

open-e

ENTERPRISE LEVEL STORAGE OS
for EVERY BUSINESS

*How to Backup your data
residing on Open-E DSS V6
to iSCSI Target Volume
over a LAN*



DSS V6
DATA STORAGE SOFTWARE

16 TB



Easy to use, GUI based management provides performance and security.



Reliable disk based backup and recovery, along with Snapshot capability enable fast and reliable backup and restore.



Easy to implement remote Replication, at block or volume level, enables cost-effective disaster recovery.



IP based storage management combines NAS and iSCSI functionality for centralized storage and storage consolidation.

Software Version: DSS ver. 6.00 up12

Presentation updated: October 2010

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SAMPLE CONFIGURATION

This document will explain how to Backup to an iSCSI Target Volume over the LAN, 2 DSS V6 systems are required with RAID Arrays.

Backing up to an iSCSI Target Volume over the LAN uses two of the features built into the Open-E DSS V6:

- Local Backup,
- Restore.

An example of the configuration:

- First Array RAID on the DSS1 is for live data on **volume group DATA** (vg00),
- Second RAID Array on DSS2 is for backup as **volume group BACKUP** (vg01) configure on the iSCSI Target Volume.

Setup Backup :

- ✓ Backup schedule is set every day with a 8 weeks retention time for "DATA" share.

■ Recommended Resources

- Hardware (two systems requires):
 - ✓ x86 compatible
 - ✓ RAID Controller
 - ✓ HDD's
 - ✓ Network Interface Cards
- Software
 - ✓ Two Open-E DSS V6
 - ✓ Backup functions are built in the Open-E DSS V6 (without additional requirements of hardware)

■ Benefits

- Data Redundancy over a LAN
- Local data availability

■ Disadvantages

- Natural disasters can destroy both machines

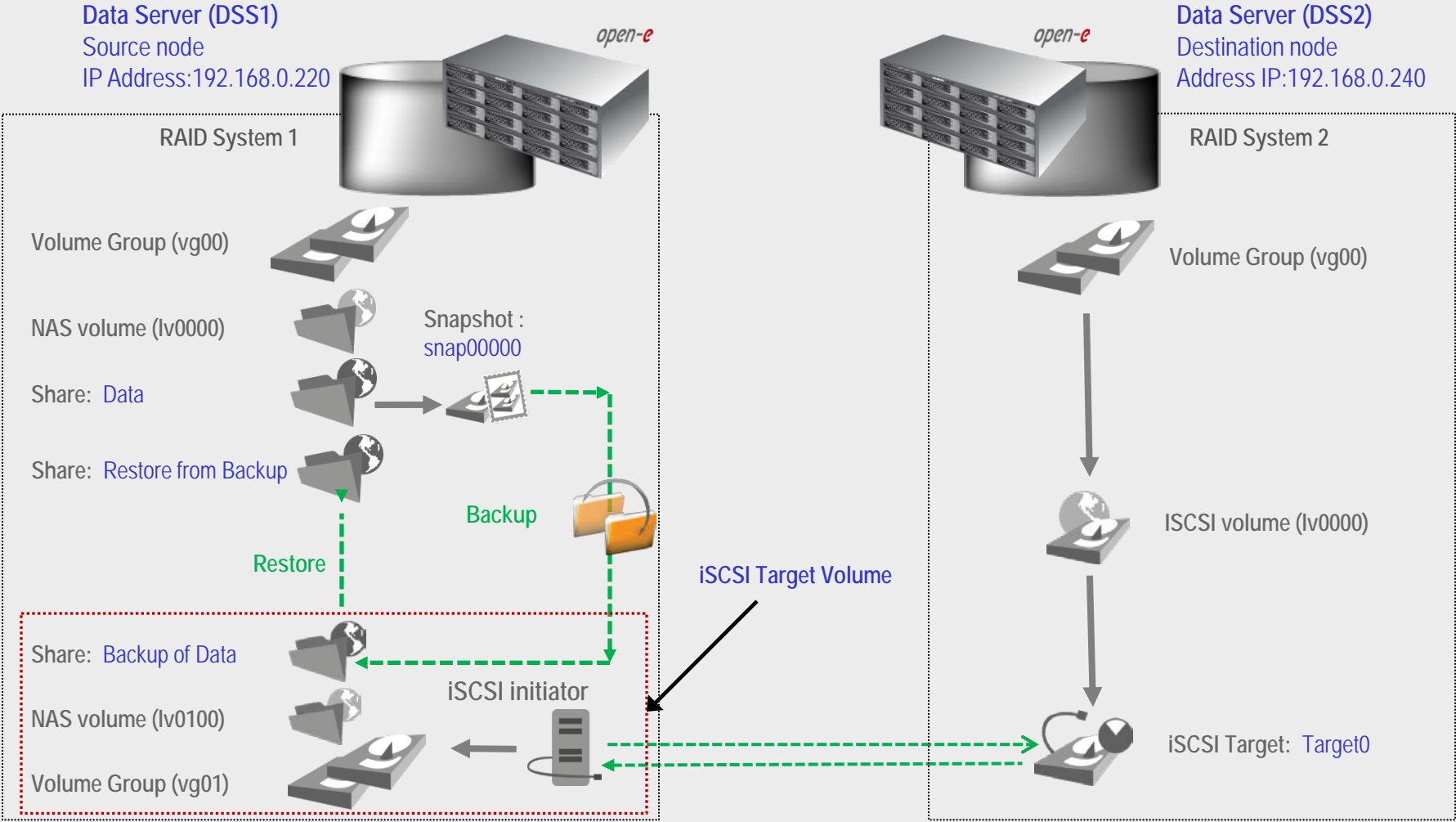
TO SET UP BACKUP TO iSCSI TARGET VOLUME OVER A LAN,
PERFORM THE FOLLOWING STEPS:

1. Hardware configuration
2. Configure Destination Node:
 - Create a Volume Group, iSCSI volume and target on the DSS2,
3. Connecting iSCSI target Volume using iSCSI Initiator
 - On DSS 1, connect iSCSI target Volume from DSS2 using iSCSI Initiator on DSS1
4. Configure the Local Backup (on Source Node)
 - Create a Volume Groups (vg00 and vg01), on DSS1
 - Create NAS volume and snapshot,
 - Enable Local backup function
 - Create Backup Task with Shedule
5. Create the Restore from Backup

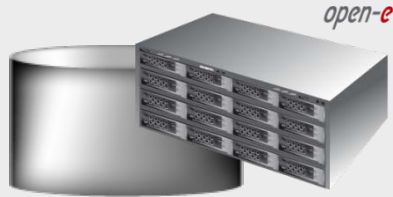
Backup to iSCSI Target Volume over a LAN



1. Hardware configuration



Backup to iSCSI Target Volume over a LAN



Data Server (DSS2)
Destination node
IP Address: 192.168.0.240

2. Configure Destination Node

Under the "CONFIGURATION" tab, select "volume manager" and next Vol. Groups.



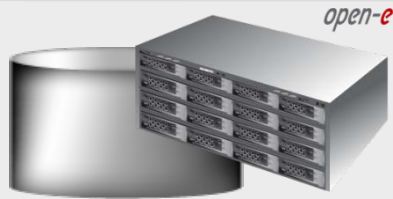
In Unit manager add the selected physical units (Unit S000 or other) to create a new volume group (in this case, vg00) and click **apply** button

The screenshot shows the open-e web interface with the following sections:

- Unit rescan**: A panel with a "rescan" button.
- Unit manager**: A table with columns for Unit, Size (GB), Serial number, and Status. It shows "Unit MD0" with a size of 465.77 GB and status "available". Below the table, there is an "Action:" dropdown menu set to "new volume group" and a "Name:" input field containing "vg00". An "apply" button is at the bottom right of this section.
- Vol. replication**: A panel with a question mark icon.
- Drive identifier**: A table with columns for Unit, Serial number, and Status. It lists "Unit S000" (serial 9RY1GP7W) and "Unit S001" (serial 5RY13SBZ). An "apply" button is at the bottom right.

