

Setting up data redundancy on DSS™ with Asynchronous Data Replication and local Backup



Local Data Redundancy with DSS

SAMPLE CONFIGURATION

Local Data Redundancy as described in this document does not fulfill professional backup requirements, but is strongly recommended if you are using no backup at all. Experience shows that most data loss incidents can be protected with this simple and inexpensive solution. Local Data Redundancy as explained within this document requires a single NAS device with two RAID Arrays within the system.

Local Data Redundancy uses two of the features built into the Open-E DSS:

- Local Backup with Restore
- Data Replication

An example configuration:

- First Array RAID is for live data on **volume group DATA** (vg00)
- Second Array RAID is for backup and replications as **volume group BACKUP** (vg01)

Setup Backup and Data Replication:

- ✓ Backup schedule is set every day with a 6 week retention time for “DATA” share
- ✓ Schedule Data Replication is set for an hourly interval for “DATA” share

Local Data Redundancy with DSS

Local Data Redundancy

■ Recommended Resources

- Hardware
 - ✓ x86 compatible
 - ✓ RAID Controller 1
 - ✓ RAID Controller 2
 - ✓ HDD's
 - ✓ Network Interface Cards
- Software
 - ✓ Single Open-E DSS (recommended) or Open-E NAS-R3

■ Benefits

- Low cost solution
- Ensures local data availability

■ Disadvantages

- In case of total disaster, such as fire or flood, data and the backup could be lost

Local Data Redundancy with DSS

To Set up Local Data Redundancy, Perform the Following Steps:

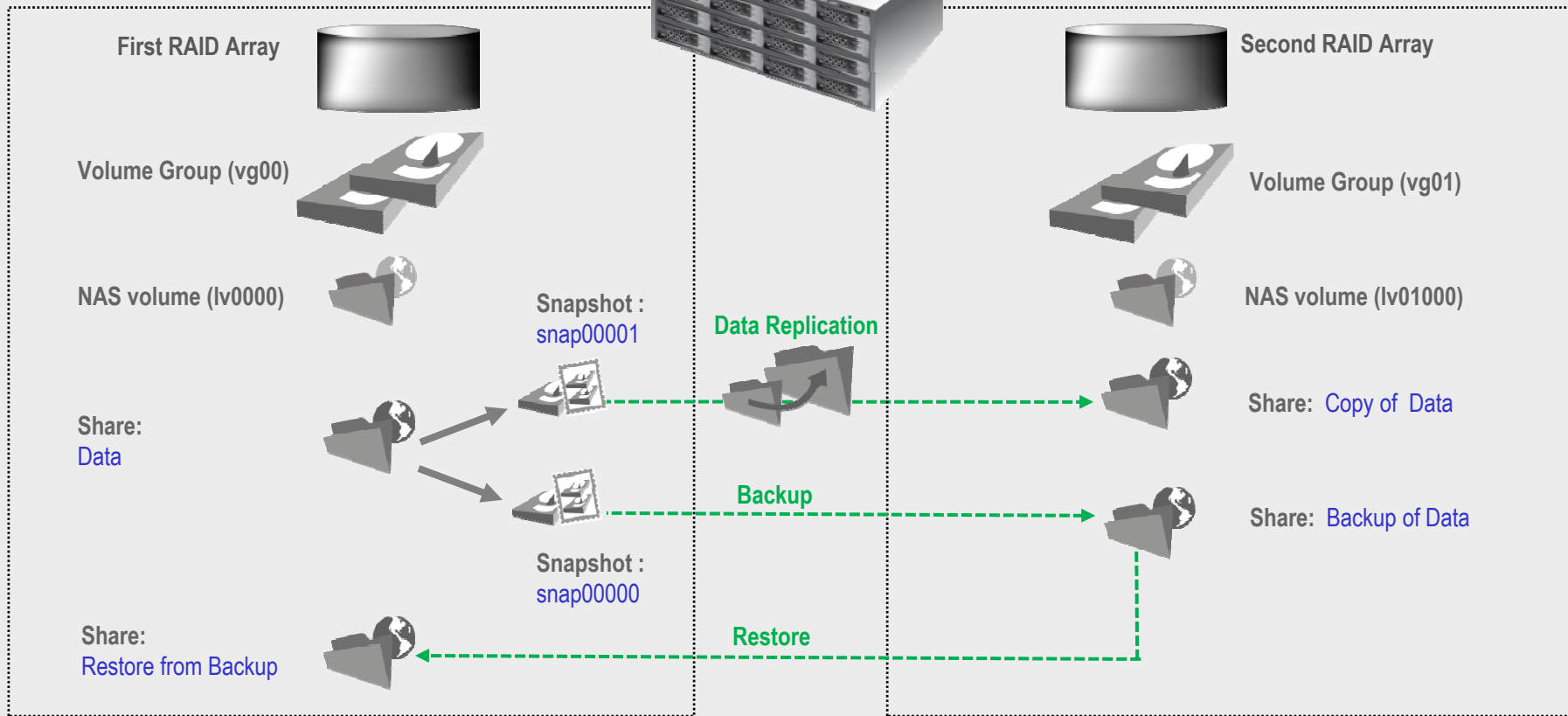
1. Configure Hardware
2. Configure the Local Backup
3. Create the Restore from Backup
4. Configure the Data Replication

