



ENTERPRISE LEVEL STORAGE OS  
for EVERY BUSINESS

## *How to Connect a DSS V6 to another DSS V6 with an iSCSI Target Volume*



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 up13

Presentation updated: September 2010

[www.open-e.com](http://www.open-e.com)

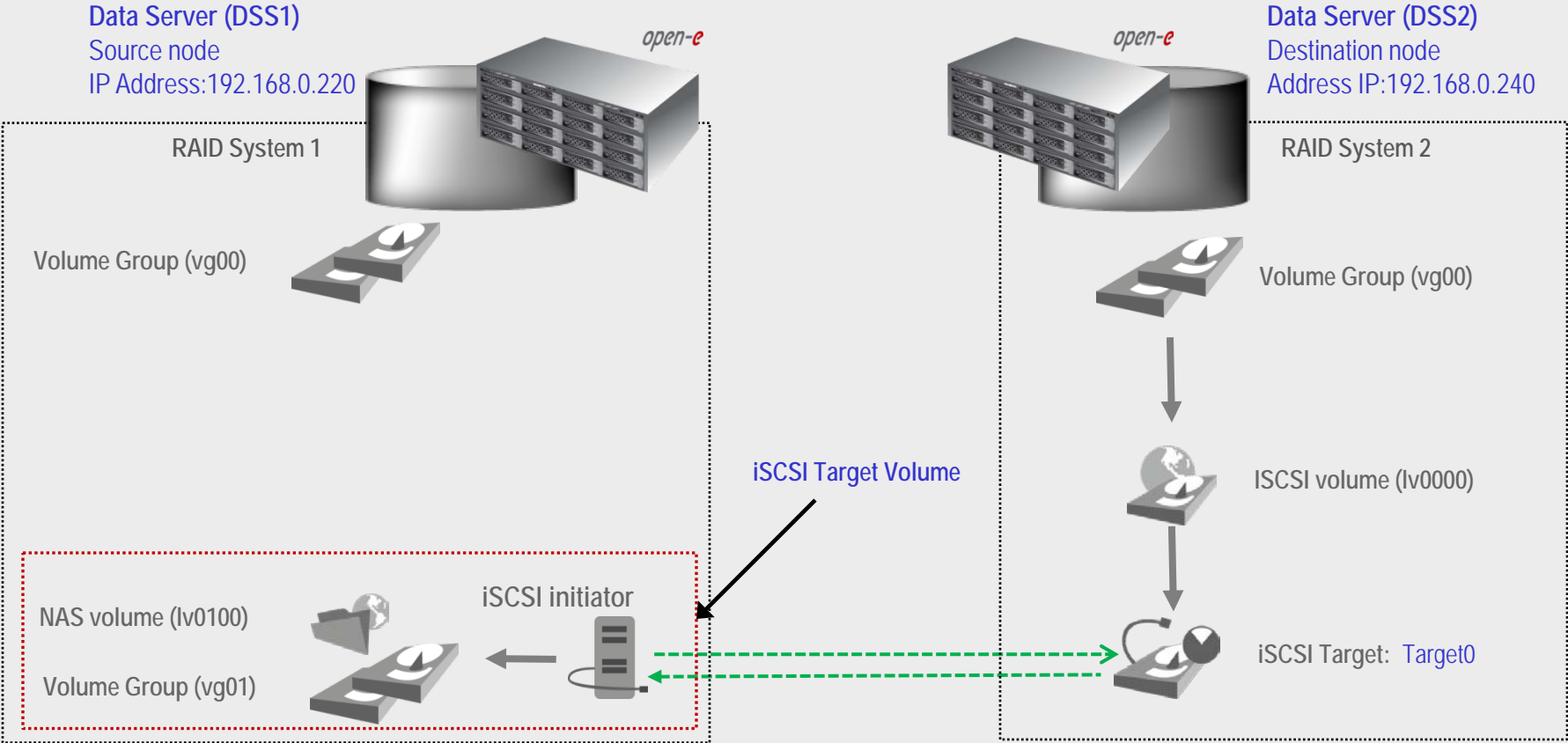
# How to Connect to an iSCSI Target Volume over a LAN *open-e*

TO SET UP A BACKUP USING AN iSCSI TARGET VOLUME OVER A LAN, BETWEEN TWO DSS V6 SYSTEMS, PERFORM THE FOLLOWING STEPS:

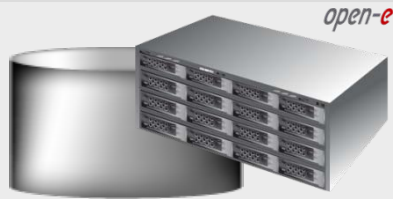
1. Hardware configuration
2. Configure Destination Node:
  - Create a Volume Group, iSCSI volume and target on the DSS2,
3. Connecting iSCSI target Volume using iSCSI Initiator on DSS1
  - Connect to iSCSI target Volume from DSS2 using iSCSI Initiator on DSS1
  - Create a Volume Groups (vg01), on DSS1

# How to Connect to an iSCSI Target Volume over a LAN *open-e*

## 1. Hardware configuration



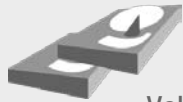
# How to Connect to an iSCSI Target Volume over a LAN *open-e*



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.