Navigation tabs at the top include SETUP, CONFIGURATION, MAINTENANCE, STATUS, and HELP. The breadcrumb trail reads: You are here: CONFIGURATION > volume manager > Vol. groups.

Backup to iSCSI Target Volume over a LAN



Data Server (DSS2)
Destination node
IP Address: 192.168.0.240

2. ... Continue

Select the appropriate volume group (**vg00**) from the list on the left. In **Action** select a new iSCSI volume. of the required size. This logical volume will be the destination of the backup process.

Select the appropriate volume
Next , select the required size of iSCSI volume. In this eg. adding 450 GB for the iSCSI volume.

After assigning an appropriate amount of space for the iSCSI volume, click the **apply** button

The screenshot shows the open-e web interface for configuring storage. The breadcrumb trail is: CONFIGURATION > volume manager > Vol. groups > vg00. The 'Vol. groups' section shows a table with one entry: 'Unit MDO' with serial number 'N/A' and size '465.77'. The 'Volume manager' section shows a table of system volumes:

System volumes	Size (GB)
Reserved Pool	4.00
Reserved for snapshots	0.00
Reserved for system	1.00
Reserved for replication	0.00
Free	460.72

The 'Action' dropdown is set to 'new iSCSI volume' and the 'Options' dropdown is set to 'Just create volume'. The 'Use volume replication' checkbox is unchecked. The 'File I/O' radio button is selected, with 'Initialize' and 'Block I/O' sub-options. The 'add:' field shows '450.00' GB. The 'apply' button is highlighted in red.

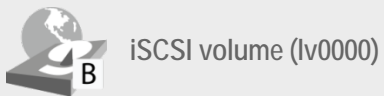
Backup to iSCSI Target Volume over a LAN



Data Server (DSS2)
Destination node
IP Address: 192.168.0.240

2. ... Continue

The destination iSCSI Volume Block I/O is now configured.



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SETUP CONFIGURATION MAINTENANCE STATUS HELP

You are here: CONFIGURATION > volume manager > Vol. groups > vg00

Vol. groups

- vg00

Vol. replication

Volume manager

Info
Logical volume lv0000 has been created successfully.

Logical Volume	Type	Snap.	Rep.	Init.	Blocksize (bytes)	Size (GB)
lv0000	B				N/A	450.00
System volumes						Size (GB)
Reserved Pool						4.00
Reserved for snapshots						0.00
Reserved for system						1.00
Reserved for replication						0.00
Free						10.72

Action: new NAS volume

Use volume replication
 WORM

0 10.72

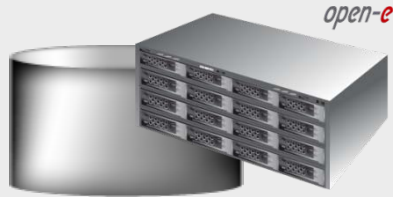
add: 0.00 GB

apply

Event Viewer: [icon]

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Backup to iSCSI Target Volume over a LAN



Data Server (DSS2)
Destination node
IP Address: 192.168.0.240

2. ... Continue

Choose "CONFIGURATION", "iSCSI target manager" and "Targets" from the menu

In the Create new target, click the "apply" to confirm



iSCSI targets

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SETUP | CONFIGURATION | MAINTENANCE | STATUS | HELP

You are here: CONFIGURATION > iSCSI target manager > Targets

Targets

Create new target

Target Default Name

Name: iqn.2009-12:dss2.target0

Alias: target0

apply

Discovery CHAP user access

Enable CHAP user access authentication

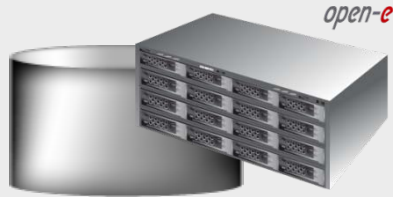
apply

CHAP users

Event Viewer: [icon]

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Backup to iSCSI Target Volume over a LAN




Data Server (DSS2)
Destination node
IP Address: 192.168.0.240



2. ... Continue

Select target0 within the Targets field.

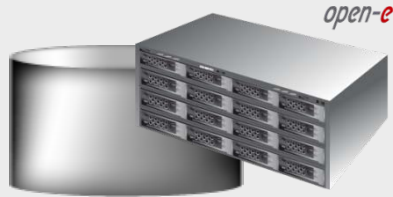


iSCSI targets

To assign a volume to the target, click the button  located under **Action**

Volume	SCSI ID	LUN	RO	WB	Action
lv0000	FyRms6oko1mk0CL	0	<input type="checkbox"/>	<input type="checkbox"/>	 

Backup to iSCSI Target Volume over a LAN



Data Server (DSS2)
Destination node
IP Address: 192.168.0.240

2. ... Continue

The destination iSCSI target is now configured.



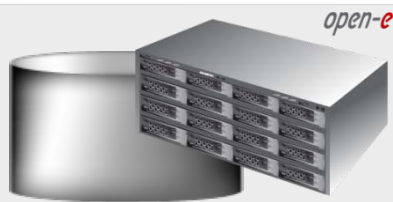
iSCSI targets (target0)

The screenshot shows the open-e web interface for configuring an iSCSI target. The breadcrumb path is: CONFIGURATION > iSCSI target manager > Targets > iqn.2009-12:dss2.target0 (target0). The main content area is divided into several sections:

- Targets:** A list showing 'target0'.
- CHAP users:** A section for managing authentication users.
- Target volume manager:** A table listing target volumes. A blue arrow points from the text box to the 'lv0000' volume.
- Discovery CHAP user access:** A checkbox for 'Enable CHAP user access authentication' with an 'apply' button.
- Target IP access:** Input fields for 'Deny access:' and 'Allow access:' with an 'apply' button.

Volume	SCSI ID	LUN	RO	WB	Action
lv0000	FyRms6oko1mk0CL	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="button" value="+"/> <input type="button" value="-"/>

Backup to iSCSI Target Volume over a LAN



Data Server (DSS1)
Source node
IP Address: 192.168.0.220

3. Connecting iSCSI target Volume using iSCSI Initiator

Choose "SETUP", "iSCSI initiators". In Add new portal server, in field Portal IP enter IP Address of targets on the destination node (in our example this would be 192.168.0.240) and click the "apply" to confirm.



The screenshot shows the open-e web interface for configuring iSCSI initiators. The breadcrumb trail indicates the user is in the 'SETUP' section, specifically 'iSCSI Initiator'. The 'Add new portal server' form has the following fields:

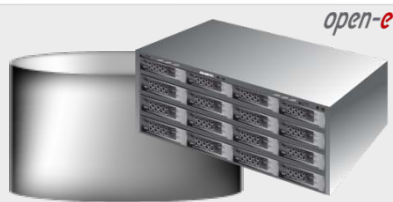
- Portal IP: 192.168.0.240
- Portal port: 3260
- CHAP enable:

Below the form, the 'iSCSI Initiator name' section has the following field:

- Name: iqn.com.example:01.8d54f4e

Both sections have an 'apply' button. A blue arrow points from the text box to the Portal IP field.

Backup to iSCSI Target Volume over a LAN



Data Server (DSS1)
Source node
IP Address: 192.168.0.220

3. ... Continue

Select 192.168.0.240 within the Portals field.

In Portal manager select the name of the iSCSI targets and click the connect button.

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SETUP CONFIGURATION MAINTENANCE STATUS HELP

You are here: SETUP > iSCSI Initiator > 192.168.0.240

Portals

Name	Status
iqn.2009-12:dss2.target0	unconnected

CHAP user:

CHAP secret:

connect

Please apply changes or press "reload" button to discard

Remove portal

Remove portal.

