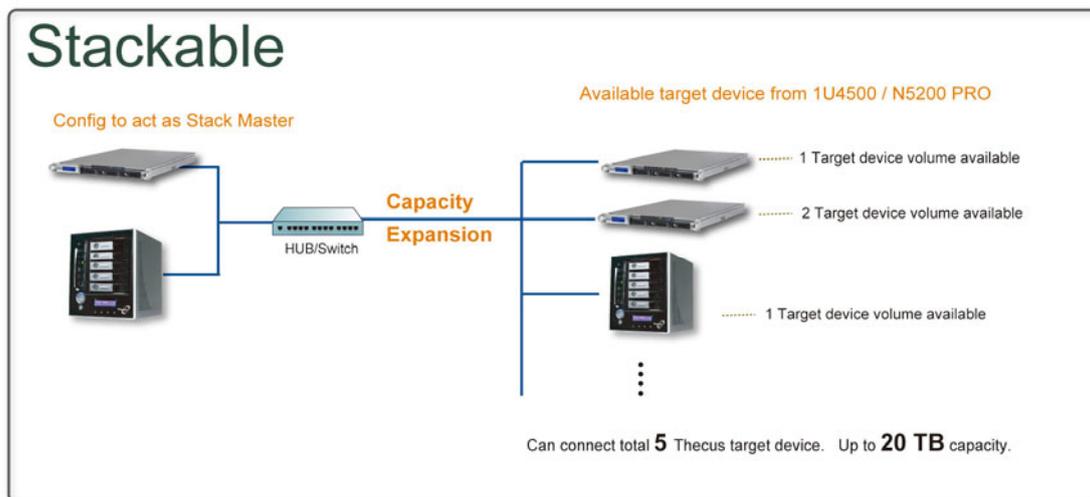


# Stackable User Guide

The stackable feature is very unique function of the N5200PRO/1U4500/N7700/N8800. With it, users can expand the capacity of their network storage systems with up to 5 other stack target volumes which are located in different systems. These can be stacked through single network access like SMB or AFP acting as a share folder type. Below is a detailed setup procedure on how to do this.



From the main menu, the stackable feature is located under "Storage". Please refer the figure below for reference.



### A. Add a Stack Target Volume

From the figure above, click **Add** to access the stackable target device configuration page. Please refer to the figure below:

With the added stack target you could “Enable” or “Disable” now or later per usage needed.

Next, input the target IP address of the stackable device and click the **Discovery** button. The system will list available target volumes from the inputted IP address.

For information on how to create stack target volumes, please

refer to section **F. How to create a stack target volume.**

Add iSCSI Target (Add Stack Target)	
Enable iSCSI Target	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
Stackable Target IP	172.16.65.134 : 3260 <input type="button" value="Discovery"/>
iqn	iqn.2008-01.Thecus:RAID888.iscsi0.vg1.v2i1
Username	iqn.2008-01.Thecus:RAID888.iscsi0.vg1.v2i1 iqn.2008-01.Thecus:RAID.iscsi2.vg0.v1i3 iqn.2008-01.Thecus:RAID.iscsi1.vg0.v1i2 iqn.2008-01.Thecus:RAID.iscsi0.vg0.v1i1
Password	
Export share name	<input type="text"/> Limit : ( 0~9, a~z )
Description	<input type="text"/>
Browseable	Yes <input checked="" type="radio"/> No <input type="radio"/>
Public	Yes <input type="radio"/> No <input checked="" type="radio"/>
<input type="button" value="Apply"/> <input type="button" value="Back"/>	

