

Equipment Install Process

This document details the VISTA Install process and the integration of the (separate) Receive process.

The Install process starts with an initial request for hardware entered by an SA. Once submitted, the request flows for application validation in CSI. The request next flows to a site specific Hardware Validation step. The request flows based on the “preferred building” filled in by the SA. Once validated, the request flows in three concurrent paths; Data Center Operations (DCOPS), Site Delivery Team (SDT), and various storage groups.

In the DCOPS workflow, one of the members of the group takes the request and assigns the physical location of the device in a cabinet or on the floor. They then assign the power and close this segment of the workflow.

In the SDT flow, the request is validated by Network Validators at that site. It may be rejected back to the SA if necessary for correction of network port information only. Once validated, the request flows to the SDTs and one of the members of the group will assign the switch port and hops for each of the connections.

In the storage flow, the storage component of the request is validated by SAN Review Group and may be rejected back to the SA if necessary for correction. Once validated, the request will flow to SAN Group where they will enter the storage array for sites containing multiple storage fabrics. They may also reject the request back to the SA for correction. Then the request flows to the appropriate group at each site (may be Hardware Planning or SDTs depending on the data center) who will assign the fibre ports and hop connections.

Meanwhile, the team at each site that is responsible for receiving hardware enters in the device in the separate Receive workflow. If they know which Install request the received device matches, they can enter the name of the device when they do the receiving or by using the Update Receive workflow once the device has been received.

Once all three Install sub-flows (DCOPS, SDTs, and storage) described above are complete, the request is ready for Rack & Stack by the SDT group. If the hardware receivers have not yet aligned the receive inventory with the install request, it may be done at this time.

Once the device is racked, if there is no storage then the request returns to the SA for final validation.

If there is SAN on the request, it either flows to the SA for WWPN entry (if not previously filled in) or to SAN group. SAN group has a Review step where they may reject the request back to the SA or to the port provisioning step. Once reviewed, the request is delegated to the SAN member who will provision storage. The SAN Validator completes the storage workflow and sends the request back to the SA for final approval. The SA may reject the request back to SAN if there are issues with storage.

Once the SA does a final approval the data is saved in the Aperture VISTA repository and select fields are exported to the TAS repository.

If the request is for a Production or COB server then it will flow back to the SA where it will await the SA to indicate that monitoring has been activated. Then the request flows to ESS where the request may be rejected back to the SA. Once both ESS step is completed, the workflow is closed.

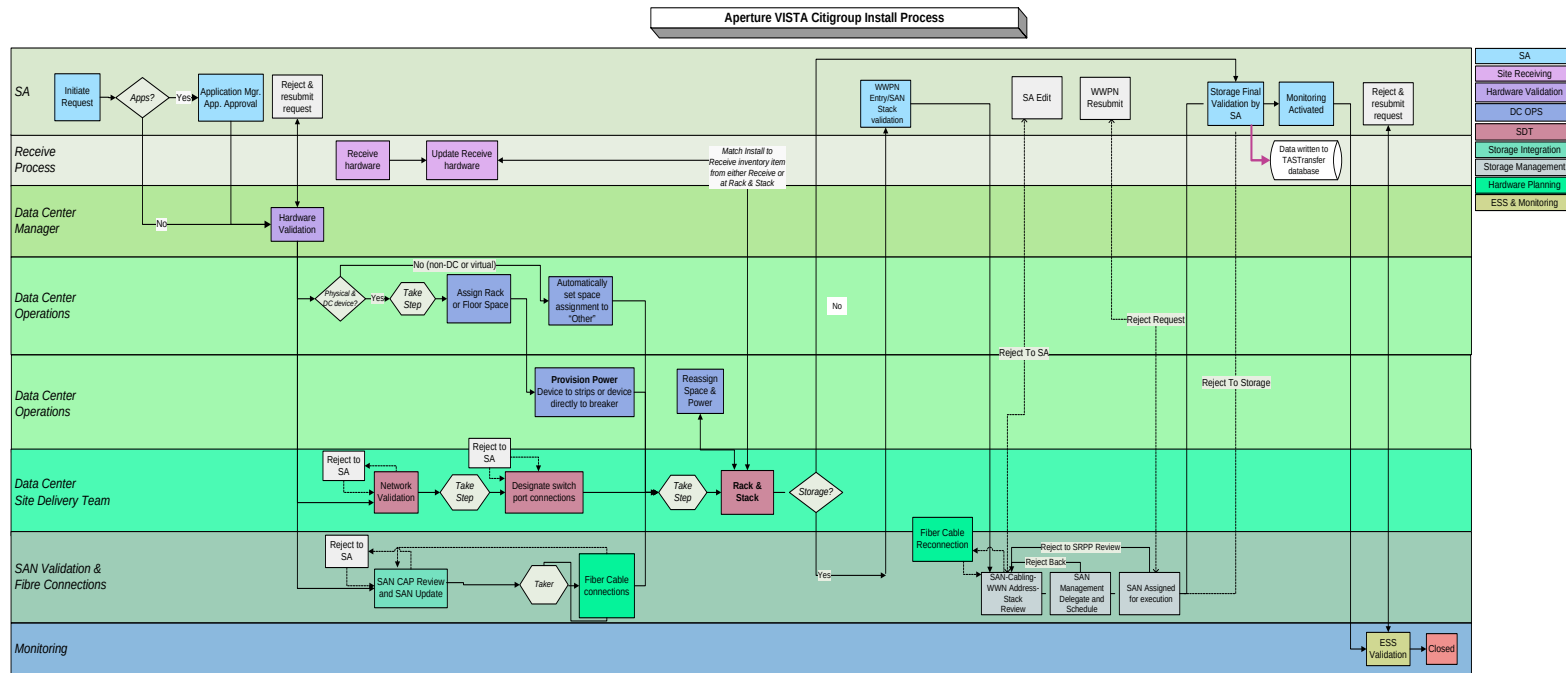


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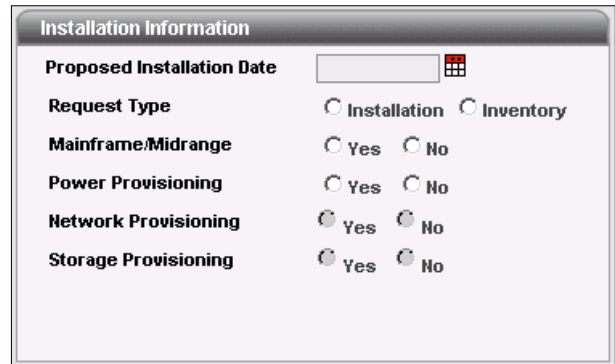
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1. Create Step

Handled by: SA

A. Main Installation Request Form

1. First enter the information in the Installation Information section.
 - a. Proposed Install Date is entered with the 'date picker' interface.
 - b. Request Type Installation/Inventory is for informational purposes only. It is to signal the other participants in the workflow as to whether they need to physically do any cabling and racking & stacking (Installation) or if this is a workflow only to reconcile Aperture and no work needs to be performed (Inventory).
 - c. Mainframe/Midrange is used to indicate workflow specific for mainframe and midrange devices and should be set to 'NO' for any install unless it is explicitly for a mainframe device.
 - d. Power Provisioning will signal the workflow to flow for power assignment.
2. Next, enter the fields in the Preferred Location section. Select the Region, Country, City, Building, Floor and Data center from the drop down list. The Show Data Center button will display the floor plan of the selected site.



