

# Open-E Data Storage Server DSS

## Open-E® Data Storage Server (DSS™)

is a unified file and block-level storage management software application, with support for IP (GbE and 10GbE), Fibre Channel and Infiniband network interfaces. DSS offers NAS, iSCSI and Fibre Channel (both target and initiator) functionality in a single application.

Open-E DSS is a cost-effective, reliable storage platform with many usage models including file sharing, backup and recovery, storage consolidation, and disaster recovery.

Open-E DSS is designed with both the simplicity and ease-of-use demanded by SMB users, and the advanced features required by Enterprise users. Cost effective solutions such as Automatic Failover for high availability clusters, Remote Replication for disaster recovery and multiple scheduled Snapshots for data protection are now available to businesses of all sizes.

## Open-E DSS Key Benefits



Easy to use, GUI based management provides performance and security



Reliable disk based backup and recovery, along with Snapshot capability enable fast and reliable backup and restore



IP based storage management combines NAS and iSCSI functionality for centralized storage and storage consolidation



Easy to implement remote Replication, at block or volume level, enables cost-effective disaster recovery

**DSS is a robust, fourth generation IP-storage software offering from Open-E. With over 10,000 customer installations since 2003, DSS is a stable, field-proven storage platform on which you can trust for deploying your company's business-critical data.**



## Advanced Data Protection Capabilities

The centralization of valuable data on an Open-E DSS server provides comprehensive and cost-effective data protection. Open-E DSS integrates, at no additional cost, critical features such as, Data and Volume Replication, Snapshot Copy, Automatic Failover and Backup and Restore applications for proactive and comprehensive protection of all stored information.

## Integrated Data and Volume Replication

DSS Data and Volume Replication provide asynchronous and synchronous replication to copy critical company data to a secondary site in case of a disaster. Open-E DSS supports multi-master Data Replication with scheduling, synchronous iSCSI Volume Replication and bandwidth throttling. This increases data availability by creating multiple copies of data on remote servers over local area networks (LANs) or wide area networks (WANs) using the integrated block-based replication technologies.

## Snapshot

Open-E DSS Snapshot Copy provides an instantaneous point-in-time copy of data using a robust copy-on-write functionality. Snapshots can then be used for fast backup and restore of data in case of a loss of a server, human error or natural disaster.

## Automatic Failover

Open-E DSS supports Automatic Failover by using virtual IP addresses via the iSCSI protocol. In the event of either a failure or a scheduled maintenance of the primary server, Open-E DSS can be configured to automatically switch over to a secondary storage server. The Automatic Failover function enhances the fault tolerance level, a key requirement for many business critical environments.

## Intelligent Backup and Restore

Open-E DSS integrates intelligent backup and restore applications for reliable and cost-effective data protection. Support for Virtual Tapes (VT) virtualizes disk storage as tape hardware and enables the integration of Open-E DSS with existing archiving policies. DSS also supports industry leading backup software including Veritas, CA, ARCserve and others.

# List of features DSS

## ADMINISTRATION

|                                                                |   |
|----------------------------------------------------------------|---|
| Web-based Graphical User Interface                             | ✓ |
| Secured Administration Access                                  | ✓ |
| Console Tools                                                  | ✓ |
| Tuning Tools                                                   | ✓ |
| Remote Access for Console                                      | ✓ |
| Automated Updating of OS                                       | ✓ |
| Task Manager and Schedule Manager                              | ✓ |
| To do list for quick setup                                     | ✓ |
| User Interface in Japanese, German, Russian, English languages | ✓ |

## NETWORK MANAGEMENT

|                                                     |   |
|-----------------------------------------------------|---|
| DHCP Client                                         | ✓ |
| Multiple Network Interface Card Support             | ✓ |
| Teaming/Bonding (including Adapter Fault Tolerance) | ✓ |
| 10 Gb Ethernet Support                              | ✓ |
| Infiniband Support                                  | ✓ |
| Proxy settings                                      | ✓ |
| IP-sec                                              | ✓ |
| Jumbo Frames Support                                | ✓ |

## STORAGE MANAGEMENT

|                                                                    |   |
|--------------------------------------------------------------------|---|
| Software iSCSI Initiator                                           | ✓ |
| Software RAID 0, 1, 5, 6 with E-Mail Notification                  | ✓ |
| Multiple Hardware RAID Controller Support                          | ✓ |
| Multiple FibreChannel HBA Support (initiator & target mode)        | ✓ |
| Support for over 2TB Physical and Logical Volumes                  | ✓ |
| Support for over 16TB Logical Volumes (in 64-bit mode)             | ✓ |
| Multiple Snapshot (multiple active snapshots per one LV at a time) | ✓ |
| Multiple Logical Volume & Groups                                   | ✓ |
| Online Logical Volume Expansion                                    | ✓ |
| Support for Online Capacity Expansion                              | ✓ |
| Volume Replication                                                 | ✓ |

## MONITORING

|                     |   |
|---------------------|---|
| Hardware Monitoring | ✓ |
| SNMP v2, v3         | ✓ |
| E-Mail Notification | ✓ |
| Log Function        | ✓ |

## HARDWARE SUPPORT

|                             |   |
|-----------------------------|---|
| Multiple CPU Support (32x)  | ✓ |
| UPS and Network UPS Support | ✓ |