Local Data Redundancy with DSS

1. Hardware configuration

Data Server (DSS)
Address IP:192.168.0.220

open-e



Local Data Redundancy with DSS

2. Configure the Local Backup



First RAID Array

Under the "CONFIGURATION" tab select "volume manager"

Volume Groups (vg00)



Add the selected physical units (Unit S001) to create a new volume group (in this case, vg00) and click the apply button

logout **DSS** DATA STORAGE SERVER open-e

SETUP **CONFIGURATION** MAINTENANCE STATUS HELP

volume manager NAS settings NAS resources iSCSI target manager FC target manager

Vol. groups

Unit rescan

rescan

Unit manager

Unit	Size (GB)	Serial number	Status
<input checked="" type="checkbox"/> Unit S001	4889.74	AB9B574A	available
<input type="checkbox"/> Unit S002	4889.74	28FF574A	available

Action: new volume group

Name: vg00

apply

Drive identifier

Unit	Serial number	Status
<input type="checkbox"/> Unit S001	5420C3CA	

Event Viewer:

Data Storage Server. All rights reserved

Local Data Redundancy with DSS



Second RAID Array

2. ... Continue

Add the selected physical units (Unit S001) to create a new volume group (in this case, vg01) and click the **apply** button

Volume Groups (vg01)



The screenshot shows the DSS web interface with the following elements:

- Navigation tabs: **logout**, **DSS**, **DATA STORAGE SERVER**, **open-e**
- Sub-navigation tabs: **SETUP**, **CONFIGURATION**, **MAINTENANCE**, **STATUS**, **HELP**
- Secondary tabs: **volume manager**, **NAS settings**, **NAS resources**, **iSCSI target manager**, **FC target manager**
- Left sidebar: **Vol. groups** (containing vg00) and **Vol. replication**
- Main content area: **Unit rescan** (with **rescan** button), **Unit manager** table, and **Drive identifier** table.

Unit	Size (GB)	Serial number	Status
<input type="checkbox"/> Unit S001	4889.74	AB9B574A	in use, vg00
<input checked="" type="checkbox"/> Unit S002	4889.74	28FF574A	available

Action: new volume group
Name: vg01

apply

Unit	Serial number	Status
<input type="checkbox"/> Unit S001	5420C3CA	

Event Viewer: []

Data Storage Server. All rights reserved.

Local Data Redundancy with DSS

2. ... Continue



First RAID Array

Volume Groups (vg00)



NAS volume (lv0000)



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

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

The screenshot shows the DSS web interface with the following components:

- Navigation tabs: SETUP, CONFIGURATION, MAINTENANCE, STATUS, HELP.
- Sub-navigation tabs: volume manager, NAS settings, NAS resources, iSCSI target manager, FC target manager.
- Left sidebar: "Vol. groups" list containing "vg00" and "vg01".
- Right main area: "Volume group: vg00" selected, showing a "Volume manager" table.
- Table "Volume manager":

Logical Volume	Type	Snap.	Rep.	Init.	Blocksize (bytes)	Size (GB)
lv0000	🔒				N/A	1000.00
System volumes						
Reserved for swap						4.00
Reserved for snapshots						0.00
Reserved for system						1.00
Reserved for replication						0.00
Free						3884.69
- Below the table: "Action:" dropdown menu set to "new NAS volume".
- Checkboxes: "Use volume replication" (unchecked), "WORM" (unchecked).
- Slider: Range from 0 to 3884.69 GB.
- Input field: "add:" followed by "0.00" GB.
- Button: "apply".

