

Logical Create Process for Domain, Controller, VMware, LPAR, or Sun Local Zone

This document details the VISTA Logical Create process for installing Domains and Controllers on Frames, Virtual servers (VMware) onto Clusters, LPARs on Mainframes, and Solaris Local Zones onto Global Zones.

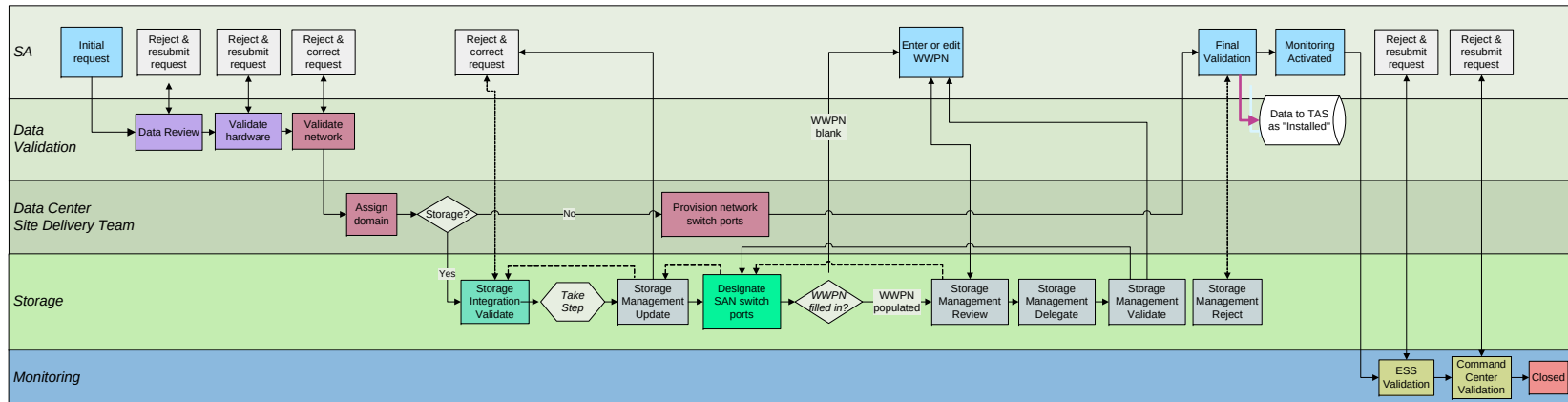
- **For Domains and Controllers:** A Frame must be completely installed first via the Equipment->Install process before any Domains or Controllers can be associated to it.
- **For Virtual (VMware):** At least one physical server must be completely through the Equipment-> Install process, defined as an “ESX Server” in the Machine Type field, and assigned a Cluster before a Virtual can be assigned to a Cluster. Existing physical servers can also be updated to be assigned a Cluster via the Update Information->Device or Domain workflow. These servers must have “ESX Server” entered in the Machine Type field and a Cluster assigned.
- **For Local Zones:** A physical server with a Platform='Solaris' and OS='10.x' must be completely installed first via the Equipment->Install process in order for a Local Zone to be associated to it. Existing physical servers can also be updated to act as Global Zones via the Update Information->Device or Domain workflow. These servers must have Platform='Solaris' and OS='10.x' in order for a Local Zone to be associated to it.
- **For LPARs:** A Mainframe must be completely installed first via the Equipment->Install process before an LPAR can be associated to it.

The Logical Create process requires that a Frame, Mainframe, or Server be completely installed via the Equipment Install process first in order to associate the Logical entity to the physical device.

- *Domains & Controllers* are assigned to Frames.
- *Virtuals* are assigned to Clusters.
- *Local Zones* are assigned to Servers running Solaris 10.x
- *LPARs* are assigned to Mainframes

The process starts with an initial request for the Logical server entered by an SA. Once the Frame, Cluster, Mainframe, or Zone is selected, the SA can enter in multiple Logical servers on one request.

Once submitted, the request then flows to the data center management team for an initial review of the request. Then it flows to the Hardware Validate step. Then onto a Network Validation step. Once validated, the request flows to the data center team to “assign” the Logical server which adds it to the database.



Then concurrent workflows are set off to assign the network port and storage port (if applicable). These workflows include the assignment of the physical switch and/or patch panel ports. Once these flows are completed, the request flows back to the “requestor” (the SA) for final validation.

After final validation, the data is saved in the Aperture VISTA repository and select fields are exported to the TAS repository.

If the workflow is for a Domain or LPAR that has a machine type of Production or COB then the request continues on for additional monitoring steps. If the request does not fall into this category then the request is closed out after Final Validation.

