High Performance Storage System: Planning for HPSS

* Please review disclosure statement on last slide

HPSS v7 prerequisite software

- AIX 6.1 on Power
- RHEL 5.2 on Power, Intel, AMD
- DB2 9.5 (included with HPSS for HPSS only)
- HACMP 5.4 for high availability core server
- MIT Kerberos 1.6.3
- java 1.4.2 java runtime environment
- perl 5.8
- ssh
- vac / gcc compiler

HPSS client interface support

OS and Level(s)	pFTP	Client API	PIO API	VFS	GHI
IBM AIX 6.1	X	X	X		X
SGI Irix 6.5	X	X	X		
Sun Solaris 8 and 9	X	X	X		
Sun Solaris 10	X				
RHEL 5 update 1	X	X	X	X	
RHEL 5 update 2 through 4	X	X	X	X	X

HPSS client interface support

- The PFTP and Client API libraries & executables, for platforms other than AIX, Solaris, Linux, and IRIX are not on the HPSS distribution media, but are available to HPSS customers by special arrangement at no additional fee.
  - Maintenance of PFTP on platforms other than AIX, Solaris, or Linux is the responsibility of the customer, unless a support agreement is negotiated with IBM.
  - Maintenance of the Client API software on platforms other than AIX, Linux, or Solaris is the responsibility of the customer, unless a support agreement is negotiated with IBM.
- The PIO API requires (and is part of) the Client API.
- VFS server is available on RHEL4 and RHEL5
- GHI is available for RHEL5.2+ and AIX6.1

Supported tape libraries and drives

- HPSS supports all tape drives made by IBM and SUN/StorageTek that are listed as current products by their manufacturers, and also Sony SAIT drives.
- HPSS is architected to support all libraries made by IBM, SUN/StorageTek, Spectra Logic, and Quantum that are listed as current products.
- HPSS is architected to support all combinations of these drives and libraries.
- Clearly, it may be necessary to upgrade to the current release of HPSS for newer tape technologies.
- HPSS is open to supporting other tape products by special bid.

HPSS metadata best practices

- Recommend two DS3000 controllers.
- Two controllers are used to protect DB2 logs and log archives – they are mirrored across the controllers.
- Why SAS? SAS disk drive technology is:
  - Is 1/3 the cost of FC disks
  - Offers the same bit error rate as FC disks (10x better than SATA)
  - Offers the same IOPS performance as FC disk (almost 2x better than SATA)
  - Ideal for database/metadata data access characteristics.
- Recommending several small RAID 1 mirrors, offering
  - Fast rebuilds.
  - Better protection for multi-disk failures.
  - Better read performance.

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Disclaimer

- Please obtain and read product documentation before deciding to acquire HPSS.
  - Documentation includes the HPSS License Agreement, the Statement of Work, and HPSS and other product manuals.
  - In case of conflict between information herein and product documentation, the documentation shall take precedence.
- Forward looking information including schedules and future product capabilities reflect current planning that may change and should not be taken as commitments by IBM.
- IBM may at its sole discretion discontinue, add, or change HPSS features and function without notice.