

Instructions for Adding Blade Servers

This document details the use of Aperture VISTA for installing blade servers. The process utilizes the Equipment Install process to first install the blade chassis and then the Logical Create process to install the blades on the chassis.

The Frame (chassis) will have only the ILO port defined, all other network and SAN connections will be defined with the domain (card). All applications will be associated with the domain.

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1. Install Frame

Enter the Frame via the Equipment Install process.

A. Main Install Form

1. Fill in the main install form as usual

Note: Each enclosure must be uniquely named and defined as a Frame. Each request can only contain one Frame.

B. Device Form

1. Specify the “System Type” as ‘Frame’ and complete the other info on the form as required.
2. The remaining fields in the Device Information section are filled in per the chart on the following page.

This is the Device screen for the Install Request where all device specific information is entered.

EMAC Install - Device - Internet Explorer 6

Define a Device

Create
Cancel

Device Information

Locate Device Type

* System Type

* Rack Type

* Storage Type

* Business Area

* Machine Category

* TCRS Cap ID

* Manufacturer

* Platform

* Backup Type

* Machine Type

* TCRS Server Req ID

* Model

* OS

* Redundant Type

Subsystem Type

Cluster

Monitoring Agent

* System Name

* DMZ: ☐ Yes ☐ No

* CEP: ☐ Yes ☐ No

* Database

Inspection Cert.

* TAS Device Type

Device Specifications

Power Specifications			Environmental Specifications									
			Temperature		Humidity		Heat Output		Dimensions			
Volts	KVA	Amps	Min °F	Max °F	Min %	Max %	BTUs	Watts	Height (in)	Width (in)	Depth (in)	Weight (lb)

Applications

App ID	Application Name	SOX
Add...	Total Applications: 0	

Support Groups

Group Type	Group Name	Primary Contact	Secondary Contact
Add...	Total Support Groups: 0		

Change Tools

Change Tool ID	Change Tool
Add...	Total Change Tools: 0

Power Requirements

Special Power Needs

Network Connections

Port Type	Topology	Speed	Duplex	IP Address	Device Name	Slot	Switch Port
Add...	Total Network Connections: 0						

Storage Connections (SAN/NAS)

Interface #	World Wide Port #	Space	Card Info	Device Name	Slot	Switch Port
Note: If you do not add storage when you initiate your request, you will NOT be able to add storage until after the server install workflow is complete (Final Validation).						
Add...	Total Storage Connections: 0					

The fields on this table are collected for each device. The Notes column indicates the rules enforced for “Frames”.

Field Name	Transfer to TAS	Aperture Repository	Notes
System Type	X	X	Pick List 'FRAME' from the list.
Manufacturer	X	X	Use the Locate Device Type button
Model	X	X	Use the Locate Device Type button
System Name	X	X	Verified for unique entry against TAS & Aperture databases. No blank spaces allowed
Rack Type	X	X	Pick List from TAS
Platform	X		Not required
OS	X	X	Not required
DMZ	X	X	Not required
CEP	X	X	Not required
Storage Type	X	X	Not required
Backup Type	X	X	Not required
Redundant Type	X	X	Not required
Database	X	X	Not required
Inspection certificate	X	X	Not required
Business Area	X	X	Not required
Sub System	X	X	Not required
Machine Category	X	X	Not required
Machine Type	X	X	Pick List from TAS
Cluster	X	X	Not required
TAS Device Type	X	X	Pick List from TAS
TCRS CAP ID		X	Data entry
TCRS Server Req ID		X	Data entry
Monitoring Agent		X	Not required
<Device Specs>	Automatically filled in from Locate Device Type button with information from Aperture library		

Fields on the device 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.

C. Applications

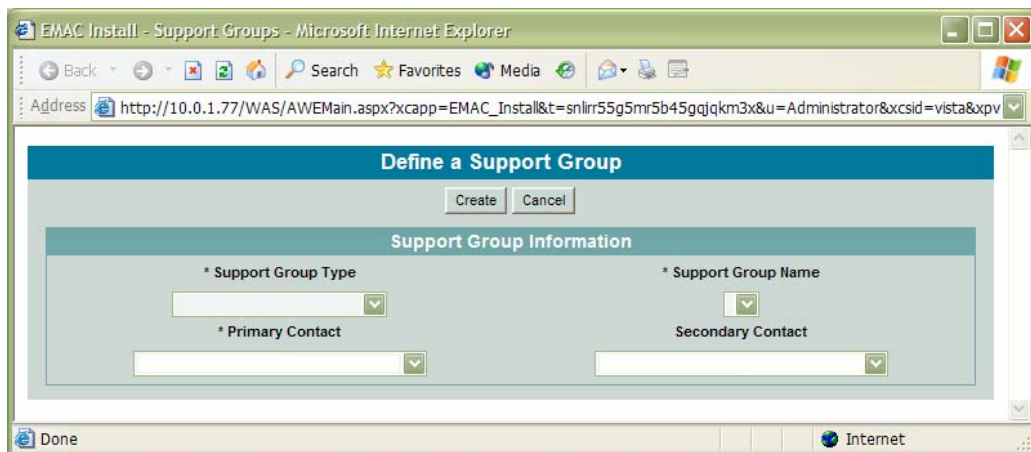
- No Applications are associated with a Frame.

