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Step-by-Step Guide to NAS (NFS) Failover over a LAN (with unicast) Supported by Open-E[®] DSS[™]

open-e

ENTERPRISE LEVEL STORAGE OS
for EVERY BUSINESS

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.

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Software Version: DSS ver. 6.00 up65

Presentation updated: March 2011

NAS (NFS) Failover over a LAN

	Replication Mode		Source/Destination			Data Transfer		Volume Type			
	Synchronous	Asynchronous	w/ System	LAN	WAN	File based	Block based	NAS	iSCSI		FC
									File-IO	Block-IO	
NAS (NFS) Failover over a LAN	✓			✓			✓	✓			

- **Open-E DSS NAS (NFS) Failover** is a fault tolerance process via NAS volume replication, that creates mirrored data volumes.
 - Data is copied in real-time, and every change is immediately mirrored from the primary server to the secondary storage server.
 - In case of a failure, scheduled maintenance of the primary server, or loss of the primary data source, failover automatically switches operations to the secondary storage server, so processes can be continued as usual.

VOLUME REPLICATION WITH FAILOVER BETWEEN TWO SYSTEMS WITHIN ONE LAN

■ Recommended Resources

- Key Hardware (two systems)
 - ✓ x86 compatible
 - ✓ RAID Controller with **Battery Backup Unit**
 - ✓ HDD's
 - ✓ Network Interface Cards
 - ✓ Ping Node (ping node is any permanently (24/7) available host in the network. In particular case the ping node function can be performed by the server storing the data on the failover volume).
- Software
 - ✓ Open-E DSS V6, 2 units

■ Benefits

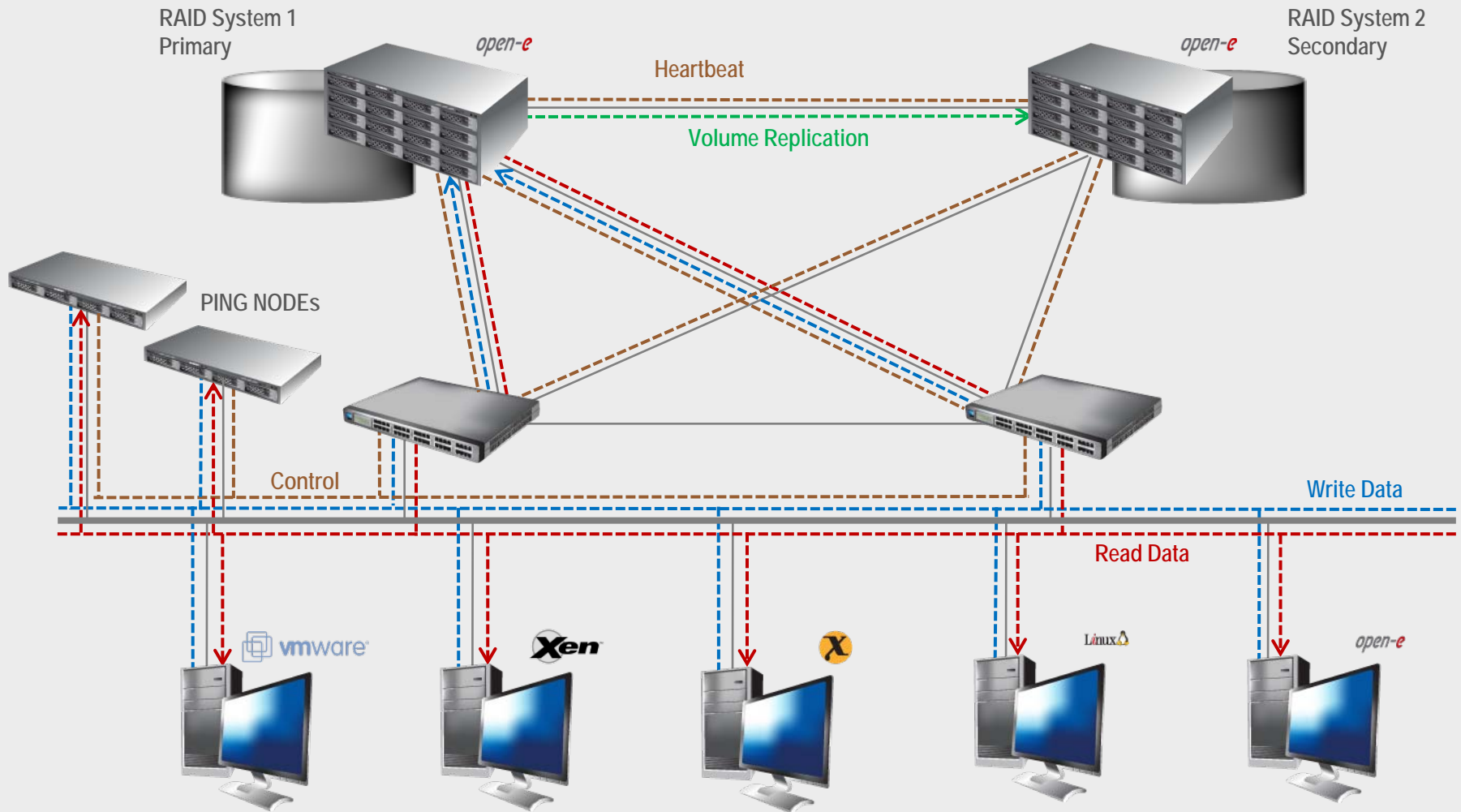
- Eliminate business disruption
- Data Redundancy over a LAN
- Switch Redundancy

■ Disadvantages

- High cost of solution
- Natural disasters (earthquake, fire, flood...) can destroy local systems

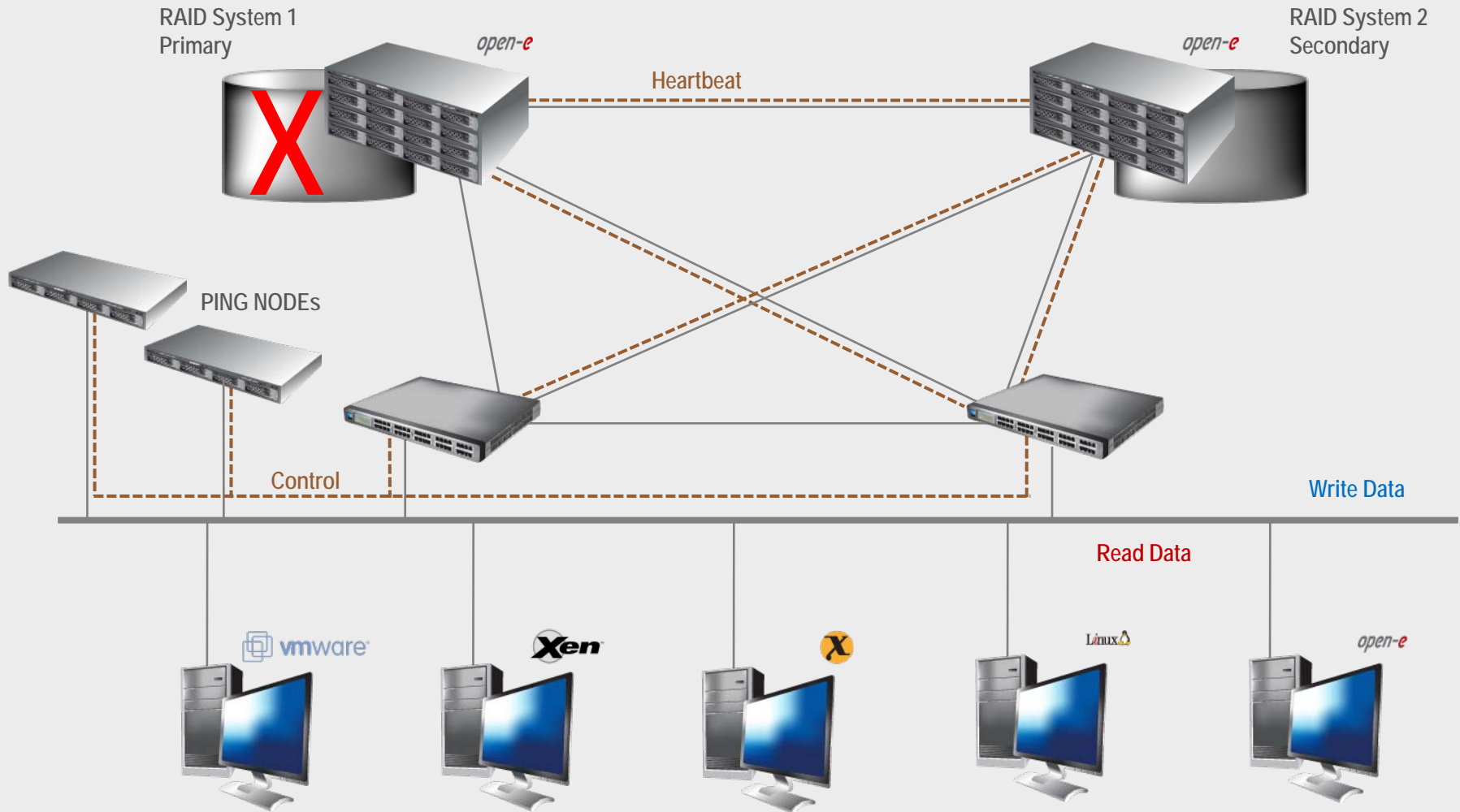
NAS (NFS) Failover over a LAN

- Data is written and read to System 1 (primary)
- Data is continually replicated to System 2 (secondary)