NOTE: This workflow is for Domains, Controllers, Virtuals, LPARs, and Local Zones. The use of the term “Logical System” throughout this document applies to all logical hosts covered by this workflow process.

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1. Create Step

VISTA Org Role	SA (Requestor)
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Below is the initial screen for the Logical Create request.

1. First select an existing *parent* type: Frame, Cluster, Mainframe, or Zone.
2. Then click the Locate button to search the inventory for an existing parent device.

Any Logical systems on the selected frame, cluster, mainframe, or zone will be listed in the Current Logical Systems sections.

3. Enter the Obtained By and Obtained By Detail information.

Add Logical

Parent Information

Parent System Type :

Please Select Parent System Type

Device Name:
Manufacturer:
Building:

System Type:
Model:
Floor:

Barcode Number:
Machine Category:
Room:

Serial Number:
Grid Location:

Project Information

* Obtained By
* Obtained By Detail (VR#)

Current Logical Systems

Name	Barcode
------	---------

New Logical Systems

Name

Subforms

Type	Changed	Status	Routed To	Tracking #
Network				
SANNAS Storage				

4. Next click Add... button in the New Logical Systems section to add the Logical System.
 - Domains and Controllers are added to Frames
 - Virtuals are added to Clusters.
 - LPARs are added to Mainframes.
 - Local Zones are assigned to Servers running Solaris 10.x

Add the info for the Logical System form in a similar fashion to how information is added during a server workflow.

A. System Information

5. Specify the information in the System Information section. Start by specifying the “System Type.” This field choice will dictate which fields are required in the other sections of this form.
6. The Name field is validated to be unique for all System Types except Other. Blank spaces are not permitted. The name must be unique as compared to
 - a. All other devices listed in Aperture inventory,
 - b. All servers in the TAS inventory (update nightly from TAS to VISTA)
 - c. Other existing workflows within Aperture VISTA that are past Hardware Validation

System Information									
* System Type	Manufacturer		Model		* Name				
	IBM		9117-570						
* Platform	* OS	* DMZ: ☐ Yes ☐ No		* Hardware Required: ☐ Yes ☐ No					
		* CEP: ☐ Yes ☐ No							
* Machine Category	* Machine Type		* TAS Device Type						
* Business Area	Subsystem Type								
* Storage Type	* Backup Type	* Redundant Type		* Database					
* Share Allocation									
Applications									
Application ID		Application Name					Sox Critical		
Add...	Total Applications: 0								
Change Tools									
Tool ID		Tool Name							
Add...	Total Change Tools: 0								
Support Groups									
Group Type		Group Name			Primary Contact			Secondary Contact	
Add...	Total Support Groups: 0								
Hardware Space Provisioning									
Building		Floor		Grid Location		Rack Name			
390 GREENWICH STREET		7		EB.62					
Network Connections									
Click on the View button next to the Card line item to provide additional Network Connection details									
Virtual	Port Type	Topology	Speed	Duplex	IP Address	Device Name	Slot	Switch	Port
Add...	Total Network Connections: 0								
Storage Connections (SAN/NAS)									
Click on the View button next to the line item to provide additional Storage Connection details									
Interface #	World Wide Port #	Space	Card Info	Device Name	Slot	Switch	Port		
Add...	Total Storage Connections: 0								

7. Fill in the remaining fields in the Device Information section. Field descriptions are on the chart on the following page along with information as to which fields are required based on the selection of the System Type value.

The fields on this table are collected for each system.

Field Name	Transfer to TAS	Aperture Repository	Notes
System Type	X	X	Pick List (Domain, Controller, Virtual, LPAR, or Local Zone)
Name	X	X	Verified for unique entry against TAS & Aperture databases
Database	X	X	Pick List from TAS
Platform	X		Pick List from TAS
OS	X	X	Pick List from TAS
DMZ	X		Yes/No
CEP	X		Yes/No
Hardware Required			Yes/No if the install needs to wait for additional hardware
Machine Category	X	X	Pick List from TAS
Machine Type	X	X	Pick List from TAS
TAS Device Type	X		Pick List from TAS * MUST chose one of the Types starting with "VM-"
Business Area	X	X	Pick List from TAS
Sub System	X	X	Pick List from TAS
Storage Type	X	X	Pick List from TAS
Backup Type	X	X	Pick List from TAS
Redundant Type	X	X	Pick List from TAS
Share Allocation	X	X	3 digit numeric