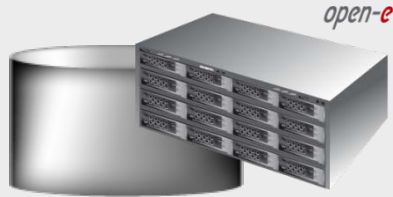
remove

Event Viewer:

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Backup to iSCSI Target Volume over a LAN



Data Server (DSS1)
Source node
IP Address: 192.168.0.220

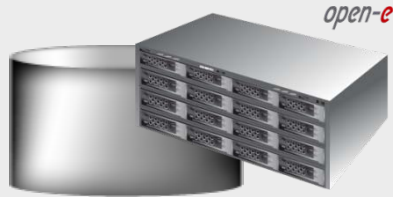
3. ... Continue

iSCSI target:
iqn.2009-12:dss2.target0 has
been connected successfully.

The screenshot shows the open-e web interface for configuring iSCSI. The breadcrumb trail is: You are here: SETUP > iSCSI Initiator > 192.168.0.240. The 'Portals' section shows a connection to IP 192.168.0.240 with target iqn.2009-12:dss2.target0. The 'Portal manager' section shows the target as 'connected'. The 'Remove portal' section has an info message: 'One or more targets are connected. Please disconnect them first.'



Backup to iSCSI Target Volume over a LAN



Data Server (DSS1)
Source node
IP Address: 192.168.0.220

3. ... Continue

Next, click on the name iSCSI target within **Portals**, in this example on the name: [iqn.2009-12:dss2.target0](#).

In Target manager you can view the connected target's name as well as its size.

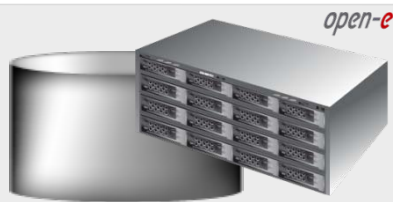
The screenshot shows the open-e web interface for configuring iSCSI targets. The breadcrumb trail indicates the current location: SETUP > iSCSI Initiator > iqn.2009-12:dss2.target0. The 'Portals' section displays a list of portals, including the IP address 192.168.0.240 and the target name iqn.2009-12:dss2.target0. The 'Target manager' section shows a table of connected targets:

Name	Size
Unit S003	460.80 GB

Below the table is a 'Disconnect' section with a 'Disconnect' button.



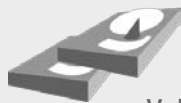
Backup to iSCSI Target Volume over a LAN



Data Server (DSS1)
Source node
IP Address: 192.168.0.220

4. Configure the Local Backup

Under the „CONFIGURATION“ tab, select “volume manager” and next Vol. Groups.



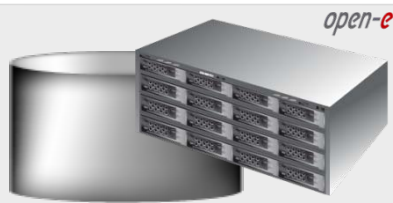
Volume Groups (vg00)

In the Unit manager add the selected physical units (Unit S000) to create a new volume group (in this case, vg00) and click apply button

The screenshot shows the open-e web interface with the following elements:

- Header: open-e | ENTERPRISE CLASS STORAGE OS for EVERY BUSINESS | DATA STORAGE SOFTWARE V6
- Navigation: SETUP | CONFIGURATION | MAINTENANCE | STATUS | HELP
- Breadcrumbs: You are here: CONFIGURATION > volume manager > Vol. groups
- Active Tab: Vol. groups
- Unit rescan panel: rescan button
- Unit manager panel: Table with columns Unit, Size (GB), Serial number, Status. Row 1: Unit S000 (checked), 230.08, N/A, available. Row 2: Unit S003 (unchecked), 450.00, ade5dfcb, available. Action: new volume_group, Name: vg00. apply button.
- Vol. replication panel: Vol. replication tab
- Drive identifier panel: Table with columns Unit, Serial number, Status. Row 1: Unit S003 (unchecked), ade5dfcb. Row 2: Unit S000 (unchecked), N/A. apply button.
- Footer: Event Viewer: [icon] | Data Storage Software V6 - All rights reserved

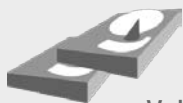
Backup to iSCSI Target Volume over a LAN



Data Server (DSS1)
Source node
IP Address: 192.168.0.220

4. ... Continue

Next add the selected physical units (**Unit S003** - from DSS2 as iSCSI Target Volume) to create a new volume group (in this case, **vg01**) and click **apply** button



Volume Groups (vg01)

The screenshot shows the open-e web interface for configuring storage. The breadcrumb trail is: CONFIGURATION > volume manager > Vol. groups. The 'Vol. groups' section shows a list with 'vg00'. The 'Unit manager' table is as follows:

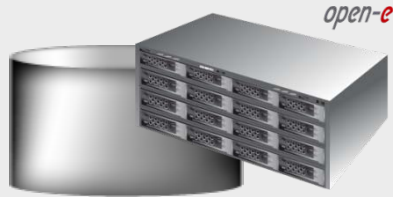
✓	Unit	Size (GB)	Serial number	Status
<input type="checkbox"/>	Unit S000	230.08	N/A	in use, vg00
<input checked="" type="checkbox"/>	Unit S003	450.00	ade5dfcb	available

Below the table, the 'Action' dropdown is set to 'new volume group' and the 'Name' field contains 'vg01'. An 'apply' button is at the bottom right of this section. A note below the button says: 'Please apply changes or press "reload" button to discard'. The 'Drive identifier' section below shows a table:

✓	Unit	Serial number	Status
<input type="checkbox"/>	Unit S003	ade5dfcb	
<input type="checkbox"/>	Unit S000	N/A	

An 'apply' button is at the bottom right of this section. The footer of the interface includes 'Event Viewer: [icon]' and 'Data Storage Software V6 - All rights reserved'.

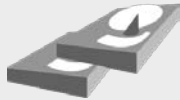
Backup to iSCSI Target Volume over a LAN



Data Server (DSS1)
Source node
IP Address: 192.168.0.220

4. ... Continue

Volume Groups (vg00)



NAS volume (lv0000)



Select the appropriate **volume group (vg00)** from the list on the left and create a **new NAS volume** of the required size. This logical volume **lv0000** will be the source of the local backup.

After assigning an appropriate amount of space for the NAS volume, click the **apply** button

The screenshot shows the open-e web interface for configuring storage. The top navigation bar includes 'SETUP', 'CONFIGURATION', 'MAINTENANCE', 'STATUS', and 'HELP'. The current page is 'CONFIGURATION > volume manager > Vol. groups > vg00'. The 'Vol. groups' section shows a list with 'vg00' selected. The 'Volume manager' section shows a table of reserved space and a 'Free' space of 225.03 GB. The 'Action:' dropdown is set to 'new NAS volume'. Below this, there are checkboxes for 'Use volume replication' and 'WORM'. A slider and input field show the size of the new volume, currently set to 200.00 GB. An 'apply' button is at the bottom right.

Unit	Serial number	Size (GB)
Unit S000	N/A	230.08

System volumes	Size (GB)
Reserved Pool	4.00
Reserved for snapshots	0.00
Reserved for system	1.00
Reserved for replication	0.00
Free	225.03

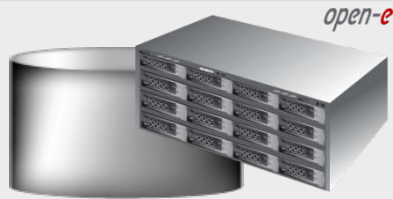
Action: new NAS volume

Use volume replication
 WORM

add: 200.00 GB

apply

Backup to iSCSI Target Volume over a LAN



Data Server (DSS1)
Source node
IP Address: 192.168.0.220

4. ... Continue

To run the local backup process, you must first define a new snapshot in the **Volume manager** of the volume to be backed up



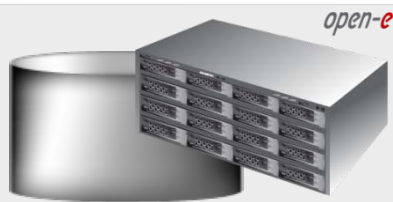
After assigning an appropriate amount of space for the snapshot, click the **apply** button

The screenshot shows the open-e Volume manager interface. The top navigation bar includes 'SETUP', 'CONFIGURATION', 'MAINTENANCE', 'STATUS', and 'HELP'. The breadcrumb trail indicates the current location: 'You are here: CONFIGURATION > volume manager > Vol. groups > vg00'. The 'Vol. groups' sidebar shows 'vg00' and 'vg01'. The main 'Volume manager' panel displays an information message: 'Logical volume lv0000 has been created successfully.' Below this is a table of logical volumes:

Logical Volume	Type	Snap.	Rep.	Init.	Blocksize (bytes)	Size (GB)
lv0000					N/A	200.00

Below the table, the 'System volumes' section is visible, showing reserved space for snapshots, system, and replication, and the remaining free space (25.03 GB). The 'Action' dropdown is set to 'new snapshot', and the 'Assign to volume' dropdown is set to 'Just create snapshot volume'. A slider below indicates the amount of space to be reserved for the snapshot, currently set to 20.00 GB. The 'apply' button is highlighted with a red border.