Installation Information

Proposed Installation Date

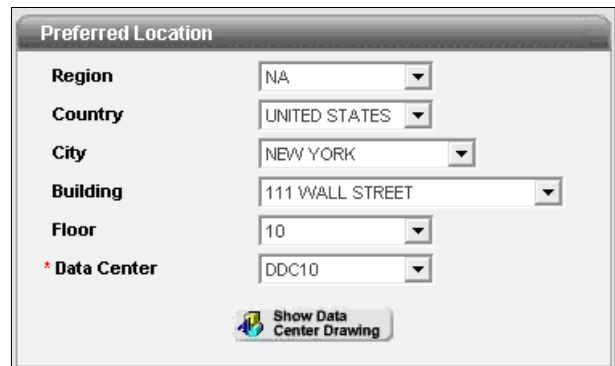
Request Type ☐ Installation ☐ Inventory

Mainframe/Midrange ☐ Yes ☐ No

Power Provisioning ☐ Yes ☐ No

Network Provisioning ☐ Yes ☐ No

Storage Provisioning ☐ Yes ☐ No



Preferred Location

Region

Country

City

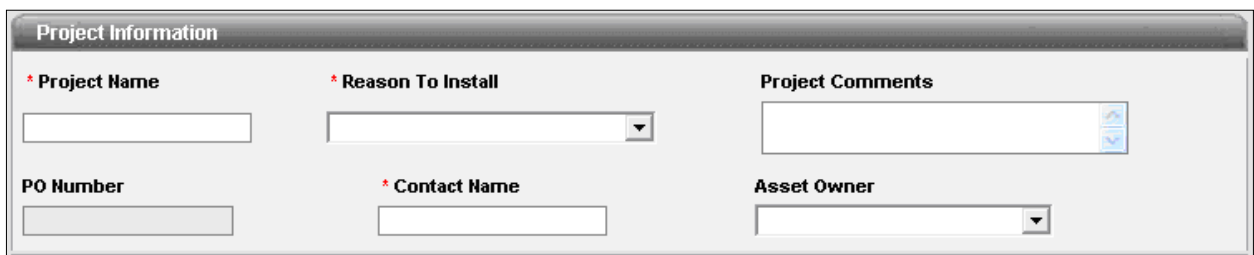
Building

Floor

*** Data Center**



3. In the Project Information section, specific fields for the project are entered; Project Name, Reason to



Project Information

*** Project Name**

*** Reason To Install**

Project Comments

PO Number

*** Contact Name**

Asset Owner

Install, Project Comments, PO Number (from the Receive process), Contact Name, and Asset Owner.

4. In the Supporting Documentation section, attach any additional documents necessary for the Install.

Citi Aperture Workflow

- Any special comments should be noted in the Comment History section at the bottom (these will be time and date stamped with each entry).

This table shows all the fields on the main install form. The items marked with an “X” in the “Repository” column will get saved to the Aperture Repository database when the work process is completed

Field Name	Required	Aperture Repository	Transfer to TAS	Notes
Proposed Installation Date	X			Date picker
Request Type				
Mainframe/Midrange	X			Select “Yes” for an Install request specific to mainframe and storage devices
Power	X			Select “Yes” to have the request flow to the DCOPs team to specify power connections.
Network				Automatically filled in to create workflow to SDT groups
Storage				Automatically filled in to create workflow to storage groups
Region	X			Yes/No
Country	X			Yes/No which effects SAN workflow ONLY
City	X			Yes/No
Building	X		X	data center pick list
Floor	X		X	pick list
Data Center	X			
Project Name	X	X		
Reason to Install	X			Pick list
Project Comments				
PO Number	X			Filled in from Receive Process.
Contact Name	X	X		
Asset Owner				Pick List of business units.

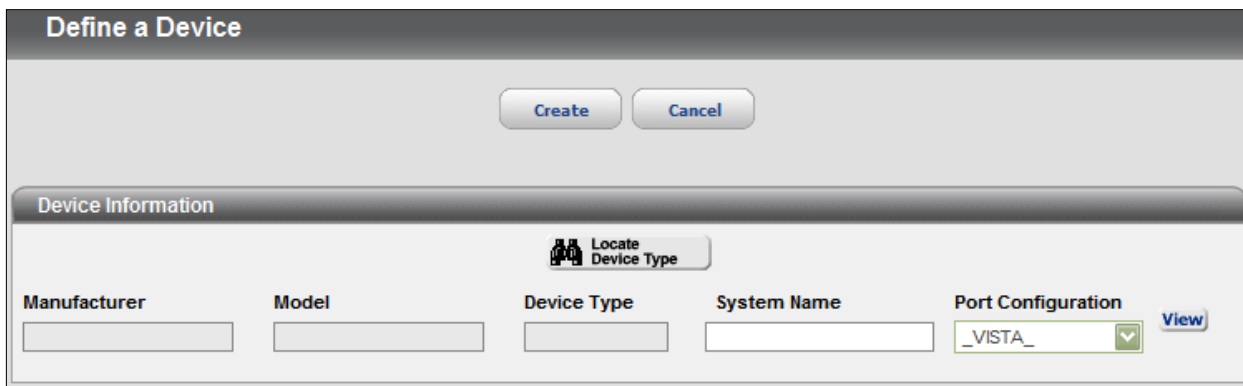
Once the main install request screen is filled in,

- Select the  button in the Devices section to add a device to this request.

Note: Each Install request may contain only one Server or one Frame and/or as many additional Network, Storage, NASStorage, Mainframe, HMC, or Other devices as required.

B. The Device Form

- First specify the information in the Device Information section. Start by specifying the “System Type” as Server, Network, Frame, Storage, NASStorage, HMC, Mainframe, or Other. This field choice will dictate which fields are required in the other sections (refer to chart below).
- Next, specify the Manufacturer and Model of the device by clicking the Locate Device Type button and search for the required device from the Aperture library.



