



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.

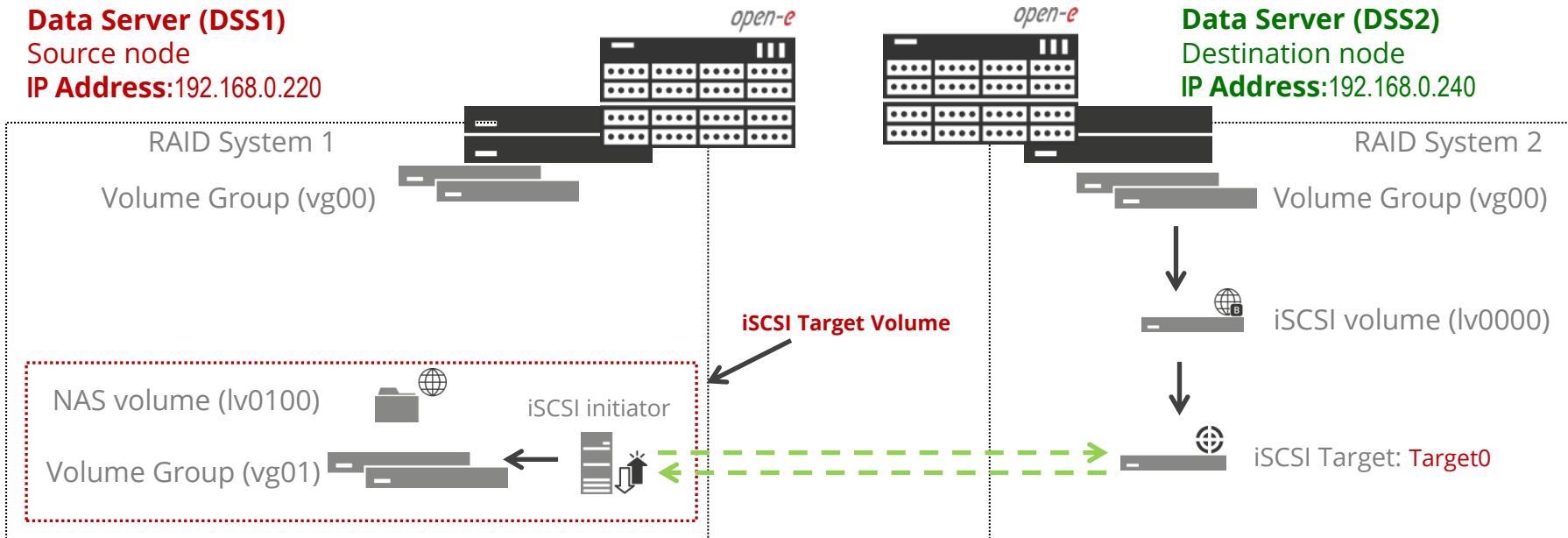
To connect to an iSCSI Target Volume over a LAN, between two DSS V7 systems, perform the following steps:

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

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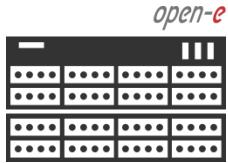
1. Hardware configuration



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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".

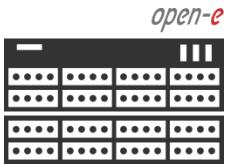
In the **Unit manager** add the selected physical units (**Unit S001**) to create a **new volume group** (in this case, **vg00**) and click **apply** button.

The screenshot shows the open-e Data Storage Software V7 interface. At the top, there's a navigation bar with tabs: SETUP, CONFIGURATION, MAINTENANCE, STATUS, and HELP. The CONFIGURATION tab is selected. Below it, the path 'You are here: Configuration > Volume manager > Volume groups' is displayed. The main area has three tabs: Vol. groups, Vol. replication, and Event Viewer (which is currently active). On the right side, there are two tables: 'Unit manager' and 'Drive identifier'. The 'Unit manager' table shows a single unit: Unit S001, Size (GB) 298.10, Serial number N/A, and Status available. The 'Drive identifier' table lists two drives: Unit S000 (Serial number 9SYIQWB7) and Unit S001 (Serial number 9RA6VDG3). A red box highlights the 'Unit manager' table, another highlights the 'new volume group' dropdown set to 'vg00', and a third highlights the 'apply' button at the bottom right of the 'Unit manager' section. A note at the bottom right of the 'Unit manager' section says 'Please apply changes or press "reload" button to discard'.

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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 .