Backup to iSCSI Target Volume over a LAN



Data Server (DSS1)
Source node
IP Address: 192.168.0.220

4. ... Continue

NAS volume
(lv0000)



Snapshot

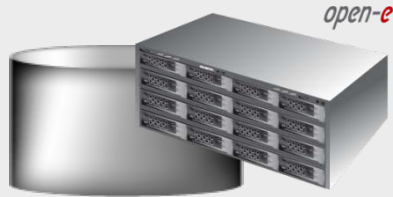
Assign **snap00000** to the logical volume to be replicated (in this example - lv0000) and click the **apply** button

The screenshot shows the open-e web interface for configuring storage. The breadcrumb trail is: CONFIGURATION > volume manager > Vol. groups > vg00. The interface is divided into several sections:

- Vol. groups:** A tree view showing 'vg00' (selected) and 'vg01'.
- Vol. replication:** A section for configuring replication settings.
- Reserved for system:** 1.00
- Reserved for replication:** 0.00
- Free:** 5.03
- Action:** A dropdown menu set to 'new NAS volume'.
- Options:** Two checkboxes, 'Use volume replication' and 'WORM', both are unchecked.
- Slider:** A horizontal slider for volume size, ranging from 0 to 5.03.
- add:** A text input field containing '0.00' followed by 'GB'.
- apply:** A red button to apply the changes.
- Snapshot definition:** A table with columns 'Name', 'LV', and 'Status'. The table contains one entry: 'snap00000' with 'lv0000' in the LV column and 'unused' in the Status column. Below the table is an 'apply' button and a note: 'Please apply changes or press "reload" button to discard'.

At the bottom of the interface, there is an 'Event Viewer' icon and a footer: 'Data Storage Software V6 - All rights reserved'.

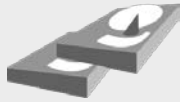
Backup to iSCSI Target Volume over a LAN



Data Server (DSS1)
Source node
IP Address: 192.168.0.220

4. ... Continue

Volume Groups (vg01)



NAS volume (lv0100)



Select the appropriate **volume group**, vg01 from the list on the left and create a **new NAS volume** of the required size. This logical volume lv0100 will be the destination of the local backup (lv0100 is on the iSCSI Target Volume from DSS2)

After assigning an appropriate amount of space for the NAS volume, click the **apply** button

The screenshot shows the open-e web interface for configuring volume groups. The breadcrumb trail is: CONFIGURATION > volume manager > Vol. groups > vg01. The left sidebar shows a tree view with 'Vol. groups' expanded to show 'vg00' and 'vg01'. The 'Vol. groups' tab is active, and 'vg01' is selected. The main content area shows a table of units and a volume manager section. The 'Action' dropdown is set to 'new NAS volume', and the size is set to 400.00 GB. The 'apply' button is visible at the bottom right.

Unit	Serial number	Size (GB)
Unit S003	ade5dfcb	450.00

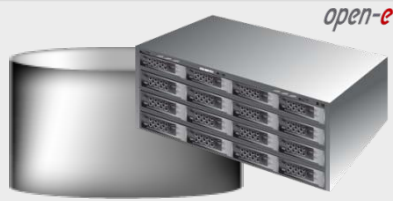
System volumes	Size (GB)
Reserved Pool	4.00
Reserved for snapshots	0.00
Reserved for system	1.00
Reserved for replication	0.00
Free	444.94

Action:

Use volume replication
 WORM

0 GB 444.94

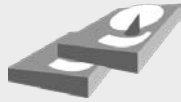
Backup to iSCSI Target Volume over a LAN



Data Server (DSS1)
Source node
IP Address: 192.168.0.220

4. ... Continue

Volume Groups (vg01)



NAS volume (lv0100)



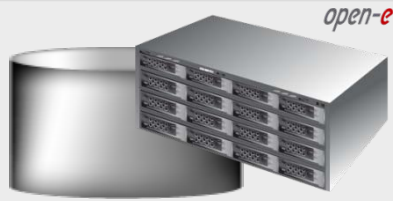
Logical volume lv0100 has been created.

The screenshot shows the open-e Volume Manager interface. The top navigation bar includes 'SETUP', 'CONFIGURATION', 'MAINTENANCE', 'STATUS', and 'HELP'. The breadcrumb trail indicates the current location: 'You are here: CONFIGURATION > volume manager > Vol. groups > vg01'. The 'Vol. groups' panel on the left shows 'vg00' and 'vg01'. The 'Volume manager' panel on the right displays a success message: 'Logical volume lv0100 has been created successfully.' Below this is a table of logical volumes:

Logical Volume	Type	Snap.	Rep.	Init.	Blocksize (bytes)	Size (GB)
lv0100					N/A	400.00
System volumes						Size (GB)
Reserved Pool						4.00
Reserved for snapshots						0.00
Reserved for system						1.00
Reserved for replication						0.00
Free						44.94

Below the table, the 'Action:' dropdown is set to 'new NAS volume'. There are checkboxes for 'Use volume replication' and 'WORM', both of which are unchecked. A slider is visible with a value of 0 and a maximum of 44.94. At the bottom, there is an 'add:' field with '0.00' and a unit selector 'GB'. A red 'apply' button is located at the bottom right.

Backup to iSCSI Target Volume over a LAN



Data Server (DSS1)
Source node
IP Address: 192.168.0.220

4. ... Continue

Under the "CONFIGURATION" tab, select the "NAS settings" menu

Local Backup



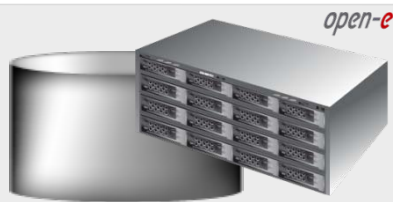
Check the Use local backup box. Also select, Default share on LV as lv0100, and click the apply button.

The screenshot shows the open-e web interface with the following elements:

- Header: open-e | ENTERPRISE CLASS STORAGE OS for EVERY BUSINESS | DATA STORAGE SOFTWARE V6
- Navigation: SETUP | CONFIGURATION | MAINTENANCE | STATUS | HELP
- Breadcrumb: You are here: CONFIGURATION > NAS settings
- Section: Data replication agent
 - Enable Data replication Agent
 - apply button
- Section: Antivirus setup
 - Info: No shares found.
- Section: Local backup settings
 - Use local backup
 - Select backup database location:
 - Default share on LV: lv0100
 - Other share: <choose share>
 - Create database
 - Move database
 - apply button

Please apply changes or press "reload" button to discard

Backup to iSCSI Target Volume over a LAN



Data Server (DSS1)
Source node
IP Address: 192.168.0.220

4. ... Continue

Under the "CONFIGURATION" tab, select the "NAS resources" menu

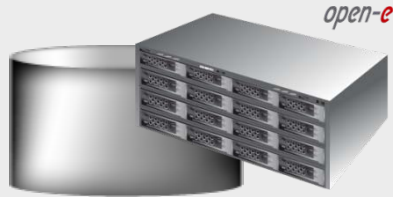
A tree listing of NAS shared volumes (Shares) will appear on the left side of the DSS V6 web GUI. In the example, a shared volume named Data has been created on lv0000.

