rapidNAS® DSS G4

Data Storage Server „Made in Germany“

Network Attached Storage (NAS) and IP-SAN with large functional range

rapidNAS® DSS G4 solutions are distinguished by their particularly easy and rapid start-up.
The intuitive graphical interface and excellent scalability clearly distinguishes the rapidNAS® DSS G4 systems from other solutions.

rapidNAS® DSS G4 products are based on the Open-E Data Storage Server (DSS V6) and offer with a broad range of functionalities the best prerequisites for the long-term protection of your investment. The rapidNAS® DSS G4 systems support Windows, Apple and Unix/Linux clients.

Because of the integrated synchronous and asynchronous volume replication and automatic failover for iSCSI volumes, the rapidNAS® DSS G4 systems satisfy even highest data availability demands.

In addition, rapidNAS® DSS G4 solutions have comprehensive iSCSI functionality, which makes them real Universal Storage Solutions. This makes it possible to operate a rapidNAS® DSS G4 system either as a file-based NAS, as a block-based iSCSI system, or in a combination of both systems.
Configuration as Fibre Channel Target and integration in an existing FC SAN environment is also possible. Only an optional FC interface is needed to expand a rapidNAS® DSS G4.

Already included is WORM and NDMP support as well as a comprehensive backup function and integrated virus protection.

rapidNAS® DSS208, 8 Bay SAS-/ SATA II 2U
- maximum gross capacity up to 16.0 TByte
- redundant power supply , 2x 500 Watt
- 87.63 mm (H) x 444.50 mm (W) x 673.10 mm (D)

rapidNAS® DSS316, 16 Bay SAS-/ SATA II, 3U
- maximum gross capacity up to 32.0 TByte
- redundant power supply , 3x 350 Watt
- 132.08 mm (H) x 444.50 mm (W) x 710 mm (D)

rapidNAS® DSS524, 24 Bay SAS-/ SATA II, 5U
- maximum gross capacity up to 48.0 TByte
- redundant power supply , 3x 500 Watt
- 220.98 mm (H) x 444.50 mm (W) x 710 mm (D)

rapidNAS® DSS848, 48 Bay SAS-/ SATA II, 8U
- maximum gross capacity up to 96.0 TByte
- redundant power supply , 4x 550 Watt
- 355,60 mm (H) x 444.50 mm (W) x 736 mm (D)

rapidNAS® DSS208T, 8 Bay SAS-/ SATA II, Tower
- maximum gross capacity up to 16.0 TByte
- redundant power supply , 2x 500 Watt 8 Bay Tower
- 427mm (H) x 220mm (W) x 600mm (D)

N-TEC GmbH
Oskar-Messter-Str. 14
D-85737 Ismaning
www.ntecgmbh.de
Phone +49 (0)89.958407.0
Fax +49 (0)89.958407.11

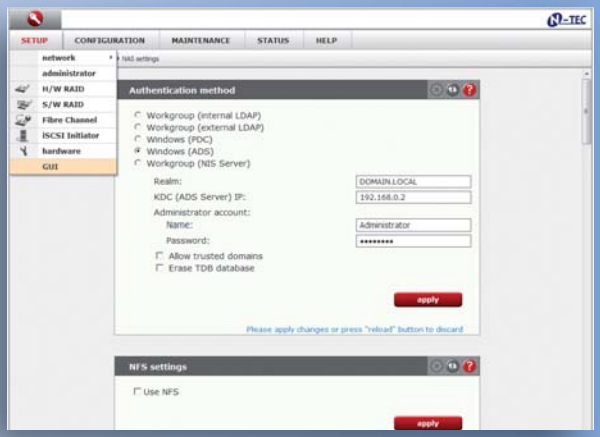
rapidNAS® DSS G4

Easy handling and integration

Setting up and operating a rapidNAS® DSS G4 is done with the powerful and intuitive Web GUI. It is clear and user-friendly. The GUI can manage the entire system in its standard functions.

Integration in ADS and NIS environments also occurs through GUI, such as setting up and managing file releases (shares) and iSCSI targets. The web interface also configures volume and data replication and numerous other functions (failover, backup and snapshots).