The screenshot shows the 'Define a Device' form. At the top, there are 'Create' and 'Cancel' buttons. Below them is a 'Device Information' section. Inside this section, there is a 'Locate Device Type' button with a magnifying glass icon. Below this button are five input fields: 'Manufacturer', 'Model', 'Device Type', 'System Name', and 'Port Configuration'. The 'Port Configuration' field has a dropdown menu showing '_VISTA_' and a 'View' button to its right.

Once the device is selected, several of the fields in the Device Information section will be populated automatically.

3. The System Name field must be entered and 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

If the device being named is a subsystem of a server, it should be named as the same name as the server it is connected to with a "-Sub" place after the name and a number after that if there are multiple. (Example: "Servername-Sub1", "Servername-Sub2", etc.)

This is the Device screen for the Install Request. Additional information is gathered under each of the tabs. The checkboxes will display or hide each additional tab. If the checkbox for a tab is selected, then at least one selection is required from that tab.

Define a Device

Create

Cancel

Device Install Request Information Identify Device

Serial#

Barcode#

PO#

P2P#

Asset#

Storage Area/Bay

Tracking #

CSR#

Device Information

* System Type

Manufacturer

Model

* System Name

Port Configuration

SERVER

SUN

SUNFIRE V240

Server

View

Environmental Specifications

Humidity		Heat Output		Temperature (°F)		Dimensions (in/lbs)			
Min %	Max %	BTUs	Watts	Min	Max	Height	Width	Depth	Weight
10	90	1243	364	41.00	104.00	3.50	16.73	25.00	22.00

Requirements

Configuration

Power

Support Group

Applications

This Device requires:

IP Addresses

Connections

Storage

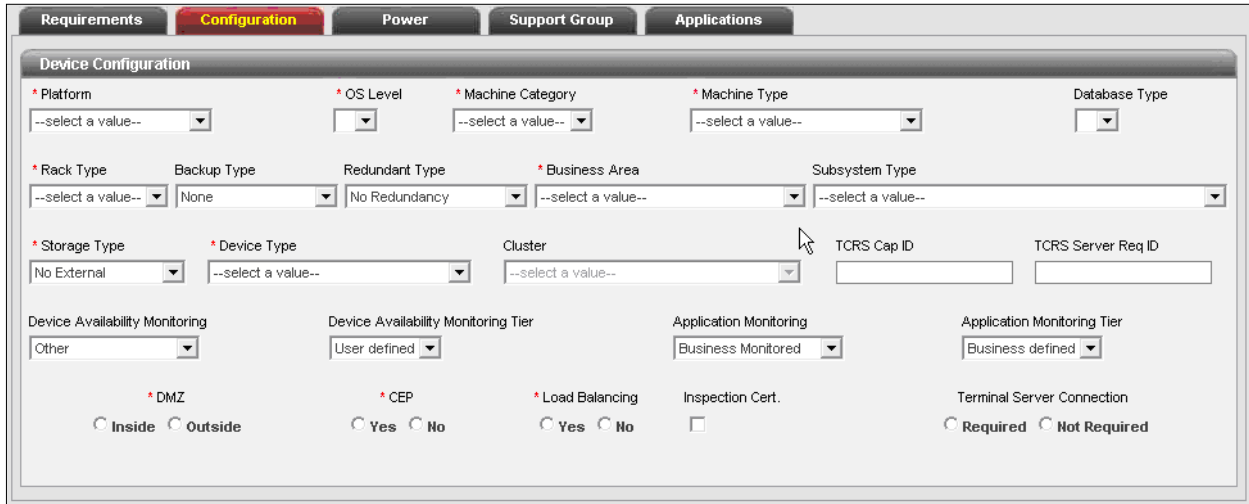
Configuration Information

Applications

Support Group

Change Tool

C. Configuration Tab



The screenshot shows the 'Configuration' tab in the Aperture workflow. The 'Device Configuration' section includes the following fields:

- * Platform: --select a value--
- * OS Level: --select a value--
- * Machine Category: --select a value--
- * Machine Type: --select a value--
- Database Type: --select a value--
- * Rack Type: --select a value--
- Backup Type: None
- Redundant Type: No Redundancy
- * Business Area: --select a value--
- Subsystem Type: --select a value--
- * Storage Type: No External
- * Device Type: --select a value--
- Cluster: --select a value--
- TCRS Cap ID: [Text Field]
- TCRS Server Req ID: [Text Field]
- Device Availability Monitoring: Other
- Device Availability Monitoring Tier: User defined
- Application Monitoring: Business Monitored
- Application Monitoring Tier: Business defined
- * DMZ: ☐ Inside ☐ Outside
- * CEP: ☐ Yes ☐ No
- * Load Balancing: ☐ Yes ☐ No
- Inspection Cert.: ☐
- Terminal Server Connection: ☐ Required ☐ Not Required

Selecting the Configuration tab will display this first set of fields. Each field is explained on the table below.

Field Name	Transfer to TAS	Aperture Repository	Notes
<System Type>	X	X	Automatically entered based on manuf/model. Either: Server, Network, Frame, Storage, NASStorage, HMC, Mainframe, or Other
Platform	X	X	Pick List from TAS
OS	X	X	Pick List from TAS
Machine Category	X	X	Pick List from TAS
Machine Type	X	X	Pick List from TAS
Database Type	X	X	Pick List from TAS
Rack Type	X	X	Pick List from TAS
Backup Type	X	X	Pick List from TAS
Redundant Type	X	X	Pick List from TAS
Business Area	X	X	Pick List from TAS
Sub System	X	X	Pick List from TAS
Storage Type	X	X	Pick List from TAS
Device Type	X	X	Pick List from TAS
Cluster	X	X	Pick List for Machine Type = "ESX Server"
TCRS CAP ID		X	Data entry
TCRS Server Req ID		X	Data entry
Device Availability Monitoring			Pick List
Device Availability Monitoring Tier			Pick List
Application Monitoring			Pick List
Application Monitoring Tier			Pick List
DMZ	X	X	Yes/No
CEP	X	X	Yes/No
Load Balancing	X	X	Yes/No
Inspection certificate	X	X	Checkbox
Device Type	X	X	Pick List from TAS

