Open-E Network Attached Storage

NAS-R3

As data continues to grow, and the demands of network users and applications increase, organizations are looking for an alternative to Direct Attached Storage (DAS) and are realizing the benefits of Network Attached Storage or NAS.

NAS systems are computing storage devices that can be accessed directly over the network allowing data to be easily shared and searched. NAS enables multiple users to share the same storage space simultaneously and minimizes overhead by managing hard disks centrally. In terms of design, a NAS server is simply a file server optimized for file system services.

The Open-E NAS-R3 software provides the best combination of ease of management, scalability, reliability and performance in a NAS system. The NAS-R3 software is an optimized and well-tuned operating system, which turns any server into a NAS storage server in about 10 minutes. NAS-R3 delivers significant performance and ease of use to enable any organization to simplify, centralize and automate their data storage. NAS-R3 can quickly and easily integrate into any data protection strategy.

For optimal data security, Open-E NAS-R3 offers integrated software RAID 0, 1, 5 and 6, which provides flexibility and security while decreasing the implementation costs for a NAS solution. For critical applications, Open-E NAS-R3 servers can be designed with greater redundancy by using the software RAID to mirror two hardware RAID-5 arrays, significantly reducing the probability of failure. Additional enterprise level features such as Snapshot copy for backup and restore and Data Replication for disaster recovery make Open-E NAS-R3 a reliable, highly available, cost effective solution for any heterogeneous network environment.

With over 10,000 customer installations since 2003, Open-E provides a stable, field-proven storage platform on which you can trust for deploying your company's business-critical data.

Open-E NAS-R3 Key Benefits

Optimized Data Throughput and Performance

NAS-R3 optimized storage software supports 10 GbE, TOE, Intel® I/O AT, Fibre Channel and multi-CPUs.

Complete Cost Effective Data Protection

Cross data synchronization, software RAID 0, 1, 5, and 6, Snapshot Copy and integrated Antivirus provides the highest level of security in a NAS system. Additionally, dynamic disk functionality, local backup scheduling, built-in agents for backup software and Network UPS support ensure the highest level of availability for your system.

Maximum Hardware Flexibility

Open-E provides support for all leading SCSI, Serial SCSI, IDE and Serial ATA Controllers, NICs and Networking Chipsets for maximum hardware flexibility at the lowest cost.

Secure, Fast, Easy Management

Web-based GUI with password and quota provides performance, security and ease of use. Support includes Windows Active Directory (ADS), Internal and External LDAP, Network Information Service (NIS), ACL's and NIS User Group ID, SNMP and online logical volume expansion.

List of features NAS-R3

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 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	✓
Jumbo Frames Support	✓
STORAGE MANAGEMENT	
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 mode)	✓
Support for over 2TB Physical and Logical Volumes	✓
Snapshot Copy and Multiple Snapshot Copy	✓
Multiple Logical Volume & Groups	✓
Online Logical Volume Expansion	✓
Support for Online Capacity Expansion	✓
Data 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	
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)	✓
USB Storage Support for Dynamic Disk	✓
Backup-Agent (Verites, EMC Dantz, CA BrightStor)	✓
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, Apple Talk, NFS v3, v4	✓
BACKUP UTILITY	
Local Backup	✓
Integrated Backup System	✓
NAS Data Replication	✓
Virtual Tapes	✓
Support for Tape Libraries, Autoloader	✓
Tape Retention Time	✓
OTHER	
Support for SWAP	✓
Help with search and index	✓
Extended save & restore settings	✓
Connections Status	✓
Upgrade Ability	✓
Initially Supported Storage Capacity (TB)*	4/8/16

*Storage Capacity can be extended by additional licenses

Designed for Heterogeneous Support

Open-E NAS-R3 includes heterogeneous support for protocols such as SMB/CIFS, NFS, AppleTalk, HTTP, FTP and Secure FTP, allowing data to be shared easily amongst different platforms in large heterogeneous networks.

Advanced Data Protection and Disaster Recovery

For disaster recovery and fast backup and restore, Open-E NAS-R3 can synchronize files and directories from one NAS R-3 server to another, using a block-based transfer to minimize your network traffic. Additionally, Open-E NAS-R3 can synchronize data in both directions: the NAS-R3 server can be the source and the destination at the same time, enabling cross-backup of data on several servers.

Snapshot

Open-E NAS-R3 Snapshot Copy provides an immediate point-in time image of the logical volume (LV). The Snapshot image can then be used for both consistent and temporary backup, while ensuring users still have uninterrupted and complete access to their data. Open-E NAS-R3 supports "Multiple Snapshot with Scheduling" to create Snapshots at predefined points in time (e.g., automatically every hour) for complete automation of your backup schedule.

Local Backup to Virtual Tape

With Open-E NAS-R3 a local HDD or a USB drive can be defined as a Dynamic Unit. With this unit, you can backup the NAS-R3 Server and store the backup data separately. The Dynamic Unit can be removed without shutting down the server and acts like a virtual tape. With Open-E you can be assured that your critical data is not only backed up but also easily recovered.

Secure User Authentication

Open-E NAS-R3 supports Windows Active Directory (ADS), PDC, Network Information Services (NIS), internal and external LDAP and ADS & User-Group ID Synchronization to leverage information about users, groups, systems and other resources stored in the Active Directory.

Throughput & Reliability

Open-E NAS-R3 supports Multiple NIC, 10Gb Ethernet cards with TOE, Intel® I/O AT and FC HBAs for maximum data throughput, high bandwidth, best latency and performance. The support of Adapter Fault Tolerance (AFT) assures greater reliability by providing a secondary network adapter which automatically takes over if the primary network adapter fails.

Antivirus Protection

Open-E NAS-R3 has an integrated Antivirus software tool for scanning shares for viruses at predefined points in time. The Virus Definition Database can be updated and is stored on the NAS-R3 device. Open-E NAS-R3 also supports Online Virus Scanning of files transferred via the SMB protocol.

Real-Time Monitoring

Open-E NAS-R3 supports the SNMP protocol to monitor the data throughput, CPU, and RAM usage of the NAS-R3 storage system.

Hardware and Software RAID

Open-E NAS-R3 supports SCSI, Serial SCSI, Serial ATA and IDE controllers of all the leading hardware RAID controller manufacturers. The integrated software RAID 0, 1, 5 and 6 provides for flexibility and cost savings in creating your NAS solution.

Multiple Supported Network Clients

Open-E NAS-R3 supports the file based protocols CIFS/SMB, NFS, FTP, Secure FTP, HTTP and Apple Talk, enabling Windows, Linux, Unix and MacIntosh clients to share data on the same NAS server.

iSCSI Initiator Support

Open-E NAS-R3 supports hardware iSCSI initiators and has a software iSCSI initiator to easily expand the storage capacity of the NAS-R3 system. New units and logical volumes can be easily added by connecting an iSCSI storage system to the NAS-R3.