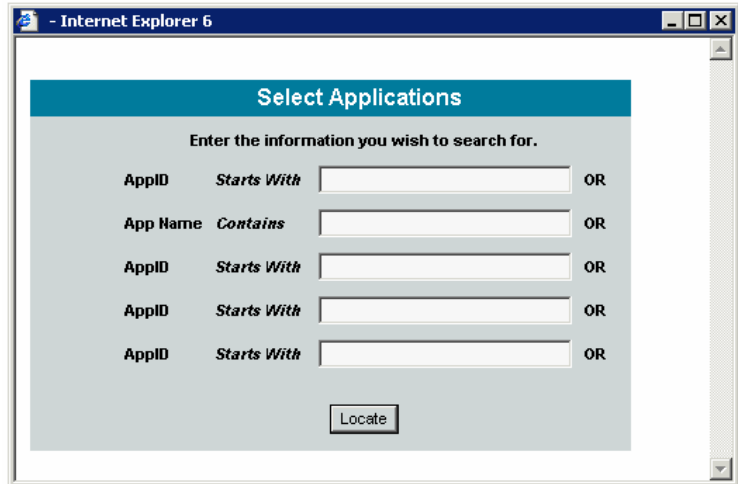
Fields on the system information form are required based on the selection of one of the values in the System Type pick list at the top left of the form. Use the table to determine whether individual fields are required based on the selection. Fields labeled "Parent" will inherit values based on the Frame, Cluster, or Zone.

System Types:	Domain	Controller	Local Zone	Virtual	LPAR
Field Name	Domain	Controller	Local Zone	Virtual	LPAR
System Name	X	X	X	X	X
Building	Parent	Parent	Parent	Parent	Parent
Floor	Parent	Parent	Parent	NA	Parent
Room	Parent	Parent	Parent	NA	Parent
Rack Name	Parent	Parent	Parent	NA	Parent
TAS Device Type	X	X	X	X	X
Storage Type	X			X	X
Redundant Type	X		X	X	X
Machine Category	X	X	X	X	X
Obtained by	X	X	X	X	X
CSR Number (VR #)	X	X	X	X	X
Inspection Certificate					
Manufacturer	Parent	Parent	Parent	Parent	Parent
Model	Parent	Parent	Parent	Parent	Parent
OS	X	X	X	X	X
Business Area		X	X	X	
Machine Type	X	X	X	X	X
Backup Type		X	X	X	
Barcode Number	X	X	X		X
Cluster Name				X	
Parent Device	X	X	X		X
Share Allocation			X	X	

B. Applications

8. Click the Add... button in the “Applications” section to specify all the applications associated with this logical system.
9. Use the Select Applications screen to search all the applications that are to be added. Search on multiple Application IDs or any part of the Application Name.
10. Select ALL the applications that are to be added and then click “Assign Application(s)”

Only applications that have a CSI status of “P”, “D”, or “L” will be available to add. Each application can only be added once.



This table describes the field collected on the Application form.

Field Name	Required	Transfer to TAS	Aperture Repository	Notes
App ID	X	X	X	Pick List from TAS
App Name	X	X	X	Pick List from TAS
SOX Critical			X	

The SOX critical field will be populated automatically. The values will be:

- B – SOX Critical as indicated by the Business Owner
- K – SOX Critical as indicated by the Business Owner and KPMG
- N – Not SOX Critical

C. Change Tools

The next section for Change Tool is required only if one or more Applications are marked as SOX critical (“B” or “K”). However, a change tool may be added even if there are no SOX critical applications selected.

11. Click the Add... button in the “Change Tool” section to specify the change promotion tool(s) associated with this logical system.

The following table describes the field collected on the Change Control.

Field Name	Required	Transfer to TAS	Aperture Repository	Notes
Tool ID		X	X	Pick List from TAS
Tool Name		X	X	Pick List from TAS

D. Support Group

12. Using the Add... button in the “Support Group” section, the user will specify all the support groups associated with this logical system.

