



Step-by-Step Guide

How to Connect a DSS V7 to another DSS V7 with
an iSCSI Target Volume

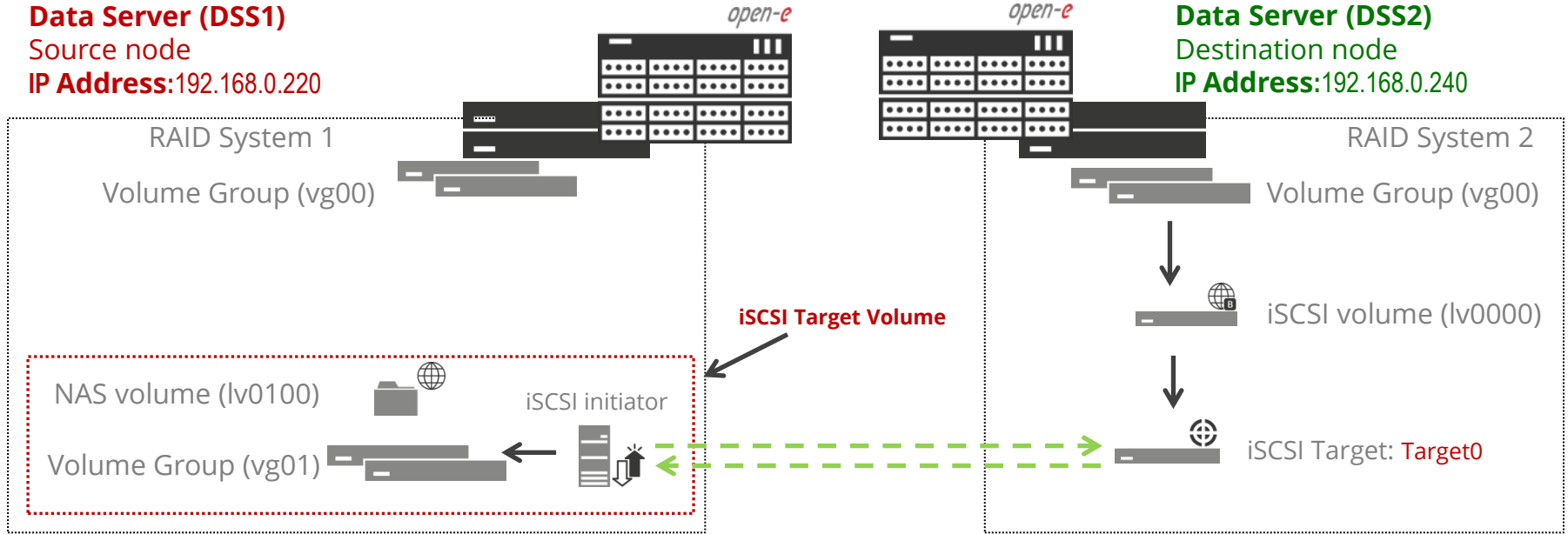
The aim of this document is to demonstrate how to Connect to an iSCSI Target Volume from DSS V7. It shows in step-by-step, how to set up DSS V7 and connect to another DSS V7 with an iSCSI Target Volume.

To connect to an iSCSI Target Volume over a LAN, between two DSS V7 systems, perform the following steps:

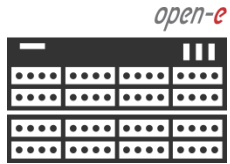
1. Hardware configuration
 - Configure Destination Node:
2. Create a Volume Group, iSCSI volume and target on the DSS2,
3. Connecting iSCSI target Volume using iSCSI Initiator on DSS1
 - Connect to iSCSI target Volume from DSS2 using iSCSI Initiator on DSS1
4. Create a Volume Groups (vg01), on DSS1

1. Hardware configuration

Data Server (DSS1)
Source node
IP Address: 192.168.0.220



2. Configure DSS V7



Data Server (DSS2)
Destination node
IP Address: 192.168.0.240

Under the "**CONFIGURATION**" tab, select "**Volume manager**" and next "**Volume groups**".

In the **Unit manager** add the selected physical units (**Unit S001**) 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:

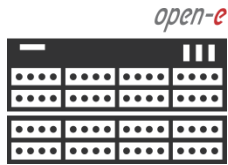
- Navigation Bar:** SETUP, CONFIGURATION, MAINTENANCE, STATUS, HELP.
- Breadcrumbs:** You are here: Configuration > Volume manager > Volume groups
- Left Panel:** A sidebar with "Vol. groups" selected, and "Vol. replication" below it.
- Unit manager Table:**

Unit	Size (GB)	Serial number	Status
<input checked="" type="checkbox"/> Unit S001	298.10	N/A	available
- Action Form:** Action: new volume group (dropdown), Name: vg00 (input), and an apply button.
- Drive identifier Table:**

Unit	Serial number	Status
<input type="checkbox"/> Unit S000	9SY0QWBT	
<input type="checkbox"/> Unit S001	9RA6VDG3	
- Footer:** Event Viewer, Data Storage Software V7 - All rights reserved.