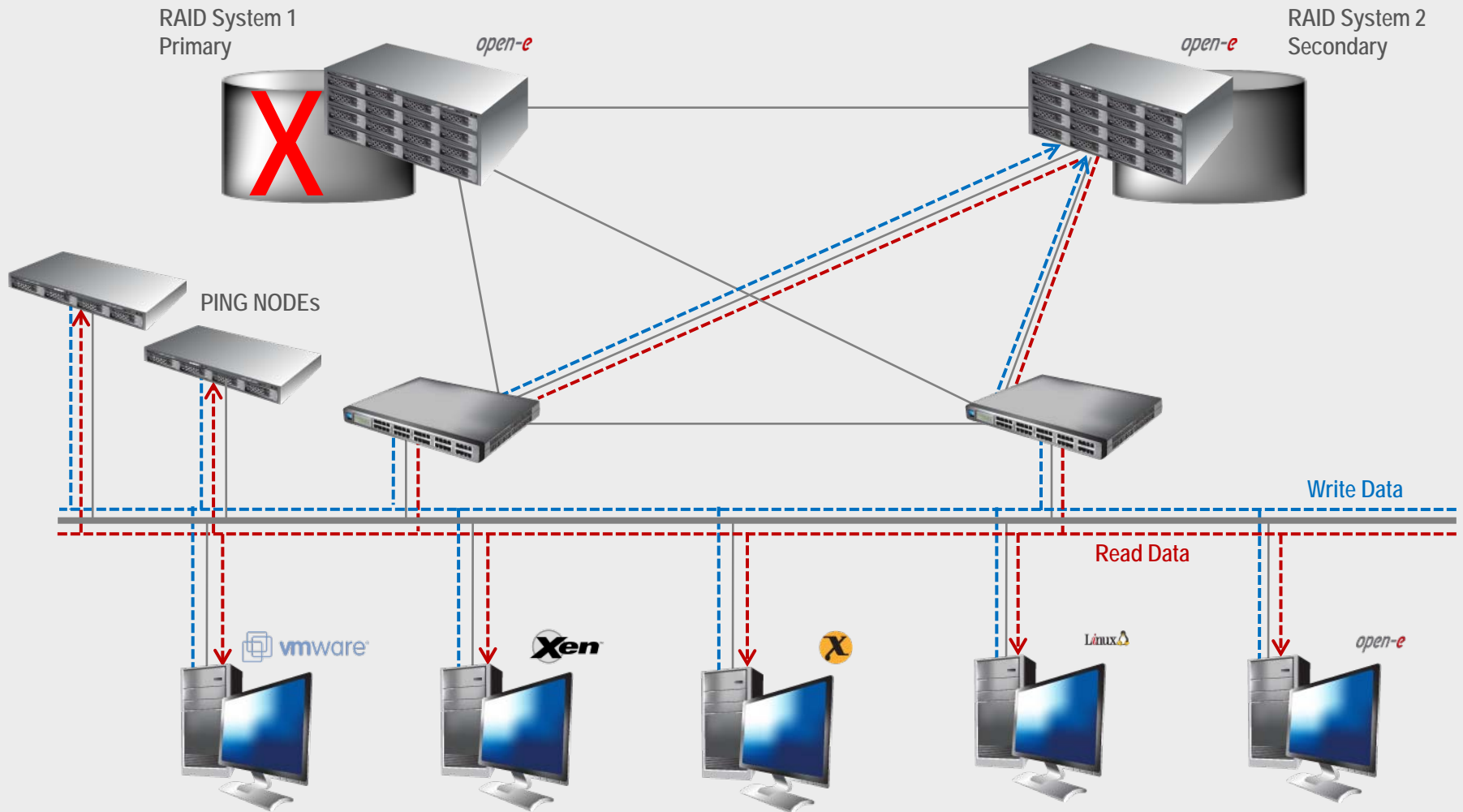
NAS (NFS) Failover over a LAN

- In case system malfunction or power failure or lost network connection of the System1 (primary), the server will send an e-mail Notification to the administrator.
- After a few seconds Automatic Failover is executed and users are switched to System 2 (secondary).



NAS (NFS) Failover over a LAN

- After switching, the replicated volume is available on System 2 (secondary)



TO SET UP NAS (NFS) FAILOVER, PERFORM THE FOLLOWING STEPS:

1. Hardware configuration:
 - Settings server names, ethernet ports and bonding on secondary and primary node
2. Configure the Secondary node:
 - Create a Volume Group, NAS Volume
 - Configure Volume Replication mode (destination mode) – settings mirror IP address
 - NFS settings
3. Configure the Primary node
 - Create a Volume Group, NAS Volume
 - Configure Volume Replication mode (source mode) – settings mirror IP address, creating Volume Replication task and start replication task.
 - NFS settings,
 - Create and settings new share on primary node.
4. Configure Failover (primary and secondary node)
5. Select services used in Failover
6. Configure virtual IP and Auxiliary connection
7. Start Failover Service
8. Test Failover Function
9. Run Failback Function

NAS (NFS) Failover over a LAN

Hardware Requirements:

To run the Volume Replication with Failover, two DSS systems are required. Both servers must be located and working in the Local Area Network. See below configurations for examples:

1. Hardware Configuration

Data Server (DSS1)

Primary node

IP Address:192.168.0.220

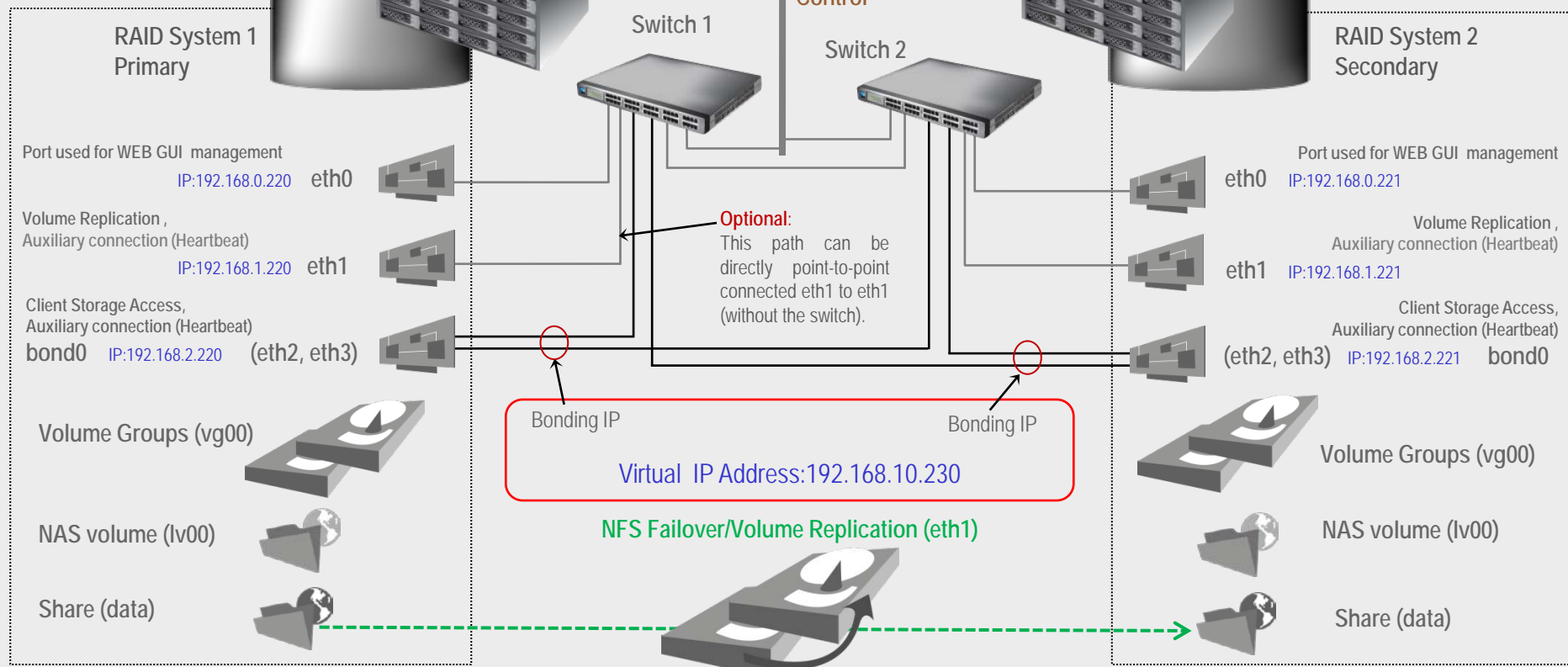
PING NODES

IP Address : 192.168.2.106; 192.168.2.107

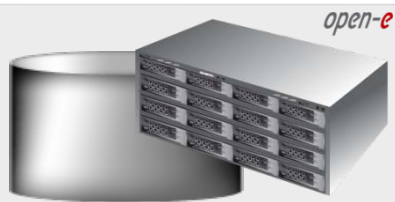
Data Server (DSS2)