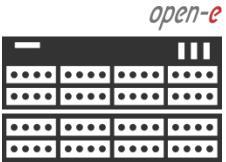
Select the appropriate volume. Next , select the required size of iSCSI volume. In this eg. Adding 200 GB for the iSCSI volume. After assigning an appropriate amount of space for the iSCSI volume, click the **apply** button.

The screenshot shows the 'Volume manager' interface of the open-e Data Storage Software V7. The top navigation bar includes 'SETUP', 'CONFIGURATION', 'MAINTENANCE', 'STATUS', and 'HELP'. The title bar reads 'open-e | ENTERPRISE CLASS STORAGE OS for EVERY BUSINESS' and 'DATA STORAGE SOFTWARE V7'. The left sidebar lists 'Vol. groups' (with 'vg00' selected), 'Vol. replication', and 'Event Viewer'. The main right panel displays 'System volumes' with entries: SWAP (4.00 GB), Reserved for snapshots (0.00), Reserved for system (4.00), Reserved for replication (0.00), and Free (290.06). A configuration section on the right shows 'Action: new iSCSI volume', 'Options: Just create volume', and checkboxes for 'Use volume replication' (unchecked), 'File I/O' (radio button), 'Initialize' (checkbox checked), and 'Block I/O' (radio button). A slider for 'Rate:' is set to 'medium'. Below the slider, a 'Size' field shows '0' and an 'add:' button next to '200 GB'. At the bottom right is a red 'apply' button with the text 'Please apply changes or press "reload" button to discard'.

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2. ... Continue



Data Server (DSS2)
Destination node
IP Address: 192.168.0.240

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

The screenshot shows the open-e Data Storage Software V7 interface. The top navigation bar includes links for SETUP, CONFIGURATION, MAINTENANCE, STATUS, and HELP, along with a lock icon and the text "ENTERPRISE CLASS STORAGE OS for EVERY BUSINESS". The title bar says "DATA STORAGE SOFTWARE V7". The main area shows the "Volume manager" configuration for the "vg00" volume group. A red arrow points from the "Vol. groups" section to the "lv0000" row in the table. The table lists the following information:

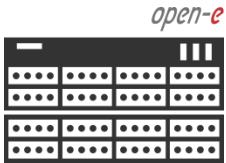
Logical Volume	Type	Snap.	Rep.	Init.	Blocksize (bytes)	Size (GB)
lv0000	iSCSI				N/A	200.00
System volumes						
SWAP						
Reserved for snapshots						
Reserved for system						
Reserved for replication						
Free 90.06						

Below the table, there is a section for "Action:" with a dropdown menu set to "new NAS volume". There are also checkboxes for "Use volume replication" and "WORM", and a slider for "add: 0.00 GB". A red "apply" button is at the bottom right. At the bottom of the screen, there is an "Event Viewer" icon and a copyright notice: "Data Storage Software V7 - All rights reserved" and "Data Storage Software V7 - All rights reserved".

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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.

The screenshot shows the open-e Data Storage Software V7 interface. The top navigation bar includes links for SETUP, CONFIGURATION, MAINTENANCE, STATUS, and HELP, along with a lock icon and the text "ENTERPRISE CLASS STORAGE OS for EVERY BUSINESS". The main menu path is "You are here: Configuration > iSCSI target manager > Targets".

The central area displays two windows:

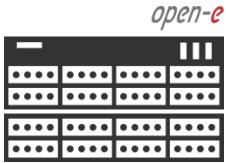
- Create new target:** This window allows creating a new iSCSI target. It includes fields for "Name" (set to "iqn.2016-07.dss2.target0") and "Alias" (set to "target0"). A red arrow points from the "Name" field to the "apply" button at the bottom right.
- Discovery CHAP user access:** This window contains two radio button options:
 - No discovery CHAP user access authentication
 - Enable discovery CHAP user access authenticationA red arrow points from the "apply" button at the bottom right to the "apply" button at the bottom of this window.

At the bottom of the interface, there is an "Event Viewer" section and a footer bar with the text "Data Storage Software V7 - All rights reserved" and "Data Storage Software V7 - All rights reserved".

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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 Data Storage Software V7 interface. The top navigation bar includes links for SETUP, CONFIGURATION, MAINTENANCE, STATUS, and HELP, along with a lock icon and the text "ENTERPRISE CLASS STORAGE OS for EVERY BUSINESS". The title bar indicates the current location: Configuration > iSCSI target manager > Targets > iqn.2016-07:dss2.target0 (target0). The main window is divided into several sections:

- Targets:** A list containing "target0".
- Target volume manager:** An info panel stating that the target needs a LUN 0 for access. It also lists "Logical volumes attached to this target" and "Available logical volumes".