Volume Groups (vg00)

In Unit manager add the selected physical units (Unit MD0 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 components:

- 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
- Left sidebar: Vol. groups (selected), Vol. replication
- Main content area:
  - Unit rescan: rescan button
  - Unit manager:

Unit	Size (GB)	Serial number	Status
<input checked="" type="checkbox"/> Unit MD0	465.77	N/A	available

Action: new volume group (dropdown)  
Name: vg00 (input field)

apply button

Please apply changes or press "reload" button to discard
  - Drive identifier:

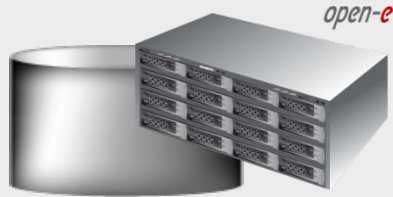
Unit	Serial number	Status
<input type="checkbox"/> Unit S000	9RY1GP7W	
<input type="checkbox"/> Unit S001	5RY13SBZ	

apply button

Event Viewer: [icon]

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# How to Connect to an iSCSI Target Volume over a LAN *open-e*



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 the **Action** field select a **new iSCSI volume** for the required size.

Now select the required size of iSCSI volume. In this example we will be adding 450 GB for the iSCSI volume.

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

Unit	Serial number	Size (GB)
Unit MD0	N/A	465.77

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

Action: new iSCSI volume  
Options: Just create volume

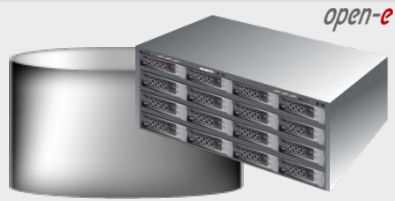
Use volume replication

File I/O  
 Initialize  
 Block I/O

add: 450.00 GB

apply

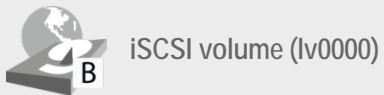
# How to Connect to an iSCSI Target Volume over a LAN *open-e*



Data Server (DSS2)  
Destination node  
IP Address: 192.168.0.240

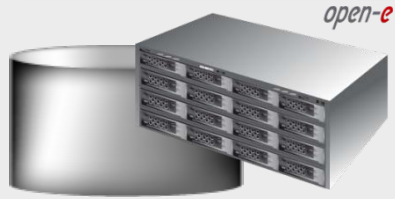
## 2. ... Continue

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



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

# How to Connect to an iSCSI Target Volume over a LAN *open-e*



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

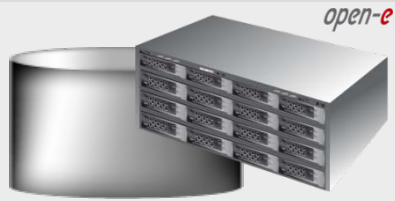
CHAP users

Event Viewer: [icon]

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# How to Connect to an iSCSI Target Volume over a LAN *open-e*



Data Server (DSS2)  
Destination node  
IP Address: 192.168.0.240

## 2. ... Continue

Select target0 within the Targets field.



iSCSI targets

Assign a volume to the target, click the **+** button located under **Action**.

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SETUP CONFIGURATION MAINTENANCE STATUS HELP

You are here: CONFIGURATION > iSCSI target manager > Targets > iqn.2009-12:dss2.target0 (target0)

**Targets**

- target0

**Target volume manager**

**Info**  
Currently there are no LUN's added to this target. In order to add a LUN, click on the plus "+" sign in the "Action" column for this LUN.

**Info**  
Please note that in order to access iSCSI-enabled data from an initiator, the target needs to have a LUN 0, otherwise the data in all other LUNs will be inaccessible. The data will also be inaccessible if you select an inactive snapshot or a destination volume (volume replication) as LUN 0.

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

**Discovery CHAP user access**

Enable CHAP user access authentication

**apply**

**Target IP access**

Deny access:

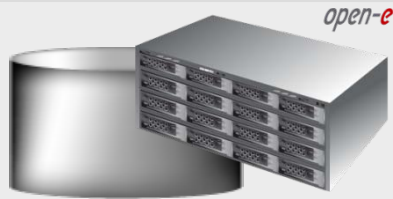
Allow access:

Event Viewer:

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# How to Connect to an iSCSI Target Volume over a LAN *open-e*



Data Server (DSS2)  
Destination node  
IP Address: 192.168.0.240

## 2. ... Continue

The destination iSCSI target is now configured.