Secondary node

IP Address:192.168.0.221



NAS (NFS) Failover over a LAN



Data Server (DSS2)
Secondary node
IP Address:192.168.0.221

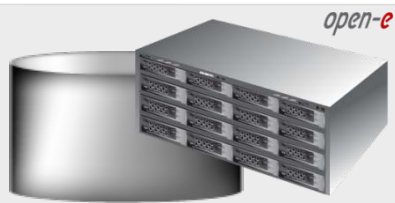
1. Hardware Configuration

After logging on the DSS V6 please go to „**SETUP**“ tab, „**network**“ and „**Interfaces**“. In „**Server name**“ function enter Server name, in this example „**dss2**“ and click **apply** button. (All connections will be restarted)

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: SETUP > network > Interfaces
- Left sidebar: A tree view under 'Interfaces' with radio buttons for eth0, eth1, eth2, and eth3. The 'eth0' option is selected.
- Main content area: A configuration panel for 'Server name' with a text input field containing 'dss2' and a comment field containing 'Data Storage Software'. An 'apply' button is visible below the fields.
- Below the 'Server name' panel: A 'Hostname' panel with an information icon and a warning message: 'Please do not change the hostname unless it is absolutely necessary, as changing the hostname can cause serious issues with several advanced functions (such as Failover). This function requires server restart.' The hostname input field contains 'dssA0000032'.
- Below the 'Hostname' panel: A 'DNS settings' panel with an empty DNS input field and an 'apply' button.
- Footer: Event Viewer: [icon] | Data Storage Software V6 - All rights reserved

NAS (NFS) Failover over a LAN



Data Server (DSS2)
Secondary node
IP Address: 192.168.0.221

1. Hardware Configuration

Next select **eth0** interface and change IP Address from 192.168.0.220 in field IP address to 192.168.0.221, and click **apply** button. (This will restart network configuration).

The screenshot shows the open-e web interface for configuring the eth0 interface. The breadcrumb trail is: You are here: SETUP > network > Interfaces > eth0. The 'Interfaces' tab is active, showing a list of interfaces: eth0 (selected), eth1, eth2, and eth3. The 'Interface info' section shows: Intel Corporation 82557/8/9/0/1 Ethernet Pro 100 (rev 10). The 'IP address' section has a warning: Warning! You are currently connected through this interface. Below the warning, the configuration is set to Static. The IP address field is filled with 192.168.0.221, Netmask is 255.255.255.0, Broadcast is auto, and Gateway is empty. The MAC address is 00:E0:81:58:4F:C5. An 'apply' button is at the bottom right. A footer note says: Please apply changes or press "reload" button to discard. The footer of the interface reads: Event Viewer: [icon] Data Storage Software V6 - All rights reserved.

NAS (NFS) Failover over a LAN



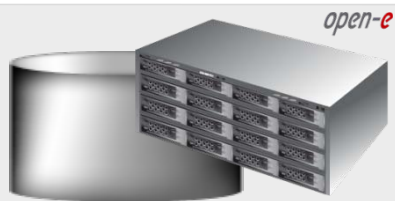
Data Server (DSS2)
Secondary node
IP Address: 192.168.0.221

1. Hardware Configuration

Next select **eth1** interface and change IP address from 192.168.1.220 in field IP address to 192.168.1.221 and click **apply** button.

The screenshot shows the open-e web interface for configuring network interfaces. The breadcrumb trail is: SETUP > network > Interfaces > eth1. The 'Interfaces' section on the left lists eth0, eth1 (selected), eth2, and eth3. The 'Interface info' section shows 'Broadcom Corporation NetXtreme BCM5705 Gigabit Ethernet (rev 03)'. The 'IP address' section has the following settings: Active (checked), MAC: 00:E0:81:58:4F:C3, DHCP (unchecked), Static (selected), IP address: 192.168.1.221, Netmask: 255.255.255.0, Broadcast: auto, and Gateway: (empty). An 'apply' button is at the bottom right of the IP address section. A blue note box with arrows points to the 'eth1' interface and the IP address field. At the bottom of the interface, there is an 'Event Viewer' icon and a footer: 'Data Storage Software V6 - All rights reserved'.

NAS (NFS) Failover over a LAN



Data Server (DSS2)
Secondary node
IP Address:192.168.0.221

1. Hardware Configuration

Again select „Interfaces” and in **Create new bond interface** function check two boxes with eth2 and eth3. In field **Create** select bonding mode. In this example select **New balance-rr**.

Next enter IP Address in field **Address IP** 192.168 .221, **Netmask**, and click **create** button.

Primary	Interface	Active	Cable	State
<input type="checkbox"/>	eth0	yes	cable	Single
<input type="checkbox"/>	eth1	yes	no cable	Single
<input checked="" type="checkbox"/>	eth2	yes	cable	Single
<input checked="" type="checkbox"/>	eth3	yes	cable	Single

Create:

MAC:

DHCP

Static

Address IP:

Netmask:

Broadcast:

Gateway:

Please apply changes or press "reload" button to discard

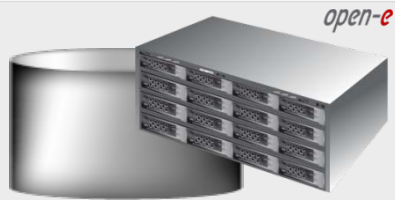
HTTP proxy

Use HTTP proxy

Event Viewer:

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NAS (NFS) Failover over a LAN



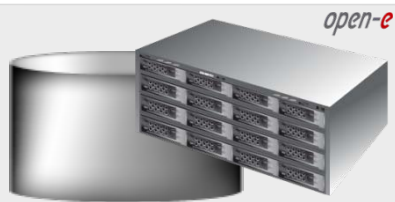
Data Server (DSS2)
Secondary node
IP Address:192.168.0.221

1. Hardware Configuration

After reloading page on the dss2 server you have configured **bond0**. Setting of the network interfaces on the secondary node is finished.

The screenshot shows the open-e web interface for a secondary node. The top navigation bar includes 'SETUP', 'CONFIGURATION', 'MAINTENANCE', 'STATUS', and 'HELP'. The current page is 'Interfaces'. On the left, there are two panels: 'Interfaces' and 'Failover'. The 'Interfaces' panel shows a list of network interfaces: eth0, eth1, eth2 (bond0), eth3 (bond0), and bond0. The 'Failover' panel shows eth0, eth1, and bond0. On the right, there are three configuration sections: 'Server name' (with fields for 'Server name' and 'Comment'), 'Hostname' (with an 'Info' box and a 'Hostname' field), and 'DNS settings' (with a 'DNS' field). Each section has an 'apply' button. The footer of the interface shows 'Event Viewer' and 'Data Storage Software V6 - All rights reserved'.

NAS (NFS) Failover over a LAN



Data Server (DSS1)
Primary node
IP Address:192.168.0.220

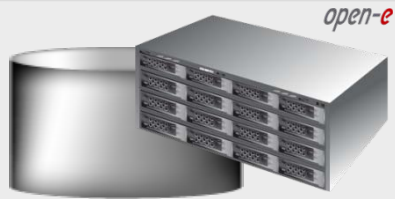
1. Hardware Configuration

After logging on the primary node please go to „**SETUP**“ tab, „**network**“ and „**Interfaces**“. In „**Server name**“ function enter Server name. In this example enter **dss1** and click **apply** button. (All connection will be restarted).

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: SETUP > network > Interfaces
- Left Panel: A tree view showing 'Interfaces' and 'Failover' sections, each containing a list of network interfaces: eth0, eth1, eth2, and eth3.
- Main Content Area: Configuration panels for 'Server name', 'Hostname', and 'DNS settings'.
 - Server name:** Server name: dss1; Comment: Data Storage Software; apply button.
 - Hostname:** Info: Please do not change the hostname unless it is absolutely necessary, as changing the hostname can cause serious issues with several advanced functions (such as iSCSI failover). This function requires server restart. Hostname: dssA0000031; apply button.
 - DNS settings:** DNS: [empty field]; apply button.
- Footer: Event Viewer: [icon]; Data Storage Software V6 - All rights reserved

NAS (NFS) Failover over a LAN



Data Server (DSS1)
Primary node
IP Address:192.168.0.220

1. Hardware Configuration

Again select „Interfaces” and in Create new bond interface function check two boxes with eth2 and eth3. In field Create select mode for bonding. In this example selected New balance-rr..

Next enter IP Address in field Address IP 192.168 .2.220, Netmask, and click create button.

The screenshot shows the open-e web interface for configuring network interfaces. The breadcrumb trail is "You are here: SETUP > network > Interfaces".