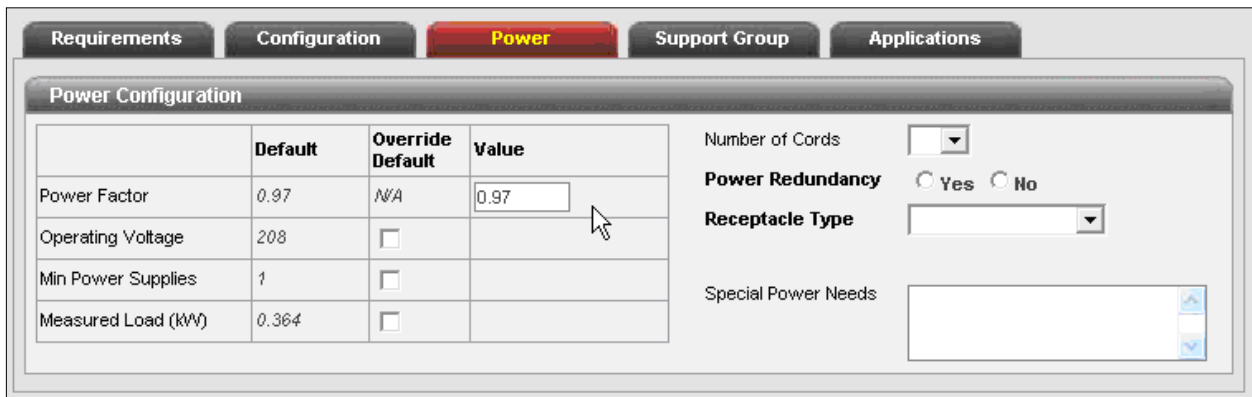
Terminal Server Connection		X	Required/Not Required
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Fields on this form are required based on the System Type which is set automatically. This table indicates whether individual fields are required or not.

System Types:	HMC	Mainframe	Server	Frame	NAS Storage	Storage	Network
Field Name							
System Name	X	X	X	X	X	X	X
Device Type	X	X	X	X	X	X	X
Storage Type			X				X
Redundant Type			X				X
Machine Category	X	X	X				X
Inspection Certificate							
OS			X				X
Business Area			X				X
Machine Type	X		X				X
Backup Type			X				X
Rack Type			X				
TCRS CAP ID							
TCRS Server Req ID							
Cluster						If ESX Server	

D. Power Tab

- Depending on the device selected, the information in this tab will be populated.



	Default	Override Default	Value
Power Factor	0.97	☒	0.97
Operating Voltage	208	☐	
Min Power Supplies	1	☐	
Measured Load (kW)	0.364	☐	

Number of Cords:

Power Redundancy: ☐ Yes ☐ No

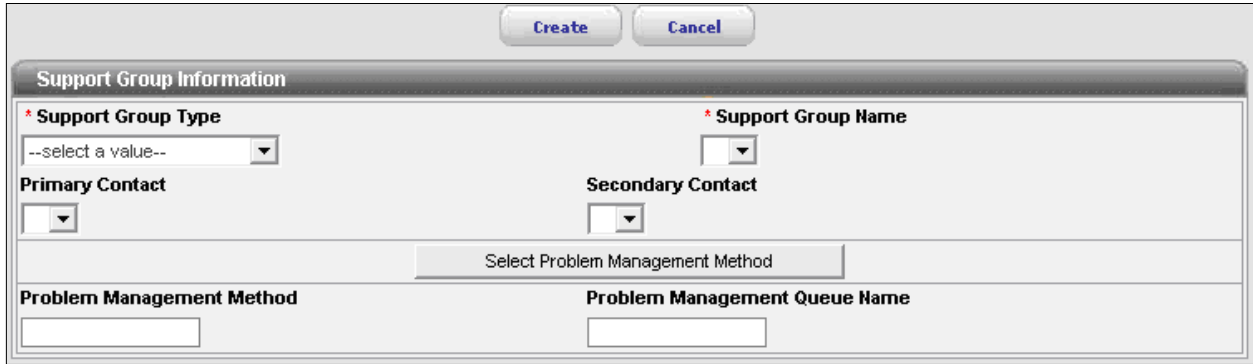
Receptacle Type:

Special Power Needs:

- The Power Factor shows how far apart the voltage and current curves are. Values range from 0 to 1. The more efficient the device, the closer the Power Factor is to one.
- Review the default values for Operating Voltage, Min Power Supplies and Measured Load (in kW) and, if necessary, override them. Click the Override Default check box to the right of the default value then select the new value from the drop-down list (Operating Voltage and Min Power Supplies) or enter the new value in the field provided (Measured Load).
- Select the Number of Cords from the drop-down menu provided.
- Select the Power Redundancy (Yes/No) radio button to indicate whether or not the device requires dual power (required).
- Select the Receptacle Type from the drop-down menu (required). If the receptacle type you want to use is not listed, choose OTHER (SPECIFY) and enter the receptacle type in the text field that appears.
- Enter any Special Power Needs in the field provided.

E. Support Group tab

5. Using the  button, select the Support Group(s) associated with this device. **Every device must have at least one System Support Group.**



The form is titled "Support Group Information" and has "Create" and "Cancel" buttons at the top. It contains the following fields:

- * Support Group Type**: A dropdown menu with "--select a value--" as the current selection.
- * Support Group Name**: A text input field.
- Primary Contact**: A dropdown menu.
- Secondary Contact**: A dropdown menu.
- Select Problem Management Method**: A button.
- Problem Management Method**: A text input field.
- Problem Management Queue Name**: A text input field.

The following 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
Problem Management 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
- Monitoring Group
 - OS ISA Group
 - Change Promotion Group

F. Applications tab

6. Click the  button in the “Applications” section to specify all the applications associated with this server.

If the System Type is “Server,” then this section is required.

Use the Select Applications screen to search all the applications that are to be added to the server. Search on multiple Application IDs or any part of the Application Name.

This table describes the field collected on the Application form.

Enter the information you wish to search for.

App ID = **OR**

AppID = **OR**

AppID = **OR**

App Name *Contains*



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	Data provided via TAS

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

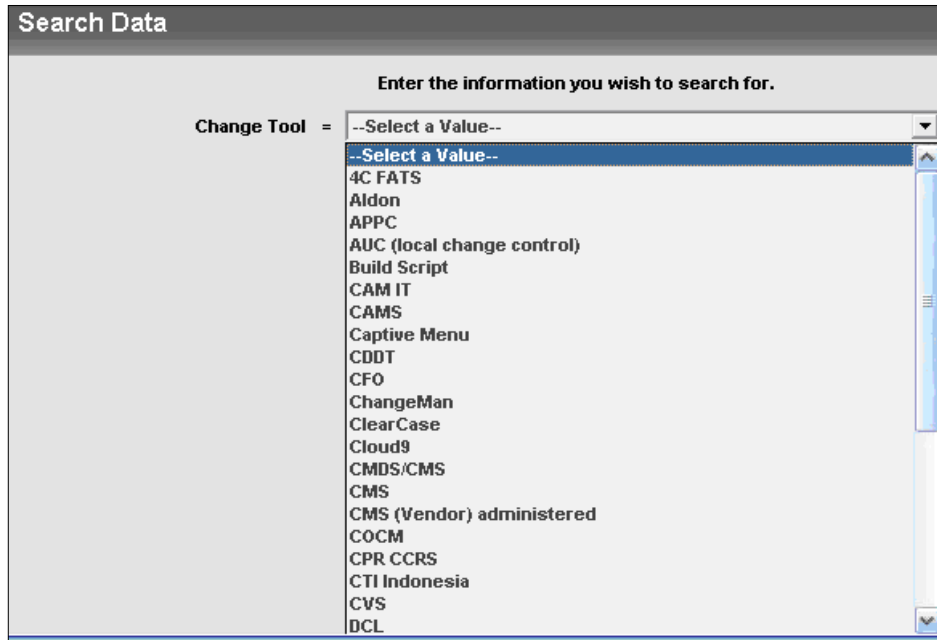
The SOX critical field will be populated automatically. The values will be:

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

G. Change Tool tab

This section is for specifying the device's Change Tool application.

