investigate status of library. Cancel deferred dismount job if deferred drives are the correct media type.

PVRS0375   **An ACSLM spawned process failure.**

Problem Description: The ACSLM was not able to spawn the request of the ACSLM received a process failure from a spawned process.
System Action: The operation will pend.
Administrator Action: Investigate STK infrastructure (ssi and mini_el on client, ACSLS processes on the ACSLS server). If available, use a non-HPSS server utility to exercise robot.

PVRS0376   **Request unsuccessful due to failure of the ACS library component.**

Problem Description: A request requiring ACS library resources failed due to the failure of the ACS library component.
System Action: Error handled as hardware originated. A mount operation will pend.
Administrator Action: Investigate STK infrastructure (ssi and mini_el on client, ACSLS processes on the ACSLS server). If available, use a non-HPSS server utility to exercise robot.

PVRS0377   **PVR detected multiple consecutive mount errors, Locking drive.**

Problem Description: The PVR will "lock" a drive after the configuration defined number of drive errors (or default value of 5) have occurred. Consecutive error by different cartridges are required.
System Action: The drive will be made unavailable.
Administrator Action: Investigate specified drive.

PVRS0378   **Specified drive was not found in PVRs Drive Table.**

Problem Description: The specified drive is not in the drive table.
System Action: The drive error count is not incremented.
Administrator Action: Contact HPSS support. This error can result in a drive which should be automatically disabled remaining available. Check for any drive with consecutive errors and manually "lock".

PVRS0379   **STK Request:**

Problem Description: Debugging message that logs details about a request sent to the ACSAPI.
System Action: None; informational.
Administrator Action: None; informational.

PVRS0380   **STK Response:**

Problem Description: Debugging message that logs details about a response from the ACSAPI.
System Action: None; informational.
Administrator Action: If the message indicates that an error occurred, examine error codes in the HPSS logs that have the same PID to determine the specific cause of the failure.

PVRS0381   **Cartridge reported IN_TRANSIT**

Problem Description: Specified tape cartridge is in transit (in-between a home location and a tape drive (or pass thru port)).
System Action: The operation will pend for 5 minutes. This message will be output periodically.
Administrator Action: Investigate the cause of the failure. The cartridge may be stuck in drive or pass thru port.

PVRS0382   **Dismount failed due to STK IN_TRANSIT status, Check via ACSLS interface**

Problem Description: A cartridge has remained in transit state for over 5 minutes.
System Action: The cartridge has remained in transit state for over 5 minutes. The operation will error out.
Administrator Action: Investigate the cause of the failure. The cartridge may be stuck in drive or pass thru port.

PVRS0383   **Cartridge IN_TRANSIT too long, Intervention necessary**

Problem Description: Specified tape cartridge is in transit (in-between a home location and a tape drive (or pass thru port)).
System Action: The cartridge has been in transit over 2 minutes, PVR operational state set to MAJOR.
Administrator Action: Investigate the cause of the failure. The cartridge may be stuck in drive or pass thru port.

PVRS0384   **Metadata read call successful but record count is zero**

Problem Description: PVR is looking for the PVL server in metadata and cannot find it.
System Action: PVR will terminate.
Administrator Action: Check metadata configuration for executable PVL.

PVRS0385   **An executable PVL was NOT found**

Problem Description: Executable PVL metadata configuration was not detected.
System Action: PVR will terminate.
Administrator Action: Check metadata configuration for executable PVL.

PVRS0386   **A NULL Server Id detected; server record invalid:**

Problem Description: An invalid (nil) UUID was detected in PVL's metadata configuration.
System Action: PVR will terminate.
Administrator Action: Check PVL's UUID in metadata.

PVRS0387   **Metadata Select call failed**

Problem Description: A metadata select call failed.
System Action: A error is returned to calling routine and the operation will fail.
Administrator Action: Check metadata server status. If the same cartridge fails, check the cartridge outside of HPSS via metadata server call.

PVRS0388   **Metadata Read Record call failed**

Problem Description: A metadata read record call failed.
System Action: The error will cause those cartridges to remain dismounted.
Administrator Action: Check Drive metadata for correct subtype values. Cancel any PVL mount pending jobs for the affected cartridges.

PVRS0389   **Unknown drive subtype detected in metadata**

Problem Description: PVR is generating a drive list and was given an unexpected or bad drive subtype.
System Action: PVR won't be able find a correct drive type to service this cartridge.
Administrator Action: Check Drive metadata for correct subtype values. Cancel any PVL mount pending jobs for the affected cartridges.

PVRS0390   **Exceeded number of drives allowed for a single PVR**

Problem Description: Exceeded number of drives allowed in a single PVR.
System Action: Any drives exceeding max will not be used.
Administrator Action: Inform support, the maximum drives can be increased if lower level library software supports it.

PVRS0391   **mm_CreateAutoTranHandle call failed:**

Problem Description: Transaction library call failed.
System Action: System-Action: Cartridges in mount pending state will not be processed.
Administrator Action: Cancel any PVL mount pending jobs for the affected cartridges.

PVRS0392   **An executable SSM was NOT found**

Problem Description: PVR was unable to find an executable Storage System Manager (SSM) in metadata.
System Action: PVR will continue in a degraded mode since it will be unable to inform the SSM of various events and conditions.
Administrator Action: Check metadata configuration for executable SSM.

PVRS0393   **Metadata read call successful but record count is zero**

Problem Description: PVR is looking for the Storage System Manager (SSM) server in metadata and cannot find it.
System Action: PVR will continue in a degraded mode since it will be unable to inform the SSM of various events and conditions.
Administrator Action: Check metadata configuration for executable SSM.

PVRS0394   **SubRoutine Return:**

Problem Description: PVR called a SubRoutine that returned an error. PVR will report the SubRoutine that returned an error, the error code and return this error to the caller.
System Action: PVR will attempt to continue wherever it can.
Administrator Action: Check HPSS error logs. These logs are generally from the metadata library; if so, check logs for potential database problems.

PVRS0395   **Metadata access failure, cartridges in pending state will not be processed**

Problem Description: PVR is unable to get a transaction handle to the metadata infrastructure while processing pending cartridges.
System Action: PVR can't process pending cartridges.
Administrator Action: Check HPSS error logs. Check database configuration and logs.

PVRS0396 **Transaction infrastructure failed and issued tran_ServerAbort**

Problem Description: HPSS system transaction macro required infrastructure failure.
System Action: PVR terminates.
Administrator Action: Contact HPSS support.

PVRS0397 **Transaction infrastructure received an error**

Problem Description: Transaction macro detected error.
System Action: Error logged.
Administrator Action: Monitor server. If errors continue, check metadata server.

PVRS0398 **Failure opening SCSI library command device**

Problem Description: HPSS was unable to open the device specified for the SCSI PVR.
System Action: Error logged. Until device is opened, further actions with the library will fail.
Administrator Action: Verify the Command Device name in the SCSI PVR configuration or PVR_SCSI_CMD_ENV environment variable, if used. Investigate the status of the library.

PVRS0399 **Failure querying cartridge element**

Problem Description: Robotics failed to locate a requested cartridge.
System Action: Mount or dismount will fail.
Administrator Action: Investigate robotics for lost cartridge. Use robot specific utilities outside of HPSS to query cartridge location.

PVRS0400 **Failure issuing SCSI mode sense command**

Problem Description: A command requesting sense (error) data failed.
System Action: Error logged.
Administrator Action: Investigate status of library.

PVRS0401   **Failure issuing SCSI read element status command**

Problem Description: A command requesting the status of an element in the library failed.
System Action: Error logged. Action involving element will abort.
Administrator Action: Investigate status of library and element.

PVRS0402   **Failure issuing SCSI move medium command**

Problem Description: A command to move a cartridge failed.
System Action: Error logged. Mount, dismount, or eject operation will abort.
Administrator Action: Investigate status of library. and cartridge.

PVRS0403   **SCSI library command device is now accessible**

Problem Description: A device previously marked as down due to error has become usable again.
System Action: The PVR will begin using the repaired device.
Administrator Action: None

PVRS0404   **Failure moving cartridge**

Problem Description: A mount, dismount, or eject operation failed.
System Action: Error logged. Mount, dismount, or eject operation will abort.
Administrator Action: Investigate status of library and cartridge.

PVRS0405   **Failure getting element status**

Problem Description: An operation to get the status of an element in the library failed.
System Action: Error logged. Action involving element will abort.
Administrator Action: Investigate status of library and element.

PVRS0406   **Failure getting library configuration**

Problem Description: An operation to get an inventory of the library failed.
System Action: Error logged.
Administrator Action: Investigate status of library.

PVRS0407   **Failure parsing element status**

Problem Description: Error in parsing the data returned from a get element status command.
System Action: Error logged. Status of element will remain undetermined.
Administrator Action: Investigate status of library and element.

PVRS0408   **SCSI device is not a medium changer**

Problem Description: The specified command device name is not a medium changer.
System Action: Error logged. Further actions with the specified command device name will fail.
Administrator Action: Verify the Command Device name in the SCSI PVR configuration or PVR_SCSI_CMD_ENV environment variable, if used. Investigate the status of the library.

PVRS0409   **Unsupported SCSI version**

Problem Description: The SCSI version of the specified library is not supported by HPSS.
System Action: Error logged. Further actions with the library will fail.
Administrator Action: Contact HPSS support. Medium changer is not supported by HPSS.

PVRS0410   **Unsupported medium changer**

Problem Description: The configured medium changer is not supported by HPSS.
System Action: Error logged. Further actions with the specified library will fail.
Administrator Action: Contact HPSS support. Medium changer is not supported by HPSS.

PVRS0411   **Eject failed because IO port is full. Please empty IO port.**

Problem Description: I/O station is full.
System Action: Future eject operations will be queued until I/O station is empty.
Administrator Action: Empty I/O station.

PVRS0412   **No drives exist in system**

Problem Description: No drives exist.
System Action: PVR will continue to run; but it can't do much without any drives.
Administrator Action: Add HPSS drives to the HPSS system.

PVRS0413   **PVR Shutdown pends while calls Active**

Problem Description: PVR sends out this log every 10 seconds or so noting that there is Storage System Manager (SSM) activity outstanding preventing the PVR from shutting down.
System Action: PVR can't shut down until SSM activity is complete.
Administrator Action: Verify that the SSM is running and that the PVR can communicate with it.

PVRS0414   **PVR Cannot Dismount to Home Location**

Problem Description: PVR is unable to dismount the cartridge to the home location.
System Action: PVR will attempt to move the cartridge to the first available slot, but will retain original home location in metadata to be retried.
Administrator Action: Determine if there is another cartridge in the error cartridge's home location. If so, determine the offending cartridge's home location (if any), and move it there. Then move the error cartridge to its home location.

PVRS0415   **PVR error in pthread_cond_timedwait**

Problem Description: A call to pthread_cond_timedwait has failed. Depending upon the error code this may be a debug or minor error. Requests use pthread_cond_timedwait to wait for resources to become available.
System Action: The attempt to obtain resources will fail and be retried.
Administrator Action: None

PVRS0416   **PVR cannot reserve a device**

Problem Description: No device was available for the request. The request will fail.
System Action: The request will be retried.
Administrator Action: The administrator should determine which SMC devices are down and perform problem determination to bring them back online.

PVRS0417   **No device is available**

Problem Description: No command device was available for the request. The request will fail.
System Action: The request will fail.
Administrator Action: The administrator should determine which SMC devices are down and perform problem determination to bring them back online.

PVRS0418   **Command path repaired:**

Problem Description: A command device which was previously down was successfully reopened.
System Action: The repaired command device will be used.
Administrator Action: None

PVRS0419   **PVR cannot segregate by zone**

Problem Description: The PVR cannot favor mounts in like-zoned cartridges and drives.
System Action: The request will continue, but mount performance may be degraded.
Administrator Action: Contact HPSS support.

PVRS0420   **PVR cannot segregate by PVR Context**

Problem Description: The SCSI PVR encountered an error determining which library a drive was to weight mounting preferences.
System Action: Operations continue, but cartridges may be mounted inefficiently.
Administrator Action: If the problem persists, contact HPSS Support.

PVRS0421   **No import/export elements were found**

Problem Description: The PVR is not reporting any import/export slots.
System Action: The PVR will shut down.
Administrator Action: Contact HPSS support.

PVRS0422   **PVR internal map cannot be initialized**

Problem Description: The PVR cannot initialize or reinitialize its cached map of the library contents.
System Action: The request will fail; the map initialization will be retried.
Administrator Action: If the problem persists, contact HPSS support.

PVRS0423   **PVR indicates that more drives are configured than available:**

Problem Description: The PVR has discovered that more drives are configured in HPSS than are available within the library.
System Action: The PVR will issue this log, but operations will continue as normal.
Administrator Action: If this is intended (and the unavailable drives have been locked) then no action is necessary. If this is unintended then the administrator should determine which drives are unavailable by using **device_scan** or an analogous tool, and perform problem determination at the library and connectivity layers until the devices appear.

PVRS0424   **Drive indicates that it does not support DVCID - this drive will not be usable**

Problem Description: The drive does not support the DVCID bit. This may be due to a firmware or hardware issue.
System Action: The PVR will not use the drive as it cannot identify the HPSS drive associated with it via the Drive Address field.
Administrator Action: If this behavior is unexpected, contact tape library support.

PVRS0425   **Library string configuration is invalid**

Problem Description: The PVR has determined that the library complex configuration is invalid.
System Action: The PVR will fail to initialize.
Administrator Action: Validate that each library serial number provided to the library is unique - that there are no duplicates.

PVRS0426   **Could not get zone for cartridge**

Problem Description: The PVR was unable to get the zone for a cartridge.
System Action: The request will continue. Mount performance may be somewhat degraded for this request.
Administrator Action: If the problem persists, contact HPSS support.

PVRS0427   **Could not wake device wait list entry**

Problem Description: The PVR was unable to wake a request waiting on a command device.
System Action: The condition is logged. The waiter will wake itself up after 30 seconds and continue.
Administrator Action: Contact HPSS support.

PVRS0428   **Too many failures during retry**

Problem Description: The PVR retried an operation multiple times due to command device failures, but was never able to complete the request with any command device.
System Action: The current request will fail.
Administrator Action: Perform problem determination on impacted command devices. If the problem persists, contact HPSS support.

PVRS0430   **PVR indicates that there are no empty storage slots; the logical library is full**

Problem Description: The PVR has detected that there are no empty storage slots.
System Action: Certain activities such as dismounts or imports may begin to fail.
Administrator Action: Shelf tapes and verify configuration of PVR Cartridge Threshold is accurate and reporting properly.

PVRS0433   **Unable to save PVR library state**

Problem Description: This message is currently unused.
System Action: None
Administrator Action: None

PVRS0434   **Unable to update the PVR port map**

Problem Description: The SCSI PVR cannot update the inventory of library door slots (import/export slots).
System Action: Import or export operations will fail.
Administrator Action: If the problem persists, contact HPSS Support.

PVRS0437   **Imported cartridge found in a non-import element slot**

Problem Description: Unused
System Action: Unused
Administrator Action: Unused

PVRS0443   **Unable to load a saved PVR library state**

Problem Description: This message is currently unused.
System Action: None
Administrator Action: None

PVRS0445   **Previous element error was successfully retried**

Problem Description: The PVR is reporting that the previously reported error getting element status was retried successfully.
System Action: The request continues.
Administrator Action: None

PVRS0446   **Could not select a drive by score**

Problem Description: The PVR is reporting that it could not select a drive from the available drive list.
System Action: The request fails. It will be retried at a later time.
Administrator Action: If the problem persists, contact HPSS support.

PVRS0447   **PVR cannot segregate by drive reservation**

Problem Description: The PVR is was unable to take drive proximity (local vs. remote library) into account when selecting the drive.
System Action: The request continues. The mount may fail if the drive is full or reserved by another request.
Administrator Action: If the problem is persistent, contact HPSS support.

PVRS0448   **Cursor manager initialization failed**

Problem Description: The PVR is was unable to initialize the cursor manager library.
System Action: None. No interfaces use this interface any longer.
Administrator Action: None

PVRS0449   **Cursor manager insert failed**

Problem Description: The PVR is was unable to cache an ongoing transaction for listing PVR cartridges.
System Action: None. No interfaces use this interface any longer.
Administrator Action: None

PVRS0450   **Cursor manager retrieval failed**

Problem Description: The PVR was unable to retrieve a cached transaction for listing PVR cartridges.
System Action: None. No interfaces use this interface any longer.
Administrator Action: None

PVRS0451   **Library reports a new device; new device may be unusable until the PVR is restarted**

Problem Description: The PVR has detected that a new drive was added while it was running.
System Action: None; informational only.
Administrator Action: The administrator may need to restart the PVR in order to begin using the new drive. In cases where an existing drive was removed and placed back in the library, the SCSI PVR may pick it up automatically and begin using it again.

PVRS0452   **Failure issuing SCSI inquiry command**

Problem Description: The PVR failed to issue a library inquiry command.
System Action: Depending upon the inquiry being issued, the SCSI PVR may fail to start or may start up with some drives being unusable.
Administrator Action: The administrator may need to restart the PVR. A SCSI status and sense string will appear with this message which can be used along with the library vendor's SCSI reference to assist in troubleshooting. If the issue persists contact HPSS support.

PVRS0453 **Failure issuing SCSI unknown command**

Problem Description: The PVR failed to issue a command from an atypical command type.
System Action: The request being issued will fail; the system will log a SCSI status and sense string for the failed command.
Administrator Action: The administrator may need to restart the PVR. If the problem persists, contact HPSS support with the SCSI status and sense string as well as the log message for support.

PVRS0454 **Failure locating cache slot**

Problem Description: The PVR is unable to locate a specified library cache location. This may be the result of physical changes to the library made while the SCSI PVR was running.
System Action: The dismount may fail because the home location cannot be determined. If this occurs after the mount then the PVR will
Administrator Action: Recycle the PVR. If the problem can be traced back to a change in the library then no further action is required. If the problem is persistent, contact HPSS support.

PVRS0455 **Failure querying drive home location**

Problem Description: The PVR is unable to locate the home location for the cartridge. This may indicate a software or firmware issue. It can also be due to an intermittent connectivity issue with the library.
System Action: The dismount may fail because the home location cannot be determined. If this occurs after the mount then the PVR will continue to run in a degraded mode.
Administrator Action: Recycle the PVR. If the problem can be traced back to a change in the library then no further action is

PVRS0456 **Entering pvr_RetrieveInventory**

Problem Description: A trace message indicating the PVR is entering the specified function.
System Action: None
Administrator Action: None; informational.

PVRS0457   **Exiting pvr_RetrieveInventory**

Problem Description: A trace message indicating the PVR is exiting the specified function.
System Action: None
Administrator Action: None; informational.

PVRS0458   **PVR is reinitializing:**

Problem Description: A message indicating that the PVR is reinitializing.
System Action: None
Administrator Action: None; informational.

PVRS0459   **PVR mount has been cancelled**

Problem Description: The request to move the volume has been aborted.
System Action: None
Administrator Action: None

PVRS0460   **PVR device marked down due to error:**

Problem Description: The PVR has encountered an error using a library control path device and has marked the device as down.
System Action: The PVR will mark the device as DOWN and will avoid using it until it can be reopened successfully.
Administrator Action: If persistent device errors are occuring, or all devices have gone down, check for library, network, or host issues that could be causing such failures.

PVRS0461   **PVR cannot segregate by avoid flag**

Problem Description: The SCSI PVR encountered an error modifying the drive priority based on the PVL avoidance flags
System Action: Operations continue, but cartridges may be mounted inefficiently.
Administrator Action: If the problem persists, contact HPSS Support.

PVRS0462   **A previous iterator has already been set for the list called: %s. Halting previous iterator in %s before beginning new iteration.**

Problem Description: Calling code already began iterating across this hpss_ilist and did not finish the iteration before trying to start another iteration.
System Action: None
Administrator Action: None

PVRS0463   **Error adding a node to an hpss_ilist_t called %s. The hpss_ilist_t is already too large.**

Problem Description: An attempt to add a node to a list via hpss_ilist_append, hpss_ilist_insert, hpss_ilist_prepend, or hpss_ilist_insert_index failed due to the list's size going past INT32_MAX.
System Action: None
Administrator Action: None

Chapter 12. RAIT series (RAIT Engine error messages)

RAIT0000   **IOD is missing request specific info**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0001   **IOD has an invalid request specific subfunction**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0002   **IOD has an invalid request specific infotype**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0003   **IOD has an invalid ratio of parity to data blocks**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0004   **IOD has an invalid stripe width**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0005   **IOD has an invalid engine count**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0006   **IOD has an invalid blocksize: %u**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0007   **IOD has an invalid function type: %d**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0008   **IOD is missing client segments**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0009   **IOD has an invalid address type for RAIT storage class: %d**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0010   **IOD has an invalid stripe blocksize**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0011   **IOD has an invalid stripe width**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0012   **IOD has an invalid stripe address type**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0013   **IOD has an invalid stripe address length**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0014   **IOD has an invalid address type: %d**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0015   **IOD has an invalid source description length**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0016   **IOD has an invalid sink description length**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0017   **Could not verify callers authorization**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0018   **Caller not authorized**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0019   **RAIT engine (Parent) received signal: %d**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0020   **RAIT engine (Admin) received signal: %d**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0021   **RAIT engine (TCP) received signal: %d**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0022   **IOD has an invalid tape section**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0023   **IOD has an invalid tape section offset**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0024   **IOD has an invalid flags: %d**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0025   **IOD has an invalid address type for non-RAIT storage class: %d**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0026   **IOD initial source offset past start of transfer. Offset = %lu**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0027   **XDR error on remote interface.**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0028   **Failed to flush the remote interface: %s**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0029   **%s**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0030   **Received %lu bytes in %u seconds. %s**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0031   **Sent %lu bytes in %u seconds. %s**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0032   **IOD has an invalid engine index**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0033   **IOD initial sink offset past start of transfer. Offset = %lu**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0034   **IOD final source offset before end of transfer. Offset = %lu**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0035   **IOD final sink offset before end of transfer. Offset = %lu**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0036   **IOD source description is not contiguous**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0037   **IOD sink description is not contiguous**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0038   **IOD source count (%PRIu64) and sink stripe count (%PRIu64) do not match**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0039   **IOD RAIT transfer description does not end on a stripe boundry**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0040   **IOD contains a DeliveryOffset for a RAIT destination**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0041   **IOD's DeliveryOffset is longer than a stripe**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0042   **IOD's client segments do not have contiguous offsets**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0043   **IOD's client segment RAIT offsets overlap**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0044   **Client segments begin before the client transfer description**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0045   **Client segments end after the client transfer description**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0046   **Source transfer descriptions are not contiguous**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0047   **Sink transfer descriptions are not contiguous**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0048   **Illegal zero length stripe width.**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0049   **Invalid PV offset Info IOD**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0050   **Failed to post event to transport event queue**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0051   **Failed to resume transport based on Info IOD**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0052   **Failed to find matching request for Info IOD**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0053   **Error while reading from socket: %s**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0054   **Error while writing to socket: %s**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0055   **poll() Failed: %s**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0056   **Error while receiving pdata header. pdata_recv_hdr(): %s**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0057   **Error while sending pdata header. pdata_send_hdr(): %s**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT0058   **Error occurred while trying to connect to address. %s**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT1000   **Failed to get socket's peer name: %s**

Problem Description: Cannot obtain the address of the socket which connects to a remote process. This error may be seen if a RAIT Handler process cannot verify a connection to its RAIT Admin Process.
System Action: Log this error with a CRITICAL message.
Administrator Action: Determine underlying cause of the error - a preceding message will describe the specific failure.

RAIT1001   **traniod_mover_init() failed**

Problem Description: Failed to initialize a connection to the associated RAIT Admin process, because the security context could not be initialized.
System Action: Log this error with a CRITICAL message.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1002   **traniod_validate_context() failed from host %s**

Problem Description: Failed to validate the security context of the associated RAIT Admin process.
System Action: Log this error with a CRITICAL message.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1003   **An error occurred while encoding parity**

Problem Description: Could not create parity data from the incoming data.
System Action: Log this error with a MAJOR message.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1004   **Too many blocks missing to continue. Have %d, need %d**

Problem Description: Not enough blocks are available in the RAIT Buffer for reading or writing data.
System Action: Log this error with a MAJOR message.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1005   **Cannot rebuild data blocks. Tried every combination.**

Problem Description: Unable to rebuild data from the parity blocks.
System Action: Log this error with a MAJOR message.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1006   **Error occurred while launching the TCP process: %s**

Problem Description: Problems establishing communication, a security context, or both, after launching a RAIT Engine process from a RAIT Admin process.
System Action: Log this error with a CRITICAL message and set the RAIT Engine Server operational state to MAJOR.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1007   **Failed to create a new process group: %s**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT1008   **Failed to sync config with remote process**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT1009   **Failed to sync with remote process**

Problem Description: A RAIT process (that is, RAIT Admin or RAIT Engine) could not communicate with its counterpart.
System Action: Log this error with a CRITICAL message and set the RAIT Engine Server operational state to MAJOR.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1010   **Error occurred while reading the engine's configuration: %s**

Problem Description: Problem reading the configuration database.
System Action: Log this error with a CRITICAL message.
Administrator Action: Verify that the configuration database is accessible.