Interfaces Panel: Lists eth0, eth1, eth2, and eth3. Arrows point from the text boxes to eth2 and eth3.

Create new bond interface Panel: Contains a table and configuration fields.

Primary	Interface	Active	Cable	State
<input type="checkbox"/>	eth0	yes	cable	Single
<input type="checkbox"/>	eth1	yes	cable	Single
<input checked="" type="checkbox"/>	eth2	yes	cable	Single
<input checked="" type="checkbox"/>	eth3	yes	cable	Single

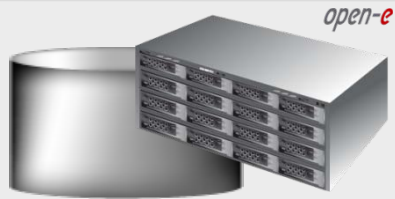
Configuration fields:

- Create: New balance-rr
- MAC: 02:D4:08:31:EB:87
- Static selected, DHCP unselected
- Address IP: 192.168.2.220
- Netmask: 255.255.255.0
- Broadcast: (empty)
- Gateway: (empty)
- create button

HTTP proxy Panel: Use HTTP proxy checkbox is unselected, apply button.

Footer: Data Storage Software V6 - All rights reserved

NAS (NFS) Failover over a LAN



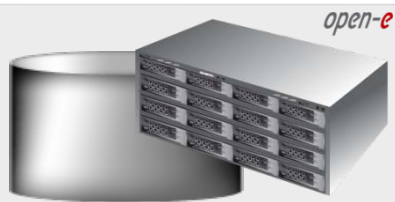
Data Server (DSS1)
Primary node
IP Address:192.168.0.220

1. Hardware Configuration

After reloading page on the dss1 server you have configured **bond0**. Setting of the network interfaces on the secondary node is finished.

The screenshot shows the open-e web interface for the primary node. The top navigation bar includes 'SETUP', 'CONFIGURATION', 'MAINTENANCE', 'STATUS', and 'HELP'. The current page is 'Interfaces' under the 'network' section. On the left, there are two panels: 'Interfaces' and 'Failover'. The 'Interfaces' panel lists 'eth0', 'eth1', 'eth2 (bond0)', 'eth3 (bond0)', and 'bond0'. The 'Failover' panel lists 'eth0', 'eth1', and 'bond0'. The main content area has three configuration sections: 'Server name' (with 'dss1' in the input field), 'Hostname' (with 'dssA0000031' in the input field and an info message about changing hostnames), and 'DNS settings' (with an empty input field). Each section has an 'apply' button. The footer shows 'Event Viewer' and 'Data Storage Software V6 - All rights reserved'.

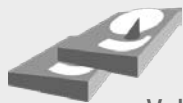
NAS (NFS) Failover over a LAN



Data Server (DSS2)
Secondary node
IP Address:192.168.0.221

2. Configure the Secondary node

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



Volume Groups (vg00)

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

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SETUP | CONFIGURATION | MAINTENANCE | STATUS | HELP

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

Vol. groups

Unit rescan

rescan

Unit manager

Unit	Size (GB)	Serial number	Status
<input checked="" type="checkbox"/> Unit MDO	298.10	N/A	available

Action: new volume group
Name: vg00

apply

Please apply changes or press "reload" button to discard

Vol. replication

Drive identifier

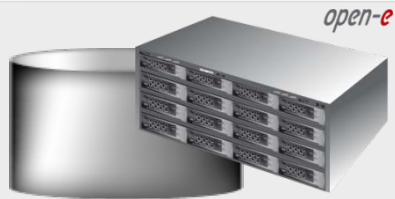
Unit	Serial number	Status
<input type="checkbox"/> Unit S000	9SY0QWBT	
<input type="checkbox"/> Unit S001	9RA6VDG3	

apply

Event Viewer: [icon]

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NAS (NFS) Failover over a LAN



Data Server (DSS2)
Secondary node
IP Address:192.168.0.221

2. Configure the Secondary node

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 will be the destination of the replication process.

Next check the box with **Use volume replication**

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 a secondary node. The breadcrumb path is: CONFIGURATION > volume manager > Vol. groups > vg00. The 'Vol. groups' panel on the left shows 'vg00' selected. The 'Vol. replication' panel below it has the 'Use volume replication' checkbox checked. The 'Volume manager' panel on the right shows a table of system volumes and a configuration area for a new NAS volume.

System volumes	Size (GB)
SWAP	4.00
Reserved for snapshots	0.00
Reserved for system	4.00
Reserved for replication	0.00
Free	290.06

Action: new NAS volume

Use volume replication
 WORM

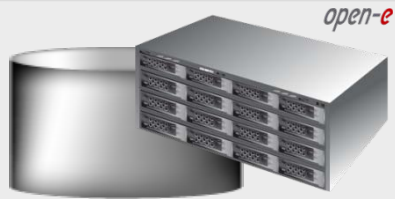
0 290.06

add: 100 GB (+0.12 GB for replication)

apply

Please apply changes or press "reload" button to discard

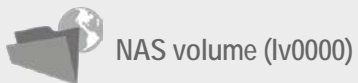
NAS (NFS) Failover over a LAN



Data Server (DSS2)
Secondary node
IP Address:192.168.0.221

2. Configure the Secondary node

The destination NAS Volume 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			✓		N/A	100.00
System volumes						Size (GB)
SWAP						4.00
Reserved for snapshots						0.00
Reserved for system						4.00
Reserved for replication						0.13
Free						189.94

Action: new NAS volume

Use volume replication
 WORM

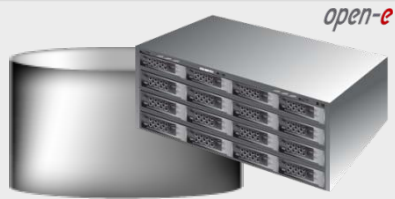
add: 0.00 GB

apply

Event Viewer: [icon]

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NAS (NFS) Failover over a LAN



Data Server (DSS2)
Secondary node
IP Address: 192.168.0.221

2. Configure the Secondary node

Now, select the Vol. replication and check the box under **Destination** and click the **apply** button

Next, under **Mirror Server IP** function, enter the IP address of the Primary node (in our example, this would be 192.168.1.220) and click the **apply** button

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SETUP | CONFIGURATION | MAINTENANCE | STATUS | HELP

You are here: CONFIGURATION > volume manager > Vol. replication

Vol. groups

- vg00

Vol. replication

Logical Volume	Init	Source	Destination	Clear metadata
lv0000	done	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

apply

Please apply changes or press "reload" button to discard

Mirror server IP

IP address: 192.168.1.220

WAN

apply

Please apply changes or press "reload" button to discard

Create new volume replication task

Info

Mirror Server IP is not set.

Replication tasks manager

Event Viewer: [icon]

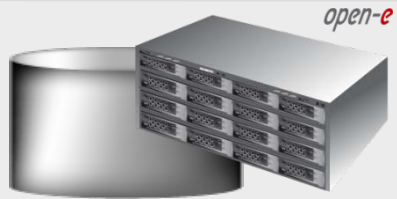
Data Storage Software V6 - All rights reserved

NOTE:

The Mirror server IP Address must be on the same subnet in order for the replication to communicate. VPN connections can work if you are not using a NAT. Please follow example:

- Source: 192.168.1.220
- Destination: 192.168.1.221

NAS (NFS) Failover over a LAN



Data Server (DSS2)
Secondary node
IP Address:192.168.0.221

2. Configure the Secondary node

Choose „CONFIGURATION“, and „NAS settings“ from the menu on the secondary node

In the NAS settings function, check the box Use NFS, click **apply** to confirm.

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SETUP | CONFIGURATION | MAINTENANCE | STATUS | HELP

You are here: CONFIGURATION > NAS settings

- Workgroup (external LDAP)
- Windows (PDC)
- Windows (ADS)
- Workgroup (NIS Server)

Workgroup: WORKGROUP

Show advanced >>

apply

NFS settings

Use NFS

apply

Please apply changes or press "reload" button to discard

FTP settings

Use FTP

apply

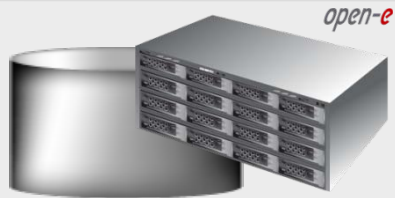
AppleTalk (AFP) settings

Use AppleTalk (AFP)

Event Viewer: [icon]

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NAS (NFS) Failover over a LAN

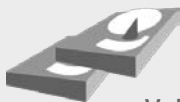


Data Server (DSS1)
Primary node
IP Address:192.168.0.220

3. Configure the Primary node

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

Add the selected physical units (Unit MD0 or other) to create a new volume group (in this case, vg00) and click **apply** button



Volume Groups (vg00)

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

Unit	Size (GB)	Serial number	Status
<input checked="" type="checkbox"/> Unit S001	465.70	N/A	available

Action: new volume group
Name: vg00

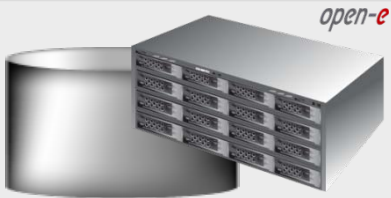
apply button

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

Unit	Serial number	Status
<input type="checkbox"/> Unit S001	N/A	

apply button

NAS (NFS) Failover over a LAN



Data Server (DSS1)
Primary node
IP Address:192.168.0.220

3. Configure the Primary node

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 will be the source of the replication process

Next , check box **Use volume replication**

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 a new NAS volume. The breadcrumb trail is: CONFIGURATION > volume manager > Vol. groups > vg00. The 'Vol. groups' panel on the left shows 'vg00' selected. The 'Vol. replication' panel below it has 'Use volume replication' checked. The 'Volume manager' panel on the right shows a table of system volumes and a slider for the new volume size.

