

ESXi Baremetal Workflow Setup - UCSD - UCSM - MDS - NetApp - vCenter

The purpose of this document is to illustrate all steps to deploying a fully functioning ESXi Baremetal workflow in UCS Director. This document was written and tested using the '**UCSD - Bare Metal UCSM + MDS + Netapp Example**' workflow from the UCS Director Communities site. This workflow can be found here:

<https://communities.cisco.com/docs/DOC-52546> . This document includes configuring prerequisites such as Service Profile Templates in UCSM, configuring User Inputs in the workflow settings, and any other necessary configuration to successfully deploy ESXi on a Baremetal Blade Server.

This document is not necessarily a best practices document; rather, it's simply a document that provides all the necessary steps to get a working ESXi Baremetal workflow in UCS Director.

Assumptions:

- You have the appropriate network VLANs in place between your UCS Chassis and the UCS Director BMA Server located on your VMware vCenter.
- Virtual and Physical accounts have already been setup in UCS Director.
- UCS Director BMA 5.3 is installed and integrated with UCS Director.

Prerequisites:

- UCS Director BMA 5.3 is installed and tested prior to following this guide. If you have not done so, you need to stop here, go install it and come back to this document when done. I have documented the BMA installation, upgrade and testing/validation steps on the UCS Director Communities site, '**UCSD Baremetal Agent Installation (5.2 -> 5.3)**'. This document can be found here: <https://communities.cisco.com/docs/DOC-61011> .
- NetApp Array has been upgraded or downgraded to the FW/SW revision specified in the FW/SW levels section.
- UCS Manager has been upgraded or downgraded to the FW/SW revision specified in the FW/SW levels section.
- MDS switches have been upgraded or downgraded to the FW/SW revision specified in the FW/SE levels section.

FW/SW levels:

- UCS Director 5.3.2.0
- UCS Director BMA 5.3
- UCS Manager 2.2(3e)
- MDS NX-OS 5.2(6a)
- VMware vCenter Server 5.1.0 Build 2306353
- NetApp 8.1.2 7 Mode

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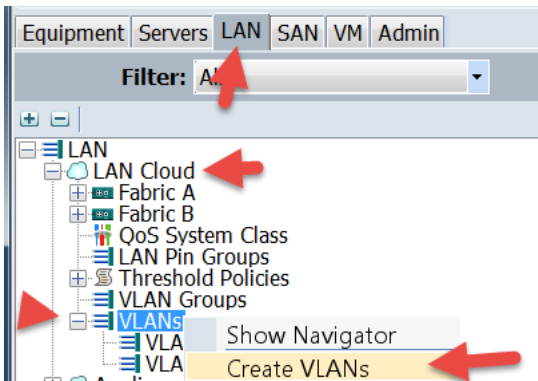
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2. Configure Service Profile Template in UCSM

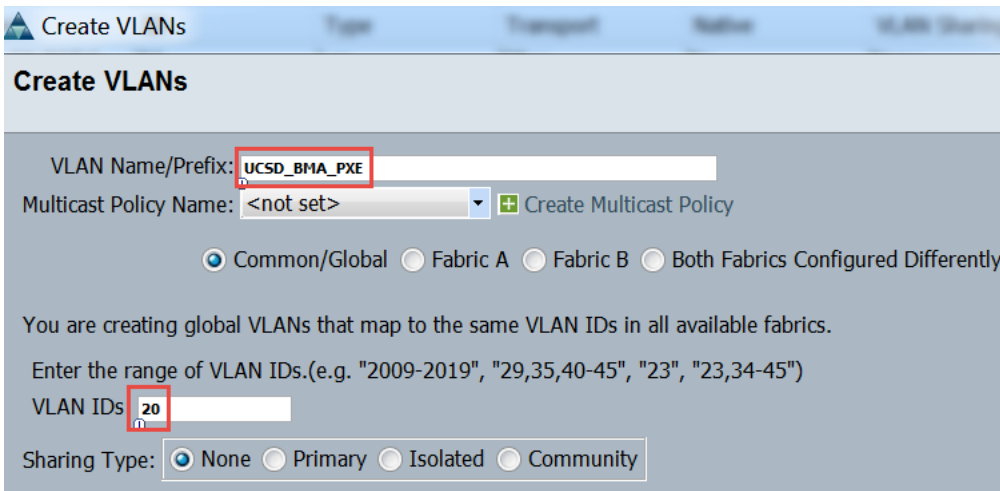
2.1. Configure Service Profile Prerequisites

2.1.1. Create PXE VLAN

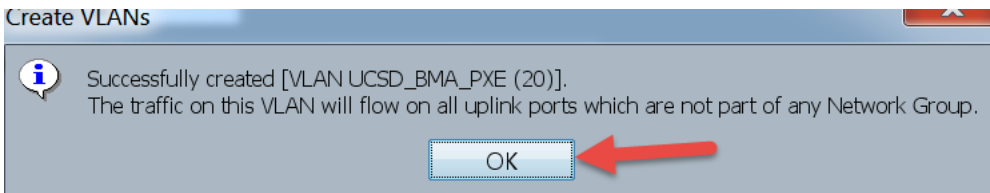
Log into UCS Manager as an admin user. Create BMA PXE VLAN in UCSM. If you have already deployed the BMA on vCenter, make sure you use the same PXE VLAN ID. Navigate to LAN -> LAN -> LAN Cloud -> VLANs -> right click and select 'Create VLANs'.



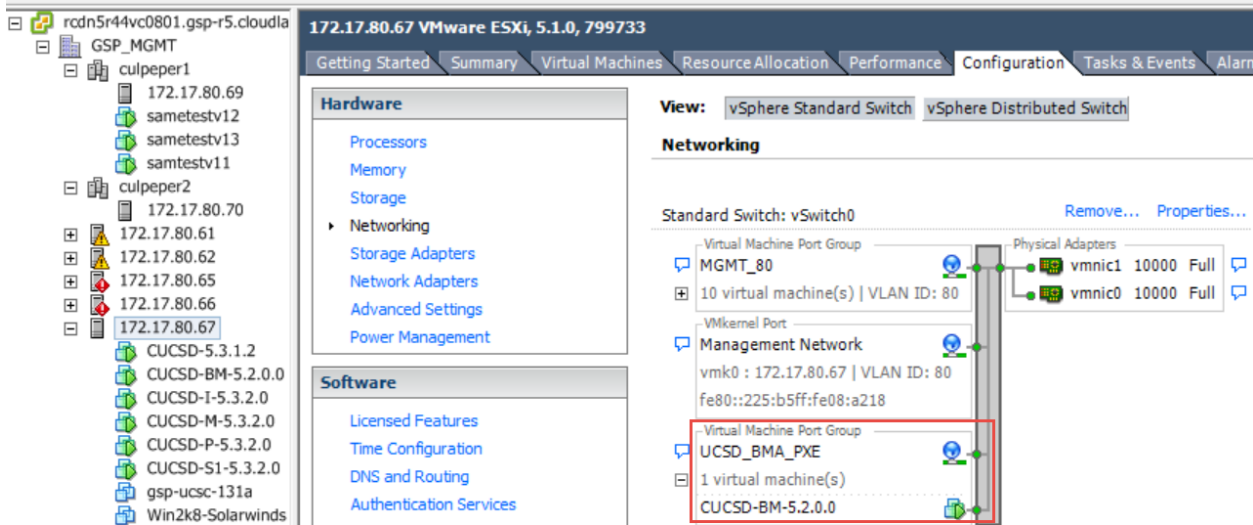
Define the VLAN Name and ID and click OK. In my example, I used 'UCSD_BMA_PXE' as the VLAN Name and VLAN ID 20.



Click OK.

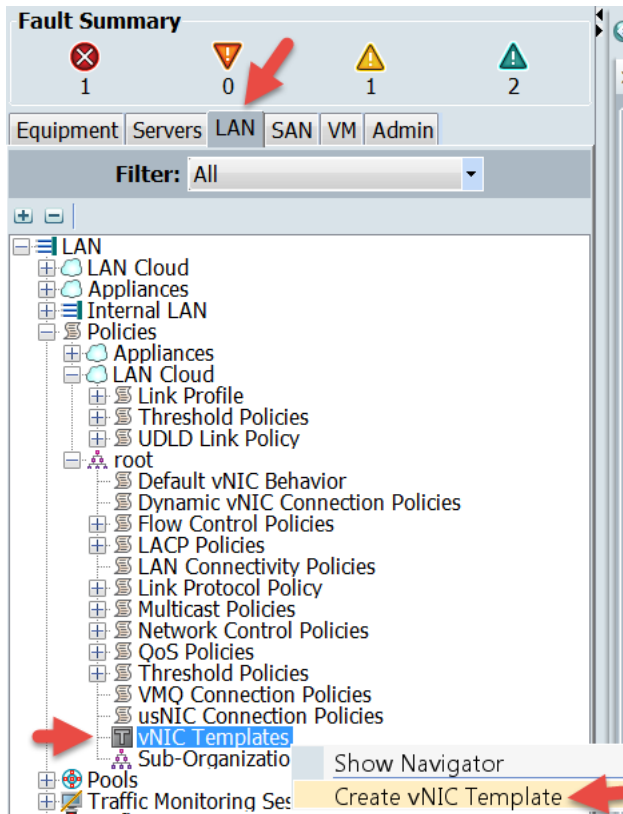


Check vCenter PXE Port Group for the BMA Server. **Note:** There should be no VLAN associated with this Port Group.

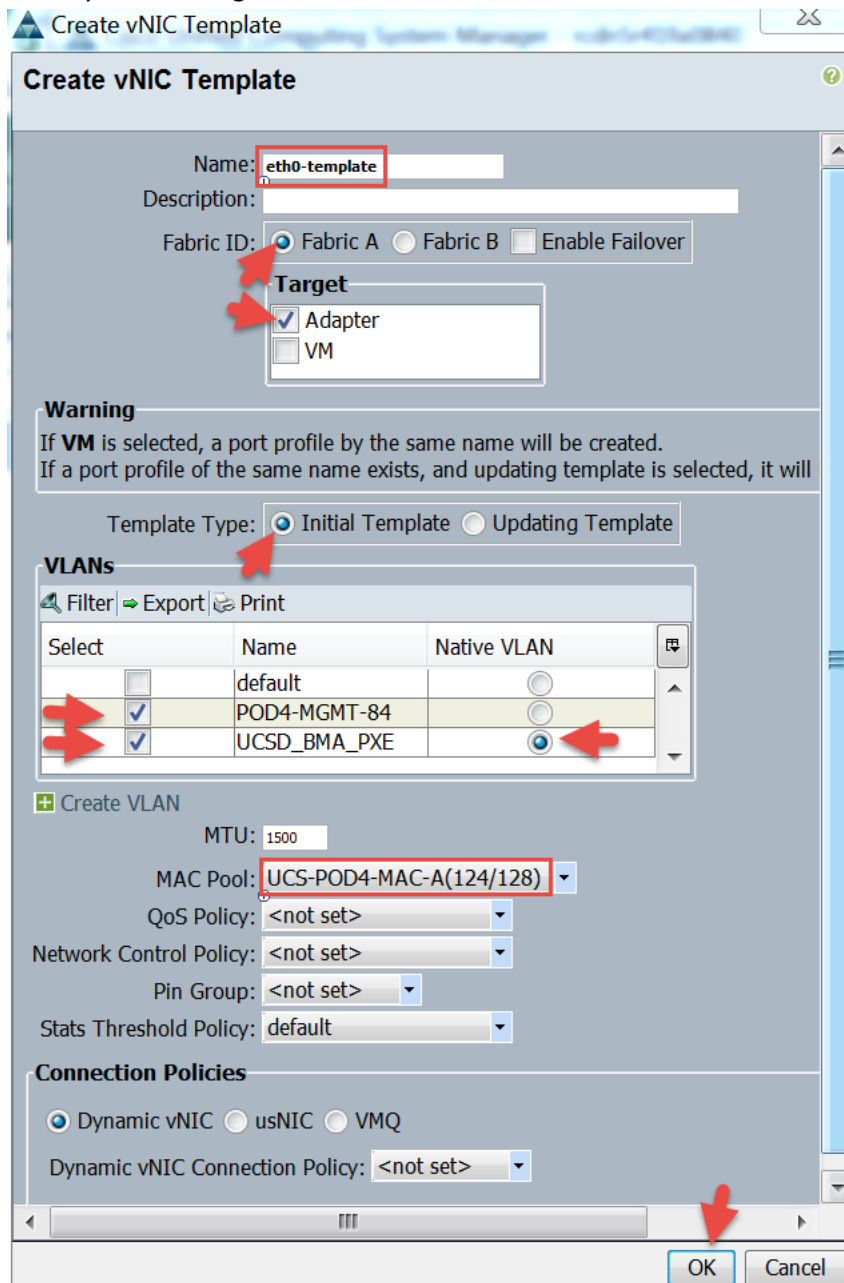


2.1.2. Create vNIC Templates

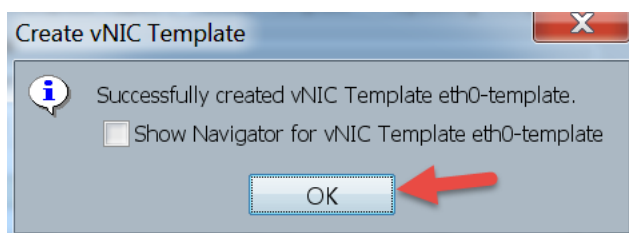
Create vNIC Template for Fabric A. Navigate to LAN -> LAN -> Policies -> vNIC Templates -> right click and select 'Create vNIC Template'. **Prerequisite:** Mac Pools have already been defined.



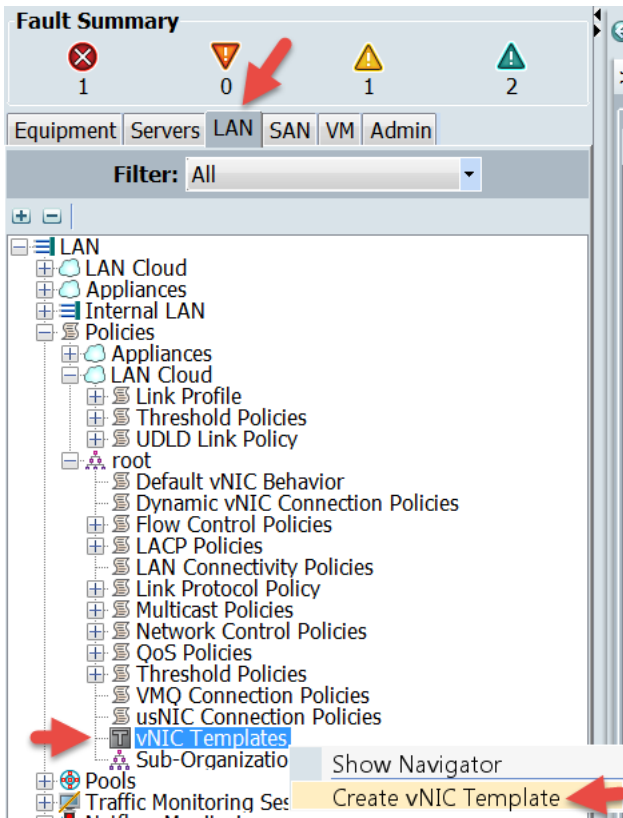
Configure the Fabric A vNIC Template as shown below. I also selected my Management VLAN that will be used for the ESXi host once the OS has been installed. **Important:** Make sure the Native Radial is selected for the UCSD PXE VLAN. Also notice that I have selected the Fabric A MAC Pool. **Note:** Updating Templates don't work with this workflow since the workflow needs to make changes to the vNIC on the Service Profile and updating templates don't allow you to directly make changes to the vNIC.



Click OK.



Create vNIC Template for Fabric B. Navigate to LAN -> LAN -> Policies -> vNIC Templates -> right click and select 'Create vNIC Template'. **Prerequisite:** Mac Pools have already been defined.



Configure the Fabric B vNIC Template as shown below. I also selected my Management VLAN that will be used for the ESXi host once the OS has been installed. **Important:** Make sure the Native Radial is selected for the UCSD PXE VLAN. Also notice that I have selected the Fabric B MAC Pool. **Note:** Updating Templates don't work with this workflow since the workflow needs to make changes to the vNIC on the Service Profile and updating templates don't allow you to directly make changes to the vNIC.

Create vNIC Template

Name:

Description:

Fabric ID: Fabric A Fabric B Enable Failover

Target

Adapter VM

Warning

If VM is selected, a port profile by the same name will be created.
If a port profile of the same name exists, and updating template is selected, it will

Template Type: Initial Template Updating Template

VLANs

Filter Export Print

Select	Name	Native VLAN
<input type="checkbox"/>	default	<input type="radio"/>
<input checked="" type="checkbox"/>	POD4-MGMT-84	<input type="radio"/>
<input checked="" type="checkbox"/>	UCSD_BMA_PXE	<input checked="" type="radio"/>

Connection Policies

Dynamic vNIC usNIC VMQ

Dynamic vNIC Connection Policy:

MTU:

MAC Pool:

QoS Policy:

Network Control Policy:

Pin Group:

Stats Threshold Policy:

OK Cancel

Click OK.

Create vNIC Template

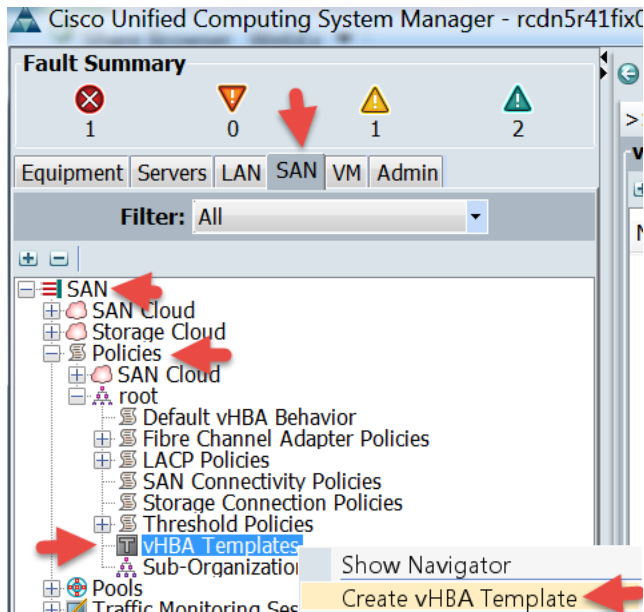
Successfully created vNIC Template eth0-template.

Show Navigator for vNIC Template eth0-template

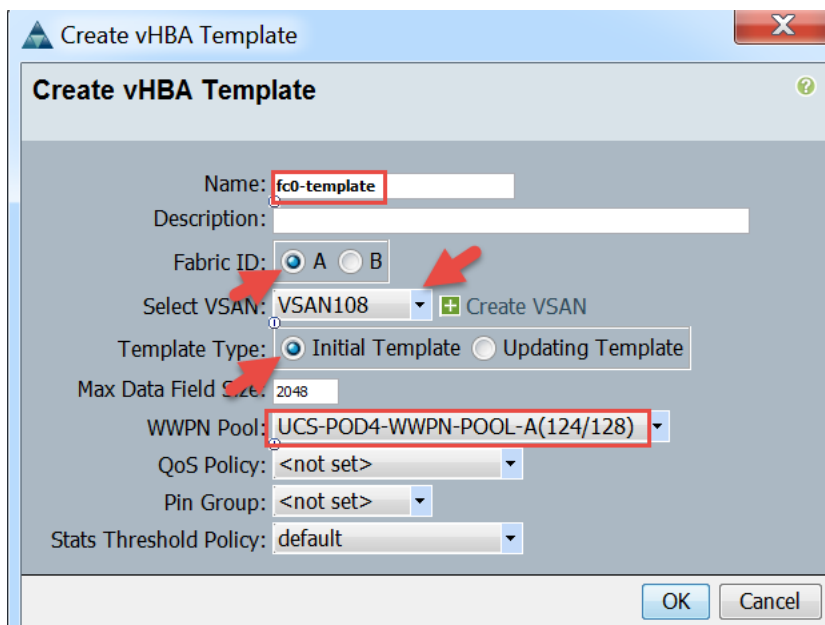
OK

2.1.3. Create vHBA Templates

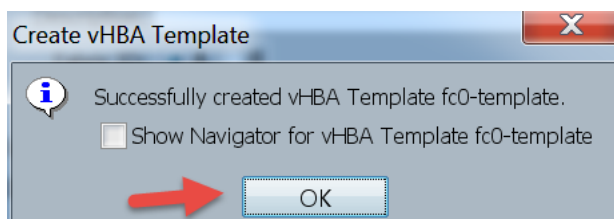
Create vHBA Template for Fabric A. Navigate to SAN -> SAN -> Policies -> vHBA Templates -> right click and select 'Create vHBA Template'. **Prerequisite:** WWPN Pools have already been defined and Fabric A VSAN has already been defined.



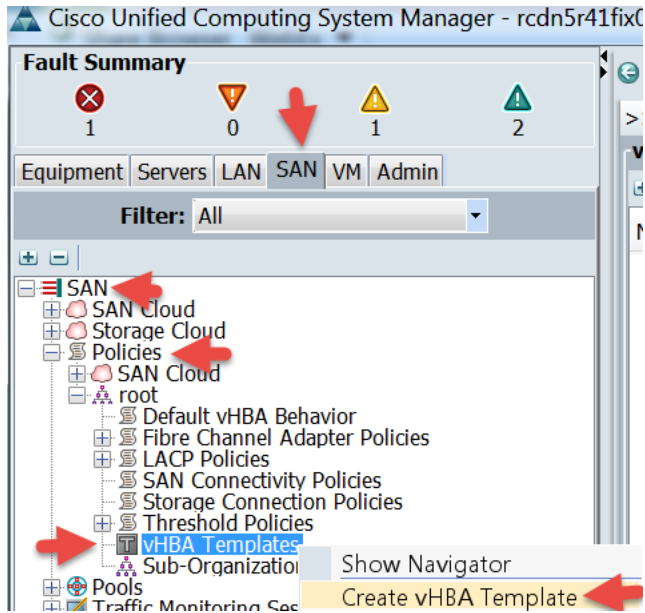
Configure the Fabric A vHBA Template as shown below. **Note:** My Fabric A VLAN is VSAN108 and I also selected my Fabric A WWPN Pool.



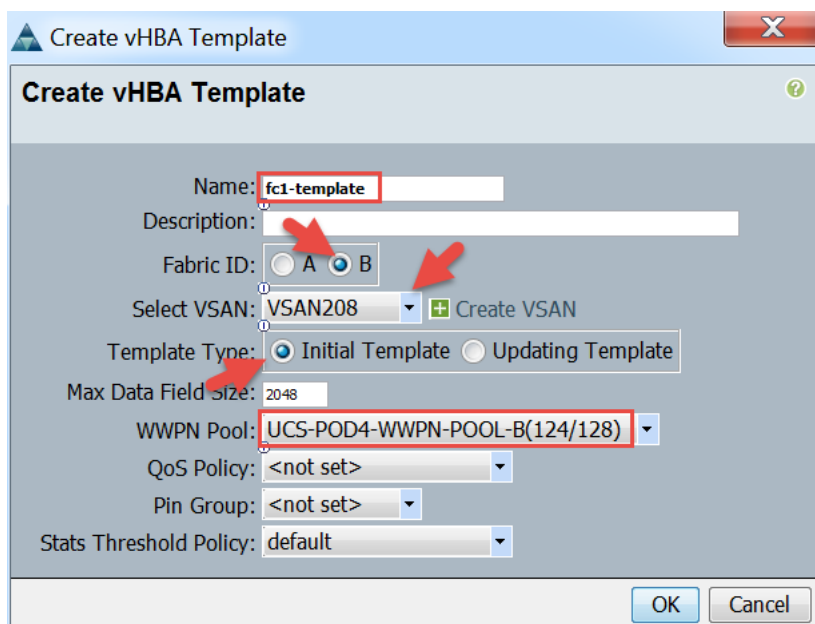
Click OK.



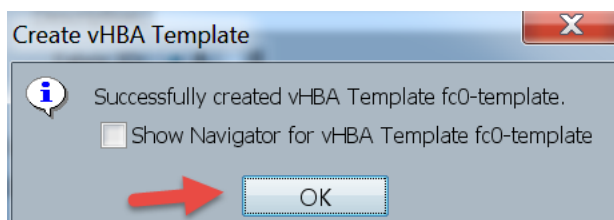
Create vHBA Template for Fabric B. Navigate to SAN -> SAN -> Policies -> vHBA Templates -> right click and select 'Create vHBA Template'. **Prerequisite:** WWPN Pools have already been defined and Fabric B VSAN has already been defined.



Configure the Fabric B vHBA Template as shown below. **Note:** My Fabric B VLAN is VSAN208 and I also selected my Fabric B WWPN Pool.

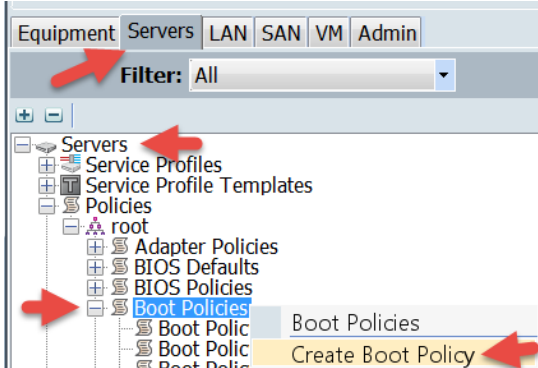


Click OK.