- Click the  button in the "Change Tool" section to search from the list of Change Tools to assign to the device.



Search Data

Enter the information you wish to search for.

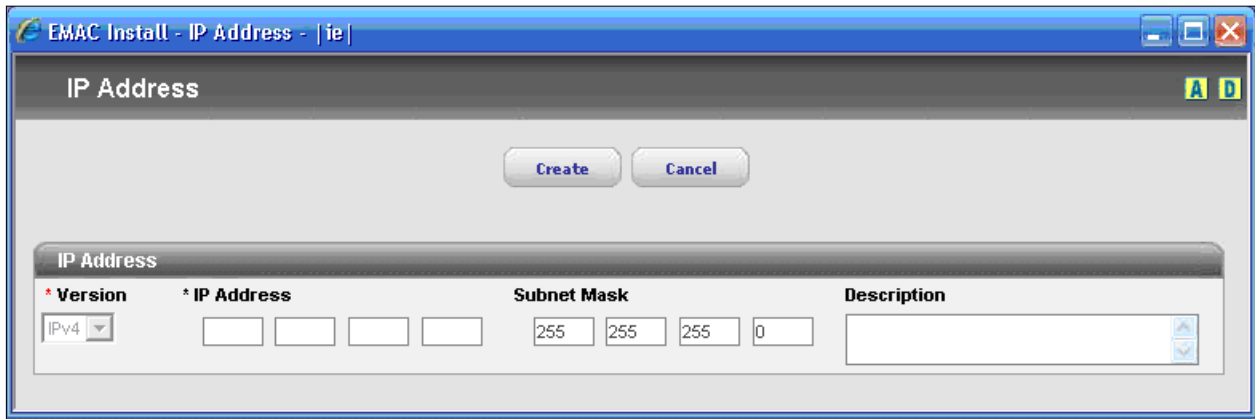
Change Tool = --Select a Value--

- Select a Value--
- 4C FATS
- Aldon
- APPC
- AUC (local change control)
- Build Script
- CAM IT
- CAMS
- Captive Menu
- CDDT
- CFO
- ChangeMan
- ClearCase
- Cloud9
- CMDS/CMS
- CMS
- CMS (Vendor) administered
- COCM
- CPR CCRS
- CTI Indonesia
- CVS
- DCL

H. IP Address tab

This section is for specifying the device's IP Addresses. These can be associated with specific connections on the Connections tab.

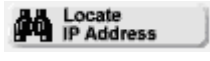
8. Click the  button in the "IP Addresses" section to specify all the IPs associated with this device.



* Version	* IP Address	Subnet Mask	Description
IPv4		255 255 255 0	

I. Connections tab

The Connection tab is for specifying all network connections for the device.

9. Click the  button to specify a connection.
 - a. The Connection Type will default to “Network”
 - b. The Interface Type boxes will vary depending on what is selected.
 - c. IP Address is selected with the  button from the list of IPs entered in the previous tab.
 - d. Fill in the rest of the information as required.

Note: Terminal Server connections are indicated with a Port Type of CON, CN1, or CN2. If a terminal server port is selected, all remaining fields on the form are not required.

Connection Request

Create

Cancel

Connection Requirements



* Connection Type

Interface Type

IP Address

Subnet Mask

MAC Address

Port Type

Network

LAN

CN1

Port Information

Topology

Network Type

Network Speed

Duplex

--select a value--

--select a value--

--select a value--

--select a value--

Note: Please select port type CON, CN1 or CN2 to indicate a Terminal Server connection.

"To" Connection

Device

Grid Location

Slot

Port

Hop Information

	Rack	Mount	Port	CableID		Rack	Mount	Port	CableID
Hop1					Hop6				
Hop2					Hop7				
Hop3					Hop8				
Hop4					Hop9				
Hop5					Hop10				

Terminal Port

Comments

J. Storage

Storage Request

Create
Cancel

Storage Requirements

* Storage Type	* Backup Type	* Storage Space (Gb)	World Wide Port#	* Interface#
				--select a value--

* Manufacturer	* Cluster	* Quorum Device	Comments
--select a value--	--select a value--	--select a value--	

Storage Tier and Product Card Documentation

"To" Connection

Device	Grid Location	Slot	Port
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Ensure that the WWPN entries adheres to IEEE standards and is entered in one of following four formats:
Emulex: 10000000C9#####, JNI: 2xxx00E069#####, Qlogic: 2xxx00E08b#####, HPUX: 50060B#####, 500143#####, HP C7000: 20##00215A#####, IBM NPIV: C05076#####

The Storage tab is for specifying all storage connections for the device.

10. Click the Add... button to specify a connection.

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

Field Name	Required	Transfer to TAS	Aperture Repository	Notes
Storage Connection Type	X		X	Direct attach/NAS/SAN-SRDF/SAN-NSRDF
Backup Type	X		X	Pick List from TAS
Storage Space	X		X	Number in Gb
World Wide Port Number		X	X	* Data entry 16 characters required based on Manufacturer selection.
Interface #	X	X	X	SNx pick list
Manufacturer (card)	X		X	Pick list
Cluster			X	Yes/no
Cluster Type			X	Available if Cluster='Yes'
Cluster Partner				Data entry if Cluster="Yes"
Quorum Device			X	Yes/no
Storage Array				Entered by Storage Management at a later step.
SRDF Partner				Data entry for Connection Type of SAN-SRDF only
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##### or 500143##### (Valid for HPUX)
- 20##00215A##### (Valid for HP)
- C05076#####(Valid for IBM)

After the Storage form is complete;

11. Select “Create” at the top of the Storage Connection form.
12. Select “Create” at the top of the Device form.

If additional devices are required for the installation, repeat these steps by adding another device to the request. Each device to be installed should be added to the request however only one server can be installed per request. If a server requested requires a direct attached external storage device, that hardware should be added as a second device on the same request.