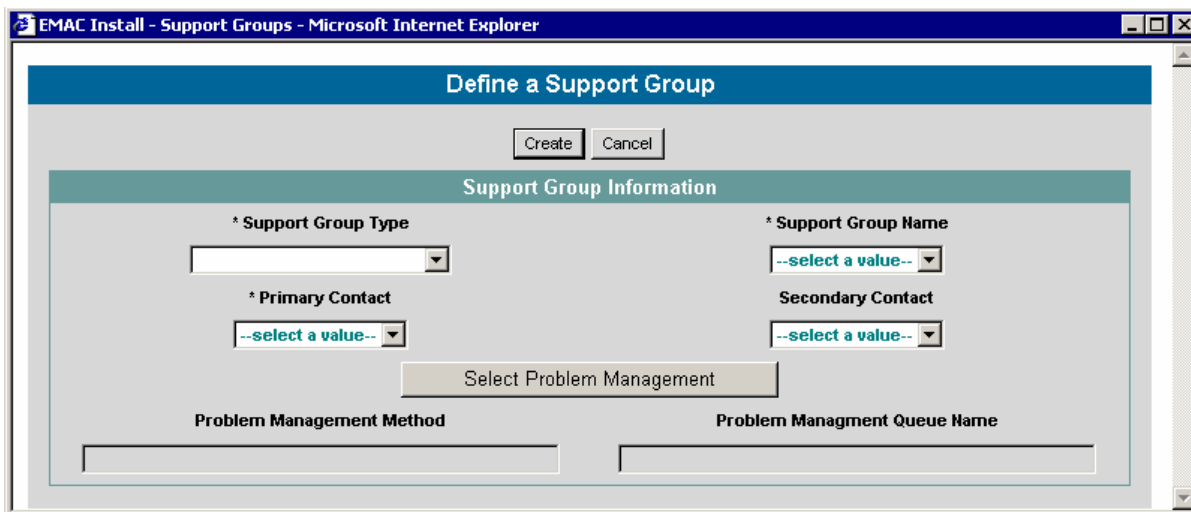
This table describes the field collected on the Support Group form.

Field Name	Required	Transfer to TAS	Aperture Repository	Notes
Support Group Type	X	X	X	Pick List from TAS
Support Group	X	X	X	Pick List from TAS
Primary Contact	X*	X	X	Pick List from TAS
Secondary Contact		X	X	Pick List from TAS
Problem Management Method		X	X	Pick List from TAS
Queue Name		X	X	Pick List from TAS

* Primary contact not required when Support Group Type= Application, Vendor, or Monitoring

- ✓ **Data Entry Rule:** If there is at least one SOX critical application added to the server then there must be one from each of the following support group types added to the device

- Systems Support Group
- Monitoring Group
- OS ISA Group
- Change Promotion Group



The screenshot shows a web browser window titled "EMAC Install - Support Groups - Microsoft Internet Explorer". The main content area is titled "Define a Support Group" and contains a "Support Group Information" section. The form includes the following fields and controls:

- Create** and **Cancel** buttons at the top.
- * Support Group Type**: A dropdown menu.
- * Support Group Name**: A dropdown menu with "--select a value--" as the selected option.
- * Primary Contact**: A dropdown menu with "--select a value--" as the selected option.
- Secondary Contact**: A dropdown menu with "--select a value--" as the selected option.
- Select Problem Management**: A button.
- Problem Management Method**: A text input field.
- Problem Managment Queue Name**: A text input field.

E. Network Connections

The network connection section of the Install is to specify the network connections to be installed. To specify a connection, click the “Add...” button.

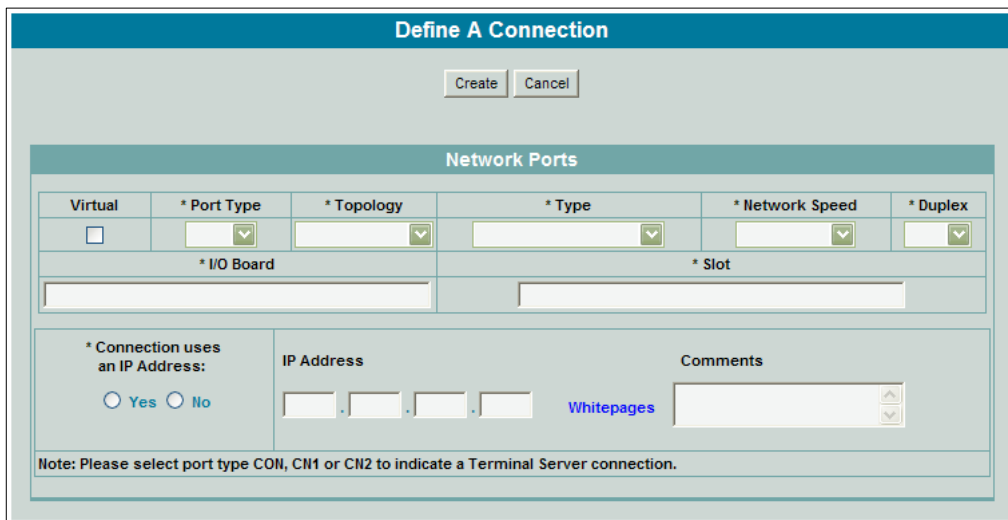
13. Select the Virtual checkbox if the connection does not get a physical switch port assignment but does require an IP Address to be entered.

* Notes:

- System types=’Virtual’ can only have virtual network connections and the virtual check box must be selected. All network ports on a Virtual system must be marked as virtual (i.e.-no physical switch port assigned).