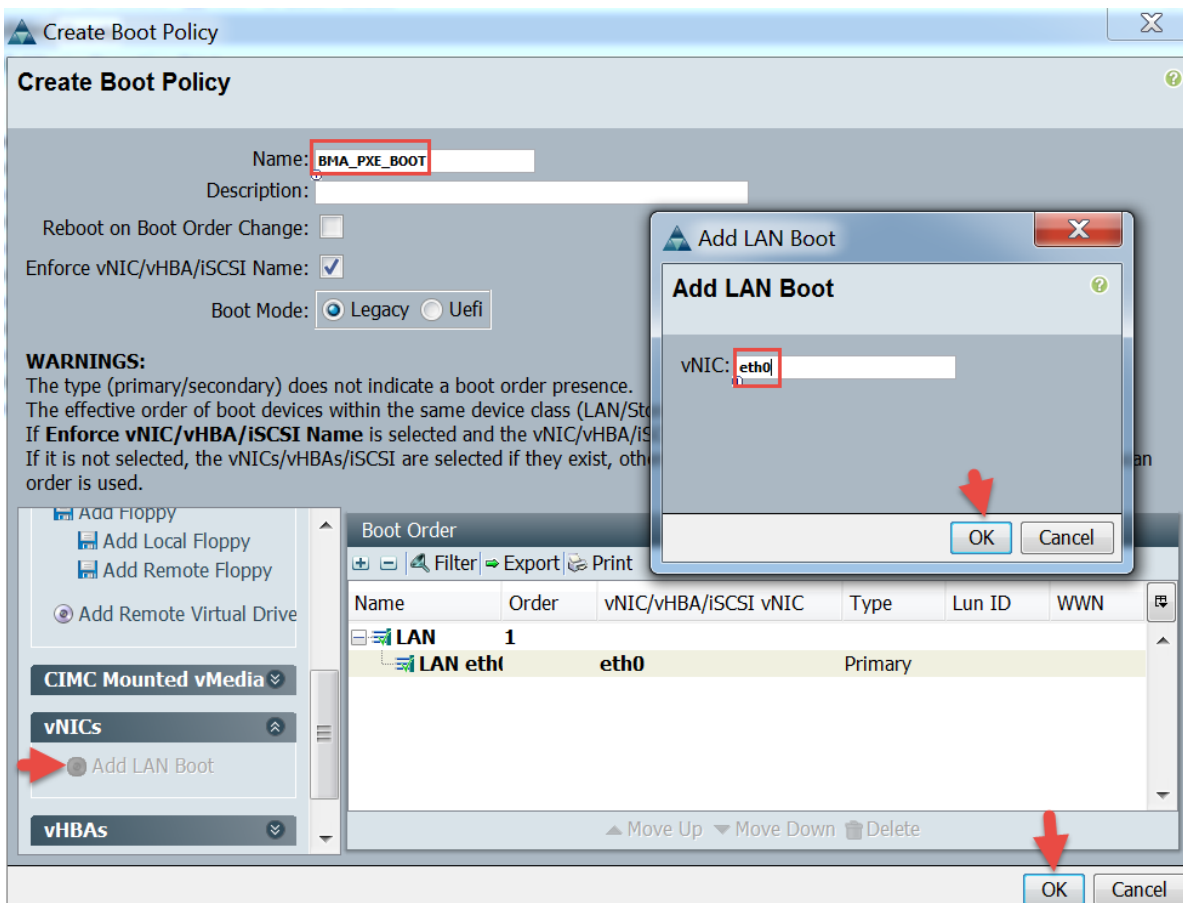


2.1.4. Create PXE Boot Policy

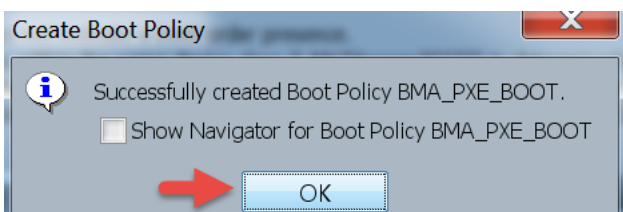
Create PXE Boot Policy. Navigate Servers -> Servers -> Policies -> right click on 'Boot Policies' and select 'Create Boot Policy'.



Define the Boot Policy Name, Select 'Add LAN Boot' on the left, name the vNIC that it will use to boot from and click OK on both windows. **Important:** The name of the vNIC needs to match exactly to the case what will be defined in the Service Profile later in this document.



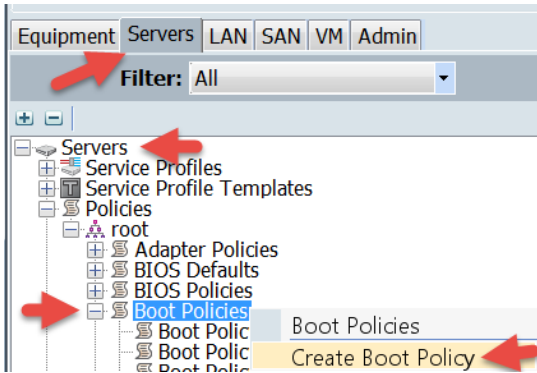
Click OK.



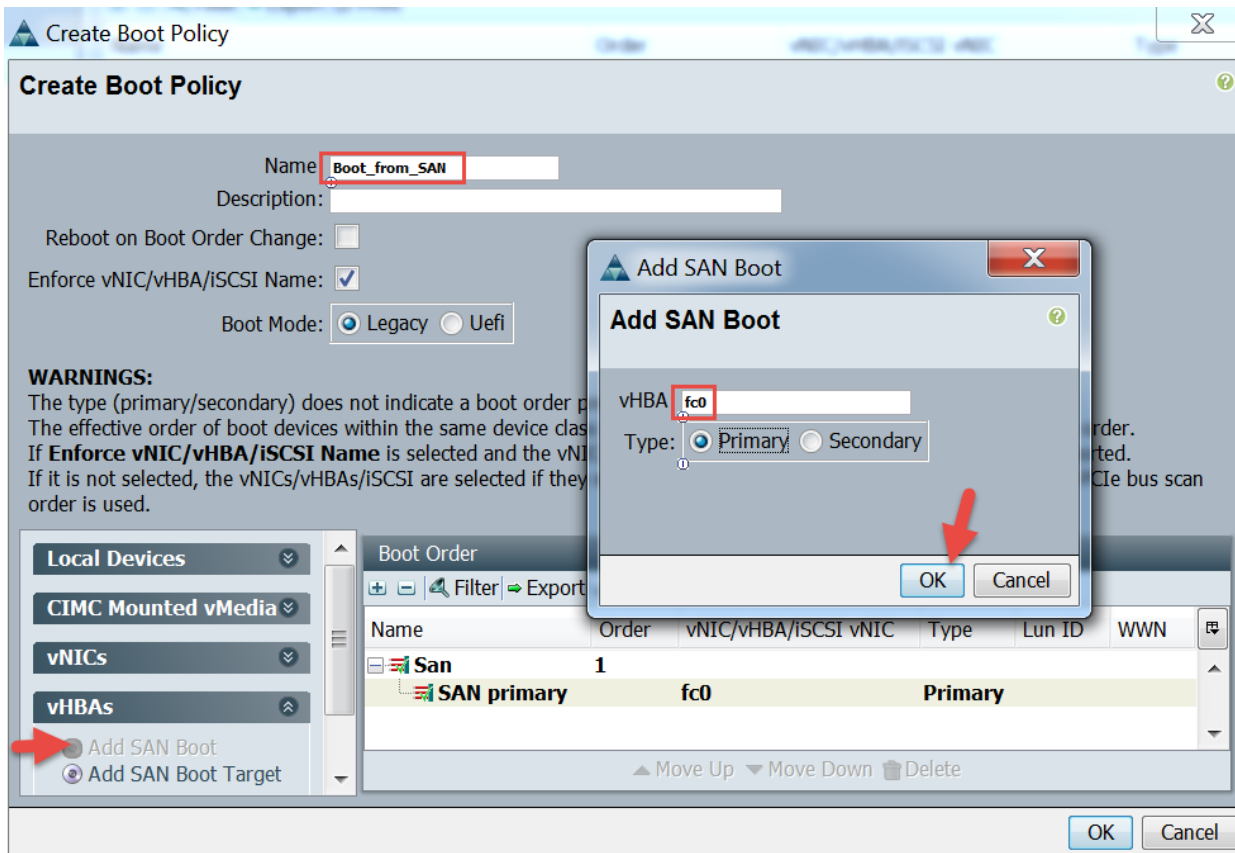
2.1.5. Create Boot From SAN Policy

You will need the WWPN Targets for your NetApp array before you can complete this section.

Create Boot from SAN Boot Policy. Navigate Servers -> Servers -> Policies -> right click on 'Boot Policies' and select 'Create Boot Policy'.



Name the Boot from SAN Policy and Click 'Add SAN Boot', then name the Fabric A vHBA and click OK. **Note:** The vHBA Name needs to match exact case and name as the Fabric A vHBAs that will be defined in the Service Profile.



Select 'Add SAN Boot Target' and then enter the 'Boot Target LUN' number and the 'Boot Target WWPN' and click OK. This is the WWPN for Fabric B.

The screenshot shows the 'Create Boot Policy' dialog box. The 'Name' field is 'Boot_from_SAN'. The 'Boot Mode' is set to 'Legacy'. A 'WARNINGS' section is visible. In the bottom-left sidebar, 'Add SAN Boot Target' is selected with a red arrow. The 'Add SAN Boot Target' sub-dialog is open, showing 'Boot Target LUN' as '0' and 'Boot Target WWPN' as '50:0A:09:82:97:2E:2'. The 'Type' is 'Primary'. A red arrow points to the 'OK' button in the sub-dialog.

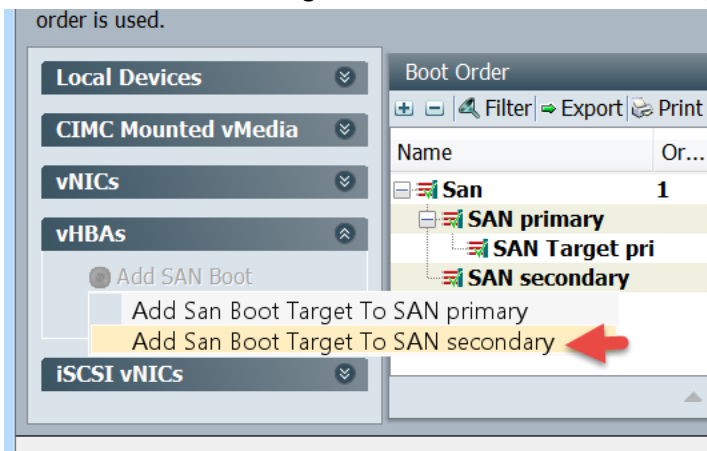
Name	Or...	vNIC/vHBA/iSCS...	Type	Lun...	WWN
San	1				
SAN primary		fc0	Pri...		
SAN Target pri			Prim...	0	50:0A:09:82:97:...

Click 'Add SAN Boot', then name Fabric B the vHBA and click OK. **Note:** The vHBA Name needs to match exact case and name as the Fabric B vHBAs that will be defined in the Service Profile.

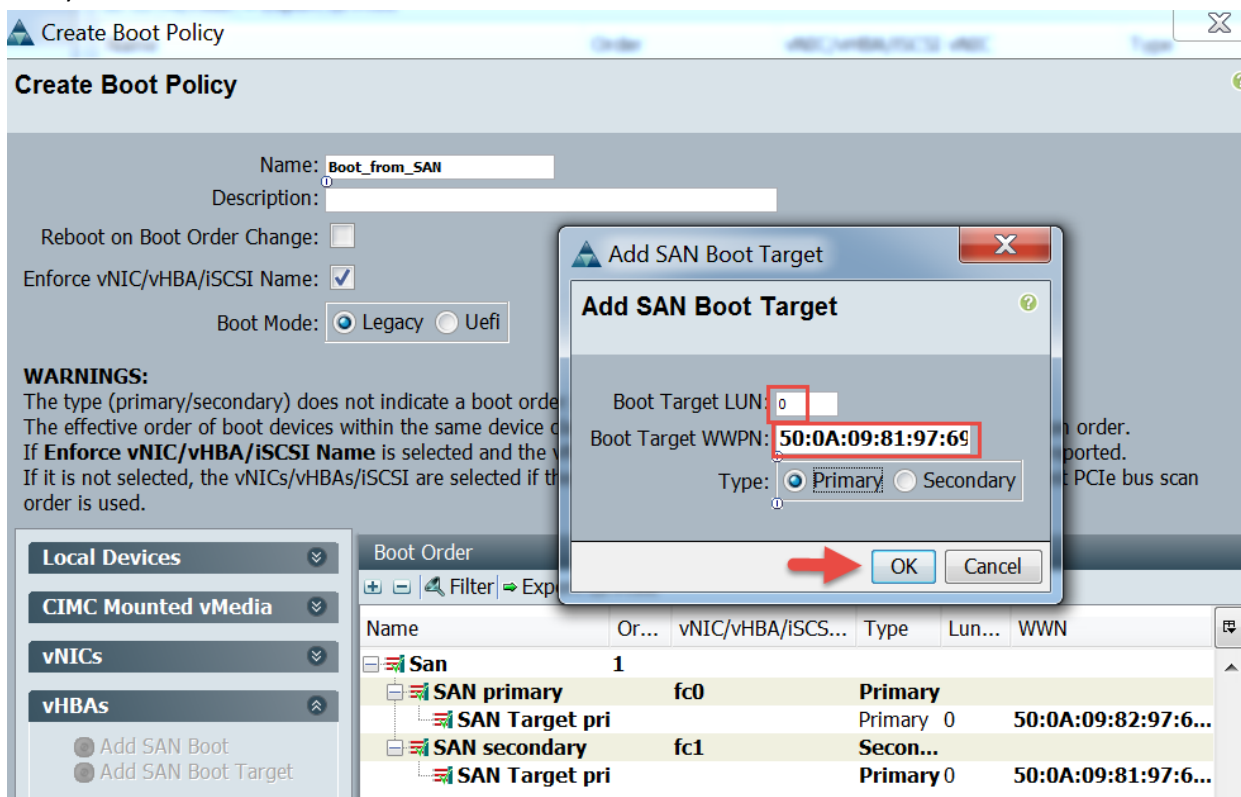
The screenshot shows the 'Create Boot Policy' dialog box. The 'Name' field is 'Boot_from_SAN'. The 'Boot Mode' is set to 'Legacy'. In the bottom-left sidebar, 'Add SAN Boot' is selected with a red arrow. The 'Add SAN Boot' sub-dialog is open, showing 'vHBA' as 'fc1'. The 'Type' is 'Secondary'. A red arrow points to the 'OK' button in the sub-dialog.

Name	Or...	vNIC/vHBA/iSCS...	Type	Lun...	WWN
San	1				
SAN primary		fc0	Primary		
SAN Target pri			Primary	0	50:0A:09:82:97:...
SAN secondary		fc1	Secon...		

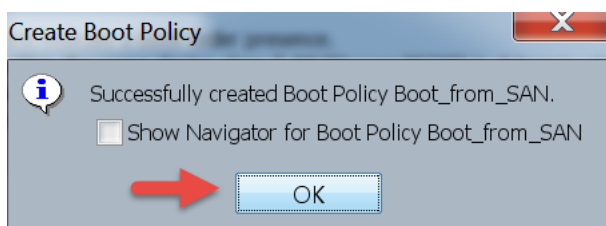
Select 'Add SAN Boot Target' then select 'Add San Boot Target to SAN secondary'.



Enter the 'Boot Target LUN' number and the 'Boot Target WWPN' and click OK and then click OK on the Create Boot Policy Screen. This is the WWPN for Fabric B.



Click OK.



2.1.6. Confirm Defaults for Local Disk and Host Firmware Policies

Confirm your Default Local Disk Configuration Policy is set to 'Any Configuration'.

The screenshot shows the BMC interface with the 'Local Disk Configuration Policy default' selected. The 'Properties' tab is active, showing the following details:

- Name: default
- Description: [Empty field]
- Owner: Local
- Mode: Any Configuration (highlighted with a red box)
- Protect Configuration:
- FlexFlash State: Disable Enable

The left-hand tree view shows the hierarchy: Servers > Policies > root > Local Disk Config Policies > Local Disk Configuration Policy default. Red arrows point to the 'Local Disk Config Policies' folder and the 'Local Disk Configuration Policy default' item.

Confirm you have a Host Firmware Package. In my case, I created a Host Firmware Package for 2.2(3e) since this is the firmware I have installed and using for this testing. If you don't have one, you should create one before moving on to the next step.

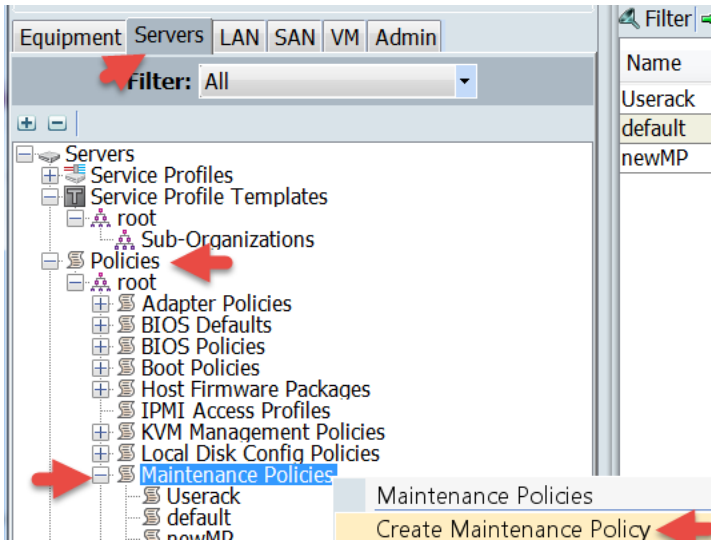
The screenshot shows the BMC interface with the 'Host Firmware Package 2.2.3e' selected. The 'Properties' tab is active, showing the following details:

- Name: 2.2.3e (highlighted with a red box)
- Description: [Empty field]
- Owner: Local
- Blade Package: 2.2(3e)B (highlighted with a red box)
- Rack Package: [Empty field]

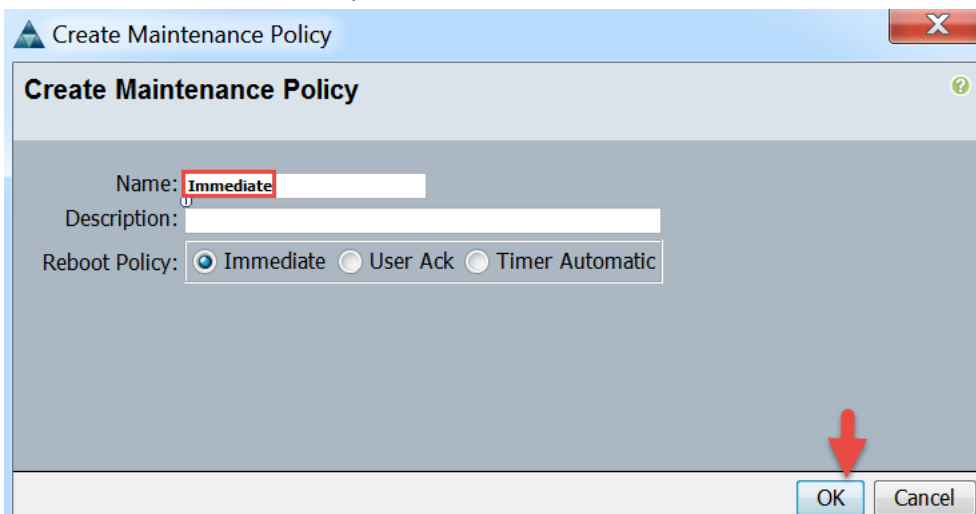
The left-hand tree view shows the hierarchy: Servers > Policies > root > Host Firmware Packages > 2.2.3e > default. Red arrows point to the 'Host Firmware Packages' folder and the '2.2.3e' item.

2.1.7. Create 'Immediate' Maintenance Policy

Create an Immediate Reboot Maintenance Policy. This policy will reboot the blade without user acknowledgement. Navigate to Servers -> Servers -> Policies -> Maintenance Policies -> Select 'Create Maintenance Policy'.



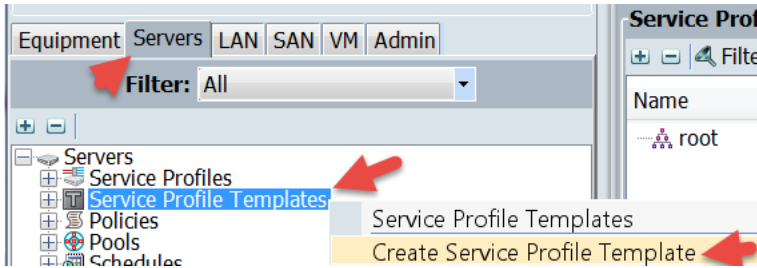
Name the Maintenance Policy and click OK.



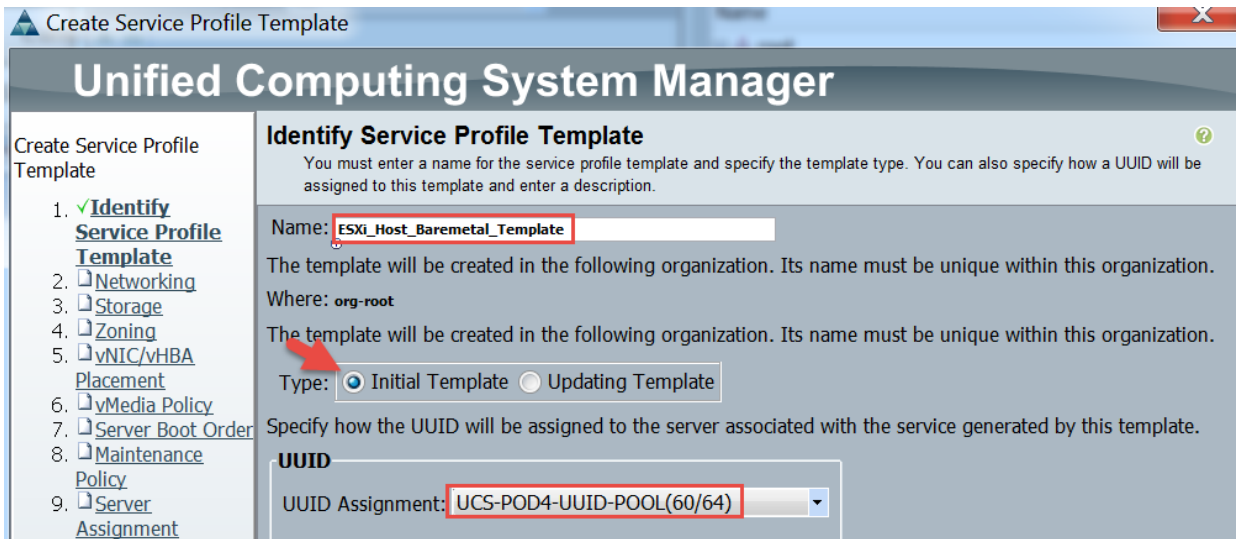
2.2. Create Service Profile Template

Note: It is assumed you have already created WWNN, WWPN, UUID, EXT-MGMT (IP Pool for KVM access) and MAC Pools. If you have not done so already, you should go create those Pools before proceeding with this step.

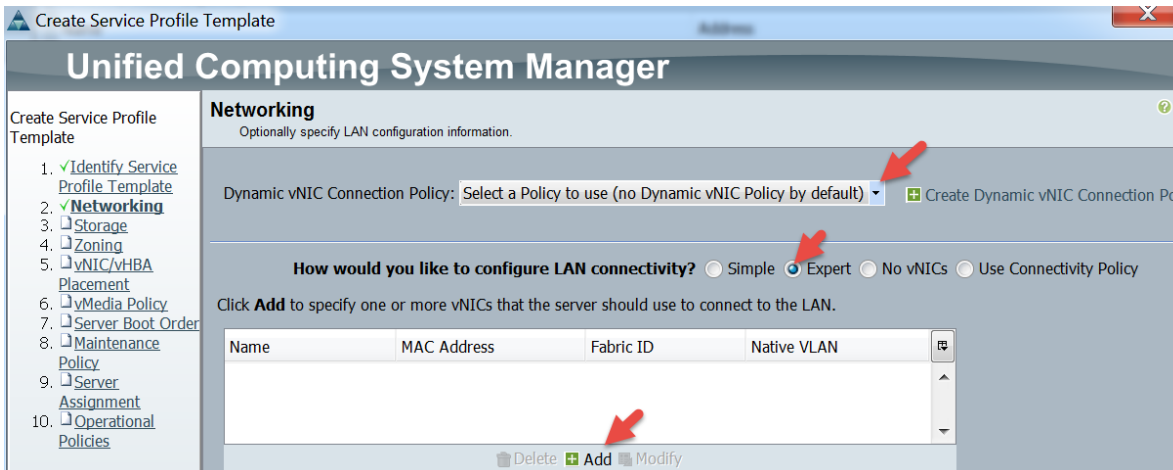
Create service Profile Template. Navigate to Servers -> Servers -> Service Profile Templates -> select 'Create Service Profile Template'.



Name the Service Profile Template, select 'Initial Template', select a UUID Pool and click Next. **Note:** It is assumed that you have already created a UUID Pool to be used here. If you haven't done so, you will need to cancel this, go create a UUID Pool then come back to this step. **Note 2:** Updating Templates don't work with this workflow since the workflow needs to make changes to the Boot Policy on the Service Profile and updating templates don't allow you to directly make changes to the Boot Policy on the Service Profile.



Leave the default 'Select a Policy to use (no Dynamic vNIC Policy by default)', select Expert radial and click Add.



Add the Fabric A vNIC. Name the vNIC, select 'Use vNIC Template', select your Fabric A vNIC Template and VMware for the Adapter Policy, then click OK. **Note:** The name needs to match the exact name you configured in your Boot Policy for the Boot Policy to work.

Create vNIC

Name:

Use vNIC Template:

[+ Create vNIC Template](#)

vNIC Template:

Adapter Performance Profile

Adapter Policy: [+ Create Ethernet Adapter Policy](#)

Add the Fabric B vNIC. Click Add.

Create Service Profile Template

Unified Computing System Manager

Networking
Optionally specify LAN configuration information.

Dynamic vNIC Connection Policy: [+ Create Dynamic](#)

How would you like to configure LAN connectivity? Simple Expert No vNICs Use Con

Click **Add** to specify one or more vNICs that the server should use to connect to the LAN.

Name	MAC Address	Fabric ID	Native VLAN
vNIC eth0	Derived	derived	

[Delete](#) [+ Add](#) [Modify](#)

Name the vNIC, select 'Use vNIC Template', select your Fabric B vNIC Template and VMware for the Adapter Policy, then click OK. **Note:** The name needs to match the exact name you configured in your Boot Policy for the Boot Policy to work.