Once all devices are added to the request

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

2. Application Manager Review

Handled by: CSI-Application Managers

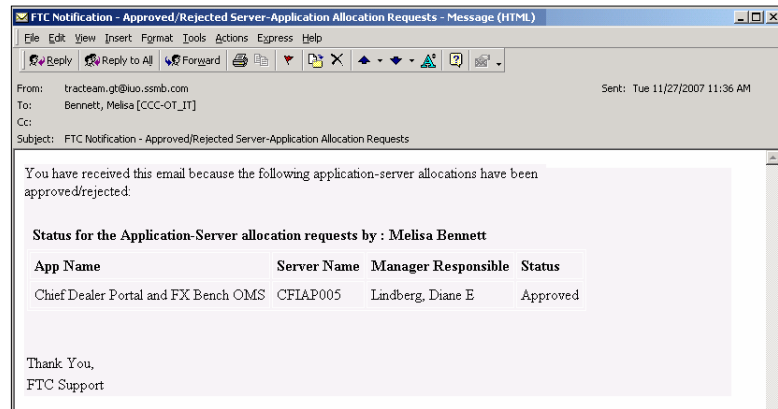
This step is for any installation request that has applications.

Once the request is submitted, the application owners of the applications selected on the request are notified via CSI or a pending approval. The Requestor will receive an email notification from CSI when the association of application to the requested server has been approved.

Once the approval email has been received,

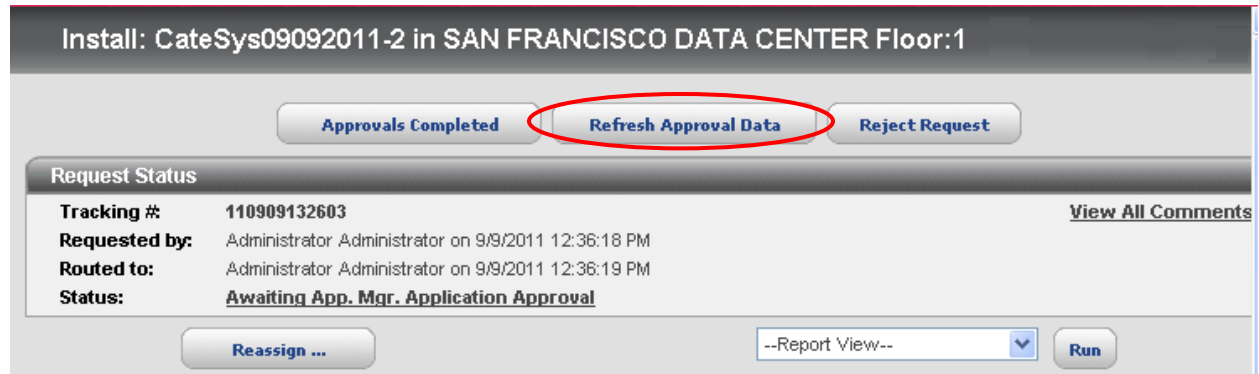
1. Click “Refresh Approval Data” on the main form of the request.

Each application’s status will refresh from CSI and is displayed in ApertureVISTA on the device screen next to each application.



If all applications were approved, the request can be submitted to the data center for fulfillment.

2. Click “Approvals Completed” on the main form of the request.



The screenshot shows the "Install: CateSys09092011-2 in SAN FRANCISCO DATA CENTER Floor:1" form. At the top, there are three buttons: "Approvals Completed", "Refresh Approval Data" (which is circled in red), and "Reject Request". Below these buttons is a "Request Status" section with the following information:

- Tracking #:** 110909132603
- Requested by:** Administrator Administrator on 9/9/2011 12:36:18 PM
- Routed to:** Administrator Administrator on 9/9/2011 12:36:19 PM
- Status:** Awaiting App. Mgr. Application Approval

At the bottom of the form, there is a "Reassign ..." button, a "--Report View--" dropdown menu, and a "Run" button.

If the applications were denied for this server (notification via email), then the Requestor must:

3. Click the “Reject Request” in order to send the request back to the initial step in order to modify it.
4. Open the request and click ‘Edit’ next to the device in question.
5. Remove the application(s) that was denied for the server.
6. Save the form and Resubmit the request.

3. Hardware Validation

Handled by: **Hardware Validators** for each site

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.

The Hardware Validators check for the following items:

- Assure that the device belongs in the specified building, , floor and data center/
- Assure that only one server is on the request.
- Verifies that the Machine Category matches what is to be installed in that data center.

Note: The Hardware Validators may update the information in the Workflows section of the main request form only

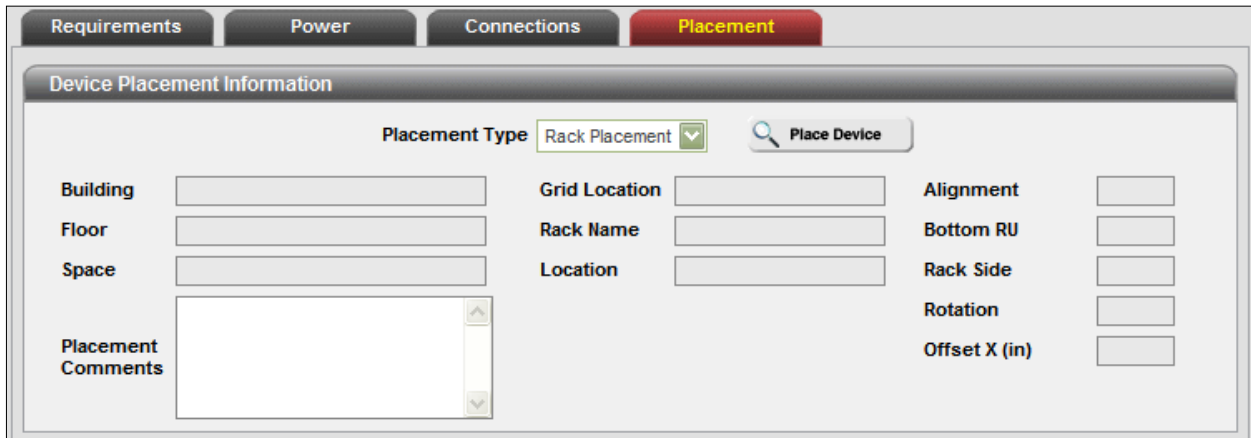
Data Center Operations Sub-flow

4.Space Allocation

Handled by: **DCOPs** (Data Center Operations for each site)

Following the Validation steps, the device is Space Provisioned.

1. Open the request.
2. This request will go to a “Take” step first where everyone in the group will see the request. The first person to click “TAKE” will own the request and complete this step.
3. Select the  button next to the device to be elevated in a rack or placed on the floor.



4. Select either Rack Placement or Floor Placement and then click .

Use the product interface to position the device. For more specific instructions, click  on the top of the main form of the Install Request.

