

Software for your Storage

DSS

open-e



Open-E DSS

Flash for optimal data security and minimum downtime

Open-E Data Storage Server is a complete operating system, delivered on a USB Disk-on-Module (DOM) plugged into the server system. The pre-installation of the OS on a USB-DOM makes Open-E Data Storage Server one of the simplest software for building a storage device. Open-E Data Storage Server recognizes all hardware and automatically installs drivers(*) of SAS- and RAID controllers, FC-HBAs, Ethernet cards, etc.

Advanced Backup Utilities

The centralization of valuable data on an Open-E DSS server requires comprehensive and cost-effective data protection. Open-E DSS integrates intelligent backup and recovery applications for proactive and simple protection of the stored information. Integrated Volume & Data Replication, Snapshot Management, Task Mechanism, Backup Utilities, Tape Drives & Tape Libraries Support, like tape drive emulation on "dynamic" hard drives, enable better disaster recovery plans, lower storage-related costs and management of information through all stage of its lifecycle. Open-E DSS simply and efficiently protects the stored information, while minimizing data risks and maximizing the return on investment on infrastructure.

Optimized OS for dedicated and enterprise network environments

Independent tests have shown that the Open-E storage software is offering one of the best data throughput and performances. This makes Open-E DSS especially suitable for network environments with many clients or storage applications for multi-video streaming, HDTV and others, needing a high data throughput and I/O. The integrated performance features of the Open-E DSS provide tuning tools like: Multipath I/O (MPIO), teaming of multiple NICs, Jumbo Frames settings, parameter settings of drivers, support for up to 32 CPUs, support for FC-HBA's, 10GbE Cards, InfiniBand, Intel® I/O AT and TCP/IP Offload Engines.

Designed with thought of heterogeneous networks

Integration of Open-E Data Storage Server into heterogeneous network environment takes no more than 10 minutes. Build in Windows Domain, NIS or LDAP support allows to expand existing IT infrastructure without any problems. With the improved WebGUI of the Open-E DSS management and administration allows better control on storage device and backup processes for securing the valuable data. Open-E Data Storage Server simplifies the management and administration of storage.

(*) for supported hardware, please visit www.open-e.com/compatibility

Open-E DSS (Data Storage Server)

is an all-in-one IP and FC Storage Operating System offering NAS, iSCSI and FC (target and initiator) functionality in a single application with enhanced management and superior reliability to organizations of all sizes.



Open-E Data Storage Server provides a fast, reliable and scalable platform for IP-Storage. Whether your need is for file sharing, storage consolidation, backup and recovery, virtualization or replication, Open-E Data Storage Server offers excellent price-to-performance ratio, enhanced manageability, and increased productivity. Open-E Data Storage Server is based on the field proven Open-E software technology with all of its superior security, stability and management advantages, and is Open-E's fourth generation of IP-Storage Software. Open-E Data Storage Server adds new back-up capabilities, simplified setup and storage management, extensibility, and is specially tuned to provide optimal data throughput and data protection for centralized storage. Open-E DSS increases iSCSI target efficiency by supporting multiple iSCSI initiators on different volumes, without sacrificing NAS performance.



ADMINISTRATION

Web-based Graphical User Interface	✓
Secured Administration Access	✓
Console Tools	✓
Tuning Tools	✓
Remote Access for Console	✓
Multiple Management Levels	✓
Automated Updating of OS	✓
Rollback to previous OS	✓
Task Manager	✓
Schedule Manager	✓

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

Hardware and Software iSCSI Initiator	✓
Software iSCSI Initiator	✓
Software RAID 0, 1, 5, 6 with E-Mail Notification	✓
Degraded Mode for Software RAID 1, 5, 6	✓
S.M.A.R.T. with E-Mail Notification	✓
Multiple Hardware RAID Controller Support	✓
Multiple FibreChannel HBA Support (Initiator and Target)	✓
Support for over 16TB Logical Volumes	✓
Multiple Snapshot (multiple active snapshots per one LV at a time)	✓
Multiple Logical Volume & Groups	✓
Online Logical Volume Expansion	✓
Support for Online Capacity Expansion	✓

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

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 (server's shares scanning)	✓
Antivirus (online scanning for SMB protocol)	✓
USB Storage Support for Dynamic Disk	✓
Backup-Agent (Veritas, EMC Dantz, CA BrightStor)	✓