Create vNIC

Name:

Use vNIC Template:

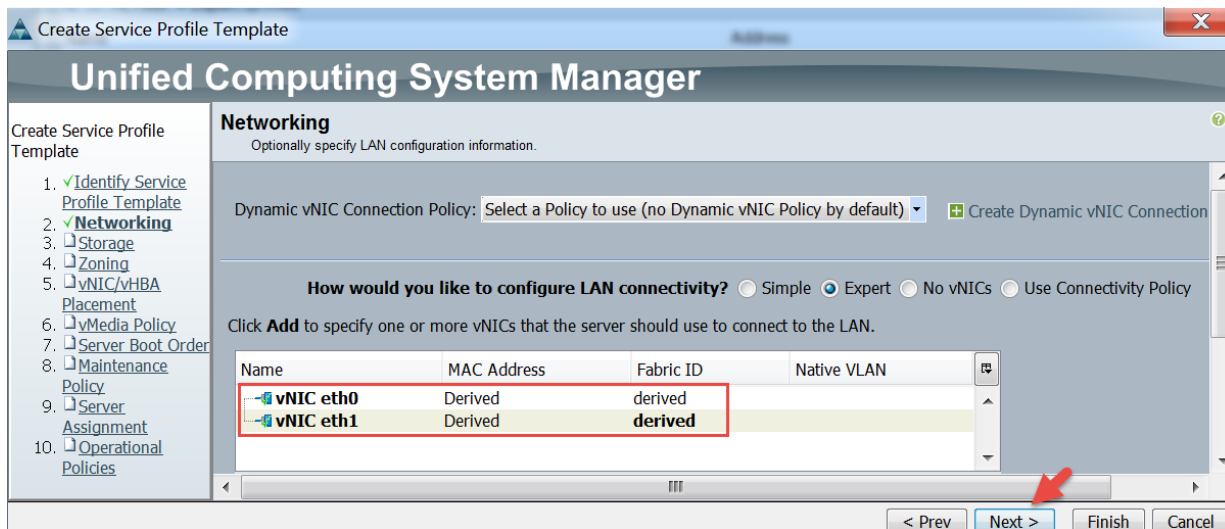
[+ Create vNIC Template](#)

vNIC Template:

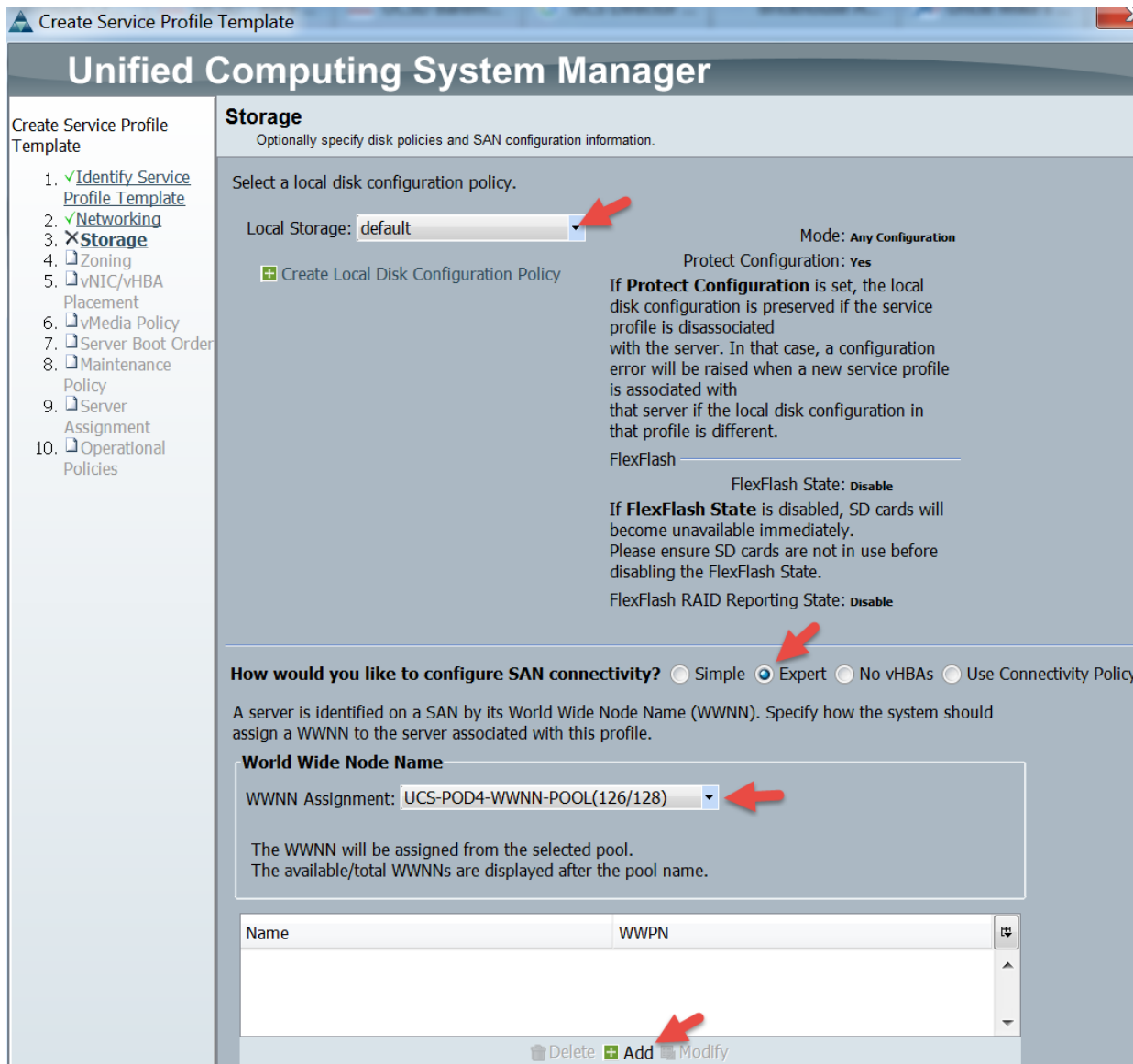
Adapter Performance Profile

Adapter Policy: [+ Create Ethernet Adapter Policy](#)

Verify both vNICs are there and then click Next.



Select the default Local Disk Policy, select the Expert radial, Select a WWNN Pool, and click Add. **Note:** It is assumed that you have already created a WWNN Pool to be used here. If you haven't done so, you will need to cancel this, go create a WWNN Pool then come back to this step.



Name the Fabric A vHBA, select 'Use vHBA Template', select the Fabric A vHBA Template and select VMware for the Adapter Policy then click OK. **Note:** The Name of the vHBA adapter is critical because it will be used to boot from SAN and this name must match the Boot Policy exactly or the Boot from SAN will fail.

Create vHBA

Name:

Use vHBA Template:

vHBA Template:

Adapter Performance Profile

Adapter Policy:

Add the Fabric B vHBA. Click Add.

World Wide Node Name

WWNN Assignment:

The WWNN will be assigned from the selected pool.
The available/total WWNNs are displayed after the pool name.

Name	WWPN
vHBA fc0	Derived
vHBA If	

Name the Fabric B vHBA, select 'Use vHBA Template', select the Fabric B vHBA Template and select VMware for the Adapter Policy then click OK. **Note:** The Name of the vHBA adapter is critical because it will be used to boot from SAN and this name must match the Boot Policy exactly or the Boot from SAN will fail.

Create vHBA

Name:

Use vHBA Template:

vHBA Template:

Adapter Performance Profile

Adapter Policy:

Review and Click Next.

1. [Identify Service Profile Template](#)
2. [Networking](#)
3. [Storage](#)
4. [Zoning](#)
5. [vNIC/vHBA Placement](#)
6. [vMedia Policy](#)
7. [Server Boot Order](#)
8. [Maintenance Policy](#)
9. [Server Assignment](#)
10. [Operational Policies](#)

Select a local disk configuration policy.

Local Storage: **default** Mode: **Any Configuration**

Create Local Disk Configuration Policy

Protect Configuration: **Yes**
If **Protect Configuration** is set, the local disk configuration is preserved if the service profile is disassociated with the server. In that case, a configuration error will be raised when a new service profile is associated with that server if the local disk configuration in that profile is different.

FlexFlash _____
FlexFlash State: **Disable**
If **FlexFlash State** is disabled, SD cards will become unavailable immediately. Please ensure SD cards are not in use before disabling the FlexFlash State.
FlexFlash RAID Reporting State: **Disable**

How would you like to configure SAN connectivity? Simple Expert No vHBAs Use Connectivity Policy

A server is identified on a SAN by its World Wide Node Name (WWNN). Specify how the system should assign a WWNN to the server associated with this profile.

World Wide Node Name
WWNN Assignment: **UCS-POD4-WWNN-POOL(126/128)**

The WWNN will be assigned from the selected pool.
The available/total WWNNs are displayed after the pool name.

Name	WWPN
<input type="checkbox"/> vHBA fc0	Derived
<input type="checkbox"/> vHBA If	
<input type="checkbox"/> vHBA fc1	Derived
<input type="checkbox"/> vHBA Tf	

Delete Add Modify

Next > **Finish** **Cancel**

Leave the Zoning default and Click Next. We are doing the Zoning on a Cisco MDS SAN Switch.

Unified Computing System Manager

Create Service Profile Template

1. [Identify Service Profile Template](#)
2. [Networking](#)
3. [Storage](#)
4. [Zoning](#)
5. [vNIC/vHBA Placement](#)
6. [vMedia Policy](#)
7. [Server Boot Order](#)
8. [Maintenance Policy](#)
9. [Server Assignment](#)
10. [Operational Policies](#)

Zoning

Specify zoning information

WARNING: Switch in end-host mode. In end-host mode, zoning configuration will NOT be applied.

Zoning configuration involves the following **steps**:

1. **Select** vHBA Initiator(s) (vHBAs are created on storage page)
2. **Select** vHBA Initiator Group(s)
3. **Add** selected Initiator(s) to selected Initiator Group(s)

Select vHBA Initi:

Name
fc0
fc1

>> Add To >>

Select vHBA Initiator Groups

Name	Storage Connection Policy Name
------	--------------------------------

Delete Add Modify

Leave the vNIC/vHBA Placement defaults and click Next.

vNIC/vHBA Placement
Specify how vNICs and vHBAs are placed on physical network adapters

vNIC/vHBA Placement specifies how vNICs and vHBAs are placed on physical in a server hardware configuration independent way.

Select Placement:

System will perform automatic placement of vNICs and vHBAs based on P

Name	Address	Order	
vNIC eth0	Derived	1	
vNIC eth1	Derived	2	
vHBA fc0	Derived	3	
vHBA fc1	Derived	4	

Leave the vMedia Policy default 'Select vMedia Policy to use' and click Next.

vMedia Policy
Optionally specify the Scriptable vMedia policy for this service profile template.

vMedia Policy:

The default boot policy will be used for this service profile.

Leave the 'Select Boot Policy to use' Boot Policy and click Next. The workflow will set the Boot Policy to BMA_PXE_BOOT Policy for the OS install and then change it to the Boot_from_SAN after the OS has been installed so we don't need to specify a boot policy here.

Server Boot Order
Optionally specify the boot policy for this service profile template.

Select a boot policy.

Boot Policy:

The default boot policy will be used for this service profile.

Select the Maintenance Policy 'Immediate' and click Next.

Unified Computing System Manager

Create Service Profile Template



1. [Identify Service Profile Template](#)
2. [Networking](#)
3. [Storage](#)
4. [Zoning](#)
5. [vNIC/vHBA Placement](#)
6. [vMedia Policy](#)
7. [Server Boot Order](#)
8. **[Maintenance Policy](#)**
9. [Server Assignment](#)
10. [Operational Policies](#)

Maintenance Policy

Specify how disruptive changes such as reboots, network interruptions, and firmware upgrades should be applied to this service profile.

Maintenance Policy

Select a maintenance policy to include with this service profile or create a new maintenance policy that will be accessible to all service profiles.

Maintenance Policy:  

Name: **Immediate**
Description:
Reboot Policy: **Immediate**

Leave the Pool Assignment set to 'Assign Later', Expand the Firmware Management (BIOS, Disk, Controller, Adapter) section by click on the double down arrows then select the Host Firmware Policy 2.2(3e) or whatever policy you have created for your firmware. Click Next.



Create Service Profile Template

1. [Identify Service Profile Template](#)
2. [Networking](#)
3. [Storage](#)
4. [Zoning](#)
5. [vNIC/vHBA Placement](#)
6. [vMedia Policy](#)
7. [Server Boot Order](#)
8. [Maintenance Policy](#)
9. **[Server Assignment](#)**
10. [Operational Policies](#)

Server Assignment

Optionally specify a server pool for this service profile template.

You can select a server pool you want to associate with this service profile template.

Pool Assignment:  



Select the power state to be applied when this profile is associated with the server.

Up Down

The service profile template is not automatically associated with a server. Either select a server from the list or associate the service profile manually later.

Firmware Management (BIOS, Disk Controller, Adapter)

If you select a host firmware policy for this service profile, the profile will update the firmware on the server that it is associated with. Otherwise the system uses the firmware already installed on the associated server.

Host Firmware:  

Select SRIOV for the BIOS Policy, select the double down arrows for the 'Management IP Address' section and then select a Management IP Address Policy. Leave all other Policies default and click Finish. **Note:** It is assumed you have already defined your Management IP Pool. If you have not done so, you can click the 'Create IP Pool' to create one from here.

Finally, click OK.

You should now see the Template under 'Service Profile Templates'

3. Download and Import workflow in UCS Director

Download the 'UCSD – Bare Metal UCSM + MDS + Netapp Example' from the UCS Director Communities site and save it to your local Computer. It can be found here: <https://communities.cisco.com/docs/DOC-52546> .

UCSD - Bare Metal UCSM + MDS + Netapp Example
Version 3
created by Orf Gelbrich on May 15, 2014 12:30 PM, last modified by Orf Gelbrich on Aug 28, 2015 12:47 PM

Task Name	Bare Metal UCSM + MDS + Netapp Example
Description	1. Bare Metal UCSM + MDS + Netapp Example
Prerequisites	1. Tested on 4.1.0.3B
Category	Workflow
Components	vSphere 5.x
User Inputs	1. Blade to install on
Output	

WFExport-
BareMetalNetAppMDSZoning.wfd.zip
10.1 K
No security policy violations found.
The file was last scanned 3 months ago.

Extract the zip File and you should find the following workflow inside the extracted folder.

Documents library
WFExport-BareMetalNetAppMDSZoning.wfdx
Name
WFExport-BareMetalNetAppMDSZoning.wfd

Log into UCS Director to Import the workflow. Navigate to Policies -> Orchestration -> Workflows -> select Import.

Cisco UCS Director
Converged Virtual Physical Organizations Policies Administration CloudSen:
Orchestration
Workflows Triggers Activities Context Workflow Mapping User VM Action Policy Workflow Tem
Refresh Favorite Add Workflow Export Import Task Library
Workflows
Workflow Name Workflow Descriptio Val

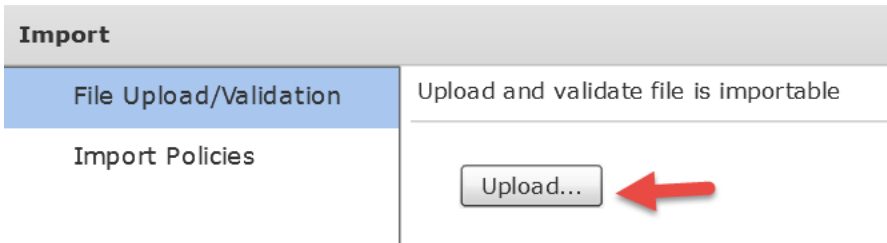
Click the Upload button.

Import

File Upload/Validation Upload and validate file is importable

Import Policies

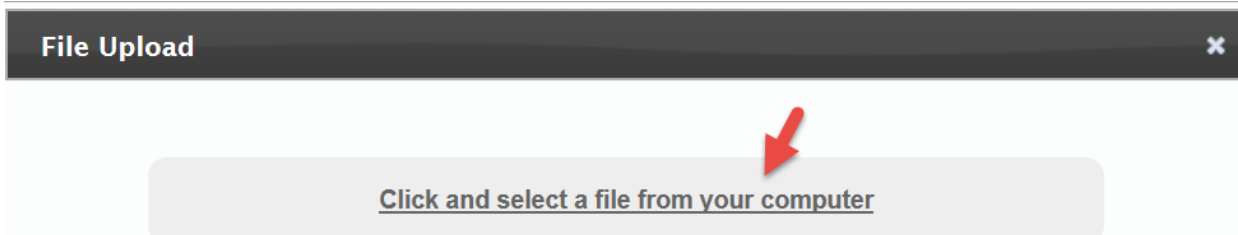
Upload...



Click 'Click and select a file from your computer' hyper link.

File Upload [X]

[Click and select a file from your computer](#)



Browse and select the workflow the select Open.

Choose File to Upload [X]

« UCS ... » WfExport-BareMetalNetAppMDSZoning.wfdx Search WfExport-...

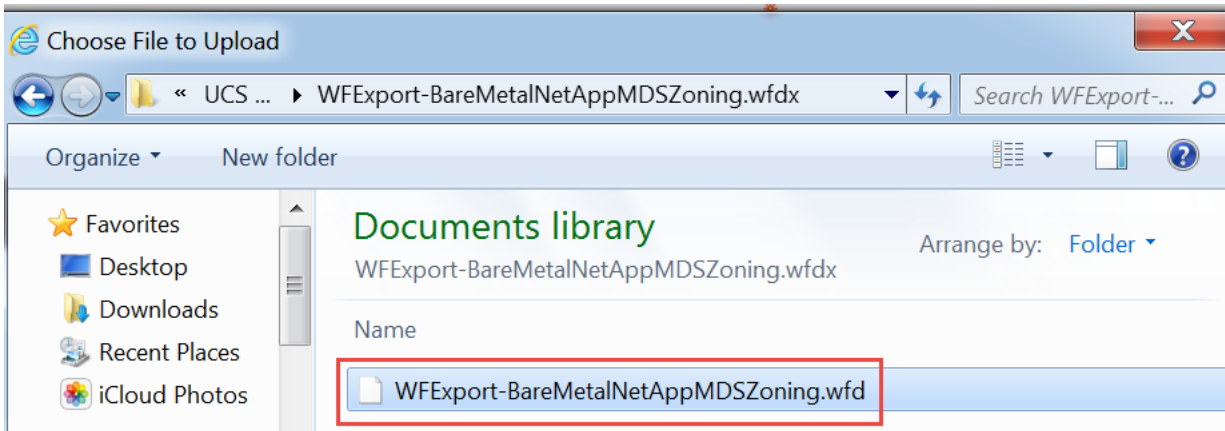
Organize New folder

Documents library Arrange by: Folder

WfExport-BareMetalNetAppMDSZoning.wfdx

Name

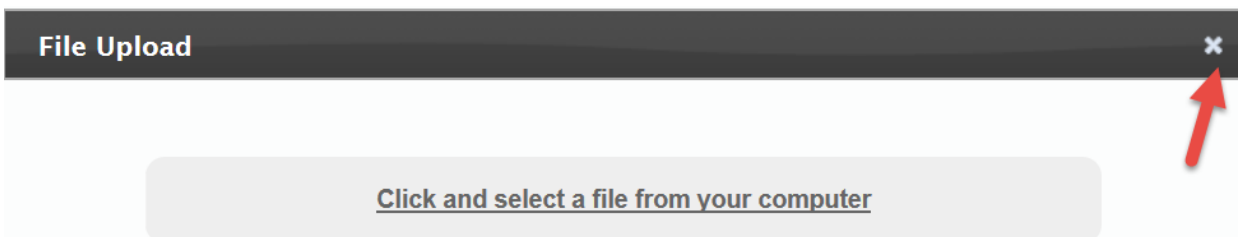
WfExport-BareMetalNetAppMDSZoning.wfd



Wait until you see 'File ready for use.' then select the x in the right corner to close out the File Upload screen.

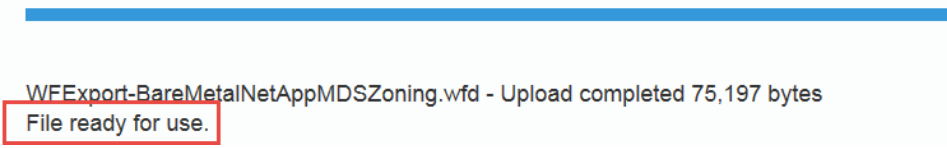
File Upload [X]

[Click and select a file from your computer](#)

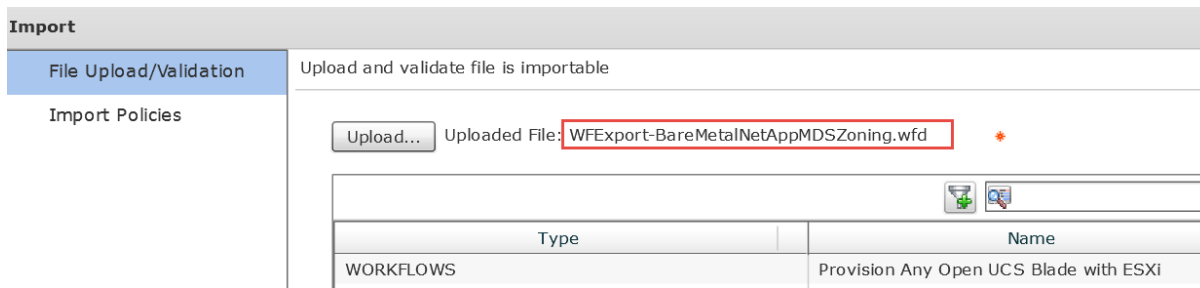


WfExport-BareMetalNetAppMDSZoning.wfd - Upload completed 75,197 bytes

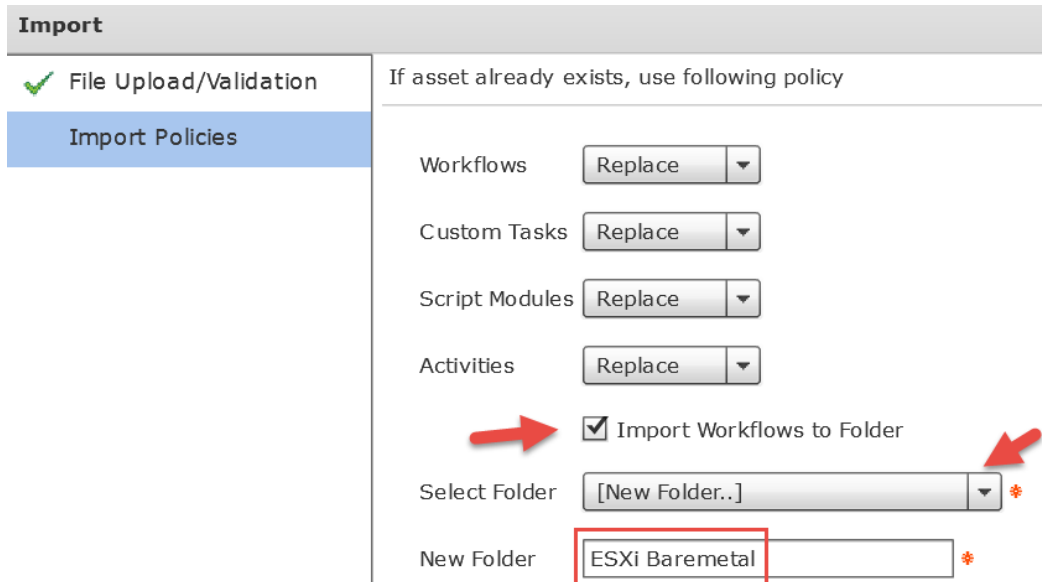
File ready for use.



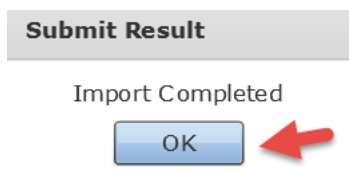
You should see the workflow next to the uploaded File: then click Next.



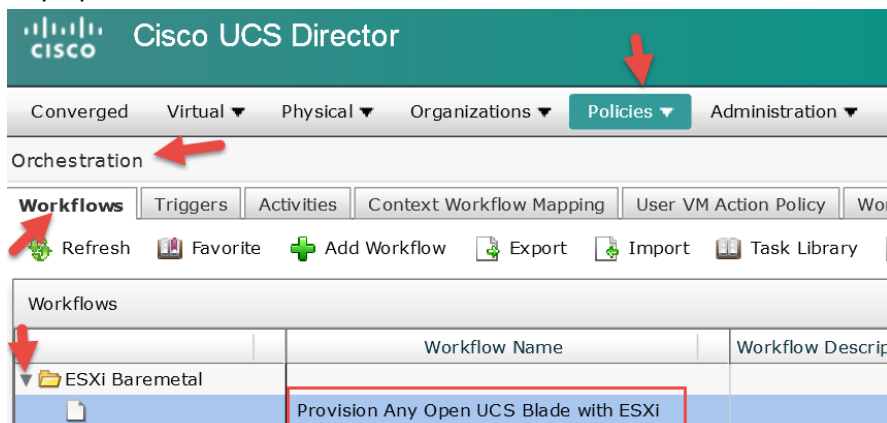
Choose the folder you want to import this workflow to or create a new one and name the folder. I have chosen to create a new one. Click Import.



Click OK.