Volume	Type	SCSI ID	LUN	Access mode	Action
No logical volumes attached to this target.					

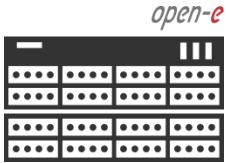
Volume	Type	SCSI ID	LUN	Access mode	Action
lv0000	iSCSI	cYqR2xmWh9tLEEp	0	write-through	attach
- CHAP users:** A list showing one entry: "lv0000" with a "cYqR2xmWh9tLEEp" SCSI ID.
- CHAP user access authentication:** A panel with two radio button options:
 - No CHAP user access authentication
 - Enable CHAP user access authenticationA red "apply" button is at the bottom right.

At the bottom of the interface, there is an "Event Viewer" section and a footer with the text "Data Storage Software V7 - All rights reserved" and "Data Storage Software V7 - All rights reserved".

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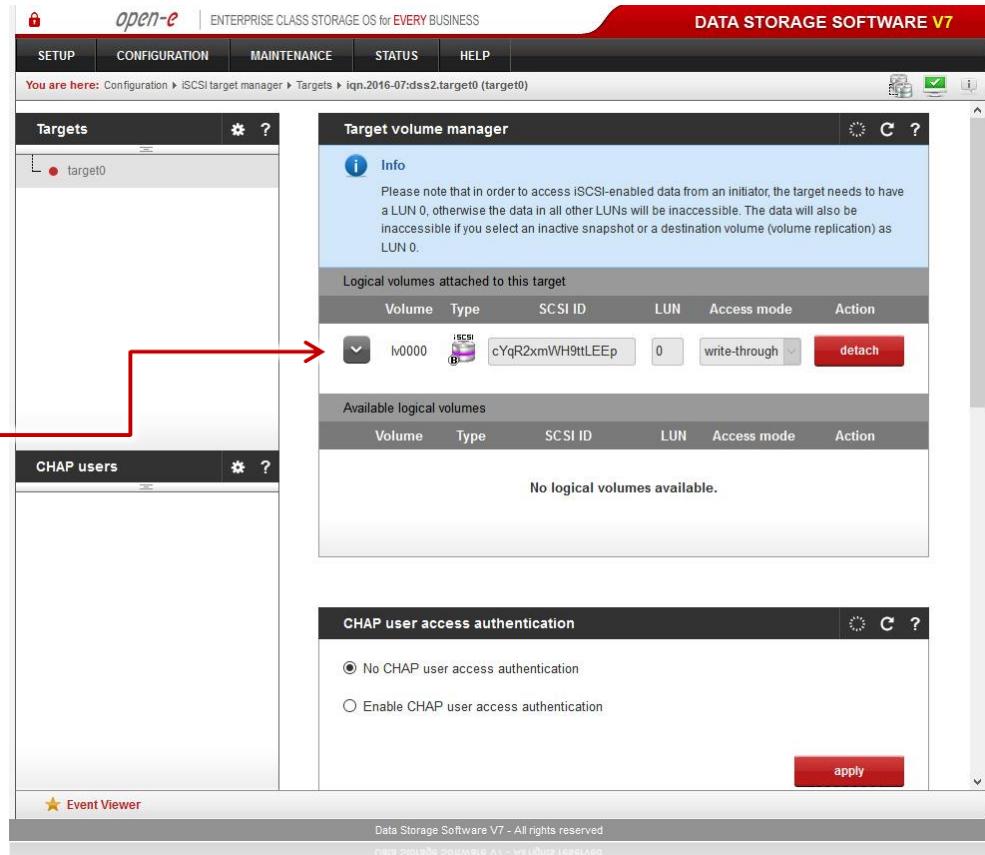
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2. ... Continue



Data Server (DSS2)
Destination node
IP Address: 192.168.0.240

The destination iSCSI target is now configured.



The screenshot shows the open-e Data Storage Software V7 interface. The top navigation bar includes 'open-e | ENTERPRISE CLASS STORAGE OS for EVERY BUSINESS' and 'DATA STORAGE SOFTWARE V7'. The main menu has tabs for 'SETUP', 'CONFIGURATION', 'MAINTENANCE', 'STATUS', and 'HELP'. The current view is under 'CONFIGURATION > iSCSI target manager > Targets > iqn.2016-07:dss2.target0 (target0)'.

The 'Targets' panel on the left lists 'target0'. A red arrow points from the text 'The destination iSCSI target is now configured.' to this entry.