## SPECIFIC NAS FUNCTIONALITY

|                                                         |   |
|---------------------------------------------------------|---|
| Data Replication                                        | ✓ |
| Windows Active Directory / Primary Domain Controller    | ✓ |
| Support for Network Information Service (NIS)           | ✓ |
| Internal and External LDAP                              | ✓ |
| ADS & NIS User / Group ID Synchronization               | ✓ |
| File System with Journaling Support                     | ✓ |
| User and Group Quota Control                            | ✓ |
| Antivirus (shares and online scanning for SMB protocol) | ✓ |

## SUPPORTED NETWORK CLIENTS

|                                                          |   |
|----------------------------------------------------------|---|
| Microsoft Windows, Linux, Unix, Mac OS 8.0, 9.0, X, 10.4 | ✓ |
|----------------------------------------------------------|---|

## SUPPORTED NETWORK FILE PROTOCOL

|                                                         |   |
|---------------------------------------------------------|---|
| SMB/CIFS, FTP, Secure FTP, HTTP, Apple Talk, NFS v2, v3 | ✓ |
|---------------------------------------------------------|---|

## SPECIFIC iSCSI FUNCTIONALITY

|                                      |   |
|--------------------------------------|---|
| IP Address Restrictions for a Target | ✓ |
| CHAP User Management                 | ✓ |
| MPIO Support                         | ✓ |
| iSCSI Failover**                     | ✓ |

## BACKUP and RESTORE FUNCTIONALITY

|                                                      |   |
|------------------------------------------------------|---|
| Local Backup                                         | ✓ |
| Integrated Backup System                             | ✓ |
| NAS Data Replication                                 | ✓ |
| Virtual Tapes                                        | ✓ |
| Support for Tape Libraries, Autoloader               | ✓ |
| Tape Retention Time                                  | ✓ |
| NEW! WORM support (Write Once Ready Many)            | ✓ |
| NEW! NDMP support (Network Data Management Protocol) | ✓ |

## OTHER

|                                   |        |
|-----------------------------------|--------|
| Help with search and index        | ✓      |
| Sessions Management               | ✓      |
| Pay as you grow Storage Capacity* | 4/8/16 |

## Network Data Management Protocol (NDMP)

Open-E DSS also features a simple implementation of NDMP. NDMP uses a common data format and architecture for backup and recovery of network file servers, speeding up the process and ensuring interoperability between vendors.

## WORM (Write Once, Read Many)

Open-E DSS also supports WORM technology, allowing data to be permanently written to disk. The data is then read only and can be read any number of times. To prevent accidental modification, data cannot be erased. WORM is a critical feature for many organizations including government agencies and large enterprises.

## Antivirus Software

The Open-E DSS integrated Antivirus software will protect the storage against viruses by scanning for viruses at predefined points in time. Also, files transferred via the SMB/CIFS protocol can be scanned during the write process to the storage device.

## Centralized Management

Open-E DSS includes an easy to use management GUI that provides a centralized view of all data under management. The GUI gives you a view to manage Data Replication, Volume Replication, Backup processes and Snapshot Copy. The GUI enables administrators to more efficiently manage the protection of data and storage across all IT resources.

## Software RAID with Hardware RAID Functionality

The integrated software RAID in Open-E DSS offers many advanced features, which were previously available only on hardware RAID controllers. Today, without additional or dedicated hardware, you can benefit from RAID 0, 1 or even higher performance RAID 5 and 6 (comparable with hardware RAID controllers), with software support for Hot Plug or Hot Spare (in one RAID array).

## OS Reliability and Security

Open-E DSS is a complete operating system that easily installs on any server. Users have said that Open-E DSS is one of the easiest to install software storage solutions on the market. Additionally, Open-E Data Storage Server recognizes most industry-standard hardware and automatically installs drivers (\*) of SAS and RAID controllers, FC-HBAs and Ethernet cards.

## Optimized OS Performance

Independent tests have shown that the Open-E storage software offers one of the highest data throughput and performance of any product on the market. This makes Open-E DSS especially suitable for network environments with many clients or for storage applications requiring high data throughput and I/O such as video editing and streaming, IPTV and others.

## Secure Updating

To optimize the updating process of Open-E DSS the USB-DOM contains a shadow copy of the OS. In case of an update failure the storage system can be easily switched to the former version of the Open-E DSS.

## Designed for Integration into Heterogeneous Networks

Integration of Open-E DSS into heterogeneous network environment takes no more than 10 minutes. Built in Windows Domain, NIS or LDAP support allows for easy expansion of the existing IT infrastructure. Additionally, DSS includes heterogeneous support for protocols such as SMB/CIFS, HTTP, NFS, AppleTalk, FTP and Secure FTP, allowing data to be easily shared among different platforms.

## Seamless Integration and Heterogeneous Support

Open-E DSS provides native integration with Windows® Active Directory, including Group Policy Objects (GPO) and synchronization of UIDs/GIDs between NAS and NIS Domain.

\* Storage Capacity can be extended by additional licenses

\*\* Cluster functionality

\* For supported hardware, please visit [www.open-e.com/compatibility](http://www.open-e.com/compatibility)