



## Network Storage System Appliances

FalconStor® network storage system (NSS-series) appliances deliver fast and simple iSCSI, Fibre Channel (FC), or network attached (NAS) primary storage. NSS appliances provide storage virtualization, provisioning, and heterogeneous storage management. All models include TimeMark® snapshot capability for fast recovery to known points in time. Data on the appliances may optionally be replicated to another appliance for real-time disaster recovery protection.

### Maximum availability

Two NSS-series appliances can be interconnected for mirroring and active/active failover, ensuring high availability operation. Models with internal storage include the CrossMirror feature. Models for external storage include synchronous mirroring. Both eliminate the server and the storage as single points of failure. All models include the CallHome capability to monitor system health and alert IT administrators of potential problems so corrective action can be taken.

### Management without migration

NSS-3xx series appliances can incorporate currently installed disks through the Storage Service Enabler facility to take advantage of the full range of IPStor® services without changing original disk partitions and without any data conversion or migration. Additional storage can be provisioned independently. NSS-3xx appliances can manage, protect, and provision different types of storage from multiple vendors simultaneously.

### Maximum uptime

The CallHome facility monitors the health of the appliance and storage, and notifies IT administrators of potential problems in order to ensure optimum uptime and availability.

### Host-side options

#### HyperTrac Backup Accelerator™

Software that runs on the backup server allowing backup software to create backups from TimeMark snapshots generated by the NSS-series appliance, offloading backup processing from application servers and eliminating the backup window.

#### DynaPath®

Performs transparent failover and fail-back services for the application server on which it is running, intelligently re-routing data if an I/O path fails between storage and the server.

### Appliance-side options

#### Replication Option

Enables block-level, delta replication to another CDP- or NSS-series appliance. Built-in RUDP or TCP protocol is used without the need for additional FC/IP routers. MicroScan™ feature reduces amount of data being sent by using sub-block redundant data elimination. Includes compression and encryption.

#### IP Trunking

Software option that allows the appliance to distribute TCP/IP traffic across multiple network interface cards to achieve maximum performance and automatic rerouting in the event of a network fault.

### HIGHLIGHTS

- Simple, unified SAN and NAS storage provisioning
- Enterprise-class storage features: mirroring, snapshots, replication
- Enterprise-class performance, compatibility, and reliability
- Five models, three with internal storage
- External storage models can manage multiple attachment types from multiple vendors simultaneously
- Encrypted, compressed replication option for remote disaster recovery
- Microsoft® VSS compliant
- Built-in snapshot capability, 100% application-aware data integrity
  - Integrated Microsoft Exchange and Lotus® Notes® message recovery
  - Integrated with Oracle® RMAN, ASM
- Maximum data protection and reliability

# NSS Appliance Specifications

|  | Models with Internal Storage |               |               | Models for External Storage |                 |
|--|------------------------------|---------------|---------------|-----------------------------|-----------------|
|  | NSS-110                      | NSS-210       | NSS-220       | NSS-310                     | NSS-350         |
| <b>Storage Virtualization and Provisioning</b>         |                              |               |               |                             |                 |
| Max LUNs provisioned to hosts                          | 64                           | 512           | 512           | 512                         | 1024            |
| <b>Data Storage Capacity (max. raw)</b>                |                              |               |               |                             |                 |
| Internal   |                              |               |               |                             |                 |
| with 250GB SATA drives                                 | 1.0 TB                       | 3.0 TB        | 6.0 TB        | --                          | --              |
| with 500GB SATA drives                                 | 2.0 TB                       | 6.0 TB        | 12.0 TB       | --                          | --              |
| with 750GB SATA drives                                 | --                           | 9.0 TB        | 18.0 TB       | --                          | --              |
| External   | --                           | --            | --            | 18.0 TB                     | 512.0 TB        |
| <b>Snapshot Capabilities Included</b>                  |                              |               |               |                             |                 |
| TimeMarks per host LUN (optional max.)                 | 64                           | 64 (256)      | 64 (256)      | 64 (256)                    | 256             |
| <b>Host Connection</b>                                 |                              |               |               |                             |                 |
| Host connections, maximum (optional max.)              | 16                           | 32            | 32            | 32                          | 32 (128)        |
| iSCSI target support                                   | Included                     | Included      | Included      | Included                    | Included        |
| NAS support (NFS, CIFS)                                | Included                     | Included      | Included      | Included                    | Included        |
| Gigabit Ethernet ports (optional max.)                 | 2                            | 2 (6)         | 2 (6)         | 2 (6)                       | 2 (6)           |
| Fibre Channel support                                  | No                           | Optional      | Optional      | Included                    | Included        |
| 4 Gigabit Fibre Channel target ports (optional max.)   | --                           | 0 (2)         | 0 (4)         | 2 (4)                       | 2 (4)           |
| Total Fibre Channel ports (optional max.)              | --                           | 0 (2)         | 0 (4)         | 4 (8)                       | 4 (8)           |
| <b>Appliance-side Special Features</b>                 |                              |               |               |                             |                 |
| High Availability (active-active failover)             | --                           | --            | --            | Included                    | Included        |
| Storage Service Enabler (service-enabled disks)        | --                           | --            | --            | Included                    | Included        |
| IP Trunking (NIC failover & fail-back, load balancing) | --                           | Optional      | Optional      | Optional                    | Optional        |
| Replication Option (incl. compression/encryption)      | Outbound                     | Bidirectional | Bidirectional | Bidirectional               | Bidirectional   |
| <b>Physical Characteristics</b>                        |                              |               |               |                             |                 |
| Form factor  | Mini-tower                   | 2U            | 4U            | 2U                          | 2U              |
| CPU type   | XScale                       | x86 64-bit    | x86 64-bit    | x86 64-bit                  | x86 64-bit      |
| Processor cores (optional max.)                        | 1                            | 1 (2)         | 1 (2)         | 2 (4)                       | 4               |
| RAM (optional max.)                                    | 256MB                        | 2GB (12)      | 2GB (12)      | 2GB (12)                    | 4GB (16)        |
| Internal hot swap drive bays                           | 4                            | 12            | 24            | 2 - OS only                 | 2 - OS only     |
| RAID level   | 5 std, 1 opt                 | 6 std, 5 opt  | 6 std, 5 opt  | 1 - mirrored OS             | 1 - mirrored OS |
| IPMI   | No                           | Included      | Included      | Included                    | Included        |

Snapshot Agents are available for the following environments: **Windows:** Microsoft Exchange Server, Lotus Domino, Microsoft SQL Server, Oracle, Sybase, Informix, DB2, SAP, Pervasive SQL, Microsoft Volume Shadow Copy Service, Windows file systems — **Linux:** Lotus Domino, Oracle, Linux file systems — **Solaris:** Oracle, Sybase, Lotus Domino, Solaris file systems — **AIX:** Oracle, DB2, Informix, Lotus Domino, AIX file systems — **HP-UX:** Oracle, Sybase, HP-UX file systems

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