Evaluator Group, Inc.
Comprehensive Information Storage Evaluation

Distributed Storage Workbook

The following are questions to be asked regarding acquiring **Distributed Storage** for use in open systems environments. Some of the questions need to be filled in for the specific environment where the storage system will be deployed

Environment Questions		
Requirement	**Vendor 1**	**Vendor 2**
Operating Systems on platforms that will be attached: - Intel Windows - Linux - Sun Solaris - HP-UX - IBM AIX - Intel NetWare - HP Tru64 Unix - Other		
Battery back-up of entire storage system - Internal battery - UPS - Hold-up time		
Ease of installation - Customer install or service - Raised floor required - Self configuring - Installation time required - Software required on servers - Migration utility or service included		
Power requirement - Phase - Current - Voltage - Watts - Dual power inputs		
Floor space required		
Heat generated (BTU's) Redundant cooling		
Warranty period		

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Configuration Questions		
Requirement	**Vendor 1**	**Vendor 2**

Host Interfaces (type and number)
- Fibre channel
   o 100 MB/s
   o 200 MB/s
- UltraSCSI
- Serial ATA		

Device Interface to controller - FC-AL - FC-switched - ATA - SCSI		
Devices - Maximum number - Capacity and RPM - Hot pluggable? - Restrictions?		
Storage - Maximum RAW capacity - RAID levels supported - Dynamic RAID level change		
Cache - Mirrored writes - Size (in GB) - Separate NVS (size) - Configurable write percentage - Separate battery backed cache		
Hot Spare disks - Number - Global hot spares - Floating or fixed		

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Configuration Questions		
Requirement	**Vendor 1**	**Vendor 2**

Controllers
  - Number
  - Active-Active with failover
  - Interconnect technology		

Service
  - Remote maintenance
  - Call-home capability
  - Non-disruptive code activation		

Re-configurable by customer		
Number of hosts supported		
Number of LUNs supported		
Online LUN Expansion capability		
Boot from LUN OS's supported for boot		
LUN masking capability in storage system? (Name of software required to set)		
Dynamic drive expansion (redistribute data when additional drives added)		
Single points of failure		

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Feature / Function Questions		
Requirement	**Vendor 1**	**Vendor 2**
Point-in-time copy (name) 　-　Number of copies 　-　Copies per volume 　-　Copy-on-write (snapshot) 　-　Clone copy 　-　Server software required (name)? 　-　Resynchronization capability 　-　Integration with applications 　　　o　Oracle 　　　o　Sybase 　　　o　DB2 　　　o　Others		
Remote copy (name) 　-　Connection technology 　-　Synchronous 　-　Asynchronous 　-　Technology used 　-　Host software component (name)? 　-　Consistency groups supported		
Security software 　(features)		
Configuration Management Software 　-　Name 　-　CLI 　-　Web-based 　-　Integration with management framework 　-　APIs to third party management software 　-　CIM/SMI enabled (or committed)		
Host failover software support 　-　Name of software		
Performance analysis software available		

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Performance Questions		
Requirement	**Vendor 1**	**Vendor 2**
SPC Performance Benchmarks - Maximum I/O rates - I/O Rate at 10ms - $/IOP		

Bandwidth
- Potential maximum throughput
- Demonstrated
    o Reads
    o Writes		