

How to Create an iSCSI Thin-Provision Target on Thecus NAS



The advanced iSCSI Thin-Provision support allows administrators to create up to 5 iSCSI Thin-Provision targets under one iSCSI Thin-Provision volume on Thecus NAS servers.

These iSCSI targets will share physical storage space from the iSCSI Thin-provision volume. Administrators can allocate virtual storage space on these iSCSI targets that will only take up physical storage space until they are actually needed. A notification will be sent to when 90% of the physical iSCSI Thin-Provision volume has been utilized, and the administrator can then decide whether or not to expand the physical storage space. iSCSI Thin-Provision support prevents administrators from over provisioning physical storage space before it is actually needed, thus greatly reducing capital spending on storage for businesses of all scales.

Applicable Models: N4100PRO · N4200 · N0503 · N5200PRO · N5500 · N7700 Series · N8800 Series · 1U4500R/1U4500S · 1U4600R/1U4600S

- [How to Stack Thecus NAS Devices](#)
- [How to Create an iSCSI Target on Thecus NAS](#)
- [How to Create an iSCSI Thin-Provision Target on Thecus NAS](#)

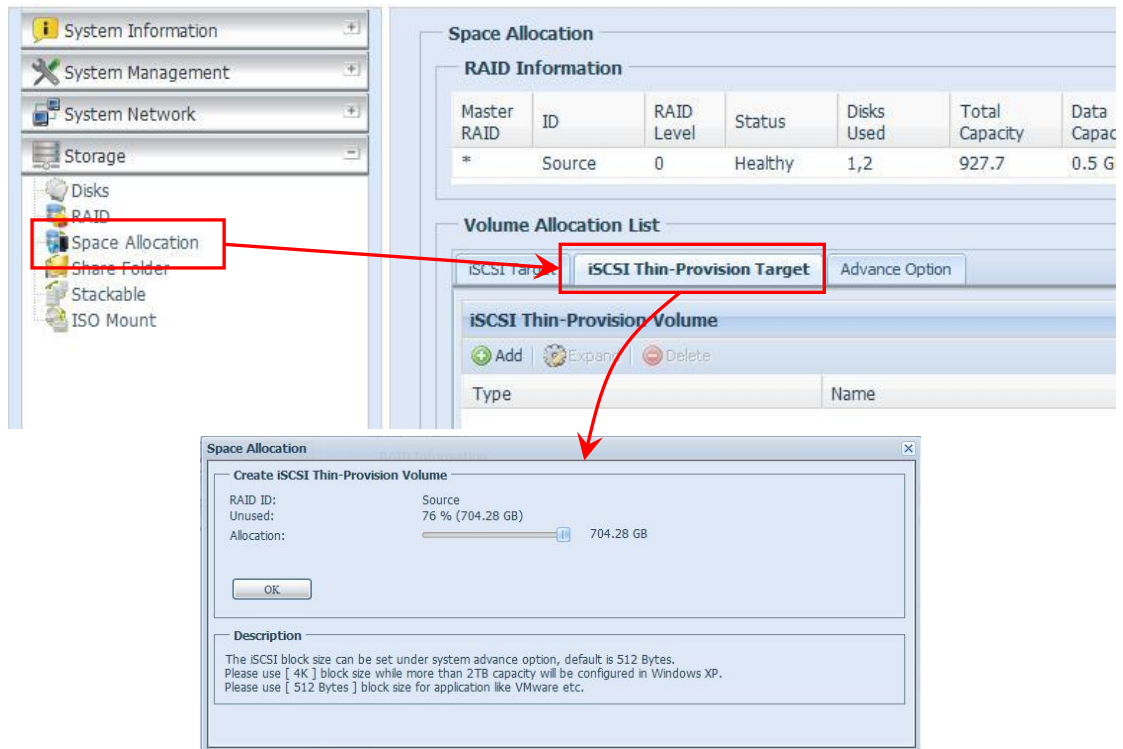
Before you begin, please carefully read the notes below:

NOTE

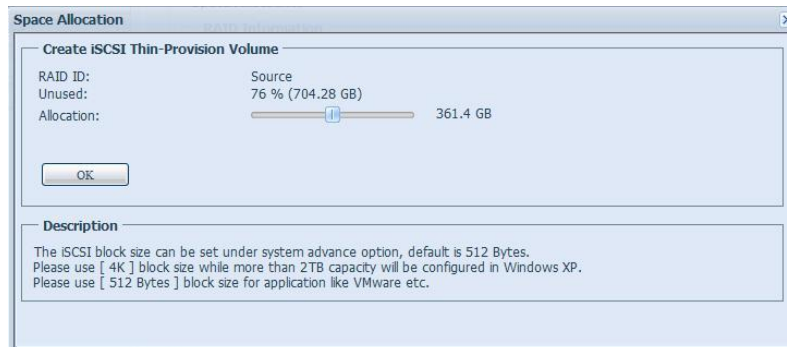
1. Each RAID volume can only allocate one iSCSI thin-provision volume.
2. You can create up to 5 iSCSI targets under one thin-provision volume.