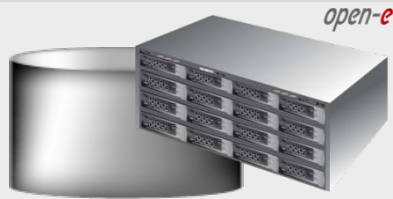


iSCSI targets (target0)

The screenshot shows the open-e web interface for configuring an iSCSI target. The breadcrumb trail indicates the user is in the 'CONFIGURATION' section, specifically in the 'iSCSI target manager' and 'Targets' sub-section, viewing 'iqn.2009-12:dss2.target0 (target0)'. The 'Targets' sidebar shows 'target0' is selected. The main content area is divided into three sections: 'Target volume manager', 'Discovery CHAP user access', and 'Target IP access'. The 'Target volume manager' section contains an information box and a table with one row of data. The 'Discovery CHAP user access' section has a checkbox for 'Enable CHAP user access authentication' and an 'apply' button. The 'Target IP access' section has input fields for 'Deny access:' and 'Allow access:' and 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="-"/>

# How to Connect to an iSCSI Target Volume over a LAN *open-e*



Data Server (DSS1)  
Source node  
IP Address: 192.168.0.220

## 3. Connecting the iSCSI target Volume using iSCSI Initiator

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

The screenshot shows the open-e web interface for configuring iSCSI initiators. The top navigation bar includes 'SETUP', 'CONFIGURATION', 'MAINTENANCE', 'STATUS', and 'HELP'. The current page is 'iSCSI Initiator' under the 'SETUP' section. The 'Add new portal server' form has the following fields:

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

An 'apply' button is located below the form. Below the form is the 'iSCSI Initiator name' section with the following field:

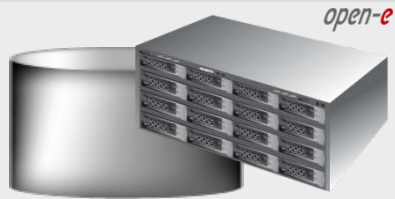
- Name: iqn.com.example:01.8d54f4e

An 'apply' button is also present for this section. A blue arrow points from the text box in the blue callout to the 'Portal IP' field.



iSCSI initiators

# How to Connect to an iSCSI Target Volume over a LAN *open-e*



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.

The screenshot shows the open-e web interface for configuring iSCSI. The breadcrumb path is "You are here: SETUP > iSCSI Initiator > 192.168.0.240".

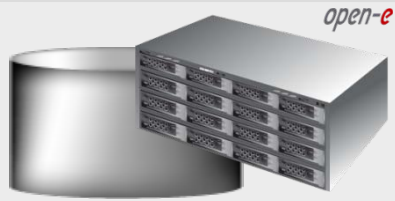
- Portals:** A table with one entry: 192.168.0.240.
- Portal manager:** A table with one entry: iqn.2009-12:dss2.target0 (Status: unconnected). Below it are input fields for CHAP user and CHAP secret, and a red "connect" button.
- Remove portal:** A section with the text "Remove portal." and a red "remove" button.

At the bottom, there is an "Event Viewer" icon and the text "Data Storage Software V6 - All rights reserved".



iSCSI initiators

# How to Connect to an iSCSI Target Volume over a LAN *open-e*



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 main content area is divided into two panels. The left panel, titled 'Portals', shows a tree view with a folder for '192.168.0.240' containing a sub-entry for 'iqn.2009-12:dss2.target0'. The right panel, titled 'Portal manager', displays a table with columns for 'Name' and 'Status'. The entry 'iqn.2009-12:dss2.target0' is listed with a status of 'connected'. Below the table are input fields for 'CHAP user:' and 'CHAP secret:', and a 'connect' button. At the bottom of the right panel, there is a 'Remove portal' section with an information icon and the text: 'One or more targets are connected. Please disconnect them first.'

# How to Connect to an iSCSI Target Volume over a LAN *open-e*



Data Server (DSS1)  
Source node  
IP Address: 192.168.0.220

## 3. ... Continue

Next, click on the iSCSI target name within the Portals, in this example the name is: iqn.2009-12:dss2.target0.

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

Name	Size
Unit S003	460.80 GB

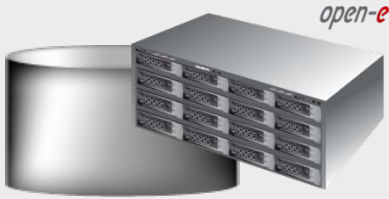
Disconnect target.

**Disconnect**



iSCSI initiators

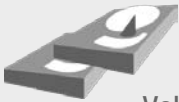
# How to Connect to an iSCSI Target Volume over a LAN *open-e*



Data Server (DSS1)  
Source node  
IP Address: 192.168.0.220

## 3. ... Continue

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



Volume Groups (vg00)

In the Unit manager select physical units (Unit S003) to create a new volume group (in this case, vg01) and click **apply** button

The configuration of connecting to an iSCSI target Volume is now complete.

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 > volume manager > Vol. groups
- Left sidebar: Vol. groups (selected), Vol. replication
- Main content area:
  - Unit rescan: rescan button
  - Unit manager table:

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

Action: new volume\_group  
Name: vg01

apply button

Please apply changes or press "reload" button to discard
  - Drive identifier table:

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

apply button

Event Viewer: [icon]

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Thank you!