

# **Open-E Data Storage Software** DSS V7

Open-E Data Storage Software (DSS) V7 is designed for building and managing centralized data storage servers. The unified file and block-level operating system provides support for multiple 1GbE, 10GbE, FC or Infiniband network interfaces and offers NAS, iSCSI and Fibre Channel (both target and initiator) functionality in a single application.

Open-E DSS V7 is a robust, award-winning enterprise storage application which offers excellent compatibility with industry standards, supports various hardware setups and is known to be the easiest to use and manage. Additionally, it is one of the most stable and secure solutions on the market, helping both SMB and Enterprise organizations to implement high-performing, yet cost-effective data storage systems.

The software includes high-end features such as Active-Active Failover for iSCSI Volumes in high availability clusters, Remote Replication for disaster recovery or multiple scheduled Snapshots for data protection.

### **Open-E DSS V7 Key Benefits**



#### Robust, award-winning storage application

Received numerous industry awards and contains enterprise features for a robust storage environment.



#### **Excellent compatibility with industry** standards

Wide variety of supported hardware and software, including all popular operating systems (Windows, Mac, Linux) and backup agents. VMware Ready, Citrix Ready and compatible with Hyper-V Cluster for virtual environments.



#### Easy to deploy and manage

Quick configuration with wizard, task and schedule manager, e-mail notifications, automated OS updates and rollbacks.



#### The most stable

Linux-based software, developed by experienced engineers using agile methodology, continuous integration and extensive QA testing.



#### **Price performance leader**

Powerful storage features for an affordable price. Runs on independent OS - no need to purchase any host OS.



#### Double performance with Active-Active Failover for iSCSI volumes

With the Active-Active iSCSI Failover Feature Pack for Open-E DSS V7 you can double the performance of your storage system, increase sequential read and write performance by 100% and shorten switching time almost twice, compared to Active-Passive. Reason is the way load balancing in an active-active cluster works, utilizing the maximum of all storage resources. With no Single Point of Failure, the read, write and replication traffic can be balanced on both nodes. If one node fails, the other one takes over automatically and all application services continue to run without interruption. This makes Open-E DSS V7 ideal for demanding virtualized environments, database applications or video surveillance systems.

#### Advanced data protection capabilities

Placing valuable data on an Open-E DSS V7 powered server ensures comprehensive and cost-effective data protection. Open-E DSS V7 integrates critical features such as asynchronous (NAS) Data and synchronous (iSCSI, NAS, Fibre Channel) Volume Replication, Snapshot Copy, automatic and applicationtransparent Failover, and agents-based Backup and Restore for proactive and comprehensive protection of all stored information.

#### Easy to install and manage

The first setup of Open-E DSS V7 is very easy since the process is automated and optimized for achieving quick installation. An integrated wizard guides users through the installation process step-by-step. Thanks to the intuitive, web-based interface maintaining a server with Open-E DSS V7 is straightforward and user-friendly.

#### Virtualization solutions

Open-E DSS V7 has been certified as Citrix Ready, and VMware Ready. Plus, it has been optimized for Microsoft Hyper-V environments and includes synchronized Persistent Reservation. Users don't lose access to their Windows Server resources after a node fails during failover, so iSCSI Target and iSCSI Failover Cluster are stable and resistant to failures.

Copyright

Disclaimer

© 2004-2014 Open-E, Inc. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior written consent of Open-E, Inc. marks

www.open-e.com

2014/03

# open-e

# Features

#### ADMINISTRATION

- » Unlimited number of users, groups, NICs or HDDs
- » Intuitive, web-based GUI with Setup Wizard
- » English, German and Japanese language
- » Secure Administration Access
- » Tuning Tools for advanced administrators
- » Remote Access Console
   » Automated Update and Rollback to previous OS version
- » Automated Update and Rollback » Task and Schedule Manager
- » Task and Schedule Manager
   » Command Line Interface (CLI) / Application Programming Interface (API)
- » Command Line Interface (CLI) / Application Programming Interface ( » E-mail notifications
- » Save and restore settings
- » Connection status and session management

#### NETWORK MANAGEMENT

- » DHCP Client » Teaming / Bonding (including Adapter Fault Tolerance)
- » Proxy Settings
- » Froxy Settings
   » Jumbo Frames
- » Static Routing Manager