SUPPORTED NETWORK CLIENTS

Microsoft Windows, Linux, Unix, Mac OS 8.0, 9.0, X, 10.4	✓
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SUPPORTED NETWORK FILE PROTOCOL

SMB/CIFS, FTP, Secure FTP, Apple Talk, NFS v3, v4	✓
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SPECIFIC iSCSI FUNCTIONALITY

IP Address Restrictions for a Target	✓
CHAP User Management	✓
MPIO Support	✓
Volume Replication	✓

BACKUP UTILITY

Local Backup	✓
Integrated Backup System	✓
NAS Data Replication	✓
Task Mechanism with Scheduling	✓
Virtual Tapes	✓
Support for Tape Libraries, Autoloader	✓
Tape Retention Time	✓

OTHER

USB-DOM Interface for 30% faster booting and improved hardware compatibility	✓
Support for SWAP	✓
Help with search and index	✓
Extended save & restore settings	✓
Connections Status	✓
Sessions Management	✓
Initially Supported Storage Capacity (TB)*	16

*Storage Capacity can be extended by additional licenses

SEAMLESS INTEGRATION

Active Directory and NIS

Native integration with Windows® Active Directory, including group policy objects (GPO) and synchronization of UIDs/GIDs between NAS and NIS Domain.

NAS Networks

Open-E Data Storage Server includes heterogeneous support for protocols such as SMB/CIFS, NFS, AppleTalk, FTP and Secure FTP, allowing data to be shared among different platforms.

SAN Networks

Open-E Data Storage Server offers complete iSCSI and FC (target and initiator) functionality for storage capacity expansion in SAN with a block-level storage device running over TCP/IP or FC. An Open-E data Storage Server can also integrate with a SAN by acting as a gateway to the SAN.

INCREASED DATA PROTECTION

Data & Volume Replication

Open-E Data Storage Server supports multi-master data replication with scheduling, synchronous iSCSI volume replication and bandwidth throttling. This increases data availability and provides disaster recovery 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.

Intelligent Backup Utilities

Open-E DSS integrates intelligent backup and recovery applications for fast and cost-effective data protection. Support for Virtual Tapes (VT) to virtualize storage as tape hardware, allows the integration of Open-E Data Storage Server with existing archiving policies, while taking advantage of backing up data to disk. Back-up on disk increases performance of both backup and recovery operations for lower costs.

Antivirus Software

The integrated antivirus software can protect the storage against viruses by scanning on viruses at predefined points in time. Files transferred via the SMB/CIFS protocol can be scanned during the writing process on the storage device.

Centralized Data Protection Management

Open-E Data Storage Server includes a management tool to provide a centralized view of the data protection management of the cross data replication, volume replication, backup processes and snapshot. This tool enables administrators to more efficiently manage the protection of storage across IT resources.

Software RAID with Hardware RAID Functionality

The integrated software RAID in the Open-E Data Storage Software offers many RAID features, which were only offered by hardware RAID controllers. Today without any dedicated, additional hardware you can benefit from RAID 0, 1 or even high performance RAID 5 and 6 (comparable with hardware RAID controllers), with software support for Hot Plug (for certified hardware) or Hot Spare (in one RAID array). In combination with E-Mail Notification Open-E Software RAID becomes an easy to administrate, reliable solution.

Backup-Agents

(Veritas, EMC Dantz, CA BrightStor)

Open-E Data Storage Software backup agents help administrators to back up NAS servers with backup software from Veritas, Dantz, CA BrightStor ARCserve. Using the backup agents, you can administer complete data protection for all data stored on the NAS server. This improves data transfer and provides network security, task monitoring, real-time directory browsing, and cross-platform backup support. Other backup software can do the backup and restore over supported file protocols.

INCREASED OS RELIABILITY

Internal USB DOM (Disk on Module)

Open-E Data Storage Server is preinstalled on a USB DOM plugged on the motherboard. Compared to CD installation or IDE-DOM, pre-installation on a USB-DOM, simplifies installation, improves compatibility of hardware and booting time with up to 30%. Pre-installation on static medium needs less power and the HDD capacity can be used for data storage.

High Reliability

The pre-installation of Open-E Data Storage Server on static flash memory ensures more reliability as an OS on mechanical HDDs. The separation of the Open-E Data Storage Server on a flash medium minimizes the risk of a virus infection and downtime. In case of an OS-crash a system can run again within 10 minutes by just booting from a new flash module or Demo-CD.

Secured Updating

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