

Add/Remove Storage Connection

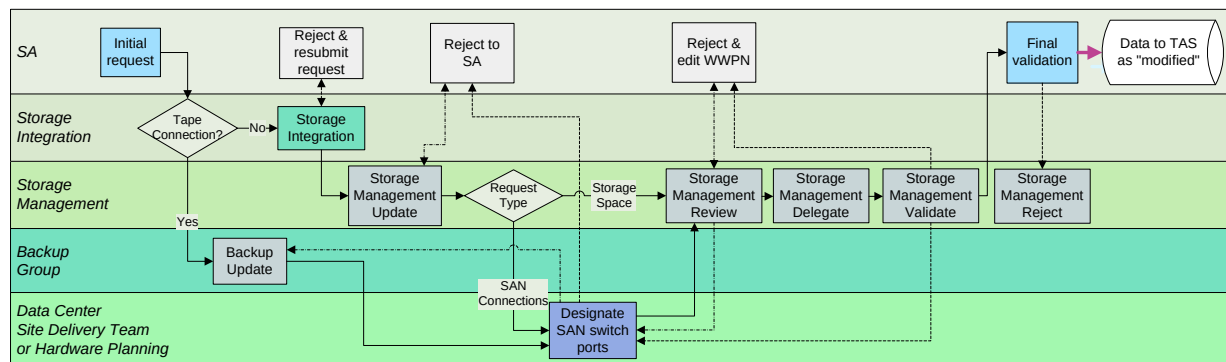
This help documentation applies to both workflow process for Adding and Removing Storage; one for physical devices and one for logical devices. This process may be used for:

- Adding or removing SAN storage connections
- Adding or removing tape storage connections
- Adding or removing storage space for an existing device (physical or logical)

The SA initiates the workflow by identifying the device to be modified. The information can either be for modifying connections; either SAN or tape but not both on the same request, or for changing in storage space. Each request can be for only one of the three types of request allowed with this process.

Once the request is submitted, it flows to Storage Integration for a validation step. If the request is for a tape connection, the request flows to the backup group for validation. Once validated, the request flows to the Storage Management group to assign the storage array (this step is skipped for tape requests). Next, the request flows to the data center team where the switch port connection information is entered (this step is skipped for storage space requests). The request then returns to Storage Management for review, delegation and validation. If the WWPN is not entered or incorrect, the request can be rejected back to the SA (Requestor) for re-entry and then returns to Storage Management for validation. If there are concerns about the connectivity information, the request can be rejected back to the port provisioning step. Finally, the request flows back to the SA for Final Validation.

At Final Validation, the SA has the option of rejecting back to Storage Management or completing the request. Once closed, the data updates the Aperture Repository and TAS.



1. Initiate Step

Handled by: SA

The SA will first specify the device to be updated.

1. Select the “Locate Existing Device” button

Add / Remove Storage Connections

Asset Information

 **Locate Existing Device**

Device Name:

Manufacturer:

Building:

Asset Number:

Model:

Floor:

Barcode Number:

Device Type:

Rack:

Serial Number:

Machine Type:

Grid Location:

Machine Category:

Project Information

* Project Name	Target Date	

Storage Space

Space Change	Storage Space	Storage Array	INQ

Current Storage Connection(s)

Action	Interface #	QUORUM	CLUSTER	Storage Space	Storage Type	WWW Port Number

New Storage Connection(s)

Interface #	QUORUM	CLUSTER	Storage Space	Storage Type	WWW Port Number

2. Search for the device to be updated and select “Fill in Form”
All existing storage data will be displayed.
3. Enter the Project Name
4. Next, fill in the request for one of the 3 areas:

Storage Space requests: fill in the Storage Space section. Otherwise, for connection changes, leave this section blank.

- a) Select the change type: add or remove
- b) Enter the amount of space to be added or removed

- c) Specify the Storage Array
- d) INQ is only required for a space remove request

Storage Connection changes; requests can be to remove existing connections and/or add new connections.

To remove existing connections:

- a) Select Edit next to the Current Storage Connections to be deleted
- b) Select Disconnect in the Action drop down list
- c) Save the form.

To add a new connection

- a) Click the “Add...” button in the New Connection section at the bottom of the screen.

Define a Storage Connection

Ensure that the WWPN entries adheres to IEEE standards and is entered in one of following four formats:
Emulex: 1000000C9#####, JMI: 2xxx00E069#####, Qlogic: 2xxx00E08b#####, HPUX: 50060B#####

Storage Connection Information

*Interface #

*Storage Connection Type

SRDF Partner

Cluster

Cluster Partner

*Manufacturer

*World Wide Port#

Cluster Type

*Storage Space

*Backup Type

Quorum Device

Storage Array

Tape Pool

Comments

- b) Using this window, enter all the storage connection information.
- c) Enter TAPE SAN in the Storage Connection Type field for tape connections. Note that a request is for either tape or SAN connections, not both in one request. However, multiple connections of the same type may be entered on the same request.