Shares: Data



The screenshot shows the open-e web GUI interface. At the top, there's a navigation bar with tabs: SETUP, CONFIGURATION, MAINTENANCE, STATUS, and HELP. The 'CONFIGURATION' tab is selected. Below the navigation bar, there's a breadcrumb trail: 'You are here: CONFIGURATION > NAS resources > Shares'. The main content area is divided into two columns. The left column has a tree view under the 'Shares' header, showing '1. backup_db_lv0100'. Below this are sections for 'Users' and 'Groups'. The right column is titled 'Create new share' and contains a form with fields for 'Name' (filled with 'Data'), 'Comment', 'Default path' (set to '/lv0000/Data'), and 'Specified path' (set to '/'). There is an 'apply' button at the bottom of the form. Below the form is the 'ACL (Access control list)' section, which has a tree view showing 'lv0000' and 'lv0100'. At the bottom of the page, there's an 'Event Viewer' icon and a footer that says 'Data Storage Software V6 - All rights reserved'.

Backup to iSCSI Target Volume over a LAN



Data Server (DSS1)
Source node
IP Address: 192.168.0.220

4. ... Continue

Shares: Backup of Data



After creation of Data share, you must create a share for the local backup. In the example, a shared volume named Backup of Data, has been created on lv0100 physically residing on DSS2 and connected via iSCSI initiator.

open-e | ENTERPRISE CLASS STORAGE OS for EVERY BUSINESS | DATA STORAGE SOFTWARE V6

SETUP | CONFIGURATION | MAINTENANCE | STATUS | HELP

You are here: CONFIGURATION > NAS resources > Shares

Shares

- 1. backup_db_lv0100
- 2. Data

Users

Groups

- 1. users

Create new share

Name: Backup of Data

Comment:

Default path: /lv0100/Backup of Data

Specified path: /

apply

Please apply changes or press "reload" button to discard

ACL (Access control list)

Browser | Users & Groups | Access Permissions

Selection:

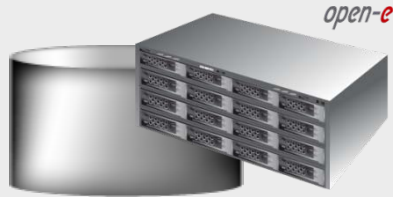
Filter:

- lv0000
- lv0100

Event Viewer: [icon]

Data Storage Software V6 - All rights reserved

Backup to iSCSI Target Volume over a LAN



Data Server (DSS1)
Source node
IP Address: 192.168.0.220

4. ... Continue

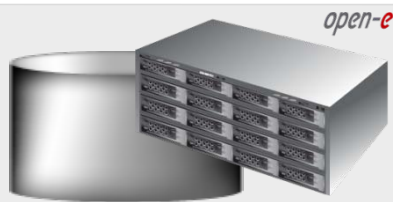
Under the "MAINTENANCE" tab, select "backup" menu

Backup pools: Pool60days



In the "Create new pool", enter a name for the pool and select Tape retention after. In this example, enter 2 months (60 days) and click on the create button

Backup to iSCSI Target Volume over a LAN



Data Server (DSS1)
Source node
IP Address: 192.168.0.220

4. ... Continue

Next, choose Backup devices

Backup devices: Virtual Tape



In "Create new virtual backup device" function, enter a name for the virtual backup device, and select **Share**. In this example choose **Backup of Data** and click the create button

open-e | ENTERPRISE CLASS STORAGE OS for EVERY BUSINESS | DATA STORAGE SOFTWARE V6

SETUP | CONFIGURATION | MAINTENANCE | STATUS | HELP

You are here: MAINTENANCE > backup > Backup devices

Backup pools

Pool60days

Backup devices

Backup tasks

Data replication

Event Viewer: [icon]

Data Storage Software V6 - All rights reserved

Create new virtual backup device

Name:

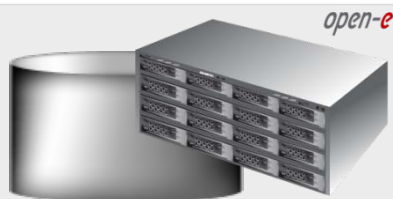
Use as device:

Share:

Dynamic volume:

Please apply changes or press "reload" button to discard

Backup to iSCSI Target Volume over a LAN



Data Server (DSS1)
Source node
IP Address: 192.168.0.220

4. ... Continue

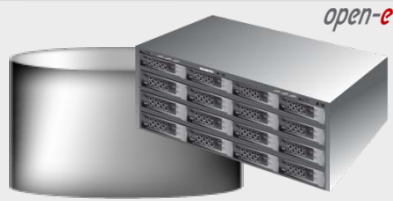
After the DSS V6 WEB page has been reloaded, the new Backup device should appear. Next, click VirtualTape, in the Backup devices tree

Backup devices: Tape001



In "Create new tape" function enter a name for the new tape (Tape001) and select the Pool name. In this example, choose Pool60days. Next, check the box, Limit tape size and choose the appropriate capacity for the new tape. Click the apply button. In this example, 4 tapes will be created

Backup to iSCSI Target Volume over a LAN



Data Server (DSS1)
Source node
IP Address: 192.168.0.220

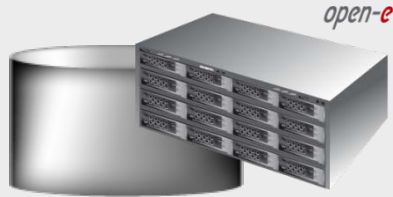
4. ... Continue

Now create the next 3 tapes accordingly

Backup devices: [Tape002](#)



Backup to iSCSI Target Volume over a LAN



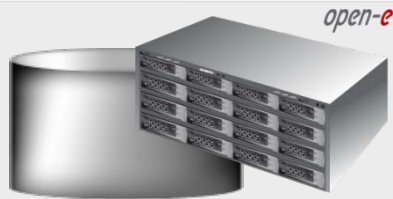
Data Server (DSS1)
Source node
IP Address: 192.168.0.220

4. ... Continue

After creating tapes in "Backup device tapes" functions, four tapes are present.

Backup devices: VirtualTape 

Backup to iSCSI Target Volume over a LAN



Data Server (DSS1)
Source node
IP Address: 192.168.0.220

4. ... Continue

Share: Backup of Data



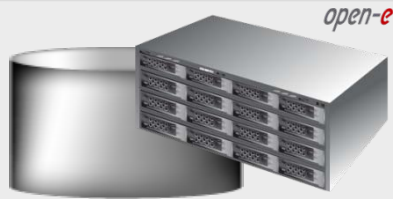
The screenshot shows a Windows Explorer window titled "Backup of Data on Data Storage Server (192.168.0.220)". The address bar shows the path "\\192.168.0.220\Backup of Data". The main pane displays a table of files:

Name	Size	Type	Date Modified	Attributes	Date Created
Tape001	1 KB	File	2009-12-31 13:00		2009-12-31 13:00
Tape002	1 KB	File	2009-12-31 13:01		2009-12-31 13:01
Tape003	1 KB	File	2009-12-31 13:02		2009-12-31 13:02
Tape004	1 KB	File	2009-12-31 13:02		2009-12-31 13:02

A blue arrow points from the text box below to the "Tape004" file in the list.

After configuration of four virtual tapes there will appear four folders on the „Backup of Data“ share. In this place resources from „Data“ will be backedup.

