



## How to Use RAID Volume Replication



Thecus RAID Volume Replication enables NAS administrators to backup all of the data from one RAID volume to another RAID volume within a single Thecus NAS. Unlike remote backup methods in which data are transferred from one device to another via internet or intranet, RAID Volume backup takes place

internally within a Thecus NAS, therefore, data can be transferred faster and with more stability, which greatly reduce the chances of backup failure caused by connection interruptions.

When backup has been completed, the target hard drives containing the backup data can be removed from Thecus NAS and stored in a secure place. In the event of data lost caused by unrecoverable RAID damage, NAS administrators can simply insert the target hard drives back to Thecus NAS and instantly restore data without the need to wait for RAID rebuilding. Furthermore, the target hard drives can also be used on other Thecus NAS that supports the same file system for added flexibility.

### Before you begin, please read the notes below:

#### Notes

1. Please carefully read through the notes in RED on the Raid replication page before you start the Raid Replication task.
2. In this How-to guide, we will be using Thecus N7700 NAS with 4 HDDs.

HDD 1 and 2 in RAID 0 ID: Source

HDD 3 and 4 in RAID 0 ID: Target

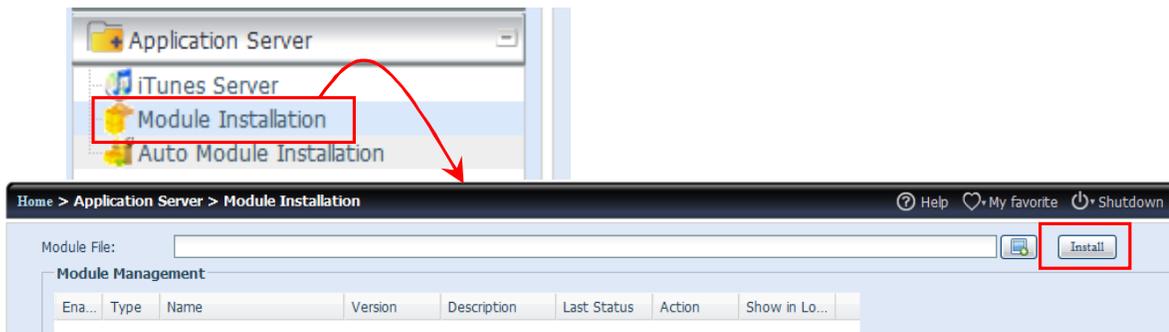
Applicable Models: (Supported by all Thecus NAS, to the exception of the N2200EVO and the N4100EVO)

## Part 1: Installing the RAID Volume Replication Module

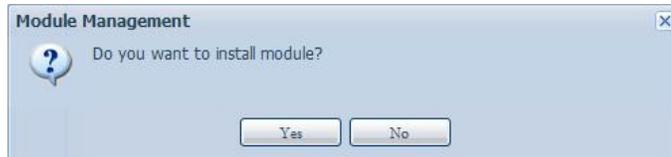
The RAID Volume Replication Module can be downloaded via the below link:

[http://www.thecus.com/sp\\_download.php](http://www.thecus.com/sp_download.php)

1. In the Web GUI, please click on **Application server > Module Installation** to open the **Module management** page. Next,  click to locate the module from your computer and click the **Install** button to install module.



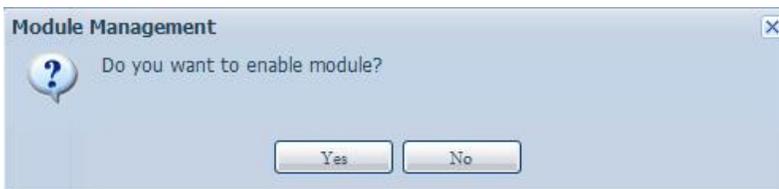
2. The following window will appear. Click **Yes** to proceed.



3. When successfully installed, click on the arrow under the word **Action** to enable the module.

Enable	Type	Name	Version	Description	Last Status	Action	Show in L...
No	Syst...	Raid Replication	2.00.03	Raid Volume Replic...		 x 	