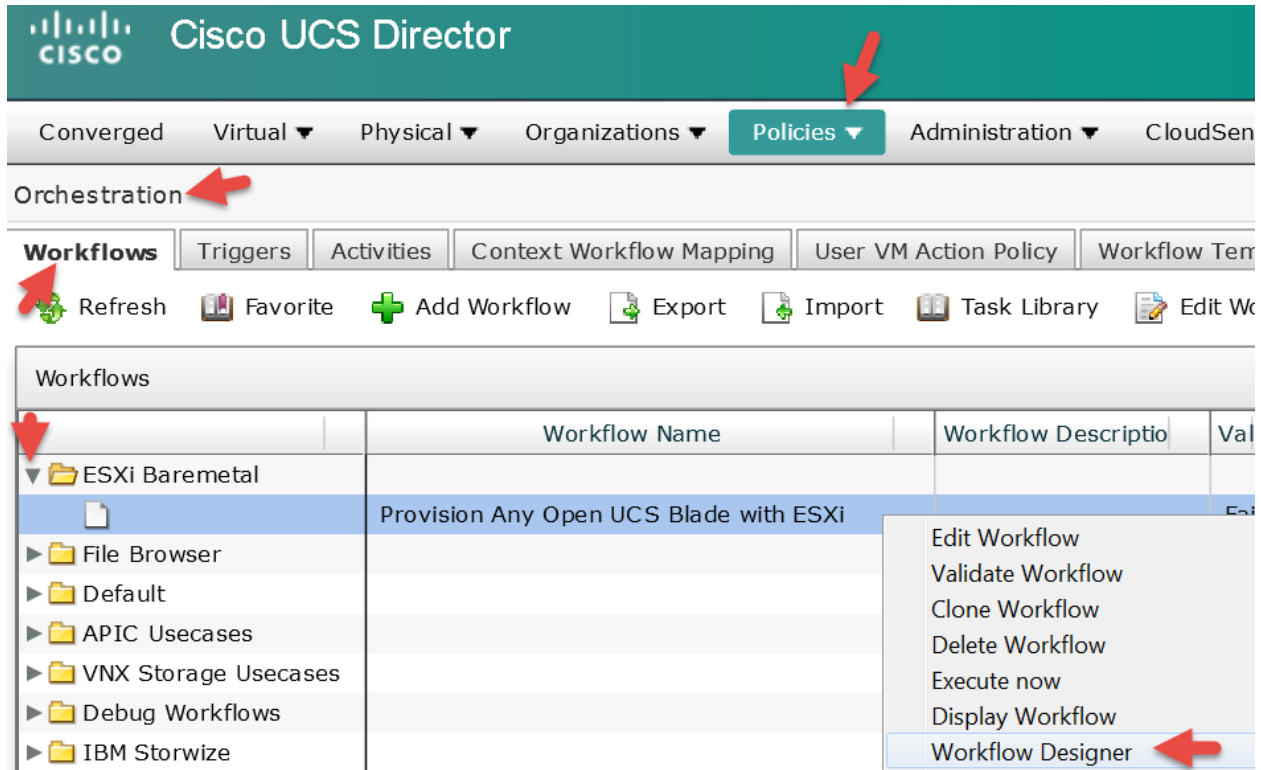
Verify the Workflow has been imported and it is in the Folder 'ESXi Baremetal'. Notice the workflow name is 'Provision Any Open UCS Blade with ESXi'.



4. Configure workflow in UCS Director

Now that we have the workflow Imported into UCS Director, we need to configure/edit it to work with our environment.

Open the 'Workflow Designer' for the new workflow.



The screenshot shows the Cisco UCS Director interface. At the top, the Cisco logo and 'Cisco UCS Director' are displayed. Below this is a navigation bar with tabs: Converged, Virtual, Physical, Organizations, Policies, Administration, and CloudSen. The 'Policies' tab is highlighted with a red arrow. Below the navigation bar is the 'Orchestration' section, with a red arrow pointing to the 'Workflows' tab. The 'Workflows' tab is active, and a red arrow points to the 'Refresh' button. Below the buttons is a table of workflows. The table has columns for 'Workflow Name', 'Workflow Descriptio', and 'Val'. The first row is expanded, showing a folder named 'ESXi Baremetal' containing a workflow named 'Provision Any Open UCS Blade with ESXi'. A context menu is open over this workflow, with options: Edit Workflow, Validate Workflow, Clone Workflow, Delete Workflow, Execute now, Display Workflow, and Workflow Designer. A red arrow points to the 'Workflow Designer' option.

Workflow Name	Workflow Descriptio	Val
ESXi Baremetal		
Provision Any Open UCS Blade with ESXi		Es
File Browser		
Default		
APIC Usecases		
VNX Storage Usecases		
Debug Workflows		
IBM Storwize		

4.1. Configure Task 'Create Service Profile from Template'

We will work our way through configuring the Task in that make up this workflow to work with our setup. First we will start with "Create Service Profile from Template" Task by double clicking on it.

Workflow Designer - Provision Any Open UCS Blade with ESXi (245)

Available Tasks:

Auto Layout Compact View Mode

- APIC Tasks
- Cloupia Tasks
- Compound Tasks
- Context Mapper Tasks
- Custom Tasks
- Obsolete Tasks
- Physical Compute Tasks
- Physical Network Tasks
- Physical Storage Tasks
- Pod Management Tasks
- Procedural Tasks
- Public Cloud Tasks
- Resource Group Tasks
- Service Container Tasks
- System Activity Tasks
- VDI Tasks
- Virtualization Tasks

To add a new task, drag and drop a task item to

Leave the Task Information default and click Next.

Edit Task (Create UCS Service Profile from Template)

Task Information

User Input Mapping

Task Inputs

User Output Mapping

Workflow Task Basic Information

Task Name: Create Service Profile from Template

Task Category: Cisco UCS Tasks *

Task Type: Create UCS Service Profile from Template *

Comment:

Retry Execution
If supported the task will retry as specified

Leave User Input Mapping default and click Next.

Edit Task (Create UCS Service Profile from Template)

- ✓ Task Information
- User Input Mapping**
- Task Inputs
- User Output Mapping

User Input Mappings to Task Input Attributes
Select which of the following attributes you would like to map to user input.

If 'Map to User Input' is checked, inputs are provided by the user.

Service Profile Name Prefix (Mandatory)
Type: Generic Text Input
 Map to User Input

Number of Service Profiles (Mandatory)
Type: Generic Text Input
 Map to User Input

Organization (Mandatory)
Type: UCS Organization Identity
 Map to User Input

Service Profile Template (Mandatory)
Type: Generic Text Input
 Map to User Input

Select the Organization and the Service Profile Template and click Next.

Edit Task

- ✓ Task Information
- ✓ User Input Mapping
- Task Inputs**
- User Output Mapping

Provide the values for the task inputs which are not mapped to workflow inputs.

Service Profile Name Prefix *
Alpha-numeric and special character set(_ , - , . , :), length [1-255]

Number of Service Profiles *
[1-255]

Organization *

Service Profile Templates ▼ *

This is the selection of the organization from the previous step.

Select

	Account Name	Name	DN	Level	Description
<input checked="" type="checkbox"/>	RCDN5-POD4	root	org-root	root	
<input type="checkbox"/>	UCSM_TRAINING	root	org-root	root	

Leave 'User Output Mappings to Task Output Attributes' default and select Submit.

Edit Task (Create UCS Service Profile from Template)

- ✓ Task Information
- ✓ User Input Mapping
- ✓ Task Inputs
- User Output Mapping**

User Output Mappings to Task Output Attributes
Select which of the following attributes you would like to use


ALL_SERVICEPROFILE_NAMES
Type: ucs_service_profile
 Map to User Output

SERVICE_PROFILE_IDENTITY
Type: ucsServiceProfileIdentity
 Map to User Output

Select OK.

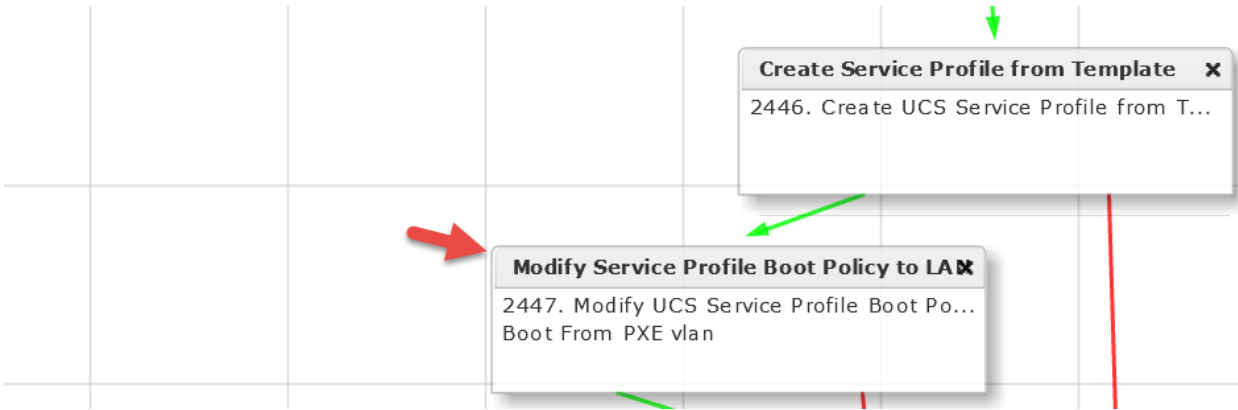
Submit Result

Task Saved Successfully.



4.2. Configure Task 'Modify Service Profile Boot Policy to LAN'

Open the 'Modify Service Profile Boot Policy to LAN' Task by double clicking on it.



Leave 'Workflow Task basic Information' default and click Next.

Edit Task (Modify UCS Service Profile Boot Policy)

Task Information

Workflow Task Basic Information

Task Name: Modify Service Profile Boot Policy to LAN

Task Category: Cisco UCS Tasks *

Task Type: Modify UCS Service Profile Boot Policy *

Comment: Boot From PXE vlan

Retry Execution
If supported the task will retry as specified

Leave 'User Input Mappings to Task Input Attributes' default and click Next.

Edit Task (Modify UCS Service Profile Boot Policy)

Task Information

User Input Mapping

User Input Mappings to Task Input Attributes
Select which of the following attributes you would like to use values from workflow input fields c

Manage Workflow User Inputs

If 'Map to User Input' is checked, inputs are prompted during workflow execution unless spe

Service Profile (Mandatory)

Type: UCS Service Profile Identity

Map to User Input

User Input: Create Service Profile from Template.SERVICE_PROFILE_IDENTITY *

Boot Policy (Mandatory)

Type: UCS Boot Policy Identity

Map to User Input

Click Select for Boot Policy.

Edit Task (Modify UCS Service Profile Boot Policy)

- ✓ Task Information
- ✓ User Input Mapping
- Task Inputs**
- User Output Mapping

Provide the values for the task inputs

Revalidate

Boot Policy *

Enter BMA on the right to filter the results and select the BMA_PXE_BOOT Boot Policy.

Select

Account Name	Name	Organization Name	Description
<input checked="" type="checkbox"/> RCDN5-POD4	BMA_PXE_BOOT	org-root	

BMA

Verify and click Next.

Edit Task (Modify UCS Service Profile Boot Policy)

- ✓ Task Information
- ✓ User Input Mapping
- Task Inputs**
- User Output Mapping

Provide the values for the task inputs which are not mapped

Revalidate

Boot Policy BMA_PXE_BOOT *

Leave 'User Output Mappings to Task Output Attributes' default and click Submit.

Edit Task (Modify UCS Service Profile Boot Policy)

- ✓ Task Information
- ✓ User Input Mapping
- ✓ Task Inputs
- User Output Mapping**

User Output Mappings to Task Output Attributes
Select which of the following attributes you would like to

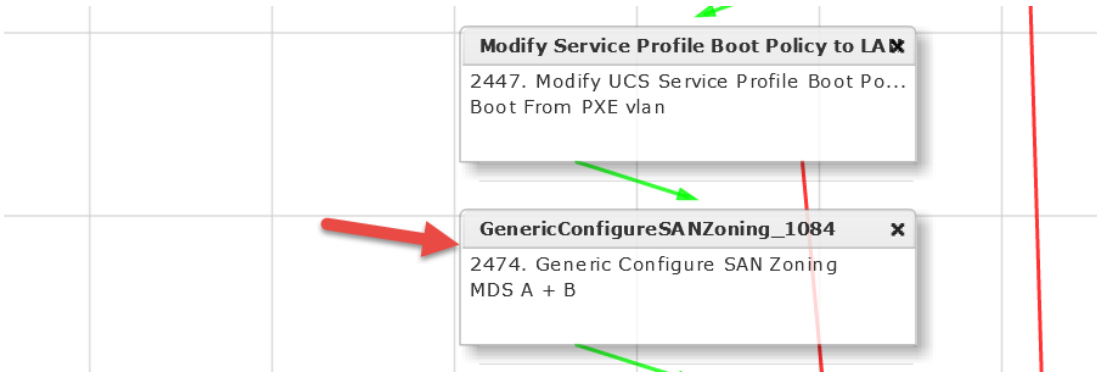
Click OK.

Submit Result

Task Saved Successfully.

4.3. Configure Task 'GenericConfigureSANZoning_1084'

Open the 'GenericConfigureSANZoning_1084' Task by double clicking on it.



Leave 'Workflow Task basic Information' default and click Next.

Edit Task (Generic Configure SAN Zoning)

Task Information	Workflow Task Basic Information
User Input Mapping	Task Name: GenericConfigureSANZoning_1084
Task Inputs	Task Category: Cisco Network Tasks
User Output Mapping	Task Type: Generic Configure SAN Zoning
	Comment: MDS A + B
	<input type="checkbox"/> Retry Execution If supported the task will retry as specified

Leave 'User Input Mappings to Task Input Attributes' default and click Next.

Edit Task (Generic Configure SAN Zoning)

Task Information

User Input Mapping

Task Inputs

User Output Mapping

Manage Workflow User Inputs

If 'Map to User Input' is checked, inputs are prompted during workflow execution unless specified by admin in the wor

Service Profile (Mandatory)

Type: UCS Service Profile Identity

Map to User Input

User Input: Create Service Profile from Template.SERVICE_PROFILE_IDENTITY

Select vHBA (Mandatory)

Type: Generic Text Input

Map to User Input

User Input: Create Service Profile from Template.SP_VHBA1

Device Alias Fab A vHBA

Type: Generic Text Input

Map to User Input

VLAN ID

Type: VLAN ID

Map to User Input

We need to configure the following for Task Inputs:

- Check the box for 'Activate Zone Set'.
- Fabric A Configuration
- Select 'NetApp ONTAP' for 'Storage Account Type'.
- Select 'FAS3070-A' for the 'Storage Account Name (Primary)'. **Note:** You will select your Fabric A Controller Account.
- Select the appropriate 'Storage FC Adapter (Primary)'. This should be the target adapter for Boot from SAN.
- Select your Fabric A MDS switch for the 'Select Device'.
- Make sure 'Configure Fabric B' is selected.
- Fabric B Configuration
- Select 'NetApp ONTAP' for 'Storage Account Type'.
- Select 'FAS3070-B' for the 'Storage Account Name (Primary)'. **Note:** You will select your Fabric B Controller Account.
- Select the appropriate 'Storage FC Adapter (Primary)'. This should be the target adapter for Boot from SAN.
- Select your Fabric B MDS switch for the 'Select Device'.
- Select 'Copy Running configuration to Startup configuration'.
- Click Next.

Edit Task

- ✓ Task Information
- ✓ User Input Mapping
- Task Inputs**
- User Output Mapping

Provide the values for the task inputs which are not mapped to workflow inputs.

Revalidate

Configure One to One zones

 Activate Zone Set

Commit Zone

Fabric A

Device Alias Fab A vHBA
Device Alias name for Fab A.

Zone Name
Zone Name to configure for the Fabric A.

Storage Account Type 

Storage Account Name (Primary)

Storage FC Adapter (Primary) *

Device Alias FC Adapter
Device Alias name for the FC Adapter.

Configure Secondary Head

Select Device *

 Configure Fabric B

Fabric B

Device Alias Fab B vHBA
Device Alias name.

VSAN ID
VSAN ID associated with selected vHBA

Zone Name
Zone Name to configure for the Fabric B.

Storage Account Type 


Storage Account Name (Primary)

Storage FC Adapter (Primary) *

Device Alias FC Adapter
Device Alias name for the FC Adapter.

Configure Secondary Head

Select Device *

 Copy Running configuration to Startup configuration

Leave 'User Output Mappings to Task Output Attributes' default and click Submit.

Edit Task (Generic Configure SAN Zoning)

- ✓ Task Information
- ✓ User Input Mapping
- ✓ Task Inputs
- User Output Mapping**

User Output Mappings to Task Output Attributes
Select which of the following attributes you would like to use values from workflow output fields.

FABRIC_A_ZONESET_NAME
Type: gen_text_input
 Map to User Output

OUTPUT_FAB_A_ZONE_1_NAME
Type: gen_text_input
 Map to User Output

Click OK.

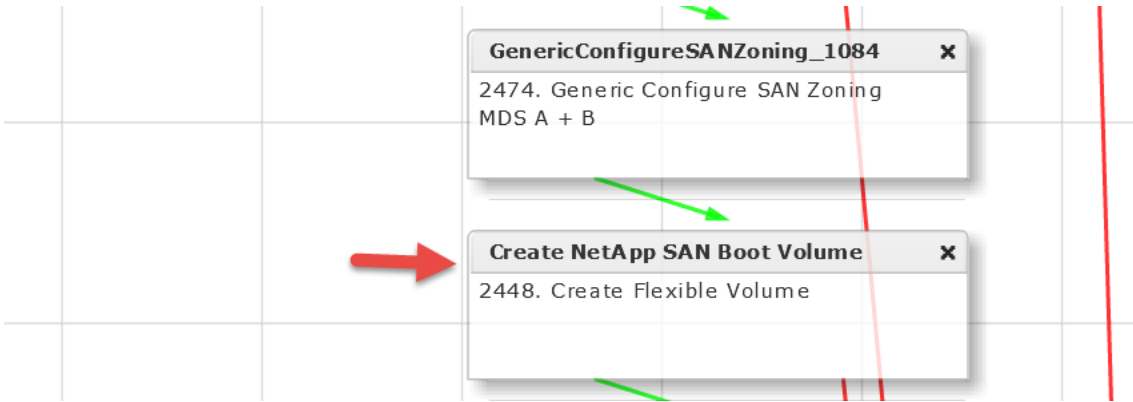
Submit Result

Task Saved Successfully.



4.4. Configure Task 'Create NetApp SAN Boot Volume'

Open the 'Create NetApp SAN Boot Volume' Task by double clicking on it.



Leave 'Workflow Task basic Information' default and click Next.

Edit Task (Create Flexible Volume)

Task Information	Workflow Task Basic Information
User Input Mapping	Task Name Create NetApp SAN Boot Volume
Task Inputs	Task Category <input type="text" value="NetApp ONTAP Tasks"/> *
User Output Mapping	Task Type <input type="text" value="Create Flexible Volume"/> *
	Comment <input type="text"/>
	<input type="checkbox"/> Retry Execution If supported the task will retry as specified

Leave 'User Input Mappings to Task Input Attributes' default and click Next.

Edit Task (Create Flexible Volume)

Task Information	User Input Mappings to Task Input Attributes
User Input Mapping	Select which of the following attributes you w
Task Inputs	<input type="button" value="Manage Workflow User Inputs"/>
User Output Mapping	If 'Map to User Input' is checked, inputs a
	Aggregate Name (Mandatory)
	Type: NetApp Aggregate Identity
	<input type="checkbox"/> Map to User Input

Press Select and select your Aggregate where you want to install the volume. You can leave everything else default and click Next.

Edit Task

- ✓ Task Information
- ✓ User Input Mapping
- Task Inputs**
- User Output Mapping

Provide the values for the task inputs which are not mapped to workflow inputs.

Revalidate

Aggregate Name

Volume Name

Volume Size

Volume Size Units

Space Guarantee

Snapshot Size (%)

Security Style NTFS

NFS Export

Select the Aggregate Name. The image below is depicting what you will see when you press Select for Aggregate Name. There may be lots of Aggregates show up in the selection screen so I have filtered to aggr1 to narrow down my choices. Your Aggregates may be different than my aggr1.

Select

	Account Nam	Filer Name	Name	Volume Coun	Disk Count	Available (GE)	Used (GB)	Total (GB)	Size Percent
<input type="checkbox"/>	DC-NetApp	172.17.80.229	aggr1	2	9	1672.0	1.33	1673.31	0
<input type="checkbox"/>	FAS3070-A	172.17.80.20	aggr1	5	24	12598.0	2300.36	14898.08	15
<input checked="" type="checkbox"/>	FAS3070-B	172.17.80.22	aggr1	1	24	14886.0	11.72	14898.08	0
<input type="checkbox"/>	V-Filer3070-A	172.17.80.31	aggr1	2	20	5552.0	325.93	5877.84	6
<input type="checkbox"/>	V-Filer3070-B	172.17.80.32	aggr1	2	67	13742.0	361.16	14103.62	3

Leave 'User Output Mappings to Task Output Attributes' default and click Submit.

Edit Task (Create Flexible Volume)

- ✓ Task Information
- ✓ User Input Mapping
- ✓ Task Inputs
- User Output Mapping**

User Output Mappings to Task Output Attributes
Select which of the following attributes you would like to use values from workflow output fields.

DATACENTER
Type: datacenterName
 Map to User Output

ACCOUNT_NAME
Type: accountName

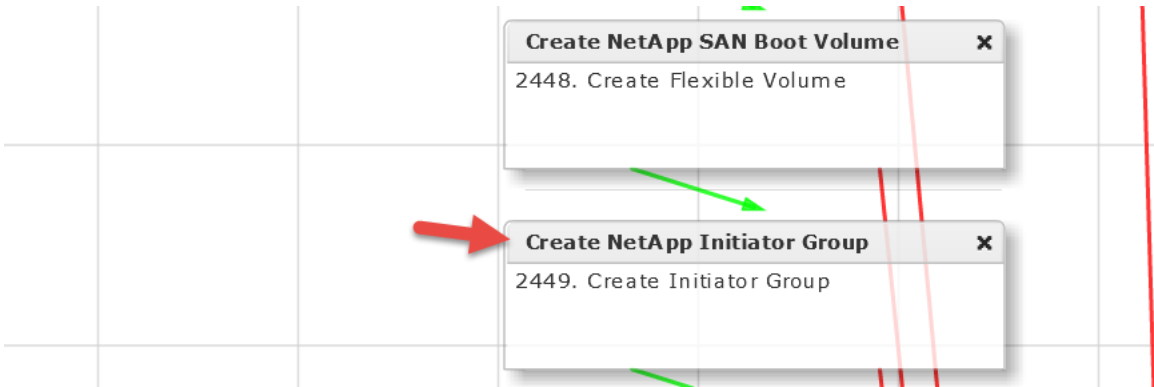
Click OK.

Submit Result

Task Saved Successfully.

4.5. Configure Task 'Create NetApp Initiator Group'

Open the 'Create NetApp Initiator Group' Task by double clicking on it.



Leave 'Workflow Task basic Information' default and click Next.

Edit Task (Create Initiator Group)

Task Information | Workflow Task Basic Information

User Input Mapping

Task Inputs

User Output Mapping

Task Name: Create NetApp Initiator Group

Task Category: NetApp ONTAP Tasks *

Task Type: Create Initiator Group *

Comment:

Retry Execution
If supported the task will retry as specified

Leave 'User Input Mappings to Task Input Attributes' default and click Next.

Edit Task (Create Initiator Group)

✓ Task Information | User Input Mappings to Task Input Attributes
Select which of the following attributes you want to map to the task input

User Input Mapping

Task Inputs

User Output Mapping

If 'Map to User Input' is checked, inputs are

Filer Identity Name (Mandatory)

Type: NetApp Filer Identity

Map to User Input

Press Select and select your 'Filer Identity Name'. You can leave everything else default and click Next.

Edit Task (Create Initiator Group)

- ✓ Task Information
- ✓ User Input Mapping
- Task Inputs**
- User Output Mapping

Provide the values for the task inputs which are not mapped to workflow inputs.

Revalidate

Filer Identity Name

Initiator Group Name

Group Type

OS Type

Port Set

Select the Filer Identity Name. The image below is depicting what you will see when you press Select for 'Filer Identity Name'. I am selecting my B Controller since this is where I want to build my Volume.

Select

Account Name	Name	Version	IP Address
<input type="checkbox"/> V-Filer3070-B	rcdn5r31netapp-b	NetApp Release 8.1.4P1 7-Mode	172.17.80.32
<input type="checkbox"/> FAS3070-A	rcdn5r21netapp01-A	NetApp Release 8.1.2 7-Mode	172.17.80.20
<input type="checkbox"/> DC-NetApp	DC-NetApp	NetApp Release 7.2.4	172.17.80.229
<input type="checkbox"/> V-Filer3070-A	rcdn5r31netapp-a	NetApp Release 8.1.4P1 7-Mode	172.17.80.31
<input checked="" type="checkbox"/> FAS3070-B	rcdn5r21netapp01-B	NetApp Release 8.1.2 7-Mode	172.17.80.22

Leave 'User Output Mappings to Task Output Attributes' default and click Submit.

Edit Task (Create Initiator Group)

- ✓ Task Information
- ✓ User Input Mapping
- ✓ Task Inputs
- User Output Mapping**

User Output Mappings to Task Output Attributes
Select which of the following attributes you would like to use values from workflow output fields.

INITIATOR_GROUP_NAME
Type: netAppInitiatorGroupName
 Map to User Output

OUTPUT_IGROUP_IDENTITY
Type: iGroupIdentity
 Map to User Output

Click OK.

Submit Result

Task Saved Successfully.



4.6. Configure Task 'Add NetApp Initiator to Initiator Group' Fabric A

Open the 'Add NetApp Initiator to Initiator Group' Task by double clicking on it. In this section, we are adding the Fabric A vHBA of the Blade server to the Initiator Group.



Leave 'Workflow Task basic Information' default and click Next.

Edit Task (Add Initiator to Initiator Group)

Task Information

Workflow Task Basic Information

Task Name Add NetApp Initiator to Initiator Group

Task Category NetApp ONTAP Tasks *

Task Type Add Initiator to Initiator Group *

Comment

Retry Execution
If supported the task will retry as specified

Leave 'User Input Mappings to Task Input Attributes' default and click Next. Note: The Initiator Name was by default the wrong User Input and the workflow failed. Change it to the following. This is the Fabric A vHBA Initiator.

Edit Task (Add Initiator to Initiator Group)

Task Information

User Input Mapping

User Input Mappings to Task Input Attributes
Select which of the following attributes you would like to use values from workflow input fields or provide the values in

Manage Workflow User Inputs

If 'Map to User Input' is checked, inputs are prompted during workflow execution unless specified by admin in the w

Initiator Group Name (Mandatory)

Type: NetApp Initiator Group Identity

Map to User Input

User Input Create NetApp Initiator Group.OUTPUT_IGROUP_IDENTITY *

Initiator Name (Mandatory)

Type: Generic Text Input

Map to User Input

User Input Create Service Profile from Template.SP_VHBA1_WWPN *

Leave 'Provide the values for the task inputs which are not mapped to workflow inputs' default and select Next.

Edit Task (Add Initiator to Initiator Group)

- ✓ Task Information
- ✓ User Input Mapping
- Task Inputs**
- User Output Mapping

Provide the values for the task inputs which are not mapped to workflow inputs.

Revalidate

Force

Leave 'User Output Mappings to Task Output Attributes' default and click Submit.

