

# Multi-Award Winning CyberStore DSS Range

The Broadberry CyberStore range - "Best Storage Appliance" 2009, 2010, 2011 and 2013















# "FURIOUSLY FAST" Storage

Established in 1989 Broadberry Data Systems have powered the worlds largest organisations for over 23 years, ranging from the top 10 universities in England to NASA and CERN. We're a leading manufacturer of high-end custom rackmount servers, enterprise storage and high performance workstations.

Setting the standard for quality, reliability, and performance, Broadberry Data Systems provides the high-end computer user with the superiority and the dependability needed along with an affordable price. Every system is custom configured and built to order, ensuring customers only get the most up to date systems. Our goal is to develop and deliver the highest quality, proven, reliable and cost effective solutions to our customers through continuous product development and system design.

# **POWERING These organisations**



























\* Dave Mitchell (PC Pro)



# open-e

# Broadberry CyberStore DSS V7

Open-E Data Storage Software (DSS) V7 is a unified file and block-level storage management Operating System, providing support for multiple 1GbE, 10GbE, Fibre Channel and Infiniband network interfaces. Open-E DSS V7 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, a wide variety of supported hardware, and is easiest to use and manage. Additionally, it is one of the most stable solutions on the market and an undisputed price performance leader. Open-E counts for over 27,000 installations in Fortune 500 organisations world-wide in over 100 countries for over a decade.

Open-E DSS V7 is designed for simplicity and ease-of-use, as demanded by SMB users, along with the advanced features required by Enterprise users. These features include solutions such as the new Active-Active Failover for iSCSI Volumes in high availability clusters, Remote Replication for disaster recovery and multiple scheduled Snapshots for data protection.

# CyberStore DSS Key Benefits



Robust, Award-Winning Storage Application Supports both legacy and modern hardware, popular backup software and appliance API.



Excellent Compatibility with Industry Standards Full iSCSI, Fibre Channel and NAS support, network client protocols supporting all popular operating systems (Windows, Mac, Linux), and backup agents.



# **Easiest to Use and Manage**

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



#### The Most Stable

Based on Linux industry proven for its stability, the most stable journaling file system runs on its own independent OS making purchase of host OS unnecessary.



# **Price Performance Leader**

Greatest storage features for an affordable price.



# NEW: Double Performance with Active-Active Failover for iSCSI Volumes

With Open-E's new DSS V7 Active-Active iSCSI Failover Feature Pack you can double the performance of your storage system, increase sequential read and write performance by 100% and shorten switching time almost twice - when

compared to Active-Passive. Additionally, you can better utilise your network resources since the read, write and replication traffic can be balanced on both nodes. Active-Active iSCSI Failover feature enables you to simultaneously run volumes in the active mode on both cluster nodes. If one node fails, the other one takes over automatically and all application services continue to run without interruption. Once the failed node is available again, the administrator can move back the activity of selected volumes.

# **Advanced Data Protection Capabilities**

The placement of valuable data on an Open-E DSS V7 powered server provides comprehensive and cost-effective data protection. Open-E DSS V7 integrates critical features such as Data and Volume Replication, Snapshot Copy, Automatic Failover, and agents-based Backup and Restore for proactive and comprehensive protection of all stored information.

# Integrated Data and Volume Replication

Open-E DSS V7 provides Asynchronous Data Replication (NAS) and Synchronous Volume Replication (iSCSI, NAS, Fibre Channel) to replicate critical company data to a secondary server in case of a failure or disaster. Open-E DSS V7 supports multi-master, Asynchronous Data Replication with scheduling, Synchronous iSCSI / NAS / FC Volume Replication and bandwidth throttling. This ensures 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- and file-based replication technologies.

#### Snapshot

Open-E DSS V7 Snapshot Copy provides an instantaneous point-

in-time copy of data using robust copy-on-write functionality. Snapshots can then be used to fast restore data in case of human or application error and to enable scheduled data replication and incremental backup.