Red arrows indicate the navigation path: from the CONFIGURATION tab to Volume manager, then to Volume groups, then to the Unit manager table, and finally to the Action form.

2. ... Continue

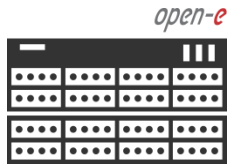


Data Server (DSS2)
Destination node
IP Address: 192.168.0.240

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 iSCSI Target .

Select the appropriate volume. Next , select the required size of iSCSI volume. In this eg. Adding 200 GB for the iSCSI volume. After assigning an appropriate amount of space for the iSCSI volume, click the **apply** button.

2. ... Continue



Data Server (DSS2)
Destination node
IP Address: 192.168.0.240

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

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

System volumes	Size (GB)
SWAP	4.00
Reserved for snapshots	0.00
Reserved for system	4.00
Reserved for replication	0.00
Free	90.06

Action: new NAS volume

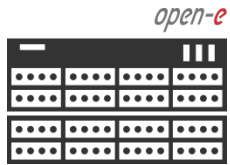
Use volume replication

WORM

add: 0.00 GB

apply

2. ... Continue

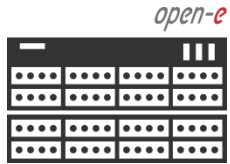


Data Server (DSS2)
Destination node
IP Address: 192.168.0.240

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

In the **Create new target**, click the **apply** to confirm.

2. ... Continue



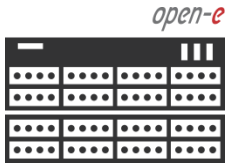
Data Server (DSS2)
Destination node
IP Address: 192.168.0.240

Select **target0** within the **Targets** field.

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

The screenshot shows the open-e web interface for configuring an iSCSI target. The breadcrumb trail is: Configuration > iSCSI target manager > Targets > iqn.2016-07:dss2:target0 (target0). The 'Targets' section shows a list with 'target0' selected. The 'Target volume manager' section has an 'Info' box with a warning: '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.' Below this is a table for 'Logical volumes attached to this target' which is empty. Under 'Available logical volumes', there is a table with one entry: 'lv0000' (Type: iSCSI), SCSI ID 'cYqR2xmVH9ttLEEp', LUN '0', Access mode 'write-through', and an 'attach' button. The 'CHAP user access authentication' section has 'No CHAP user access authentication' selected. An 'apply' button is at the bottom right.

2. ... Continue



Data Server (DSS2)
Destination node
IP Address: 192.168.0.240

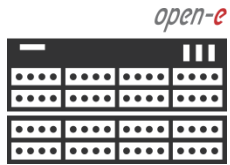
The destination iSCSI target is now configured.

The screenshot shows the open-e web interface for configuring an iSCSI target. The breadcrumb trail indicates the user is in the configuration page for target 'iqn.2016-07:dss2.target0 (target0)'. The 'Targets' section shows 'target0' is listed. The 'Target volume manager' section displays a table of logical volumes attached to the target:

Volume	Type	SCSI ID	LUN	Access mode	Action
lv0000	iSCSI	cYqR2xmVWH9ttLEEp	0	write-through	detach

Below this, the 'Available logical volumes' section is empty, showing 'No logical volumes available.' The 'CHAP user access authentication' section has two radio buttons: 'No CHAP user access authentication' (selected) and 'Enable CHAP user access authentication'. An 'apply' button is at the bottom right of this section.

3. Connecting the iSCSI target Volume using iSCSI Initiator

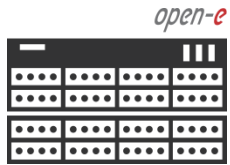


Data Server (DSS1)
Source node
IP Address: 192.168.0.220

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 breadcrumb trail is "You are here: Setup > iSCSI Initiator". The "Add new portal server" form has "Portal IP" set to 192.168.0.240 and "Portal port" set to 3260. The "iSCSI Initiator name" form has "Name" set to iqn.com.example:01.50efc45a77b. Red arrows point from the text boxes to the corresponding fields in the interface.