14. Enter Network Port connection information.

The label “Whitepages” opens up a link to Whitepages for reference in assigning the IP address.



15. Repeat for each connection.

The following fields are collected on the Network form at this initial request stage.

Field Name	Required	Transfer to TAS	Aperture Repository	Notes
Logical				Determines if the connection has a physical connection or not.
Port Type (name)	X	X	X	Pick list
Topology	X	X	X	Pick list from TAS
Type	X	X	X	Pick list from TAS
Network Speed	X	X	X	Pick list from TAS
Duplex	X	X	X	Pick list from TAS
I/O Board	X		X	
Slot	X		X	
IP Address	X	X	X	Only required if yes is checked Validated for each octet 0-255
Comments				

F. Storage Connections

The Storage connection section of the Install is for specifying the external storage connections. To specify a connection, click the “Add...” button below this section.

16. Enter each Storage Port connection using the screen displayed here. Repeat for each connection.

The form for connecting storage connections is on a per port basis. The fields to be captured on a per port basis are:

Field Name	Required	Transfer to TAS	Aperture Repository	Notes
Interface #	X	X	X	SN0-SN9
Manufacturer (card)	X		X	Pick list
Space	X		X	Number
Storage Array				Entered at Storage Management Update step
Storage Connection Type	X		X	Direct attach/NAS/SAN-SRDF/SAN-NSRDF
I/O Board	X		X	Data entry
I/O Slot	X		X	Data entry
World wide port number		X	X	* Data entry 16 characters required based on Manufacturer selection.
SRDF Partner				Data entry if Connection Type="SAN-SRDF"
Cluster			X	Yes/no
Cluster Type			X	Data entry
Backup Type	X		X	Pick List from TAS
Cluster Partner				Data entry if Cluster="Yes"
Quorum Device			X	Yes/no
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)

After the Storage form is complete;

17. Select “Create” at the top of the form to complete the installation information.

If additional logical systems are being added to the parent (frame, cluster or zone), then they can be added by clicking the “Add...” button again and repeating all the above data entry.

Once all logical systems have been added to the parent:

18. Click “Submit Request” to initiate the workflow.

2. Data Center Review Step

VISTA Org Role	Data Center Reviewer
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This step is for the data center management team to do an initial review of the request as entered by the SA. The request is either validated or rejected to the SA for correction and re-submittal.

3. Hardware Validation Step

VISTA Org Role	Hardware Validators for each site
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This step is for validating the hardware information. As with each of the three validation steps, there is no data entry. The Validator reviews the information. If there are changes to be made, the request is rejected back to the SA (Requestor). A window for comments will be presented and the contents of what is entered will appear in the comments section when the form is flowed back to the Requestor for re-submittal.

4. Network Validation Step

VISTA Org Role	Network Validators for each site
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This step is for validating the network information. As with each of the three validation steps, there is no data entry. The Validator reviews the information. If there are changes to be made, the request is rejected back to the SA (Requestor). A window for comments will be presented and the contents of what is entered will appear in the comments section when the form is flowed back to the Requestor for re-submittal.

5. Assign Domain Step

VISTA Org Role	Data Center Operations for each site
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Following the Validation steps, the Site Team “assigns” the logical system(s) to their parent device which updates the database. At this step the Barcode number assigned.

1. Click Edit next to each logical system on the request
2. Fill in the Barcode # and any other data at the top of the screen.

Field Name	Required	Transfer to TAS	Aperture Repository	Notes
Barcode #	X	X	X	Not required for VMWare installs
PO #			X	
P2P			X	

3. Click Save.

The request will then simultaneously flow to the SAN & Network steps.