#### ADMINISTRATION

- Unlimited number of users
- Tips as a user guide
- NEW! Web-based, Multi Language GUI with Status Icons
- Secure Administration Access
- Tuning Tools
- Remote Access for Console
- Multiple Management Levels Automated Update and Rollback to Previous OS
- Task Manager
- » Schedule Manager

#### **NETWORK MANAGEMENT**

- **DHCP Client**
- Single and Multiple Network Interface Card Support
- Teaming / Bonding (including Adapter Fault Tolerance) 10 Gb Ethernet Support
- Infiniband Support
- **Proxy Settings**
- » IP sec
- » Jumbo Frames Support
- » Static Routing Manager

#### STORAGE MANAGEMENT

- VMware Virtual NIC and Para-Virtual SCSI to run as Virtual Storage Server
- Software and Hardware iSCSI Initiator
- Software RAID 0, 1, 5, 6 with E-Mail Notification Degraded Mode for S/W RAID 1, 5, 6
- S.M.A.R.T. with E-Mail Notification
- Hardware RAID Controller Support
- FibreChannel HBA Support (initiator and target mode)
- Support for Logical Volumes over 16 TB
- Multiple Snapshots (multiple active snapshots per one LV at a time)
- Multiple Logical Volumes and Groups
- Online Logical Volume Expansion
- Support for Online Capacity Expansion Built-in SNMP based monitoring system
- Built-in LSI RAID Manager
- » Support for Automatic Session Reassignment (ASR) for FC and iSCSI protocols
- » SSD Caching Support

#### STORAGE MANAGEMENT / REPLICATIONS

- Synchronous Volume Replication over LAN
- » Data (file) Replication over LAN and WAN
- » Fast initial Volume Synchronization
- » Volume Replication Tuning

#### MONITORING

- Hardware Monitoring
- » SNMP v2, v3
- » E-mail Notification
- » Log Function

#### HARDWARE SUPPORT

- » SSD-Cached RAID Support (LSI or Adaptec)
   » NEW! Multiple CPU Support (up to 128)
   » UPS and Network UPS Support

- » Liquid Crystal Display (LCD) Panel Support

#### **SPECIFIC NAS FUNCTIONALITY**

- Windows Active Directory / Primary Domain Controller Support for Network Information Service (NIS)
- Internal and External LDAP
- » ADS and NIS User / Group ID Synchronization
- File System with Journaling Support
- » 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

» SMB/CIFS, FTP, Secure FTP, HTTP, Apple Talk, NFS v2, v3

#### SPECIFIC ISCSI FUNCTIONALITY

- NEW! Active-Active iSCSI Failover (seperate Feature Pack)
- **NEW!** Improved Active-Passive Failover Configuration
- **NEW!** Improved iSCSI Failover Configuration IP Address Restrictions for a Target
- CHAP User Management
- MPIO Support
- » SCSI-3 Persistent Reservation Support
- » Session Management

#### **BACKUP UTILITY**

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

- Setup Wizard
- Extended save and restore settings
- » Connection Status
- Remote Support (on demand)
- » Initially Supported Storage Capacity 4/8/16\*\*\*/Unlimited (TB)

# **NEW Features of CyberStore DSS Storage Servers**

Active-Active Failover for iSCSI Volumes (separate license key) for enabling Active-Active mode on two cluster nodes simultaneously in order to ensure better load balancing and an improved overall performance.

Improved Active-Passive Failover functionality

Improved iSCSI Failover Configuration for a fast and comfortable failover setup in high availability environments.

New improved GUI with Status Icons for an easy overview of implemented hardware.

Increased number of supported CPUs

Full focus on 64-bit Architecture

# Software RAID with Hardware RAID Functionality

The integrated software RAID in Open-E DSS V7 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, 5 and 6 - with support for Hot Plug or Hot Spare.

# Compatibility and easy Installation

Open-E DSS V7 recogniSes most industry-standard hardware and automatically installs drivers (\*\*\*\*) for SAS and RAID controllers, FC-HBAs, and 1 and 10Gb Ethernet cards. Additionally, Open-E DSS V7 is a complete operating system that easily installs on any server. Users have said that Open-E DSS V7 is one of the easiest to install software storage solutions on the market.

# **Optimised OS Performance**

Independent tests have shown that Open-E DSS V7 offers one of the highest data throughput and performance levels of any product on the market. This makes Open-E DSS V7 especially suitable for network environments with many clients or for storage applications requiring high data throughput and I/O such as server virtualization, cloud computing, video editing and streaming, IPTV and others.