RAIT1011   **Error resolving execute hostname %s: %s**

Problem Description: Could not find the IP address of the host where the RAIT Admin process is to run.
System Action: Log this error with a CRITICAL message and set the RAIT Engine Server operational state to MAJOR.
Administrator Action: Check the value of the RAIT Execute Hostname in the RAIT Server's configuration (via SSM) and make sure that it is a valid host that is up and pingable. Verify that DNS or `/etc/hosts` can resolve the host name. If further help is needed, contact HPSS support.

RAIT1012   **Error resolving engine hostname %s: %s**

Problem Description: Could not find the IP address of the host where the RAIT Engine process is to run. This error occurs when determining if the RAIT Engine will be running remotely from the RAIT Admin process.
System Action: Log this error with a CRITICAL message and set the RAIT Engine Server operational state to MAJOR.
Administrator Action: Check the value of the RAIT Execute Hostname in the RAIT Server's configuration (via SSM) and make sure that it is a valid host that is up and pingable. Verify that DNS or `/etc/hosts` can resolve the host name. If further help is needed, contact HPSS support.

RAIT1013   **Received a pdata header with an illegal offset: %lu**

Problem Description: Found an invalid offset value in the pdata header that was sent from the client process.
System Action: Log this error with a MAJOR message.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1014   **Failed to open encryption key file: %s**

Problem Description: Failed to open the encryption key file while attempting to authenticate to the RAIT Admin process.
System Action: The RAIT Engine Process will not start. Log this error with a CRITICAL message.
Administrator Action: Make sure that the encryption key file exists in the correct directory and that permissions are set, so that the RAIT Engine process can access it. Otherwise, contact HPSS support.

RAIT1015   **Encryption key file has invalid format: error=%s.**

Problem Description: The encryption key file is in an invalid format. This error occurs while attempting to authenticate to the RAIT Admin process.
System Action: The RAIT Engine Process will not start. Log this error with a CRITICAL message.
Administrator Action: Regenerate the encryption key file.

RAIT1016   **Received a pdata header with an illegal length: %lu**

Problem Description: Found an invalid length value in the pdata header that was sent from the client process.
System Action: Log this error with a MAJOR message.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1017   **Transfer offset is smaller than starting offset**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT1018   **Error while sending an IOR with send_ior()**

Problem Description: Problems sending an IOR to the client.
System Action: Log this error with a MAJOR message.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1019   **Error while receiving an IOD with recv_iod()**

Problem Description: Problem reading the IOD on the socket connected to the storage (core) server.
System Action: Log this error with a CRITICAL message and set the RAIT Engine Server operational state to MAJOR.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1020   **Error occurred while trying to setup a listen socket: %s**

Problem Description: Failed in the process of setting up a local listening socket.
System Action: Log this error with a CRITICAL message.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1021   **Error occurred while trying to connect to a host. %s**

Problem Description: The RAIT Admin process could not connect to the host running the RAIT Engine process.
System Action: Log this error with a CRITICAL message.
Administrator Action: Check the network connectivity to the host running a remote RAIT Engine process. Otherwise, contact HPSS support.

RAIT1022   **Transfer offset is larger than ending offset**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT1023   **Unsupported ratio of data to parity blocks: %s**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT1024   **fcntl(%s) Failed: %s**

Problem Description: The system call fcntl() failed when attempting to set a socket as non-blocking.
System Action: Log this error with a WARNING message.
Administrator Action: Contact HPSS support if warning occurs two or three times per hour.

RAIT1025   **Failed to initialize the checksum context**

Problem Description: Could not initialize the structure used to encode/decode parity data.
System Action: Log this error with a MAJOR message.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1026   **Failed to initialize data block recovery**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT1027   **Failed to create the recovery mapping**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT1028   **Failed to recover missing data blocks**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT1029   **Data verification failed, errors detected.**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT1030   **Request for unavailable stripe**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT1031   **Open of %s failed: %s**

Problem Description: Could not open the system resource `/dev/zero`.
System Action: Log this error with a CRITICAL message and set the RAIT Engine Server operational state to MAJOR.
Administrator Action: Verify that `/dev/zero` exists, and that the RAIT process has permission to access it. See the reason specified for not being able to open `/dev/zero` in the message.

RAIT1032   **mmap of %lu bytes failed: %s**

Problem Description: The allocation of shared memory (via the system call mmap()) failed.
System Action: Log this error with a CRITICAL message and set the RAIT Engine Server operational state to MAJOR.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1033   **Failed to send mover protocol initiator message**

Problem Description: Could not send an initial message (or an initiator) to a tape Mover.
System Action: Log this error with a MAJOR message.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1034   **Failed to receive mover protocol initiator message**

Problem Description: Could not receive an initial message (or an initiator) from a tape Mover.
System Action: Log this error with a MAJOR message.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1035   **Failed to send mover protocol completion message**

Problem Description: Could not send a completion message to a tape Mover.
System Action: Log this error with a MAJOR message.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1036   **Failed to receive mover protocol completion message**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT1037   **Error occurred while trying to connect to address. %s**

Problem Description: Could not create a socket to a remote network address (that is, a client or tape Mover host).
System Action: Log this error with a CRITICAL message.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1038   **Invalid IOD received: error = %s**

Problem Description: User Client Interface generated an invalid or poorly formatted IOD and passed it to the RAIT Engine.
System Action: Log this error with a MAJOR message and set the RAIT Engine Server operational state to MAJOR.
Administrator Action: Contact the Client Interface support.

RAIT1039   **Error status received in mover protocol completion message**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT1040   **Failed to launch the admin RPC interface**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT1041   **Could not select ssm server metadata: %s**

Problem Description: Could not read the SSM Server description from the configuration database.
System Action: Log this error with a CRITICAL message and set the RAIT Engine Server operational state to MAJOR.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1042   **ssm_ServerNotify() failed**

Problem Description: RAIT Admin process failed to update the SSM Server with changes made by the RAIT Engine.
System Action: Log this error with a WARNING message and set the RAIT Engine Server operational state to MINOR.
Administrator Action: None

RAIT1043   **Memory Allocation Failed: %s**

Problem Description: Process could not allocate (or reallocate) memory. This may be a system resource problem.
System Action: Log this error with a CRITICAL message and set the RAIT Engine Server operational state to MAJOR.
Administrator Action: Determine and resolve cause of memory allocation error.

RAIT1044   **setsockopt(%s) Failed: %s**

Problem Description: Failed to set a socket option.
System Action: Log this error with a WARNING message.
Administrator Action: None

RAIT1045   **poll() Failed: %s**

Problem Description: The system call poll() failed when listening for requests to handle, or control data from a tape Mover when using a passive transport.
System Action: Log this error with a CRITICAL message if error occurred while listening for a request, or a MAJOR message if listening to a tape Mover.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1046   **pthread_create() Failed: %s**

Problem Description: Failed to create a thread.
System Action: Log this error with a MAJOR message and set the RAIT Engine Server operational state to MAJOR.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1047   **No free spaces available in request table**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT1048   **getsockname() failed: %s**

Problem Description: Failed to get the local address from a passive transport socket.
System Action: Log this error with a CRITICAL message.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1049   **accept() failed: %s**

Problem Description: The system call accept() failed when attempting to listen for new data connections when using a passive transport.
System Action: Log this error with a CRITICAL message.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1050   **Pdata header with wrong transfer ID. Expected: %lu Received: %lu**

Problem Description: Found an invalid transfer ID in the pdata header that was sent from the client process.
System Action: Log this error with a MAJOR message.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1051   **Error while receiving pdata header. pdata_recv_hdr(): %s**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT1052   **Error while sending pdata header. pdata_send_hdr(): %s**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT1053   **Error while reading from socket: %s**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT1054   **Error while writing to socket: %s**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT1055   **Failed to fork child process: %s**

Problem Description: If generated by the RAIT Admin process, this error indicates that a RAIT Engine process could not be started. If generated by a RAIT Engine process, a RAIT Handler process (for a RAIT Transfer request) could not be forked and started.
System Action: Log this error with a CRITICAL message if generated by the RAIT Admin process, or a MAJOR message if generated by the RAIT Engine process, and set the RAIT Engine Server operational state to MAJOR.
Administrator Action: Check the process limit of the machine that the erring process is running on. If the limit is exceeded, then increase (or otherwise fix this issue), and recycle the RAIT Engine Server. If the process limit is *not* the issue, contact HPSS support.

RAIT1056   **sigemptyset() failed: %s**

Problem Description: System call sigemptyset() failed when manipulating signals.
System Action: Log this error with a CRITICAL message and set the RAIT Engine Server operational state to MAJOR.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1057   **sigaddset(%s) failed: %s**

Problem Description: System call sigaddset() failed when manipulating signals.
System Action: Log this error with a CRITICAL message and set the RAIT Engine Server operational state to MAJOR.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1058   **sigaction(%s) failed: %s**

Problem Description: System call sigaction() failed when manipulating signals.
System Action: Log this error with a CRITICAL message and set the RAIT Engine Server operational state to MAJOR.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1059   **pthread_sigmask(%s) failed: %s**

Problem Description: System call pthread_sigmask() failed while blocking or unblocking a signal for a thread.
System Action: Log this error with a CRITICAL message and set the RAIT Engine Server operational state to MAJOR.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1060   **exec(%s) failed: %s**

Problem Description: The system call exec() failed when attempting to launch a RAIT Engine process from the RAIT Adm process.
System Action: Log this error with a CRITICAL message and set the RAIT Engine Server operational state to MAJOR.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1061   **select() failed: %s**

Problem Description: The system call select() failed while waiting for new IOD requests in the RAIT Engine process.
System Action: Log this error with a CRITICAL message.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1062   **waitpid(%d) failed: %s**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT1063   **kill(%d, %s) failed: %s**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT1064   **Pdata header not within client transfer range**

Problem Description: Failed to map the RAIT Engine segment/stripe with the client segment/stripe. The RAIT engine segment was not found.
System Action: Log this error with a MAJOR message.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1065   **Pdata header maps to different engine**

Problem Description: Failed to map the RAIT Engine segment/stripe with the client segment/stripe. The wrong RAIT engine was returned.
System Action: Log this error with a MAJOR message.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1066   **Pdata header not within client transfer description**

Problem Description: Failed to map the RAIT Engine segment/stripe with the client segment/stripe. The client segment was not found.
System Action: Log this error with a MAJOR message.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1067   **Pdata header received past end of expected range**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT1068   **Pdata header received that is too long for expected range**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT1069   **Wrong bytes moved count in mover protocol completion message**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT1070   **Illegal flags in mover protocol message: %u**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT1071   **Illegal client offset in mover protocol message, offset = %PRIu64**

Problem Description: Failed to verify the initiator message from a tape Mover. The message offset does not equal the block offset.
System Action: Log this error with a MAJOR message.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1072   **Illegal client length in mover protocol message, length=%PRIu64**

Problem Description: Failed to verify the initiator message from a tape Mover. The message length is greater than the block length.
System Action: Log this error with a MAJOR message.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1073   **munmap() failed: %s**

Problem Description: System call munmap() failed when freeing shared memory. Note that shared memory is used when accessing and manipulating the configuration for both the RAIT Admin and RAIT Engine processes.
System Action: Log this error with a CRITICAL message.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1074   **Failed to receive mover protocol IP address**

Problem Description: Problems receiving an IP address when setting up a data connection to a tape Mover.
System Action: Log this error with a MAJOR message.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1075   **Cannot verify data blocks. Tried every combination.**

Problem Description: Could not verify data that is in a RAIT buffer
System Action: Log this error with a MAJOR message.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1076   **getnameinfo() failed: %s**

Problem Description: The system call getnameinfo() failed to translate a socket address to a host name.
System Action: Log this error with a CRITICAL message.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1077   **socketpair() failed: %s**

Problem Description: The system call socketpair() failed prior to launching a RAIT Engine process from a RAIT Admin process.
System Action: Log this error with a CRITICAL message and set the RAIT Engine Server operational state to MAJOR.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1078   **Could not select logging client metadata: %s**

Problem Description: Could not retrieve the logging client's description/data from the configuration database.
System Action: Log this error with a CRITICAL message.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1079   **Could not find the log client config**

Problem Description: There is no configuration data for the logging client in the configuration database.
System Action: Log this error with a CRITICAL message.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1080   **Failed to read the log client configuration**

Problem Description: Could not read the record for the logging client in the configuration database.
System Action: Log this error with a CRITICAL message.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1081   **Failed to read the log policy**

Problem Description: Could not read the record for the log policy in the configuration database.
System Action: Log this error with a CRITICAL message.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1082   **shmget() failed: %s**

Problem Description: Allocation of shared memory failed when setting log policy.
System Action: Log this error with a CRITICAL message.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1083   **shmat() failed: %s**

Problem Description: Could not attach shared memory when setting log policy.
System Action: Log this error with a CRITICAL message.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1084   **putenv() failed: %s**

Problem Description: Could not store the shared memory ID in the process's environment when setting log policy.
System Action: Log this error with a CRITICAL message.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1085   **fdopen() failed: %s**

Problem Description: The socket associated with a remote interface could not be reopened as a FILE pointer.
System Action: Log this error with a CRITICAL message.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1086   **The RTM table is full. Too many requests received.**

Problem Description: Could not find an RTM table entry for a given Request. This implies that the RTM table is full.
System Action: Log this error with a MAJOR message.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1087   **Request received for fragment that is already on loan.**

Problem Description: A requested RAIT buffer fragment is already in use.
System Action: Log this error with a MAJOR message and set the RAIT Engine Server operational state to MAJOR.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1088   **Could not find fragment for given request.**

Problem Description: A requested RAIT buffer fragment cannot be found.
System Action: Log this error with a MAJOR message and set the RAIT Engine Server operational state to MAJOR.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1089   **Request for a free fragment that is not free.**

Problem Description: A requested RAIT buffer fragment is not in a free state.
System Action: Log this error with a MAJOR message and set the RAIT Engine Server operational state to MAJOR.
Administrator Action: This is an internal error. Contact HPSS support.

RAIT1090   **Request for a ready fragment that is not ready.**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT2000   **RAIT engine startup complete.**

Problem Description: The RAIT Engine server has finished starting but may not yet be fully initialized.
System Action: The RAIT Engine will initialize.
Administrator Action: None

RAIT2001   **RAIT engine shutdown complete.**

Problem Description: The RAIT Engine server has initiated a normal shutdown and is exiting.
System Action: The RAIT Engine will terminate.
Administrator Action: None

RAIT3000   **Server Get Attributes request**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT3001   **Server Set Attributes request**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT3002   **RAIT Engine Get Attributes request**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT3003   **RAIT Engine Set Attributes request**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT3004   **Exiting Server Get Attributes request**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT3005   **Exiting Server Set Attributes request**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT3006   **Exiting RAIT Engine Get Attributes request**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT3007   **Exiting RAIT Engine Set Attributes request**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT3008   **RAIT engine has finished request %s**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT3009   **RAIT engine has received request ID %s**

Problem Description: None.
System Action: None.
Administrator Action: None.

RAIT9998   ******

Problem Description: No problem, information only.
System Action: No problem, information only.
Administrator Action: This could help identify the contents of the IOD structure

RAIT9999   ******

Problem Description: No problem, information only.
System Action: No problem, information only.
Administrator Action: This could help identify the contents of the IOR structure

Chapter 13. RCLM series (Reclaim error messages)

RCLM0001   **Reclaim logging error**

Problem Description: Reclaim has a logging problem and cannot log.
System Action: Reclaim cannot log messages.
Administrator Action: Contact HPSS Support.

RCLM0002   **Reclaim aborted on an unrecoverable error**

Problem Description: Reclaim has encountered an unrecoverable error.
System Action: Reclaim will exit.
Administrator Action: Review the reclaim output correct the error, and try again.

RCLM0003   **Reclaim failed on a metadata manager error in subsystem %d**

Problem Description: Reclaim has encountered an unrecoverable error.
System Action: Reclaim will exit.
Administrator Action: Review the reclaim output correct the error, and try again.

RCLM0004   **Reclaim completed for storage class %d, %d VVs reclaimed, %d VVs not reclaimed, in subsystem %d**

Problem Description: None.
System Action: Reclaim completed.
Administrator Action: None.

RCLM0005   **Reclaim failed on a Core Server connection error in subsystem %d**

Problem Description: Reclaim cannot obtain a connection to the core server.
System Action: Reclaim will exit with an error.
Administrator Action: Troubleshoot connectivity to the core server - is the core server running?

RCLM0006 **Reclaim could not reclaim a VV in subsystem %d**

Problem Description: Reclaim cannot reclaim a VV in the given subsystem.
System Action: Reclaim processing continues.
Administrator Action: Review the reclaim output to detect why the VV cannot be reclaimed. Correct the issue and re-run the tool.

RCLM0007 **Reclaim could not create a security context in subsystem %d**

Problem Description: Reclaim cannot authenticate with HPSS.
System Action: Reclaim terminates with an error.
Administrator Action: Review the reclaim authentication options and run the tool again.

RCLM0008 **Reclaim could not get attributes for a tape volume**

Problem Description: Reclaim cannot retrieve attributes for a tape volume.
System Action: Reclaim processing continues.
Administrator Action: Review the failed VV report. Correct the problem with the failed VV and run it again.

RCLM0009 **Reclaim could not get tape cartridge metadata**

Problem Description: Reclaim cannot retrieve attributes for a tape cartridge.
System Action: Reclaim processing continues.
Administrator Action: Review the failed VV report. Correct the problem with the failed VV and run it again.

RCLM0010 **Reclaim could not get subsystem information**

Problem Description: Reclaim cannot read subsystem information from db2.
System Action: The reclaim will fail.
Administrator Action: Review the reclaim and db2 logging output to identify the database error. Correct the error and re-run reclaim.

RCLM0011 **Reclaim completed for storage class %d, %d VVs reclaimed, %d VVs not reclaimed, in all subsystems**

Problem Description: None.
System Action: Reclaim has completed.
Administrator Action: None.

RCLM0012   **Reclaim completed for all storage classes, %d VVs reclaimed, %d VVs not reclaimed, in subsystem %d**

Problem Description: None.
System Action: Reclaim has completed.
Administrator Action: None.

RCLM0013   **Reclaim completed for all storage classes, %d VVs reclaimed, %d VVs not reclaimed, in all subsystems**

Problem Description: None.
System Action: Reclaim has completed.
Administrator Action: None.

Chapter 14. RPC series (Remote Procedure Call error messages)

RPC0001   **Error encoding/decoding RPC header**

Problem Description: The program was unable to process an RPC message header.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0002   **Error creating encrypted checksum <%s>**

Problem Description: The program was unable to create a header checksum.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0003   **Error encoding/decoding authentication args**

Problem Description: The program was unable to process the authentication arguments.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0004   **Error verifying encrypted checksum <%s>**

Problem Description: The program was unable to process a checksum.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0005   **Error accepting security token <%s>**

Problem Description: The program was unable to verify a security token.
System Action: Various, depending on circumstances.
Administrator Action: Determine if the token was from an allowed client and that the client is using the correct authentication settings.

RPC0006   **Error freeing old credential <%s>**

Problem Description: The program was unable to free an old credential.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0007   **Error encoding/decoding service name**

Problem Description: The program was unable to process the service name.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0008   **Error finding requested interface**

Problem Description: The program was unable to find the requested interface.
System Action: Various, depending on circumstances.
Administrator Action: Ensure that the client is trying to connect to an interface that is on the server.

RPC0009   **Error dequeuing request**

Problem Description: The program was unable to handle a request.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0010   **Error decoding transfer identifier**

Problem Description: The program was unable to process the identifier.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0011   **Undetermined RPC runtime problem detected**

Problem Description: The program had an undetermined error.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0012   **Error invalid RPC type, type=%d**

Problem Description: The program received an invalid RPC.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0013   **Error invalid RPC request, proc=%d**

Problem Description: The program received an invalid RPC.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0014   **Error encoding service name <%s>**

Problem Description: The program was unable to encode the service name.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0015   **Error, buffer overrun decoding verifier**

Problem Description: The RPC decode failed during verification.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0016   **Error accepting request, %s**

Problem Description: The program was unable to accept a request.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0017   **Error spawning thread to renew security context**

Problem Description: The attempt to spawn a thread to renew security credentials failed.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0018   **Error setting keep-alive**

Problem Description: The program was unable to set the keep-alive setting.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0019   **Error disabling Nagle**

Problem Description: The program was unable to set no-delay.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0020   **Error getting local socket address**

Problem Description: The program was unable to get the IP address for a local socket.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0021   **Error getting peer socket address**

Problem Description: The program was unable to get the IP address for a remote socket.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0022   **Error finding connection for fd %d**

Problem Description: The program was unable to connect to a socket.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0023   **Error setting socket buffer size**

Problem Description: The program was unable to set the socket buffer size.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0024   **Assertion failed, file %s line %d**

Problem Description: An assertion check fail.
System Action: The program exits.
Administrator Action: Contact HPSS support.

RPC0025   **Error delaying processing**

Problem Description: The process failed to during a thread system Contact.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0026   **Error obtaining transmit buffer**

Problem Description: The process failed to allocate a send buffer.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0027   **Invalid ping request**

Problem Description: The process received an invalid ping request.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0028   **Error verifying security context <%s>**

Problem Description: The process failed due to the reason given in the error text.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0029   **Error verifying RPC argument data**

Problem Description: The process could not verify the arguments to an RPC call.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0030   **Error unwrapping RPC argument data**

Problem Description: The process could not process the RPC arguments.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0031   **Error signing RPC argument data**

Problem Description: The process could not process the RPC arguments.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0032   **Error wrapping RPC argument data**

Problem Description: The process could not process the RPC arguments.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0033   **Error deleting security context <%s>**

Problem Description: The process failed for the reason given in the error text.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0034   **Error determining RPC buffer size**

Problem Description: The process failed to determine the needed buffer size.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0035   **Error encoding/decoding RPC parameters**

Problem Description: The process failed to handle the RPC arguments.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0036   **Error determining wrap overhead <%s>**

Problem Description: The process failed for the reason given in the error text.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0037   **Error wrap overhead too great**

Problem Description: The process failed because the incoming reply was too large.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0038   **Error reserving connection for %s use**

Problem Description: The process failed to reserve a connection.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0039   **Error reading RPC reply**

Problem Description: The process failed to read the incoming reply.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0040   **Error locking mutex, file %s line %d**

Problem Description: The process failed to lock a mutex.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0041   **Error unlocking mutex, file %s line %d**

Problem Description: The process failed to unlock a mutex.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0042   **Error invalid RPC procedure**

Problem Description: The process tried to process an invalid RPC.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0043   **Invalid port range specifier <%s>**

Problem Description: The process was given an invalid port.
System Action: Various, depending on circumstances.
Administrator Action: Verify the HPSS_RPC_PORT_RANGE environment variable
is set correctly.

RPC0044   **Error enqueuing RPC work request**

Problem Description: The process could not put a work request on the queue to
be processed.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0045   **Error creating socket**

Problem Description: The process could not create a socket.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0046   **Error binding socket**

Problem Description: The process could not bind to the socket.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0047   **Error creating credentials**

Problem Description: The process could not retrieve its login credentials.
System Action: Various, depending on circumstances.
Administrator Action: Verify the process is asking for the correct credentials.

RPC0048   **Error displaying service name <%s>**

Problem Description: The process could not format the service name.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0049   **Error sending RPC reply to %s:%s**

Problem Description: The process failed to send a message to the list host and port.
System Action: Various, depending on circumstances.
Administrator Action: Verify that the peer host can still be contacted and that the port is still valid.

RPC0050   **Error comparing nil UUID**

Problem Description: The process received an empty UUID when it was not expecting one.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0051   **Error comparing UUID**

Problem Description: The process was unable to process a UUID.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0052   **Error creating UUID**

Problem Description: The process was unable to create a UUID.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0053   **Timeout on select()**

Problem Description: A select statement took longer than expected.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0054   **Error on select()**

Problem Description: A select statement failed for a reason other than a timeout.
System Action: Various, depending on circumstances.
Administrator Action: Check the returned errno and determine if there is a problem with the network.

RPC0055   **Error on write()**

Problem Description: A write statement failed for a reason other than a timeout.
System Action: Various, depending on circumstances.
Administrator Action: Check the returned errno and determine if there is a problem with the network.

RPC0056   **Error on read()**

Problem Description: A read statement failed for a reason other than a timeout.
System Action: Various, depending on circumstances.
Administrator Action: Check the returned errno and determine if there is a problem with the network.

RPC0057   **Encountered an invalid packet length, %d**

Problem Description: The process received a negative or zero value for an incoming packet.
System Action: Various, depending on circumstances.
Administrator Action: Contact HPSS support.

RPC0058   **Error verifying RPC header**

Problem Description: The process encountered a security violation while processing an incoming packet.
System Action: The process closes the connection.
Administrator Action: Verify that a valid client was trying to connect to the server.