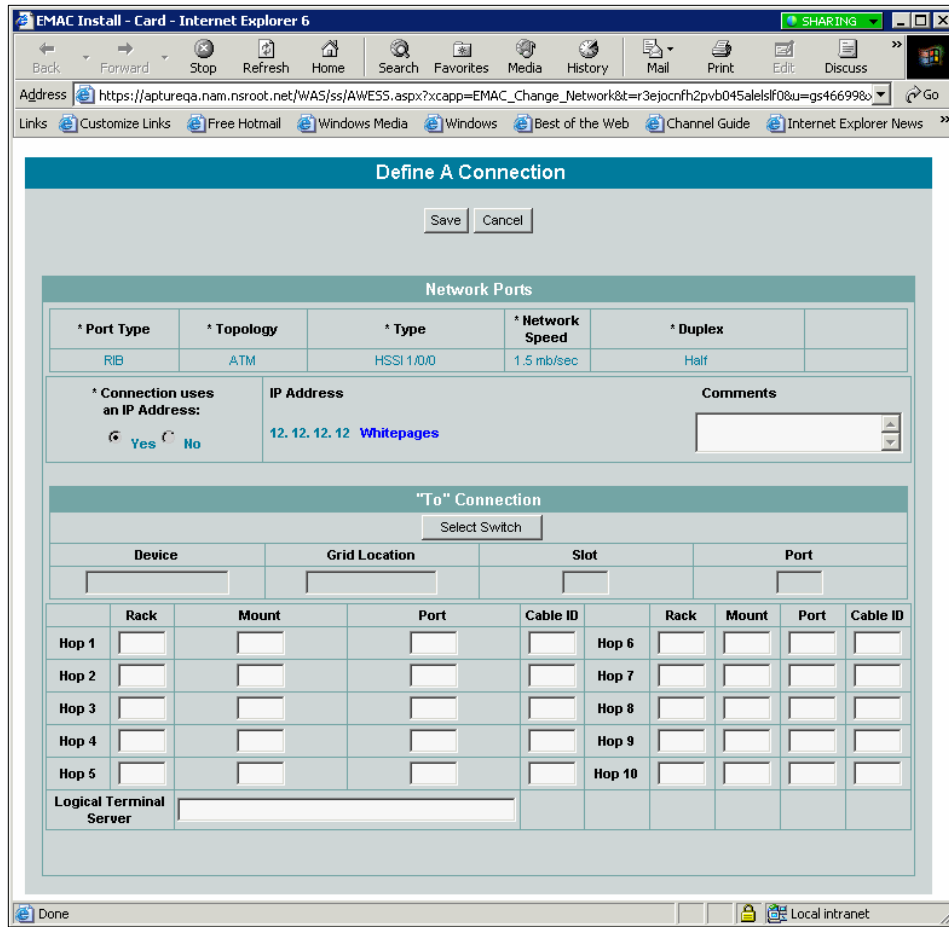
6. Network Provisioning Step

VISTA Org Role	Site Delivery Teams for each site
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At the Network Provisioning step, the network connection information is entered. SDTs will enter the port connection at the switch for each defined connection.

Note that if all the ports for the logical system were indicated as “virtual” then this step is skipped. If any individual port is listed as “virtual” then no port assignment is necessary.

1. Open the request and click Edit next to the device to establish the network connection.



Define A Connection

Save Cancel

Network Ports

* Port Type	* Topology	* Type	* Network Speed	* Duplex
RIB	ATM	HSSI 1.0/0	1.5 mb/sec	Half

* Connection uses an IP Address: ☒ Yes ☐ No

IP Address: 12.12.12.12 Whitepages

Comments:

"To" Connection

Select Switch

Device	Grid Location	Slot	Port

	Rack	Mount	Port	Cable ID		Rack	Mount	Port	Cable ID
Hop 1					Hop 6				
Hop 2					Hop 7				
Hop 3					Hop 8				
Hop 4					Hop 9				
Hop 5					Hop 10				
Logical Terminal Server									

The network information is entered in the lower portion of the form.

2. Enter the Network Change Control Number and use the Link to Infoman as a reference if necessary.
3. Select the "Edit" button next to the first connection to be assigned.
4. Click the "Select Switch" button and search for the switch.
5. Then drill down to the slot and then the port to connect to.
6. Click "Fill in Form" when the port is selected.
7. All intermediate hops are to be entered into the available spaces at the lower portion of the screen.

Listed here is are all of the fields that are editable for the Network Provisioner

Field Name	Required	Transfer to TAS	Aperture Repository	Notes
Port Type (name)	X	X	X	Pick list
Topology	X	X	X	Pick list from TAS
Type	X	X	X	Pick list from TAS
Network Speed	X	X	X	Pick list from TAS
Duplex	X	X	X	Pick list from TAS

Field Name	Required	Transfer to TAS	Aperture Repository	Notes
IP Address	X	X	X	Only required if yes is checked Validated for each octet 0-255
Comments				Data entry
To Device	X		X	Selected from "Select Switch" button
To Device Location	X		X	Selected from "Select Switch" button
To Device Slot	X		X	Selected from "Select Switch" button
To Device Port	X		X	Selected from "Select Switch" button
Hop 1-10 Rack			X	Data entry
Hop 1-10 Mount			X	Data entry
Hop 1-10 Port			X	Data entry
Hop 1-10 Cable ID			X	Data entry
Terminal Port			X	4 digit number

8. If a Terminal Server connection was made, enter the Terminal Port connection in the space provided at the bottom of the form.

Repeat for each port on the logical system.

9. Returning to the Main form, click the check box next to Provisioning Complete?

10. Select the Network Provisioned button at the top of the form.

If there are no storage connections specified for this Logical System, the request is now ready for Final Validation. If there are storage connections, the request flows for Storage Validation in the next step.