Edit Task (Add Initiator to Initiator Group)

- ✓ Task Information
- ✓ User Input Mapping
- ✓ Task Inputs
- User Output Mapping**

User Output Mappings to Task Output Attributes
Select which of the following attributes you would like to use values from workflow output fields.


DATACENTER
Type: datacenterName
 Map to User Output

ACCOUNT_NAME
Type: accountName
 Map to User Output

Click OK.

Submit Result

Task Saved Successfully.



4.7. Configure Task 'Add NetApp Initiator to Initiator Group' Fabric B

Open the 'Add NetApp Initiator to Initiator Group' Task by double clicking on it. In this section, we are adding the Fabric B vHBA of the Blade server to the Initiator Group.



Leave 'Workflow Task basic Information' default and click Next.

Edit Task (Add Initiator to Initiator Group)

Task Information

Workflow Task Basic Information

Task Name Add Initiator to Initiator Group

Task Category *

Task Type *

Comment

Retry Execution
If supported the task will retry as specified

Leave 'User Input Mappings to Task Input Attributes' default and click Next. Note: The Initiator Name was by default the wrong User Input and the workflow failed. Change it to the following. This is the Fabric B vHBA Initiator.

Edit Task (Add Initiator to Initiator Group)

Task Information

User Input Mapping

User Input Mappings to Task Input Attributes
Select which of the following attributes you would like to use values from workflow input fields or provide the values in

If 'Map to User Input' is checked, inputs are prompted during workflow execution unless specified by admin in the w

Initiator Group Name (Mandatory)

Type: NetApp Initiator Group Identity

Map to User Input

User Input *

Initiator Name (Mandatory)

Type: Generic Text Input

Map to User Input

User Input *

Leave 'Provide the values for the task inputs which are not mapped to workflow inputs' default and select Next.

Edit Task (Add Initiator to Initiator Group)

- ✓ Task Information
- ✓ User Input Mapping
- Task Inputs**
- User Output Mapping

Provide the values for the task inputs which are not mapped to workflow inputs.

Revalidate

Force

Leave 'User Output Mappings to Task Output Attributes' default and click Submit.

Edit Task (Add Initiator to Initiator Group)

- ✓ Task Information
- ✓ User Input Mapping
- ✓ Task Inputs
- User Output Mapping**

User Output Mappings to Task Output Attributes
Select which of the following attributes you would like to use values from workflow output fields.

DATACENTER

Type: datacenterName

Map to User Output

ACCOUNT_NAME

Type: accountName

Map to User Output

Click OK.

Submit Result

Task Saved Successfully.



OK

4.8. Configure Task 'CreateNetAppLUN_781'

Open the 'CreateNetAppLUN_781' Task by double clicking on it.



Leave 'Workflow Task basic Information' default and click Next.

Edit Task (Create LUN)

Task Information

Workflow Task Basic Information

Task Name: CreateNetAppLUN_781

Task Category: NetApp ONTAP Tasks *

Task Type: Create LUN *

Comment:

Retry Execution
If supported the task will retry as specified

Leave 'User Input Mappings to Task Input Attributes' default and click Next.

Edit Task (Create LUN)

Task Information

User Input Mapping

User Input Mappings to Task Input Attributes
Select which of the following attributes you would like to use values from workflow input fi

If 'Map to User Input' is checked, inputs are prompted during workflow execution unless:

Volume Name (Mandatory)

Type: NetApp Volume Identity

Map to User Input

User Input: Create NetApp SAN Boot Volume.OUTPUT_VOLUME_IDENTITY *

LUN Name

Type: NetApp LUN Name

Map to User Input

Leave 'Provide the values for the task inputs which are not mapped to workflow inputs' default and select Next.

Edit Task (Create LUN)

- ✓ Task Information
- ✓ User Input Mapping
- Task Inputs**
- User Output Mapping

Provide the values for the task inputs which are not mapped to workflow inputs.

Revalidate

LUN Name:

OS Type: *

LUN Size: *

LUN Size Units: *

Reserve Space

Leave 'User Output Mappings to Task Output Attributes' default and click Submit.

Edit Task (Create LUN)

- ✓ Task Information
- ✓ User Input Mapping
- ✓ Task Inputs
- User Output Mapping**

User Output Mappings to Task Output Attributes
Select which of the following attributes you would like to use values from workflow output fields.

LUN_PATH
Type: netAppLunPath
 Map to User Output


LUN_IDENTITY
Type: lunIdentity
 Map to User Output

DATACENTER
Type: datacenterName
 Map to User Output

Click OK.

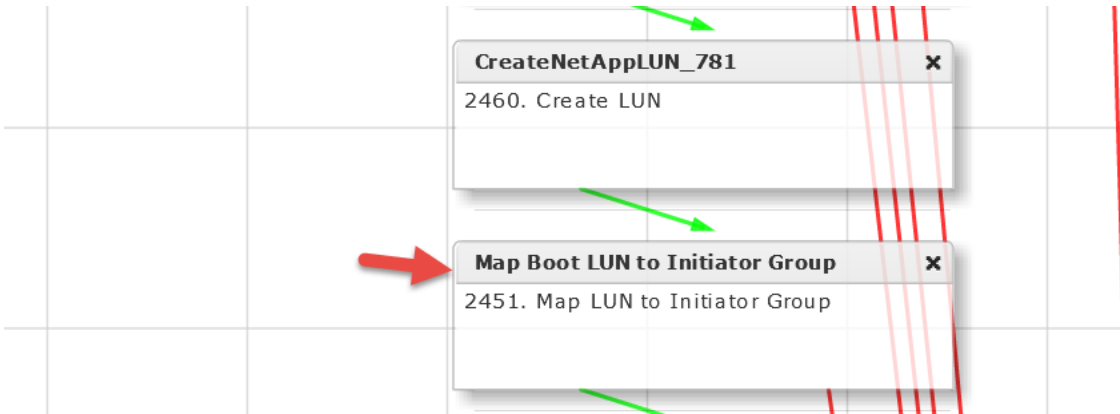
Submit Result

Task Saved Successfully.



4.9. Configure Task 'Map Boot LUN to Initiator Group'

Open the 'Map Boot LUN to Initiator Group' Task by double clicking on it.



Leave 'Workflow Task basic Information' default and click Next.

Edit Task (Map LUN to Initiator Group)

Task Information	Workflow Task Basic Information
User Input Mapping	
Task Inputs	
User Output Mapping	

Task Name: Map Boot LUN to Initiator Group

Task Category: NetApp ONTAP Tasks *

Task Type: Map LUN to Initiator Group *

Comment:

Retry Execution
If supported the task will retry as specified

Leave 'User Input Mappings to Task Input Attributes' default and click Next.

Edit Task (Map LUN to Initiator Group)

<input checked="" type="checkbox"/> Task Information	User Input Mappings to Task Input Attributes Select which of the following attributes you would like to use values from workflow input fields on
User Input Mapping	<input type="button" value="Manage Workflow User Inputs"/>
Task Inputs	If 'Map to User Input' is checked, inputs are prompted during workflow execution unless spec
User Output Mapping	

Filer Identity Name (Mandatory)
Type: NetApp Filer Identity

Map to User Input

User Input: Add NetApp Initiator to Initiator Group.OUTPUT_FILER_IDENTITY *

Initiator Group Name (Mandatory)
Type: NetApp Initiator Group Name

Map to User Input

User Input: Add NetApp Initiator to Initiator Group.INITIATOR_GROUP_NAME *

Leave 'Provide the values for the task inputs which are not mapped to workflow inputs' default and select Next.

Edit Task (Map LUN to Initiator Group)

- ✓ Task Information
- ✓ User Input Mapping
- Task Inputs**
- User Output Mapping

Provide the values for the task inputs which are not mapped to workflow inputs.

Specify LUN ID
If not specified, system will generate LUN ID automatically.

Leave 'User Output Mappings to Task Output Attributes' default and click Submit.

Edit Task (Map LUN to Initiator Group)

- ✓ Task Information
- ✓ User Input Mapping
- ✓ Task Inputs
- User Output Mapping**

User Output Mappings to Task Output Attributes
Select which of the following attributes you would like to use values from workflow output fields.

INITIATOR_GROUP_NAME
Type: netAppInitiatorGroupName
 Map to User Output

LUN_ID
Type: gen_text_input
 Map to User Output

DATACENTER
Type: datacenterName
 Map to User Output

ACCOUNT_NAME

Click OK.

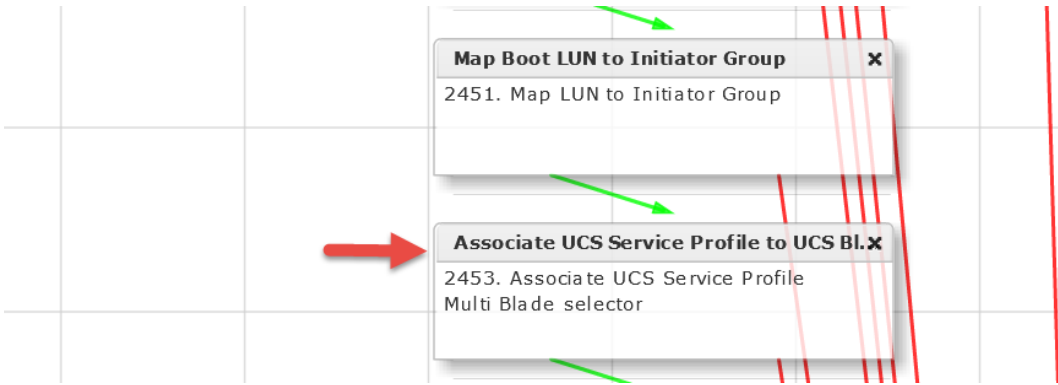
Submit Result

Task Saved Successfully.



4.10. Configure Task 'Associate UCS Service Profile to UCS Blade'

Open the 'Associate UCS Service Profile to UCS Blade' Task by double clicking on it.



Leave 'Workflow Task basic Information' default and click Next.

Edit Task (Associate UCS Service Profile)

Task Information	Workflow Task Basic Information
User Input Mapping	
Task Inputs	
User Output Mapping	

Task Name: Associate UCS Service Profile to UCS Blade

Task Category: Cisco UCS Tasks *

Task Type: Associate UCS Service Profile *

Comment: Multi Blade selector

Retry Execution
If supported the task will retry as specified

Leave 'User Input Mappings to Task Input Attributes' default and click Next.

Edit Task

<input checked="" type="checkbox"/> Task Information	User Input Mappings to Task Input Attributes Select which of the following attributes you would like to use values from workflow input fields or
User Input Mapping	<p>Manage Workflow User Inputs</p> <p>If 'Map to User Input' is checked, inputs are prompted during workflow execution unless specified</p> <p>Service Profile (Mandatory) Type: UCS Service Profile Identity <input checked="" type="checkbox"/> Map to User Input User Input: Create Service Profile from Template.SERVICE_PROFILE_IDENTITY *</p> <p>Server (Mandatory) Type: UCS Server Identity <input checked="" type="checkbox"/> Map to User Input User Input: Open Blade *</p> <p>Server Pool (Mandatory) Type: UCS Server Pool Identity <input type="checkbox"/> Map to User Input</p>
Task Inputs	
User Output Mapping	

Verify 'Include Servers' is selected for 'Server Selection Scope' on the 'Provide the values for the task inputs which are not mapped to workflow inputs' section and click Next.

Edit Task (Associate UCS Service Profile)

- ✓ Task Information
- ✓ User Input Mapping
- Task Inputs**
- User Output Mapping

Provide the values for the task inputs which are not mapped to workflow inputs.

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Server Selection Scope: **Include Servers** ▼

Leave 'User Output Mappings to Task Output Attributes' default and click Submit.

Edit Task (Associate UCS Service Profile)

- ✓ Task Information
- ✓ User Input Mapping
- ✓ Task Inputs
- User Output Mapping**

User Output Mappings to Task Output Attributes
Select which of the following attributes you would like to map to user output.


OUTPUT_UCS_BLADE_MAC_ADDRESS
Type: gen_text_input
 Map to User Output

SERVER_IDENTITY
Type: ucsServerIdentity
 Map to User Output

Click OK.

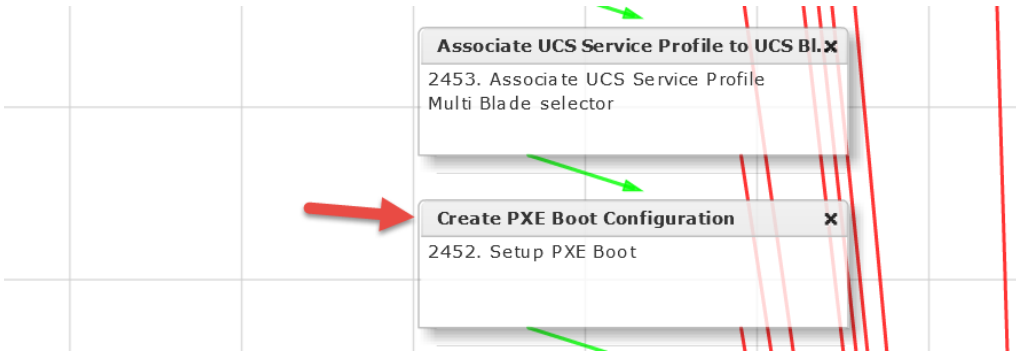
Submit Result

Task Saved Successfully.



4.11. Configure Task 'Create PXE Boot Configuration'

Open the 'Create PXE Boot Configuration' Task by double clicking on it.



Leave 'Workflow Task basic Information' default and click Next.

Edit Task (Setup PXE Boot)

Task Information	Workflow Task Basic Information
User Input Mapping	Task Name Create PXE Boot Configuration
Task Inputs	Task Category Network Services Tasks *
User Output Mapping	Task Type Setup PXE Boot *
	Comment <input type="text"/>
	<input type="checkbox"/> Retry Execution If supported the task will retry as specified

On the 'User Input Mappings to Task Input Attribute' section, click the 'Manage Workflow User Inputs' at the top. The User Input root password for the ESXi server needed for the PXE Configuration type is wrong and can't be selected until we correct this.

Edit Task (Setup PXE Boot)

Task Information	User Input Mappings to Task Input Attributes
User Input Mapping	Select which of the following attributes you would like to use
Task Inputs	<input type="button" value="Manage Workflow User Inputs"/>
User Output Mapping	If 'Map to User Input' is checked, inputs are prompted dur
	OS Type (Mandatory)
	Type: Generic Text Input

Select the ServerPassword Input Label and click the x to delete this user input. You can see the Type is set to gen_text_input but it should be set to password and you can't change the type for the input so we must delete it and recreate it.

Add User Inputs

Associate to Activity
 If selected, existing workflow's user input(s) will be overridden by selected activities user input(s).

Input Label	Input Description	Mandatory	Type	Admin Input Value
Server Host Name	Hostname of the the s	Yes		
Cloud	Which Cloud to place	Yes		
UserID		Yes	gen_text_input	administrator
ServerPassword		Yes	gen_text_input	password@123

Select the + to add a user input.

Add User Inputs

Associate to Activity
 If selected, existing workflow's user input(s) will be overridden by selected activities user input(s).

Input Label	Input Description	Mandatory	Type	Admin Input Value
Server Host Name	Hostname of the the s	Yes		

Enter the Input Label 'ServerPassword', Input Description 'ESXi Host Root Password' and press Select for Input Type.

Add Entry to

Input Label *

Input Description

Optional

Input Type *

Enter Password in the filter on the right and then select Password check box on the left. Click Select.

Select

	Name	Type
<input type="checkbox"/>	VM Password	vm_password
<input type="checkbox"/>	The password for the account used to add this CIFS server to Active	clusterCifsPassWord
<input type="checkbox"/>	Appliance Manager AOD UCSD LogIn Password	ApplianceManager_AOD_UCSD_LOGIN_Password
<input checked="" type="checkbox"/>	Password	password

Select 'Admin Input' and enter your ESXi Host Root Password then click Submit.

Add Entry

Input Label *

Input Description

Optional

Input Type Password *

Value Restrictions

Admin Input

Admin Input Value *

Select the ServerPassword input and click the up arrow to move it back to the original position as shown below. Click Submit.

Add User Inputs

Associate to Activity
If selected, existing workflow's user input(s) will be overridden by selected activities user input(s).

Input Label	Input Description	Mandatory	Type	Admin Input Value
Server Host Name	Hostname of the the s	Yes		
Cloud	Which Cloud to place	Yes		
UserID		Yes	gen_text_input	administrator
ServerPassword	ESXi Host Root Passw	Yes	password	*****
SUBMITTER_EMAIL		Yes	gen_text_input	'safonten@cisco.com'
Open Blade		Yes	ucsServerIdentity	Account Name CONT

Click OK.

Submit Result

Updated successfully

Scroll down to the 'Root Password' section, confirm the 'Map to User Input' is selected and use the drop down to select ServerPassword. Click Next.

Edit Task

- ✓ Task Information
- User Input Mapping**
- Task Inputs
- User Output Mapping

User Input Mappings to Task Input Attributes
Select which of the following attributes you would like to use values from workflow input fields or provide the values in the

Map to User Input

Server Host Name (Mandatory)
Type: Generic Text Input
 Map to User Input
User Input: Server Host Name

Server Gateway (Mandatory)
Type: Generic Text Input
 Map to User Input

Server Name Server
Type: Generic Text Input
 Map to User Input

Root Password (Mandatory)
Type: Password
 Map to User Input
User Input: ServerPassword

Timezone (Mandatory)
Type: Generic Text Input

Back Next

Enter the details for your ESXi Servers. The information here is what will be configured on your ESXi host after the PXE boot OS is installed. The OS Type should be an ESXi image from your BMA Server. Here we assume you have already built the BMA server and integrated it with UCS Director. If you have not done so already, you will need to stop here and go do that first otherwise you will not see your image here. Click Next.

Edit Task (Setup PXE Boot)

- ✓ Task Information
- ✓ User Input Mapping
- Task Inputs**
- User Output Mapping

Provide the values for the task inputs which are not mapped to workflow inputs.

Revalidate

OS Type: ESXi-5.5-custom-cisco-5.5.2.3 *

Server Address: 172.17.84.190-172.17.84.199 *

Server Net Mask: 255.255.255.0 *

Server Gateway: 172.17.84.1 *

Server Name Server: 172.17.80.104

Management VLAN: 84

Timezone: US/Central *

Network Configurations

IP Address	Subnet Mask

Leave 'User Output Mappings to Task Output Attributes' default and click Submit.

Edit Task (Setup PXE Boot)

- ✓ Task Information
- ✓ User Input Mapping
- ✓ Task Inputs
- User Output Mapping**

User Output Mappings to Task Output Attributes
Select which of the following attributes you would like to use

OUTPUT_PXE_BOOT_ID
Type: gen_text_input
 Map to User Output

OUTPUT_HOST_IP_ADDRESS
Type: gen_text_input
 Map to User Output

Click OK.

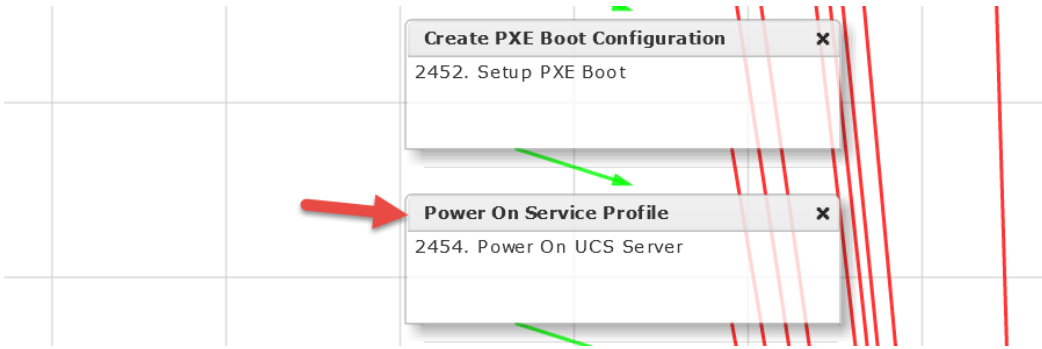
Submit Result

Task Saved Successfully.



4.12. Configure Task 'Power On Service Profile'

Open the 'Power On Service Profile' Task by double clicking on it.



Leave 'Workflow Task basic Information' default and click Next.

Edit Task (Power On UCS Server)

Task Information

Workflow Task Basic Information

Task Name: Power On Service Profile

Task Category: Cisco UCS Tasks *

Task Type: Power On UCS Server *

Comment:

Retry Execution
If supported the task will retry as specified

Leave 'User Input Mappings to Task Input Attribute' section default and click Next.

Edit Task (Power On UCS Server)

Task Information

User Input Mapping

User Input Mappings to Task Input Attributes
Select which of the following attributes you would like to use values from workflow input field

If 'Map to User Input' is checked, inputs are prompted during workflow execution unless :

Server (Mandatory)

Type: UCS Server Identity

Map to User Input

User Input: Associate UCS Service Profile to UCS Blade.SERVER_IDENTITY *

Nothing to change on 'Provide the values for the task inputs which are not mapped to the workflow inputs.' so click Next.

Edit Task (Power On UCS Server)

Task Information

User Input Mapping

Task Inputs

User Output Mapping

Provide the values for the task inputs which are not mapped to workflow inputs.

Leave 'User Output Mappings to Task Output Attributes' default and click Submit.

Edit Task (Power On UCS Server)

- ✓ Task Information
- ✓ User Input Mapping
- ✓ Task Inputs
- User Output Mapping**

User Output Mappings to Task Output Attributes
Select which of the following attributes you would like to u

SERVICE_PROFILE_IDENTITY

Type: ucsServiceProfileIdentity

Map to User Output

SERVER_IDENTITY


Type: ucsServerIdentity

Map to User Output

Click OK.

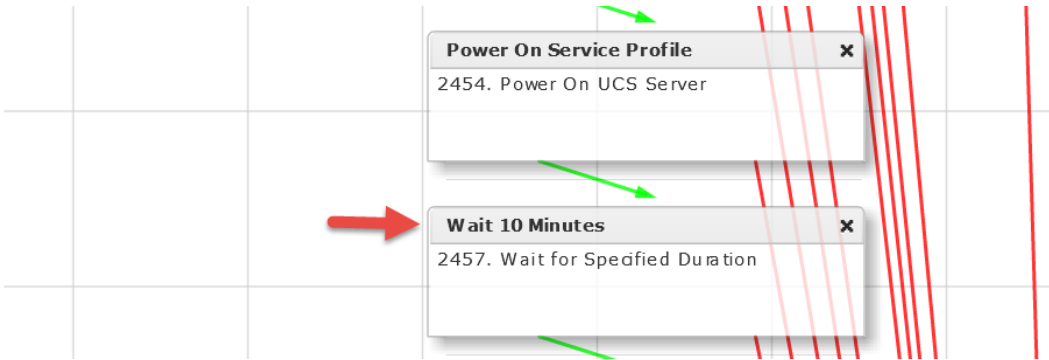
Submit Result

Task Saved Successfully.



4.13. Configure Task 'Wait 10 Minutes'

Open the 'Wait 10 Minutes' Task by double clicking on it.



Leave 'Workflow Task basic Information' default and click Next.

Edit Task (Wait for Specified Duration)

Task Information	Workflow Task Basic Information
User Input Mapping	Task Name: Wait 10 Minutes
Task Inputs	Task Category: General Tasks
User Output Mapping	Task Type: Wait for Specified Duration
	Comment: <input type="text"/>
	<input type="checkbox"/> Retry Execution If supported the task will retry as specified

Leave 'User Input Mappings to Task Input Attribute' section default and click Next.

Edit Task

Task Information	User Input Mappings to Task Input Attributes
User Input Mapping	Select which of the following attributes you w
Task Inputs	<input type="button" value="Manage Workflow User Inputs"/>
User Output Mapping	If 'Map to User Input' is checked, inputs ar
	Duration (Mandatory)
	Type: Generic Text Input
	<input type="checkbox"/> Map to User Input

Verify 'Duration' is set to 10 Min on the 'Provide the values for the task inputs which are not mapped to the workflow inputs.' section and click Next.

Edit Task (Wait for Specified Duration)

Task Information	Provide the values for the task inputs which are not mapped to workflow inputs.
User Input Mapping	<input type="button" value="Revalidate"/>
Task Inputs	Duration: 10 min
User Output Mapping	

Nothing to change on the 'User Output Mappings to Task Output Attributes' section so click Submit.


Edit Task (Wait for Specified Duration)

<ul style="list-style-type: none">✓ Task Information✓ User Input Mapping✓ Task InputsUser Output Mapping	<p>User Output Mappings to Task Output Attributes Select which of the following attributes you would like</p> <hr/>
--	---

Click OK.

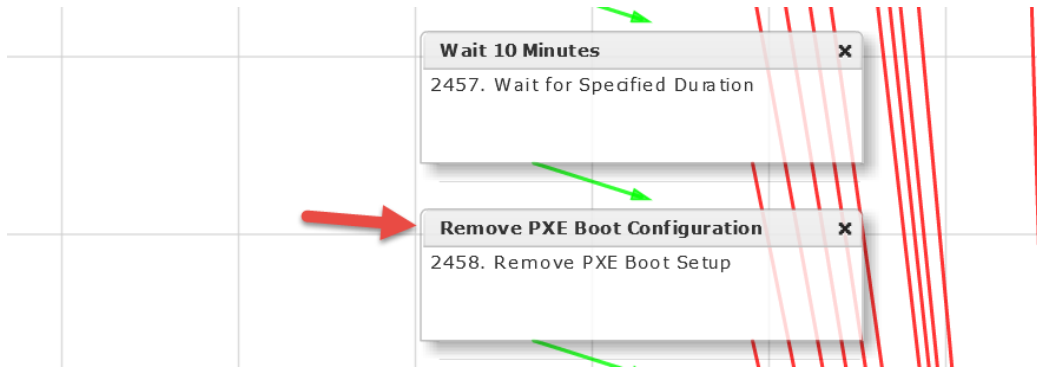
Submit Result

Task Saved Successfully.



4.14. Configure Task 'Remove PXE Boot Configuration'

Open the 'Remove PXE Boot Configuration' Task by double clicking on it.



Leave 'Workflow Task basic Information' default and click Next.