System volumes	Size (GB)
SWAP	4.00
Reserved for snapshots	0.00
Reserved for system	4.00
Reserved for replication	0.00
Free	457.66

Action: new NAS volume

Use volume replication
 WORM

Slider: 0 to 457.66 GB. Input: 100 GB (+0.12 GB for replication)

apply

Please apply changes or press "reload" button to discard

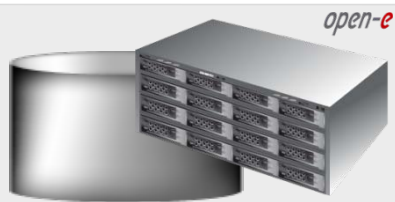
Snapshot definition

Event Viewer: [icon]

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NOTE:
The source and destination volumes must be of identical size.

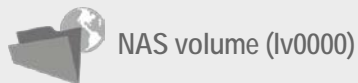
NAS (NFS) Failover over a LAN



Data Server (DSS1)
Primary node
IP Address: 192.168.0.220

3. Configure the Primary node

The source NAS Volume is now configured.

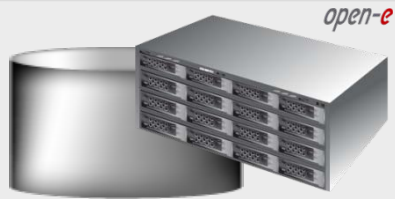


The screenshot shows the open-e web interface for configuring a logical volume. The breadcrumb trail is: CONFIGURATION > volume manager > Vol. groups > vg00. The 'Volume manager' section displays a table of logical volumes and system volumes.

Logical Volume	Type	Snap.	Rep.	Init.	Blocksize (bytes)	Size (GB)
lv0000			✓		N/A	100.00
System volumes						
						Size (GB)
SWAP						4.00
Reserved for snapshots						0.00
Reserved for system						4.00
Reserved for replication						0.13
Free						357.53

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 progress bar shows the current size (0 GB) relative to the total free space (357.53 GB). An 'add:' field is set to '0.00 GB'. An 'apply' button is located at the bottom right.

NAS (NFS) Failover over a LAN



Data Server (DSS1)
Primary node
IP Address:192.168.0.220

3. Configure the Primary node

Now, select Vol. replication, and check the box under **Source** and click the **apply** button

Next , under **Mirror Server IP** function, enter the IP address of the Secondary node (in our example this would be 192.168.1.221) 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: CONFIGURATION > volume manager > Vol. replication

Vol. groups

- vg00

Vol. replication

Logical Volume	Init	Source	Destination	Clear metadata
lv0000	done	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

apply

Mirror server IP

IP address: 192.168.1.221

WAN

apply

Please apply changes or press "reload" button to discard

Create new volume replication task

Info: Mirror Server IP is not set.

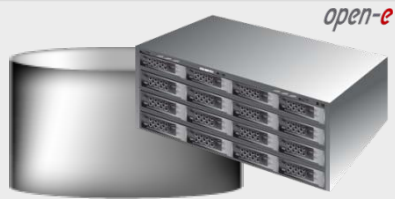
Replication tasks manager

Info

Event Viewer: [icon]


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NAS (NFS) Failover over a LAN



Data Server (DSS1)
Primary node
IP Address:192.168.0.220

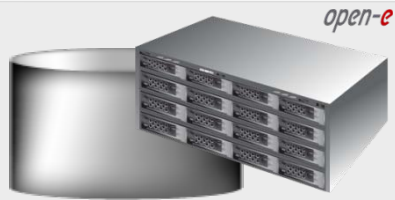
3. Configure the Primary node

Enter the task name in field **Task name** next click on the button 

In the **Destination volume** field select the appropriate volume (in this example, lv0000) and click **create** to confirm


The screenshot shows the open-e web interface for configuring volume replication. The breadcrumb trail is: CONFIGURATION > volume manager > Vol. replication. The left sidebar shows 'Vol. groups' with 'vg00' and 'Vol. replication'. The main content area has three panels: 'Mirror server IP' with 'IP address: 192.168.1.221' and a checkbox for 'WAN'; 'Create new volume replication task' with fields for 'Task name: MirrorTask', 'Source volume: lv0000', 'Destination volume: lv0000', and 'Bandwidth for SyncSource (MB): 40', plus a 'create' button; and 'Replication tasks manager' showing 'No tasks have been found.'.

NAS (NFS) Failover over a LAN






Data Server (DSS1)
Primary node
IP Address:192.168.0.220

3. Configure the Primary node

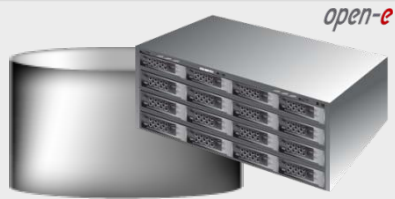
Now, in the **Replication task manager** function, click on  button under to start the Replication task on the Primary node

The screenshot shows the open-e web interface for configuring a replication task. The breadcrumb trail is: You are here: CONFIGURATION > volume manager > Vol. replication. The left sidebar shows a tree view with 'Vol. groups' containing 'vg00' and 'Vol. replication' containing 'MirrorTask'. The main content area has several sections: 1. An 'apply' button. 2. 'Mirror server IP' section with 'IP address:' set to '192.168.1.221' and a 'WAN' checkbox. 3. 'Create new volume replication task' section with an 'Info' message: 'No volumes with replication functionality found or all volumes have a task assigned already.' 4. 'Replication tasks manager' section with a table:

Name	Start time	Action
MirrorTask	n/a	  

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

NAS (NFS) Failover over a LAN



Data Server (DSS1)
Primary node
IP Address: 192.168.0.220

3. Configure the Primary node

In the Replication tasks manager function information is available about the current running replication 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: CONFIGURATION > volume manager > Vol. replication
- Left Panel: Vol. groups (vg00) and Vol. replication (MirrorTask)
- Main Panel: Mirror server IP configuration with IP address 192.168.1.221 and WAN checkbox. Below it is a message box: "Info: No volumes with replication functionality found or all volumes have a task assigned already."
- Bottom Panel: Replication tasks manager table showing a running task named MirrorTask.

Name	Start time	Action
MirrorTask	2011-02-22 23:39:14	
Source volume:	lv0000	
Destination volume:	lv0000	
Destination IP:	192.168.1.221	
Protocol type:	Synchronous	


NAS (NFS) Failover over a LAN



Data Server (DSS1)
Primary node
IP Address:192.168.0.220

3. Configure the Primary node

Under the „STATUS” tab,
select „tasks” and Volume
Replication

Click on the  button with
task name (in this case
MirrorTask) to display detailed
information on the current
replication task

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

SETUP | CONFIGURATION | MAINTENANCE | STATUS | HELP

You are here: STATUS > tasks > Volume Replication

Tasks

- Backup
- Restore from backup
- Data Replication
- Antivirus
- Volume Replication**
- Snapshots

Running tasks

Name	Type	Start time
MirrorTask	Volume replication	2011-02-22 23:39:14


Protocol type: Synchronous
Connection: Connected

Source info:
Logical volume: lv0000
Consistency: Consistent

Destination info:
Logical volume: lv0000
Consistency: Consistent
IP address: 192.168.1.221

Tasks log

Time	Name	Type	Status	Action
2011-02-22 23:39:20	MirrorTask	Volume replication	OK	Started

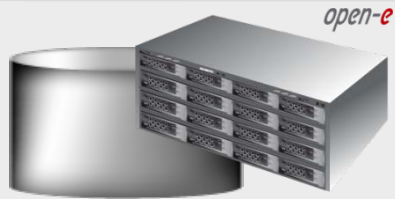
Event Viewer: 

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NOTE:

Please allow the replication task to complete similar to above with status being "Consistent" before writing to the NAS Logical Volume via NFS.

NAS (NFS) Failover over a LAN



Data Server (DSS1)
Primary node
IP Address:192.168.0.220

3. Configure the Primary node

Choose „CONFIGURATION“, and „NAS settings“ from the menu

In the NAS settings function, check the box Use NFS, click **apply** to confirm.