7. Storage Validation Step

VISTA Org Role	Distributed Storage Integration
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This step is for validating the storage information. As with each of the three validation steps, there is no data entry. The Validator reviews the information. If there are changes to be made, the request is rejected back to the SA (Requestor). A window for comments will be presented and the contents of what is entered will appear in the comments section when the form is flowed back to the Requestor for re-submittal.

8. Storage Management Update

VISTA Org Role	Distributed Storage Management
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At this step, the Storage Array for the SAN connection is optionally entered (only applicable when a site has multiple SAN fabrics).

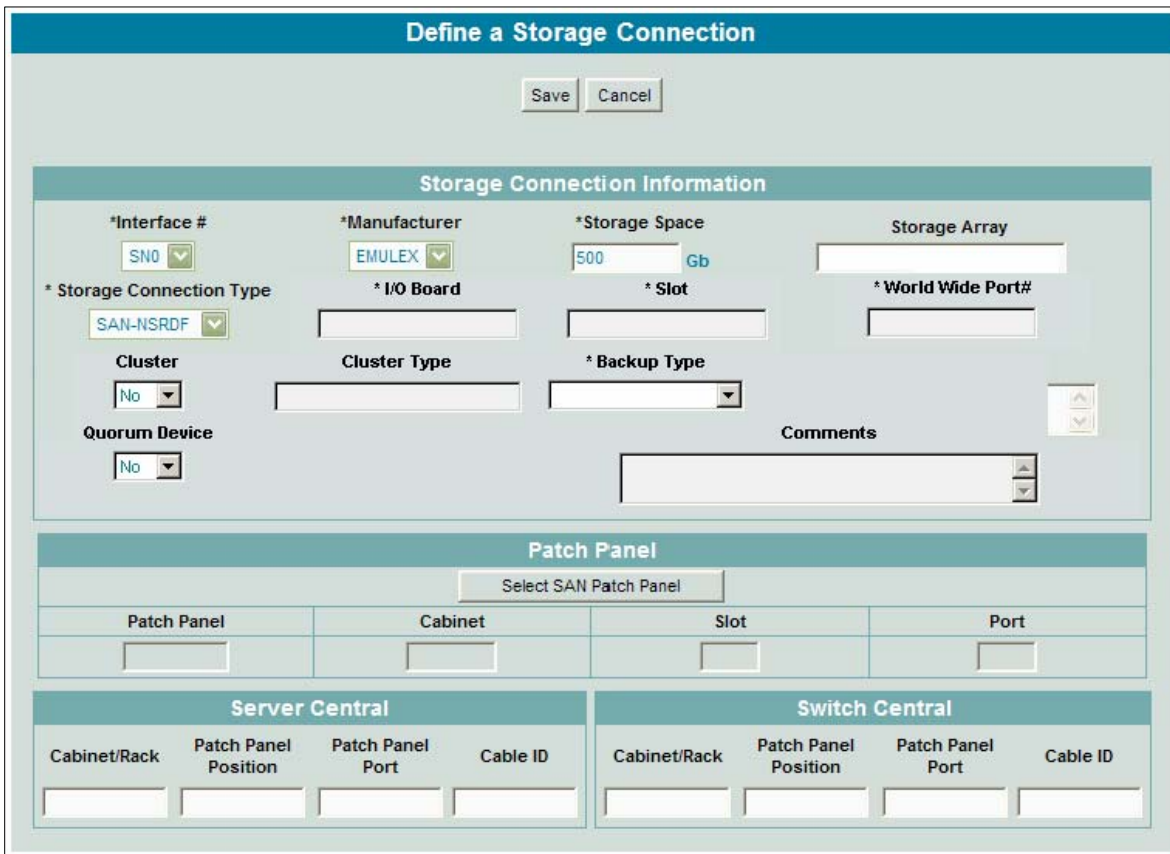
1. Open the request.
2. Click "Edit" next to the logical system
3. Scroll to the Storage section of the form and click "Edit" next to the storage port to be connected.
4. Enter the Storage Array
5. Click "Save" button at the top of the form
6. Repeat for each storage connection.
7. Once all ports are completed, click "Save" at the top of the form.
8. Click "Updated" button at the top of the Main form to complete the request.

9. Designate SAN Fibre Ports

VISTA Org Role	Site teams (Hardware Planning or SDT)
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At this step, the SAN Fibre ports are designated.

1. Open the request.
2. Click “Edit” next to the logical system.
3. Scroll to the Storage section of the form and click “Edit” next to the storage port to be connected.