Edit Task (Remove PXE Boot Setup)

<ul style="list-style-type: none">Task InformationUser Input MappingTask InputsUser Output Mapping	<p>Workflow Task Basic Information</p> <p>Task Name: Remove PXE Boot Configuration</p> <p>Task Category: Network Services Tasks *</p> <p>Task Type: Remove PXE Boot Setup *</p> <p>Comment: <input type="text"/></p> <p><input type="checkbox"/> Retry Execution If supported the task will retry as specified</p>
--	--

Leave 'User Input Mappings to Task Input Attribute' section default and click Next.

Edit Task (Remove PXE Boot Setup)

- ✓ Task Information
- User Input Mapping**
- Task Inputs
- User Output Mapping


User Input Mappings to Task Input Attributes
Select which of the following attributes you would like to use values from workflow input fields or provide the values

If 'Map to User Input' is checked, inputs are prompted during workflow execution unless specified by admin in the

PXE Boot Id (Mandatory)

Type: Generic Text Input

Map to User Input

User Input  *

Nothing to change on the 'Provide the values for the task inputs which are not mapped to the workflow inputs.' section so click Next.

Edit Task (Remove PXE Boot Setup)

- ✓ Task Information
- ✓ User Input Mapping
- Task Inputs**
- User Output Mapping

Provide the values for the task inputs which are not mapped to workflow inputs.

Nothing to change on the 'User Output Mappings to Task Output Attributes' section so click Submit.

Edit Task (Remove PXE Boot Setup)


- ✓ Task Information
- ✓ User Input Mapping
- ✓ Task Inputs
- User Output Mapping**

User Output Mappings to Task Output Attributes
Select which of the following attributes you would like to use values from workflow output fields.

Click OK.

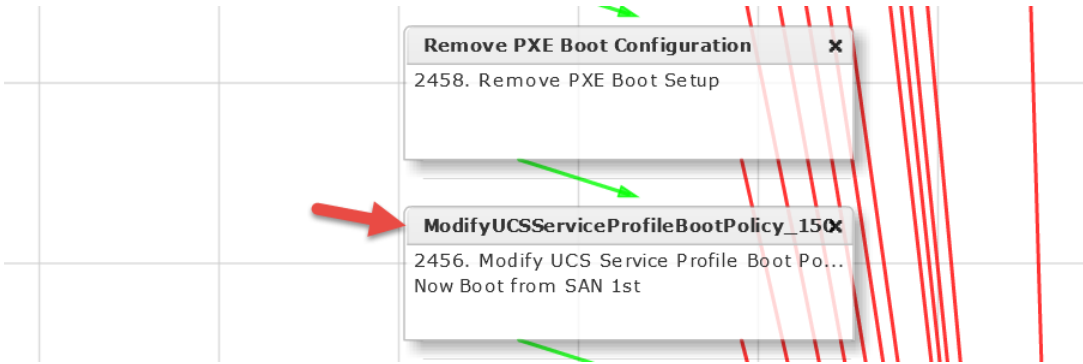
Submit Result

Task Saved Successfully.



4.15. Configure Task 'ModifyUCSServiceProfileBootPolicy_150'

Open the 'ModifyUCSServiceProfileBootPolicy_150' Task by double clicking on it.



Leave 'Workflow Task basic Information' default and click Next.

Edit Task (Modify UCS Service Profile Boot Policy)

Task Information Workflow Task Basic Information

User Input Mapping

Task Inputs

User Output Mapping

Task Name: ModifyUCSServiceProfileBootPolicy_150

Task Category: Cisco UCS Tasks *

Task Type: Modify UCS Service Profile Boot Policy *

Comment: Now Boot from SAN 1st

Retry Execution
If supported the task will retry as specified

Leave 'User Input Mappings to Task Input Attribute' section default and click Next.

Edit Task (Modify UCS Service Profile Boot Policy)

Task Information

User Input Mapping

Task Inputs

User Output Mapping

User Input Mappings to Task Input Attributes
Select which of the following attributes you would like to use values from workflow input fields c

Manage Workflow User Inputs

If 'Map to User Input' is checked, inputs are prompted during workflow execution unless spe

Service Profile (Mandatory)

Type: UCS Service Profile Identity

Map to User Input

User Input: Create Service Profile from Template.SERVICE_PROFILE_IDENTITY *

Boot Policy (Mandatory)

Type: UCS Boot Policy Identity

Map to User Input

Press Select for Boot Policy on the 'Provide the values for the task inputs which are not mapped to the workflow inputs.' section.

Edit Task (Modify UCS Service Profile Boot Policy)

Provide the values for the task inputs which are not mapped to workflow inputs.

Revalidate

Boot Policy *

Enter 'boot_' in the filter section then select the 'Boot_from_SAN' Policy then press Select at the bottom.

Select

Account Name	Name	Organization Name	Description
<input checked="" type="checkbox"/> RCDN5-POD4	Boot_from_SAN	org-root	

Verify and click Next.

Edit Task (Modify UCS Service Profile Boot Policy)

Provide the values for the task inputs which are not mapped to workflow inputs.

Revalidate

Boot Policy *

Nothing to change on the 'User Output Mappings to Task Output Attributes' section so click Submit.

Edit Task (Modify UCS Service Profile Boot Policy)

User Output Mappings to Task Output Attributes
Select which of the following attributes you would like to use values from workflow output fields.

Task Information

User Input Mapping

Task Inputs

User Output Mapping

Click OK.

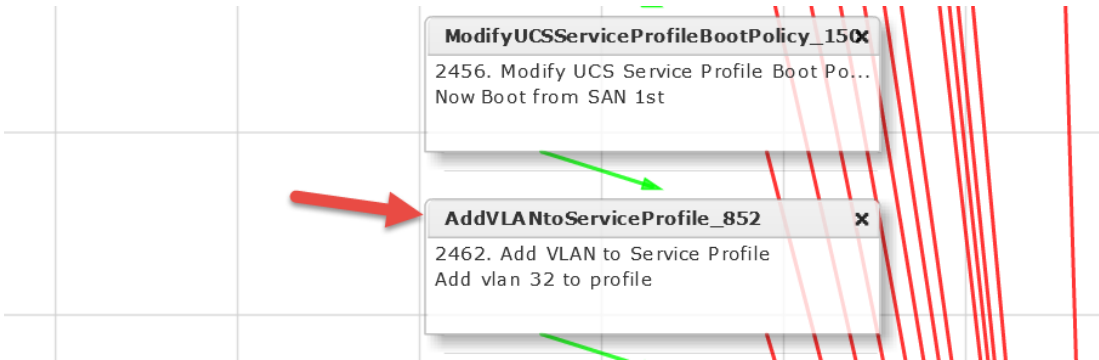
Submit Result

Task Saved Successfully.



4.16. Configure Task 'AddVLANtoServiceProfile_852'

Open the 'AddVLANtoServiceProfile_852' Task by double clicking on it.



Leave 'Workflow Task basic Information' default and click Next. You can change the Comment to match your VLAN ID or leave it as is.

Edit Task (Add VLAN to Service Profile)

Task Information Workflow Task Basic Information

User Input Mapping

Task Inputs

User Output Mapping

Task Name AddVLANtoServiceProfile_852

Task Category Cisco UCS Tasks *

Task Type Add VLAN to Service Profile *

Comment Add vlan 84 to profile

Retry Execution
If supported the task will retry as specified

Leave 'User Input Mappings to Task Input Attribute' section default and click Next.

Edit Task (Add VLAN to Service Profile)

Task Information

User Input Mapping

Task Inputs

User Output Mapping

User Input Mappings to Task Input Attributes
Select which of the following attributes you would like to use values from workflow input fields or

Manage Workflow User Inputs

If 'Map to User Input' is checked, inputs are prompted during workflow execution unless spec

Service Profile (Mandatory)

Type: UCS Service Profile Identity

Map to User Input

User Input Create Service Profile from Template.SERVICE_PROFILE_IDENTITY *

Leave 'Provide the values for the task inputs which are not mapped to the workflow inputs.' section default and click Next.

Edit Task (Add VLAN to Service Profile)

- ✓ Task Information
- ✓ User Input Mapping
- Task Inputs**
- User Output Mapping

Provide the values for the task inputs which are not mapped to workflow inputs.

Add VLAN to selected vNICs

VLAN Type

Common/Global VLANs

Set as Native VLAN

Leave 'User Output Mappings to Task Output Attributes' section default and click Submit.

Edit Task (Add VLAN to Service Profile)

- ✓ Task Information
- ✓ User Input Mapping
- ✓ Task Inputs
- User Output Mapping**

User Output Mappings to Task Output Attributes
Select which of the following attributes you would like to map to user output.


SERVICE_PROFILE_IDENTITY
Type: ucsServiceProfileIdentity
 Map to User Output

OUTPUT_VLAN_IDENTITY1
Type: ucsVlanIdentity

Click OK.

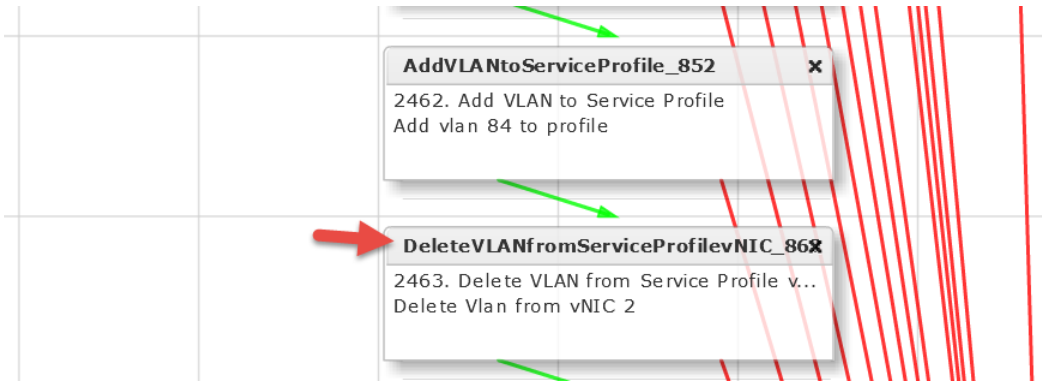
Submit Result

Task Saved Successfully.



4.17. Configure Task 'DeleteVLANfromServiceProfilevNIC_862'

Open the 'DeleteVLANfromServiceProfilevNIC_862' Task by double clicking on it.



Leave 'Workflow Task basic Information' default and click Next. Here we are deleting the PXE VLAN from vNIC 2.

Edit Task (Delete VLAN from Service Profile vNIC)

Task Information

Workflow Task Basic Information

Task Name: DeleteVLANfromServiceProfilevNIC_862

Task Category: Cisco UCS Tasks *

Task Type: Delete VLAN from Service Profile vNIC *

Comment: Delete PXE Vlan from vNIC 2

Retry Execution
If supported the task will retry as specified

Leave 'User Input Mappings to Task Input Attribute' section default and click Next.

Edit Task (Delete VLAN from Service Profile vNIC)

Task Information

User Input Mapping

User Input Mappings to Task Input Attributes
Select which of the following attributes you would like to use values from workflow input fields or p

Manage Workflow User Inputs

If 'Map to User Input' is checked, inputs are prompted during workflow execution unless specifie

Service Profile vNIC (Mandatory)

Type: UCS Service Profile vNIC Identity

Map to User Input

User Input: Create Service Profile from Template.OUTPUT_SP_VNIC_IDENTITY2 *

VLAN (Mandatory)

Type: UCS VLAN

Map to User Input

Press the Select button for 'Select VLAN' on the 'Provide the values for the task inputs which are not mapped to the workflow inputs.' section.

Edit Task (Delete VLAN from Service Profile vNIC)

Provide the values for the task inputs which are not mapped to workflow inputs.

Task Information ✓
User Input Mapping ✓
Task Inputs
User Output Mapping

Revalidate

Select VLAN

Filter for your VLAN ID and select it and click Select at the bottom.

Select

20

Account Name	Name	DN	VLAN ID	Switch ID	Type	Locale	Transport
<input checked="" type="checkbox"/>	RCDN5-POD4	UCSD_BMA_PXE	fabric/lan/net-UCSD_BMA_PXE	20	dual	lan	external ether

Verify and click Next.

Edit Task (Delete VLAN from Service Profile vNIC)

Provide the values for the task inputs which are not mapped to workflow inputs.

Task Information ✓
User Input Mapping ✓
Task Inputs
User Output Mapping

Revalidate

Select VLAN fabric/lan/net-UCSD_BMA_PXE

Leave 'User Output Mappings to Task Output Attributes' section default and click Submit.

Edit Task (Delete VLAN from Service Profile vNIC)

User Output Mappings to Task Output Attributes
Select which of the following attributes you would like to use values from workflow output fields.

OUTPUT_VLAN_IDENTITY
Type: ucsVlanIdentity

Map to User Output

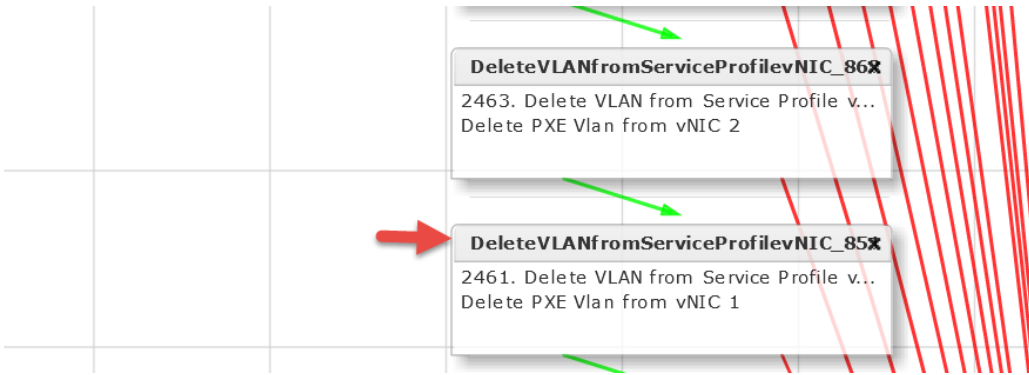
Click OK.

Submit Result

Task Saved Successfully.

4.18. Configure Task 'DeleteVLANfromServiceProfilevNIC_852'

Open the 'DeleteVLANfromServiceProfilevNIC_852' Task by double clicking on it.



Leave 'Workflow Task basic Information' default and click Next. Here we are deleting the PXE VLAN from vNIC 1.

Edit Task (Delete VLAN from Service Profile vNIC)

Task Information	Workflow Task Basic Information
User Input Mapping	Task Name DeleteVLANfromServiceProfilevNIC_851
Task Inputs	Task Category Cisco UCS Tasks *
User Output Mapping	Task Type Delete VLAN from Service Profile vNIC *
	Comment Delete PXE Vlan from vNIC 1
	<input type="checkbox"/> Retry Execution If supported the task will retry as specified

Leave 'User Input Mappings to Task Input Attribute' section default and click Next.

Edit Task (Delete VLAN from Service Profile vNIC)

<input checked="" type="checkbox"/> Task Information	User Input Mappings to Task Input Attributes Select which of the following attributes you would like to use values from workflow input fields or p
User Input Mapping	<input type="button" value="Manage Workflow User Inputs"/>
Task Inputs	If 'Map to User Input' is checked, inputs are prompted during workflow execution unless specific
User Output Mapping	Service Profile vNIC (Mandatory) Type: UCS Service Profile vNIC Identity <input checked="" type="checkbox"/> Map to User Input User Input Create Service Profile from Template.OUTPUT_SP_VNIC_IDENTITY1 *
	VLAN (Mandatory) Type: UCS VLAN <input type="checkbox"/> Map to User Input

Press the Select button for 'Select VLAN' on the 'Provide the values for the task inputs which are not mapped to the workflow inputs.' section.

Edit Task (Delete VLAN from Service Profile vNIC)

- ✓ Task Information
- ✓ User Input Mapping
- Task Inputs**
- User Output Mapping

Provide the values for the task inputs which are not mapped to workflow inputs.

Revalidate

Select VLAN

Filter for your VLAN ID and select it and click Select at the bottom.

Select

Account Name	Name	DN	VLAN ID	Switch ID	Type	Locale	Transport
<input checked="" type="checkbox"/> RCDN5-POD4	UCSD_BMA_PXE	fabric/lan/net-UCSD_BMA_PXE	20	dual	lan	external	ether

Verify and click Next.

Edit Task (Delete VLAN from Service Profile vNIC)

- ✓ Task Information
- ✓ User Input Mapping
- Task Inputs**
- User Output Mapping

Provide the values for the task inputs which are not mapped to workflow inputs.

Revalidate

Select VLAN fabric/lan/net-UCSD_BMA_PXE

Leave 'User Output Mappings to Task Output Attributes' section default and click Submit.

Edit Task (Delete VLAN from Service Profile vNIC)

- ✓ Task Information
- ✓ User Input Mapping
- ✓ Task Inputs
- User Output Mapping**

User Output Mappings to Task Output Attributes
Select which of the following attributes you would like to use values from workflow output fields.

OUTPUT_VLAN_IDENTITY
Type: ucsVlanIdentity

Map to User Output

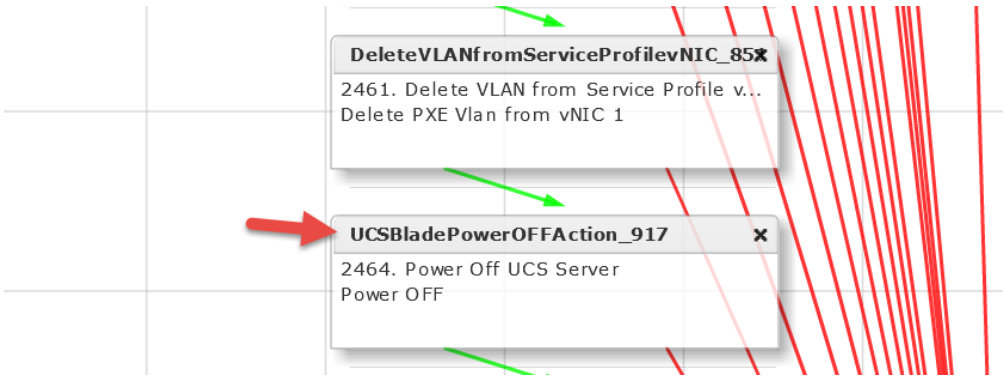
Click OK.

Submit Result

Task Saved Successfully.

4.19. Configure Task 'UCSBladePowerOFFAction_917'

Open the 'UCSBladePowerOFFAction_917' Task by double clicking on it.



Leave 'Workflow Task basic Information' default and click Next.

Edit Task (Power Off UCS Server)

Task Information	Workflow Task Basic Information
User Input Mapping	
Task Inputs	
User Output Mapping	

Task Name: UCSBladePowerOFFAction_917

Task Category: Cisco UCS Tasks *

Task Type: Power Off UCS Server *

Comment: Power OFF

Retry Execution
If supported the task will retry as specified

Leave 'User Input Mappings to Task Input Attribute' section default and click Next.

Edit Task (Power Off UCS Server)

<input checked="" type="checkbox"/> Task Information	User Input Mappings to Task Input Attributes Select which of the following attributes you would like to use values from workflow input field
User Input Mapping	
Task Inputs	
User Output Mapping	

If 'Map to User Input' is checked, inputs are prompted during workflow execution unless

Server (Mandatory)

Type: UCS Server Identity

Map to User Input

User Input: Associate UCS Service Profile to UCS Blade.SERVER_IDENTITY *

Leave the 'Provide the values for the task inputs which are not mapped to the workflow inputs.' section default and select Next.

Edit Task (Power Off UCS Server)

- ✓ Task Information
- ✓ User Input Mapping
- Task Inputs**
- User Output Mapping

Provide the values for the task inputs which are not mapped to workflow inputs.

Leave 'User Output Mappings to Task Output Attributes' section default and click Submit.

Edit Task (Power Off UCS Server)

- ✓ Task Information
- ✓ User Input Mapping
- ✓ Task Inputs
- User Output Mapping**

User Output Mappings to Task Output Attributes
Select which of the following attributes you would like to use values from workflow output fields.


SERVICE_PROFILE_IDENTITY
Type: ucsServiceProfileIdentity
 Map to User Output

SERVER_IDENTITY
Type: ucsServerIdentity
 Map to User Output

Click OK.

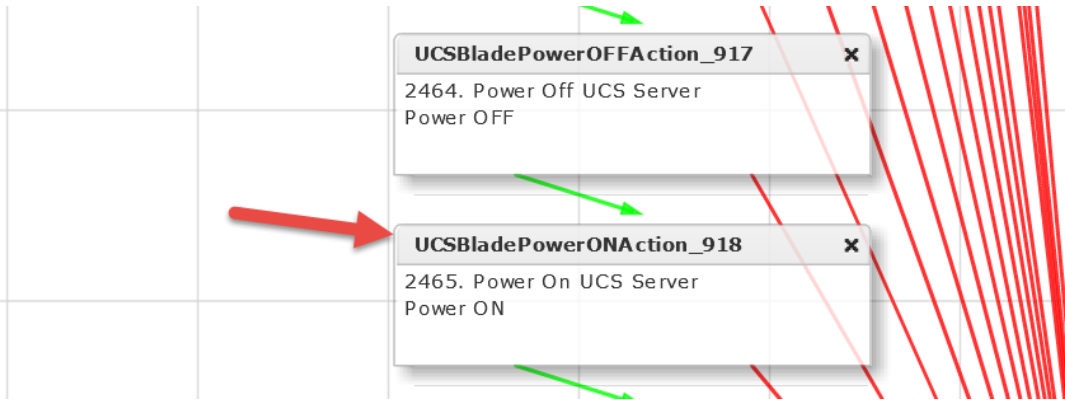
Submit Result

Task Saved Successfully.



4.20. Configure Task 'UCSBladePowerONAction_918'

Open the 'UCSBladePowerONAction_917' Task by double clicking on it.



Leave 'Workflow Task basic Information' default and click Next.

Edit Task (Power On UCS Server)

Task Information | Workflow Task Basic Information

User Input Mapping

Task Inputs

User Output Mapping

Task Name: UCSBladePowerONAction_918

Task Category: Cisco UCS Tasks *

Task Type: Power On UCS Server *

Comment: Power ON

Retry Execution
If supported the task will retry as specified

Leave 'User Input Mappings to Task Input Attribute' section default and click Next.

Edit Task (Power On UCS Server)

✓ Task Information | User Input Mappings to Task Input Attributes

User Input Mapping | Select which of the following attributes you would like to use values from workflow input file

Task Inputs

User Output Mapping

Manage Workflow User Inputs

If 'Map to User Input' is checked, inputs are prompted during workflow execution unless

Server (Mandatory)

Type: UCS Server Identity

Map to User Input

User Input: Associate UCS Service Profile to UCS Blade.SERVER_IDENTITY *

Leave the 'Provide the values for the task inputs which are not mapped to the workflow inputs.' section default and select Next.

Edit Task (Power On UCS Server)

- ✓ Task Information
- ✓ User Input Mapping
- Task Inputs**
- User Output Mapping

Provide the values for the task inputs which are not mapped to workflow inputs.

Leave 'User Output Mappings to Task Output Attributes' section default and click Submit.

Edit Task (Power On UCS Server)

- ✓ Task Information
- ✓ User Input Mapping
- ✓ Task Inputs
- User Output Mapping**

User Output Mappings to Task Output Attributes
Select which of the following attributes you would like to use values from workflow output fields.


SERVICE_PROFILE_IDENTITY
Type: ucsServiceProfileIdentity
 Map to User Output

SERVER_IDENTITY
Type: ucsServerIdentity
 Map to User Output

Click OK.

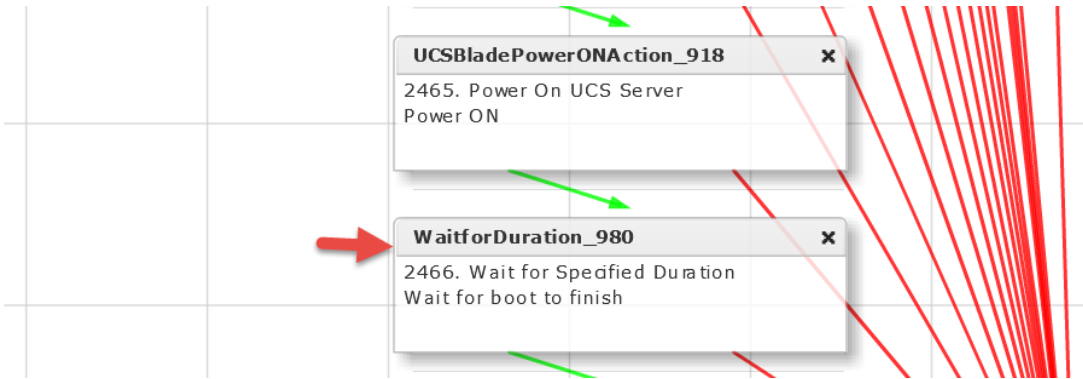
Submit Result

Task Saved Successfully.



4.21. Configure Task 'WaitforDuration_980'

Open the 'WaitforDuration_980' Task by double clicking on it.



Leave 'Workflow Task basic Information' default and click Next.

Edit Task (Wait for Specified Duration)

Task Information	Workflow Task Basic Information
User Input Mapping	Task Name: WaitforDuration_980
Task Inputs	Task Category: General Tasks *
User Output Mapping	Task Type: Wait for Specified Duration *
	Comment: Wait for boot to finish
	<input type="checkbox"/> Retry Execution If supported the task will retry as specified

Leave 'User Input Mappings to Task Input Attribute' section default and click Next.

Edit Task (Wait for Specified Duration)

Task Information	User Input Mappings to Task Input Attributes
User Input Mapping	Select which of the following attributes you would like to use values from workflow in
Task Inputs	<input type="button" value="Manage Workflow User Inputs"/>
User Output Mapping	If 'Map to User Input' is checked, inputs are prompted during workflow execution
	Duration (Mandatory)
	Type: Generic Text Input
	<input type="checkbox"/> Map to User Input

Leave the 'Provide the values for the task inputs which are not mapped to the workflow inputs.' section default and select Next.

Edit Task (Wait for Specified Duration)

- ✓ Task Information
- ✓ User Input Mapping
- Task Inputs**
- User Output Mapping

Provide the values for the task inputs which are not mapped to workflow inputs.

Revalidate

Duration 7 min

Leave 'User Output Mappings to Task Output Attributes' section default and click Submit.

Edit Task (Wait for Specified Duration)

- ✓ Task Information
- ✓ User Input Mapping
- ✓ Task Inputs
- User Output Mapping**

User Output Mappings to Task Output Attributes
Select which of the following attributes you would like to use values from workflow output fields.