Part .1 Create iSCSI Thin Provision Volume

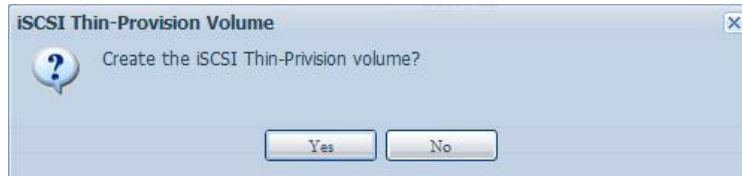
1. In the web GUI, Click **iSCSI Thin-Provisioning Target** under **Storage > Space Allocation**. Then, click the **Add** the button to open the **Create iSCSI Thin- Provision Volume** window.



2. Allocate the physical storage space of the **iSCSI Thin-Provision Volume** and click **OK** to proceed



3. A new window will pop up. Click **Yes** to proceed.



4. A new window will pop up. Click **OK** to proceed.



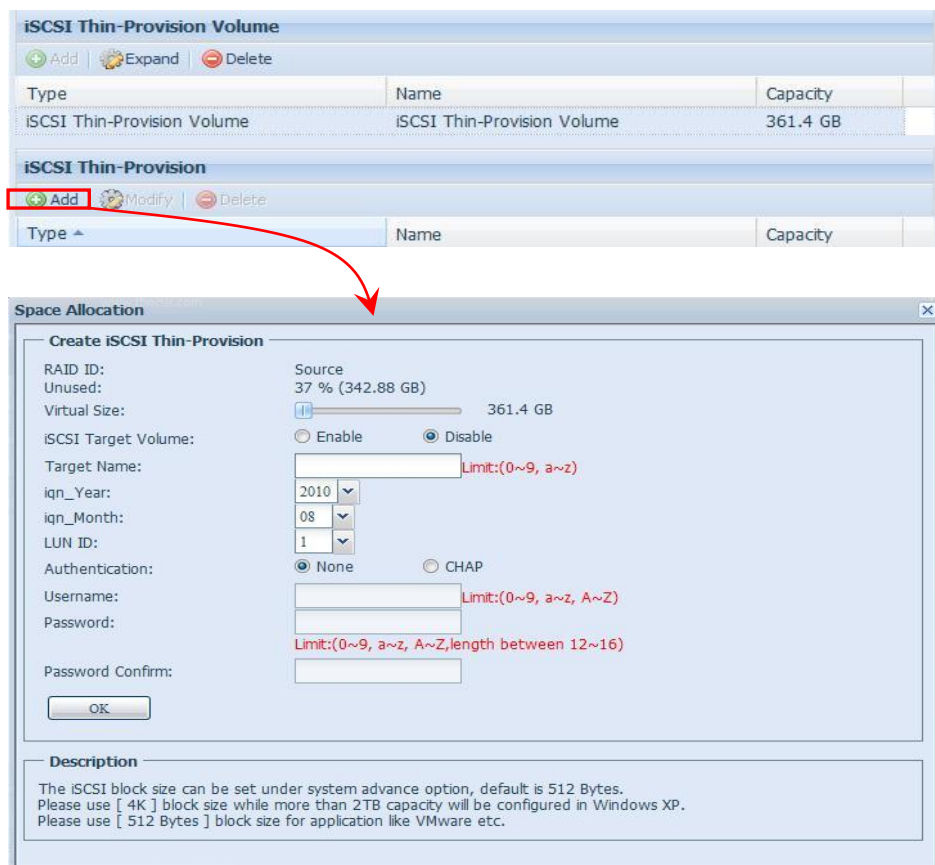
The iSCSI Thin-Provision volume will now appear under **iSCSI Thin-Provision Volume** as shown below:

A screenshot of the "Volume Allocation List" interface. It shows a table with columns for Type, Name, and Capacity. The table contains one entry: "iSCSI Thin-Provision Volume" with a capacity of "361.4 GB". The table is highlighted with a red border.

Type	Name	Capacity
iSCSI Thin-Provision Volume	iSCSI Thin-Provision Volume	361.4 GB

Part .2 Create iSCSI Thin-Provision Targets


1. Under **iSCSI Thin-Provision**, click the **Add** button to open the **Create iSCSI Thin-Provision** window.



Please see the following table for detailed descriptions of each field:

Create iSCSI Thin Provision	
Item	Description
RAID ID	ID of current RAID volume.
Virtual Size	Allocated virtual storage capacity of the iSCSI Thin Provision volume.
iSCSI Target Volume	Enable or Disable the iSCSI Target Volume.
Target Name	Name of the iSCSI Target. This name will be used by the Stackable NAS function to identify this export share.
iqn_Year	Select the current year from the dropdown.
iqn_Month	Select the current month from the dropdown.
LUN ID	Select the LUN ID number
Authentication	You may choose CHAP authentication or choose None .
Username	Enter a username.
Password	Enter a password.
Password Confirm	Re- Enter the chosen password.

2. On the **Create iSCSI Thin-Provision** page, you first need to allocate the virtual storage capacity of the iSCSI Thin-provision target. Here, we will set it to **2500GB**.