Local Data Redundancy with DSS



First RAID Array

Snapshot



2. ... Continue

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

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

The screenshot shows the DSS (Data Storage Server) web interface. The main content area is titled 'Volume group: vg00' and contains a 'Volume manager' section. This section includes a table of logical volumes and a configuration area for a new snapshot.

Logical Volume	Type	Snap.	Rep.	Init.	Blocksize (bytes)	Size (GB)
lv0000					N/A	1000.00
snap00000	S				N/A	100.00

System volumes	Size (GB)
Reserved for swap	4.00
Reserved for snapshots	100.00
Reserved for system	1.00
Reserved for replication	0.00
Free	3784.69

Action:

add: GB

Local Data Redundancy with DSS



First RAID Array

2. ... Continue

NAS volume
(lv0000)



Snapshot

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

The screenshot shows the DSS web interface with the following elements:

- Navigation tabs: **logout**, **DSS**, **DATA STORAGE SERVER**, **open-e**
- Sub-navigation tabs: **SETUP**, **CONFIGURATION**, **MAINTENANCE**, **STATUS**, **HELP**
- Volume Manager sub-tabs: **volume manager**, **NAS settings**, **NAS resources**, **iSCSI target manager**, **FC target manager**
- Left sidebar: **Vol. groups** (containing **vg00** and **vg01**), **Vol. replication**
- Main content area: **Volume group: vg00**
 - Free**: 3784.69
 - Action**: dropdown menu set to **new snapshot**
 - Progress bar: 0 to 3784.69
 - add:** GB
 - apply** button
- Snapshot definition** section:

Name	LV	Status
→ snap00000	lv0000	unused

apply button
- Footer: **Event Viewer:** [icon], **Data Storage Server. All rights reserved**

Local Data Redundancy with DSS

2. ... Continue



Second RAID Array

Volume Groups (vg01)



NAS volume (lv0100)



Select the appropriate **volume group (vg01)** from the list on the left and create a **new NAS volume** of the required size. This logical volume **lv0100** will be the destination of the local backup and replication processes

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

The screenshot shows the DSS web interface with the following elements:

- Navigation tabs: **logout**, **DSS**, **DATA STORAGE SERVER**, **open-e**
- Sub-tabs: **SETUP**, **CONFIGURATION**, **MAINTENANCE**, **STATUS**, **HELP**
- Volume Manager sub-tabs: **volume manager**, **NAS settings**, **NAS resources**, **iSCSI target manager**, **FC target manager**
- Left sidebar: **Vol. groups** (containing **vg00** and **vg01**), **Vol. replication**
- Main content area: **Volume group: vg01**, **Volume manager** table, **Action:** dropdown (set to **new NAS volume**), **Use volume replication** checkbox, **WORM** checkbox, a slider for size, and an **add:** input field (set to **0.00** GB) with an **apply** button.
- Table of Logical Volumes:

Logical Volume	Type	Snap.	Rep.	Init.	Blocksize (bytes)	Size (GB)
lv0100					N/A	1000.00
System volumes						Size (GB)
Reserved for swap						4.00
Reserved for snapshots						0.00
Reserved for system						1.00
Reserved for replication						0.00
Free						3884.69
- Footer: **Event Viewer:**, **Data Storage Server. All rights reserved**

Local Data Redundancy with DSS



First RAID Array

2. ... Continue

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

Local Backup



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

Local Data Redundancy with DSS



First RAID Array

2. ... Continue

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

Shares: Data



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

Local Data Redundancy with DSS



Second RAID Array

2. ... Continue

Shares: Backup of Data



After creation of **Data** share, you must create a share for the local backup. In the example, a shared volume named **Backup of Data**, has been created on **lv0100**.

The screenshot shows the DSS web interface for configuring a share. The 'Shares' section is active, and the 'Create new share' form is displayed. The form fields are: Name: Backup of Data, Comment: (empty), Default path: /lv0100/Backup of Data (selected), and Specified path: / (empty). The 'apply' button is visible. Below the form is the 'ACL (Access control list)' section, which is currently empty. The 'Users & Groups' tab is selected, showing a list of volumes: lv0000 and lv0100.