RPC0059   **Invalid RPC response status**

Problem Description: The process encountered a security violation while processing an incoming packet.
System Action: The process closes the connection.
Administrator Action: Verify that a valid client was trying to connect to the server.

RPC0060   **Error creating thread**

Problem Description: The process encountered a security violation while processing an incoming packet.
System Action: The process closes the connection.
Administrator Action: Verify that a valid client was trying to connect to the server.

RPC0061   **Error signing RPC header**

Problem Description: The process could not create a MIC for an outgoing packet.
System Action: The process closes the connection.
Administrator Action: Contact HPSS support.

RPC0062   **Error no owner found for reply: %s:%s**

Problem Description: The process received an RPC reply that it did not expect.
System Action: The process closes the connection.
Administrator Action: Contact HPSS support.

RPC0063   **Error allocating memory**

Problem Description: The process failed to allocate needed memory.
System Action: The process exits.
Administrator Action: Check to make sure there is enough memory available on the system.

RPC0064   **Error waiting on condition variable**

Problem Description: The process failed to wait on a condition variable.
System Action: The process exits.
Administrator Action: Contact HPSS support.

RPC0065   **Error signaling condition variable**

Problem Description: The process failed to signal a condition variable.
System Action: The system response may vary from just logging the message up to terminating the process.
Administrator Action: Contact HPSS support.

RPC0066   **Error retrieving port for %u.%u, from host %s**

Problem Description: The process failed to get the port based on the RPC information.
System Action: The process exits.
Administrator Action: Verify that the RPC information is valid and that the peer server is running.

RPC0067   **Error unregistering local port**

Problem Description: The process failed to unregister from an RPC port.
System Action: Varies based on the reason.
Administrator Action: Contact HPSS support.

RPC0068   **Error registering local port**

Problem Description: The process failed to register a RPC port.
System Action: The process exits.
Administrator Action: Contact HPSS support.

RPC0069   **Error reserving process credential**

Problem Description: The process failed to reserve the security credentials.
System Action: The process exits.
Administrator Action: Contact HPSS support.

RPC0070   **Error purging process credential <%s>**

Problem Description: The process failed to destroy a security credential.
System Action: The process exits.
Administrator Action: Evaluate the error based on the error text returned.

RPC0071   **Error creating thread attributes**

Problem Description: The process failed to create a thread.
System Action: The process exits.
Administrator Action: Contact HPSS support.

RPC0072   **Error encrypting data <%s>**

Problem Description: The process failed to encrypt an outgoing packet.
System Action: The process exits.
Administrator Action: Evaluate the error based on the error text returned.

RPC0073   **Error decrypting data <%s>**

Problem Description: The process failed to decrypt an incoming packet.
System Action: The process exits.
Administrator Action: Evaluate the error based on the error text returned.

RPC0074   **Error getting server connection, %s:%s→%s:%s**

Problem Description: The connection to a remote server failed.
System Action: The process exits.
Administrator Action: Verify that the connection information is correct.

RPC0075   **Error getting service name %s:%s→%s:%s**

Problem Description: The connection to a remote server failed.
System Action: The process exits.
Administrator Action: Verify that the connection information is correct.

RPC0076   **Error authenticating client, %s:%s→%s:%s**

Problem Description: The connection to a remote server failed.
System Action: The process exits.
Administrator Action: Verify that the connection information is correct.

RPC0077   **Error getting cached reply from %s:%s**

Problem Description: The process was unable to retrieve a reply from a remote host.
System Action: The process continues.
Administrator Action: Verify that the remote system is not experiencing problems.

RPC0078   **Error getting a mechanism specific service name <%s>**

Problem Description: The process was unable to retrieve the mechanism name.
System Action: The process exits.
Administrator Action: Verify the process is configured correctly.

RPC0079   **Error exporting the service name**

Problem Description: The process was unable to convert the service name for exporting.
System Action: Varies
Administrator Action: Verify the process is configured correctly.

RPC0080   **Error converting interface UUID to string**

Problem Description: The process was unable to convert the UUID for exporting.
System Action: Varies
Administrator Action: Verify the process is configured correctly.

RPC0081   **Can't validate RPC execution status**

Problem Description: The process was unable to validate that an RPC request executed.
System Action: Varies
Administrator Action: Contact HPSS support.

RPC0082   **Error setting thread attributes detach state**

Problem Description: The system call to set the pthread detach state failed.
System Action: Varies
Administrator Action: Verify the process is configured correctly.

RPC0083   **Error trying to reconnect**

Problem Description: The process failed to reconnect to a remote server.
System Action: Varies
Administrator Action: Verify the remote process is executing.

RPC0084   **Error trying to encode cached reply for %s.%s**

Problem Description: The process failed to send a reply to a remote server.
System Action: Normal processing continues.
Administrator Action: Contact HPSS support.

RPC0085   **Error sending RPC request to %s:%s**

Problem Description: The process failed to send an RPC to the server.
System Action: Varies
Administrator Action: Verify the process is configured correctly and the server is executing.

RPC0086   **Error reserving security context**

Problem Description: A thread in the process failed to gain exclusive access of the security context.
System Action: Varies
Administrator Action: Contact HPSS support.

RPC0087   **Timeout reserving %s conn. for %u, wait=%u, state=%x, tids=%lu:%lu, uc=%u**

Problem Description: A thread in the process failed to reserve the connection to the server.
System Action: Varies
Administrator Action: Verify the process is configured correctly and the server is executing.

RPC0088   **Error trying to setup to unregister port on exit**

Problem Description: The process failed to release the listen socket while exiting.
System Action: The process finishes exiting.
Administrator Action: Evaluate the error based on other error messages.

RPC0089   **Error setting thread stack size attribute**

Problem Description: The process failed to set thread attributes.
System Action: The process exits due to a system error.
Administrator Action: Contact HPSS support.

RPC0090   **Error setting linger**

Problem Description: The process failed to set the linger socket option.
System Action: The process exits with a system error.
Administrator Action: Contact HPSS support.

RPC0091   **Error setting non-blocking I/O for socket**

Problem Description: The process failed to set the non-blocking socket option.
System Action: The process exits with a system error.
Administrator Action: Contact HPSS support.

RPC0092   **Error setting close-on-exec**

Problem Description: The process failed to set the close on exec socket option.
System Action: The process exits with a system error.
Administrator Action: Contact HPSS support.

RPC0093   **Error getting address info**

Problem Description: The system call to look up a network address failed.
System Action: Varies
Administrator Action: Verify the process is configured correctly.

RPC0094   **Error getting name info**

Problem Description: The system call to look up a network name failed.
System Action: Varies
Administrator Action: Verify the process is configured correctly.

RPC0095   **Error setting port**

Problem Description: The call to set a port for a network end point failed.
System Action: Varies
Administrator Action: Verify the process is configured correctly.

RPC0096   **Connection table full**

Problem Description: The process has exceeded the allowed number of open connections.
System Action: The process continues executing.
Administrator Action: Contact HPSS support.

RPC0097   **Request queue full, %s=%s:%s**

Problem Description: The process has exceeded the allowed number of incoming RPC requests.
System Action: The process continues executing.
Administrator Action: Increase the number of RPC threads and the queue size for the interface.

RPC0098   **No more ports in the specified range <%d-%d>**

Problem Description: The process was unable to open a port in the specified range.
System Action: The process exits.
Administrator Action: Increase the port range or free some of the ports in that range.

RPC0099   **Request queue at 90 percent full (%u/%u), %s=%s:%s**

Problem Description: This indicates that the request queue for the specified interface has exceed 90% of the configured capacity.
System Action: The process continues execution.
Administrator Action: Determine the number of clients using the system. Contact HPSS support to determine new configuration settings to handle the expected load.

RPC0100   **All (%u) request threads busy, %s=%s:%s**

Problem Description: This indicates that all threads for the specified interface are currently busy processing requests.
System Action: The process continues execution.
Administrator Action: Determine the number of clients using the system. Contact HPSS support to determine new configuration settings to handle the expected load.

RPC0101   **Request w/o client, inprogress for %ld minutes**

Problem Description: This indicates that client has dropped a connection but one or more corresponding requests are still in progress.
System Action: The process continues execution.
Administrator Action: Determine if you have a problem with client software that is causing this behavior.

RPC0102   **Invalid context establishment request**

Problem Description: A security context establishment request encountered an existing security context.
System Action: The client connection will fail and the process continues execution.
Administrator Action: Verify that all client software is up to date.

RPC0103   **Invalid context establishment continuation request**

Problem Description: A security context establishment continuation request encounters an existing security context.
System Action: The client connection will fail and the process continues execution.
Administrator Action: Verify that all client software is up to date.

RPC0104   **Invalid RPC protocol (%d) used**

Problem Description: An invalid network address family was encountered.
System Action: Varies
Administrator Action: Verify that the HPSS_NET_FAMILY configuration setting is valid.

RPC0105   **Invalid address passed to function**

Problem Description: An internal software problem results in an invalid address pointer.
System Action: The connection will fail.
Administrator Action: Contact HPSS support.

RPC0106   **Error returned from getnetconfigent(). (netid %s)**

Problem Description: The system call to access the system network configuration database failed.
System Action: Varies
Administrator Action: Determine if there is a problem with the system network configuration database.

RPC0107   **Error returned from rpcb_getaddr(). %s**

Problem Description: The system call to obtain the network address for a remote service failed.
System Action: Client connection will fail.
Administrator Action: Determine that the rpcbind system is functioning properly.

RPC0108   **Error returned from rpcb_getmaps(). %s**

Problem Description: The system call to retrieve program to address mappings for a remote service failed.
System Action: Varies
Administrator Action: Determine that the rpcbind system is functioning properly.

RPC0109   **Error returned from rpcb_unset(). %s**

Problem Description: The system call to reset the network address for a remote service failed.
System Action: Varies
Administrator Action: Determine that the rpcbind system is functioning properly.

RPC0110   **Error returned from rpcb_set(). %s**

Problem Description: The system call to set the network address for a remote service failed.
System Action: Varies
Administrator Action: Determine that the rpcbind system is functioning properly.

RPC0111   **Error returned from hpss_net_getport(). %s**

Problem Description: The call to get a port for a network end point failed.
System Action: Varies
Administrator Action: Verify the process is configured correctly.

RPC0112   **Entering function**

Problem Description: Trace message indicating the process entered a function.
System Action: The process continues executing.
Administrator Action: None.

RPC0113   **Connection on Fd %ld has dropped,host=%s,port=%s**

Problem Description: Trace message indicating the process lost a connection.
System Action: The process continues executing.
Administrator Action: None

RPC0114   **Invalid security service specified in creds**

Problem Description: Trace message indicating the process received an invalid credential.
System Action: The process continues executing.
Administrator Action: Verify the process is configured correctly.

RPC0115   **Unsupported security service requested**

Problem Description: Trace message indicating the process requested an invalid security mechanism.
System Action: The process continues executing.
Administrator Action: Verify the process is configured correctly.

RPC0116   **Continue GAS mutual authentication**

Problem Description: Trace message.
System Action: The process continues executing.
Administrator Action: None.

RPC0117   **Connection shutdown waiting on reservation %s**

Problem Description: Trace message.
System Action: The process continues executing.
Administrator Action: None.

RPC0118   **New connection, %s:%s→%s:%s**

Problem Description: Trace message.
System Action: The process continues executing.
Administrator Action: None.

RPC0119   **Connection already shutdown %s:%s→%s:%s**

Problem Description: Trace message.
System Action: The process continues executing.
Administrator Action: None.

RPC0120   **Exiting function**

Problem Description: Trace message.
System Action: The process continues executing.
Administrator Action: None.

RPC0121   **Ping reply received**

Problem Description: Trace message.
System Action: The process continues executing.
Administrator Action: None.

RPC0122   **RPC work thread %lu got request %-u:%-u:%-u:%-u**

Problem Description: Trace message.
System Action: The process continues executing.
Administrator Action: None.

RPC0123   **Credentials refreshed**

Problem Description: Trace message.
System Action: The process continues executing.
Administrator Action: None.

RPC0124   **Creating initial credentials, user=%s, mech=%s**

Problem Description: Trace message.
System Action: The process continues executing.
Administrator Action: None.

RPC0125   **Client successfully authenticated, conn id = %s**

Problem Description: Trace message.
System Action: The process continues executing.
Administrator Action: None.

RPC0126   **Security token returned maj=%d,min=%d,len=%d**

Problem Description: Trace message.
System Action: The process continues executing.
Administrator Action: None.

RPC0127   **Interface registered, id=%s,vers=%d,prog=%d,host=%s,port=%s,fd=%d**

Problem Description: Trace message.
System Action: The process continues executing.
Administrator Action: None.

RPC0128   **Dispatching request if=%s,proc=%d,vers=%d**

Problem Description: Trace message.
System Action: The process continues executing.
Administrator Action: None.

RPC0129   **Accepting context vers=%d,svc=%s,flags=%02x,tm=%d**

Problem Description: Trace message.
System Action: The process continues executing.
Administrator Action: None.

RPC0130   **Reconnect request from %s:%s**

Problem Description: Trace message.
System Action: The process continues executing.
Administrator Action: None.

RPC0131   **Connection has gone stale, client %s:%s**

Problem Description: Trace message.
System Action: The process continues executing.
Administrator Action: None.

RPC0132   **No response server %s:%s, closing connection**

Problem Description: Trace message.
System Action: The process continues executing.
Administrator Action: None.

RPC0133   **Connection closed sending reply,host=%s,port=%s**

Problem Description: Trace message.
System Action: The process continues executing.
Administrator Action: None.

RPC0134   **Cleaning up %s:%s, fd=%d, state=%x, use=%d**

Problem Description: Trace message.
System Action: The process continues executing.
Administrator Action: None.

RPC0135   **Timeout during exponential backoff delay**

Problem Description: Trace message.
System Action: The process continues executing.
Administrator Action: None.

RPC0136   **Failure initializing socket**

Problem Description: Trace message.
System Action: The process continues executing.
Administrator Action: None.

RPC0137   **Failure connecting socket**

Problem Description: Trace message.
System Action: The process continues executing.
Administrator Action: None.

RPC0138   **Failure getting local socket address**

Problem Description: Trace message.
System Action: The process continues executing.
Administrator Action: None.

RPC0139   **Failure getting remote socket address**

Problem Description: Trace message.
System Action: The process continues executing.
Administrator Action: None.

RPC0140   **Failure transmitting request**

Problem Description: Trace message.
System Action: The process continues executing.
Administrator Action: None.

RPC0141   **Reconnecting %s:%s, fd=%d, state=%x, use=%d**

Problem Description: Trace message.
System Action: The process continues executing.
Administrator Action: None.

RPC0142   **Delay retry for full thread pool queue %s:%s**

Problem Description: Trace message.
System Action: The process continues executing.
Administrator Action: None.

RPC0143   **Unsupported security mechanism requested**

Problem Description: Trace message.
System Action: The process continues executing.
Administrator Action: None.

RPC0144   **Open callback complete, host=%s,port=%s**

Problem Description: Trace message.
System Action: The process continues executing.
Administrator Action: None.

RPC0145   **Runtime listening... host=%s,port=%s,fd=%d**

Problem Description: Trace message.
System Action: The process continues executing.
Administrator Action: None.

RPC0146   **Just added cred for %s, lifetime secs=%PRIu64**

Problem Description: Trace message.
System Action: The process continues executing.
Administrator Action: None.

RPC0147   **New cred expiration time, old %PRIu64, new %PRIu64**

Problem Description: Trace message.
System Action: The process continues executing.
Administrator Action: None.

RPC0148   **Context establishment already in progress**

Problem Description: A context establishment is already in progress.
System Action: Client connection will fail.
Administrator Action: Verify that all client software is up to date.

RPC0150   **Error setting reuseaddr**

Problem Description: A socket could not be made to reuse address information.
System Action: The process continues execution.
Administrator Action: None.

RPC0151   **Invalid notify request**

Problem Description: A notify request has come to the client which is invalidly formatted.
System Action: The notify request is dropped.
Administrator Action: Contact HPSS Support.

RPC0152   **No notification waiter present, adding one**

Problem Description: Trace message.
System Action: The process continues executing.
Administrator Action: None.

RPC0153   **Timeout waiting on RPC notification**

Problem Description: Trace message.
System Action: The process continues executing.
Administrator Action: None.

RPC0154   **Failure waiting on RPC notification**

Problem Description: Client waiting on a RPC server notification has failed.
System Action: Waiting on the notification will end. The waiting request will fail.
Administrator Action: Contact HPSS Support.

RPC0155   **Connection is dead**

Problem Description: The connection waiting on the notification is no longer usable.
System Action: The RPC notification will fail.
Administrator Action: Contact HPSS Support. Determine if TCP keepalive is disabled or other network settings may close connections.

RPC0156   **Notify reply received**

Problem Description: Trace message.
System Action: The process continues executing.
Administrator Action: None.

RPC0157   **Joining pthread %lu, fd=%d, state=%x**

Problem Description: Trace message.
System Action: The process continues executing.
Administrator Action: None.

RPC0158   **Failure joining pthread %lu, fd=%d, state=%x, delay=%lu.%lu**

Problem Description: Trace message.
System Action: The process continues executing.
Administrator Action: None.

RPC0159   **Updated %s RPC thread pool, old threads=%u, new threads=%u**

Problem Description: None.
System Action: The system has completed updating the thread pool thread count for the specified interface.
Administrator Action: None.

RPC0160   **Updated %s RPC queue size, old queue=%u, new queue=%u**

Problem Description: None.
System Action: The system has completed updating the thread pool queue size for the specified interface.
Administrator Action: None.

RPC149   **Context establishment incomplete**

Problem Description: A connection closed before context establishment completes.
System Action: The process continues execution.
Administrator Action: None.

Chapter 15. RPCK series (Repack error messages)

RPCK0000   **Repack Error SClassId = %d, Requested %d, Repacked %d, for %s**

Problem Description: Repack has finished with an error.
System Action: Repack will exit.
Administrator Action: Review the repack output for the source of the error. Correct the error and re-run repack.

RPCK0001   **Repack Completed SClassId = %d, Requested %d, Repacked %d, for %s**

Problem Description: None.
System Action: Repack has completed.
Administrator Action: None.

RPCK0002   **Repack Abort initializing Security SClassId = %d, Requested %d, Repacked %d, for %s**

Problem Description: Repack could not authenticate with HPSS.
System Action: Repack will terminate.
Administrator Action: Review the repack authentication settings. Correct the settings, and try again.

RPCK0003   **Repack Abort: CS connection SClassId = %d, Requested %d, Repacked %d, for %s**

Problem Description: Repack could not connect to the core server.
System Action: Repack will terminate.
Administrator Action: Verify that the core server is running and can be connected to via other means. Contact HPSS support.

RPCK0004   **Repack Abort: CS session SClassId = %d, Requested %d, Repacked %d, for %s**

Problem Description: Repack could not start a core server session.
System Action: Repack will terminate.
Administrator Action: Review the repack and HPSS logging output. Correct the error and re-run repack.

RPCK0005   **Repack Abort: VV source list SClassId = %d, Requested %d, Repacked %d, for %s**

Problem Description: Repack encountered a fatal error getting the source volume list.
System Action: Repack will terminate.
Administrator Action: Review the repack and HPSS logging output. Correct the error and re-run repack.

RPCK0006   **Repack Abort: no VVs to repack SClassId = %d, Requested %d, Repacked %d, for %s**

Problem Description: Repack identified no eligible source volumes from the list provided.
System Action: Repack processing continues.
Administrator Action: If this is unexpected, review the source volume list and the repack output. Correct the source volume list and try again.

RPCK0007   **Repack Abort: Cannot connect to Database SClassId = %d, Requested %d, Repacked %d, for %s**

Problem Description: Repack could not connect to the config database.
System Action: Repack will terminate.
Administrator Action: Review the repack and HPSS logging output. Correct the error and re-run repack.

RPCK0008   **Repack Abort: Cannot initialize MMLIB SClassId = %d, Requested %d, Repacked %d, for %s**

Problem Description: Repack cannot initialize MMLIB to communicate with db2.
System Action: Repack will terminate.
Administrator Action: Review the repack and HPSS logging output. Correct the error and re-run repack.

RPCK0009   **Repack Abort: Cannot read system config information SClassId = %d, Requested %d, Repacked %d, for %s**

Problem Description: Repack cannot read the core server subsystem configuration.
System Action: Repack will terminate.
Administrator Action: Review the repack and HPSS logging output. Correct the error and re-run repack.

RPCK0011   **Repack Abort: Error moving segments SClassId = %d, Requested %d, Repacked %d, for %s**

Problem Description: Repack failed to repack a volume.
System Action: Repack will terminate.
Administrator Action: Review the repack and HPSS logging output. Correct the error and re-run repack.

RPCK0012   **Repack Abort: No space remaining in storage class SClassId = %d, Requested %d, Repacked %d, for %s**

Problem Description: Repack failed to repack a volume due to there being no remaining space.
System Action: Repack will terminate.
Administrator Action: Create or reclaim tape resources for the given storage class. Re-run repack.

RPCK0013   **Repack Abort: Could not read system metadata SClassId = %d, Requested %d, Repacked %d, for %s**

Problem Description: Repack failed to repack a volume due to a metadata error.
System Action: Repack will terminate.
Administrator Action: Review the repack and HPSS logging output. Correct the error and re-run repack.

RPCK0014   **Repack Abort: Could not open input file SClassId = %d, Requested %d, Repacked %d, for %s**

Problem Description: Repack failed to open the input source list.
System Action: Repack will terminate.
Administrator Action: Review the input source list file, repack and HPSS logging output. Correct the error and re-run repack.

RPCK0015   **Repack Abort: Could not communicate with the Core Server SClassId = %d, Requested %d, Repacked %d, for %s**

Problem Description: Repack failed to communicate with the Core Server via RPC.
System Action: Repack will terminate.
Administrator Action: Review the repack and HPSS logging output. Correct the error and re-run repack.

RPCK0016   **Repack Abort: Could not set the list of target tapes in the Core Server SClassId = %d, Requested %d, Repacked %d, for %s**

Problem Description: Repack failed to set the target tapes with the core server.
System Action: Repack will terminate.
Administrator Action: Review the destination tape list and the repack and HPSS logging output. Correct the error and re-run repack.

RPCK0017   **Repack Shutdown SClassId = %d, Requested %d, Repacked %d, for %s**

Problem Description: None.
System Action: Repack was requested to shut down and has now shut down.
Administrator Action: None.

Chapter 16. RTM series (Real Time Monitoring error messages)

RTM0001 **REQUEST: Entering with ListName %d, Flags %#x, RReqId %s ObjectName *%s*, PVName *%s***

Problem Description: This is an informational message upon entering the rtm_GetRequestEntries server interface used for retrieving RTM information within the given server.
System Action: Log message.
Administrator Action: None

RTM0002 **REQUEST: Exiting**

Problem Description: this is an informational message upon exiting the rtm_GetRequestEntries server interface used for retrieving RTM information within the given server.
System Action: log message.
Administrator Action: none

RTM0003 **System call %s failed**

Problem Description: This is a log message that reports a system error encountered in the RTM library routines or the RTM request interface routine.
System Action: Log message.
Administrator Action: Many and varied.

RTM0004 **Connection handle pointer is NULL**

Problem Description: An error reporting that the connection handle passed in the rtm_GetRequestEntries routine is NULL.
System Action: Log message and return error HPSS_EBADCONN to calling utility.
Administrator Action: A utility bug or system connect problem.

RTM0005 **Invalid connection handle**

Problem Description: The rtm_GetRequestEntries routine detects an invalid connection handle returned from hpss_RPCGetConnectionContext() call.
System Action: Log message and return error HPSS_EBADCONN to calling utility.
Administrator Action: A utility bug or a system connect problem.

RTM0006   **Flag %d invalid**

Problem Description: An invalid input parameter Flag was passed to the rtm_GetRequestEntries RTM interface routine; or an invalid Checkflag was sent to the internal library routine rtm_verify_and_lock.
System Action: Log message and return error HPSS_EINVAL to calling utility; or log and return HPSS_ESYSTEM to calling library routine.
Administrator Action: Probably a utility bug.

RTM0007   **No bitfile was provided**

Problem Description: The utility requested information based on bitfile ID, but the supplied bitfile ID is NULL.
System Action: Log an error and return EINVAL to calling utility.
Administrator Action: Fix the utility or give correct inputs to utility.

RTM0008   **No pv name was provided**

Problem Description: The utility requested information based on Physical Volume Name, but the supplied pv name is NULL.
System Action: Log an error and return EINVAL to calling utility.
Administrator Action: Fix the utility or give correct inputs to utility.

RTM0009   **Invalid object name %d**

Problem Description: The utility requested information based on some object, but the supplied object name is invalid.
System Action: Log an error and return EINVAL to calling utility.
Administrator Action: Fix the utility or give correct inputs to utility.

RTM0010   **List Hdr not yet initialized**

Problem Description: The RTM request interface was called, but found that the request list header had never been initialized in the server.
System Action: Log an error and return ENOTREADY to calling utility.
Administrator Action: Probably a server bug unless the utility can call the interface before the server is completely up.