The 'Target volume manager' panel on the right contains:

- Info:** A note states: '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.'
- Logical volumes attached to this target:**

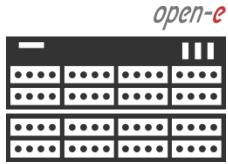
Volume	Type	SCSI ID	LUN	Access mode	Action
lv0000	iSCSI	cYqR2xmW9tLEEP	0	write-through	detach
- Available logical volumes:**

Volume	Type	SCSI ID	LUN	Access mode	Action
No logical volumes available.					
- CHAP user access authentication:**

No CHAP user access authentication
 Enable CHAP user access authentication

apply

3. Connecting the iSCSI target Volume using iSCSI Initiator



Data Server (DSS1)
Source node
IP Address: 192.168.0.220

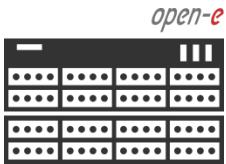
Choose "SETUP", "iSCSI initiators". In Add new portal server, in field Portal IP enter the IP Address of targets on the destination node (in our example this would be 192.168.0.240) then click on the **apply** to confirm.

The screenshot shows the 'Portals' configuration screen. On the left, there's a list of portals. On the right, a modal window titled 'Add new portal server' is open, prompting for 'Portal IP' (192.168.0.240), 'Portal port' (3260), and a 'CHAP enable' checkbox. Below the modal, a message says 'Please apply changes or press "reload" button to discard'. At the bottom, there's an 'ISCSI Initiator name' section with a 'Name:' field containing 'iqn.com.example:01.50efc45a77b' and an 'apply' button. A red box highlights the 'apply' button in the 'ISCSI Initiator name' section. Another red box highlights the 'apply' button in the 'Add new portal server' modal. A red arrow points from the text in the dotted box to the 'apply' button in the modal. A red bracket on the left side groups the 'ISCSI Initiator name' section and the 'apply' button in the modal.

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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 Data Storage Software V7 interface. At the top, there's a navigation bar with tabs: SETUP, CONFIGURATION, MAINTENANCE, STATUS, and HELP. Below the navigation bar, a sub-navigation bar shows: You are here: Setup > iSCSI initiator > 192.168.0.240. The main content area has two windows:

- Portals**: A list of IP addresses. One item, "192.168.0.240", is highlighted with a red arrow pointing from the text above.
- Portal manager**: A configuration window for an iSCSI target. It shows a table with one row:

Name	Status
iqn.2016-07:dss2.target0	unconnected

Below the table, there are fields for CHAP user and CHAP secret, both currently empty. A red arrow points from the text above to this window.

At the bottom of the interface, there are two small windows:

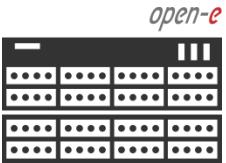
- Remove portal**: A window with the text "Remove portal." and a red "remove" button.
- Event Viewer**: A window showing event logs.

At the very bottom of the screen, a footer bar displays: Data Storage Software V7 - All rights reserved and Data provided courtesy of www.open-e.com.

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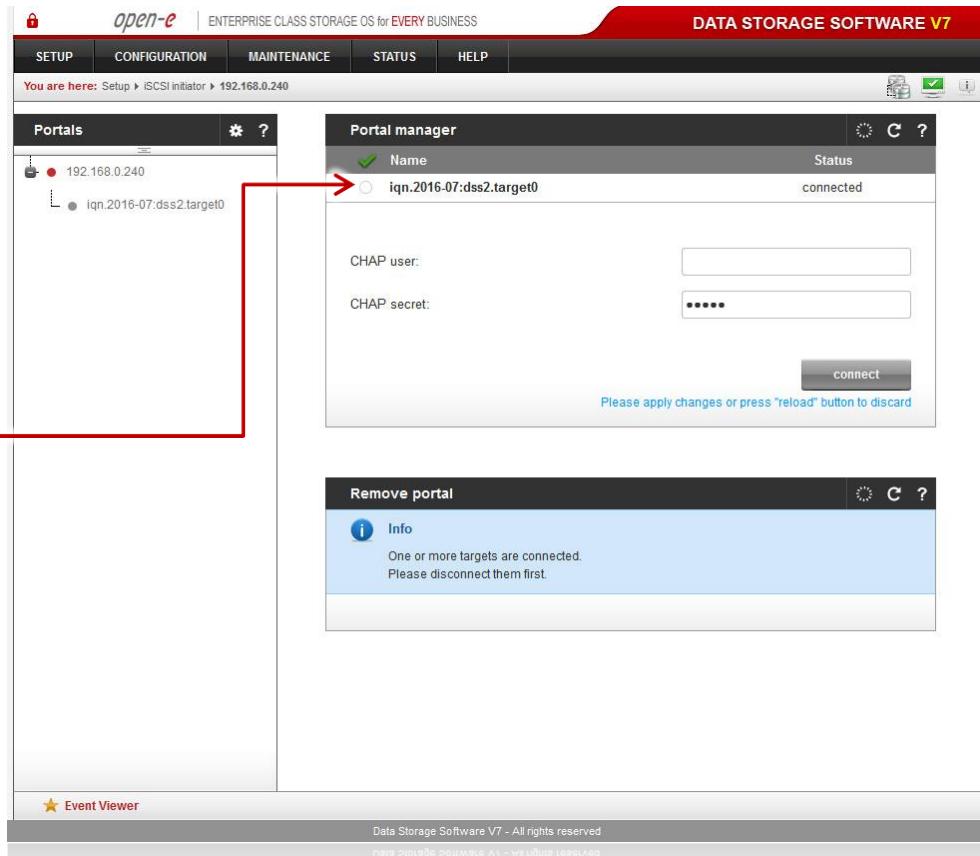
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3. ... Continue