D. Change Tool

- No Change Tools are associated with a Frame.

E. Support Group

- Using the Add... button in the “Support Group” section, the user will specify all the support groups



associated with this server.

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

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

F. Power

The next section for “Power Requirements” is handled during a step later in the process. The requestor step can specify the Special Power Requirements. If there are any special needs for this device, that detail should be entered at this step.

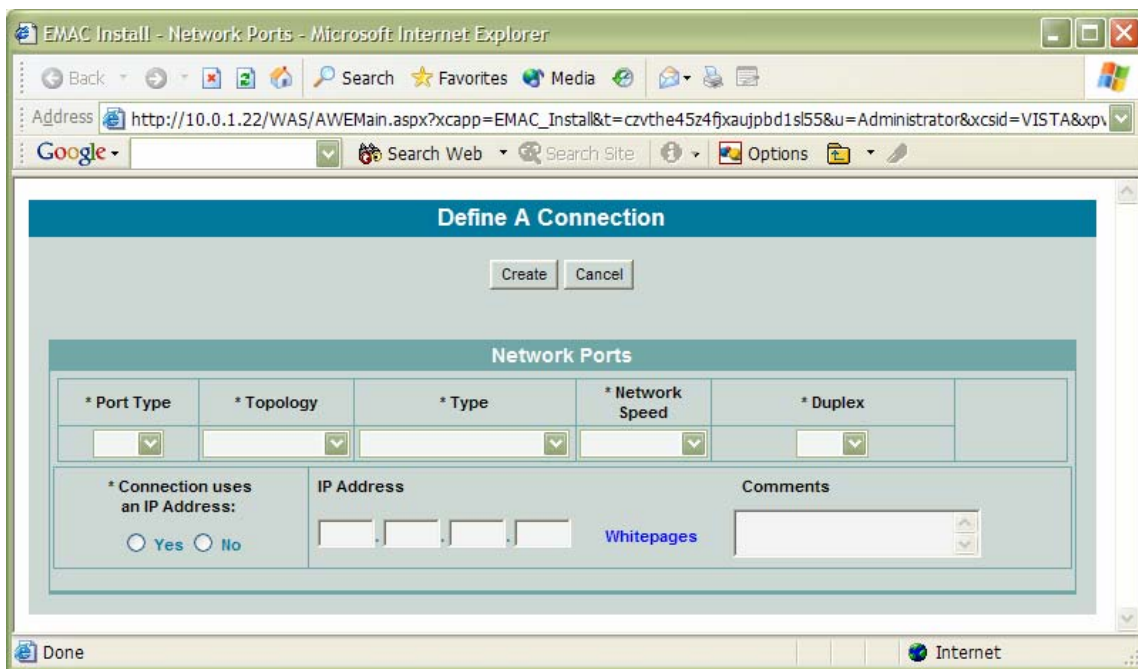
- Enter any special power requirements.

Field Name	Required	Aperture Repository	Notes
Special Power Needs		X	

G. Network

The network connection section of the Device Install is to specify all the network connections on the Frame.

- click the “Add...” button.
- Enter only the ILO connection on the Frame using the form as shown below.



All other connections will be defined at the card (domain) level.

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

H. Storage

The Storage Connection section is not used for Frames.

Process the Equipment Install request as usual

2. Install the Blades on the Frame

Use the Logical Create request process to add blades to the Frame. This workflow can be used only after the Frame goes completely through the Install process.

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

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

Add Logical

Parent Information

Parent System Type :
 Please Select Parent System Type

Device Name:
 System Type:
 Barcode Number:
 Serial Number:

Manufacturer:
 Model:
 Machine Category:
 Building:
 Floor:
 Room:
 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				

3. Next click Add... button in the New Logical Systems section to add the Logical System.

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

A. System Information

4. Specify the information in the System Information section. The “System Type” field must either be ‘Domains’ and ‘Controllers’ and the selection will dictate requirements for the remainder of the fields on the screen. See the table on the next page to determine which fields are required.
5. The Name field is validated to be unique. Blank spaces are not permitted.