Create iSCSI Thin-Provision

RAID ID: Source
Unused: 37 % (342.88 GB)
Virtual Size: 2500 GB

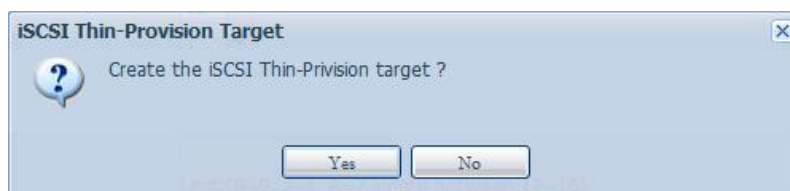
* Please refer to page 5 of this how to guide for more information on Virtual Size

3. Enable the iSCSI Target Service by selecting **Enable**.
4. Enter a **Target Name**. This will be used by the Stackable NAS function to identify this export share. In this guide, we will name it **“thecus”**.
5. Select the current year from the **iqn_Year** dropdown bar.
6. Select the current month from the **iqn_Month** dropdown bar.
7. Select a **LUN ID** number.

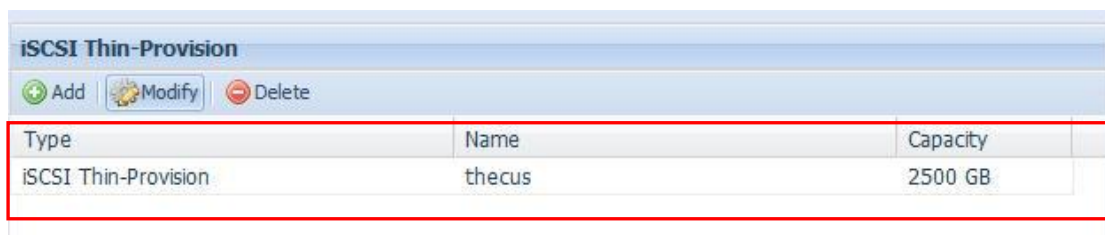
Notes

1. **iqn_Year** and **Month** will be used to name the iSCSI Thin-Provisioning target volume.
2. **Logical Unit Number**: A logical unit number (LUN) is a unique identifier which enables it to differentiate among separate devices (each one is a logical unit).

8. Select **CHAP** to enable authentication or choose **None**.
In this How to Guide, we will select **None**.
9. Click the **OK** button at the bottom of the page to proceed.
10. A new window will appear. Click **Yes** to proceed.



*The iSCSI Thin-Provision Target will now appear under iSCSI Thin-Provision as shown below:



iSCSI Thin-Provision

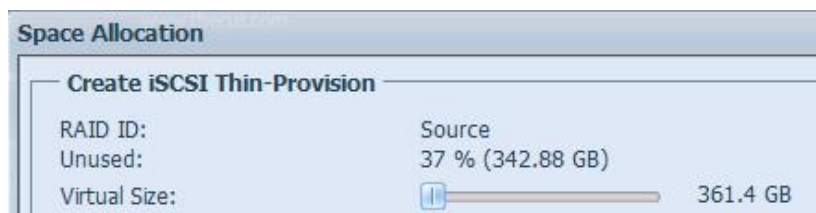
+ Add ⚙️ Modify - Delete

Type	Name	Capacity
iSCSI Thin-Provision	thecus	2500 GB

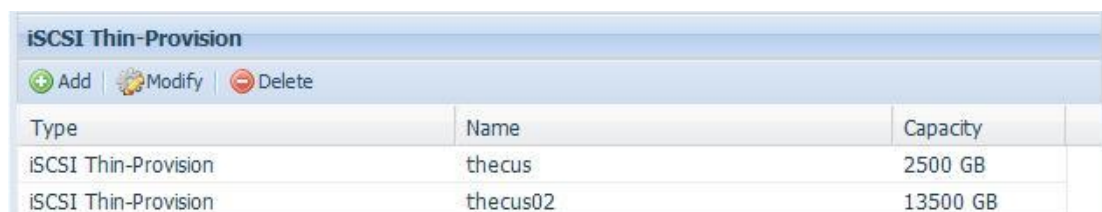
Allocating Virtual Size:

Unlike creating standard iSCSI target volumes, the capacity has been physically allocated. The iSCSI target volume creation under thin-provisioning can virtually be up to 16000GB (16TB).

The minimum virtual size of an iSCSI thin-Provision target will be equal to the physical storage size allocated on the iSCSI thin-provisioning volume.



The virtual size of 16000GB will be shared by the iSCSI thin-provision targets. If 2500GB of virtual size has been allocated on one iSCSI thin-provision target, the maximum virtual size that can be allocated on the next iSCSI thin-provision target will be **16000GB- 2500GB = 13500GB**. Please refer to the screenshot below:



Type	Name	Capacity
iSCSI Thin-Provision	thecus	2500 GB
iSCSI Thin-Provision	thecus02	13500 GB

The message below will appear when there is no more room for the creation of a new iSCSI thin-provision target.



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

webmaster@thecus.com

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