5. Once the device(s) have been provisioned, select the check box labeled “Provisioning Complete?” to indicate that all devices on the request have been provisioned and submit the request.

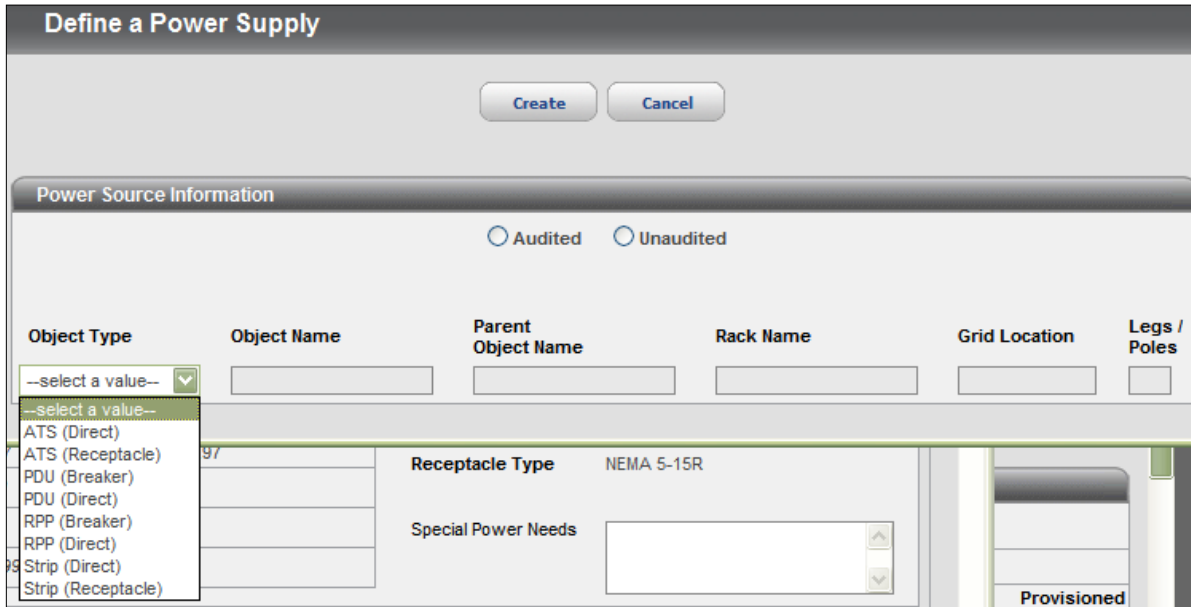
The request will then flow to the Power, Network, and Storage Allocation steps which are handled concurrently.

5. Power Provisioning

Handled by: **DCOPs** (Data Center Operations for each site)

At the Power Allocation step, the power information is specified.

1. On the main form of the request, select  for the device needing power provisioning.
2. Then click  to connect each power supply.



The power connection can be specified to various levels of detail depending on the requirements of the data center. The most detailed is Strip (Receptacle) where each receptacle in the strip is tracked. Selecting Strip (direct) will allow the specification of a strip but does not require a plug in the strip to be identified. The same holds for each of the levels listed in the Object Type field. Once the Type is specified, use the Locate button to find the power source. For more help and information, click  on the top of the main form of the Install Request

3. Once completed, click “create” and then “save” (if a message is displayed about an ‘overload’, select the Bypass Load Validation checkbox).
4. Repeat for each power supply on the device and any additional devices on the request.
5. Click the check box next to Provisioning Complete?
6. Select the Provisioning Complete button at the top of the form.

Network Sub-flow

6. Network Validation Step

Handled by: **SDT Validators** for each site

This step is for validating the network information. As with each of the validation steps, there is no data entry. The Validator reviews the information and can take one of two actions. Either,

1. Validate the request.

The Network Validators check for the following items:

- o Correct number of network connections (i.e. - both ports in a teamed connection)
 - o Correct types of connections
 - o Valid segment
 - o Valid IP address
2. Return the request to the SA (Requestor) for correction. 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.

7. Network Provisioning Step

Handled by: **SDT (Site Delivery Teams)** for each site

At the Network Provisioning step, the network connection information is entered. SDTs will enter the port connection at the switch for each defined connection. If there are corrections to be made, the person handling this step can return the request back to the SA. Otherwise, proceed with the instructions below:

Connection Path

Create

Cancel

Source Port

Note: Locate Device Port will return ports only when device's space provisioning is completed.

Locate Device Port

Location

Slot Side

Slot

* Port

IP Address

Subnet Mask

Connection Settings

* Connection Type Network

Path Connections

Device Name	Building	Space	Rack Name	Location	Slot Side	Slot	Port Name
Add...							
Total Hops: 0							

Hop Information

	Rack	Mount	Port	CableID
Hop 1				
Hop 2				
Hop 3				
Hop 4				
Hop 5				
Hop 6				
Hop 7				
Hop 8				
Hop 9				
Hop10				

1. Open the request and click Edit next to the device to establish the network connection.
The network information will be at the bottom 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.
8. If a Terminal Server connection was specified (CON, CN1, or CN2), enter the Logical Terminal Server connection in the space provided.

Also note if the connection is a Terminal Server connection:

- a. The switch connection will be to the Patch Panel which is usually located just above or below the terminal server in the cabinet.
 - b. The patch panel will need to be named the same as the Terminal Server
 - c. There must be an entry for the Terminal Server in TAS. Be sure the entry in TAS is marked as a “Terminal Server” otherwise; VISTA will not validate the connection.
9. Repeat for each port on the device

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
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

10. Returning to the Main form, click the check box next to Provisioning Complete?
11. Select the Network Provisioned button at the top of the form.

Once both network and power are completed, the request flows on to the Rack and Stack step.

Storage Sub-flow

8. SAN CAP Review and SAN Update

Handled by: **SAN**

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 sent 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.

The Storage Validators check for the following items:

- Correct number of connections
- Correct type of storage

9. Designate SAN Fibre Ports

Handled by: **Hardware Planning or SDT**

At this step, the SAN Fiber ports are designated.

1. Open the request.
2. Click “Edit” next to the device to establish the connections.
3. Scroll to the Storage section of the form and click “Edit” next to the storage port to be connected.
4. Select “Select SAN Switch.”
5. Enter the name of the patch panel where the port will be connected to.
6. Select the patch panel and click the Show Port button.
7. Select the port and click Use this Port.
8. Fill in the Server Central and Switch Central connections.
9. Click “Save” button at the top of the form.

Repeat for each storage connection.

10. Once all ports are completed, click “Save” at the top of the Device form.
11. Click “SAN Switch Port Assigned” at the top of the Main form to complete the request.

Connection Path

Source Port

Note: Locate Device Port will return ports only when device's space provisioning is completed.