Backup to iSCSI Target Volume over a LAN



Data Server (DSS1)
Source node
IP Address: 192.168.0.220

4. ... Continue

Next ,select **Backup tasks**. In the “Create new backup task” function enter a name for the backup tasks and select the **Logical volume**. In this example choose **lv0000**

Backup tasks: BackupTask001

Next, you must select shares for the local backup (**Data**). Move the **Available shares** to be used for the local backup to the **Assigned shares** area by clicking button

Backup to iSCSI Target Volume over a LAN



Data Server (DSS1)
Source node
IP Address: 192.168.0.220

4. ... Continue

Backup tasks: BackupTask001



In the "Create new backup task" function, choose **Snapshot** and select **Store on pool**. In this example, **snap0000** and **Pool60days**. Next, select the backup Level (e.g. incremental) check box, **Compress data**, and click the **apply** button

open-e | ENTERPRISE CLASS STORAGE OS for EVERY BUSINESS | DATA STORAGE SOFTWARE V6

SETUP | CONFIGURATION | MAINTENANCE | STATUS | HELP

You are here: MAINTENANCE > backup > Backup tasks

Backup pools

- Pool60days

Backup devices

- VirtualTape

Backup tasks

- BackupTask001

Data replication

Available shares

Search: []

Assigned shares

Search: []

Data

Snapshot: snap0000

Store on pool: Pool60days

Level:

- full
- incremental
- differential

Compress data

- low-fast
- normal
- high-slow

Make full backup every:

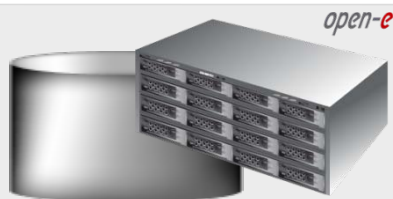
apply

Please apply changes or press "reload" button to discard

Event Viewer: []

Data Storage Software V6 - All rights reserved

Backup to iSCSI Target Volume over a LAN



open-e

Data Server (DSS1)
Source node
IP Address: 192.168.0.220

4. ... Continue

After the DSS V6 WEB page has been reloaded, the new Backup tasks should appear. Next, click **BackupTask001**, in the **Backup tasks** tree.

Backup tasks: BackupTask001

In the "Create new schedule for backup" function, enter a Comment for the new schedule and **Select time**. In this example choose **Weekly** and check the box for all of days of the week. Select time for the start task (8 pm). Next, click the **apply** button.

The screenshot shows the open-e web interface for configuring a backup task. The breadcrumb trail is: MAINTENANCE > backup > Backup tasks > BackupTask001. The left sidebar contains a tree view with sections: Backup pools (Pool60days), Backup devices (VirtualTape), Backup tasks (BackupTask001), and Data replication. The main content area is split into two panels. The top panel, titled "Backup task", displays a table of attributes and values:

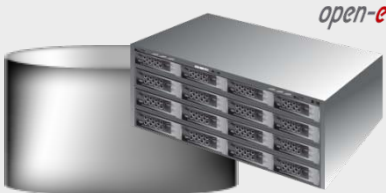
Attribute	Value
Shares:	Data
Pool:	Pool60days
LV:	lv0000
Snapshot:	snap00000
Level:	incremental
Compression:	normal
Full backup every:	off

The bottom panel, titled "Create new schedule for backup task", contains the following fields and options:

- Comment: EveryDayAt8PM
- Select time: Weekly
- Days of the week: Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday
- Start: 20 : 00
- Frequency: Every week, Every even week, Every odd week
- apply button

At the bottom of the panel, it says: "Please apply changes or press 'reload' button to discard".

Backup to iSCSI Target Volume over a LAN



Data Server (DSS1)
Source node
IP Address: 192.168.0.220

4. ... Continue

The Backup tasks function shows the status of the backup tasks

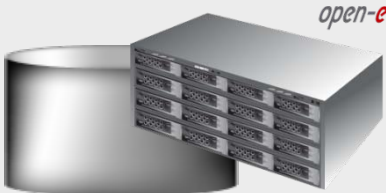
Backup tasks: BackupTask001



The screenshot shows the open-e web interface with the following elements:

- Header: open-e | ENTERPRISE CLASS STORAGE OS for EVERY BUSINESS | DATA STORAGE SOFTWARE V6
- Navigation: SETUP | CONFIGURATION | MAINTENANCE | STATUS | HELP
- Breadcrumbs: You are here: MAINTENANCE > backup > Backup tasks
- Left sidebar: Backup pools (Pool60days), Backup devices (VirtualTape), Backup tasks (BackupTask001), Data replication.
- Main content: Backup tasks table with columns Name, Start time, and Action. BackupTask001 is listed with start time n/a. Below the table is a 'last log' section showing 'No logs found.' and a 'short description' table with shares: Data, pool: Pool60days, and level: incremental.
- Bottom right: 'Create new backup task' form with fields for Name, Logical volume (lv0000), and Shares for backup.
- Footer: Event Viewer icon and Data Storage Software V6 - All rights reserved.

Backup to iSCSI Target Volume over a LAN



Data Server (DSS1)
Source node
IP Address: 192.168.0.220

4. ... Continue

The Backup tasks function shows the backup task running at 8 pm.

Backup tasks: BackupTask001



The screenshot shows the open-e web interface with the following elements:

- Header: open-e | ENTERPRISE CLASS STORAGE OS for EVERY BUSINESS | DATA STORAGE SOFTWARE V6
- Navigation: SETUP, CONFIGURATION, MAINTENANCE, STATUS, HELP
- Breadcrumbs: You are here: MAINTENANCE > backup > Backup tasks
- Left sidebar: Backup pools (Pool60days), Backup devices (VirtualTape), Backup tasks (BackupTask001), Data replication
- Main content: Backup tasks table with details for BackupTask001.
- Bottom right: Create new backup task form.
- Footer: Event Viewer icon and Data Storage Software V6 - All rights reserved.

Name	Start time	Action
BackupTask001	2009-12-31 20:00:04	[Play] [Stop] [Close]

last log

2009-12-31 20:00:36	start
---------------------	-------

short description

shares:	Data
pool:	Pool60days
level:	incremental

Create new backup task

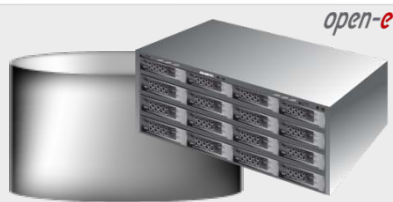
Name:

Logical volume:

Shares for backup:

Available shares	Assigned shares
Search: <input type="text"/>	Search: <input type="text"/>
Data	

Backup to iSCSI Target Volume over a LAN



Data Server (DSS1)
Source node
IP Address: 192.168.0.220

4. ... Continue

Under the "STATUS" tab, select "tasks" and Backup

Backup tasks: BackupTask001

Click on the "Runnings tasks" to display detailed information on the current Backup task

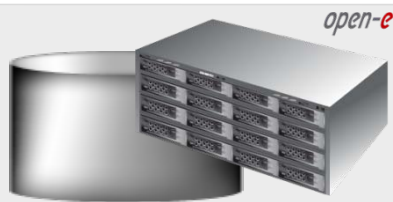
The screenshot shows the open-e web interface with the following elements:

- Header: open-e | ENTERPRISE CLASS STORAGE OS for EVERY BUSINESS | DATA STORAGE SOFTWARE V6
- Navigation tabs: SETUP, CONFIGURATION, MAINTENANCE, STATUS, HELP
- Breadcrumb: You are here: STATUS > tasks > Backup
- Left sidebar: Tasks list with "Backup" selected.
- Main content area: "Running tasks" table and "Tasks log" table.