RTM0011   **Request List %d not yet initialized**

Problem Description: The RTM request interface was called, but found that the requested request list input parameter was invalid.
System Action: Log an error and return EINVAL to calling utility.
Administrator Action: Probably a utility bug or incorrect parameters were fed to the utility.

RTM0012   **ReqList %d already in use**

Problem Description: The RTM library routine rtm_ReqListInit was called to initialize a request list, but the request list is already in use.
System Action: Log an error and return EINVAL to calling utility.
Administrator Action: Probably a server bug.

RTM0013   **Rtm_verify_and_lock() failed**

Problem Description: Many RTM library routines call rtm_verify_and_lock to lock the request list for them. If this routine returns an error, the calling library routines log this error.
System Action: Log an error and return to the calling server the error returned by rtm_verify_and_lock.
Administrator Action: Probably a server bug.

RTM0014   **Entry already deleted**

Problem Description: The RTM library routine rtm_ReqListDeleteEntry was called with a request entry that is already in a delayed delete.
System Action: Log an error and return EINVAL to the calling server.
Administrator Action: Probably a server bug.

RTM0015   **ListPtr is NULL**

Problem Description: Many RTM library routines call rtm_verify_and_lock to lock the request list for them. If the ListPtr parameter to rtm_verify_and_lock is Null, this message is logged.
System Action: Log an error and return EINVAL to the calling routine.
Administrator Action: Probably an RTM library routine bug.

RTM0016　　**No such ListPtr (%p) found**

Problem Description: Many RTM library routines call rtm_verify_and_lock to lock the request list for them. If the ListPtr parameter to rtm_verify_and_lock is not found, this message is logged.
System Action: Log an error and return EINVAL to the calling routine.
Administrator Action: Probably an RTM library routine bug.

RTM0017　　**Entryptr failed sanity check**

Problem Description: Many RTM library routines call rtm_verify_and_lock to lock the request list for them. If the request entry pointer parameter to rtm_verify_and_lock doesn't pass the sanity check, this message is logged.
System Action: Log an error and return EINVAL to the calling routine.
Administrator Action: Probably an RTM library routine bug or a server bug in calling an RTM library routine.

RTM0018　　**EntryPtr not found**

Problem Description: Many RTM library routines call rtm_verify_and_lock to lock the request list for them. If the request entry pointer parameter to rtm_verify_and_lock doesn't show up in the request list, this message is logged.
System Action: Log an error and return EINVAL to the calling routine.
Administrator Action: Probably a server bug.

RTM0019　　**WaitEntryptr failed sanity check**

Problem Description: Many RTM library routines call rtm_verify_and_lock to lock the request list for them. If the waitlist entry pointer parameter to rtm_verify_and_lock doesn't pass the sanity check, this message is logged.
System Action: Log an error and return EINVAL to the calling routine.
Administrator Action: Probably a server bug.

RTM0020　　**WaitEntryPtr not found**

Problem Description: Many RTM library routines call rtm_verify_and_lock to lock the request list for them. If the waitlist entry pointer parameter to rtm_verify_and_lock doesn't show up in the request entry waitlist, this message is logged.
System Action: Log an error and return EINVAL to the calling routine.
Administrator Action: Probably a server bug.

RTM0021   **RTM debug: %s**

Problem Description: Designed for developer messages for detailed software problem diagnosis.
System Action: None
Administrator Action: None

RTM0022   **RTM tracing: %s**

Problem Description: Designed for developer messages for detailed software problem diagnosis.
System Action: None
Administrator Action: None

RTM0023   **Flag %d invalid - %s**

Problem Description: This error is logged when there is a problem associated with a flag parameter that should never happen.
System Action: Log the error and return ESYSTEM.
Administrator Action: Contact HPSS support.

RTM0024   **Pointer %s has NULL value**

Problem Description: This error is logged if an internal variable ptr is NULL. This should never happen.
System Action: Log the error and return ESYSTEM.
Administrator Action: Contact HPSS support.

RTM0025   **Request Entry not found**

Problem Description: This error shouldn't happen, but the code checks for the existence of a request entry and if not found, returns this error.
System Action: Log the error and return ESYSTEM.
Administrator Action: Contact HPSS support.

RTM0026   **Count Underflow**

Problem Description: This error shouldn't happen, but the code checks for underflow in a couple of counters.
System Action: Log the error and return ESYSTEM.
Administrator Action: This is a bug in `rtm_ReqList.c`.

RTM0027   **Pthread_create() failed**

Problem Description: This error is logged when the pthread_create call fails.
System Action: Log the error.
Administrator Action: You probably have system problems.

RTM0028   **hpss_RPCMalloc failed**

Problem Description: This error is logged when the hpss_RPCMalloc call fails.
System Action: Log the error and return HPSS_ENOMEM.
Administrator Action: You probably have system problems.

RTM0029   **Open of master catalog failed**

Problem Description: This error is logged when the catopen call fails.
System Action: Log the error.
Administrator Action: You probably have directory or environment problems.

RTM0030   **Invalid request code**

Problem Description: The utility requested information based on the request code, but the supplied request code is invalid.
System Action: Log an error and return EINVAL to calling utility.
Administrator Action: Fix the utility or give correct inputs to utility.

Chapter 17. RTMC series (Real Time Monitoring Client Library error messages)

RTMC1000   **Invalid value for arg: %s**

Problem Description: This error is logged when a routine in rtm_clientlib.c detects that it is being called with an invalid argument. The name of the argument is logged as part of the message.
System Action: Log the error and return EINVAL.
Administrator Action: This is a bug in `rtm_clientlib.c`.

RTMC1001   **Unable to allocate memory for %s**

Problem Description: The system is unable to allocate the requested memory. The name of the variable that was to be bound to the memory is printed as part of the error message.
System Action: Log the error and return ENOMEM.
Administrator Action: This probably indicates a wider system problem. The RTM data should not consume that much data. If this is the result of running the RTMU utility, you could try re-linking the utility to use more Linux memory segments.

RTMC1002   **Invalid hash index: %d**

Problem Description: The RTM client library maintains caches for UID to Username and Bitfile ID to File Pathname lookups. The caches are implemented as hash tables. This error indicates that the hashing function acting on a key produced an invalid hash index (outside the range of the hash table).
System Action: Log the error and return EINVAL.
Administrator Action: This is a bug in `rtm_clientlib.c`.

RTMC1003   **Invalid delete count: %d of %d**

Problem Description: The rtm_PurgeCache function deleted more items than it thought were in the cache. This should never happen and represents a bug in `rtm_clientlib.c`.
System Action: Log the error and correct the item count.
Administrator Action: This is a (non-fatal) bug in `rtm_clientlib.c`.

RTMC1004   **%s failed with type %d, mmlib msg: %s**

Problem Description: This is an error message generated by rtm_AddServersByType when a call to mm_SelectServersByType returned an error. The type of the server and error code is printed along with an error string returned by mmlib.

System Action: Log the error, return EIO.

Administrator Action: This may represent an error in the configuration database.

RTMC1005   **mm_ReadRecords returned %d items, expected %d**

Problem Description: This is an error detected in rtm_AddServersByType in which the call to mm_ReadRecords did not return an error message, but returned either zero or more than one record when we asked for one at a time.

System Action: Log the error, return EIO.

Administrator Action: This is likely a bug in `rtm_clientlib.c`.

RTMC1006   **%s failed**

Problem Description: This is a generic error message produced when a function within `rtm_clientlib.c` calls another function that returns an error. The called function name and return value are given in the error message. The cascade of such error messages can effectively generate a backtrace of the call stack that can aid in debugging the problem.

System Action: Log the error.

Administrator Action: This likely represents a bug in `rtm_clientlib.c`.

RTMC1007   **%s failed with message: %s**

Problem Description: A function call to create or free an mmlib transaction handle failed. The routine name, the error code and an mmlib error string are included in this message.

System Action: Log the error and return EIO.

Administrator Action: This error indicates a wider system-related or database related problem.

RTMC1008   **value of %s for %s should be %s**

Problem Description: This error is given when a basic sanity check fails, for example a pointer that should be NULL and is not. The name of the variable, its current value and its expected value are given.
System Action: Log the error and return EINVAL.
Administrator Action: This is a bug in `rtm_clientlib.c`.

RTMC1009   **Failed to connect to Server %s**

Problem Description: This warning message is generated when rtm_AddServerByType fails to connect to the specified server. This can happen if the server is configured and marked as executable but is not running. The warning message is logged and the routine continues without including this server in the list of RTM servers to query.
System Action: Log the error.
Administrator Action: If the server is not running and should not run, mark it as not executable.

RTMC1010   **Failed to get RTM records from server %s**

Problem Description: A call to rtm_GetServerRTMEntries failed. No RTM records were returned. This is a warning message, the calling routine continues, but without any information from this server.
System Action: Log the error and continue processing.
Administrator Action: If this continues, it either indicates a wider problem on the system or a very busy server.

RTMC1011   **Invalid Server type: %s**

Problem Description: Only Core, Mover and Gatekeeper servers respond to RTM requests. This error message is generated if a server of a type different from these is being added to the RTM query list.
System Action: Log the error and return EINVAL.
Administrator Action: This is a bug in `rtm_clientlib.c`.

RTMC1012   **%s returned no data for %s**

Problem Description: A call to mmlib to look up configuration server by descriptive name or UUID failed to find a matching server entry in the configuration database.
System Action: Log the error and return EINVAL.
Administrator Action: This is likely a bug in the rtm_clientlib client (RTMU or SSM).

RTMC1013   **Database failure when calling %s, mmlib msg: %s**

Problem Description: This error message is generated when a call to an mmlib function to fetch database entries (mm_ReadServer and mm_ReadRecords) returns an error. The text of the mmlib error is included.
System Action: Log the error and return EIO.
Administrator Action: This may indicate a wider system or database problem.

RTMC1014   **Server %s already in list**

Problem Description: This is a warning message generated when building a list of servers to query for RTM records. The warning indicates that the server is already in the list.
System Action: Log the error.
Administrator Action: None

RTMC1015   **rtm_GetRequestEntries failed to contact server %s after %d attempts**

Problem Description: A server being queried for RTM records cannot be contacted. This may happen if all server worker threads are busy processing other requests. The RTM client library will retry contacting the server several times and this warning message is only generated if all attempts fail.
System Action: Log the error and return EAGAIN.
Administrator Action: If this persists, consider increasing the size of the worker thread pool of the server.

RTMC1016   **rtm_GetRequestEntries to server %s returned null pointer**

Problem Description: A call to rtm_GetRequestEntries returned a null pointer. This is not supposed to happen and represents an error in the RTM implementation of the called server.
System Action: Log the error and return EIO.
Administrator Action: This is a bug in the server's RTM implementation.

RTMC1017   **num_server_types (%d) >= RTM_SERVER_MAXVALUE**

Problem Description: This is an error message generated by a sanity check in rtm_AddServersByType.
System Action: Log the error.
Administrator Action: This is a bug in `rtm_clientlib.c`.

RTMC1018   **UID_%u**

Problem Description: Informational message to display user ID.
System Action: Display message.
Administrator Action: None

RTMC1019   **REALM_%u**

Problem Description: Informational message to display realm.
System Action: Display message.
Administrator Action: None

RTMC1020   **UID_%u_REALM_%u**

Problem Description: Informational message to display user ID and realm.
System Action: Display message.
Administrator Action: None

RTMC1021   **Value for %s = %ld is OUT OF RANGE**

Problem Description: This is an error message generated when trying to get the string for a server type that is outside of the expected range.
System Action: Log the error.
Administrator Action: This is a bug in `rtm_clientlib.c`.

RTMC1022   **Invalid RTM Entry with ID = %s from %s: %s = %ld (OUT OF RANGE)**

Problem Description: This is an error message generated when the request ID is outside of the expected range.
System Action: Log the error.
Administrator Action: None

RTMC1023   **Invalid RTM Entry with ID = %s from %s: %s = %ld (expected %ld)**

Problem Description: This is an error message generated by a sanity check when the server type for request does not match the expected server type.
System Action: Log the error.
Administrator Action: This is a bug in `rtm_clientlib.c`.

Chapter 18. SEC series (Security error messages)

SEC0003   **%s EVENT: AUTH**

Problem Description: This is logged for security authentication events.
System Action: Normal processing continues.
Administrator Action: The security administrator should monitor the audit log messages based on the site's security policy to determine if the operation succeeded or failed as expected.

SEC0005   **%s EVENT: CHMOD OBJECT: Version: %d, File: %s, File mode: 0%.3o, File uid: %d, File gid: %d**

Problem Description: This is logged for change file mode operations.
System Action: Normal processing continues.
Administrator Action: The security administrator should monitor the audit log messages based on the site's security policy to determine if the operation succeeded or failed as expected.

SEC0006   **%s EVENT: CHOWN OBJECT: Version: %d, File: %s, File mode: 0%.3o, File uid: %d, File gid: %d**

Problem Description: This is logged for change ownership operations.
System Action: Normal processing continues.
Administrator Action: The security administrator should monitor the audit log messages based on the site's security policy to determine if the operation succeeded or failed as expected.

SEC0007   **%s EVENT: CREATE OBJECT: Version: %d, File: %s, File mode: 0%.3o, File uid: %d, File gid: %d**

Problem Description: This is logged for create object operations such as when creating files.
System Action: Normal processing continues.
Administrator Action: The security administrator should monitor the audit log messages based on the site's security policy to determine if the operation succeeded or failed as expected.

SEC0008   **%s EVENT: LINK OBJECT: Version: %d, From: %s, To: %s**

Problem Description: This is logged for link object operations such as when creating links to files or directories.
System Action: Normal processing continues.
Administrator Action: The security administrator should monitor the audit log messages based on the site's security policy to determine if the operation succeeded or failed as expected.

SEC0009   **%s EVENT: MKDIR OBJECT: Version: %d, File: %s, File mode: 0%.3o, File uid: %d, File gid: %d**

Problem Description: This is logged for mkdir object operations such as when creating directories.
System Action: Normal processing continues.
Administrator Action: The security administrator should monitor the audit log messages based on the site's security policy to determine if the operation succeeded or failed as expected.

SEC0010   **%s EVENT: OPEN OBJECT: Version: %d, BitfileId: %s, Path: %s, Fset: %s, Flags: %x, Access time: %s, Modify time: %s**

Problem Description: This is logged for open object operations such as when opening files to be read.
System Action: Normal processing continues.
Administrator Action: The security administrator should monitor the audit log messages based on the site's security policy to determine if the operation succeeded or failed as expected.

SEC0011   **%s EVENT: OPENDIR OBJECT: Version: %d, File: %s, File mode: 0%.3o, File uid: %d, File gid: %d**

Problem Description: This is logged for open directory operations.
System Action: Normal processing continues.
Administrator Action: The security administrator should monitor the audit log messages based on the site's security policy to determine if the operation succeeded or failed as expected.

SEC0012 **%s EVENT: EVENT: RENAME OBJECT: Version: %d, From: %s, To: %s**

Problem Description: This is logged for rename object operations such as when renaming files or directories.
System Action: Normal processing continues.
Administrator Action: The security administrator should monitor the audit log messages based on the site's security policy to determine if the operation succeeded or failed as expected.

SEC0013 **%s EVENT: RMDIR OBJECT: Version: %d, File: %s, File mode: 0%.3o, File uid: %d, File gid: %d**

Problem Description: This is logged for removing directory operations.
System Action: Normal processing continues.
Administrator Action: The security administrator should monitor the audit log messages based on the site's security policy to determine if the operation succeeded or failed as expected.

SEC0014 **%s EVENT: EVENT: UNLINK OBJECT: Version: %d, File: %s, File mode: 0%.3o, File uid: %d, File gid: %d**

Problem Description: This is logged for unlink object operations such as when deleting files, directories, or links.
System Action: Normal processing continues.
Administrator Action: The security administrator should monitor the audit log messages based on the site's security policy to determine if the operation succeeded or failed as expected.

SEC0015 **%s EVENT: UTIME OBJECT: Version: %d, BitfileId: %s, Path: %s, Fset: %s, Flags: %x, Access time: %s, Modify time: %s**

Problem Description: This is logged for utime object operations such as when updating the timestamps on files.
System Action: Normal processing continues.
Administrator Action: The security administrator should monitor the audit log messages based on the site's security policy to determine if the operation succeeded or failed as expected.

SEC0016   **%s**

> ***Problem Description:*** This is logged for ACL set object operations such as when updating ACLs on files with the hacl tool.
> ***System Action:*** Normal processing continues.
> ***Administrator Action:*** The security administrator should monitor the audit log messages based on the site's security policy to determine if the operation succeeded or failed as expected.

SEC0019   **%s EVENT: CHDIR OBJECT: Version: %d, File: %s, File mode: 0%.3o, File uid: %d, File gid: %d**

> ***Problem Description:*** This is logged for chdir object operations such as when changing directories.
> ***System Action:*** Normal processing continues.
> ***Administrator Action:*** The security administrator should monitor the audit log messages based on the site's security policy to determine if the operation succeeded or failed as expected.

SEC0020   **%s EVENT: CHBFID OBJECT: Version: %d, File: %s, Handle: %s, BitfileId: %s**

> ***Problem Description:*** This is logged for chbfid object operations.
> ***System Action:*** Normal processing continues.
> ***Administrator Action:*** The security administrator should monitor the audit log messages based on the site's security policy to determine if the operation succeeded or failed as expected.

SEC0021   **%s EVENT: BFSETATTRS OBJECT: Version: %d. BitfileId: %s. Path: %s. Fset: %s. Flags: %x, Access time: %s, Modify time: %s**

> ***Problem Description:*** This is logged for bitfile set attribute operations such as when setting the timestamp on files.
> ***System Action:*** Normal processing continues.
> ***Administrator Action:*** The security administrator should monitor the audit log messages based on the site's security policy to determine if the operation succeeded or failed as expected.

SEC0043   **Unknown ACL type**

> ***Problem Description:*** An unknown ACL entry type was encountered while formatting a security audit setacl record.
> ***System Action:*** This entry is ignored and processing continues.
> ***Administrator Action:*** Contact HPSS support.

SEC0044 **Invalid object path type: %PRIu32**

Problem Description: An invalid object path type was specified for an object security event.
System Action: This entry is ignored and processing continues.
Administrator Action: Contact HPSS support.

SEC0045 **Invalid object link type: %PRIu32**

Problem Description: An invalid object link type was specified for an object security event.
System Action: This entry is ignored and processing continues.
Administrator Action: Contact HPSS support.

SEC0046 **No space left for storing ACL information**

Problem Description: The maximum amount of space has been used for storing ACL information.
System Action: Some ACL information was truncated.
Administrator Action: Contact HPSS support.

SEC0047 **Invalid account ID in gecos (%s) for principal %s**

Problem Description: The provided account ID is not valid.
System Action: The default account is used.
Administrator Action: Contact HPSS support.

SEC0048 **User password verification for %s@%s %s**

Problem Description: None
System Action: Informs about success/failure of a password verify attempt
Administrator Action: If messages for the same user appear often, especially with failure attempts, it could indicate intrusion attempts.

SEC0049 **Could not find username %s@%s**

Problem Description: An unknown user attempted to verify authentication information
System Action: Hangs up on client and continues to serve requests
Administrator Action: If this message appears often, it could indicate intrusion attempts.

SEC0050   **Unable to send reply for %s**

Problem Description: The server failed to send a reply to the client
System Action: Hangs up on client and continues to serve requests
Administrator Action: If this message appears often, it could indicate network problems or a non-compliant client

SEC0051   **Could not find realm %s in configuration**

Problem Description: The client asked for an operation in a realm that does not exist in site.conf
System Action: Hangs up on client and continues to serve requests
Administrator Action: If this message appears often, it could indicate intrusion attempts.

SEC0052   **User change password denied for %s.**

Problem Description: The client asked for a password change but did not provide acceptable credentials
System Action: Hangs up on client and continues to serve requests
Administrator Action: If this message appears often, it could indicate a malicious user

SEC0053   **User failed to change password for %s.**

Problem Description: The client asked for a password change but system problems have prevented it
System Action: Hangs up on client and continues to serve requests
Administrator Action: Investigate the cause. The error code will be from PAM. Causes include but are not limited to: Misconfiguration of the PAM stack, missing shadow file, or filesystem corruption

SEC0054   **User changed password for %s.**

Problem Description: None
System Action: Informs about success of password change
Administrator Action: Only concern might be suspicion if a user changes password many times in a row.

SEC0055   **Could not build user key for %s@%s**

Problem Description: The server has failed to build an encryption key for the user. This error "should" never happen.
System Action: Hangs up on client and continues to serve requests
Administrator Action: Contact HPSS support

SEC0056   **Could not sign user key for %s@%s**

Problem Description: The server has failed to create a verification signature for a keytab. This error "should" never happen.
System Action: Hangs up on client and continues to serve requests
Administrator Action: Contact HPSS support

SEC0057   **Failed to read signature from client**

Problem Description: The client did not send a verification signature
System Action: Hangs up on client and continues to serve requests
Administrator Action: Could indicate network problems or a non-compliant client

SEC0058   **User keytab verification for %s@%s %s**

Problem Description: None
System Action: Informs about success/failure of a keytab verify attempt
Administrator Action: If messages for the same user appear often, especially with failure attempts, it could indicate intrusion attempts.

SEC0059   **Request for ticket with wrong auth data for user %s@%s\n**

Problem Description: The client asked for a ticket but did not provide acceptable credentials
System Action: Hangs up on client and continues to serve requests
Administrator Action: If this message appears often, it could indicate a malicious user

SEC0060   **Memory error\n**

Problem Description: The server has corrupted memory. Should "never" happen.
System Action: Hangs up on client and continues to serve requests
Administrator Action: Restart the server with *systemctl restart hpss_login_server* for short-term mitigation. Contact HPSS support.

SEC0061   **User %s@%s requested for service with no realm\n**

Problem Description: The client has requested a ticket with no realm.
System Action: Hangs up on client and continues to serve requests
Administrator Action: If this message appears often, it could indicate network problems or a non-compliant client

SEC0062   **Could not find service %s**

Problem Description: The client has requested a ticket for a service that doesn't exist
System Action: Hangs up on client and continues to serve requests
Administrator Action: If this message appears often, it could indicate a misconfigured server, corrupted shadow file, or a malicious user.

SEC0063   **Could not send a ticket for user %s@%s\n**

Problem Description: The server cannot send the ticket back to the client.
System Action: Hangs up on client and continues to serve requests
Administrator Action: If this message appears often, it could indicate network problems or a non-compliant client

SEC0064   **UNIX Socket connect**

Problem Description: None
System Action: Informs about client connection over the UNIX socket
Administrator Action: None

SEC0065   **UNIX Socket client disconnected**

Problem Description: None
System Action: Informs about client disconnection from the UNIX socket
Administrator Action: None

SEC0066   **Failed to create an IO buffer around socket**

Problem Description: The login server builds an IO buffer pipeline around the socket to facilitate secure communications, but has failed. This error should "never" happen.
System Action: Hangs up on client and continues to serve requests
Administrator Action: Contact HPSS Support

SEC0067   **Failed to create an SSL socket**

Problem Description: The login server failed to wrap the socket with SSL. This error should "never" happen.
System Action: Hangs up on client and continues to serve requests
Administrator Action: Contact HPSS Support

SEC0068   **Failed to negotiate SSL on socket**

Problem Description: The login server failed to set up a secure channel with the client.
System Action: Hangs up on client and continues to serve requests
Administrator Action: Ensure that the client and server are configured to use a common set of cryptography suites

SEC0069   **Failed to accept a connection on the UNIX socket listener**

Problem Description: The login server failed to accept a connection on the UNIX socket from a client. This error should "never" happen
System Action: Continues to serve requests
Administrator Action: Restart the server with *systemctl restart hpss_login_server* for short-term mitigation. Contact HPSS support.

SEC0070   **Failed to create a thread to handle socket**

Problem Description: The login server failed to start a thread to handle the socket
System Action: Continues to serve requests
Administrator Action: If new threads cannot be created, this could indicate resource exhaustion on the server. Contact HPSS support.

SEC0071   **Failed to accept a connection on the TCP socket listener**

Problem Description: The login server failed to accept a connection on the TCP socket from a client. This error should "never" happen
System Action: Continues to serve requests
Administrator Action: Restart the server with *systemctl restart hpss_login_server* for short-term mitigation. Contact HPSS support.

SEC0072   **Realm %s not configured for UNIX authentication\n**

Problem Description: The client has attempted to use UNIX login to a realm that is not configured for UNIX authentication.
System Action: Hangs up on client and continues to serve requests.
Administrator Action: Investigate for client site.conf misconfigurations

SEC0073   **Failed to update shadow entry for user %s**

Problem Description: The server attempted to synchronize the user's password with its shadow file, but failed.
System Action: Hangs up on client and continues to serve requests.
Administrator Action: Investigate the cause. Possible issues include a corrupt shadow file or filesystem problems.

SEC0074   **Failed to retrieve password salt for user %s**

Problem Description: The server failed to find the user's password hash data. This should "never" happen.
System Action: Hangs up on client and continues to serve requests.
Administrator Action: Investigate the cause. Possible issues include a corrupt shadow file or filesystem problems.