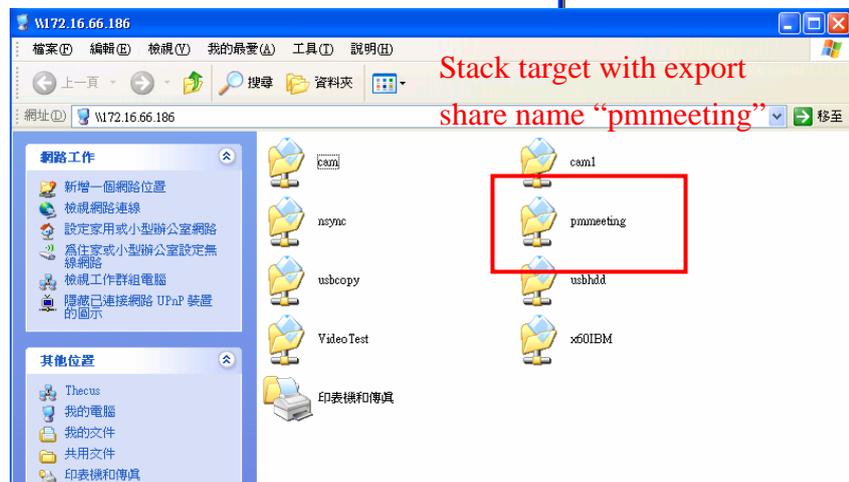
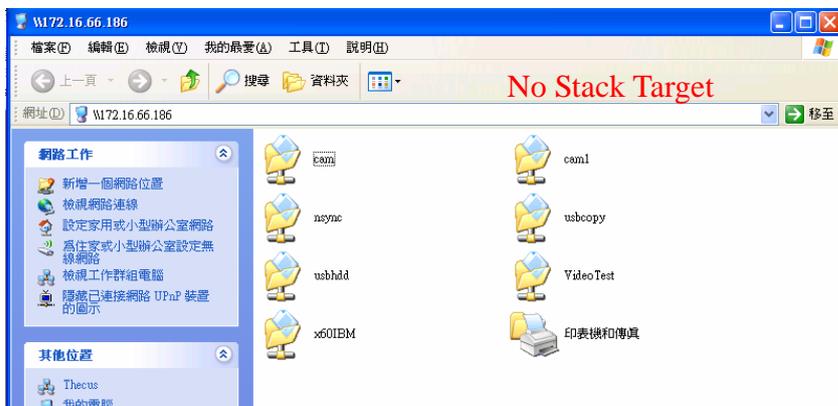
Once IP with volume have been set, you may need to input a valid user name and password to validate your access rights. If there is no user name and password needed to access target volume, then leave it blank.

Add iSCSI Target (Add Stack Target)	
Enable iSCSI Target	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
Stackable Target IP	172.16.65.134 : 3260 <input type="button" value="Discovery"/>
iqn	iqn.2008-01.Thecus:RAID888.iscsi1.vg1.v2i2
Username	andy
Password	.....
Export share name	<input type="text"/> Limit : ( 0~9, a~z )
Description	<input type="text"/>
Browseable	Yes <input checked="" type="radio"/> No <input type="radio"/>
Public	Yes <input type="radio"/> No <input checked="" type="radio"/>
<input type="button" value="Apply"/> <input type="button" value="Back"/>	

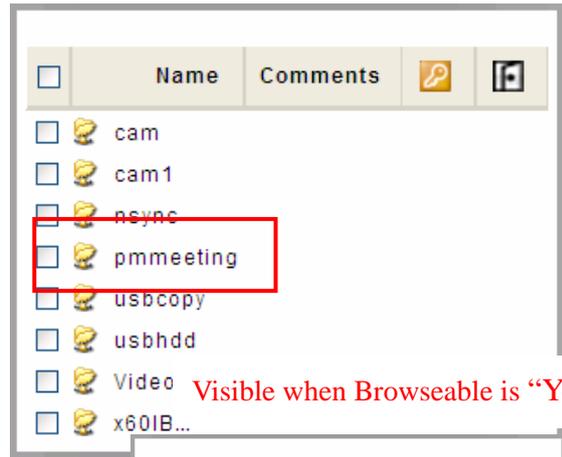
The **Export share name** will become the network share name that will be displayed through network access such as SMB. You may refer the figures below to see the result. Please note the naming limitation.

Add iSCSI Target (Add Stack Target)	
Enable iSCSI Target	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
Stackable Target IP	172.16.65.134 : 3260 <input type="button" value="Discovery"/>
iqn	iqn.2008-01.Thecus:RAID888.iscsi1.vg1.v2i2
Username	andy
Password	••••••••
Export share name	pmmeeting <small>Limit : ( 0~9, a~z )</small>
Description	The information for weekly PM meeting minute
Browseable	Yes <input checked="" type="radio"/> No <input type="radio"/>
Public	Yes <input checked="" type="radio"/> No <input type="radio"/>
<input type="button" value="Apply"/> <input type="button" value="Back"/>	

From the figure above, the **Export share name** is “pmmeeting”. The figures below show the result before and after via Microsoft Network Access after the settings have been completed.



The **Browseable** setting will be the same the setting for the system share folder. It designates whether or not this folder will be visible through web disk. You may refer the figures below for reference when **Yes** and **No** are selected.