Local Data Redundancy with DSS

2. ... Continue



Second RAID Array

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

Backup pools: Pool60days



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

The screenshot shows the DSS (Data Storage Server) web interface. At the top, there is a navigation bar with tabs: SETUP, CONFIGURATION, MAINTENANCE (selected), STATUS, and HELP. Below this, there are sub-tabs: shutdown, connections, snapshot, backup (selected), restore, antivirus, miscellaneous, and software update. The main content area is divided into several sections: Backup pools, Backup devices, Backup tasks, and Data replication. The 'Backup pools' section is active, showing a 'Create new pool' form. The form includes a text input field for 'Name' (containing 'Pool60days'), a dropdown menu for 'Tape retention after' (set to '2 months (60 days)'), and a checkbox for 'Use each tape only once'. A 'create' button is located at the bottom right of the form. The footer of the interface contains 'Event Viewer:' and 'Data Storage Server. All rights reserved'.

Local Data Redundancy with DSS



Second RAID Array

2. ... Continue

Next, choose Backup devices

Backup devices: Virtual Tape



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

Local Data Redundancy with DSS

2. ... Continue



Second RAID Array

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

Backup devices: Tape001



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

Local Data Redundancy with DSS



Second RAID Array

2. ... Continue

Now create the next 3 tapes accordingly

Backup devices: Tape002



logout **DSS** DATA STORAGE SERVER open-e

SETUP CONFIGURATION **MAINTENANCE** STATUS HELP

shutdown connections snapshot **backup** restore antivirus miscellaneous software update

Backup pools ?

- Pool60days

Backup devices ?

- VirtualTape**

Backup tasks ?

Data replication ?

Event Viewer: [icon]

Backup device: VirtualTape

Create new tape

Name: Tape002

Pool name: Pool60days

Limit tape size

100 GB

apply

Backup device tapes

Name	Pool	Status	Used/size	Action
Tape001	Pool60days	Append	0.00kB/100.00GB	[refresh] [x]

Remove backup device

remove

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Local Data Redundancy with DSS



Second RAID Array

2. ... Continue

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

Backup devices: VirtualTape



Name	Pool	Status	Used/size	Action
Tape001	Pool60days	Append	0.00kB/100.00GB	
Tape002	Pool60days	Append	0.00kB/100.00GB	
Tape003	Pool60days	Append	0.00kB/100.00GB	
Tape004	Pool60days	Append	0.00kB/100.00GB	

Local Data Redundancy with DSS



Second RAID Array

2. ... Continue

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

Backup tasks: BackupTask001

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

Local Data Redundancy with DSS



Second RAID Array

2. ... Continue

Backup tasks: BackupTask001



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

logout **DSS** DATA STORAGE SERVER open-e

SETUP CONFIGURATION **MAINTENANCE** STATUS HELP

shutdown connections snapshot **backup** restore antivirus miscellaneous software update

Backup pools
Pool60days

Backup devices
VirtualTape

Backup tasks

Data replication

Snapshot: snap00000

Store on pool: Pool60days

Level:

- full
- incremental
- differential
- Compress data
- low-fast
- normal
- high-slow
- Make full backup every:

apply

Event Viewer: [icon]

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Local Data Redundancy with DSS



Second RAID Array

2. ... Continue

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

Backup tasks: BackupTask001

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

The screenshot shows the DSS web interface with the 'backup' tab selected. The left sidebar contains a tree view with 'BackupTask001' selected under 'Backup tasks'. The main content area shows the configuration for 'Backup task: BackupTask001' with a table of attributes and a 'Create new schedule for backup task' section.

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

Create new schedule for backup task

Comment:

Select time:

Monday Saturday
 Tuesday Sunday
 Wednesday
 Thursday
 Friday

Start :

Local Data Redundancy with DSS



Second RAID Array

2. ... Continue

The Backup tasks function shows the status of the backup tasks

Backup tasks: BackupTask001



The screenshot shows the DSS web interface with the 'MAINTENANCE' tab selected and the 'backup' sub-tab active. The left sidebar contains a tree view with 'Backup tasks' selected. The main content area displays a table of backup tasks and a 'Create new backup task' form.