A few of the expanded and system-critical functions can only be operated for security reasons through the console, which can be reached via SSH and the integrated IPMI 2.0 interface.



Configuration via Web Browser

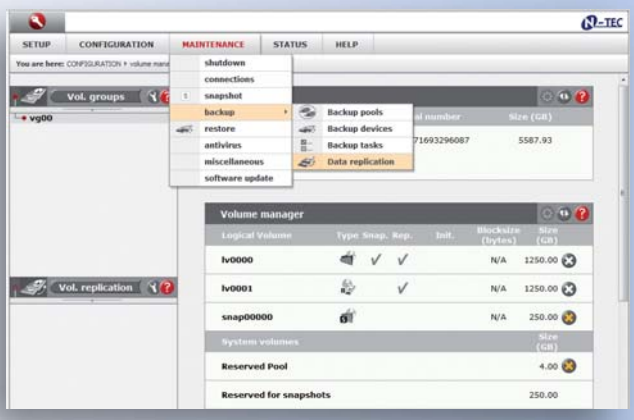
High data availability

Snapshots represent short-term data images of a volume at a defined period of time. Snapshots can be used for temporary backups while the user continues to access the data without interruptions or delays. In the event of accidentally or incorrectly modified or deleted data, the originals can be recovered within very short time without time-consuming restoration from other media.

The rapidNAS® DSS G4 offers Multiple Snapshots with Scheduling. Snapshots can be created automatically and regularly at previously defined periods.

Redundant power units and fans as well as a high performance RAID processor ensure failure safety on the hardware side.

Data availability can be increased even further by bundling several LAN ports. If a network connection fails, the data can still be accessed using the remaining connections (AFT - Adapter Fault Tolerance). Bundling the LAN ports can also be used to increase network performance (ALB Adaptive Load Balancing).



Setting up backup and data replication

Integrated data replication and synchronisation

rapidNAS® DSS G4 already includes functions for synchronous and asynchronous volume replication when delivered. Asynchronous replication can also occur over WAN between different locations.

iSCSI Volume Replication with automatic failover is available for iSCSI volumes. Data are transferred to a second device in real time. In the event of an error, the intelligent rapidNAS® DSS G4 operating system automatically switches to the second system so that the clients can continue working without noticeable interruption.

It is also possible to set up Cross Data Synchronisation for the NAS data. Data are also transferred to another device. Transfer only occurs for modified blocks to keep the network load to a minimum. In case of an error, the switch must occur manually. Because a rapidNAS® DSS G4 can be the source and the target at the same time, cross backups between several rapidNAS® DSS G4 systems are also possible.

N-TEC GmbH
Oskar-Messter-Str. 14
D-85737 Ismaning
www.ntecgmbh.de
Phone +49 (0)89.958407.0
Fax +49 (0)89.958407.11

rapidNAS® DSS G4

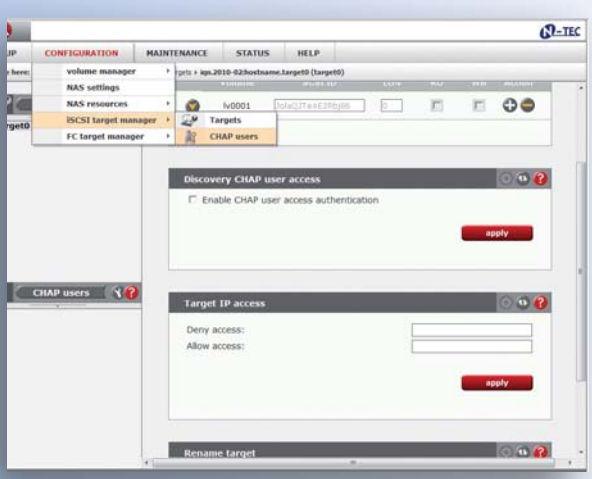
iSCSI Software Target:

The iSCSI Software Target provides a block level memory that can be addressed and used by any systems with an installed iSCSI initiator (software or hardware). The iSCSI Software Target also enables smaller businesses to access inexpensive and powerful SAN technology.