**Add iSCSI Target (Add Stack Target)**

Enable iSCSI Target:  Enable  Disable

Stackable Target IP: 172.16.65.116 : 3260 [Discovery]

iqn: iqn.2008-01.Thecus:RAID888.iscsi1.vg1.v2i2

Username: andy

Password: .....

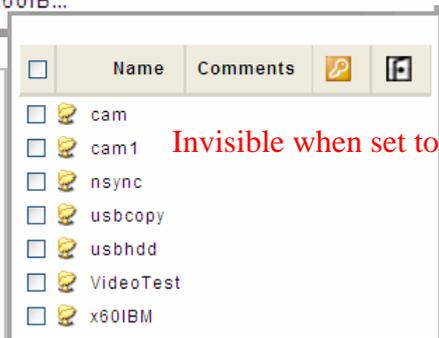
Export share name: pmmeeting  
Limit : ( 0~9, a~z )

Description: PM department meeting minutes

Browseable: Yes  No

Public: Yes  No

[Apply] [Back]



The **Public** setting will be set the same as what the setting for the system share folder associated with the ACL permission setup. If **Public** is set to **Yes**, all users will be able to access it, and **ACL** button will be grayed out. If **Public** is set to **No**, the **ACL** button will be available on the **Stack Target List** window.

**Add iSCSI Target (Add Stack Target)**

Enable iSCSI Target:  Enable  Disa

Stackable Target IP: 172.16.65.116

iqn: iqn.2008-01.Thecus:R

Username: andy

Password: .....

Export share name: pmmeeting  
Limit : ( 0~9, a~z )

Description: PM department meeti

Browseable: Yes  No

Public: Yes  No

[Apply]

**Stack Target List**

Export share name	Description	IP	Capacity (Used/Total)	Status
pmmeeting		172.16.65.116	0 GB / 7.3 GB	Enable
iqn.2008-01.Thecus:RAID.iscsi2.vg0.v1i3				[ACL] [Edit] [Del] [Format] [Reconnect]

[Add] ACL gray out with Public is "Yes"

**Stack Target List**

Export share name	Description	IP	Capacity (Used/Total)	Status
pmmeeting		172.16.65.116	0 GB / 7.3 GB	Enable
iqn.2008-01.Thecus:RAID.iscsi2.vg0.v1i3				[ACL] [Edit] [Del] [Format] [Reconnect]

[Add] ACL available with Public is "No"

Click *Apply* to save your changes.

## ***B. Activate a Stack Target***

After your settings have been applied, the system will bring you back to **Stack Target List** window as shown below. There is one stack target device has been attached into this stack master.

