

# Helios 2503 & Helios 2505 Storage Appliance

Powered by Microsoft® Windows® Storage Server 2008



## FEATURES

- Provides a solid mid-market to enterprise file storage and print server solution with easy manageability and powerful file serving features on a mature base storage server platform and using industry standard SAS JBOD hardware.
- Provides the ability to deploy iSCSI SAN solutions which capitalize on the pre-existing LAN infrastructure and make use of the much more ubiquitous IP expertise available in most organizations.
- Delivers full integration with failover clusters, providing high availability storage for application servers and file storage.
- Delivers new storage capabilities, simplified deployment and easier management while assuring seamless synergy in customers' Windows infrastructure in a cost-effective and high-performance platform.

## SPECIFICATIONS

### CPU Support

- Up to two Intel® Xeon® processor 5500 series, based on next-generation Intel® microarchitecture, code named Nehalem
- Up to two quad-core (Shanghai) / 6-core (Istanbul) AMD Opteron 2000/2300 Series processors

### Motherboard Chipset

- Intel® 5520 for Intel Xeon processors
- nVIDIA or AMD chipset for AMD Opteron processors

### QPI (GT/s) /System Bus Speed (MHz)

- 6.40 GT/s / 5.86 GT/s / 4.80 GT/s (Intel Xeon)
- 2000MHz HyperTransport system bus (AMD Opteron)

### Memory Support

- Supports 96GB DDR3 1333/1066/800 MHz Reg. ECC memory (Intel Xeon)
- Up to 64GB DDR2 800/667/533 MHz ECC registered memory (AMD Opteron)

### On-Board Video and LAN

- On-board video controller
- Dual on-board Gigabit Ethernet Connections

### RAID Controller Card Options

A wide selection of 4, 8, 12, 16 port 64-bit PCI-X or PCI Express x8 SATA or Serial Attached SCSI RAID controller cards, with RAID 0, 1, 5, 6, 10, 50, Single Disk, JBOD support

### Chassis

- Up to 4 hot swap drives in 1U, 12 hot swap drives in 2U, 16 hot swap drives in 3U, 24 hot swap drives in 4U and 5U, and 50 hot swap drives in 9U
- Hot swap redundant power supply options
- Multi-lane Mini-SAS/SATA 3Gb/s backplane, or 3Gb/s SAS Expander technology with Enclosure Management

### Microsoft® Windows® Storage Server 2008 Features and Benefits

The Windows Storage Server 2008 product family includes the following offerings:  
Basic 32-bit Basic & Basic 64-bit Workgroup, Standard, and Enterprise editions.

#### Features and benefits of Windows Storage Server 2008 include:

- **Single Instance Storage (SIS) v2** – SIS reduces the amount of storage used by data by replacing multiple identical copies with logical links to a single source copy.
- **File Server Optimization** – Windows Storage Server 2008 is tuned to provide better performance in a file server role, realizing as much as an 8% performance gain in file system operations.
- **Remote Administration in Heterogeneous Environments** – Remote administration of Windows Storage Server 2008 appliances can be done from Internet Explorer using an ActiveX control, and from non-Microsoft browsers using a Java control.
- **Improved Failover Clustering** - Failover clustering in Windows Storage Server 2008 builds redundancy into your network and eliminates single points of failure for your data.
- **Print Services** – Windows Storage Server 2008 offers performance enhancements for the Print Services role.
- **Distributed File System (DFS) Namespace and Replication** – Windows Storage Server 2008 can provide DFS support for file sharing for WANs and satellite offices.
- **Remote administration** through HTTP -- Just point a web browser to the server and you will have an ActiveX or Java-based RDP client without installing any software.
- Built-in iSCSI Software Target, providing an enterprise class solution at a very cost-effective price, and delivering a simplified model for storage management and a more flexible platform for supporting file services at the block level.
- **Does not require client-access licenses (CALs)** so any number of clients can access the system without worrying about license management.

**Unique features of included iSCSI target software (for Windows Storage Server 2008 Workgroup Edition, Standard Edition or Enterprise Edition) include:**

1. Support for failover clustering
2. VDS and VSS providers
3. Ported to StorPort
4. Installation is now done in the standard Windows manner, with an MSI not an EXE
5. You can now set up an IPv6-only iSCSI SAN and specify initiators directly using their IPv6 addresses
6. CHAP secret security is enhanced

**Single-Instance Storage (SIS) providing file-level de-duplication:**

1. SIS used to be limited to 6 volumes per node, but now scales to 128
2. SIS now supports clustering, though SIS doesn't span nodes
3. A new command allows one to undo single-instancing instead of copying all of a volume's content to another drive
4. Enabling SIS is simpler – it's now just a checkbox per volume in the Share and Storage Management UI

**Additional features Windows Storage Server 2008 include:**

1. **Server Message Block (SMB) 2.0**, combining multiple commands into a single packet, allowing more simultaneous open connections and larger buffers as well as durable file handles.
2. Updated **Network File System server**.
3. A new **Microsoft Management Console (MMC)** snap-in called **Storage Explorer** lets you manage Windows @ management interface (WMI)-compliant SAN devices.
4. **File Server Resource Manager (FSRM)**, a full-featured storage resource management (SRM) application with quotas, file screening, and advanced reporting.
5. **BitLocker full-volume drive encryption** for data protection.
6. **Storage Manager for SANs (SMfS)**, allowing you to perform basic storage array administration tasks within Windows.
7. Improved Volume Shadow Copy Service (VSS) and DFS interfaces, and are now scriptable with **PowerShell** (through WMI).
8. **Windows Server Backup** system replaces the outdated and limited NTBackup system. Although it includes bare-metal recovery, Server Backup isn't ready for prime time in my opinion. I'm looking for major improvements in R2!
9. Search 4.0 and 2008 SP2 adds **full-text search** for files stored on a Storage Server.
10. **Aligns file system boundaries** with Storage Server 2008 and **Server 2008**, increasing performance in high-I/O environments.
11. NTFS (in both Server 2008 and Vista) now has **symbolic link support**, just like UNIX and Mac OS X, and SMB 2.0 supports symlinks as well.
12. Updated **NT file system (NTFS)** for better stability and crash recovery.
13. Updated **virtual disk service (VDS)** supports LUN shrinking, online/offline and read-only/read-write settings, and SAN policies so new LUNs can be treated as either online, offline, or shared.
14. Simplified **Failover clustering** requiring just a few clicks to set up.

**Warranty**

Optional on-site service warranty



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