

VIRTUAL STORAGE

Extraordinarily Simple

Advanced Virtualization

Maximum Flexibility

Efficient Disk Utilization

Uncompromised Performance

Impressive Efficiency

KEY FEATURES

Virtual Storage

- Virtual storage pools
- No RAID Pre-configuration
- Mixed RAID types per pool
- Online volume expansion
- Online RAID level migration
- Application aware volumes
- Mixed drive capacities
- Volume rebuild
- Virtual volume rebuild

iSCSI Performance

- Jumbo Frame Support
- Full TCP/IP Hardware Off-load Engine (TOE)
- MPIO, MCS, LAG

Security Features

- CHAP Authentication
- VLAN Support
- Initiator ACL
- SSL Encryption
- Read-only Volumes

iStor's iS512 eliminates the complexities of traditional storage systems. The intelligence of the virtual storage architecture provides a simple, easy to use management interface and increases utilization of your disk resources.

Extraordinarily Simple

Creating a volume is as simple as selecting an application from a menu and choosing a volume size. With virtual storage, there are never any RAID Groups to pre-configure or static LUNs to assign. Advanced users have complete freedom to define the characteristics of their volumes as needed, while benefiting from the simplicity of virtual storage.

Advanced Virtualization

iStor's Virtual Storage architecture offers seamless virtualization from the servers to the storage for all applications. Storage pools provide the flexibility to tailor the performance of each volume to the needs of the application. Disk drives are not predefined to any RAID types, providing both extreme flexibility and the ability to maximize the number of spindles used for a volume, thereby increasing performance.

Today's virtual server environments propagate mixed workloads. Disparate applications require varying levels of service quality and protection. The iS512 allows every virtual server to have a volume tuned for the application running on the server, without being limited to the predefined RAID groups and LUNS/Partitions. Volumes can be created in minutes whenever a new virtual server is brought online.

Maximum Flexibility

The iS512 adapts easily to changing needs. Volumes can be quickly expanded online or dynamically migrated to a new RAID type. All of this is accomplished within the storage pool, so there is no need to worry about separate destination drives. Capacity expansion is also a breeze. Add disks of any capacity, and the total capacity of those drives is used by the system. When new drives are added to the storage pool the total capacity is immediately available to all volumes and applications.

Increased Disk Utilization

Administrators no longer have to manage the physical-to-logical mapping of disk drives and volumes using ad hoc techniques. The iS512's storage pool eliminates isolated RAID islands propagated by RAID groups. Allocating volumes from a single pool insures that the capacity of all of your disk drives is being used efficiently. Removing the constraints of RAID groups being tied to individual drives allows volumes to span the maximum number of spindles, regardless of the level of RAID protection used.

Uncompromised Performance

Powered by a purpose built 10G iSCSI Storage Engine, the iS512 is a top performer in any price class. Available in 8x1GbE or 10GbE configurations, the iS512 maintains wire speed across all ports, satisfying even the most demanding bandwidth requirements. Transaction intensive applications can take advantage of the 80,000 IOPs delivered by the iS512. Patented technology virtually eliminates the write performance penalty of competitive solutions when operating in a high availability dual controller configuration, which can result in 50% performance degradation.

Impressive Efficiency

The iS512 is an extremely cost effective solution. Its leading price/performance characteristics enable an affordable solution without compromise. The simplified administration does not require storage expertise to manage, resulting in significant saving in management resources. The low power consumption of the purpose built ASIC at the heart of the iS512 (11 Watts) makes it one of the greenest solutions available, which saves money on power and cooling as well as increases system reliability due to reduced heat.

TECHNICAL SPECIFICATIONS

Storage For Your Networked World

CONTROLLER	Single or dual controller with 2GB of battery backed cache memory (4GB option)
DRIVES	15K RPM High performance SAS 7.2K RPM High capacity SAS
SYSTEM CAPACITIES	12 drives (single enclosure)
EXPANSION	JBOD up to 84 drives with additional expansion units (12 drives/expansion unit)
PERFORMANCE (SINGLE CONTROLLER)	80,000 IOPS 890 MB/Sec (iS512) 1160 MB/Sec (iS512-10G)
NETWORK INTERFACE	8x1 GbE (iS512 Single Controller), 1x10GbE (iS512-10G Single Controller)
SECURITY	CHAP Authentication Initiator Access Control (ACL)
RAID	0, 1, 1+0, 5 and JBOD
VOLUMES	Up to 1024
VIRTUAL STORAGE	Central storage pools – (No RAID Groups) Mixed RAID types per storage pool Online volume expansion Online RAID level migration Application aware volume creation Mixed drive capacities Volume rebuild – (only active volumes need to be rebuilt, not entire drive, accelerating rebuilds) Virtual volume rebuild – (rebuilds volumes over multiple available drives to accelerate rebuilds)
VLAN SUPPORT	Up to 8 VLANs
HIGH AVAILABILITY	Redundant hot swappable controllers Redundant host swappable power supplies/fans
DRIVE OPERATIONS	Drive roaming Down drive – (migrates data off of drive for replacement) Micro-rebuild – (prevents premature failing of good drive due to temporary unresponsiveness)
ISCSI HOST SUPPORT	Compatible with all standards compliant iSCSI initiator
OS SUPPORT	Windows® 2000/2003/2008; Red Hat & SuSE Linux; Mac® OSX; VMware ESX Server; IBM AIX-5, Solaris 10 Refer to iStor enabled matrix at www.istor.com for latest list of supported HW/SW
POWER	Power supply: 430 Watt AC voltage: 85-264 VAC Frequency: 50-63Hz Current: 2A maximum at 115 VAC Power consumption: 250 W (Single controller, full configuration) Thermal: 855 BTU per hour (Single controller, full configuration)
ENVIRONMENTAL	Operating Temp: 5° to 40° C/41° to 104° F Storage Temp: -40° to 70° C/-40° to 158° F
PHYSICAL	Form factor: 2U industry-standard 19" rack Dimensions: 3.5"(H)x17.6"(W)x19.5"(D)/ 8.9cm x 44.7cm x 49.5cm Weight: 60 lbs/27 kg
STANDARDS	Emissions: CE Mark, FCC Class A, EN55022 Class A, EN55024 Safety: UL/CUL, CSA international, RoHS Compliant



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