Field Name	Required	Transfer to TAS	Aperture Repository	Notes
Interface #	X	X	X	SN0-SN9
Manufacturer (card)	X		X	Pick list
Storage Space	X			Data entry in Gb
Storage Array				Entered by Storage Management at a later step.
Storage Connection Type	X		X	Direct attach/NAS/SAN-SRDF/SAN-NSRDF
SRDF Partner	X			Available for entry only if Storage Connection Type="SAN-SRDF"
World Wide Port Number		X	X	* Data entry 16 characters required based on Manufacturer selection.
Backup Type	X		X	Pick List from TAS

Field Name	Required	Transfer to TAS	Aperture Repository	Notes
Cluster			X	Yes/no
Cluster Partner				Available for data entry if Cluster="Yes"
Quorum Device			X	Yes/no
Cluster Type			X	Data entry
Comment				

✓ **Data Entry Rule:** WWPN entries adhere to IEEE standards and are filtered in one of following four formats based on HBA Manufacturer:

- 10000000c9##### (Valid for Emulex)
- 2xxx00e069##### (Valid for JNI)
- 2xxx00e08b##### (Valid for Qlogic)
- 50060b##### (Valid for HPUX)

- Select Create.
- Repeat for each connection required.
- Click Submit request at the top of the main form.

2. Storage Integration Validation

Handled by: Distributed Storage Integration

Once the SA submits the request, the request is flowed for Validation. The validator can view information but cannot change any data. The request is either processed as "Storage Validated" or "Reject Request."

If the request is for a tape connection, this step is skipped.

The request can be rejected, in which case the form flows back to the SA for updated and re-submit. Or it can be approved, when it flows to the next step.

3. Backup Update

Handled by: Backup Group

For tape connection requests only, the backup group validates the request. The request is either processed or reject back to the SA for correction.

1. Open the request.
2. Click "Edit" next to the port.
3. Enter the value in the 'Tape Pool' field if necessary
4. Click the "Save" button at the top of the screen.
5. Repeat for each port and then click "Updated"

If rejected, the form flows back to the SA for updated and re-submit.

4. Storage Management Update

Handled by: Distributed Storage Management

Next, the request is flowed for update of the Storage Array and validation by Storage Management. This step is skipped for tape connection requests.

1. Open the request.
2. Click "Edit" next to the port (SN0, SN1...).
3. Enter the value in the 'Storage Array' field if necessary

4. Click the “Save” button at the top of the screen.
5. Repeat for each port and then click “Updated”

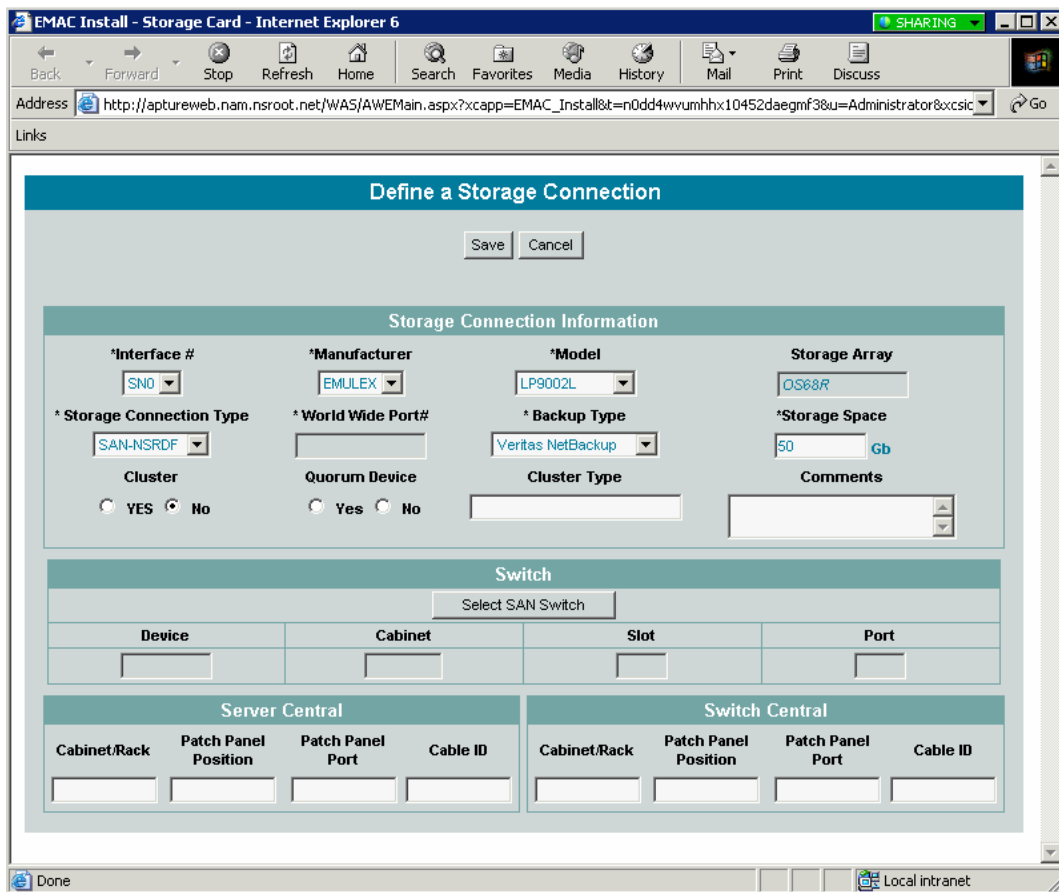
Alternately, the request may be rejected back to the SA for additional information after which it will be re-submitted back to this step.