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 or Controller)
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

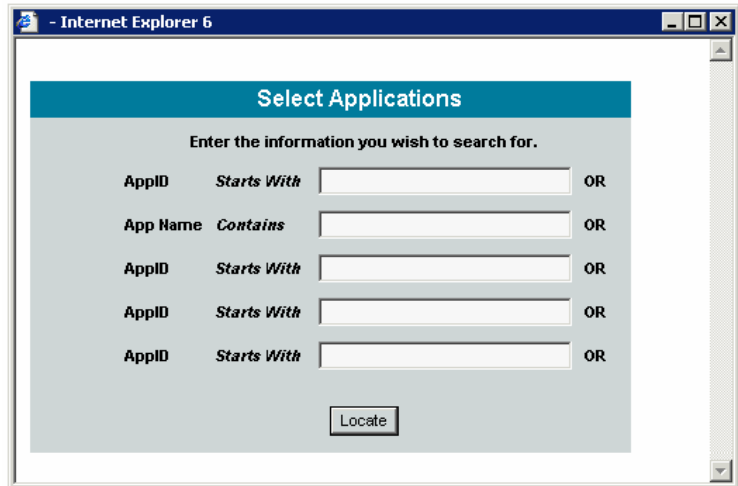
Fields on the system information form are required based on the selection of one of the values in the System Type pick list at the top left of the form. Use the table to determine whether individual fields are required based on the selection. Fields labeled "Parent" will inherit values based on the Frame.

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

B. Applications

6. Click the Add... button in the “Applications” section to specify all the applications associated with this logical system.
7. 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.
8. 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.

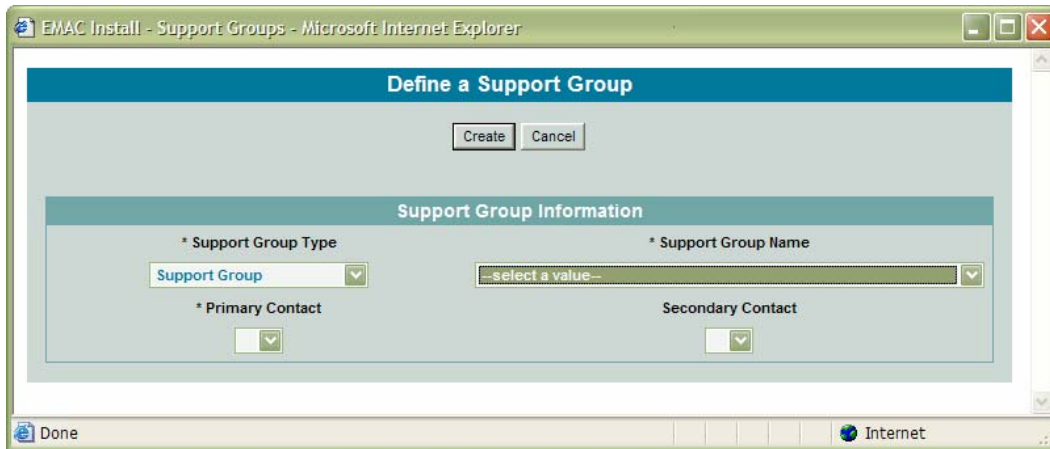
9. Click the Add... button in the “Change Tool” section to specify the change promotion tool(s) associated with this logical system.

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

10. 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

* 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

E. Network Connections

The network connection section is to specify each individual network connection to be installed. To specify a connection:

11. Click the “Add...” button.
12. Fill in the information as required.
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.

*** Note:** Each blade must have a “virtual” ILO connection defined.

14. Enter Network Port connection information.
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.

Define a Storage Connection

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#####

Storage Connection Information

*Interface #	*Manufacturer	*Storage Space Gb	Storage Array
* Storage Connection Type	* I/O Board	* Slot	* World Wide Port#
Cluster	Cluster Type	* Backup Type	
Quorum Device	Comments		

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 HP/UX)

After the Storage form is complete;

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

If additional logical systems (blades) are being added to the frame 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.

G. Barcode

When the request gets to the "Assign Domain" step, the barcode is entered. This may be a barcode for the physical blade or it may be a "logical" barcode. Either entry is acceptable.