SEC0075   **TCP Socket connect**

Problem Description: None
System Action: Informs about client connection over the TCP socket
Administrator Action: None

SEC0076   **TCP Socket client disconnected**

Problem Description: None
System Action: Informs about client disconnection from the TCP socket
Administrator Action: None

Chapter 19. SSMS series (SSM System Manager error messages)

SSMS0001   **Access was denied for the specified operation 0x%x**

Problem Description: The client does not have permission to perform the specified operation or the structure does not allow the operation to be performed on it.
System Action: The request will fail.
Administrator Action: Check the ACLs on the System Manager's Security object and make certain they provide the proper access for the client attempting the operation.

SSMS0003   **Unexpected error in SM: %s**

Problem Description: An unexpected error occurred in the System Manager. The <error text> will describe the error that was encountered.
System Action: None.
Administrator Action: Check the <error text> and attempt to correct the issue. Contact HPSS support if the issue can not be corrected.

SSMS0004   **Alarm file unspecified or inaccessible; alarms will be buffered in memory**

Problem Description: The alarm buffer file was not found or could not be opened.
System Action: An in-memory buffer will be created to hold the alarms.
Administrator Action: If an alarm buffer file is desired, verify that the HPSS_SSM_ALARMS environment variable contains the full path to the alarm buffer file; otherwise, no action is required. An alarm buffer file is not required.

SSMS0005   **That configuration already exists; Update or Delete instead of Add**

Problem Description: An entry with one or more of the same uniquely identifying fields, such as the id field, already exists in metadata.
System Action: None
Administrator Action: Verify that the configuration's identifying fields do not already exist. If the configuration identity is correct, select the **Update** or **Delete** button to modify the existing configuration.

SSMS0006   **More than one match was found**

Problem Description: The user probably used an abbreviation for a keyword. The value entered is not unique and a unique entry is required in order to process the request.
System Action: None
Administrator Action: Enter the non-abbreviated form of the keyword.

SSMS0007   **Creation of server authorization vector failed**

Problem Description: Creation of the authorization vector for a new server or loading the vector into the server authorization table failed which could be caused by a failure to get the local realm information, memory allocation, or an inability to obtain the server's UUID from the given name.
System Action: The request will fail.
Administrator Action: Verify that DB2 is running, the server's name is correct, the local realm is defined and that adequate resources are available to allocate memory.

SSMS0008   **Deletion of server authorization vector failed**

Problem Description: Deletion of the authorization vector for a server failed.
System Action: The request will fail.
Administrator Action: Verify that DB2 is running and adequate resources are available to allocate memory.

SSMS0009   **Error building drive list**

Problem Description: The System Manager encountered an error while building the list of devices and drives.
System Action: The drive list and the particular entry which generated the problem will be marked with an appropriate flag.
Administrator Action: Examine the log for related messages offering further details about the problem. Open the *Devices and Drives* window and examine each entry for problems.

SSMS0010   **Bad list type; expecting Tape Mount or Checkin. Clear list request failed**

Problem Description: An unexpected list type was encountered; expecting a list type of Tape Mount or Tape Checkin.
System Action: The request will fail.
Administrator Action: Contact HPSS support. This is an internal error.

SSMS0011   **Bad log message: rectype %u, msgtype %u, severity %u**

Problem Description: An error in the log message was detected. The record type, message type or severity was not recognized.
System Action: A local alarm message is logged.
Administrator Action: Contact HPSS support. This is an internal error.

SSMS0012   **Mount request of type %d was not recognized**

Problem Description: An unexpected mount request type was received; expecting a *mount requested* or *mount complete* request.
System Action: None.
Administrator Action: Contact HPSS support. This is an internal error.

SSMS0013   **ObjectID is null or is the wrong type**

Problem Description: The object id is not valid or the object type does not match the type that was expected.
System Action: None.
Administrator Action: Contact HPSS support. This is an internal error.

SSMS0014   **Tape Check-In request of type %d was not recognized**

Problem Description: An unexpected tape checkin request type was received; expecting a *checkin requested* or *checkin complete* request.
System Action: None
Administrator Action: Contact HPSS support. This is an internal error.

SSMS0016   **Delete log policy request failed**

Problem Description: The request to delete the log policy failed because it is the default log policy.
System Action: None.
Administrator Action: Change the default log policy to another policy and try again.

SSMS0017   **SSM System Manager was unable to locate a PVR controlling that cartridge**

Problem Description: SSM System Manager was unable to find a PVR server controlling the specified cartridge.
System Action: None
Administrator Action: Verify that the PVL is running. Verify the cartridge label was entered correctly.

SSMS0018   **Can not find the PVL**

Problem Description: An attempt to find a PVL or to find only one PVL failed.
System Action: None
Administrator Action: Verify that one and only one PVL is configured.

SSMS0019   **Unable to register SSM System Manager services**

Problem Description: An attempt by the SSM System Manager to initialize RPC connections, get a server interface or register the RPC services failed.
System Action: None
Administrator Action: Verify that the security mechanism is supported. Verify that there is enough memory to allocate an interface entry.

SSMS0020   **Import of cartridge *%s* complete**

Problem Description: The specified cartridge was imported.
System Action: None
Administrator Action: None; informational.

SSMS0021   **Import of cartridge *%s* unnecessary; cartridge already exists**

Problem Description: The specified cartridge was not imported because it already had been imported.
System Action: None
Administrator Action: None; informational.

SSMS0022   **Start Child Process: %s message: %s**

Problem Description: The SSM is starting a child process.
System Action: None
Administrator Action: None; informational

SSMS0023   **Export of cartridge *%s* complete**

Problem Description: The specified cartridge has been exported.
System Action: None
Administrator Action: None; informational

SSMS0024   **Export of cartridge *%s* failed**

Problem Description: The System Manager was unable to export the specified cartridge.
System Action: The System Manager will not attempt to export any further cartridges in the export list.
Administrator Action: Check the log for related messages. See whether the cartridge was actually known to the PVL.

SSMS0025   **Error returned from hpss_FilesetCreate**

Problem Description: An attempt to create a fileset failed.
System Action: None
Administrator Action: Examine the log for related messages. Verify that the user's fileset configuration information is correct.

SSMS0026   **Exiting cleanup, calling thread *%s* hpss_status %d rpc_status_total %d**

Problem Description: The System Manager is exiting the cleanup function in preparation for shutting down. The cleanup function is called twice. A calling thread id of 1 indicates the function is being called the first time, by a thread requesting a shutdown. The cleanup function will stop accepting further RPCs. A calling thread id of 2 indicates the function is being called by the main thread, after all open RPCs have completed, to quiesce transactions, free malloc'ed memory, and unregister services before final exit.
System Action: The System Manager will exit.

Administrator Action: None if this is the result of a normal SSM shutdown. Otherwise, examine the log for related messages.

SSMS0027   **Client logged in: id=*%d*, principal=*%s*, hostname=*%s*, port=*%d*, mode=*%d***

Problem Description: The client has been logged in.
System Action: The client has been added to the client table.
Administrator Action: None; informational

SSMS0028   **Client logged out: id=*%d*, principal=*%s*, hostname=*%s*, port=*%d*, mode=*%d***

Problem Description: The client has been logged out.
System Action: The client has been deregistered for all managed objects and the client id has been set to unused.
Administrator Action: None; informational

SSMS0029   **SSM System Manager could not communicate with target server**

Problem Description: The target server is not running or cannot be contacted. The server port may be incorrectly specified. The startup up daemon may not be running or cannot be contacted. An unexpected RPC Exception was encountered.
System Action: None
Administrator Action: Verify that the target server and the Startup Daemon are running. Check that the server port is not in use.

SSMS0030   **Condition variable failure for *%s***

Problem Description: The System Manager was unable to obtain or signal a condition variable. The lock name supplies as much information as possible to associate the lock with the resource it protects; for example, "SSM_SM_client BhLock ClientID 1" is the lock for the binding handle for client 1.
System Action: The request will fail.
Administrator Action: Retry the request. Sometimes this happens because another thread is temporarily busy with the resource. If the error persists, recycle the SSM.

SSMS0031   **Timed out waiting on condition variable for *%s***

Problem Description: The System Manager was not able to obtain a condition variable for access to a protected resource within a reasonable time.
System Action: The request will fail.
Administrator Action: Retry the request. It is possible another thread was using the resource and has now released it. If the error persists, recycle the System Manager.

SSMS0032   **delog message:**

Problem Description: This is the output from the **delog** command forked and exec'ed by the System Manager. It consists of the command line with which the **delog** command was called.
System Action: None
Administrator Action: None; informational.

SSMS0033   **Conflicting information found between Mover Device and PVL Drive**

Problem Description: Conflicting information was found between the Mover Device and PVL Drive data; there may be a PVL drive without a Mover device or the PVL drive information may not be valid.
System Action: None
Administrator Action: Try deleting and then recreating the device and drive configuration.

SSMS0034   **Can't delete this device or drive without its partner**

Problem Description: An attempt to delete a Mover device was made but a corresponding PVL drive still exists. An attempt to delete a PVL drive was made but the corresponding Mover device still exists. The requested metadata call was passed an incorrect CFClass variable.
System Action: The request will fail.
Administrator Action: Contact HPSS support. This is an internal error.

SSMS0035   **Failure in Metadata Manager: %s for object class %d: %s**

Problem Description: A call to the metadata library function for some operation has failed.
System Action: The request will fail.
Administrator Action: Examine the log for a related message which will list the exact metadata error, if one was available.

SSMS0037   **This duplicates a configuration that already exists**

Problem Description: The entry duplicates an existing entry.
System Action: None
Administrator Action: Modify the configuration data so that the entry is unique.

SSMS0038   **Target server rejected request; invalid argument passed**

Problem Description: An invalid value was detected and the request could not be processed.
System Action: The request will fail.
Administrator Action: Verify that the data entered is valid and try again.

SSMS0039   **Request failed; target server reported a resource allocation failure**

Problem Description: An attempt to allocate memory failed.
System Action: The request will fail.
Administrator Action: Verify memory resources.

SSMS0040   **Operation is not permitted**

Problem Description: Either the user does not have authority to perform the operation or the structure does not allow the operation to be performed on it.
System Action: The request will fail.
Administrator Action: Verify that the user has the authority to perform the operation. Verify that the structure allows the operation.

SSMS0041   **The target server does not support the requested operation**

Problem Description: The server does not support the requested action.
System Action: The request will fail.
Administrator Action: None; informational

SSMS0042   ***%s* called from *%s* (Client %d/%d) ($t%d)**

Problem Description: This is a trace message to log which APIs are called by which clients.
System Action: None
Administrator Action: None

SSMS0043   **End Child Process: %s message: %s**

Problem Description: The SSM is ending a child process.
System Action: None
Administrator Action: None; informational

SSMS0044   **exec() of *%s* failed**

Problem Description: The attempt to fork and exec the specified executable program failed.
System Action: The request will fail.
Administrator Action: Determine whether the pathname for the specified program is defined correctly in the environment file, and whether the System Manager has permission to run it.

SSMS0045   **Unexpected fatal error from *%s*; errno was %d**

Problem Description: An attempt to create a necessary object, such as a UUID, or to obtain a necessary resource failed.
System Action: The request will fail. The SSM System Manager will exit.
Administrator Action: Check the log file for related messages. Look up the error message from the server generating the error.

SSMS0046   **The fileset name *%s* is too long**

Problem Description: The fileset name exceeded the maximum number of characters allowed.
System Action: The request will fail.
Administrator Action: Use a shorter fileset name.

SSMS0047   **function call *%s* failed**

Problem Description: The specified function failed.
System Action: The request will fail.
Administrator Action: Depends upon the specified function.

SSMS0048   **Halting all HPSS servers**

Problem Description: This message is issued when the user asks the SM to shut down all non-SSM servers.
System Action: An attempt is made to shut down all the servers except the SM and SUD.
Administrator Action: None; informational.

SSMS0049   **Halt of server *%s* is complete**

Problem Description: The System Manager has forcibly halted the specified server.
System Action: None
Administrator Action: None; informational.

SSMS0050   **Halt of server *%s* failed**

Problem Description: The System Manager was unable to halt the specified server.
System Action: None
Administrator Action: Make certain the Startup Daemon is running on the server's host. If the server will not respond to SSM's request to halt, the Startup Daemon is asked to terminate it.

SSMS0051   **Cannot get handle for *%s***

Problem Description: The System Manager is unable to obtain a binding handle for the specified server.
System Action: The System Manager will be unable to issue requests to the server.
Administrator Action: Make certain the server for which the failure occurred is executing. Check the network connectivity to its host.

SSMS0054   **HPSS or SSM error number: %d**

Problem Description: The System Manager has experienced the specified error. This message will always be accompanied by another message that describes the problem in more detail.
System Action: Depends on the particular problem.
Administrator Action: Examine the log for related messages.

SSMS0055   **HPSS SSM System Manager initialization complete**

Problem Description: The System Manager has completed initialization, including reading the server configuration table, and initializing its internal tables.
System Action: None
Administrator Action: None; informational.

SSMS0056   **HPSS SSM System Manager initialization failed**

Problem Description: The System Manager initialization has failed.
System Action: The System Manager will exit.
Administrator Action: Examine the log for related messages. Make certain DB2 is functioning properly. Verify that values for the input parameters in the startup script are correct.

SSMS0057   **hpss_InitServer() failed with *%s* error %d**

Problem Description: The hpss_InitServer function call failed.
System Action: The System Manager will not be able to initialize and will exit.
Administrator Action: Examine the log for related messages. Make certain DB2 is functioning properly. Verify that values for the input parameters in the startup script are correct.

SSMS0058   **hpss_InitServer() failed**

Problem Description: The hpss_InitServer function call failed.
System Action: The System Manager will not be able to initialize and will exit.
Administrator Action: Examine the log for related messages. Make certain DB2 is functioning properly. Verify that values for the input parameters in the startup script are correct.

SSMS0059   **Invalid argument passed to function**

Problem Description: The method was unable to process the request because one or more arguments were not valid. For example, a physical volume name is too long for a volume name, an invalid list type was passed to find_id_in_list(), or the method was expecting a storage subsystem structure but it was not found.
System Action: The request will fail.
Administrator Action: Verify that the values for the specified method are valid.

SSMS0060   **Invalid configuration file type %d**

Problem Description: The System Manager has received a request for an invalid configuration type.
System Action: The request will fail.
Administrator Action: Contact HPSS support. This is an internal error.

SSMS0061   **SSM System Manager rejected request: invalid configuration file type**

Problem Description: The System Manager has received a request for an invalid configuration type.
System Action: The request will fail.
Administrator Action: Contact HPSS support. This is an internal error.

SSMS0062   **Invalid Execute Hostname specified for server**

Problem Description: The specified execute hostname could not be verified.
System Action: The request will fail.
Administrator Action: Verify that the execute hostname is valid.

SSMS0063   **SSM System Manager rejected request; invalid argument(s) passed**

Problem Description: The method was unable to process the request because one or more arguments were not valid.
System Action: The request will fail.
Administrator Action: Verify that the data entered is valid and try again.

SSMS0064   **Invalid managed object type %d**

Problem Description: The System Manager has received a request for an invalid managed object type.
System Action: The request will fail.
Administrator Action: Contact HPSS support. This is an internal error.

SSMS0065   **SSM System Manager rejected request: invalid managed object type**

Problem Description: The System Manager has received a request for an invalid managed object type.
System Action: The request will fail.
Administrator Action: Contact HPSS support. This is an internal error.

SSMS0066   **Invalid object id %d**

Problem Description: The System Manager has received a request for which the object type is not valid for the specified server type.
System Action: The request will fail.
Administrator Action: Contact HPSS support. This is an internal error.

SSMS0067   **SSM System Manager rejected request: invalid object id**

Problem Description: The System Manager has received a request for which the object type is not valid for the specified server type.
System Action: The request will fail.
Administrator Action: Contact HPSS support. This is an internal error.

SSMS0068   **SSM System Manager rejected request; invalid object type for server type**

Problem Description: The System Manager has received a request for which the object type is not valid for the specified server type.
System Action: The request will fail.
Administrator Action: Contact HPSS support. This is an internal error.

SSMS0069   **Invalid operation type 0x%x**

Problem Description: The System Manager has received a request for an invalid operation.
System Action: The request will fail.
Administrator Action: Contact HPSS support. This is an internal error.

SSMS0070   **SSM System Manager rejected request: invalid operation type**

Problem Description: The System Manager has received a request for an invalid operation.
System Action: The request will fail.
Administrator Action: Contact HPSS support. This is an internal error.

SSMS0071   **Invalid operation 0x%x for config file type %d**

Problem Description: The specified operation is not valid for the specified configuration type.
System Action: The request will fail.
Administrator Action: None

SSMS0072   **Config failed; requested operation not valid for configuration type**

Problem Description: The specified operation is not valid for the specified configuration type.
System Action: The request will fail.
Administrator Action: None

SSMS0073   **Request failed; requested operation not valid for managed object**

Problem Description: The System Manager has received a request for an operation that is not valid for the managed object.
System Action: The request will fail.
Administrator Action: Contact HPSS support. This is an internal error.

SSMS0074   **Invalid server id %d**

Problem Description: The System Manager has received a request for an invalid server id.
System Action: The request will fail.
Administrator Action: Contact HPSS support. This is an internal error.

SSMS0075   **SSM System Manager rejected request: invalid server id**

Problem Description: The System Manager has received a request for an invalid server id.
System Action: The request will fail.
Administrator Action: Contact HPSS support. This is an internal error.

SSMS0076   **Invalid SrvInfoUnion type %d**

Problem Description: The System Manager has received an invalid SrvInfoUnion union member type.
System Action: The request will fail.
Administrator Action: Contact HPSS support.

SSMS0077   **SSM System Manager rejected request; invalid SrvInfoUnion_t class**

Problem Description: The System Manager has received an invalid SrvInfoUnion union member type.
System Action: The request will fail.
Administrator Action: Contact HPSS support.

SSMS0078   **Invalid server type %d**

Problem Description: The System Manager has received a request for an invalid server type.
System Action: The request will fail.
Administrator Action: Contact HPSS support. This is an internal error.

SSMS0079   **SSM System Manager rejected request: invalid server type**

Problem Description: The System Manager has received a request for an invalid server type.
System Action: The request will fail.
Administrator Action: Contact HPSS support. This is an internal error.

SSMS0080 **Invalid uuid *%s***

Problem Description: The System Manager has received a request for an invalid UUID.
System Action: The request will fail.
Administrator Action: Contact HPSS support. This is an internal error.

SSMS0081 **Java Exception: *%s***

Problem Description: A Java exception has occurred during an attempt to save a migration policy.
System Action: The request will fail.
Administrator Action: Review the Java exception for the cause. Contact HPSS support. This is an internal error.

SSMS0082 ***%s* called from *%s* (Status (HPSS=%d RPC=%d)) ($t%d)**

Problem Description: This is a trace message to log when an API is exited.
System Action: None
Administrator Action: None. Check status to see if API succeeded.

SSMS0083 **Warning: this setting may lead to significant waste of disk space**

Problem Description: An informational warning is displayed to warn the user that the configuration setting is not optimal.
System Action: None
Administrator Action: It is advised that the administrator should modify the Maximum Segment Size setting until the warning message is no longer displayed.

SSMS0084 **Unable to create new Class of Service. Table is full**

Problem Description: The maximum number of Classes of Service (HPSS_MAX_COS) that can be created has already been reached.
System Action: The request to create a new class of service will fail.
Administrator Action: An existing Class of Service must be deleted before a new Class of Service can be created. Exercise caution before deleting a Class of Service.

SSMS0085   **Failure in Metadata Manager: %s**

Problem Description: A call to the metadata library function has failed.
System Action: The request will fail.
Administrator Action: Examine the log for a related message which will list the exact metadata error, if one was available.

SSMS0086   **An unspecified Metadata Manager failure occurred**

Problem Description: A call to the metadata library function has failed.
System Action: The request will fail.
Administrator Action: Examine the log for a related message which will list the exact metadata error, if one was available.

SSMS0087   **A storage subsystem must be configured before you can create an MPS**

Problem Description: An attempt to get a default storage subsystem for a new Migration/Purge Server configuration failed.
System Action: An error message is displayed. The MPS configuration cannot be saved.
Administrator Action: Create a storage subsystem before trying to configure a new Migration/Purge server

SSMS0088   **Mutex initialization failed**

Problem Description: The System Manager was unable to initialize a mutex.
System Action: The System Manager will not be able to initialize and will exit.
Administrator Action: Contact HPSS support.

SSMS0089   **Mutex lock failed**

Problem Description: The System Manager was unable to lock a mutex.
System Action: The request will fail and the System Manager will exit.
Administrator Action: Restart the System Manager and retry the request.

SSMS0090   **Mutex unlock failed**

Problem Description: The System Manager was unable to unlock a mutex.
System Action: The request will fail and the System Manager will exit.
Administrator Action: Restart the System Manager and retry the request.

SSMS0091   **Invalid accounting style or missing accounting policy**

Problem Description: The accounting style is not supported or no accounting policy could be found.
System Action: The request will fail.
Administrator Action: Verify that the accounting style is valid or create a new accounting policy.

SSMS0092   **All device id values are in use**

Problem Description: A default device id could not be obtained because all device ids are already in use.
System Action: The request will fail.
Administrator Action: If necessary, delete an existing device so that the new device can be created.

SSMS0093   **ObjectID does not match the object**

Problem Description: A check which is made to verify that an entry in the table of registered objects has the same object id as that of a managed object passed to the SSM System Manager by a subsystem notification has failed.
System Action: The request will fail.
Administrator Action: Contact HPSS support. This is an internal error.

SSMS0094   **Can't find the Core Server which owns that physical volume**

Problem Description: An attempt to locate the Core Server that owns a physical volume has failed.
System Action: The request will fail.
Administrator Action: Verify that the physical volume has been allocated to a Core Server. Verify that the Core Server is running.

SSMS0095   **Cannot find startup daemon on host *%s* for server *%s*. Please configure a startup daemon for the host and make sure that it is running on the host; or mark the server Non-Executable; or delete the server configuration to silence these messages.**

Problem Description: The System Manager cannot find an entry for a Startup Daemon for the specified host in the server configuration table.
System Action: Servers for this host cannot be started, and in some cases cannot be halted, without the aid of the Startup Daemon.
Administrator Action: Configure an entry in the server configuration table for a Startup Daemon on the specified host.

SSMS0096   **Request failed; no startup daemon is configured for the target host**

Problem Description: The System Manager cannot find an entry for a Startup Daemon for the specified host in the server configuration table.
System Action: Servers for this host cannot be started, and in some cases cannot be halted, without the aid of the Startup Daemon.
Administrator Action: Configure an entry in the server configuration table for a Startup Daemon on the specified host.

SSMS0097   **No subsystem is available in which to place a new Core Server**

Problem Description: An attempt to create a new Core Server failed. There can only be one Core Server per subsystem and all of the subsystem's already have a Core Server.
System Action: The request will fail.
Administrator Action: Either create a new subsystem in which to place the new Core Server, or delete an existing Core Server and then create a new Core Server using the deleted Core Server's subsystem.

SSMS0099   **No subsystem is available in which to place a new Migration Purge Server**

Problem Description: An attempt to create a new Migration/Purge Server failed. There can only be one Migration/Purge Server per subsystem and all of the subsystem's already have a Migration/Purge Server.
System Action: The request will fail.
Administrator Action: Either create a new subsystem in which to place the new Migration/Purge Server, or delete an existing Migration/Purge Server and then create a new Migration/Purge Server using the deleted Migration/Purge Server's subsystem.

SSMS0100   **The SSM System Manager was unable to find the specified device or drive *%d* for the SSM data type *%d***

Problem Description: An attempt to locate a device or drive with the given id failed.
System Action: The request will fail.
Administrator Action: Verify that the device or drive id is valid.

SSMS0101   **No server of type *%s* could be found to handle your request**

Problem Description: An attempt to locate a Core Server's id using the server's UUID failed or an attempt to locate a Core Server using a physical volume name failed.
System Action: The request will fail.
Administrator Action: Verify that the UUID is valid or verify that the physical volume name is valid.

SSMS0102   **CHECK CONFIG: *%s* type-specific configuration has not been created.**

Problem Description: The server's basic configuration has been created but its type-specific configuration has not been created yet or has been deleted. This should not occur since both the basic and type-specific configuration are created at the same time. SSM is warning that the configuration for the server is incomplete.
System Action: The status of the server will be marked "CHECK CONFIG" on the HPSS Servers list screen. The server will fail to start until the server's type-specific configuration is added.
Administrator Action: Use DB2 to add the specified server's type-specific configuration or delete and re-add the server configuration.

SSMS0103   **Type-specific configuration has not been created**

Problem Description: The server's basic configuration has been created but its type-specific configuration has not been created yet or has been deleted. This should not occur since both the basic and type-specific configuration are created at the same time. SSM is warning that the configuration for the server is incomplete.
System Action: The status of the server will be marked "CHECK CONFIG" on the HPSS Servers list screen. The server will fail to start until the server's type-specific configuration is added.
Administrator Action: Use DB2 to add the specified server's type-specific configuration or delete and re-add the server configuration.