3. ... Continue



Data Server (DSS1)
Source node
IP Address: 192.168.0.220

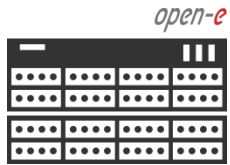
Select **192.168.0.240** within the **Portals** field. In **Portal manager** select the name of the iSCSI targets and click the **connect** button.

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

- Portals:** A list containing the IP address "192.168.0.240". A red arrow points from this list to the "Portal manager" section.
- Portal manager:** Shows a table with columns "Name" and "Status". The entry "iqn.2016-07:dss2.target0" is selected with a radio button and has a status of "unconnected". Below the table are input fields for "CHAP user:" and "CHAP secret:", and a red "connect" button. A note below the button says "Please apply changes or press 'reload' button to discard".
- Remove portal:** A section with a "remove" button.

At the bottom, there is an "Event Viewer" section and a footer that reads "Data Storage Software V7 - All rights reserved".

3. ... Continue

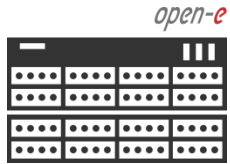


Data Server (DSS1)
Source node
IP Address: 192.168.0.220

iSCSI target: **iqn.2016-07:dss2.target0** has been connected successfully.

The screenshot shows the open-e web interface for configuring an iSCSI initiator. The breadcrumb trail indicates the user is in 'Setup > iSCSI Initiator > 192.168.0.240'. The 'Portals' section on the left lists the IP address 192.168.0.240 and the iSCSI target **iqn.2016-07:dss2.target0**. A red arrow points from this target to the 'Portal manager' section on the right. The 'Portal manager' section shows a table with one entry: **iqn.2016-07:dss2.target0** with a status of 'connected'. Below the table are input fields for 'CHAP user:' and 'CHAP secret:', and a 'connect' button. A message at the bottom of the portal manager says 'Please apply changes or press "reload" button to discard'. Below the portal manager is a 'Remove portal' section with an 'Info' icon and the text: 'One or more targets are connected. Please disconnect them first.' The footer of the interface includes 'Event Viewer' and 'Data Storage Software V7 - All rights reserved'.

3. ... Continue



Data Server (DSS1)
Source node
IP Address: 192.168.0.220

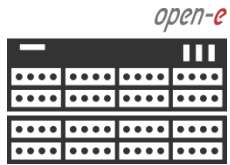
Next, click on the iSCSI target name within the **Portals**, in this example the name is: **iqn.2016-07:dss2.target0**.
In the **Target manager** you can view the connected target's name as well as its size.

The screenshot shows the open-e web interface for configuring an iSCSI target. The breadcrumb trail indicates the current location: Setup > iSCSI Initiator > iqn.2016-07:dss2.target0. The interface is divided into several sections:

- Portals:** A list of portals with the selected target 'iqn.2016-07:dss2.target0' highlighted. A red arrow points from the text box to this entry.
- Target manager:** A table showing the details of the selected target. It contains one row: 'Unit S002' with a size of '204.80 GB'. A red arrow points from the text box to this table.
- Disconnect:** A section with a 'Disconnect target.' label and a red 'Disconnect' button.

The footer of the interface includes 'Event Viewer', 'Data Storage Software V7 - All rights reserved', and a copyright notice for open-e.

4. Create a Volume groups (vg01), on DSS1



Data Server (DSS1)
Source node
IP Address: 192.168.0.220

Under the "CONFIGURATION" tab, select „Volume manager" and next Volume groups.

In the Unit manager select physical units (Unit S002) 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 components:

- Navigation:** SETUP, CONFIGURATION, MAINTENANCE, STATUS, HELP.
- Page Header:** open-e ENTERPRISE CLASS STORAGE OS for EVERY BUSINESS, DATA STORAGE SOFTWARE V7
- Breadcrumbs:** You are here: Configuration > Volume manager > Volume groups
- Vol. groups:** A sidebar menu showing 'vg00' and 'Vol. replication'.
- Unit manager:** A table with columns: Unit, Size (GB), Serial number, Status. It lists Unit S001 (1862.95 GB, N/A, in use, vg00) and Unit S002 (200.00 GB, a7ebc139, available). Below the table is an 'Action:' dropdown set to 'new volume group' and a text input field containing 'vg01'. An 'apply' button is at the bottom right.
- Drive identifier:** A table with columns: Unit, Serial number, Status. It lists Unit S001 (N/A) and Unit S002 (a7ebc139). An 'apply' button is at the bottom right.
- Footer:** Event Viewer, Data Storage Software V7 - All rights reserved.

Red arrows indicate the flow of configuration steps: from the 'CONFIGURATION' tab to 'Volume manager', then to 'Volume groups', then to 'Unit manager', and finally to the 'apply' button.

open-e

Thank You!