Name	Start time	Action
BackupTask001	n/a	

last log
No logs found.

short description
shares: Data
pool: Pool60days
level: incremental

Create new backup task

Name:
Logical volume:
Shares for backup:

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

Event Viewer:

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Local Data Redundancy with DSS



Second RAID Array

2. ... Continue

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

Backup tasks: BackupTask001

DSS DATA STORAGE SERVER

logout | **MAINTENANCE** | STATUS | HELP

shutdown | connections | snapshot | **backup** | restore | antivirus | miscellaneous | software update

Backup tasks

Name	Start time	Action
BackupTask001	2009-01-02 20:00:35	[Play] [Stop] [Close]

last log
No logs found.

short description
shares: Data
pool: Pool60days
level: incremental

Create new backup task

Name:
Logical volume:
Shares for backup:

Available shares:
Assigned shares:

Event Viewer:

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Local Data Redundancy with DSS

2. ... Continue



Second RAID Array

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

Backup tasks: BackupTask001

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

logout **DSS** DATA STORAGE SERVER open-e

SETUP CONFIGURATION MAINTENANCE **STATUS** HELP

network logical volume connections system hardware **tasks** S.M.A.R.T.

Tasks: Backup

Running tasks

Name	Type	Start time
<input type="checkbox"/> BackupTask001	Backup	2009-01-02 20:00:35

Tasks log

Time	Name	Type	Status	Action
<input type="checkbox"/> 2009-01-02 20:00:35	BackupTask001	Backup	OK	Started

Event Viewer:

Data Storage Server. All rights reserved

The configuration of Backup is now complete.

Local Data Redundancy With DSS



First RAID Array

3. Create Restore from Backup

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

Shares: Restore from Backup

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

The screenshot shows the DSS web console interface. The main navigation bar includes 'logout', 'DSS', 'DATA STORAGE SERVER', and the 'open-e' logo. The 'CONFIGURATION' tab is active, with sub-tabs for 'volume manager', 'NAS settings', 'NAS resources', 'iSCSI target manager', and 'FC target manager'. The 'Shares' menu is selected, displaying a list of existing shares: '1. Backup of Data', '2. backup_db_lv0100', and '3. Data'. The 'Create new share' form is open, showing the following fields: 'Name' (Restore from Backup), 'Comment' (empty), 'Default path' (selected, /lv0000/Restore from Bac), and 'Specified path' (empty). An 'apply' button is visible below the form. Below the form is the 'ACL (Access control list)' section, which includes a 'Browser' tab and a list of volumes: 'lv0000' and 'lv0100'. The footer of the console reads 'Data Storage Server. All rights reserved'.

Local Data Redundancy with DSS



First RAID Array

3. ... Continue

Under the “MAINTENANCE” tab, select the “restore” menu

Restore task: [RestoreTask](#)



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

File name contain

Day Month Year

From date [] [] []

To date [] [] []

search

Name	Date	Device
<input checked="" type="checkbox"/> BackupTask001	2009-01-02 20:00:35	VirtualTape

Restore task name: [RestoreTask]

Restore to: [Restore from Backup]

Overwrite files

- always
- if newer
- if older
- never

run imediate after create

apply

Event Viewer: []

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Local Data Redundancy with DSS



First RAID Array

3. ... Continue

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

Restore task: RestoreTask



logout **DSS** DATA STORAGE SERVER open-e

SETUP CONFIGURATION MAINTENANCE STATUS HELP

shutdown connections snapshot backup restore antivirus miscellaneous software update

Restore tasks ?

RestoreTask

Backup Restore tasks ?

Name	Start time	Action
RestoreTask	n/a	

Create new restore task ?

Backup tasks search

Task

Device

File name contain

Day Month Year

From date

To date

search

Name	Date	Device
<input type="checkbox"/> BackupTask001	2009-01-02 20:00:35	VirtualTape

Event Viewer:

Data Storage Server. All rights reserved

Local Data Redundancy with DSS

3. ... Continue



First RAID Array

Click on the "Restore Task" name

Restore task: RestoreTask



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

The screenshot shows the DSS web interface with the following elements:

- Navigation tabs: **SETUP**, **CONFIGURATION**, **MAINTENANCE** (selected), **STATUS**, **HELP**
- Sub-navigation tabs: **shutdown**, **connections**, **snapshot**, **backup**, **restore** (selected), **antivirus**, **miscellaneous**, **software update**
- Left sidebar: **Restore tasks** list containing **RestoreTask**
- Main content area: **Restore task: RestoreTask**
- Table with columns **Attribute** and **Value**:

Attribute	Value
Backups:	RestoreTask
Destination shares:	Restore from Backup
Device:	VirtualTape
Overwrite files:	always
- Buttons: **Remove restore task** (disabled), **remove**
- Info box: **Info** Restore task is running. You must stop this task before you can remove it.
- Footer: **Event Viewer:** [disabled], **Data Storage Server. All rights reserved**

Local Data Redundancy with DSS

3. ... Continue



First RAID Array

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

Restore tasks: RestoreTask

Click in the "Runnings tasks" function to display detailed information on the current Restore from backup task

logout **DSS** DATA STORAGE SERVER open-e

SETUP CONFIGURATION MAINTENANCE **STATUS** HELP

network logical volume connections system hardware **tasks** S.M.A.R.T.

Tasks: Restore from backup

Running tasks

Name	Type	Start time
<input type="checkbox"/> RestoreTask	Restore from backup	2009-01-03 07:59:48

Tasks log

Time	Name	Type	Status	Action
<input type="checkbox"/> 2009-01-03 07:59:49	RestoreTask	Restore from backup	OK	Started

Event Viewer:

Data Storage Server. All rights reserved

The configuration of the Restore from Backup is now complete.

Local Data Redundancy with DSS

4. Configure of the Data Replication



First RAID Array

To run the replication process, you must first define a **new snapshot** to be taken of the volume to be replicated



Snapshot

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

The screenshot shows the DSS web interface with the following elements:

- Navigation tabs: SETUP, CONFIGURATION, MAINTENANCE, STATUS, HELP
- Sub-navigation tabs: volume manager, NAS settings, NAS resources, iSCSI target manager, FC target manager
- Left sidebar: Vol. groups (vg00, vg01) and Vol. replication
- Main content area: Volume group: vg00, Volume manager table, System volumes table, and a form to create a new snapshot.

Logical Volume	Type	Snap.	Rep.	Init.	Blocksize (bytes)	Size (GB)
lv0000			✓		N/A	1000.00
snap00000		5			N/A	100.00

System volumes	Size (GB)
Reserved for swap	4.00
Reserved for snapshots	100.00
Reserved for system	1.00
Reserved for replication	0.00
Free	3784.69

Action:

add: GB

Local Data Redundancy with DSS

4. ... Continue



First RAID Array

Under the "CONFIGURATION" tab, select the "volume manager" menu. Next, click vg00

Snapshot



Assign the **snap00001** to the logical volume to be replicated, in this example, **lv0000**, and click the **apply** button

The screenshot shows the DSS web interface with the following elements:

- Navigation tabs: SETUP, CONFIGURATION (selected), MAINTENANCE, STATUS, HELP.
- Sub-navigation: volume manager (selected), NAS settings, NAS resources, iSCSI target manager, FC target manager.
- Left sidebar: Vol. groups (vg00, vg01), Vol. replication.
- Main content area: "Volume group: vg00" configuration page. It shows "Free" space as 3684.69. The "Action" dropdown is set to "new NAS volume". There are checkboxes for "Use volume replication" and "WORM". A slider shows a range from 0 to 3684.69. Below the slider is an "add:" field with "0.00" GB and an "apply" button.
- Bottom section: "Snapshot definition" table.

Name	LV	Status
snap00000	lv0000	unused
snap00001	lv0000	unused

At the bottom of the interface, there is an "Event Viewer:" field and a footer that reads "Data Storage Server. All rights reserved".

Local Data Redundancy with DSS



First RAID Array

4. ... Continue

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

Data Replication



Check the **Enable Data replication Agent** box and click the **apply** button

logout **DSS** DATA STORAGE SERVER open-e

SETUP **CONFIGURATION** MAINTENANCE STATUS HELP

volume manager **NAS settings** NAS resources iSCSI target manager FC target manager

? Data replication agent

Enable Data replication Agent apply

? Antivirus setup

Use antivirus apply

? Local backup settings

Use local backup

Select backup database location:

Default share on LV: lv0100

Other share: <choose share>

Create database

Move database apply

Event Viewer: [x]

Data Storage Server. All rights reserved

Local Data Redundancy with DSS



First RAID Array

4. ... Continue

Under the “**CONFIGURATION**” tab, select the “**NAS resources**” menu

Shares: Data



Next , click on the name Data, and check the box, **Use data replication** within the Data Replication Agent Settings table, and click the **apply** button

NOTE:

It is strongly recommended to protect the replication protocol with a user name and password, along with a list of allowed IP address. This will prevent local network users from accessing this share. **The user name and password must be the same as the destination node.**

Local Data Redundancy with DSS



Second RAID Array

4. ... Continue

In order to run the Data Replication process, you must create a new share. In the example, a shared volume named **Copy of Data** has been created on **lv0100**

Shares: Copy of Data



logout **DSS** DATA STORAGE SERVER open-e

SETUP CONFIGURATION MAINTENANCE STATUS HELP

volume manager NAS settings **NAS resources** iSCSI target manager FC target manager

Shares

- 1. Backup of Data
- 2. backup_db_lv0100
- 3. Data
- 4. Restore from Backup

Users

- 1. john

Groups

- 1. users

Event Viewer: [icon]

Create new share

Name: Copy of Data

Comment:

Default path: /lv0100/Copy of Data

Specified path: /

apply

ACL (Access control list)

Browser Users & Groups Access Permissions

Selection:

Filter: [icon]

- lv0000
- lv0100

Data Storage Server. All rights reserved

Local Data Redundancy with DSS



Second RAID Array

4. ... Continue

After creating the new shared volume, configure it:

- Click on the share name
- Check the box, **Use data replication** within the **Data replication agent settings** function
- Click the **apply** button



The screenshot shows the DSS web interface with the following elements:

- Navigation tabs: SETUP, CONFIGURATION, MAINTENANCE, STATUS, HELP
- Sub-navigation tabs: volume manager, NAS settings, NAS resources, iSCSI target manager, FC target manager
- Share configuration: Share: Copy of Data
- FTP settings: Info - FTP is off!
- Data replication agent settings: Use data replication. Fields for Login name, Password, Confirm password, and Allow access IP.
- NDMP data server access: Info - NDMP data server is off!
- Buttons: apply
- Footer: Data Storage Server. All rights reserved

Local Data Redundancy with DSS



Second RAID Array

4. ... Continue

Data Replication



After the share to be replicated has been configured, go to the "MAINTENANCE" tab and select "backup" to choose the Data replication

Local Data Redundancy with DSS



First RAID Array

4. ... Continue

Select the source share to be replicated. Under **Create new data replication task** function, enter a name for the task and select the source share to be replicated. In this example, a snapshot of the source share select **snap00001**

In the **Destination IP** field, enter the IP address of the destination server (in this example, 192.168.0.220) and the user name/password (if applicable) for the destination. Next, configure the **Destination Share** field by clicking on the button. In this example, select the **Copy of Data** share. Click on the **apply** button

The screenshot shows the DSS web interface for configuring a new data replication task. The 'backup' sub-menu is selected. The 'Create new data replication task' form is filled with the following values:

- Task name: Replication_D01
- Source share: Data
- Snapshot: snap00001
- Destination IP: 192.168.0.220
- Destination share: Copy of Data
- Destination agent login: (empty)
- Destination agent password: (empty)
- Log replication errors:
- Use ACL:
- Don't delete files:

The 'apply' button is highlighted in orange. Below the form, a message box indicates 'No tasks have been found.' The footer of the interface reads 'Data Storage Server. All rights reserved.'

Local Data Redundancy with DSS



Second RAID Array

4. ... Continue

After the DSS WEB console has been reloaded, the new task should appear

Obtain additional information about a selected replication task by accessing the **Data replication task** function

Using the **Create schedule for data replication task** function, set the desired replication schedules or explicitly start, stop and delete data replication tasks as desired

Attribute	Value
Destination IP:	192.168.0.220
Source share:	Data
Snapshot:	snap00001
Destination share:	Copy of Data
Log replication errors:	Yes
Use ACL:	Yes
Don't delete files:	No

Local Data Redundancy with DSS



Second RAID Array

4. ... Continue

To obtain detailed information about the progress of data replication tasks, click under the “STATUS” tab and select “tasks” menu.
Next, click Data Replication tasks and select the tasks

The screenshot shows the DSS web interface with the 'tasks' menu selected. The 'Data Replication' sub-menu is active, showing a table of running tasks and a tasks log.

Name	Type	Start time
Replication_D01	Data replication	2009-01-03 09:00:02

Time	Name	Type	Status	Action
2009-01-03 09:00:15	Replication_D01	Data replication	OK	Started

The configuration of data replication is now complete.

Thank You!