SSMS0104   **Entry not found**

Problem Description: The client was not found.
System Action: The request will fail.
Administrator Action: Verify that the client information is valid.

SSMS0105   **Expecting a group of a particular type but it was not found**

Problem Description: The hpssadm was expecting the data structure to contain a group definition of a particular type but the group definition was not found.
System Action: The request will fail.
Administrator Action: Contact HPSS support. This is an internal error.

SSMS0106   **Unexpected null pointer encountered**

Problem Description: An attempt to create or obtain a necessary object failed or an invalid parameter was passed.
System Action: The request will fail.
Administrator Action: Contact HPSS support. This is an internal error.

SSMS0107   **Non-HPSS error message: *%s***

Problem Description: ssm_sm_errors.c attempts to convert a non-HPSS error message to text and log the information
System Action: None.
Administrator Action: Check the log file for further information.

SSMS0108   **CHECK CONFIG: Principal name *%s* for server *%s* does not match the environment variable. Check environment variable *%s***

Problem Description: The server's configuration screen contains a file folder tab labeled, "Security Controls", which when opened contains a field labeled, Principal Name. The principal name defined in this field is different from the value defined by the specified environment variable.
System Action: The status of the server will be marked "CHECK CONFIG" on the Servers list screen. The server will fail to start until the server's Principal Name is corrected.
Administrator Action: Correct the Principal Name (check for spelling error) entered under the Security Controls section of the server's configuration screen to match the value set by the environment variable.

SSMS0109   **reclaim message:**

Problem Description: This is the output from the **reclaim** command forked and exec'ed by the System Manager.
System Action: None.
Administrator Action: Follow up appropriately if the output includes any errors from the **reclaim** command.

SSMS0110   **Reinitializing all HPSS servers**

Problem Description: A trace message indicating the System Manager is reinitializing all servers.
System Action: None
Administrator Action: None; informational.

SSMS0111   **Reinitialization of server *%s* complete**

Problem Description: The System Manager reinitialized the specified server.
System Action: None
Administrator Action: None; informational.

SSMS0112   **Reinitialization of server *%s* failed**

Problem Description: The System Manager could not reinitialize the specified server.
System Action: None
Administrator Action: Examine the log for related messages. Not all servers support the reinitialization operation. To force a server that does not support reinitialization to reread its metadata, shut down and restart the server.

SSMS0113   **Reinitialization not supported by server *%s***

Problem Description: The specified server does not support the operation of reinitialization.
System Action: None
Administrator Action: Shut down and restart the server to make it reread its configuration.

SSMS0114   **repack message:**

Problem Description: This is the output from the **repack** command forked and exec'ed by the System Manager.
System Action: None
Administrator Action: Follow up appropriately if the output includes any errors from the **repack** command.

SSMS0115   **Server *%s* has been notified of repair**

Problem Description: The specified server has been informed that an error condition that it had previously reported to the System Manager was repaired by the operator.
System Action: The server should clear its error flags. If, however, the problem was not truly fixed, the server is likely to discover this and immediately reset its error flags.
Administrator Action: None; informational.

SSMS0116   **Notification of repair to server *%s* failed**

Problem Description: The System Manager was unable to notify the specified server that an error condition previously reported by the server was repaired by the operator.
System Action: None
Administrator Action: Determine whether the specified server is executing, and check network connectivity to its host.

SSMS0117   **Notification of repair not supported by server *%s***

Problem Description: The specified server does not support this operation.
System Action: None
Administrator Action: Some servers do not support the repair function and will return HPSS_ENOTSUPPORTED. If it is necessary to clear the server's error states, shut down and restart it.

SSMS0118   **Resource Delete failed; resource is busy**

Problem Description: A resource is busy and cannot be obtained.
System Action: The request will fail.
Administrator Action: Check the log file for related error messages. Wait for the resource to become available and try again.

SSMS0119   **Shutting down all HPSS servers**

Problem Description: A trace message indicating the System Manager is shutting down all servers.
System Action: None
Administrator Action: None; informational.

SSMS0120   **Shutdown of server *%s* initiated**

Problem Description: The System Manager has probably shut down the specified server. It has requested the server to shut down gracefully, and the server has said it would. It is possible, however, that the server could have had difficulty with the shutdown and is still running, or that it just hasn't quite completed the shutdown yet.
System Action: None
Administrator Action: Cautious optimism. Watch the server list window to see whether the server's Status eventually goes to DOWN.

SSMS0121   **Shutdown of server *%s* failed**

Problem Description: The System Manager was unable to shut down the specified server.
System Action: None
Administrator Action: Examine the log for related messages. If necessary, use the **force halt** command to stop the server.

SSMS0122   **Shutdown of server failed**

Problem Description: The System Manager was unable to shut down the specified server.
System Action: None
Administrator Action: Examine the log for related messages. If necessary, use the **force halt** command to stop the server.

SSMS0123   **sigwait() failed**

Problem Description: The sigwait() system call failed.
System Action: The System Manager will exit.
Administrator Action: Examine the log for a related debug message of type SSMS0006 which will list the sigwait return code.

SSMS0124   **SSM System Manager using descriptive name *%s***

Problem Description: The SSM System Manager reported the descriptive name which it is using.
System Action: None
Administrator Action: None; informational

SSMS0125   **SSM System Manager reported an unspecified internal error**

Problem Description: An internal error was encountered such as the number of RPC security mechanisms found exceeds the number that was expected or a thread, pipe, or fork request failed.
System Action: The request will fail.
Administrator Action: Contact HPSS support. This is an internal error.

SSMS0126   **General resource or synchronization failure in SSM System Manager**

Problem Description: An attempt to allocate memory, perform operations on a mutex or a timeout condition occurred.
System Action: The request will fail.
Administrator Action: Check the log file for related messages. Verify that adequate resources are available.

SSMS0127   **Server must be down before changing its configuration data**

Problem Description: An attempt to add or delete a configuration failed because a server that must read the configuration file is still running.
System Action: None
Administrator Action: Shut down the servers and then try the configuration add or delete again. When the server is restarted, the server will reread the modified configuration file to obtain the updated information.

SSMS0128   **System Manager cannot locate server. Check server connection**

Problem Description: The server is not running or the invalid information was provided in order to locate the server.
System Action: The request will fail.
Administrator Action: Check the server is running and that the server information provided is correct.

SSMS0129   **SSM configuration must be created before any others**

Problem Description: The first server added to the server configuration table must be for the SSM System Manager, since every other entry includes the SSMSM UUID.

System Action: The System Manager will not supply the requested default entry for the server configuration table.

Administrator Action: This should never happen, because when the System Manager is started for the first time after installation, it creates an entry for itself in the server configuration table. However, if necessary, create the initial SSM entry.

SSMS0130   **No entry for SSM *%s* found in server table**

Problem Description: No entry was found in the server configuration table for the SSM System Manager.

System Action: The System Manager will be unable to start until its server configuration has been added to the server configuration table.

Administrator Action: The **hpss_ssm_sec** utility should be run to see if the entry exists. If it doesn't exist, then **hpss_ssm_sec configure** should be run to create it. If the System Manager still will not start, examine the server configuration table to be certain there is only one SSM-type entry and that its fields are all correct.

SSMS0131   **No entry for SSM was found in server table**

Problem Description: No entry was found in the server configuration table for the SSM System Manager.

System Action: The System Manager will be unable to start until its server configuration has been added to the server configuration table.

Administrator Action: The **hpss_ssm_sec** utility should be run to see if the entry exists. If it doesn't exist, then **hpss_ssm_sec configure** should be run to create it. If the System Manager still will not start, examine the server configuration table to be certain there is only one SSM-type entry and that its fields are all correct.

SSMS0132   **Starting all HPSS servers**

Problem Description: A trace message indicating the System Manager is starting all servers.

System Action: None

Administrator Action: None; informational

SSMS0133   **Starting all HPSS servers that are to be started automatically**

Problem Description: A message is issued that an attempt will be made to start all servers which have their STARTUP_SERVER_FLAG set.
System Action: None
Administrator Action: None; informational

SSMS0134   **Server *%s* was already running**

Problem Description: The attempt to start the specified server failed because the server was already running.
System Action: None
Administrator Action: It is possible that the Startup Daemon just thinks this server is up but it really isn't. See whether the SSM can connect to the server, or whether a *ps* on the server's host shows it running. If not, it may be necessary to restart the Startup Daemon on that host.

SSMS0135   **Execute flag not set for server *%s***

Problem Description: The specified server could not be started because the EXECUTE_SERVER_FLAG is not set in the Flags field of its entry in the server configuration table.
System Action: The System Manager will refuse to start the server.
Administrator Action: Use the configuration update screen to set the flag.

SSMS0136   **Execute flag not set**

Problem Description: The specified server could not be started because the EXECUTE_SERVER_FLAG is not set in the Flags field of its entry in the server configuration table.
System Action: The System Manager will refuse to start the server.
Administrator Action: Use the configuration update screen to set the flag.

SSMS0137   **Startup of server *%s* initiated**

Problem Description: The System Manager has started the specified server.
System Action: The System Manager will attempt to connect to the server.
Administrator Action: Cautious optimism. Watch for events from the server indicating its initialization is complete and from the System Manager indicating it could connect to the server.

SSMS0138   **Startup of server *%s* failed**

Problem Description: The System Manager was unable to start the specified server.
System Action: None
Administrator Action: Examine the log for related messages. Make certain the server's execution bit is turned on. Verify that the Startup Daemon for the server's host is configured, up, and connected to SSM. Verify that the executable pathname for the server in the server's configuration file and the permissions on the executable file are correct.

SSMS0140   **HPSS SSM System Manager initializing**

Problem Description: The System Manager is initializing.
System Action: The System Manager will attempt to read the server configuration table, initialize its internal tables, and assess the status of each server.
Administrator Action: None; informational.

SSMS0141   **getpwnam(%s) failed (errno = %d)**

Problem Description: SSM could not determine an appropriate non-privileged user under whose identity to execute a utility program. The SSM System Manager must be executed as root, but it executes utilities such as accounting as a non-privileged user. The default non-privileged id it uses is "hpss"; this can be overridden by the value of the HPSS_USER environment variable. This error means the System Manager cannot find the entry for the non-privileged user in the password file.
System Action: The request will fail.
Administrator Action: Make sure that the System Manager is running as root and that the <user name> user has sufficient privileges to execute the utility.

SSMS0142   **setuid/setgid(%d) failed (errno = %d)**

Problem Description: SSM could not set its identity to the specified user ID before attempting to execute a utility program. The SSM System Manager must be executed as root, but it executes utilities such as accounting as a non-privileged user. The default non-privileged ID it uses is *hpss*; this can be overridden by the value of the HPSS_USER environment variable. This error means the System Manager could not set its identity to the non-privileged user ID.

System Action: The request will fail.

Administrator Action: Make sure that the System Manager is running as root and that the <userid> user has sufficient privileges to execute the utility.

SSMS0143   **Could not find a %s server in Subsystem Id #%d**

Problem Description: SSM could not find a particular server type in a particular subsystem. When creating XDSM filesets, the SSM System Manager needs to find the Core Server in the same storage subsystem as the DMAP Gateway; similarly it needs to find the DMAP Gateway in the same storage subsystem as the Core Server. Each XDSM fileset is associated with a DMAP Gateway and a Core Server in the same storage subsystem. This error means that the System Manager wasn't able to find the specified server type (for example, CORE or DMG) in the specified storage subsystem.

System Action: The request will fail.

Administrator Action: Check to be sure that a server of type <server type> exists in subsystem <subsysId>.

SSMS0144 **Client RPC Thread Pool Full: ThreadPoolSize=%d RequestQueueSize=%d ActiveRPCs=%d QueuedRPCs=%d MaxActive/QueuedRPCs=%d**

Problem Description: The Client RPC Interface thread pool is full. When the thread pool is full RPC requests will be queued to wait for an available thread to process the RPC request. When RPCs have to wait for an available thread the System Manager's response to client RPCs can become downgraded. When both the thread pool and the request queue become full RPC requests will be dropped. This message shows the size of the thread pool <pool size>, the size of the request queue <queue size>, the number of currently active RPCs <active>, the number of queued RPCs <queued> and the maximum number of active and queued RPCs <max>.

System Action: The System Manager response to Client RPCs will be degraded (slowed down) or dropped completely.

Administrator Action: Adjust the **Thread Pool Size** and **Request Queue Size** values in the System Manager's Interface Controls Configuration. A good starting point would be to set the Thread Pool Size to be a value a little large than <max>. The System Manager will need to be restarted.

SSMS0145 **Server RPC Thread Pool Full: ThreadPoolSize=%d RequestQueueSize=%d ActiveRPCs=%d QueuedRPCs=%d MaxActive/QueuedRPCs=%d**

Problem Description: The Server RPC Interface thread pool is full. When the thread pool is full RPC requests will be queued to wait for an available thread to process the RPC request. When RPCs have to wait for an available thread the System Manager's response to server RPCs can become downgraded. When both the thread pool and the request queue become full RPC requests will be dropped. This message shows the size of the thread pool <pool size>, the size of the request queue <queue size>, the number of currently active RPCs <active>, the number of queued RPCs <queued> and the maximum number of active and queued RPCs <max>.

System Action: The System Manager response to Server RPCs will be degraded (slowed down) or dropped completely.

Administrator Action: Adjust the **HPSS_SM_SRV_TPOOL_SIZE** and **HPSS_SM_SRV_QUEUE_SIZE** environment variable values. A good starting point would be to set the **HPSS_SM_SRV_TPOOL_SIZE** to be a value a little large than <max>. The System Manager will need to be restarted.

SSMS0146 **Issuing accounting command:**

Problem Description: The System Manager is about to start an accounting run with the specified arguments.
System Action: None
Administrator Action: None; informational

SSMS0147   **Issuing delog command:**

Problem Description: A trace message containing the **delog** command the System Manager is about to issue.
System Action: None
Administrator Action: None; informational.

SSMS0148   **Drive %d devid %d devname *%s* drvaddr *%s* mvr %d host *%s* pvl %d pvr %d**

Problem Description: A trace message printed as the System Manager reads the device and drive configuration tables and builds the SSM drive list.
System Action: None
Administrator Action: None; informational.

SSMS0149   **Entering function**

Problem Description: A trace message indicating the System Manager is entering the specified function.
System Action: None
Administrator Action: None; informational.

SSMS0150   **Entering function *%s* ServerID %d CFClass %d**

Problem Description: A trace message indicating the System Manager has entered a function to manipulate configuration tables.
System Action: None
Administrator Action: None; informational.

SSMS0151   **Entering function *%s* ServerID %d MOClass %d**

Problem Description: A trace message indicating the System Manager is entering a function dealing with managed objects.
System Action: None
Administrator Action: None; informational.

SSMS0152   **Import thread number %d processing cartridge *%s***

Problem Description: The System Manager was unable to export the specified cartridge.
System Action: None
Administrator Action: None; informational.

SSMS0153   **Entering sm_process_notification for *%s***

Problem Description: A trace message indicating the System Manager has received the specified notification and has entered the general processing function for notifications.
System Action: None
Administrator Action: None; informational

SSMS0154   **Server index %d id %d type %d name *%s***

Problem Description: A trace message containing an entry from the System Manager's server list. The server type values are those defined in ssm_defs.idl.
System Action: None
Administrator Action: None; informational

SSMS0156   **Unexpected SSM *%s* found in server table**

Problem Description: An SSM entry has been found in the server configuration table that does not match the descriptive name specified in the environment.
System Action: The System Manager will ignore the entry. If another entry which does match the values from the environment cannot be found, the System Manager will create a new entry just as it did the first time it was executed after initial HPSS installation.
Administrator Action: Use the configuration screens to remove the extra entry.

SSMS0157   **Unsolicited notification: Server %d, Object %d (0x%08x 0x%08x)**

Problem Description: The System Manager has received a notification from a server for which it has not registered.
System Action: The System Manager will attempt to straighten out the registration with the server.
Administrator Action: If lots of the messages appear over a short time then it may be necessary to recycle the System Manager to clear up the registrations. If they persist then recycle the server causing the notifications.

SSMS0158   **uuid_equal returned error *%d***

Problem Description: The server could not be located using the UUID supplied. The UUID was not found in the server list.
System Action: None
Administrator Action: Verify the UUID is valid.

SSMS0159   **Cannot convert uuid from string, error: *%s***

Problem Description: The string does not contain a valid UUID.
System Action: The request will fail.
Administrator Action: Verify that the UUID string contains valid characters and is formatted with the correct number of characters and dashes. A valid UUID may contain the numbers *0* through *9* and the letters *a* through *f*. A valid UUID contains 8 characters, a dash, 4 characters, a dash, 4 characters, a dash, 4 characters, a dash, and 12 characters; for example: 259d1696-cc44-01d8-a102-0c27a9b2aa77.

SSMS0160   **The specified physical volume is not allocated to any Core Server**

Problem Description: There is no Core Server that owns the specified physical volume.
System Action: None
Administrator Action: Verify that the correct physical volume has been specified or add the physical volume to a storage class.

SSMS0161   **Bad data! The stripe length needs to be greater than 0!**

Problem Description: An attempt to set a storage class configuration's Stripe Length field value to zero has failed. The Stripe Length field value must be a number greater than zero.
System Action: The request will fail. The storage class configuration cannot be saved.
Administrator Action: Change the stripe length field value to a number greater than zero.

SSMS0162   **Bad data! The stripe width needs to be greater than 0!**

Problem Description: An attempt to set a storage class configuration's Stripe Width field value to zero has failed. The Stripe Width field value must be a number greater than zero.
System Action: The request will fail. The storage class configuration cannot be saved.
Administrator Action: Change the stripe width field value to a number greater than zero.

SSMS0163	**Bad data! The transfer rate needs to be greater than 0!**

Problem Description: An attempt to set a storage class configuration's transfer rate field value to zero has failed. The transfer rate field value must be a number greater than zero.

System Action: The request will fail. The storage class configuration cannot be saved.

Administrator Action: Change the transfer rate field value to a number greater than zero.

SSMS0164	**The SSM System Manager client table is full. There are %d clients currently connected.**

Problem Description: The System Manager's client table is full. There are no empty slots in the System Manager's active client table.

System Action: No more clients will be able to connect to the System Manager until entries in the client table become free.

Administrator Action: To free entries in the client table, exit one or more active client sessions.

SSMS0165	**Error returned from dmg_admin_FilesetCreate**

Problem Description: SSM got an error from dmg_admin_FilesetCreate when creating an XDSM fileset. When creating XDSM filesets, the SSM System Manager calls the DMAP Gateway interface called dmg_admin_FilesetCreate() which returned the error code associated with this log. This error means that the System Manager wasn't able to create the XDSM fileset. Check for error logs from the DMAP Gateway for further information.

System Action: The request will fail. The fileset will not be created.

Administrator Action: Check for error logs from the DMAP Gateway for further information.

SSMS0166	**No application data for operation'%s', client %d**

Problem Description: A client request has been received with no associated data to act upon.

System Action: Log a CRITICAL alarm and return an EACCESS error to the client.

Administrator Action: Try request again. If failure persists, contact HPSS support.

SSMS0167 **initgroups(*%s*, %d) failed (errno = %d)**

Problem Description: SSM could not initialize the groups for user <username>. The SSM System Manager must be executed as root, but it executes utilities such as accounting as a non-privileged user. The default non-privileged ID it uses is *hpss*; this can be overridden by the value of the HPSS_USER environment variable. This error means the System Manager could not execute the initgroups function because the System Manager was not running as user root when the function was called.
System Action: The request will fail.
Administrator Action: Make sure that the System Manager is running as root.

SSMS0168 **Client %d mode insufficient for operation *%s***

Problem Description: Client is connected as an operator attempting an operation that requires administrator access.
System Action: Log a MAJOR alarm and return an EACCESS error to the client.
Administrator Action: Log in as an administrator (rather than as an operator) to complete this operation.

SSMS0169 **Bad data! The calculated seconds between tape marks overflowed 32 bits!**

Problem Description: The System Manager had an overflow problem calculating the *Tape Storage Class Configuration* window Seconds Between Tape Marks field.
System Action: Log a CRITICAL alarm and return no error to the client. Client will see incorrect data in the Seconds Between Tape Marks field.
Administrator Action: The *Tape Storage Class Configuration* window Seconds Between Tape Marks field is calculated based on the following formula: (TapeMarks × MediaBlockSize)/((TransferRate/StripeWidth) × 1024). Verify that the other fields on the window have valid data. Contact HPSS support.

SSMS0170 **Invalid argument passed to function, client *%d***

Problem Description: The client ID is invalid.
System Action: Log a DEBUG alarm and return an EINVAL error to the client.
Administrator Action: Try request again. If failure persists, contact HPSS support.

SSMS0180   **Request to the PVL to create drive *%d* failed**

Problem Description: The System Manager made a request to the PVL to create the specified device/drive, but the PVL was unable to create the device/drive.
System Action: The device/drive wasn't created.
Administrator Action: Review error logs. Verify that input data is correct. Verify that the same device/drive doesn't already exist. Verify that the device/drive associated Mover and PVR (for tape) are configured.

SSMS0181   **Request to the PVL to delete drive *%d* failed**

Problem Description: The System Manager made a request to the PVL to delete the specified device/drive, but the PVL was unable to delete the device/drive.
System Action: The device/drive wasn't deleted.
Administrator Action: Review error logs. Verify that the device/drive exists. Verify that the PVL is running and the System Manager can successfully communicate with the PVL. Verify that the drive is locked and not in use.

SSMS0182   **Rebuilding the Device and Drive list to recover metadata possibly created during the failed attempt to create drive *%d***

Problem Description: The System Manager made a request to the PVL to create the specified device/drive, but the PVL was unable to honor the request and return an error other than *Busy* or *Exist*.
System Action: In some error cases the PVL might have created the device/drive metadata, so the System Manager rebuilds the Device and Drive list by reading up the metadata.
Administrator Action: Most likely the list won't change. If the drive wasn't created, look at Administrative Actions for item SSMS0180 above.

SSMS0183   **Rebuilding the Device and Drive list to resynchronize with metadata possibly deleted during the failed attempt to delete drive *%d***

Problem Description: The System Manager made a request to the PVL to delete the specified device/drive, but the PVL was unable to honor the request and return an error other than *Busy* or *Exist*.
System Action: In some error cases the PVL might have deleted the device/drive metadata, so the System Manager rebuilds the Device and Drive list by reading up the metadata.
Administrator Action: Most likely the list won't change. If the drive wasn't deleted, look at Administrative Actions for item SSMS0181 above.

SSMS0184   **Unable to create drive *%d* due to PVL being down; PVL must be UP**

Problem Description: The System Manager was unable to create the specified device/drive because the PVL appeared to be down to the System Manager.
System Action: The System Manager must be able to communicate with the PVL to make the device/drive creation request, so the drive won't be created if the PVL is down (or appears to be down to the System Manager).
Administrator Action: Verify that the PVL is running and that the System Manager can communicate with it.

SSMS0185   **Unable to delete drive *%d* due to PVL being down; PVL must be UP**

Problem Description: The System Manager was unable to delete the specified device/drive because the PVL appeared to be down to the System Manager.
System Action: The System Manager must be able to communicate with the PVL to make the device/drive deletion request, so the drive won't be deleted if the PVL is down (or appears to be down to the System Manager).
Administrator Action: Verify that the PVL is running and that the System Manager can communicate with it.

SSMS0186   **Failed to initialize the RTM server list, error=%d**

Problem Description: The call to the RTM library rtm_InitServerList function has failed
System Action: The system Manager will continue to run. The RTM Summary, RTM Detail features, or both, in SSM may not function properly.
Administrator Action: Verify that the RTM command line utility (**rtmu**) works. A recycle of the System Manager may be needed.

SSMS0187   **Failed to add server *%s* to the RTM server list, error=%d**

Problem Description: The call to the RTM library rtm_AddServerByDescName function has failed.
System Action: The System Manager will continue to run. The HPSS server specified in *<server name>* will not be included in the RTM information displayed.
Administrator Action: Check to be sure that the *<server name>* listed in the error message is a valid HPSS server and that the server is running.

SSMS0188   **Call to rtm_GetRequestSummary failed, error=%d**

Problem Description: The call to the RTM library rtm_GetRequestSummary function has failed.
System Action: The System Manager will continue to run. The SSM will not be able to provide RTM summary information to the user.
Administrator Action: Verify that the RTM command line utility (**rtmu**) works. A recycle of the System Manager may be needed.

SSMS0189   **Failed to initialize the RTM log, error=%d**

Problem Description: The call to the RTM library rtm_LogInit function has failed.
System Action: The System Manager will exit.
Administrator Action: Verify that the RTM command line utility (**rtmu**) works. Contact HPSS support. This is an internal error.

SSMS0190   **%s**

Problem Description: When the HPSS_SSM_TIMING_DEBUG environment variable is set to 1 (it's not set by default), the System Manager will add some event logs that include timing information. Currently just the System Manager code building the drive list makes use of this.
System Action: None; off by default.
Administrator Action: None; informational. This is generally just useful for the System Manager code developers.