Running tasks		
Name	Type	Start time
BackupTask001	Backup	2009-12-31 20:00:04

Tasks log				
Time	Name	Type	Status	Action
2009-12-31 20:00:36	BackupTask001	Backup	OK	Started

Backup to iSCSI Target Volume over a LAN



Data Server (DSS1)
Source node
IP Address: 192.168.0.220

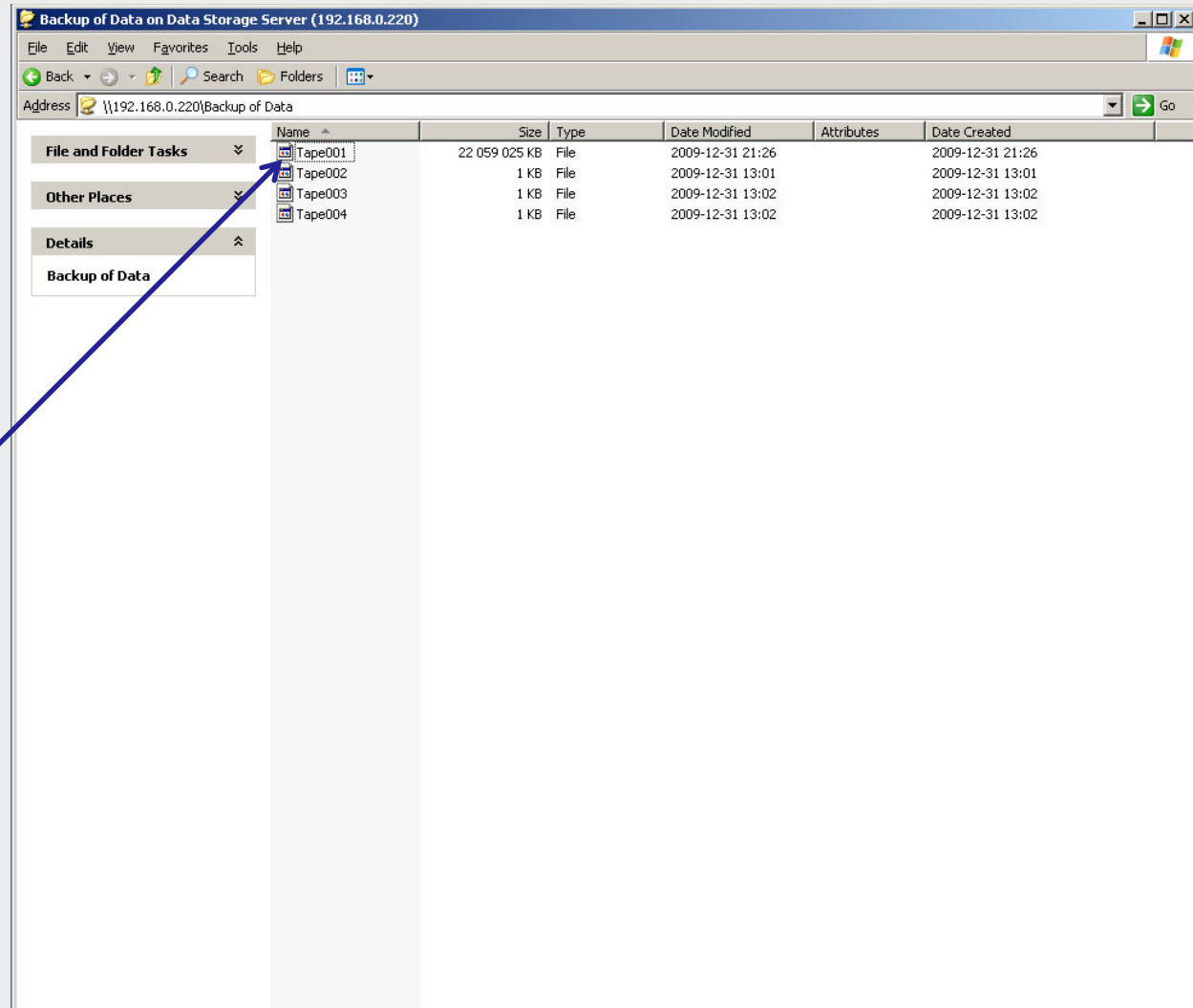
4. ... Continue

Share: Backup of Data

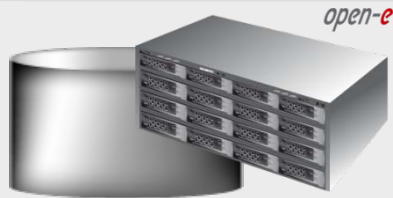


After the end of the Backup all data from "Data" share are located in one subfolder „Tape001“.

The configuration of Backup is now complete.



Backup to iSCSI Target Volume over a LAN



Data Server (DSS1)
Source node
IP Address: 192.168.0.220

5. Create the Restore from Backup

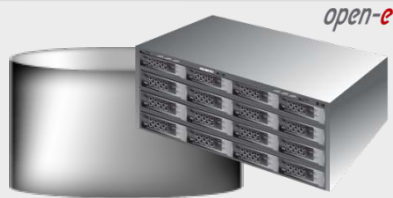
Under the "CONFIGURATION" tab, select the "NAS resources" menu

Shares: Restore from Backup

In order to execute Restore, you must create a new share. Click Shares on the left side of the DSS V6 web GUI. In the example, a shared volume named **Restore from Backup** has been created on lv0000

The screenshot shows the open-e web GUI interface. At the top, there are navigation tabs: SETUP, CONFIGURATION, MAINTENANCE, STATUS, and HELP. The current page is under CONFIGURATION > NAS resources > Shares. On the left sidebar, there are sections for Shares, Users, and Groups. The Shares section lists: 1. Backup of Data, 2. backup_db_lv0100, and 3. Data. The Users section lists: 1. john. The Groups section lists: 1. users. The main content area is titled 'Create new share' and contains the following fields: Name: Restore from Backup; Comment: (empty); Default path: /lv0000/Restore from Bac (selected); Specified path: /; and an apply button. Below this is an ACL (Access control list) section with a tree view showing lv0000 and lv0100. The footer of the GUI says 'Data Storage Software V6 - All rights reserved'.

Backup to iSCSI Target Volume over a LAN



Data Server (DSS1)
Source node
IP Address: 192.168.0.220

5. Create the Restore from Backup

Under the "MAINTENANCE" tab, select the "restore" menu

Restore task: RestoreTask



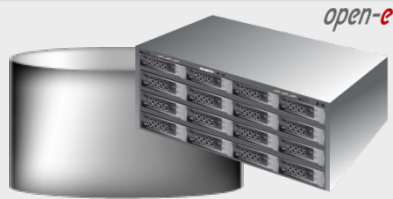
In the "Create new restore task" function, check the box BackupTask001. Enter a name for the Restore tasks name (e.g. RestoreTask), and select the destination share in the Restore to field. In this example, choose Restore from Backup share. Next, click on the apply button

The screenshot shows the open-e web interface. At the top, there is a navigation bar with tabs for SETUP, CONFIGURATION, MAINTENANCE, STATUS, and HELP. The MAINTENANCE tab is active, and the 'restore' menu is selected. The main content area is titled 'Create new restore task' and contains a search form for backup tasks. The search results show a table with columns for Name, Date, and Device. The first entry is 'BackupTask001' with a date of '2009-12-31 21:26:55' and device 'VirtualTape'. Below the table, there are fields for 'Restore task name' (set to 'RestoreTask') and 'Restore to' (set to 'Restore from Backup'). There are also radio buttons for 'Overwrite files' (set to 'always') and a checkbox for 'run imediate after create' (checked). An 'apply' button is at the bottom right of the form.

Name	Date	Device
<input checked="" type="checkbox"/> BackupTask001	2009-12-31 21:26:55	VirtualTape

Restore task name: RestoreTask
Restore to: Restore from Backup
Overwrite files:
 always
 if newer
 if older
 never
 run imediate after create

Backup to iSCSI Target Volume over a LAN



Data Server (DSS1)
Source node
IP Address: 192.168.0.220

5. ... Continue

After the end of the Restore Backup in "Backup Restore tasks", you will start the task again

Restore task: [RestoreTask](#)



The screenshot shows the open-e web interface with the following elements:

- Header: open-e | ENTERPRISE CLASS STORAGE OS for EVERY BUSINESS | DATA STORAGE SOFTWARE V6
- Navigation: SETUP | CONFIGURATION | MAINTENANCE | STATUS | HELP
- Breadcrumbs: You are here: MAINTENANCE > restore
- Left Panel: Restore tasks > RestoreTask
- Main Panel: Backup Restore tasks table

Name	Start time	Action
RestoreTask	n/a	[Start] [Stop] [Delete]

Below the table is a 'Create new restore task' section with search filters:

- Task: [Dropdown]
- Device: [Dropdown]
- File name contain: [Text Input]
- From date: [Day] [Month] [Year] [Dropdowns]
- To date: [Day] [Month] [Year] [Dropdowns]
- [search button]

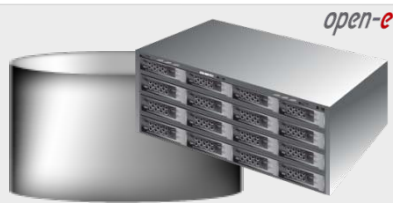
Below the search filters is a table of tasks:

Name	Date	Device
<input checked="" type="checkbox"/> BackupTask001	2009-12-31 21:26:55	VirtualTape

Below the table are fields for 'Restore task name', 'Restore to', and 'Overwrite files' (radio buttons for 'always', 'if newer', 'if older').