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

SETUP | CONFIGURATION | MAINTENANCE | STATUS | HELP

You are here: CONFIGURATION > NAS settings

Authentication method

- Workgroup (internal LDAP)
- Workgroup (external LDAP)
- Windows (PDC)
- Windows (ADS)
- Workgroup (NIS Server)

Workgroup:

Show advanced >>

apply

NFS settings

Use NFS

apply

Please apply changes or press "reload" button to discard

FTP settings

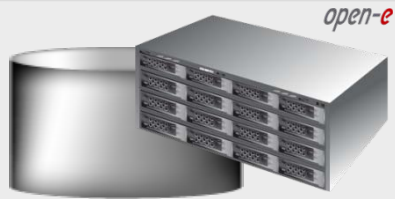
Use FTP

apply

Event Viewer: [icon]

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NAS (NFS) Failover over a LAN



Data Server (DSS1)
Primary node
IP Address:192.168.0.220

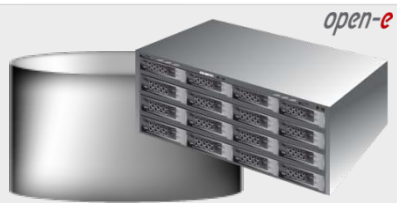
3. Configure the Primary node

Next, choose „CONFIGURATION”, „NAS resources” and „Shares” from the menu.

Enter share name in field „Name” and click **apply** to confirm.

The screenshot shows the open-e web interface for configuring a share. The navigation menu at the top includes 'SETUP', 'CONFIGURATION', 'MAINTENANCE', 'STATUS', and 'HELP'. The breadcrumb trail indicates the current location: 'You are here: CONFIGURATION > NAS resources > Shares'. The main content area is divided into three sections: 'Shares', 'Users', and 'Groups'. The 'Shares' section is active, showing a 'Create new share' form. The form has the following fields: 'Name' (set to 'Data'), 'Comment' (empty), 'Default path' (set to '/lv0000/Data'), and 'Specified path' (set to '/'). An 'apply' button is located at the bottom right of the form. Below the form is an 'ACL (Access control list)' section with a 'Browser' tab and a file list showing 'lv0000'. The footer of the interface includes 'Event Viewer:' and 'Data Storage Software V6 - All rights reserved'.

NAS (NFS) Failover over a LAN



Data Server (DSS1)
Primary node
IP Address:192.168.0.220

3. Configure the Primary node

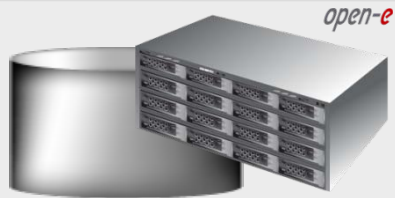
In the NFS share access function, check the box Use NFS, and click **apply** to confirm.

The screenshot shows the open-e web interface for configuring NFS share access. The breadcrumb trail indicates the path: CONFIGURATION > NAS resources > Shares > Data. The left sidebar shows a tree view with 'Shares' expanded to '1. Data'. The main content area is titled 'NFS share access' and contains the following configuration options:

- Use NFS
- Allow access IP: [text input]
- Allow write IP: [text input]
- Insecure
- Synchronous
- Insecure locks
- All squash
- No root squash
- Show advanced >>

An 'apply' button is located at the bottom right of the configuration panel. Below the configuration panel, there is an 'HTTP share access' section with an 'Info' message: 'Please enable "HTTP share browser" in CONFIGURATION -> NAS settings -> Function "HTTP share access setup" to use this option!'. At the bottom of the interface, there is a 'Data replication agent settings' section and an 'Event Viewer' icon.

NAS (NFS) Failover over a LAN



Data Server (DSS1)
Primary node
IP Address:192.168.0.220

4. Configure Failover

Next choose „**SETUP**“, „**network**“, end select **Failover** on the primary node.

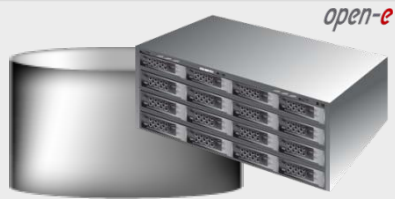
In the **Failover configuration** function, check the box **Enable Failover functionality**. Select **Network connection mode** (in this example **Unicast**) and select **Network interface for unicast** (**bond0**). Next enter the **Secondary node IP** and the **Ping Node IP** (must be on the same subnet) 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
- Breadcrumbs: You are here: SETUP > network > Failover
- Left Panel: Interfaces (eth0, eth1, eth2 (bond0), eth3 (bond0), bond0) and Failover (eth0, eth1, bond0)
- Main Content:
 - Failover status**: Info - Failover statistics are unavailable due to the Failover service being disabled. Please go to Failover Configuration to enable it.
 - Failover configuration**:
 - Enable Failover functionality
 - Network connection mode: Unicast
 - Network interface for unicast: bond0 » 192.168.2.220
 - Primary node on localhost
 - Secondary node IP: 192.168.2.221
 - Ping node IP(s): 192.168.2.106;192.168.2.10
 - Show advanced >>
 - Secondary node on localhost
 - Primary node IP: [empty]
 - Show advanced >>
 - apply button
 - Please apply changes or press "reload" button to discard
 - Failover services**

- Footer: Event Viewer: [icon] | Data Storage Software V6 - All rights reserved

NAS (NFS) Failover over a LAN



Data Server (DSS2)
Secondary node
IP Address:192.168.0.221

4. Configure Failover

Now, select Failover on the secondary node

Now, in **Failover configuration** function, check the box **Enable Failover functionality**. Select **Network connection mode** (in this example **Unicast**) and select **Network interface for unicast** (bond0). After choose **Secondary node on localhost** enter **Primary node IP** address 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: SETUP > network > Failover

Interfaces

- eth0
- eth1
- eth2 (bond0)
- eth3 (bond0)
- bond0

Failover status

Info

Failover statistics are unavailable due to the Failover service being disabled. Please go to Failover Configuration to enable it.

Failover configuration

Enable Failover functionality

Network connection mode: Unicast

Network interface for unicast: bond0 >> 192.168.2.221

Primary node on localhost

Secondary node IP: []

Ping node IP(s): []

Show advanced >>

Secondary node on localhost

Primary node IP: 192.168.2.220

Show advanced >>

apply

Please apply changes or press "reload" button to discard

Failover services

Event Viewer: []

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NAS (NFS) Failover over a LAN



Data Server (DSS1)
Primary node
IP Address:192.168.0.220

5. Configure Virtual IP and Auxiliary connection

Now, select the **bond0** within **Failover**. In the **Virtual IP Settings** function check box **Enable virtual IP** and enter IP address, Netmask, Broadcast, and click the **apply** button.

By setting the address of the secondary node in a **Failover configuration**, automatic detection of the interface for communication. This step is necessary to complement the destination IP address used in unicast.

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

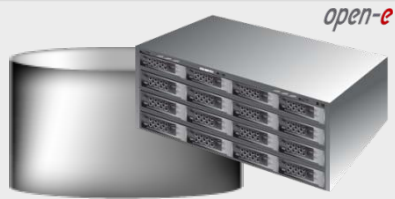
- Interfaces:** A list of network interfaces including eth0, eth1, eth2 (bond0), eth3 (bond0), and bond0. The bond0 interface is selected.
- Failover:** A list of network interfaces including eth0, eth1, and bond0. The bond0 interface is selected.
- Virtual IP Settings:** A panel where the "Enable virtual IP" checkbox is checked. The IP address is set to 192.168.10.230, the Netmask to 255.255.255.0, and the Broadcast to 192.168.10.255. An "apply" button is visible at the bottom.
- Auxiliary connection:** A panel where the checkbox "Use this network interface to communicate between the nodes" is checked. The Unicast remote IP is set to 192.168.2.221. An "apply" button is visible at the bottom.

Blue arrows point from the text boxes on the left to the corresponding configuration fields in the screenshot.

NOTE:

There need to be at least two *auxiliary connections*. The interface with the virtual IP can also serve as one of the auxiliary connections. Please set the Virtual IP Address in a different network subnet then the physical IP Address. To have additional Failover systems, please set this pair in a different network subnet from the other Failover systems. If the virtual IP must be in the same network subnet, there will be extra configuration steps required. Please refer to other document which describe configuration with static routing.

NAS (NFS) Failover over a LAN



Data Server (DSS1)
Primary node
IP Address:192.168.0.220

5. Configure Virtual IP and Auxillary connection

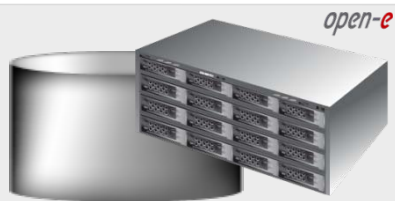
Now, select the eth1 within Failover.
In the Auxiliary connection function check box Use this network interface to communicate between the nodes next enter IP address for Unicast remote IP and click the apply button.