For data availability, rapidNAS® DSS G4 also supports MPIO (multipathing) which secures data access even if one or several LAN lines fail. MPIO also contributes to increasing the access speed (Load Balancing).

iSCSI Features:

- IPv4 and IPv6 support
- iSNS integration
- IPSec encryption
- CHAP authentication
- Multi Path I/O (MPIO)
- Windows Server 2008 Cluster Support
- iSCSI boot support
- Compatible with
- standard hardware and software iSCSI initiators



iSCSI Target Setup

Integration in heterogeneous environments:

rapidNAS® DSS G4 offers broad protocol support for integration in almost every operating system environment. This supports:

- Windows (CIFS/ SMB2.0),
- UNIX/ Linux (NFS),
- Apple File protocol,
- Novell Netware (NCP),
- FTP, HTTP, WebDAV
- External LDAP

Rear view rapidNAS MS848

Integrated Backup:

A backup utility is included in the rapidNAS® DSS G4 as well as agents that are provided for current backup products.

The following agents are included:

- EMC Dantz
- CA BrightStor
- Symantec BE Remote Agent Linux V11, V12, V12.5
  limited Trial Version, subject to costs afterwards

The rapidNAS® DSS G4 also offers expanded features beyond the standard backup options:

- NDMP 4.0 (direct backup to a backup device)
- WORM (Write Once Read Many) for audit-compatible archival
- Virtual Tapes on shares or dynamic volumes

N-TEC GmbH
Oskar-Messter-Str. 14
D-85737 Ismaning
www.ntecgmbh.de
Phone +49 (0)89.958407.0
Fax +49 (0)89.958407.11

rapidNAS® DSS G4

Technical data

	rapidNAS® DSS208-G4	rapidNAS® DSS316-G4	rapidNAS® DSS524-G4	rapidNAS® DSS848-G4	rapidNAS® DSS208T-G4
Operating system	Open-E® DSS V6				
Licensed capacity	8 TByte	16 TByte	16 TByte	16 TByte	8 TByte
CPU	Intel® XEON® DualCore				
RAM	3 GB DDR3 ECC	6 GB DDR3 ECC	6 GB DDR3 ECC	6 GB DDR3 ECC	3 GB DDR3 ECC
Disk interface	SAS and/ or SATA2, mixed mode is possible				
Disk channels	8	16	24	48	8
Controller cache	256 MB	512 MB	512 MB	512 MB	256MB
RAID level	0, 1, 10, 3, 5, 6, 30, 50, 60, Single Disk or JBOD				
Hot spare	global and dedicated				
Hot swap	disk drives, power unit, fans				
Online expansion	yes				
RAID migration	yes				
Stripe size	variable 4k, 8k, 16k, 32k, 64k, 128k				
Write option	write through, write back				
Remote management	Web Browser, SSH, IPMI 2.0				
Remote alarm	SNMP, SMTP				
Lokaler alarm	LED, beeper				
Access control	password				
Fans	4x 80 mm	3x 120 mm	3x 120 mm	4x 80 mm + 4x 90 mm	2x 90 mm
Power unit	2x500W	3x350W	3x500W	4x550W	2x500W
Voltage input	Voltage: 90 ~ 264 VAC Full Range, Frequency: 47 ~ 63 Hz				
Max. power consumption	600 W	630 W	930 W	1320 W	600 W
Environment	Temperature 0° C ~ 40° C, humidity 20% ~ 75% non condensing				
MTBF	ca. 70.000 h				
Dimensions WxHxD in mm	87,6 x 444,5 x 673,1	132,8 x 444,5 x 710	221 x 444,5 x 710	355,6 x 444,5 x 736	427 x 220 x 600
Weight without drives	28 kg	34 kg	47 kg	67 kg	19 kg
Weight incl. drives	34 kg	46 kg	64 kg	100 kg	25 kg

N-TEC GmbH
Oskar-Messter-Str. 14
D-85737 Ismaning
www.ntecgmbh.de
Phone +49 (0)89.958407.0
Fax +49 (0)89.958407.11