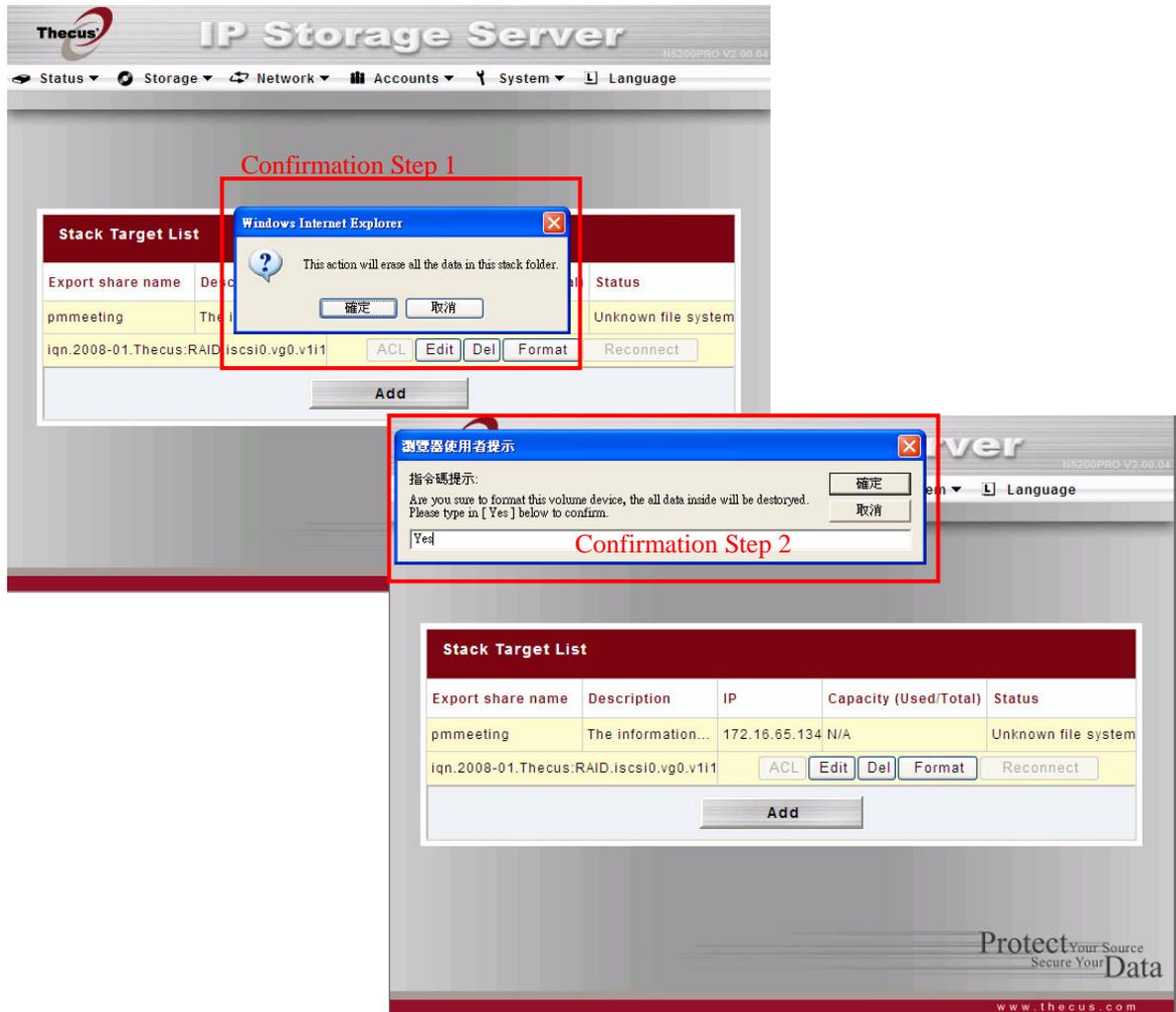
Export share name	Description	IP	Capacity (Used/Total)	Status
pmmeeting	The information...	172.16.65.134	N/A	Unknown file system
iqn.2008-01.Thecus:RAID888.iscsi1.vg1.v2i2				<input type="button" value="ACL"/> <input type="button" value="Edit"/> <input type="button" value="Del"/> <input type="button" value="Format"/> <input type="button" value="Reconnect"/>

With this newly attached stack target device, you will see the information displayed and also several options you can choose.

In general, if attached stack target device has been used by another N5200PRO/1U4500/N7700/N8800 as stack target volume, then the **Format** item will be grayed out and system will recognize it straight away and display its capacity. Otherwise, the **Format** item will be available and the **Capacity** and **Status** items will show as “N/A” and “Unknown file system” respectively. See the figure above for an example.

Next, click **Format** and system will prompt twice with different dialog boxes for conformation to proceed with formatting.

In the second dialog box confirmation, you have to type “Yes” without quotes to proceed with formatting. Please note that this is case sensitive. Please refer the figures below.



After the format is complete, the stack target volume will be created successfully. You will see the volume's capacity and status in the **Stack Target List** screen.



## C. Edit a Stack Target

To make any changes to stack targets, click *Edit* for the corresponding stack target, and system will bring up the following dialogue:

Edit iSCSI Target	
Enable iSCSI Target	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
Stackable Target IP	<input type="text" value="172.16.65.134"/> : 3260 <input type="button" value="Discovery"/>
iqn	iqn.2008-01.Thecus:RAID.iscsi0.vg0.v1i1
Username	<input type="text"/>
Password	<input type="text"/>
Export share name	<input type="text" value="pmmeeting"/> <small>Limit : ( 0~9, a~z )</small>
Description	<input type="text" value="The information for weekly PM meeting minute"/>
Browseable	Yes <input checked="" type="radio"/> No <input type="radio"/>
Public	Yes <input type="radio"/> No <input checked="" type="radio"/>
<input type="button" value="Apply"/> <input type="button" value="Back"/>	

After your changes have been made, click *Apply* to confirm or *Back* to ignore any modifications. Once changes are applied, the associated information will be updated on the **Stack Target List** window.