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

- Navigation:** SETUP, CONFIGURATION, MAINTENANCE, STATUS, HELP. Breadcrumbs: You are here: SETUP > network > Failover.
- Interfaces:** eth0, eth1, eth2 (bond0), eth3 (bond0), bond0.
- Failover:** eth0, eth1 (selected), bond0.
- Virtual IP Settings:** Info: Virtual IP must be set in different subnetwork than physical IP on this machine and must be in different subnetwork than Virtual IP sets on other machines in the same network area configured also as failover. MAC: 00:15:17:18:e7:f5. Enable virtual IP. **apply** button.
- Auxiliary connection:** Use this network interface to communicate between the nodes. Unicast remote IP: 192.168.1.221. **apply** button.

Event Viewer: [icon] Data Storage Software V6 - All rights reserved

NAS (NFS) Failover over a LAN



Data Server (DSS2)
Secondary node
IP Address:192.168.0.221

5. Configure Virtual IP and Auxillary connection

Choose, „**SETUP**“ and „**network**“ and „**Interfaces**“ from the menu

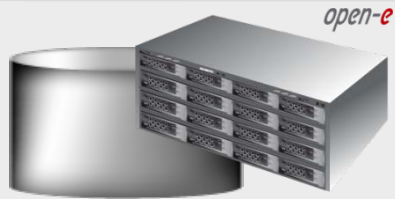
Now, select the **bond0** within **Failover**. In the **Virtual IP Settings** function check the box **Enable virtual IP** and enter **IP address, Netmask, Broadcast**, and click the **apply** button.

By setting the address of the primary node in a **Failover configuration**, automatic detection of the interface for communication. This step is necessary to complement the destination IP address used in unicast.

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

- Navigation:** The user is in the **Interfaces** section, where **bond0** is selected.
- Virtual IP Settings:**
 - Info:** Virtual IP must be set in different subnetwork than physical IP on this machine and must be in different subnetwork than Virtual IP sets on other machines in the same network area configured also as failover.
 - MAC:** 02:bd:77:64:5f:96
 - Enable virtual IP**
 - IP address:** 192.168.10.230
 - Netmask:** 255.255.255.0
 - Broadcast:** 192.168.10.255
 - apply** button
- Failover:** **bond0** is selected.
- Auxiliary connection:**
 - Use this network interface to communicate between the nodes.**
 - Unicast remote IP:** 192.168.2.220
 - apply** button

NAS (NFS) Failover over a LAN



Data Server (DSS2)
Secondary node
IP Address:192.168.0.221

5. Configure Virtual IP and Auxillary connection

Now, select the eth1 within Failover.
In the Auxiliary connection function check box Use this network interface to communicate between the nodes next enter IP address for Unicast remote IP and click the **apply** button.

The screenshot shows the open-e web interface for configuring network settings. The top navigation bar includes 'SETUP', 'CONFIGURATION', 'MAINTENANCE', 'STATUS', and 'HELP'. The current page is 'Failover' under 'network'. The 'Interfaces' section lists eth0, eth1, eth2 (bond0), eth3 (bond0), and bond0. The 'Failover' section lists eth0, eth1, and bond0. The 'Virtual IP Settings' section shows an info message, MAC address 00:e0:81:58:4f:c3, and an unchecked 'Enable virtual IP' checkbox. The 'Auxiliary connection' section has a checked checkbox 'Use this network interface to communicate between the nodes' and a text input field for 'Unicast remote IP' containing '192.168.1.220'. Arrows from the blue text box point to the 'eth1' selection in the 'Failover' section and the 'Unicast remote IP' field.

NAS (NFS) Failover over a LAN



Data Server (DSS1)
Primary node
IP Address:192.168.0.220

6. Select services used in Failover

Now, in Failover services function (on primary node), uncheck the box with iSCSI, then check box with NFS, and click the **apply** button

The screenshot shows the open-e web interface for configuring failover services. The top navigation bar includes 'SETUP', 'CONFIGURATION', 'MAINTENANCE', 'STATUS', and 'HELP'. The breadcrumb trail indicates the current location: 'You are here: SETUP > network > Failover'. The main content area is divided into several sections:

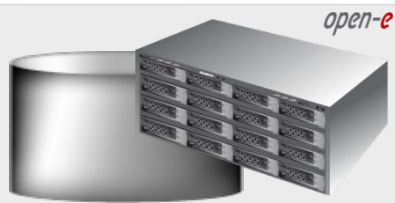
- Interfaces:** A list of network interfaces with radio buttons: eth0, eth1, eth2 (bond0), eth3 (bond0), and bond0.
- Failover:** A list of network interfaces with radio buttons: eth0, eth1, and bond0.
- Primary node IP:** A text input field with the value '192.168.0.220' and a 'Show advanced >>' link. An 'apply' button is located to the right.
- Failover services:** A section with a title bar containing refresh, back, and help icons. It contains the text 'Please select services used in Failover:' followed by two checkboxes: 'NFS' (checked) and 'iSCSI' (unchecked). There is a 'Show advanced >>' link and an 'apply' button. A note at the bottom says 'Please apply changes or press "reload" button to discard'.
- Failover Tasks:** A section with a title bar containing refresh, back, and help icons. It has a 'Tasks' label and a search input field.

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

NOTE:


Selecting NFS in Failover service will reduce the access to shares on volumes used in Failover Tasks to NFS access only. Activating Failover Service will automatically deactivate all other services for those shares.

NAS (NFS) Failover over a LAN



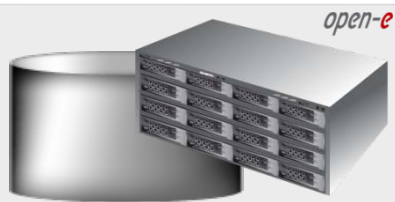
Data Server (DSS1)
Primary node
IP Address:192.168.0.220

7. Start Failover Service

Next, in the **Failover Tasks** function, move the Failover Tasks to be used for the failover service to the Failover Tasks area clicking  button and click **apply**

The screenshot shows the open-e web interface for configuring failover. The top navigation bar includes 'SETUP', 'CONFIGURATION', 'MAINTENANCE', 'STATUS', and 'HELP'. The current page is 'Failover' under 'network'. The 'Interfaces' section lists network interfaces: eth0, eth1, eth2 (bond0), eth3 (bond0), and bond0. The 'Failover' section lists failover interfaces: eth0, eth1, and bond0. The 'Failover Tasks' section shows a list of tasks with search filters and an 'apply' button. A blue arrow points from the text box to the arrow button in the Failover Tasks section.

NAS (NFS) Failover over a LAN

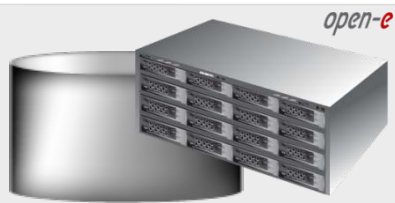


Data Server (DSS1)
Primary node
IP Address:192.168.0.220

7. Start Failover Service

At this point both nodes are ready to start the Failover service

NAS (NFS) Failover over a LAN



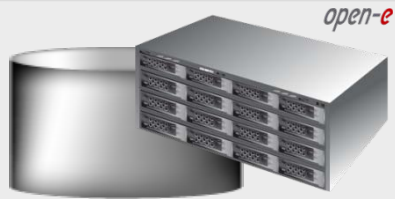
Data Server (DSS1)
Primary node
IP Address:192.168.0.220

7. Start Failover Service

After clicking the **start** button configuration of both nodes will be complete

NOTE:
You can now mount the NFS client computers.

NAS (NFS) Failover over a LAN

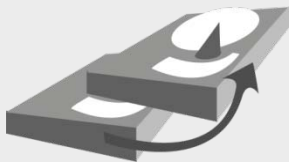


Data Server (DSS1)
Primary node
IP Address:192.168.0.220

7. Start Failover Service

After start Failover, check the status in Failover status function. All must read OK

NAS Failover/Volume Replication



Names	Status
Global status	
Service running	ok
Node status	primary/active
Ping node group status	ok
Individual ping node status:	
IP: 192.168.2.107	ok
IP: 192.168.2.106	ok
Failover services:	
iSCSI	off
NFS	on
Communication via:	
bond0	ok
eth1	ok
Task status	
[NAS] MirrorTask	running
[COMMON] failover_data	running

NAS (NFS) Failover over a LAN



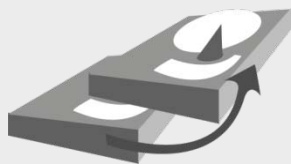
Data Server (DSS1)
Primary node
IP Address:192.168.0.220

7. Start Failover Service

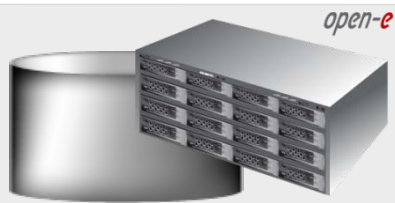
In the Task status, (after clicking button) the destination volumes must be consistent.