4. Click “Select SAN Patch Panel”
5. Locate the Patch Panel or Storage Director where the connection terminates.
6. Click “List Ports” to see all available ports for the connection.
7. Click the port and then select “Use this Port” at the top of the window.
8. Fill in the Server Central and Switch Central connections.
9. Click “Save” button at the top of the form
10. Repeat for each storage connection.
11. Once all ports are completed, click “Save” at the top of the form.
12. Click “SAN Switch Port Assigned” at the top of the Main form to complete the request.

9. Storage Management Review

VISTA Org Role	Distributed Storage Management
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The request is next reviewed by Storage Management.

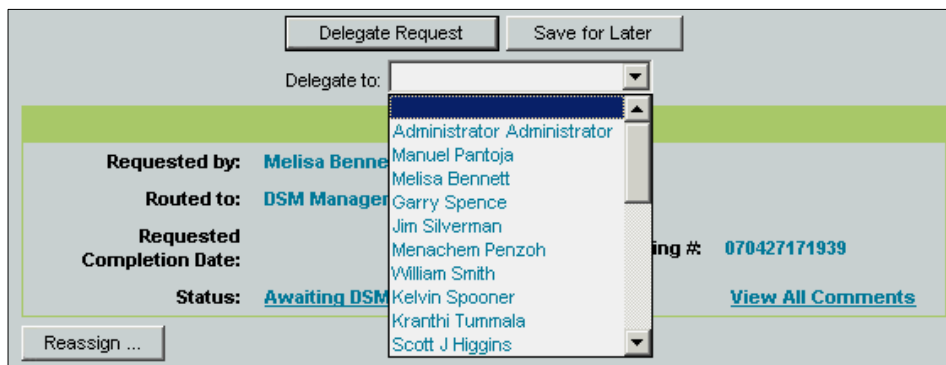
1. Open the request.
2. Click “View” next to the port in order to examine the connection data.
3. The request can be rejected back to the SA, rejected back to the data center for correction of the connection data, or passed to the next step for delegation.

10. Storage Management Delegate

VISTA Org Role	DSM Management
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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 to the Logical System.
4. Click “Delegate Request”

11. Storage Management Validate

VISTA Org Role	Distributed Storage Management
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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. Then process the request:
 - a. If the WWPN is incorrect, click “Reject Request” to send the request back to the SA,
 - b. If the Fibre ports are incorrect, click “Reconnect Ports” to send the form back for Fibre connections,
 - c. Otherwise, click “Validation Completed” to flow the request.

12. WWPN Re-Entry

VISTA Org Role	SA (Requestor)
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If the Storage Management rejects the request back to the SA for correction of WWPN, then the SA will follow the below steps.

1. Open the request.

2. Click “Edit” next to the logical system.
3. Scroll to the Storage section of the form and click “Edit” next to the first storage port.
4. Enter the WWPN in the space provided and click “Save”
5. Repeat for each storage port defined.
6. Click “Save” at the top of the form.
7. Click “WWPN Entered” at the top of the Main Request form to complete the request.

13. Final Validation

VISTA Org Role	SA (Requestor)
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At this step, the request flows back to the Requestor for final validation.

1. Open the request.
2. Click “Validation Completed” at the top of the form to complete the request.
3. Or, reject to Storage Management if there is an issue with the storage connection.

Once the request is processed, all information is saved immediately to the Aperture Repository and is ready for viewing or update.

Select fields are saved in separate database tables that TAS picks up in the nightly transfer process and will display in TAS the next day.

The request is now closed or if the request is for a Production or COB Domain or LPAR then the workflow continues for the monitoring groups.

Conditional Monitoring Steps

NOTE: If the request is for a Domain or LPAR and the Machine Type is specified as either Production or COB then the request will flow on for these additional steps. If the request is not for a Production or COB LPAR or Domain then the request will close after the Final Validation step.

14. Monitoring Activated

VISTA Org Role	SA (Requestor)
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The request returns to the SA’s Request List where it will remain until the server is ready for monitoring. The SA will process the request which will alert the ESS team the server is ready.

1. Click “Monitoring Activated”.

15. ESS Validation

VISTA Org Role	ESS
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The request flows to the ESS group to alert them that the Logical System is ready for monitoring. ESS can either process the request or reject the record back to the SA if there is any issue. Data cannot be edited in the request at this or the reject to SA step.

1. Click “ESS Validated” or “Reject to SA”.

16. Command Center Validation

VISTA Org Role	Command Center
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The request flows to the Command Center to alert them that the Logical System is ready for monitoring. They can either process the request or reject the record back to the SA if there is any issue. Data cannot be edited in the request at this or the reject to SA step.

1. Click “Command Center Validated” or “Reject to SA”.