SSMS0191   **CHECK CONFIG: Device/Drive configuration mismatch; can't find mover device corresponding to pvl drive=%d**

Problem Description: While the System Manager was building the device/drive list by reading up the Mover Device and PVL Drive metadata, the System Manager found a PVL Drive record that didn't have a corresponding Mover Device record.
System Action: The System Manager will continue building the Devices and Drives list, but the <drive id> indicated in the error message won't be usable.
Administrator Action: Fix this device/drive; delete it and recreate it.

SSMS0192 **CHECK CONFIG: Device/Drive configuration mismatch; can't find pvl drive corresponding to mover device=%d**

Problem Description: While the System Manager was building the device/drive list by reading up the Mover Device and PVL Drive metadata, the System Manager found a Mover Device record that didn't have a corresponding PVL Drive record.

System Action: The System Manager will continue building the Devices and Drives list, but the <device id> indicated in the error message won't be usable.

Administrator Action: Fix this device/drive; delete it and recreate it.

SSMS0193 **Initiating cartridge move for *%d* cartridge(s) to PVR *%s***

Problem Description: The System Manager is informing the administrators that a cartridge move of <count> cartridges was initiated to the specified PVR.

System Action: The System Manager will initiate each cartridge move to the specified PVR.

Administrator Action: Monitor the cartridge move. See SSMS0194, SSMS0195 and SSMS0196. Also check for any PVL and PVR messages that describe specifics about the cartridge moves.

SSMS0194 **Completed cartridge move for *%d* of *%d* cartridge(s) to PVR *%s***

Problem Description: The System Manager is informing the administrators that a cartridge move for <count> of <total> cartridges has completed to the specified PVR.

System Action: The System Manager has stopped processing the move of list of cartridges.

Administrator Action: Monitor the cartridge move; retry any failures after verifying that the cartridge has been injected into the destination PVR. See SSMS0193, SSMS0195 and SSMS0196. Also check for any PVL and PVR messages that describe specifics about the cartridge moves.

SSMS0195 **Error moving cartridge *%s* to PVR *%s*; verify that the cartridge has manually been injected into the destination PVR and then retry**

Problem Description: An error occurred while moving the specified cartridge to the specified PVR.

System Action: The System Manager quits processes the list of cartridge moves whenever one fails.

Administrator Action: Verify that the failed cartridge has manually been injected into the destination PVR and then retry. Additionally, retry the list of unprocessed cartridge moves. See SSMS0193, SSMS0194 and SSMS0196.

SSMS0196 **Move of cartridge *%s* to PVR *%s* was not attempted due the problem moving cartridge *%s*; please retry**

Problem Description: An error occurred while moving the specified problem cartridge to the specified PVR. This caused the move operation to abort, resulting in the specified cartridge not having the move operation attempted.
System Action: The System Manager quits processes the list of cartridge moves whenever one fails.
Administrator Action: Retry. See SSMS0193, SSMS0194 and SSMS0195.

SSMS0197 **Unable to obtain the Fileset list; verify that the Core Servers are running; status %d from %s**

Problem Description: The System Manager was unable to generate the fileset list because the call to the client API <function> failed with a status <status>. The <function> name normally would be the hpss_FilesetListAll client API function.
System Action: The System Manager will return an empty fileset and junction list to the caller.
Administrator Action: Make sure the that the Core Servers are running and that the System Manager is able to communicate with them.

SSMS0198 **Unable to obtain the Junction list; verify that the Core Servers are running; status %d from %s for subsystem %d**

Problem Description: The System Manager was unable to obtain the junction list for the subsystem <id> because the call to the client API <function> failed with a status <status>. The <function> name normally would be the hpss_GetJunctions client API function.
System Action: The fileset and junction list returned by the System Manager will not contain junction information for the specified subsystem <id>.
Administrator Action: Make sure the that the Core Server for the specified subsystem <id> is running and that the System Manager is able to communicate with it. It could be that the subsystem <id> has been defined in the HPSS configuration but that no Core Server has been configured for the subsystem. In this case, it may be necessary to delete the subsystem <id> configuration.

SSMS0199 **Unable to obtain the Junction attributes; verify that the Core Servers are running; status %d from %s for junction *%s***

Problem Description: The System Manager was unable to obtain the attributes for the junction '<junction name>' because the call to the client API <function> failed with a status <status>. The <function> name normally would be the hpss_FileGetAttributesHandle client API function.
System Action: The System Manager will not be able to fill in the attributes for the junction '<junction name>'.
Administrator Action: Make sure the that the Core Servers are running and that the System Manager is able to communicate with them.

SSMS0200 **Unable to obtain the Fileset attributes; verify that the Core Servers are running; status %d from %s for fileset *%s***

Problem Description: The System Manager was unable to obtain the attributes for the fileset '<fileset name>' because the call to the client API <function> failed with a status <status>. The <function> name normally would be the hpss_FilesetGetAttributes client API function.
System Action: The System Manager will return an empty fileset and junction list to the caller.
Administrator Action: Make sure the that the Core Servers are running and that the System Manager is able to communicate with them.

SSMS0201 **Request to the PVL to update drive *%d* failed**

Problem Description: The requested update to drive <drive id> could not be completed.
System Action: The drive update is not performed.
Administrator Action: Refer to the PVL log messages for more information.

SSMS0202 **Unable to update drive *%d* due to PVL being down; PVL must be UP**

Problem Description: The requested update to drive <drive id> could not be completed. The PVL must be up in order to perform updates to drive configurations.
System Action: The drive update is not performed.
Administrator Action: Make sure that the PVL is running and that the System Manager can connect to it.

SSMS0203   **Unable to get address info for host %s port %s. %s**

Problem Description: The call to hpss_net_getaddrinfo failed for host <host name> port <port>. The <error text> will contain additional information from the call to hpss_net_getaddrinfo that describes the problem.
System Action: The System Manager may not be able to communicate with any HPSS servers that are running on host <host name>.
Administrator Action: Check to make sure that the Execute Hostname for each HPSS server is configured correctly.

SSMS0204   **Expected disk storage class (type %d) but received type %d**

Problem Description: An attempt was made to convert a storage class to a disk storage class but the storage class is not a disk storage class.
System Action: The request will fail. The storage class configuration cannot be saved.
Administrator Action: When operating on or requesting a disk storage class, ensure that the identifier is in fact an identifier for a disk storage class.

SSMS0205   **Expected tape storage class (type %d) but received type %d**

Problem Description: An attempt was made to convert a storage class to a tape storage class but the storage class is not a tape storage class.
System Action: The request will fail. The storage class configuration cannot be saved.
Administrator Action: When operating on or requesting a tape storage class, ensure that the identifier is in fact an identifier for a tape storage class.

SSMS0206   **Bad data! The storage segment size cannot be 0!**

Problem Description: An attempt to determine the Maximum Storage Segment Size Multiplier for a disk storage class has failed because the Storage Segment Size is zero. The Storage Segment Size cannot be zero.
System Action: The request will fail. The storage class configuration cannot be saved.
Administrator Action: Ensure that the Storage Segment Size is not zero.

SSMS0207   **Initiating import for *%d* volume(s)**

Problem Description: The System Manager is informing the administrators that a volume import of <count> cartridges was initiated.
System Action: The System Manager will initiate each volume import.
Administrator Action: Monitor the volume import. See SSMS0208 and SSMS0212. Also check for any PVL and PVR messages that describe specifics about the volume imports.

SSMS0208   **Completed import for *%d* of *%d* volume(s)**

Problem Description: The System Manager is informing the administrators that an import for <count> of <total> volumes has completed.
System Action: The System Manager has completed processing the import of the list of volumes.
Administrator Action: Monitor the volume imports; retry any failures. See SSMS0212. Also check for any PVL and PVR messages that describe specifics about the volume imports.

SSMS0209   **Initiating export for *%d* volume(s)**

Problem Description: The System Manager is informing the administrators that a volume export of <count> cartridges was initiated.
System Action: The System Manager will initiate each volume export.
Administrator Action: Monitor the volume export. See SSMS0210 and SSMS0211. Also check for any PVL and PVR messages that describe specifics about the volume exports.

SSMS0210   **Completed export for *%d* of *%d* volume(s)**

Problem Description: The System Manager is informing the administrators that an export for <count> of <total> volumes has completed.
System Action: The System Manager has completed processing the export of the list of volumes.
Administrator Action: Monitor the volume exports; retry any failures. See SSMS0211. Also check for any PVL and PVR messages that describe specifics about the volume exports.

SSMS0211   **Call to pvl_Export for volume *%s* has completed with status *%s***

Problem Description: This is a System Manager debug message that shows the status returned from the pvl_Export function for each cartridge export attempt.
System Action: None
Administrator Action: Check for any PVL and PVR messages that describe specifics about the cartridge export.

SSMS0212   **Call to pvl_Import for volume *%s* has completed with status *%s***

Problem Description: This is a System Manager debug message that shows the status returned from the pvl_Import function for each cartridge import attempt.
System Action: None
Administrator Action: Check for any PVL and PVR messages that describe specifics about the cartridge import.

SSMS0213   **Call to pvl_Move for volume *%s* has completed with status *%s***

Problem Description: This is a System Manager debug message that shows the status returned from the pvl_Move function for each cartridge move attempt.
System Action: None
Administrator Action: Check for any PVL and PVR messages that describe specifics about the cartridge move.

SSMS0214   **Call to %s has completed with status *%s*. Please see log messages for details.**

Problem Description: This is a System Manager debug message that shows the status returned from a resource create or delete operation.
System Action: None
Administrator Action: Check for any Core Server messages that describe specifics about the operation.

SSMS0215   **No subsystem is available in which to place a new Subsystem Migration Policy**

Problem Description: An attempt to create a new Migration Policy failed. There can only be one Migration Policy per subsystem and all of the subsystems already have a Migration Policy.
System Action: The request will fail.
Administrator Action: Either create a new subsystem in which to place the new Migration Policy, or delete an existing Migration Policy and then create a new Migration Policy using the deleted Migration Policy's subsystem.

SSMS0216   **No subsystem is available in which to place a new Subsystem Purge Policy**

Problem Description: An attempt to create a new Purge Policy failed. There can only be one Purge Policy per subsystem and all of the subsystems already have a Purge Policy.
System Action: The request will fail.
Administrator Action: Either create a new subsystem in which to place the new Purge Policy, or delete an existing Purge Policy and then create a new Purge Policy using the deleted Purge Policy's subsystem.

SSMS0217   **Call to %s failed for Subsystem Id %u with status %d**

Problem Description: An attempt to call the specified function failed for the specified Subsystem Id.
System Action: The request will fail.
Administrator Action: Verify that the target server is running and that the System Manager can communicate with it.

SSMS0219   **%s**

Problem Description: The HPSS syslog file has been opened, rotated, or a heartbeat message has been sent. These are informational events to help confirm syslog is working as HPSS expects.
System Action: None.
Administrator Action: None; informational.

SSMS0220   **%s**

Problem Description: The HPSS syslog file could not be opened or we have not seen an HPSS message in the specified number of minutes.
System Action: HPSS Alarms and Events are not displayed in the Alarms and Events window.
Administrator Action: Verify syslog is configured and working. Consult the *HPSS Admin Guide* for additional information about configuring syslog.

SSMS0221   **RWLock initialization failed**

Problem Description: The System Manager was unable to initialize a RWLock.
System Action: The System Manager will not be able to initialize and will exit.
Administrator Action: Contact HPSS support.

SSMS0222   **RWLock read lock failed**

Problem Description: The System Manager was unable to read lock a RWLock.
System Action: The request will fail and the System Manager will exit.
Administrator Action: Restart the System Manager and retry the request.

SSMS0223   **RWLock write lock failed**

Problem Description: The System Manager was unable to write lock a RWLock.
System Action: The request will fail and the System Manager will exit.
Administrator Action: Restart the System Manager and retry the request.

SSMS0224   **RWLock unlock failed**

Problem Description: The System Manager was unable to unlock a RWLock.
System Action: The request will fail and the System Manager will exit.
Administrator Action: Restart the System Manager and retry the request.

SSMS0225   **Condition variable %s initialization failure**

Problem Description: The System Manager was unable to initialize a condition variable.
System Action: The System Manager will not be able to initialize and will exit.
Administrator Action: Contact HPSS support.

SSMS0226   **Applying HPSS configuration changes started**

Problem Description: The HPSS configuration application process has started. These are informational events to help confirm the "Apply Config" button is working as HPSS expects.
System Action: None.
Administrator Action: None; informational.

SSMS0227   **Applying HPSS configuration changes succeeded**

Problem Description: The HPSS configuration has been successfully applied. These are informational events to help confirm the "Apply Config" button is working as HPSS expects.
System Action: None.
Administrator Action: None; informational.

SSMS0228 **Applying HPSS configuration changes failed with status %s**

Problem Description: The HPSS configuration was not applied successfully. One of the servers failed to be reinitialized.

System Action: The System Manager will mark the "HPSS Config Changes" indicator red and display the status "Error". HPSS will continue operating with previous configuration on the non-reinitialized server(s).

Administrator Action: Search the log for the server(s) that failed to reinitialize and resolve the issue that caused the server(s) to not reinitialize. Press the "Apply Config" button again. If the problem persists, contact HPSS support.

SSMS0229 **Expected object store storage class (type %d) but received type %d**

Problem Description: An attempt was made to convert a storage class to an object store storage class but the storage class is not an object store storage class.

System Action: The request will fail. The storage class configuration cannot be saved.

Administrator Action: When operating on or requesting a tape storage class, ensure that the identifier is in fact an identifier for an object store storage class.

SSMS0230 **Unable to load object store master encryption key: %s**

Problem Description: An error occurred trying to load the object store master encryption key.

System Action: Any future attempt to configure object store account identities will result in failure.

Administrator Action: Ensure that the specified object store master encryption key file exists and can be accessed by the System Manager process.

SSMS0231 **Unable to initialize object store master encryption key: %s**

Problem Description: An error occurred trying to initialize the object store master encryption key.

System Action: Any future attempt to configure object store account identities will result in failure.

Administrator Action: Ensure that the specified object store master encryption key file exists and can be accessed by the System Manager process.

SSMS0232   **Unable to create object store master encryption key context**

Problem Description: An error occurred trying to create an object store encryption context for master encryption key.
System Action: Any future attempt to configure object store account identities will result in failure.
Administrator Action: Record the error code returned in the message and contact HPSS support.

SSMS0233   **No object store master encryption key context**

Problem Description: An attempt was make to encrypt the secret for an object store account identity but no master key encryption context was found.
System Action: Any attempt to configure object store account identities will result in failure.
Administrator Action: Check the logs for the System Manager initialization to determine why the encryption context could not be created.

SSMS0234   **Unable to encrypt object store account identity secret**

Problem Description: An error occurred trying to encrypt an object store identity secret.
System Action: The new account identity will not be created.
Administrator Action: Record the error code returned in the message and contact HPSS support.

SSMS0235   **Unable to decrypt object store account identity secret**

Problem Description: An error occurred trying to decrypt an object store identity secret.
System Action: The account identity will not be retrieved.
Administrator Action: Record the error code returned in the message and contact HPSS support.

SSMS0236   **Object store master encryption key not found, creating it**

Problem Description: A file not found error occurred trying to load the object store master encryption key.
System Action: An attempt will be made to initialize the object store master encryption key to a randomly generated password.
Administrator Action: None; informational.

Chapter 20. SUDD series (Startup Daemon error messages)

SUDD0001 **Server is already running**

Problem Description: The startup daemon has tried to start a server that is already running.
System Action: The server will not start.
Administrator Action: This message will appear if you tried to start a server that is already running. If you need to restart an errant server, you must kill it first. It may take some time for the server to die, in which case you will not be able to start a new server until the old one goes away. If after waiting, you still cannot kill an old server and start a new one, log into the host where the server is running and kill it using the KILL command. If all else fails, restart the Startup Daemon.

SUDD0002 **Cannot change owner of lock file %s**

Problem Description: A lock file for the server being started already existed, but the startup daemon was unable to change the owner to the new server.
System Action: Some lock file operations may not complete successfully.
Administrator Action: Make sure the permissions are correctly set on the lock file and the parent directories. If necessary, kill the server, delete the lock file, and restart the server.

SUDD0003 **Unable to allocate server table linked list entry**

Problem Description: There was insufficient memory to allocate an entry in the table that keeps track of servers that have been started. Should never happen.
System Action: An HPSS server will not be started.
Administrator Action: The system is probably running low on resources. Fix the problem.

SUDD0004   **Cannot start server; setuid, setgid, or initgroups failed**

Problem Description: The Startup Daemon could not execute the setuid, setgid, or initgroups system call.

System Action: The Startup Daemon cannot change the UNIX identity of a server, and as a result, it will not be able to run the server.

Administrator Action: Make sure the Startup Daemon is running as *root* and that there are entries in the system files for the server's user name and groups.

SUDD0005   **Cannot start server; no such unix user %s**

Problem Description: The Startup Daemon tried to start the HPSS server using the UNIX user name <name>, but could not find that user in `/etc/passwd`.

System Action: The server will not be started.

Administrator Action: Check that the UNIX user name field in the configuration file for this server contains the correct value. Also check `/etc/passwd` on the machine where the HPSS server is to be run to verify that the UNIX user name exists.

SUDD0006   **Server %s exited on host %s, pid = %d, exit status = %d**

Problem Description: One of the HPSS servers has exited. The server's descriptive name is given by <server>; the host it was running on is given by <host>; the process ID is given by <pid>; and the exit status for the process is given by <status>.

System Action: This message appears when an HPSS server exists. This will be logged as an ALARM if the exit status is non-zero.

Administrator Action: This message will occur as part of a normal shutdown, in which case the message can be ignored. If the server shut itself down gracefully, look for other messages in the log file to see what caused the shutdown. On the other hand, if the server crashed, this may be the only message in the log file. The exit status may give a clue as to what caused the crash.

SUDD0007   **Startup daemon internal problem: sigwait**

Problem Description: The Startup Daemon tried to handle an unexpected signal, which should actually never happen. This error probably indicates a coding error.

System Action: None

Administrator Action: None

SUDD0008 **Unexpected server died, pid = %d**

Problem Description: An unexpected server died. This probably indicates that several copies of a particular server have been started, and that one of the older servers has died.
System Action: None
Administrator Action: None

SUDD0009 **exec() failed**

Problem Description: The Startup Daemon tried to start a server, but the exec system call failed.
System Action: The server will not be started.
Administrator Action: Check that the executable exists. Check that the entire directory path to the executable is accessible to the UID and GID that the server will be using. For more information, check the value of the status field in the log message against the errno values that the exec system call returns.

SUDD0010 **Starting server %s on host %s**

Problem Description: This message is informational and will occur every time a server is started. It does not indicate an error.
System Action: The server is started.
Administrator Action: None

SUDD0011 **Problem locking or unlocking mutex**

Problem Description: Could not lock or unlock a mutex. This should not normally happen.
System Action: The server will not be started.
Administrator Action: Try to start the server again. The problem may be temporary. If the problem persists, check the value of the status field in the log message against the errno values returned by the pthread_mutex_lock or pthread_mutex_unlock calls. You may need to restart the Startup Daemon.

SUDD0012 **Fork failed**

Problem Description: The fork system call failed. This should not normally happen.
System Action: The server will not be started.
Administrator Action: Check the value of the status field in the log message against the errno values returned by the fork system call. You may need to restart the Startup Daemon.

SUDD0013 **Startup daemon is up and running**

Problem Description: This message is informational and will occur every time the Startup Daemon is restarted. It does not indicate an error.
System Action: The Startup Daemon is available to start servers.
Administrator Action: None

SUDD0014 **Server %s died on host %s, pid = %d, signal number = %d**

Problem Description: An HPSS server died because it was sent a signal. In many cases, this is because the server has found a problem and decided to shut itself down.
System Action: The specified server has stopped running. Depending on the signal, the startup daemon may or may not try to restart the server.
Administrator Action: Check the value of the status field in the message log for the errno to determine why the server shut down. Try to fix the problem, then restart the server.

SUDD0015 **Server %s died on host %s, pid = %d, stop signal = %d**

Problem Description: An HPSS server died because it was sent a stop signal. This should never happen.
System Action: The specified server has stopped running. The startup daemon will try to restart it.
Administrator Action: If server still is not running, restart it.

SUDD0016 **Server %s died on host %s, pid = %d, status code = %08x**

Problem Description: An HPSS server died because it called exit.
System Action: Depending on the exit code, the startup daemon may try to restart the server.
Administrator Action: Check the value of the status field in the message log for the errno to determine why the server shut down. Try to fix the problem, then restart the server.

SUDD0017 **Cannot open lock file**

Problem Description: The lock file cannot be opened.
System Action: It will not be possible to start servers
Administrator Action: Check the value of the status field in the log message for the errno and determine what needs to be done. It may be that more disk space is needed in `/var/hpss/tmp` or that the ownership of an existing lock file needs to be changed.

SUDD0018   Descriptive name in lock file does not match file's name

Problem Description: There is a lock file that the startup daemon uses to determine whether an HPSS server is already running. The name of the file is taken from the descriptive name, and looks like `/var/hpss/tmp/hpssd.NNNN.DESCNAME`, where NNNN is a sequence of hex digits, and DESCNAME is the server's descriptive name with blanks replaced by underscores. The startup daemon has determined that the file's name is inconsistent with the name stored in the file.

System Action: It will not be possible to start or kill servers gracefully while the corrupt file is in place.

Administrator Action: Refer to SUDD0019. You may have to rename a server or delete the lock file.

SUDD0019   Format error in lock file

Problem Description: There is a lock file that the startup daemon uses to determine whether an HPSS server is already running. The name of the file looks like `/var/hpss/tmp/hpssd.NNNN.DESCNAME`, where NNNN is a sequence of hex digits, and DESCNAME is the server's descriptive name with blanks replaced by underscores. The startup daemon has determined that the file exists but doesn't contain the proper information.

System Action: It will not be possible to start or kill servers gracefully while the corrupt file is in place.

Administrator Action: Inspect the file. The file should contain a key-value pair per line that looks like this: DescName: R3 SSM System Manager LockNum: 0 PID: 15771. Be sure that the descriptive name written in the file agrees with the file name. On very rare occasions, two servers that have different descriptive names might use the same lock file. If that happens, change the name of one of the servers. Otherwise, delete the file.

SUDD0020   There are %d copies of server running; only one will be killed

Problem Description: The startup daemon has been told to shut down a server but has found that there are several copies of the server running.

System Action: The last server to be started will be stopped. The others will continue to run.

Administrator Action: Once more than one copy of a server is running, you will not be able to kill the others using the SSM. The only way to kill them is to log into the machine where the server is running and use the kill command.

SUDD0021   **Sending kill %d to server %s on host %s**

Problem Description: This is not a problem. The message appears whenever the startup daemon is trying to send a kill signal to a server.
System Action: The server will respond to the signal in the appropriate way. In most cases, the server will shut down.
Administrator Action: None

SUDD0022   **Cannot %s file %s**

Problem Description: The startup daemon cannot perform the named action on the named file. Possible actions include mkdir, open, create, write, and chown. The file in question may be a log of server failures, typically `/var/hpss/adm/hpssd.failed_server`; or it may be a directory where HPSS core dumps are deposited, typically `/var/hpss/adm/core`.
System Action: The startup daemon will continue to run, but will not be able to keep track of failed servers.
Administrator Action: Check the value of the status field in the log message for the errno. Verify that `/var/hpss/adm` exists and has the correct permissions. Verify that `/var` is not full. When the problem has been resolved, restarted the startup daemon.

SUDD0023   **Mutex initialization (pthread_mutex_init) failed**

Problem Description: The startup daemon could not initialize the mutex which protects the server table.
System Action: The startup daemon will not start.
Administrator Action: Check the value of the status field in the log message for the errno and take the appropriate actions. Try to restart the daemon.

SUDD0024   **Thread creation (pthread_create) failed**

Problem Description: The startup daemon could not create the thread which monitor the running servers.
System Action: The startup daemon will not start.
Administrator Action: Check the value of the status field in the log message for the errno and take the appropriate actions. Try to restart the daemon.

SUDD0025 **mm_Initialize failed (%s)**

Problem Description: The startup daemon could not initialize the metadata manager.
System Action: The startup daemon will not start.
Administrator Action: Check the value of the status field in the log message for the errno and take the appropriate actions. Try to restart the daemon.

SUDD0026 **mm_CreateAutoTranHandle failed (%s)**

Problem Description: The startup daemon could not create a metadata transaction handle.
System Action: The startup daemon will not start.
Administrator Action: Check the value of the status field in the log message for the errno and take the appropriate actions. Try to restart the daemon.

SUDD0027 **hpss_SECInitAuthzVector failed**

Problem Description: The startup daemon could not the caller authorized vector.
System Action: The startup daemon will not start.
Administrator Action: Check the value of the status field in the log message for the errno and take the appropriate actions. Try to restart the daemon.

SUDD0028 **Wait on child process (waitpid) failed**

Problem Description: The startup daemon waitpid function experienced an error while monitoring the active servers.
System Action: The startup daemon should continue processing.
Administrator Action: This message can be caused by sending an interrupt to the startup daemon, or by a programming error. Check the value of the status field in the log message for the errno and take the appropriate actions.