## D. Stack Target ACL

If the stack target **Public** setting set to *Yes*, then the **ACL** button will be grayed out. However, if **Public** setting is set to *No*, then the **ACL** button will be available for you to setup user access permissions for the stack target.

**ACL** settings will be exactly the same as system folder that you may have setup previously.

ACL Setting [2007pmmeetingto2008] - Windows Internet Explorer  
 http://172.16.66.186/admin/aclgo.htm?share=2007pmmeetingto2008&mode=stackable

Folder	2007pmmeetingto2008	Recursive	<input checked="" type="checkbox"/>
Local Groups	<input type="button" value="Deny"/>	<input type="button" value="Read Only"/>	<input type="button" value="Writable"/>
Local Users			
AD Groups	<input type="button" value="Remove"/>	<input type="button" value="Remove"/>	<input type="button" value="Remove"/>
AD Users			

Local Group

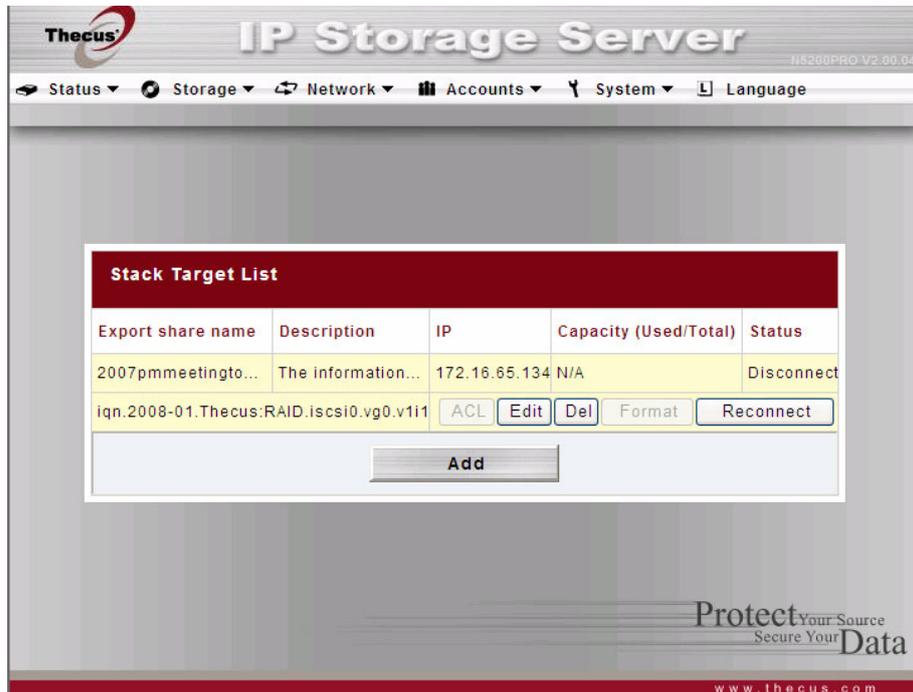
users

- aaaa
- abcd
- andy
- dddd

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## E. Reconnect a Stack Target

The enabled stack target devices may be disconnected by situations such as power outages or network disconnects. When this happens, the **Reconnect** button will be available. To attempt to reconnect the stack target, click **Reconnect**.



## F. Creating a Stack Target Volume

A stack target is an iSCSI volume that has been created under the **RAID > Volume Allocation List**. On the other hand, the iSCSI volume in N5200PRO/1U4500/N7700/N8800 can act as an iSCSI target for the iSCSI Initiator or a stack target for the stackable function. Please refer the figure below, which shows an example of a **Volume Allocation List** that includes several iSCSI volumes.

RAID Information								
Master RAID	ID	RAID Level	Status	Disks Used	Total Capacity	Data Capacity	USB Capacity	iSCSI Capacity
*	RAID	J	Healthy	1	72.6 GB	0.2 GB / 17.2 GB	7.3 GB	21.9 GB

Volume Allocation List				
Please select on ITEM for maintain allocate space				
Modify	Delete	Type	Name	Capacity
	Delete	Target USB	Target USB	7.3 GB
Modify	Delete	iSCSI	v1i1	7.3 GB
Modify	Delete	iSCSI	v1i2	7.3 GB
Modify	Delete	iSCSI	v1i3	7.3 GB

Create Space :

All iSCSI items can be set as stack targets for the stackable function.

However, please make sure the selected iSCSI target is not currently being used by any other iSCSI initiator. Otherwise, all data contained will be destroyed and unrecoverable.