# 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 allows for easy implementation with existing IT infrastructures. Additionally, Open-E DSS V7 includes support for heterogeneous protocols such as SMB / CIFS, HTTPS, NFS, AppleTalk, FTP, FTPS, and FTP over SSH, allowing data to be easily shared among different platforms.



# CYBERSTORE DSS Product Range

Our massive range of configurable server and storage options means we've always got the right solution for you

# CyberStore 224S DSS

## Upto 24TB in a Low-Power 2U Chassis

- 24 x SFF 2.5" SAS/SATA/SSD Drive Bays
- Intel® Xeon® Processor-based
- Ultra low Power Storage
- Available as DAS, iSCSI SAN, NAS or Fibre
- Upto to 10 Gb LAN Ports &10GbE Options



# CyberStore 316S DSS

# Upto 96TB in a 4U Chassis

- 16 x 3.5" SAS/SATA/SSD Drives Bays
- Intel® Xeon® Processor-based
- Available as DAS, iSCSI SAN, NAS or Fibre
- Upto to 8 Gb LAN Ports &10GbE Options
- Daisy Chain Multiple Storage Arrays



# CyberStore 424S DSS

## Upto 96TB in a 4U Chassis

- 24x 3.5" SAS/SATA/SSD Drives Bays
- Intel® Xeon® Processor-based
- Available as DAS, iSCSI SAN, NAS or Fibre
- Upto to 8 Gb LAN Ports &10GbE Options
- Daisy Chain Multiple Storage Arrays



# CyberStore 436S DSS

#### Upto 144TB in a 4U Chassis

- 36 x 3.5" SAS/SATA Drive Bays
- Intel® Xeon® Processor-based
- Available as DAS, iSCSI SAN, NAS or Fibre
- Upto to 10 Gb LAN Ports &10GbE Options
- Daisy Chain Multiple Storage Arrays



# CyberStore 208S DSS

## Upto 32TB in a 2U Chassis

- 8 x 3.5" SAS/SATA/SSD Drives Bays
- Intel® Xeon® Processor-based
- Available as DAS, iSCSI SAN, NAS or Fibre
- Upto to 8 Gb LAN Ports &10GbE Options
- Daisy Chain Multiple Storage Arrays



# CyberStore 472S DSS

# Upto 72TB in a 4U Chassis

- 72X 2.5" SAS/SATA/SSD Drives Bays
- Intel® Xeon® Processor-based
- Available as DAS, iSCSI SAN, NAS or Fibre
- Upto to 8 Gb LAN Ports &10GbE Options
- Daisy Chain Multiple Storage Arrays



# CyberStore 445S DSS

# Upto 108TB in a 4U Chassis

- 45 x 3.5" SAS/SATA/SSD Drives Bays
- Intel® Xeon® Processor-basedDaisy Chain Multiple Storage Arrays
- JBOD Direct Attached Storage Unit



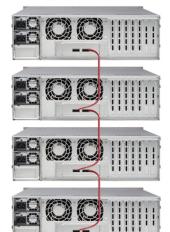
# CyberStore 108S DSS

# Upto 8TB in a 1U Chassis

- 8 x 2.5" SAS/SATA Drive Bays
  Intel® Xeon® Processor-based
- Available as DAS, iSCSI SAN, NAS or Fibre
- Upto to 10 Gb LAN Ports &10GbE Options
- Daisy Chain Multiple Storage Arrays



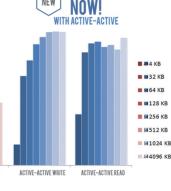
# DAISY CHAIN EXPANSION AVAILABLE ON ALL SYSTEMS



OLD BEFORE
WITH ACTIVE-PASSIVE

ACTIVE-PASSIVE WRITE

ACTIVE-PASSIVE READ











**Finance** 





**CCTV Storage** 

ZFS Based Enterprise Storag



# TRUSTED by the World's Biggest Brands

We have established ourselves as one of the biggest storage providers in the UK, and since 1989 been trusted as the preferred supplier of storage servers to some of the world's biggest brands, including:



# **MULTI Award Winning**

Our servers and storage are increasingly being recognised as market-leading solutions.

Since 2009 our CyberServe range of rack servers and CyberStore range of storage appliances have repeatedly been selected as the best buy available on the market, beating competition such as DELL and HP.











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