Event Viewer: [Icon]

Backup to iSCSI Target Volume over a LAN



Data Server (DSS1)
Source node
IP Address: 192.168.0.220

5. ... Continue

Next, click on the "Restore Task" name

Restore task: [RestoreTask](#)

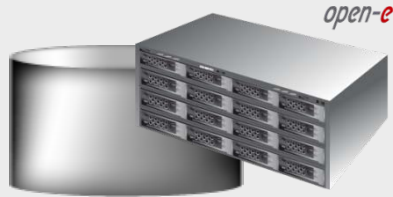


On the "Restore task", to display detailed information on the current restore task

The screenshot shows the open-e web interface. At the top, there is a navigation bar with tabs for SETUP, CONFIGURATION, MAINTENANCE, STATUS, and HELP. The current page is MAINTENANCE > restore > RestoreTask. Below the navigation bar, there is a breadcrumb trail: "You are here: MAINTENANCE > restore > RestoreTask". The main content area is divided into two panels. The left panel, titled "Restore tasks", contains a list with one item: "RestoreTask". A blue arrow points from this list item to the right panel. The right panel, titled "Restore task", displays a table of attributes and values for the selected task. Below the table is a "Remove restore task" section with a red "remove" button. At the bottom of the interface, there is an "Event Viewer" icon and a footer with the text "Data Storage Software V6 - All rights reserved".

Attribute	Value
Backups:	RestoreTask
Destination shares:	Restore from Backup
Device:	VirtualTape
Overwrite files:	always

Backup to iSCSI Target Volume over a LAN



Data Server (DSS1)
Source node
IP Address: 192.168.0.220

5. ... Continue

Under the "STATUS" tab, select "tasks" and Restore from backup

Restore tasks: [RestoreTask](#)

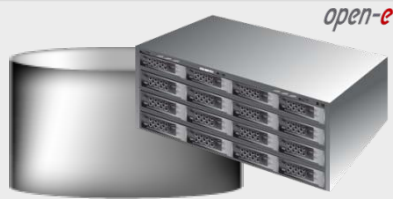
On the "Runnings tasks" to display detailed information on the current Restore from backup task.

The screenshot shows the open-e web interface with the following elements:

- Header: open-e | ENTERPRISE CLASS STORAGE OS for EVERY BUSINESS | DATA STORAGE SOFTWARE V6
- Navigation: SETUP | CONFIGURATION | MAINTENANCE | STATUS | HELP
- Breadcrumbs: You are here: STATUS > tasks > Restore from backup
- Left Panel (Tasks):
 - Backup
 - Restore from backup** (selected)
 - Data Replication
 - Antivirus
 - Volume Replication
 - Snapshots
- Right Panel (Running tasks):
 - Info: No running tasks!
- Right Panel (Tasks log):

Time	Name	Type	Status	Action
2010-01-06 21:20:01	RestoreTask	Restore from backup	OK	Finished
2010-01-06 20:46:35	RestoreTask	Restore from backup	OK	Started
- Footer: Event Viewer: [icon] | Data Storage Software V6 - All rights reserved

Backup to iSCSI Target Volume over a LAN

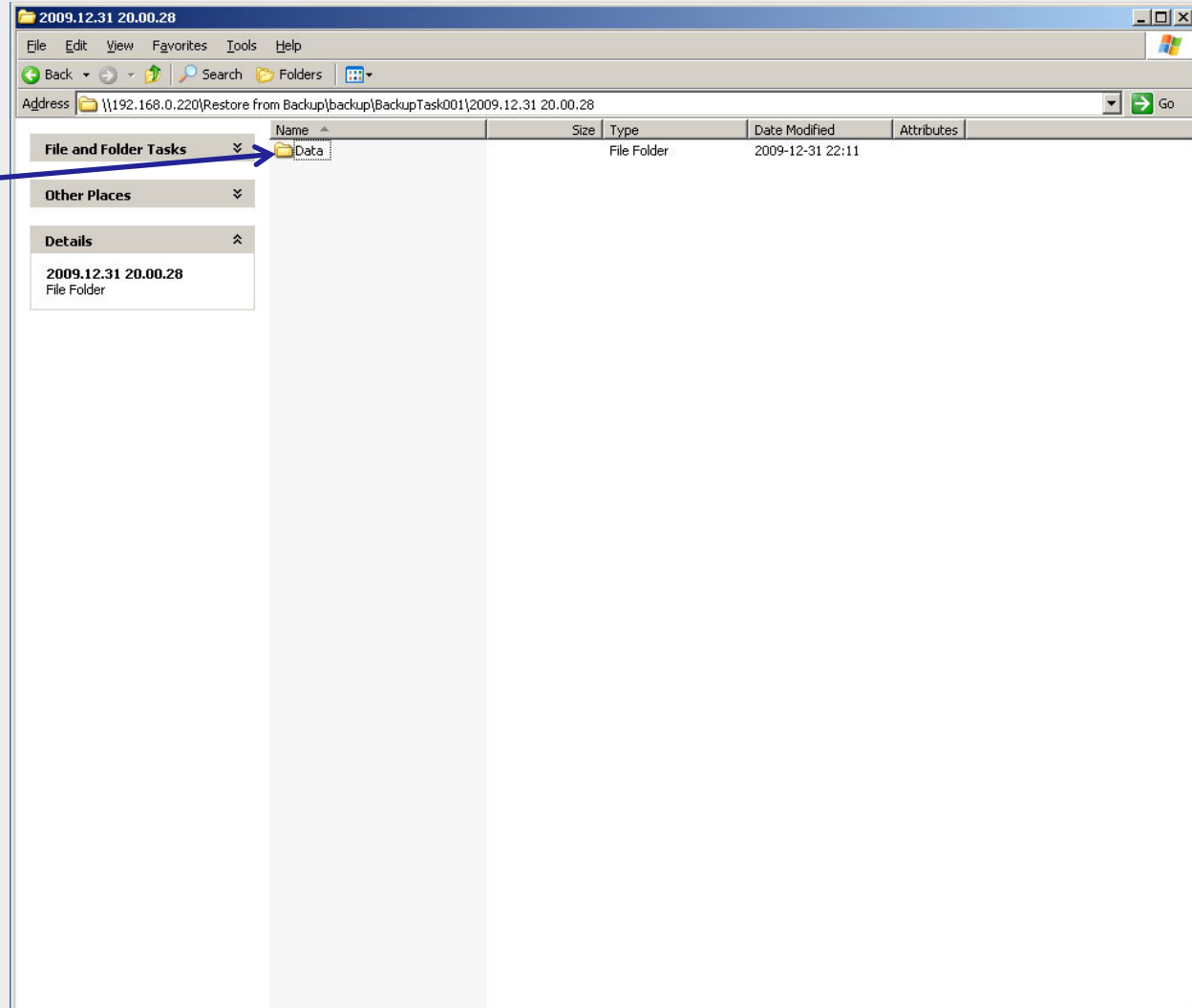


Data Server (DSS1)
Source node
IP Address: 192.168.0.220

5. ... Continue

After the end of the Restore from Backup all data from the „Data“ share are available on the “Restore from Backup” share.

Share: Restore from Backup



The configuration of the Restore from Backup is now complete.

Thank you!