Click OK.

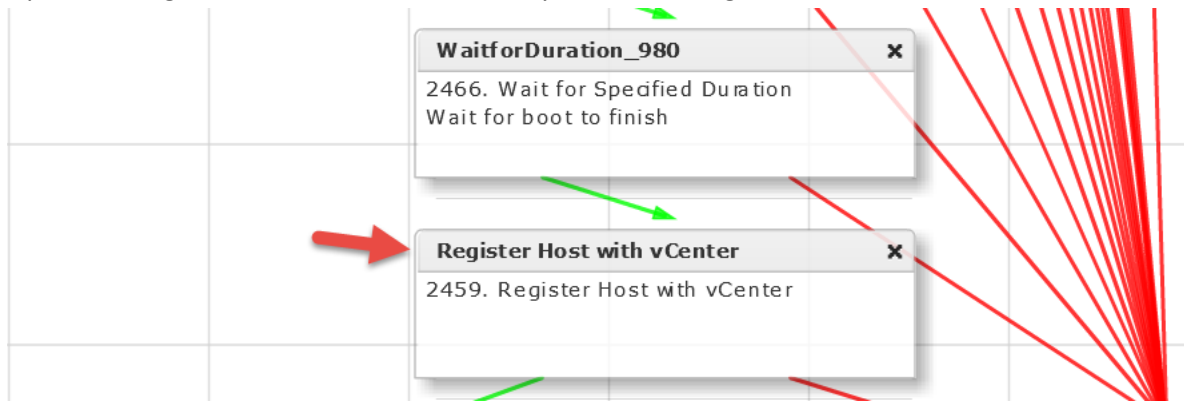
Submit Result

Task Saved Successfully.

→ OK

4.22. Configure Task 'Register Host with vCenter'

Open the 'Register Host with vCenter' Task by double clicking on it.



Leave 'Workflow Task basic Information' default and click Next.

Edit Task (Register Host with vCenter)

Task Information Workflow Task Basic Information

User Input Mapping

Task Inputs

User Output Mapping

Task Name Register Host with vCenter

Task Category VMware Host Tasks *

Task Type Register Host with vCenter *

Comment

Retry Execution
If supported the task will retry as specified

Select 'Map to User Input' Check Box under 'Host Node' section and then select 'Create PXE Boot Configuration.OUTPUT_HOST_IP_ADDRESS' from the drop down on the 'User Input Mappings to Task Input Attribute' section. Select 'Map to User Input' under the 'User ID' Section and use the drop down to select 'User ID' for the User Input. Select 'Map to User Input' under the 'Password' Section and use the drop down to select 'ServerPassword' for the User Input. Click Next.

Edit Task

Task Information ✓

User Input Mapping

Task Inputs

User Output Mapping

User Input Mappings to Task Input Attributes
Select which of the following attributes you would like to use values from workflow input fields or provide the values in the

pxeboot request id (Mandatory)
Type: Generic Text Input
 Map to User Input
User Input Create PXE Boot Configuration.OUTPUT_PXE_BOOT_ID *

Host Node (Mandatory)
Type: Generic Text Input
→ Map to User Input
User Input Create PXE Boot Configuration.OUTPUT_HOST_IP_ADDRESS *

User ID (Mandatory)
Type: Generic Text Input
→ Map to User Input
User Input UserID *

Password (Mandatory)
Type: Password
→ Map to User Input
User Input ServerPassword *

Host License

Back Next

Fill in the Mandatory fields below on the 'Provide the values for the task inputs which are not mapped to the workflow inputs.' section and select Next.

Edit Task (Register Host with vCenter)

- ✓ Task Information
- ✓ User Input Mapping
- Task Inputs**
- User Output Mapping

Provide the values for the task inputs which are not mapped to workflow inputs.

Revalidate

Account Name *

Register PXE Host

Host License

Associate With *

Cluster/Data Center *

Leave 'User Output Mappings to Task Output Attributes' section default and click Submit.

Edit Task (Register Host with vCenter)

- ✓ Task Information
- ✓ User Input Mapping
- ✓ Task Inputs
- User Output Mapping**

User Output Mappings to Task Output Attributes
Select which of the following attributes you would like to use values from workflow output fields.

OUTPUT_HOST_IP
Type: vmwareHostMultiSelect
 Map to User Output

HOST_NAME
Type: vmHost
 Map to User Output


OUTPUT_VMWARE_VSWITCH_IDENTITY
Type: vmwareVSwitchIdentity
 Map to User Output

OUTPUT_VMWARE_HOST_NODE_IDENTITY
Type: vmwareHostNodeIdentity
 Map to User Output

Click OK.

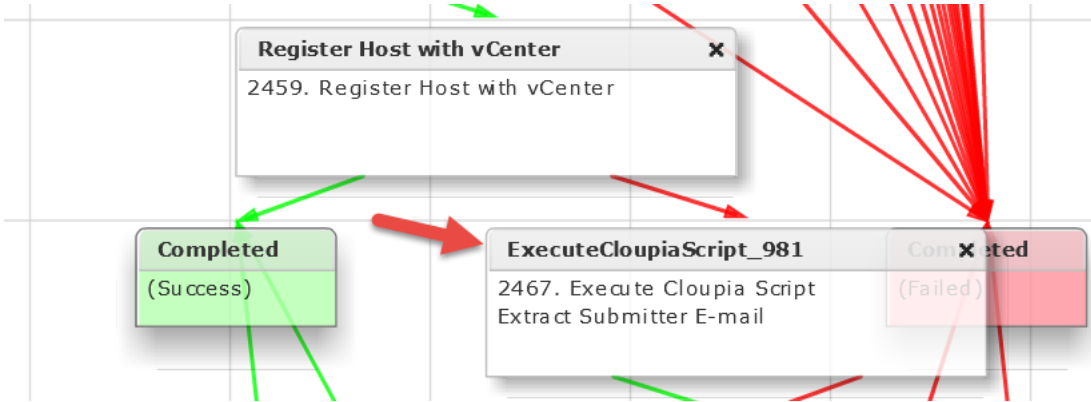
Submit Result

Task Saved Successfully.



4.23. Configure Task 'ExecuteCloupiaScript_981'

Open the 'ExecuteCloupiaScript_981' Task by double clicking on it.



Leave 'Workflow Task basic Information' default and click Next.

Edit Task (Execute Cloupia Script)

Task Information	Workflow Task Basic Information
User Input Mapping	
Task Inputs	
User Output Mapping	

Task Name: ExecuteCloupiaScript_981

Task Category: General Tasks *

Task Type: Execute Cloupia Script *

Comment: Extract Submitter E-mail

Retry Execution
If supported the task will retry as specified

Leave 'User Input Mappings to Task Input Attribute' section default and click Next.

Edit Task (Execute Cloupia Script)

<input checked="" type="checkbox"/> Task Information	User Input Mappings to Task Input Attributes
User Input Mapping	Select which of the following attributes you would like to use values from workflow input field
Task Inputs	
User Output Mapping	

[Manage Workflow User Inputs](#)

If 'Map to User Input' is checked, inputs are prompted during workflow execution unless s
Selected task has no attributes that can be mapped to user input. Click Next to continue.

Leave the 'Provide the values for the task inputs which are not mapped to the workflow inputs.' section default and select Next.

Edit Task (Execute Cloupia Script)

- ✓ Task Information
- ✓ User Input Mapping
- Task Inputs**
- User Output Mapping

Provide the values for the task inputs which are not mapped to workflow inputs.

Revalidate

Label

Script

```
1 // Load Packages
2 importPackage(java.lang);
3 importPackage(java.util);
4
5
6 // This script obtains the initiator's e-mail of the catalog/SR
7 var userId = ctx.getUserId();
8 var userProfile = ctx.getAPI().userAPIGetMyLoginProfile();
9 var email = userProfile.getEmail();
10 ctx.updateInput("SUBMITTER_EMAIL", email);
11
12
13
14 logger.addInfo("Submitter e-mail:");
15
16 ctx.setSuccessful();
```

Undo Script Show Doc

Leave 'User Output Mappings to Task Output Attributes' section default and click Submit.

Edit Task (Execute Cloupia Script)

- ✓ Task Information
- ✓ User Input Mapping
- ✓ Task Inputs
- User Output Mapping**

User Output Mappings to Task Output Attributes
Select which of the following attributes you would like to use values from workflow output fields.

Click OK.

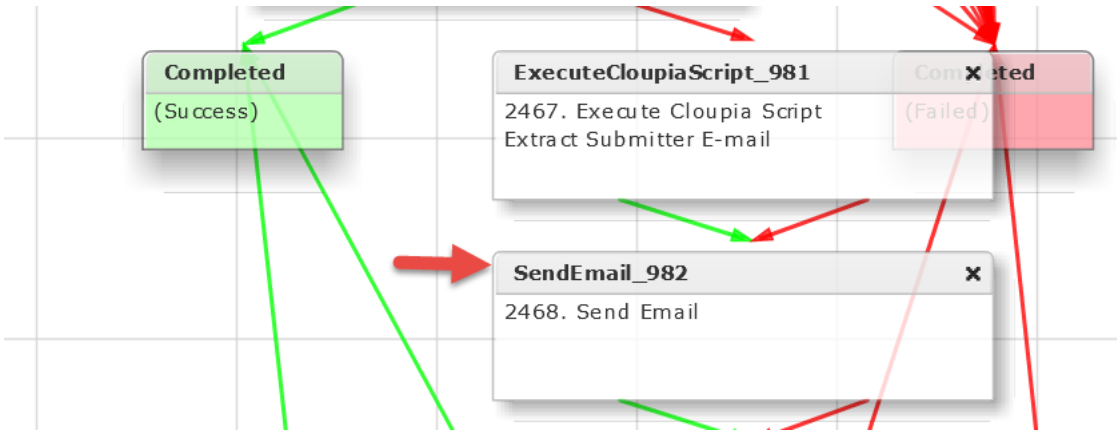
Submit Result

Task Saved Successfully.



4.24. Configure Task 'SendEmail_982'

Open the 'SendEmail_982' Task by double clicking on it.



Leave 'Workflow Task basic Information' default and click Next.

Edit Task (Send Email)

Task Information	Workflow Task Basic Information
User Input Mapping	Task Name: SendEmail_982
Task Inputs	Task Category: General Tasks *
User Output Mapping	Task Type: Send Email *
	Comment: <input type="text"/>
	<input type="checkbox"/> Retry Execution If supported the task will retry as specified

Leave 'User Input Mappings to Task Input Attribute' section default and click Next.

Edit Task

Task Information	User Input Mappings to Task Input Attributes
User Input Mapping	Select which of the following attributes you would like to use values from
Task Inputs	<input type="button" value="Manage Workflow User Inputs"/>
User Output Mapping	If 'Map to User Input' is checked, inputs are prompted during workflow
	E-mail Addresses (Mandatory)
	Type: Email Addresses
	<input type="checkbox"/> Map to User Input

Leave the 'Provide the values for the task inputs which are not mapped to the workflow inputs.' section default and select Next.

Edit Task (Send Email)

- ✓ Task Information
- ✓ User Input Mapping
- Task Inputs**
- User Output Mapping

Provide the values for the task inputs which are not mapped to workflow inputs.

Revalidate

E-mail Addresses *

Subject *

Body

Leave 'User Output Mappings to Task Output Attributes' section default and click Submit.

Edit Task (Send Email)

- ✓ Task Information
- ✓ User Input Mapping
- ✓ Task Inputs
- User Output Mapping**

User Output Mappings to Task Output Attributes
Select which of the following attributes you would like to use values from workflow output fields.

EMAIL_ADDRESSES


Type: email_address_list

Map to User Output

Click OK.

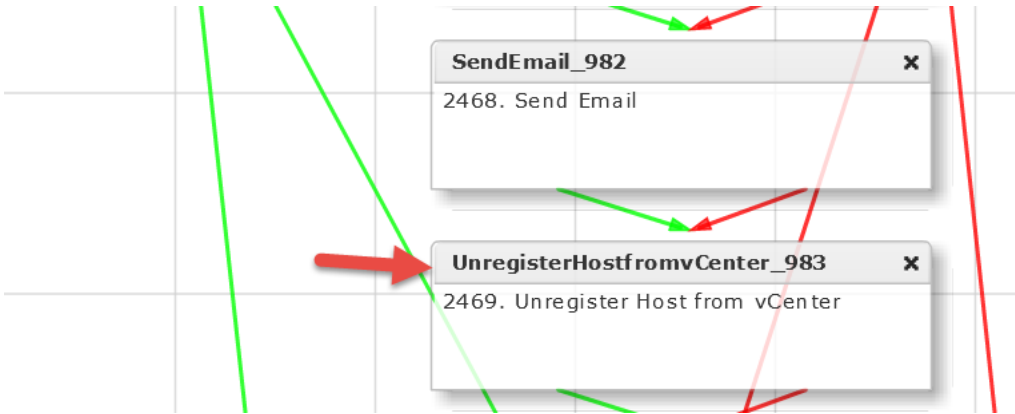
Submit Result

Task Saved Successfully.



4.25. Configure Task 'UnregisterHostfromvCenter_983'

Open the 'UnregisterHostfromvCenter_983' Task by double clicking on it.



Leave 'Workflow Task basic Information' default and click Next.

Edit Task (Unregister Host from vCenter)

Task Information	Workflow Task Basic Information
User Input Mapping	
Task Inputs	
User Output Mapping	

Task Name: UnregisterHostfromvCenter_983

Task Category: VMware Host Tasks *

Task Type: Unregister Host from vCenter *

Comment:

Retry Execution
If supported the task will retry as specified

Leave 'User Input Mappings to Task Input Attribute' section default and click Next.

Edit Task (Unregister Host from vCenter)

<input checked="" type="checkbox"/> Task Information	User Input Mappings to Task Input Attributes Select which of the following attributes you would like to use values from workflow input fields or provide the values
User Input Mapping	<input type="button" value="Manage Workflow User Inputs"/>
Task Inputs	If 'Map to User Input' is checked, inputs are prompted during workflow execution unless specified by admin in the
User Output Mapping	

Account Name (Mandatory)
Type: Generic Text Input
 Map to User Input

Host Node (Mandatory)
Type: Generic Text Input
 Map to User Input

User Input: Create PXE Boot Configuration.OUTPUT_HOST_IP_ADDRESS *

Select the Account Name on the 'Provide the values for the task inputs which are not mapped to the workflow inputs.' section and select Next.

Edit Task (Unregister Host from vCenter)

- ✓ Task Information
- ✓ User Input Mapping
- Task Inputs**
- User Output Mapping

Provide the values for the task inputs which are not mapped to workflow inputs.

Revalidate

Account Name *

Leave 'User Output Mappings to Task Output Attributes' section default and click Submit.

Edit Task (Unregister Host from vCenter)


- ✓ Task Information
- ✓ User Input Mapping
- ✓ Task Inputs
- User Output Mapping**

User Output Mappings to Task Output Attributes
Select which of the following attributes you would like to use values from workflow output fields.

Click OK.

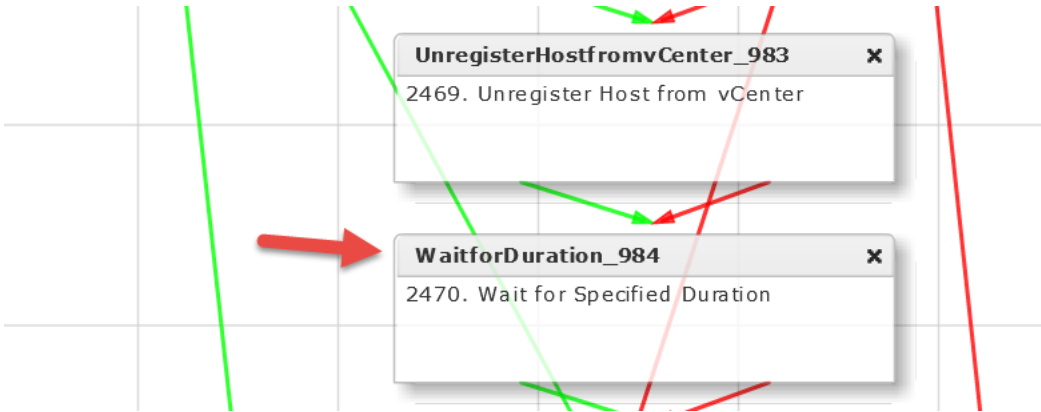
Submit Result

Task Saved Successfully.



4.26. Configure Task 'WaitforDuration_984'

Open the 'WaitforDuration_984' Task by double clicking on it.



Leave 'Workflow Task basic Information' default and click Next.

Edit Task (Wait for Specified Duration)

Task Information	Workflow Task Basic Information
User Input Mapping	Task Name: WaitforDuration_984
Task Inputs	Task Category: General Tasks *
User Output Mapping	Task Type: Wait for Specified Duration *
	Comment: <input type="text"/>
	<input type="checkbox"/> Retry Execution If supported the task will retry as specified

Leave 'User Input Mappings to Task Input Attribute' section default and click Next.

Edit Task (Wait for Specified Duration)

<input checked="" type="checkbox"/> Task Information	User Input Mappings to Task Input Attributes Select which of the following attributes you would like to use values for
User Input Mapping	<input type="button" value="Manage Workflow User Inputs"/>
Task Inputs	If 'Map to User Input' is checked, inputs are prompted during workflow execution
User Output Mapping	Duration (Mandatory) Type: Generic Text Input <input type="checkbox"/> Map to User Input



Verify the Duration is set to 1 min on the 'Provide the values for the task inputs which are not mapped to the workflow inputs.' section and select Next.

Edit Task (Wait for Specified Duration)

- ✓ Task Information
- ✓ User Input Mapping
- Task Inputs**
- User Output Mapping

Provide the values for the task inputs which are not mapped to workflow inputs.

Revalidate

Duration  

Leave 'User Output Mappings to Task Output Attributes' section default and click Submit.

Edit Task (Wait for Specified Duration)


- ✓ Task Information
- ✓ User Input Mapping
- ✓ Task Inputs
- User Output Mapping**

User Output Mappings to Task Output Attributes
Select which of the following attributes you would like to use values from workflow output fields.

Click OK.

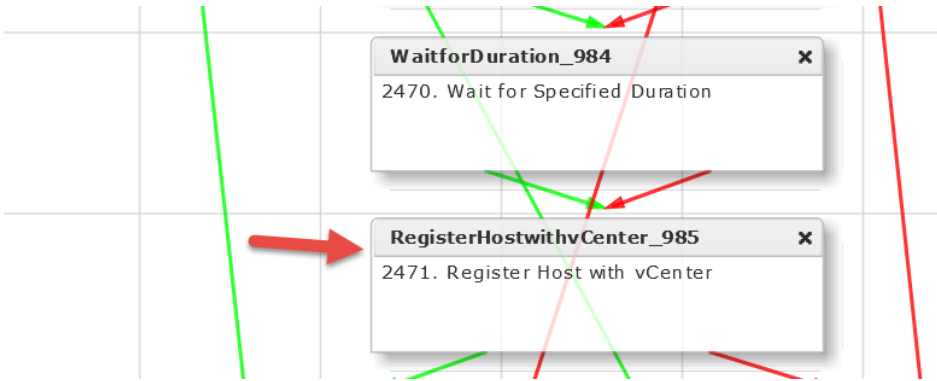
Submit Result

Task Saved Successfully.



4.27. Configure Task 'RegisterHostwithvCenter_985'

Open the 'RegisterHostwithvCenter_985' Task by double clicking on it.



Leave 'Workflow Task basic Information' default and click Next.

Edit Task (Register Host with vCenter)

Task Information Workflow Task Basic Information

User Input Mapping

Task Inputs

User Output Mapping

Task Name RegisterHostwithvCenter_985

Task Category VMware Host Tasks *

Task Type Register Host with vCenter *

Comment

Retry Execution
If supported the task will retry as specified

On the 'User Input Mappings to Task Input Attribute' section, Select 'Map to User Input' for 'Host Node', 'User ID' and Password Sections and select the User Inputs shown below.

Edit Task

Task Information

User Input Mapping

Task Inputs

User Output Mapping

User Input Mappings to Task Input Attributes
Select which of the following attributes you would like to use values from workflow input fields or provide the values in the

Map to User Input

Host Node (Mandatory)

Type: Generic Text Input

Map to User Input

User Input Create PXE Boot Configuration.OUTPUT_HOST_IP_ADDRESS *

User ID (Mandatory)

Type: Generic Text Input

Map to User Input

User Input UserID *

Password (Mandatory)

Type: Password

Map to User Input

User Input ServerPassword *

Host License

Type: Generic Text Input

Map to User Input

Cluster (Data Center (Mandatory))

Back Next

Select the vCenter Account name, select if you want to Associate with a Data Center or a Cluster and finally select the Data Center or the Cluster to register the new ESXi host to on 'Provide the values for the task inputs which are not mapped to the workflow inputs.' section and select Next.

Edit Task (Register Host with vCenter)

- ✓ Task Information
- ✓ User Input Mapping
- Task Inputs**
- User Output Mapping

Provide the values for the task inputs which are not mapped to workflow inputs

Account Name *

Register PXE Host

Host License

Associate With *

Cluster/Data Center *

Leave 'User Output Mappings to Task Output Attributes' section default and click Submit.

Edit Task (Register Host with vCenter)

- ✓ Task Information
- ✓ User Input Mapping
- ✓ Task Inputs
- User Output Mapping**

User Output Mappings to Task Output Attributes
Select which of the following attributes you would like to use values from workflow output fields.

OUTPUT_HOST_IP
Type: vmwareHostMultiSelect
 Map to User Output

HOST_NAME
Type: vmHost
 Map to User Output

Click OK.

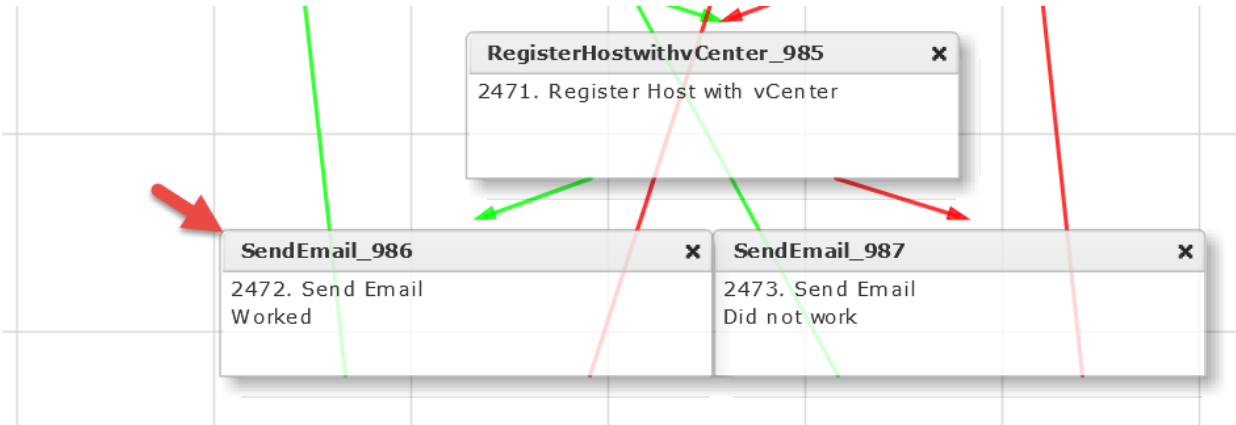
Submit Result

Task Saved Successfully.



4.28. Configure Task 'SendEmail_986'

Open the 'SendEmail_986' Task by double clicking on it.



Leave 'Workflow Task basic Information' default and click Next.

Edit Task (Send Email)

Task Information	Workflow Task Basic Information
User Input Mapping	
Task Inputs	
User Output Mapping	
	Task Name SendEmail_986
	Task Category <input type="text" value="General Tasks"/> *
	Task Type <input type="text" value="Send Email"/> *
	Comment <input type="text" value="Worked"/>
	<input type="checkbox"/> Retry Execution If supported the task will retry as specified

Leave 'User Input Mappings to Task Input Attribute' section default and click Next.

Edit Task (Send Email)

- ✓ Task Information
- User Input Mapping**
- Task Inputs
- User Output Mapping

User Input Mappings to Task Input Attributes
Select which of the following attributes you would like to use values from workflow

If 'Map to User Input' is checked, inputs are prompted during workflow execut

E-mail Addresses (Mandatory)

Type: Email Addresses

Map to User Input

Leave 'Provide the values for the task inputs which are not mapped to the workflow inputs.' section default and select Next.

Edit Task (Send Email)

- ✓ Task Information
- ✓ User Input Mapping
- Task Inputs**
- User Output Mapping

Provide the values for the task inputs which are not mapped to workflow inputs.

E-mail Addresses *

Subject *

Body

Leave 'User Output Mappings to Task Output Attributes' section default and click Submit.

Edit Task (Send Email)

- ✓ Task Information
- ✓ User Input Mapping
- ✓ Task Inputs
- User Output Mapping**

User Output Mappings to Task Output Attributes
Select which of the following attributes you would like to use values from workflow output fields.

EMAIL_ADDRESSES


Type: email_address_list

Map to User Output

Click OK.

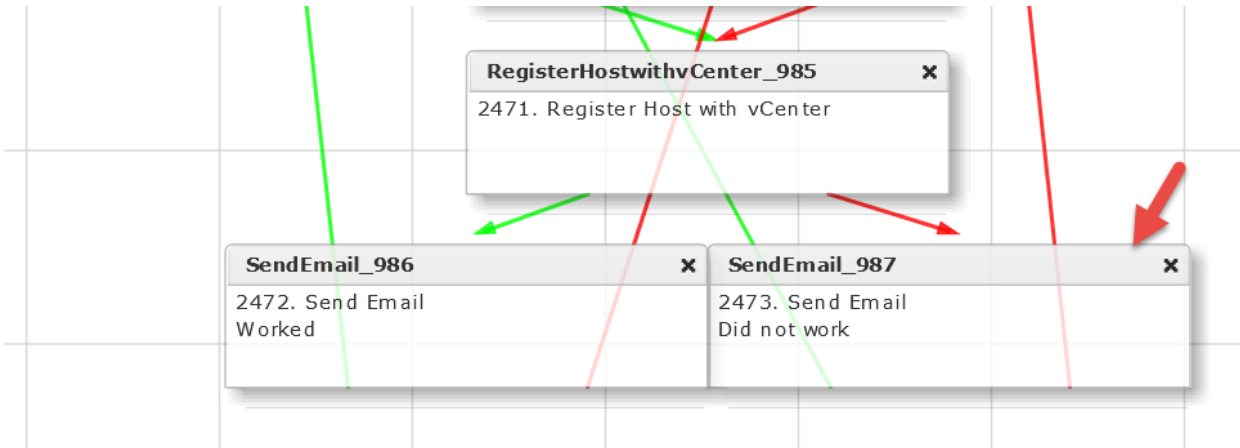
Submit Result

Task Saved Successfully.