Communication via:	
bond0	ok
eth1	ok
Task status	
[NAS] MirrorTask	running
Connection:	Connected
Source info:	
Logical volume:	lv0000
Consistency:	Consistent
Destination info:	
Logical volume:	lv0000
Consistency:	Consistent
IP address:	192.168.1.221
NFS shares:	Data
[COMMON] failover_data	running
Connection:	Connected
Source info:	
Logical volume:	failover_data
Consistency:	Consistent
Destination info:	
Logical volume:	failover_data
Consistency:	Consistent
IP address:	192.168.1.221

NAS Failover/Volume Replication



NAS (NFS) Failover over a LAN



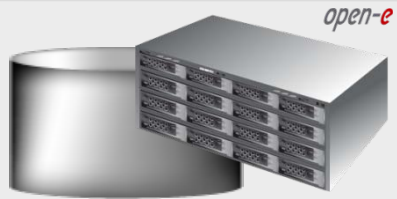
Data Server (DSS1)
Primary node
IP Address:192.168.0.220

8. Test Failover Function

The screenshot shows the open-e web interface for configuring failover. The top navigation bar includes 'SETUP', 'CONFIGURATION', 'MAINTENANCE', 'STATUS', and 'HELP'. The breadcrumb trail indicates the current location: 'You are here: SETUP > network > Failover'. The main content area is divided into two sections: 'Interfaces' and 'Failover manager'. The 'Interfaces' section lists network interfaces: eth0, eth1, eth2 (bond0), eth3 (bond0), and bond0. The 'Failover manager' section displays a status message: 'Info Configuration of both nodes finished successfully.' Below this message are buttons for 'start' and 'stop'. At the bottom of the 'Failover manager' section is a red button labeled 'Manual failover'. A blue callout box on the left contains the text: 'In order to test Failover in Manual Failover, function, click on the Manual failover button.' with an arrow pointing to the 'Manual failover' button.

In order to test Failover in Manual Failover, function, click on the **Manual failover** button.

NAS (NFS) Failover over a LAN



Data Server (DSS1)
Primary node
IP Address:192.168.0.220

8. Test Failover Function

The screenshot shows the open-e web interface. At the top, there's a navigation bar with 'open-e' logo, 'ENTERPRISE CLASS STORAGE OS for EVERY BUSINESS', and 'DATA STORAGE SOFTWARE V6'. Below this are tabs for 'SETUP', 'CONFIGURATION', 'MAINTENANCE', 'STATUS', and 'HELP'. The breadcrumb trail reads 'You are here: SETUP > network > Failover'. On the left, there are two expandable sections: 'Interfaces' and 'Failover', both containing a list of network interfaces: eth0, eth1, eth2 (bond0), eth3 (bond0), and bond0. The main content area is divided into two panels. The top panel is empty with an 'apply' button. The bottom panel is titled 'Failover manager' and contains an 'Info' message: 'Server is in suspend mode.' with a checkmark icon. Below the message are 'start' and 'stop' buttons. At the bottom of the panel is a 'Manual failover' button. A blue arrow points from a text box on the left to the 'Info' message.

After clicking on the **Manual failover** button, primary node enters suspend mode

NAS (NFS) Failover over a LAN



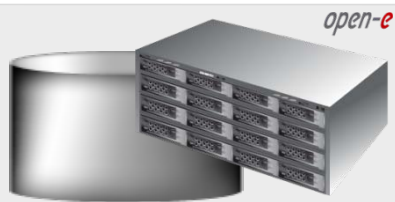
Data Server (DSS1)
Primary node
IP Address:192.168.0.220

8. Test Failover Function

The Failover status function shows the **Global status** of the primary node. Status service is in **suspend** mode and the node is **inactive**.

Names	Status
Global status	
Service running	suspend
Node status	inactive
Ping node group status	unknown
Individual ping node status:	
IP: 192.168.2.107	ok
IP: 192.168.2.106	ok
Failover services:	
iSCSI	off
NFS	on
Communication via:	
bond0	unknown
eth1	unknown
Task status	
[NAS] MirrorTask	running/disconnected
[COMMON] failover_data	running/disconnected

NAS (NFS) Failover over a LAN



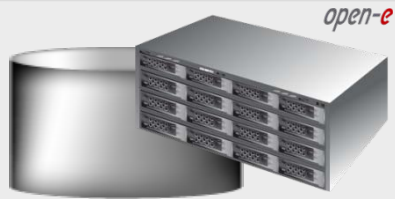
Data Server (DSS2)
Secondary node
IP Address:192.168.0.221

8. Test Failover Function

In Failover status function
Global status shows the status
of the secondary node. The
service status is degraded and
Node status is active.

Names	Status
Global status	
Service running	degraded
Node status	secondary/active
Ping node group status	ok
Individual ping node status:	
IP: 192.168.2.107	ok
IP: 192.168.2.106	ok
Failover services:	
iSCSI	off
NFS	on
Communication via:	
bond0	failed
eth1	failed
Task status	
[NAS] MirrorTask_reverse	stopped
[COMMON] failover_data_reverse	stopped

NAS (NFS) Failover over a LAN



Data Server (DSS2)
Secondary node
IP Address:192.168.0.221

9. Run Failback Function

In order to run Failback in Failover manager function click on the **Sync volumes** button first.

NAS (NFS) Failover over a LAN



Data Server (DSS2)
Secondary node
IP Address: 192.168.0.221

9. Run Failback Function

Names	Status
Global status	
Service running	degraded
Node status	secondary/active
Ping node group status	ok
Individual ping node status:	
IP: 192.168.2.107	ok
IP: 192.168.2.106	ok
Failover services:	
iSCSI	off
NFS	on
Communication via:	
bond0	failed
eth1	failed
Task status	
[NAS] MirrorTask_reverse	running
Connection:	Connected
Source info:	
Logical volume:	lv0000
Consistency:	Consistent
Destination info:	

After synchronization the task status of the destination volume must be **Consistent**

NAS (NFS) Failover over a LAN



Data Server (DSS2)
Secondary node
IP Address: 192.168.0.221

9. Run Failback Function

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

SETUP | CONFIGURATION | MAINTENANCE | STATUS | HELP

You are here: SETUP > network > Failover

Interfaces

- eth0
- eth1
- eth2 (bond0)
- eth3 (bond0)
- bond0

Failover

- eth0
- eth1
- bond0

Failover manager

Info
Volume replication process started. Please go to Failover Status to check the status of your tasks.

Info
When in secondary mode, the start and stop buttons control this node only. Please use the relevant buttons on the primary node to control both nodes.

start **stop**

In order to synchronize data from the secondary/active server to the primary server, click the Sync volumes button.

Sync volumes

Clicking the Failback button will return the active server state to the primary server, while the secondary server will return to passive mode. Please note this is only possible when the participating volumes are in sync. After the failback has been completed, the primary server is ready for another failover.

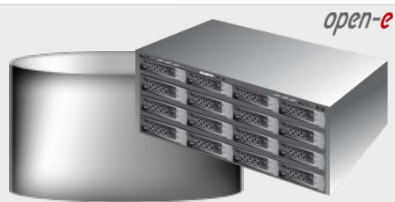
Failback

Event Viewer: [icon]

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In order to return the active server state to the Primary server click on the **Failback** button

NAS (NFS) Failover over a LAN



Data Server (DSS1)
Primary node
IP Address:192.168.0.220

9. Run Failback Function

After clicking on **Failback** button (in Failover manager function on Secondary node) Primary node is now active.

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SETUP | CONFIGURATION | MAINTENANCE | STATUS | HELP

You are here: SETUP > network > Failover

Interfaces

- eth0
- eth1
- eth2 (bond0)
- eth3 (bond0)
- bond0

Failover

- eth0
- eth1
- bond0

Failover manager

Info
Your node is now active

start stop

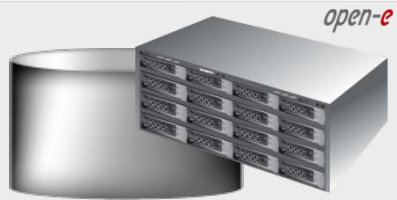
In order to delegate (switch) active server state to the passive server click the Manual failover button. This will initiate a failover event and switch the primary server to suspend mode, while the secondary server will be promoted to active mode. Please note this will stop the volume replication process.

Manual failover

Event Viewer: [icon]

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NAS (NFS) Failover over a LAN

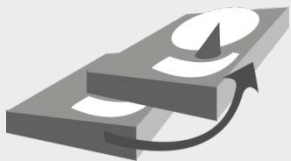


Data Server (DSS1)
Primary node
IP Address:192.168.0.220

9. Run Failback Function

Primary node is active again and ready for Failover.

Failover/Volume Replication



The configuration and testing of NAS Failover/Failback is now complete.

Names	Status
Global status	
Service running	ok
Node status	primary/active
Ping node group status	ok
Individual ping node status:	
IP: 192.168.2.107	ok
IP: 192.168.2.106	ok
Failover services:	
iSCSI	off
NFS	on
Communication via:	
bond0	ok
eth1	ok
Task status	
[NAS] MirrorTask	running
[COMMON] failover_data	running

Thank you!