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 'Portal manager' section of the software. It lists two entries: '192.168.0.240' (status: connected) and 'iqn.2016-07:dss2.target0' (status: connected). Below the list are fields for 'CHAP user' and 'CHAP secret'. A 'connect' button is at the bottom right. A message at the bottom says 'Please apply changes or press "reload" button to discard'. A 'Remove portal' dialog box is also visible.

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PORTALS

You are here: Setup > iSCSI initiator > 192.168.0.240

Portals

192.168.0.240

iqn.2016-07:dss2.target0

Portal manager

Name: iqn.2016-07:dss2.target0 Status: connected

CHAP user:

CHAP secret: ****

connect

Please apply changes or press "reload" button to discard

Remove portal

Info: One or more targets are connected. Please disconnect them first.

Event Viewer

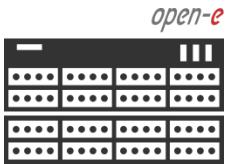
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3. ... Continue



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 Data Storage Software V7 interface. At the top, there is a navigation bar with tabs: SETUP, CONFIGURATION, MAINTENANCE, STATUS, and HELP. The title bar indicates "DATA STORAGE SOFTWARE V7".

The main area has two main sections:

- Portals:** This section lists network ports. One port is highlighted with a red arrow: "192.168.0.240". Another port is listed below it: "iqn.2016-07:dss2.target0".

A large red bracket on the right side of the slide points to this "iqn.2016-07:dss2.target0" entry.

A dotted red box surrounds the text "Next, click on the iSCSI target name within the Portals, in this example the name is: iqn.2016-07:dss2.target0." in the slide notes.
- Target manager:** This section displays connected targets. A target named "Unit S002" is listed with a size of "204.80 GB".

A red arrow points from the "iqn.2016-07:dss2.target0" entry in the Portals list to the "Unit S002" entry in the Target manager list.

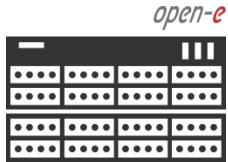
Below the Target manager is a "Disconnect" dialog box with the message "Disconnect target." and a "Disconnect" button.

At the bottom of the interface, there is an "Event Viewer" icon and a footer bar with the text "Data Storage Software V7 - All rights reserved" and "Data Storage Software V7 - All rights reserved".

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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 screenshot shows the software's configuration interface. In the top navigation bar, 'CONFIGURATION' is selected. Under 'Volume manager', the 'Volume groups' section is active. A red arrow points from the 'Vol. groups' list to the 'Unit manager' table. This table lists two units: 'Unit S001' (selected) and 'Unit S002'. Below the table, an 'Action:' dropdown is set to 'new volume group' and a 'Name:' input field contains 'vg01'. A red arrow points from the 'Name:' field to the 'apply' button. At the bottom of the screen, there is an 'Event Viewer' section and a footer with copyright information.

Unit	Size (GB)	Serial number	Status
Unit S001	1862.95	N/A	in use, vg00
Unit S002	200.00	a7ebc139	available

Action: new volume group
Name: vg01

apply

Please apply changes or press "reload" button to discard

Unit	Serial number	Status
Unit S001	N/A	
Unit S002	a7ebc139	

Event Viewer

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

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Thank You!