#### STORAGE MANAGEMENT

- » NEW! VMware tools for ESXi 5.x (Small Update)
- » VMware Virtual NIC and Para-Virtual SCSI to run as Virtual Storage Server
- » Software and Hardware iSCSI Initiator
- » Software RAID 0, 1, 5, 6
- » Fibre Channel HBA support (initiator and target mode)
- $\, {\rm *}\,$  Multiple Snapshots (multiple active snapshots per one LV at a time)
- » Logical Volumes and Groups
- » Online Logical Volume Expansion
- » Online RAID Capacity Expansion
- » Support for Automatic Session Reassignment (ASR) for FC and iSCSI protocols **STORAGE MANAGEMENT / REPLICATIONS**
- » Synchronous Volume Replication over LAN
- » Asynchronous Data (file) Replication over LAN and WAN

#### MONITORING

- » Hardware monitoring
- $\, {\rm *}\,$  S.M.A.R.T monitoring system for hard disc drive failures

#### » SNMP v2, v3 HARDWARE SUPPORT

- » NEW! Support and tuning tools for Mellanox 40Gbps Ethernet and
- Infiniband cards
- » NEW! Support for Adaptec Series 8 (maxCache Plus caching technology)
- » IP over InfiniBand (IPoIB)
  » SSD cached BAID support (I SI CacheCade I SI Nutro Cac
- » SSD-cached RAID support (LSI CacheCade, LSI Nytro Cache)
   » Multiple CPU support (up to 128)
- » 10 Gb Ethernet support
- » Multiple Network Interface Card support
- » UPS and Network UPS support
- » Liquid Crystal Display (LCD) Panel support
- » Liquid Crystal Display (LCD) Panel support
   » Hardware RAID Controller support

#### SPECIFIC NAS FUNCTIONALITY

- » Windows Active Directory / Primary Domain Controller
- » Support for Network Information Service (NIS)
- » Internal and external LDAP
- » File System with journaling
- » User and Group Quota Control
- » Antivirus

#### SUPPORTED NETWORK CLIENTS

» Microsoft Windows, Linux, UNIX, Mac OS 8.0-10.5.8, X

- SUPPORTED NETWORK FILE PROTOCOLS
- $\ast$  SMB/CIFS, FTP, Secure FTP, HTTP, Apple Talk, NFS v2, v3  $\mbox{SPECIFIC iSCSI FUNCTIONALITY}$
- » Active-Active iSCSI Failover (separate Feature Pack)
- » Built-in Active-Passive Failover configuration (Cluster functionality)
- » Multiple LUNs per iSCSI Target
- » CHAP/ Mutual CHAP User Management
- » Multipath I/O
- » SCSI-3 Persistent Reservation support with synchronization between 2 cluster nodes

BACKUP UTILITY

- » WORM (Write Once Read Many)
- » NDMP v3.0 (Network Data Management Protocol)
- » Backup Agents (Backup Exec, Retrospect, BrightStor)

#### OTHER

- » Open-E Multiple Storage Server Manager (Beta)
- » Remote Technical Support (on demand)
- » Initially supported storage capacity 4/8/16\*/Unlimited (TB)

#### NEW in Open-E DSS V7 up12

- » Random writes to mirrored volumes in Volume Replication now at least 10 times faster than in previous version
- » Dynamically managed re-sync bandwidth of Volume Replication
- » Improved management of multi-core CPU for higher overall performance
- » Possibility to assign snapshots to logical volumes via API
- » VMware Tools for virtual environments (Small Update)

#### **Optimized performance**

Independent tests have shown that Open-E DSS V7 offers one of the highest data throughput and performance levels. This makes the software especially suitable for network environments with many clients or for storage applications requiring high data throughput and I/O. It additionally provides field-proven reliability with superior performance in Hyper-V Clusters.

#### Compatibility and scalability

Open-È DSS V7 recognizes most industry-standard hardware and automatically installs drivers (\*\*) for SAS and RAID controllers, FC-HBAs or 10Gb Ethernet cards. Additionally, the scale-out architecture of the software gives users the ability to expand storage capacity online, without disruption and compromising performance.

# Designed for integration into heterogeneous networks

Integration of Open-E DSS V7 into heterogeneous network environments takes no more than a few minutes. Built-in Active Directory Services integration, NIS and External or Internal LDAP support allow for easy implementation with existing IT infrastructures. Additionally, Open-E DSS V7 includes support for heterogeneous protocols, allowing data to be easily shared.

# Excellent technical support: 1st year free!

Open-E understands how important technical support is. That is why with each full license of Open-E DSS V7, users get 1 year Basic Support for free. If this isn't enough, you may also choose a different support product that is better suited to your needs.

\* Storage Capacity can be extended by additional licenses

\*\* For supported hardware, please visit www.open-e.com/service-and-support/product-compatibility