5. Designate SAN Switch Port

Handled by: Hardware Planning or SDT

At this step, the SAN switch ports are designated.

1. Open the request.
2. Click “Edit” next to the port to be connected.
3. Click “Select SAN Switch”
4. Enter the name of the patch panel where the port will be connected to.
5. Select the patch panel and click the Show Port button
6. Select the port and click Use this Port



7. Fill in all the *hop* information for the Server Central and Switch Central connections.
 8. Click “Save” button at the top of the form
- Repeat for each storage connection.

9. Once all ports are completed, click “Port Assignment Completed” button at the top of the form to complete this step.

4. Storage Management Review

Handled by: **Distributed Storage Management**

The request is first reviewed by Storage Management.

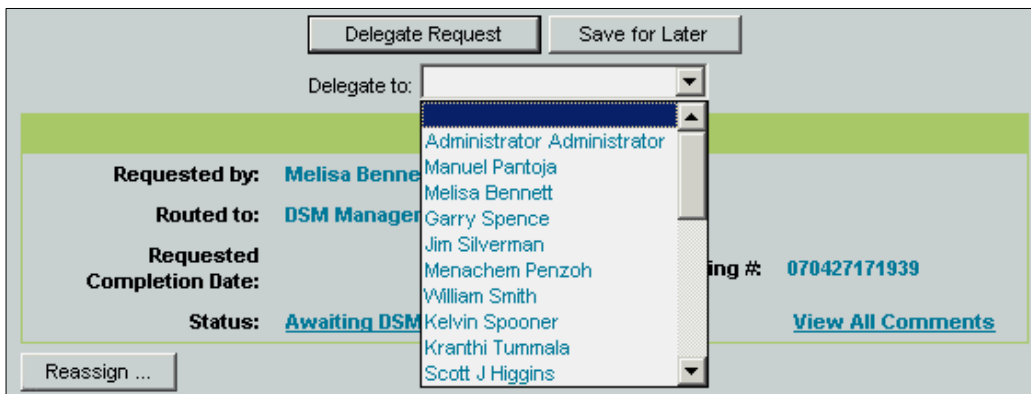
1. Open the request.
2. Click “View” next to the port in order to examine the connection data.
3. The request can be rejected back to the SA, rejected back to the data center for correction of the connection data, or passed to the next step for delegation.

5. Storage Management Delegate

Handled by: **DSM Management**

The request is delegated by one of the Management team from DSM.

1. Open the request.
2. Click the Delegate To: drop down menu to select a member of the DSM team.



3. Enter the “Target Date” which is the date the storage should be available.
4. Click “Delegate Request”

6. Storage Management Validate

Handled by: **Distributed Storage Management**

The request is validated by one of the Distributed Storage Management members.

1. Open the request.
2. Click “View” next to the port in order to validate the data.
3. The request can be rejected back to the SA for correction, rejected back to the data center for correction of the connection data, or passed to the final validate step.

7. WWPN Entry

Handled by: **SA**

At this step, the SA who initiated the request will receive the form in order to correct the world wide port numbers.

1. Open the request.
2. Examine the comments to see where changes are required.

- ✓ **Data Entry Rule:** WWPN entries adhere to iEEE standards and are filtered in one of following four formats based on HBA Manufacturer:

- 10000000c9##### (Valid for Emulex)
- 2xxx00e069##### (Valid for JNI)
- 2xxx00e08b##### (Valid for Qlogic)
- 50060b##### (Valid for HPUX)

3. Make changes
4. Click “Resubmit” at the top of the form

The request then returns back to the DSM team for validation again. If validated, then the request will flow to the final step.

8. Final Validation

Handled by: SA

At this step, the SA who initiated the request will close out the workflow.

1. Open the request.
2. Click “OK” at the top of the form

All information is now saved to the Aperture Repository and specified fields are sent to TAS transfer tables which are fed into TAS.