 Locate Device Port

Location

Slot Side

Slot

*** Port**

IP Address

Subnet Mask

Connection Settings

*** Connection Type**

Path Connections

	Device Name	Building	Space	Rack Name	Location	Slot Side	Slot	Port Name
Add...	Total Hops: 0							

Hop Information

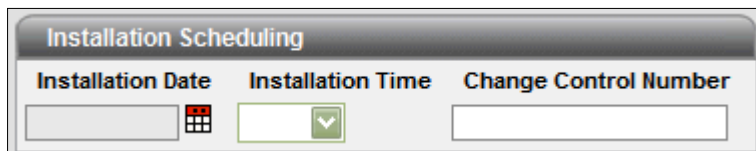
	Rack	Mount	Port	CableID
Hop 1				
Hop 2				
Hop 3				
Hop 4				
Hop 5				
Hop 6				
Hop 7				
Hop 8				
Hop 9				
Hop10				

10. Rack & Stack Step

Handled by: **SDT** (Site Delivery Team for each site)

This request will go to a “Take” step first where everyone in the group will see the request. The first person to click “TAKE” will own the request and complete this step.

1. Click “Take” to begin processing the request. (Selecting Take will remove the request from other users in the same Org Role.
2. On the Main Request Form, the person handling this step will fill in the three fields under the heading Installation Scheduling.

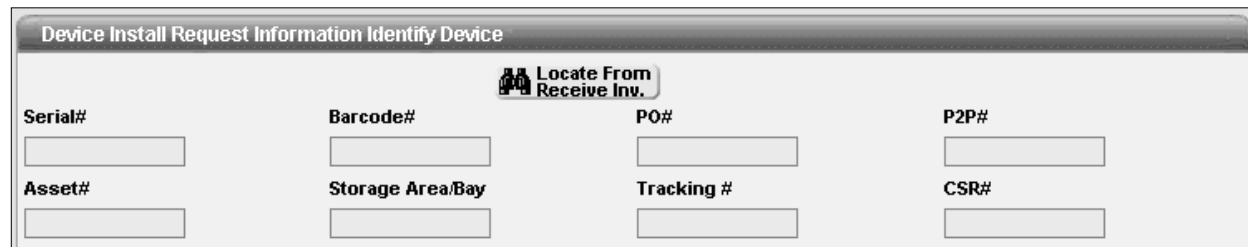


Field Name	Required	Transfer to TAS	Aperture Repository	Notes
Install Date	X		X	
Install Time	X			
Change Control Number	X			Infoman # or other change control #

Now the device needs to be matched to the Receive process.

If a received device has been matched to an Install request by matching on the device name in the Receive or Update Receive process, then these next steps can be omitted and the “Rack and Stack Completed” button can be clicked to close the request.

If the device is not yet matched (i.e.-all the information in the Identify Device section at the top of the form is blank) then the request has not been matched up to the Receipt Inventory and the following steps are required.



3. Click Edit next to the device to be received on the Main Install form
4. Select the “Locate From Receive Inv” button to locate the specific device to be used for this installation.
5. Using the search criteria, find the device to be received from the Receive Inventory.
6. Select the device on the list presented and click “Receive Selected Device”

This will populate the top section of the form with data from the Receiving Workflow.

7. Next, click “Save” at the top of the form.
8. Repeat for each device on the request.
9. Once the data is entered, click “Rack and Stack Completed” to flow the request.

If there is no storage on the workflow, the request will next flow to Final Validate. If there is storage on the request, it will next flow to either the SA for WWPN entry or Storage Management.

11. WWPN Entry

Handled by: SA

Once the device is racked, if there is storage requested for the server and the SA had left the WWPN blank, then the request flows back to the SA who entered the request in order to enter the World Wide Port Number of the storage connections.

1. Open the request.
2. Click the “Edit” button next to the server listed in the Devices section of the form.
3. Scroll to the Storage section at the bottom 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 Device form.
7. Click “WWPN Entered” at the top of the Main Request form to complete the request.

12. SAN Cabling-WWN Address-Stack Review

Handled by: SAN

The request is next reviewed by Storage Management. If the SA had already entered the WWPN earlier in the workflow, the request will come directly to this step following Rack & Stack.

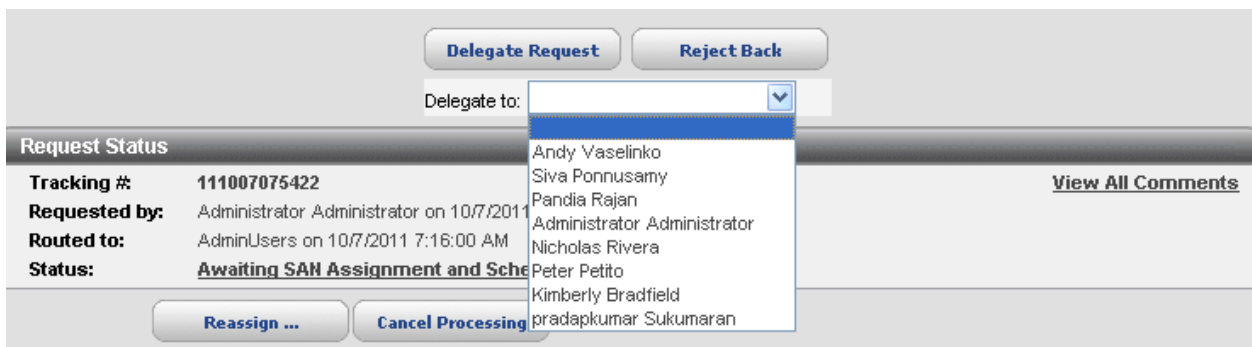
1. Open the request.
2. Click “View” next to the port in order to examine the connection data.
3. The request can be rejected back to the SA, rejected back to the data center for correction of the connection data, or passed to the next step for delegation.

13. SAN Management Delegate and Schedule

Handled by: SAN Management

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

1. Open the request.



2. Click the Delegate To: drop down menu to select a member of the SAN team.
3. Enter the “Target Date” which is the date the storage should be available to the server.
4. Click “Delegate Request”

14. SAN Provisioning

Handled by: SAN

The request is validated by one of the SAN 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.

15. Final Validation

Handled by: SA

At this last 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 back to Storage Management to correct any issue with SAN connectivity prior to completing the workflow. SAN will return the request back to Final Validate once the SAN issue has been resolved.

Once the request is processed at this step, 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 Server then the workflow continues for the monitoring groups.

Conditional Monitoring Steps

NOTE: If the Install request is for Server 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 Server then the request will close after the Final Validation step.

16. Monitoring Activated

Handled by: SA

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”.

17. ESS Validation

Handled by: ESS

The request flows to the ESS group to alert them that the server 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”.