SUDD0029 **hpss_InitServer failed**

Problem Description: The startup daemon encountered a problem intializing itself.
System Action: The startup daemon will not start.
Administrator Action: The initialization call performs a variety of functions, such as gathering command line arguments and initializing the logger, the metadata manager, and other processes. Check the value of the status field in the log message for the errno and take the appropriate actions. Try to restart the daemon.

SUDD0030   **Core file under %s has been renamed to %s**

Problem Description: This is an informative diagnostic saying that a core file has been renamed. The message occurs whenever a server has crashed and been restarted.
System Action: The core file will be renamed.
Administrator Action: If the crash needs to be reported to HPSS support, save the core file. Otherwise delete it so that it doesn't waste space.

SUDD0031   **Problem obtaining primary authentication mechanism**

Problem Description: The startup daemon was unable to determine the primary authentication mechanism when starting or restarting a server.
System Action: The server will not be started.
Administrator Action: This may be caused by the environment variable HPSS_PRIMARY_AUTHN_MECH not being set. Check the value of the status field in the log message for the errno and take the appropriate action. Try to restart the server.

SUDD0032   **Problem obtaining authenticator for mechanism**

Problem Description: The startup daemon was unable to determine the authenticator for the specified authentication mechanism when starting or restarting a server.
System Action: The server will not be started.
Administrator Action: This may be caused by the environment variable HPSS_PRIMARY_AUTHENTICATOR not being set. Check the value of the status field in the log message for the errno and take the appropriate action. Try to restart the server.

SUDD0033   **Cannot start server; cannot find executable named %s**

Problem Description: The startup daemon was unable to find the executable for a server.
System Action: The server will not be started.
Administrator Action: Check the value of the status field in the log message for the errno. Make sure the executable exists in the correct location. Try to restart the server.

SUDD0034 **Cannot start server; access check failed for executable named %s**

Problem Description: The startup daemon was unable to access the executable for a server.
System Action: The server will not be started.
Administrator Action: Check the value of the status field in the log message for the errno. Make sure the executable has the appropriate permissions. Try to restart the server.

SUDD0035 **mm_ReadServerByName failed (%s)**

Problem Description: The startup daemon could not read the generic server configuration.
System Action: The startup daemon will not start.
Administrator Action: Check the value of the status field in the log message for the errno and take the appropriate actions. Try to restart the daemon.

SUDD0036 **mm_FreeAutoTranHandle failed (%s)**

Problem Description: The startup daemon could not free the metadata transaction handle.
System Action: The startup daemon will not start.
Administrator Action: Check the value of the status field in the log message for the errno and take the appropriate actions. Try to restart the daemon.

Chapter 21. TIOD series (Transfer input/output descriptor error messages)

TIOD2500   **Error encoding the IOD**

Problem Description: Encoding the I/O Descriptor (IOD) prior to sending it to a recipient server failed.
System Action: Various, depending on the reason for transmitting the IOD.
Administrator Action: Review the error and contact HPSS support.

TIOD2501   **Error encoding the IOR**

Problem Description: Encoding the I/O Reply (IOR) prior to sending it to a recipient server failed.
System Action: Various, depending on the reason for transmitting the IOR.
Administrator Action: Review the error and contact HPSS support.

TIOD2502   **Error allocating memory**

Problem Description: Memory allocation while sending or receiving an I/O Descriptor or Reply (IOD or IOR) failed.
System Action: Various, depending on the reason for transmitting the IOD/IOR.
Administrator Action: Ensure your system has an adequate amount of RAM. Observe whether any processes are using inordinate amounts of memory.

TIOD2503   **Error decoding the IOD**

Problem Description: Decoding the I/O Descriptor (IOD) subsequent to receiving it from another server failed.
System Action: Various, depending on the reason for transmitting the IOD.
Administrator Action: It is possible that there may be a binary mismatch. Make sure that the binaries across the system are all the same version of HPSS. If there are mismatches, correct them and attempt to restart the impacted servers. If the error continues, contact HPSS support.

TIOD2504   **Error decoding the IOR**

Problem Description: Decoding the I/O Reply (IOR) subsequent to receiving it from another server failed.
System Action: Various, depending on the reason for transmitting the IOR.
Administrator Action: Review the error and contact HPSS support.

TIOD2505   **IOD/IOR is too large to encode**

Problem Description: I/O Descriptors and Replies (IODs and IORs) beyond a certain maximum size are considered to be too large to encode and transmit.
System Action: Various, depending on the reason for transmitting the IOD/IOR.
Administrator Action: If your system is configured to use tape aggregation, decrease the maximum number of files allowed in a tape aggregate. If the error continues, contact HPSS support.

TIOD2506   **Error sending data**

Problem Description: The communication channel being used between two servers to transmit an I/O Descriptor or Reply (IOD or IOR) has broken down, likely due to network errors or Mover encryption key misconfiguration.
System Action: Various, depending on the reason for transmitting the IOD/IOR.
Administrator Action: Ensure that your network is stable and not experiencing problems. Ensure that your Mover encryption keys are properly configured.

TIOD2507   **Error receiving data length**

Problem Description: Just prior to receiving an I/O Descriptor or Reply (IOD or IOR) over the network, a server expects to receive an indication of how much data the incoming IOD/IOR represents. This error represents problems in receiving this initial IOD/IOR data length indicator.
System Action: Various, depending on the reason for transmitting the IOD/IOR.
Administrator Action: Ensure that your network is stable and not experiencing problems. Ensure that your Mover encryption keys are properly configured. It is also possible that there may be a binary mismatch. Make sure that the binaries across the system are all the same version of HPSS. If there are mismatches, correct them and attempt to restart the impacted servers. If the error continues, and contact HPSS support.

TIOD2508   **Error receiving data**

Problem Description: The communication channel being used between two servers to transmit an I/O Descriptor or Reply (IOD or IOR) has broken down, likely due to network errors or Mover encryption key misconfiguration.
System Action: Various, depending on the reason for transmitting the IOD/IOR.
Administrator Action: Ensure that your network is stable and not experiencing problems. Ensure that your Mover encryption keys are properly configured.

TIOD2509   **Error getting local socket address: %s**

Problem Description: Retrieval of socket information failed due to the reasons specified in the error details. This will result in a failure to communicate between servers, usually between the Core Server and Movers.
System Action: Various, depending on the nature of the server communication suffering the error.
Administrator Action: Review the error details and take corrective action. If appropriate, contact HPSS support.

TIOD2510   **Error acquiring buffer size for encoding IOD**

Problem Description: Determining the size of an I/O Descriptor (IOD) prior to encoding it for transmission across the network has failed.
System Action: Various, depending on the reason for transmitting the IOD.
Administrator Action: Contact HPSS support.

TIOD2516   **Error creating security token: %s**

Problem Description: The security token used to control encryption of Mover communications could not be created.
System Action: The system will attempt to avoid using the affected Mover until the problem is resolved through manual intervention.
Administrator Action: Review the error and take corrective action. This may include ensuring your Movers and their encryption keys are properly configured.

TIOD2517   **Error verifying security token: %s**

Problem Description: The security token that is used to control encryption of Mover communications is invalid.
System Action: The system will attempt to avoid using the affected Mover until the problem is resolved through manual intervention.
Administrator Action: Review the error and take corrective action. This may include ensuring your Movers and their encryption keys are properly configured.

TIOD2518   **Coded message is too short**

Problem Description: Just prior to receiving an I/O Descriptor or Reply (IOD or IOR) over the network, a server expects to receive an indication of how much data the incoming IOD/IOR represents. This error represents problems in receiving this initial IOD/IOR data length indicator.

System Action: Various, depending on the reason for transmitting the IOD/IOR.

Administrator Action: Ensure that your network is stable and not experiencing problems. Ensure that your Mover encryption keys are properly configured.

Appendix A: Glossary of terms and acronyms

ACL	Access Control List
ACSLS	Automated Cartridge System Library Software (Oracle StorageTek)
ADIC	Advanced Digital Information Corporation
accounting	The process of tracking system usage per user, possibly for the purposes of charging for that usage. Also, a log record type used to log accounting information.
ACI	AML Client Interface
AIX	Advanced Interactive Executive. An operating system provided on many IBM machines.
alarm	A log record type used to report situations that require administrator investigation or intervention.
AML	Automated Media Library. A tape robot.
AMS	Archive Management Unit
ANSI	American National Standards Institute
API	Application Program Interface
archive	One or more interconnected storage systems of the same architecture.
ASLR	Address Space Layout Randomization
attribute	When referring to a managed object, an attribute is one discrete piece of information, or set of related information, within that object.

attribute change	When referring to a managed object, an attribute change is the modification of an object attribute. This event may result in a notification being sent to SSM, if SSM is currently registered for that attribute.
audit (security)	An operation that produces lists of HPSS log messages whose record type is SECURITY. A security audit is used to provide a trail of security-relevant activity in HPSS.
AV	Account Validation
bar code	An array of rectangular bars and spaces in a predetermined pattern which represent alphanumeric information in a machine-readable format (such as a UPC symbol).
BFS	HPSS Bitfile Service
bitfile	A file stored in HPSS, represented as a logical string of bits unrestricted in size or internal structure. HPSS imposes a size limitation in 8-bit bytes based upon the maximum size in bytes that can be represented by a 64-bit unsigned integer.
bitfile segment	An internal metadata structure, not normally visible, used by the Core Server to map contiguous pieces of a bitfile to underlying storage.
Bitfile Service	Portion of the HPSS Core Server that provides a logical abstraction of bitfiles to its clients.
BBTM	Blocks Between Tape Marks. The number of data blocks that are written to a tape virtual volume before a tape mark is required on the physical media.
CAP	Cartridge Access Port
cartridge	A physical media container, such as a tape reel or cassette, capable of being mounted on and dismounted from a drive. A fixed disk is technically considered to be a cartridge because it meets this definition and can be logically mounted and dismounted.
class	A type definition in Java. It defines a template on which objects with similar characteristics can be built, and includes variables and methods specific to the class.

Class of Service	A set of storage system characteristics used to group bitfiles with similar logical characteristics and performance requirements together. A Class of Service is supported by an underlying hierarchy of storage classes.
cluster	The unit of storage space allocation on HPSS disks. The smallest amount of disk space that can be allocated from a virtual volume is a cluster. The size of the cluster on any given disk volume is determined by the size of the smallest storage segment that will be allocated on the volume, and other factors.
configuration	The process of initializing or modifying various parameters affecting the behavior of an HPSS server or infrastructure service.
COS	Class of Service
control path	For the SCSI PVR, this is a connection to the library for sending commands. Control paths can be discovered using device_scan.
Core Server	An HPSS server which manages the name space and storage for an HPSS system. The Core Server manages the name space in which files are defined, the attributes of the files, and the storage media on which the files are stored. The Core Server is the central server of an HPSS system. Each storage subsystem uses exactly one Core Server.
CRC	Cyclic Redundancy Check
CS	Core Server
daemon	A UNIX program that runs continuously in the background.
DAS	Distributed AML Server
DB2	A relational database system, a product of IBM Corporation, used by HPSS to store and manage HPSS system metadata.
DCE	Distributed Computing Environment
debug	A log record type used to report internal events that can be helpful in troubleshooting the system.

delog	The process of extracting, formatting, and outputting HPSS central log records. This process is obsolete in 7.4 and later versions of HPSS. HPSS logs are now recorded as plain text.
deregistration	The process of disabling notification to SSM for a particular attribute change.
descriptive name	A human-readable name for an HPSS server.
device	A physical piece of hardware, usually associated with a drive, that is capable of reading or writing data.
directory	An HPSS object that can contain files, symbolic links, hard links, and other directories.
dismount	An operation in which a cartridge is either physically or logically removed from a device, rendering it unreadable and unwritable. In the case of tape cartridges, a dismount operation is a physical operation. In the case of a fixed disk unit, a dismount is a logical operation.
DNS	Domain Name Service
DOE	Department of Energy
DPF	Database Partitioning Feature
drive	A physical piece of hardware capable of reading or writing mounted cartridges. The terms device and drive are often used interchangeably.
EB	Exabyte (2^{60})
EOF	End of File
EOM	End of Media
ERA	Extended Registry Attribute
ESCON	Enterprise System Connection
event	A log record type used to report informational messages (for example, subsystem starting or subsystem terminating).

export	An operation in which a cartridge and its associated storage space are removed from the HPSS system Physical Volume Library. It may or may not include an eject, which is the removal of the cartridge from its Physical Volume Repository.
FC SAN	Fiber Channel Storage Area Network
FIFO	First in first out
file	An object than can be written to, read from, or both, with attributes including access permissions and type, as defined by POSIX (P1003.1-1990). HPSS supports only regular files.
file family	An attribute of an HPSS file that is used to group a set of files on a common set of tape virtual volumes.
fileset	A collection of related files that are organized into a single easily managed unit. A fileset is a disjoint directory tree that can be mounted in some other directory tree to make it accessible to users.
fileset ID	A 64-bit number that uniquely identifies a fileset.
fileset name	A name that uniquely identifies a fileset.
file system ID	A 32-bit number that uniquely identifies an aggregate.
FTP	File Transfer Protocol
FSF	Forward Space File
FSR	Forward Space Record
Gatekeeper	An HPSS server that provides two main services: the ability to schedule the use of HPSS resources referred to as the Gatekeeping Service, and the ability to validate user accounts referred to as the Account Validation Service.
Gatekeeping Service	A registered interface in the Gatekeeper that provides a site the mechanism to create local policy on how to throttle or deny create, open and stage requests and which of these request types to monitor.
Gatekeeping Site Interface	The APIs of the gatekeeping site policy code.

Gatekeeping Site Policy	The gatekeeping shared library code written by the site to monitor and throttle create, open, and/or stage requests.
GB	Gigabyte (2^{30})
GECOS	The comment field in a UNIX password entry that can contain general information about a user, such as office or phone number.
GID	Group Identifier
GK	Gatekeeper
GSS	Generic Security Service
GUI	Graphical User Interface
HA	High Availability
HACMP	High Availability Clustered Multi-Processing - A software package used to implement high availability systems.
HADR	DB2 High Availability Disaster Recovery
halt	A forced shutdown of an HPSS server.
HBA	Host Bus Adapter
HDM	Shorthand for HPSS/DMAP.
hierarchy	See *storage hierarchy*.
HPSS	High Performance Storage System
HPSS-only fileset	An HPSS fileset that is not linked to an external file system (such as XFS).
HTP	HPSS Test Plan
IBM	International Business Machines Corporation
ID	Identifier
IDE	Integrated Drive Electronics

IEEE	Institute of Electrical and Electronics Engineers
import	An operation in which a cartridge and its associated storage space are made available to the HPSS system. An import requires that the cartridge has been physically introduced into a Physical Volume Repository (injected). Importing the cartridge makes it known to the Physical Volume Library.
I/O	Input/Output
IOD/IOR	I/O Descriptor/I/O Reply. Structures used to send control information about data movement requests in HPSS and about the success or failure of the requests.
IP	Internet Protocol
IRIX	SGI's implementation of UNIX
JRE	Java Runtime Environment
junction	A mount point for an HPSS fileset.
KB	Kilobyte (2^{10})
KDC	Key Distribution Center
LAN	Local Area Network
LANL	Los Alamos National Laboratory
latency	For tape media, the average time in seconds between the start of a read or write request and the time when the drive actually begins reading or writing the tape.
LBP	Logical Block Protection
LDAP	Lightweight Directory Access Protocol
LFT	Local File Transfer
LLNL	Lawrence Livermore National Laboratory
LMU	Library Management Unit

Location Service	A module within the HPSS Core Server used to help clients locate the appropriate Core Server and/or other HPSS server to use for a particular request.
log record	A message generated by an HPSS application and handled and recorded by the HPSS logging subsystem.
log record type	A log record may be of type alarm, event, info, debug, request, security, trace, or accounting.
logging service	An HPSS infrastructure service consisting of the logging subsystem and one or more logging policies. A default logging policy can be specified, which will apply to all servers, or server-specific logging policies may be defined.
LS	Location Service
LSM	Library Storage Module
LTO	Linear Tape-Open. A half-inch open tape technology developed by IBM, HP, and Seagate.
LUN	Logical Unit Number
LVM	Logical Volume Manager
MAC	Mandatory Access Control
managed object	A programming data structure that represents an HPSS system resource. The resource can be monitored and controlled by operations on the managed object. Managed objects in HPSS are used to represent servers, drives, storage media, jobs, and other resources.
MB	Megabyte (2^{20})
MBS	Media Block Size
metadata	Control information about the data stored under HPSS, such as location, access times, permissions, and storage policies. Most HPSS metadata is stored in a DB2 relational database.
method	A Java function or subroutine.

migrate	To copy file data from a level in the file's hierarchy onto the next lower level in the hierarchy.
Migration/Purge Server	An HPSS server responsible for supervising the placement of data in the storage hierarchies based upon site-defined migration and purge policies.
MM	Metadata Manager. A software library that provides a programming API to interface HPSS servers with the DB2 programming environment.
mount	An operation in which a cartridge is either physically or logically made readable/writable on a drive. In the case of tape cartridges, a mount operation is a physical operation. In the case of a fixed disk unit, a mount is a logical operation.
mount point	A place where a fileset is mounted in the XFS and HPSS name spaces.
Mover	An HPSS server that provides control of storage devices and data transfers within HPSS.
MPS	Migration/Purge Server
MVR	Mover
NASA	National Aeronautics and Space Administration
Name Service	The portion of the Core Server that provides a mapping between names and machine-oriented identifiers. In addition, the Name Service performs access verification and provides the Portable Operating System Interface (POSIX).
name space	The set of name-object pairs managed by the HPSS Core Server.
NERSC	National Energy Research Supercomputer Center
NIS	Network Information Service
NLS	National Language Support

notification	A notice from one server to another about a noteworthy occurrence. HPSS notifications include notices sent from other servers to SSM of changes in managed object attributes, changes in tape mount information, and log messages of type alarm or event.
NS	HPSS Name Service
NSL	National Storage Laboratory
object	See *managed object*.
ORNL	Oak Ridge National Laboratory
OS	Operating System
OS/2	The operating system (multi-tasking, single user) used on the AMU controller PC.
PB	Petabyte (2^{50})
PFTP	Parallel File Transfer Protocol
PFTPD	PFTP Daemon
physical volume	An HPSS object managed jointly by the Core Server and the Physical Volume Library that represents the portion of a virtual volume. A virtual volume may be composed of one or more physical volumes, but a physical volume may contain data from no more than one virtual volume.
Physical Volume Library	An HPSS server that manages mounts and dismounts of HPSS physical volumes.
Physical Volume Repository	An HPSS server that manages the robotic agent responsible for mounting and dismounting cartridges or interfaces with the human agent responsible for mounting and dismounting cartridges.
PIO	Parallel I/O
PIOFS	Parallel I/O File System

POSIX	Portable Operating System Interface (for computer environments).
purge	Deletion of file data from a level in the file's hierarchy after the data has been duplicated at lower levels in the hierarchy and is no longer needed at the deletion level.
purge lock	A lock applied to a bitfile which prohibits the bitfile from being purged.
PV	Physical Volume
PVL	Physical Volume Library
PVM	Physical Volume Manager
PVR	Physical Volume Repository
RAID	Redundant Array of Independent Disks
RAIT	Redundant Array of Independent Tapes
RAM	Random Access Memory
RAO	Recommended Access Order
reclaim	The act of making previously written but now empty tape virtual volumes available for reuse. Reclaimed tape virtual volumes are assigned a new Virtual Volume ID, but retain the rest of their previous characteristics. Reclaim is also the name of the utility program that performs this task.
registration	The process by which SSM requests notification of changes to specified attributes of a managed object.
reinitialization	An HPSS SSM administrative operation that directs an HPSS server to reread its latest configuration information, and to change its operating parameters to match that configuration, without going through a server shutdown and restart.

repack	The act of moving data from a virtual volume onto another virtual volume with the same characteristics with the intention of removing all data from the source virtual volume. Repack is also the name of the utility program that performs this task.
request	A log record type used to report some action being performed by an HPSS server on behalf of a client.
RISC	Reduced Instruction Set Computer/Cycles
RPC	Remote Procedure Call
RSF	Reverse Space File
RSR	Reverse Space Record
SCSI	Small Computer Systems Interface
security	A log record type used to report security-related events (for example, authorization failures).
SGI	Silicon Graphics
shelf tape	A cartridge which has been physically removed from a tape library but whose file metadata still resides in HPSS.
shutdown	An HPSS SSM administrative operation that causes a server to stop its execution gracefully.
sink	The set of destinations to which data is sent during a data transfer, such as disk devices, memory buffers, or network addresses.
SM	System Manager
SMC	SCSI Medium Changer
SME	Subject Matter Expert
SNL	Sandia National Laboratories

SOID	Storage Object ID. An internal HPSS storage object identifier that uniquely identifies a storage resource. The SOID contains a unique identifier for the object, and a unique identifier for the server that manages the object.
source	The set of origins from which data is received during a data transfer, such as disk devices, memory buffers, or network addresses.
SP	Scalable Processor
SS	HPSS Storage Service
SSD	Solid State Drive
SSH	Secure Shell
SSI	Storage Server Interface
SSM	Storage System Management
SSM session	The environment in which an SSM user interacts with the SSM System Manager to monitor and control HPSS. This environment may be the graphical user interface provided by the **hpssgui** program, or it may be the command-line user interface provided by the **hpssadm** program.
SSMSM	Storage System Management System Manager
stage	To copy file data from a level in the file's hierarchy onto the top level in the hierarchy.
start-up	An HPSS SSM administrative operation that causes a server to begin execution.
info	A log record type used to report file staging and other kinds of information.
STK	Storage Technology Corporation (Oracle StorageTek)
storage class	An HPSS object used to group storage media together to provide storage for HPSS data with specific characteristics. The characteristics are both physical and logical.

storage hierarchy	An ordered collection of storage classes. The hierarchy consists of a fixed number of storage levels numbered from level 1 to the number of levels in the hierarchy, with the maximum level being limited to 5 by HPSS. Each level is associated with a specific storage class. Migration and stage commands result in data being copied between different storage levels in the hierarchy. Each Class of Service has an associated hierarchy.
storage level	The relative position of a single storage class in a storage hierarchy. For example, if a storage class is at the top of a hierarchy, the storage level is 1.
storage map	An HPSS object managed by the Core Server to keep track of allocated storage space.
storage segment	An HPSS object managed by the Core Server to provide abstract storage for a bitfile or parts of a bitfile.
Storage Service	The portion of the Core Server which provides control over a hierarchy of virtual and physical storage resources.
storage subsystem	A portion of the HPSS name space that is managed by an independent Core Server and (optionally) Migration/Purge Server.
Storage System Management	An HPSS component that provides monitoring and control of HPSS via a windowed operator interface or command-line interface.
stripe length	The number of bytes that must be written to span all the physical storage media (physical volumes) that are grouped together to form the logical storage media (virtual volume). The stripe length equals the virtual volume block size multiplied by the number of physical volumes in the stripe group (that is, stripe width).
stripe width	The number of physical volumes grouped together to represent a virtual volume.
System Manager	The Storage System Management (SSM) server. It communicates with all other HPSS components requiring monitoring or control. It also communicates with the SSM graphical user interface (**hpssgui**) and command line interface (**hpssadm**).

TB	Terabyte (2^{40})
TCP/IP	Transmission Control Protocol/Internet Protocol
TDS	Tivoli Directory Server
TI-RPC	Transport-Independent-Remote Procedure Call
trace	A log record type used to record procedure entry/exit events during HPSS server software operation.
transaction	A programming construct that enables multiple data operations to possess the following properties:

- All operations commit or abort/roll-back together such that they form a single unit of work.

- All data modified as part of the same transaction are guaranteed to maintain a consistent state whether the transaction is aborted or committed.

- Data modified from one transaction are isolated from other transactions until the transaction is either committed or aborted.

- Once the transaction commits, all changes to data are guaranteed to be permanent.

TSA/MP	Tivoli System Automation for Multiplatforms
TSM	Tivoli Storage Manager
UDA	User-defined Attribute
UDP	User Datagram Protocol
UID	User Identifier
UPC	Universal Product Code
UUID	Universal Unique Identifier
VPN	Virtual Private Network

virtual volume

An HPSS object managed by the Core Server that is used to represent logical media. A virtual volume is made up of a group of physical storage media (a stripe group of physical volumes).

virtual volume block size

The size of the block of data bytes that is written to each physical volume of a striped virtual volume before switching to the next physical volume.

VV

Virtual Volume

XDSM

The Open Group's Data Storage Management standard. It defines APIs that use events to notify Data Management applications about operations on files.

XFS

A file system created by SGI available as open source for the Linux operating system.

XML

Extensible Markup Language

Appendix B: Developer acknowledgments

HPSS is a product of a government-industry collaboration. The project approach is based on the premise that no single company, government laboratory, or research organization has the ability to confront all of the system-level issues that must be resolved for significant advancement in high-performance storage system technology.

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