4. The following window will appear. Click **Yes** to proceed.



5. The RAID Volume Replication module is now enabled and ready to run.

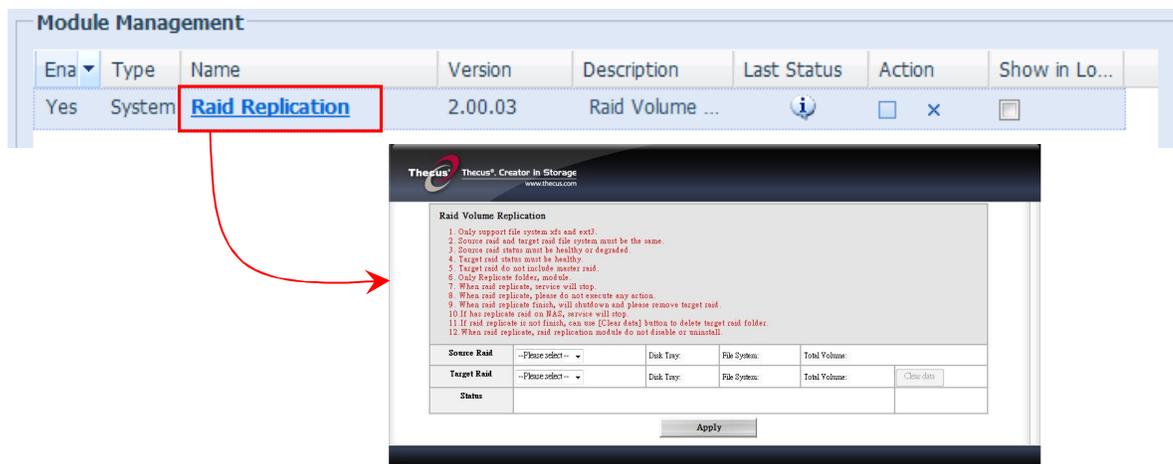


The screenshot shows a 'Module Management' window with a table of modules. The 'Ena' (Enabled) column has a dropdown menu open, showing 'Yes' selected. The 'Name' column contains 'Raid Replication', which is highlighted in blue. Other columns include 'Type', 'Version', 'Description', 'Last Status', 'Action', and 'Show in Lo...'. The 'Action' column for 'Raid Replication' contains icons for help, refresh, and delete.

Ena	Type	Name	Version	Description	Last Status	Action	Show in Lo...
Yes	System	Raid Replication	2.00.03	Raid Volume ...			

## Part 2: Using RAID Volume Replication

1. In the Web GUI, under the same **Module Management window**, click the blue letters of **Raid Replication** to open the **Raid Volume Replication** page.



The screenshot shows the 'Raid Volume Replication' configuration page. It features a list of instructions and a form with fields for 'Source Raid', 'Target Raid', 'Disk Type', 'File System', and 'Total Volume'. A red arrow points from the 'Raid Replication' link in the previous screenshot to this page.

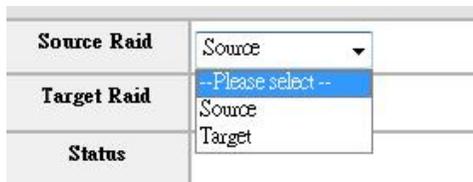
**Raid Volume Replication**

1. Only support file system xfs and ext3.
2. Source raid and target raid file system must be the same.
3. Source raid status must be healthy or degraded.
4. Target raid status must be healthy.
5. Target raid do not include master raid.
6. Only Replicate folder, module.
7. When raid replicate, service will stop.
8. When raid replicate, please do not execute any action.
9. When raid replicate finish, will shutdown and please remove target raid.
10. If raid replicate is not finish, can use [Clear data] button to delete target raid folder.
12. When raid replicate, raid replication module do not disable or unmount.

Source Raid	--Please select --	Disk Type:	File System:	Total Volume:
Target Raid	--Please select --	Disk Type:	File System:	Total Volume:
Status				

Apply

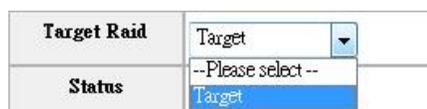
2. On the Raid Replication page, click on the **Source Raid** dropdown list to select the Source Raid volume. Here, we will select the RAID volume **ID: Source** created using disk 1 and 2.



The screenshot shows the 'Source Raid' dropdown menu open, with 'Source' selected. The 'Target Raid' dropdown menu is also open, showing 'Source' and 'Target' options.

Source Raid	Source
Target Raid	--Please select --
Status	Source

3. Next, click on the **Target Raid** drop down list to select the Target Raid volume. Here, we will select the RAID volume **ID: Target** created using disk 3 and 4.



The screenshot shows the 'Target Raid' dropdown menu open, with 'Target' selected. The 'Status' dropdown menu is also open, showing 'Target' selected.

Target Raid	Target
Status	--Please select --

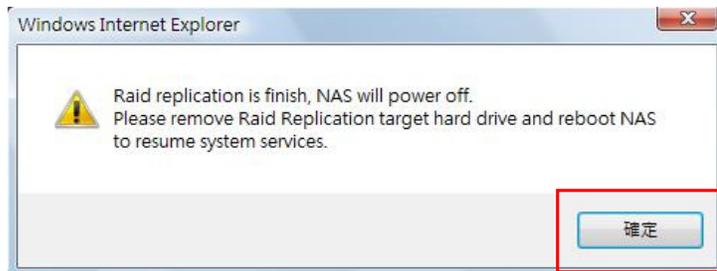
\* In the event of unsuccessful backup, users can use the **Clear data** button

 to remove all data from the target RAID volume.

4. Next, please click the **Apply** button below the **RAID Volume Replication** page to proceed. The following window will appear. Click **Yes** to proceed.



5. When completed, a new window will pop up. Please click **Yes** to proceed.



\*The system will now shut down automatically. Please remove the target hard drives after the system has completed shutting down. Then, re-start NAS again to resume full service.

### Notes

When installing the target hard drives onto a different Thecus NAS, please make sure that the Thecus NAS supports the file system used to create the target RAID volume.

For more Thecus How-to guides, please go to:

[http://www.thecus.com/sp\\_classroom.php](http://www.thecus.com/sp_classroom.php)

For any questions regarding this How-to Guide, please email us:

[webmaster@thecus.com](mailto:webmaster@thecus.com)