4.29. Configure Task 'SendEmail_987'

Open the 'SendEmail_987' Task by double clicking on it.



Leave 'Workflow Task basic Information' default and click Next.

Edit Task (Send Email)

Task Information

Workflow Task Basic Information

Task Name: SendEmail_987

Task Category: General Tasks

Task Type: Send Email

Comment: Did not work

Retry Execution
If supported the task will retry as specified

Leave 'User Input Mappings to Task Input Attribute' section default and click Next.

Edit Task (Send Email)

Task Information

User Input Mapping

User Input Mappings to Task Input Attributes
Select which of the following attributes you would like to use values from workflow

Manage Workflow User Inputs

If 'Map to User Input' is checked, inputs are prompted during workflow execution

E-mail Addresses (Mandatory)

Type: Email Addresses

Map to User Input

Leave 'Provide the values for the task inputs which are not mapped to the workflow inputs.' section default and select Next.

Edit Task (Send Email)

- ✓ Task Information
- ✓ User Input Mapping
- Task Inputs**
- User Output Mapping

Provide the values for the task inputs which are not mapped to workflow inp

E-mail Addresses *

Subject *

Body

Leave 'User Output Mappings to Task Output Attributes' section default and click Submit.

Edit Task (Send Email)

- ✓ Task Information
- ✓ User Input Mapping
- ✓ Task Inputs
- User Output Mapping**

User Output Mappings to Task Output Attributes
Select which of the following attributes you would like to use values from workflow output fields.

EMAIL_ADDRESSES


Type: email_address_list

Map to User Output

Click OK.

Submit Result

Task Saved Successfully.



4.30. Validate and Execute workflow

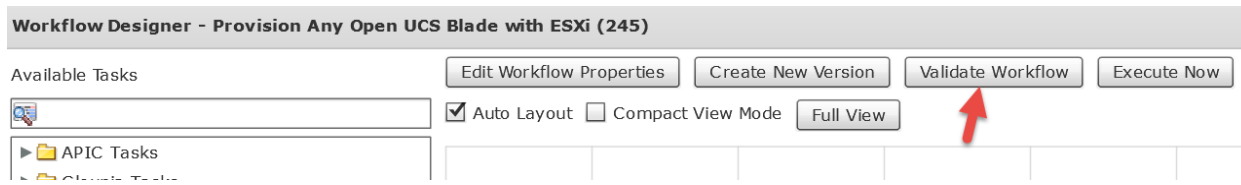
Validate workflow.

Workflow Designer - Provision Any Open UCS Blade with ESXi (245)

Available Tasks Edit Workflow Properties Create New Version Validate Workflow Execute Now

Auto Layout Compact View Mode Full View


APIC Tasks
Cloudia Tasks

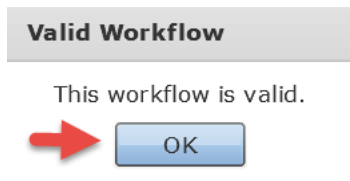


Click OK.

Valid Workflow

This workflow is valid.

 OK



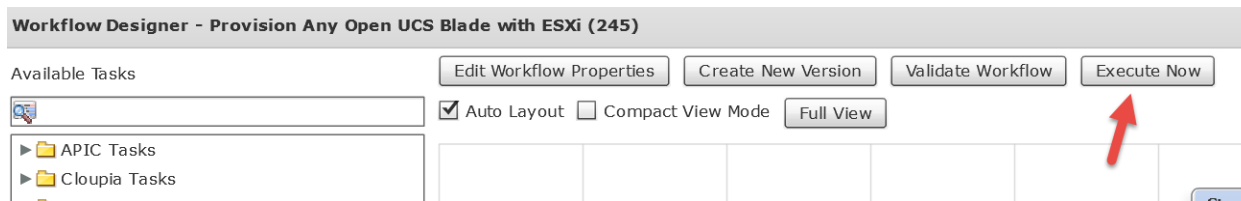
Execute the workflow. This workflow can only be executed by the Admin and can't be associated with a Catalog item. If you would like to use a catalog and expose it to an end-user via self-service portal, see the section 'Optional – Use Server Pool instead of 'Any Open Blade' + Catalog Item' for details.

Workflow Designer - Provision Any Open UCS Blade with ESXi (245)

Available Tasks Edit Workflow Properties Create New Version Validate Workflow Execute Now

Auto Layout Compact View Mode Full View

APIC Tasks
Cloudia Tasks



Enter a Host Name for the ESXi Server, Select the vCenter/Cloud and select an Open Blade.

Executing Workflow: Provision Any Open UCS Blade with ESXi

Workflow Version:

1 (default version) *

Server Host Name *

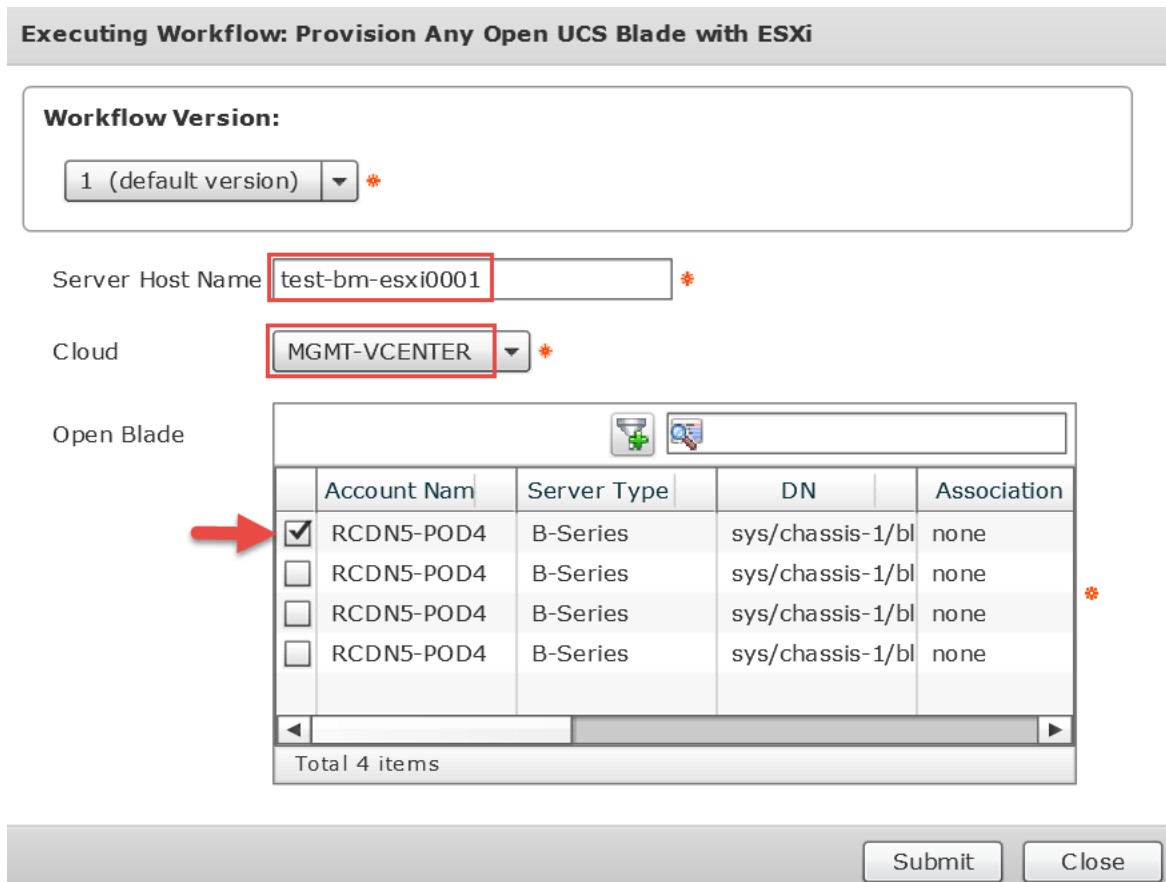
Cloud *

Open Blade

	Account Nam	Server Type	DN	Association
<input checked="" type="checkbox"/>	RCDN5-POD4	B-Series	sys/chassis-1/bl	none
<input type="checkbox"/>	RCDN5-POD4	B-Series	sys/chassis-1/bl	none
<input type="checkbox"/>	RCDN5-POD4	B-Series	sys/chassis-1/bl	none
<input type="checkbox"/>	RCDN5-POD4	B-Series	sys/chassis-1/bl	none

Total 4 items

Submit Close



Click Show Detail Status.

Service Request Submit Status


Service request is submitted successfully ID 227



Verify Completed Successfully Status.

Workflow Status | [Log](#) | [Objects Created and Modified](#) | [Input/Output](#)

Service Request

Status  Refresh

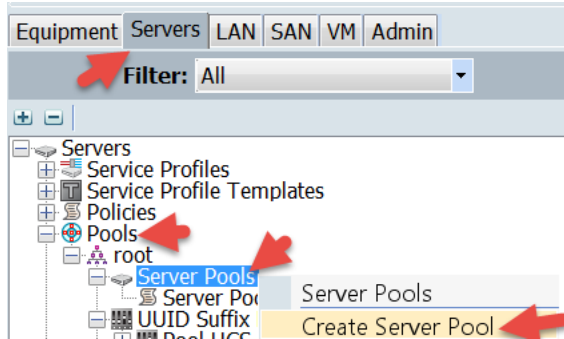
▼ Overview		Current status for the service request.	
Request ID	227	(12) Setup PXE boot (OS type: ESXI-5.1.U-CUS...	10/01/2015 16:53:44
Request Type	Admin Workflow	(13) UCS Blade Power ON Action	10/01/2015 16:53:46
Workflow Name	Provision Any Open UCS Blade with ESXi	(14) Wait Duration (600)	10/01/2015 17:03:48
Workflow Version Label	1	(15) Remove PXE Boot Setup	10/01/2015 17:03:54
Request Time	10/01/2015 16:48:19 GMT-0500	(16) Now Boot from SAN 1st Server has Local Disks	10/01/2015 17:04:01
Request Status	In Progress	(17) Add vlan 84 to profile	10/01/2015 17:04:06
Comments		(18) Delete PXE Vlan from vNIC 2	10/01/2015 17:04:11
▼ Ownership		(19) Delete PXE Vlan from vNIC 1	10/01/2015 17:04:17
Initiating User	admin	(20) Power OFF	10/01/2015 17:04:23
		(21) Power ON	10/01/2015 17:04:57
		(22) Wait for boot to finish	10/01/2015 17:11:57
		(23) Register Host Node 172.17.84.190 Completed action	10/01/2015 17:13:21
		(24) Complete Completed successfully.	10/01/2015 17:13:26

5. Optional – Use Server Pool instead of ‘Any Open Blade’ + Catalog Item

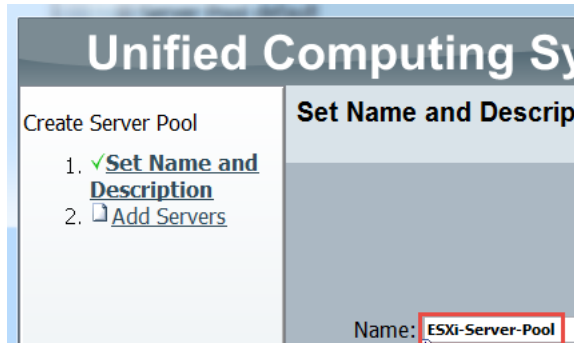
This section we will demonstrate how to create a catalog item for the ESXi Baremetal workflow. You cannot create a catalog item for the workflow using the ‘Any Open Blade’ option because the selection part doesn’t work with the catalog. If you are interested in have a user use a catalog to deploy this Baremetal install then you could use Server Pools to accomplish this.

5.1. Create Server Pool in UCS Manager

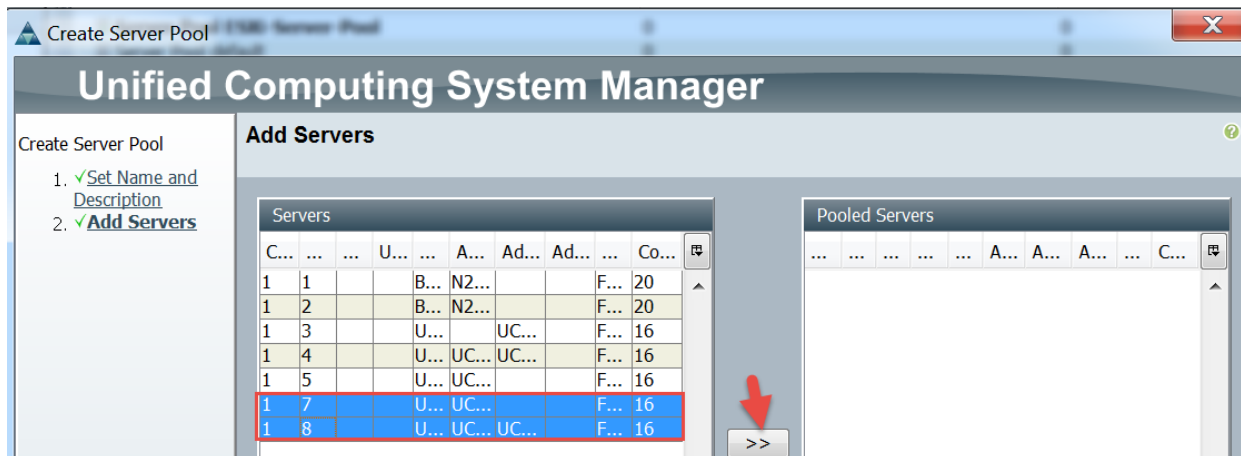
Create a Server Pool. This Pool will be used for ESXi Baremetal Host.



Define the Pool Name and click Next.



Select the Blades you want to be used for ESXi Baremetal install and click the >> button to move them over to the right in the Pooled Servers section. You may notice that I have selected multiple servers at once by holding down the ‘control’ button while clicking on each server you want to use.



Verify and click Finish.

Create Server Pool

Unified Computing System Manager

Create Server Pool

1. ✓ Set Name and Description
2. ✓ Add Servers

Add Servers

Servers									
...	A...	A...	A...	...	C...
1	1				B...	N...			F... 20
1	2				B...	N...			F... 20
1	3				U...		UC...		F... 16

Model:


>>

<<

Pooled Servers									
C...	S...	...	U...	P...	A...	Ad...	Ad...	S...	Co...
1	7				U...			F...	16
1	8				U...			F...	16

Details

Model:



< Prev Next > Finish Cancel

5.2. Clone 'Provision Any Open UCS Blade with ESXi' workflow

Clone the 'Provision Any Open UCS Blade with ESXi' workflow.

The screenshot shows the Cisco UCS Director interface. At the top, the 'Policies' menu is highlighted with a red arrow. Below it, the 'Orchestration' section is active, and the 'Workflows' tab is selected. In the 'Workflows' list, the 'Provision Any Open UCS Blade with ESXi' workflow is highlighted with a red arrow. A context menu is open over this workflow, and the 'Clone Workflow' option is highlighted with a red arrow.

Name the workflow 'Provision Blade from Server Pool with ESXi' and select the folder you want to place this workflow in then click Next.

The screenshot shows the 'Clone Workflow' dialog box. The 'Workflow Name' field is set to 'Provision Blade from Server Pool with ESXi'. The 'Version' is 0. The 'Description' field is empty. The 'Workflow Context' is set to 'Any'. The 'Save Options' section has 'Place in New Folder' unchecked and 'Select Folder' set to 'ESXi Baremetal'. The 'Notifications' section has 'Notify status of execution to initiating User' unchecked. The 'Next' button is highlighted with a red arrow.







Delete 'Open Blade' by selecting the Open Blade Input and clicking the x to delete.

Edit Workflow

- ✓ Edit Workflow Details
- Edit User Inputs**
- Edit User Outputs

Workflow User Inputs

Associate to Activity
If selected, existing workflow's user input(s) will be overridden by selected activities user input(s).





Input Label	Input Description	Mandatory	Type	Admin Input Value
Server Host Name	Hostname of the the	Yes		
Cloud	Which Cloud to place	Yes		
UserID		Yes	gen_text_input	administrator
ServerPassword	ESXi Host Root Passw	Yes	password	*****
SUBMITTER_EMAIL		Yes	gen_text_input	'safonten@cisco.com'
Open Blade		Yes	ucsServerIdentity	Account Name CONT/
POD4_ESXi_Server_f		Yes	ucsServerPoolIdentity	RCDN5-POD4;org-ro

Leave 'Workflow User Outputs' default and click Submit.

Clone Workflow

- ✓ Add Workflow Details
- ✓ Add User Inputs
- Add User Outputs**

Workflow User Outputs

Output Label	Output Description	Mandatory	Type
--------------	--------------------	-----------	------

Click OK.

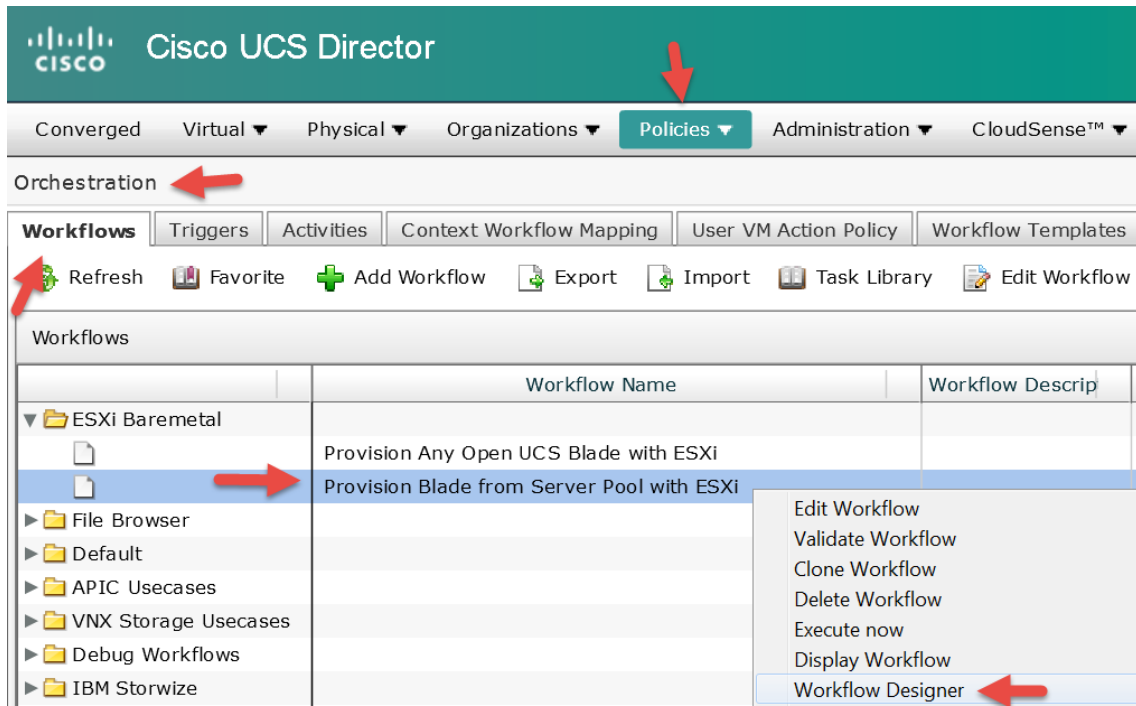
Submit Result

Cloned successfully

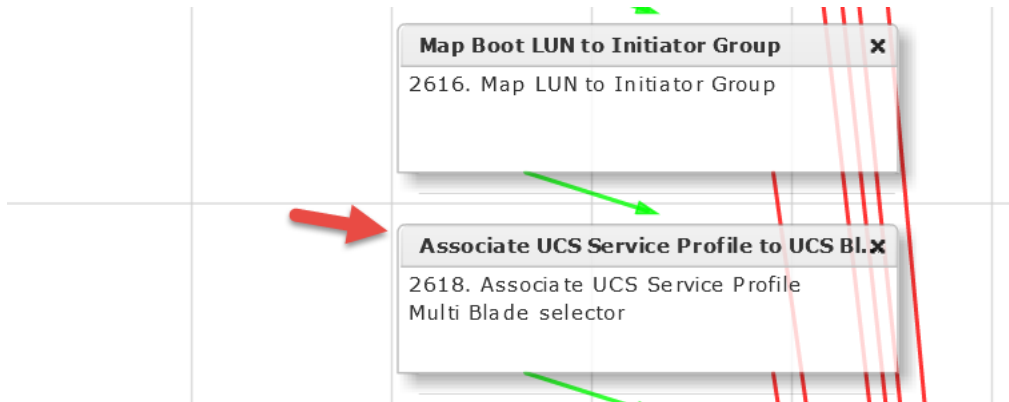


5.3. Configure 'Provision Blade from Server Pool with ESXi' workflow

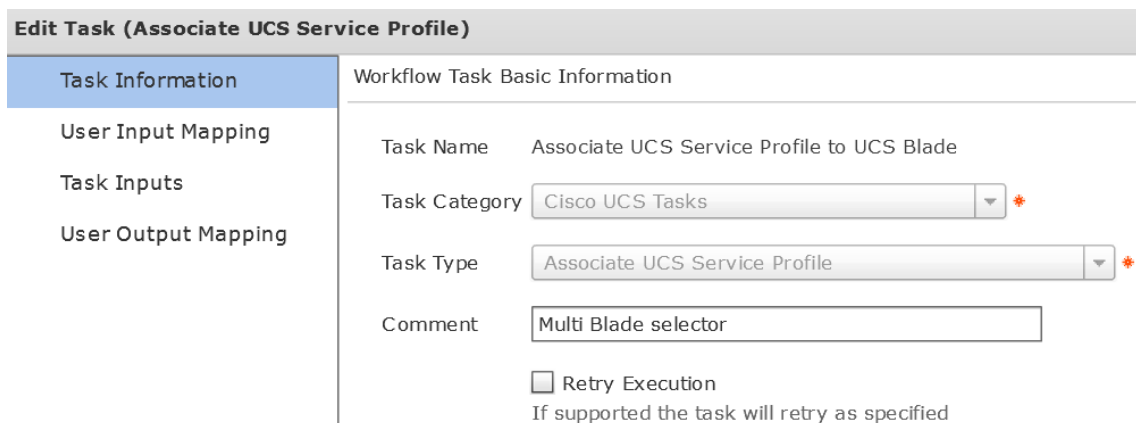
Open 'Workflow Designer' for the new workflow 'Provision Blade from Server Pool with ESXi'.



Open the 'Associate UCS Service Profile to UCS Blade' Task by double clicking on the Task.



Leave 'Workflow Task basic Information' default and click Next.



The default settings for this Task is to use Any Open Blade. In order to use a blade server pool, we need to check the 'Map to user Input' checkbox under the Server Pool Section and then click the + next to the drop down.

Edit Task

✓ Task Information

User Input Mapping

Task Inputs

User Output Mapping

User Input Mappings to Task Input Attributes
Select which of the following attributes you would like to use values from workflow input fields

Manage Workflow User Inputs

If 'Map to User Input' is checked, inputs are prompted during workflow execution unless specified otherwise.

Service Profile (Mandatory)

Type: UCS Service Profile Identity

Map to User Input

User Input: Create Service Profile from Template.SERVICE_PROFILE_IDENTITY

Server (Mandatory)

Type: UCS Server Identity

Map to User Input

User Input: Create Service Profile from Template.SERVER_IDENTITY

Server Pool (Mandatory)

Type: UCS Server Pool Identity

Map to User Input

User Input: [Empty] +

No inputs defined for this type in the Workflow.

Enter the name of your new User Input 'POD4_ESXi_Server_Pool', select 'Admin Input', enter esxi in the filter on the right, then check box next to the server pool. Click Submit.

Create new User Input

Input Label:

Input Description:

Optional

Input Type: UCS Multi Server Pool Identity

Value Restrictions

Admin Input

Admin Input Value:

	Account Nam	Organization	Name	Assigned	Size
<input checked="" type="checkbox"/>	RCDN5-POD4	org-root	Server Pool ESX	1	2

Click OK.

Submit Result

Added successfully

On the 'User Input Mappings to Task Input Attributes' section, verify the Server Pool shown below, deselect the 'Map to User Input' under Server (Mandatory) Section and Click Next.

Edit Task (Associate UCS Service Profile)

✓ Task Information

User Input Mapping

Task Inputs

User Output Mapping

User Input Mappings to Task Input Attributes
Select which of the following attributes you would like to use values from workflow input fields or

Manage Workflow User Inputs

If 'Map to User Input' is checked, inputs are prompted during workflow execution unless speci

Service Profile (Mandatory)


Type: UCS Service Profile Identity

Map to User Input

User Input Create Service Profile from Template.SERVICE_PROFILE_IDENTITY

Server (Mandatory)

Type: UCS Server Identity

 Map to User Input

Server Pool (Mandatory)

Type: UCS Server Pool Identity

Map to User Input

User Input POD4_ESXi_Server_Pool

For the 'Provide the values for the task inputs which are not mapped to workflow inputs' section, change the 'Server Selection Scope' to 'Include Server Pools' then click Next.

Edit Task

✓ Task Information

✓ User Input Mapping

Task Inputs

User Output Mapping

Provide the values for the task inputs which are not mapped to workflow inputs.

Revalidate

Server Selection Scope Include Server Pools

Leave 'User Output Mappings to Task Output Attributes' default and click Submit.

Edit Task (Associate UCS Service Profile)

✓ Task Information

✓ User Input Mapping

✓ Task Inputs

User Output Mapping

User Output Mappings to Task Output Attributes
Select which of the following attributes you would I

OUTPUT_UCS_BLADE_MAC_ADDRESS

Type: gen_text_input

Map to User Output

SERVER_IDENTITY

Type: ucsServerIdentity

Map to User Output

Click OK.

Submit Result

Task Saved Successfully.



Validate Workflow.

Workflow Designer - Provision Blade from Server Pool with ESXi (256)

Available Tasks

Edit Workflow Properties

Create New Version

Validate Workflow

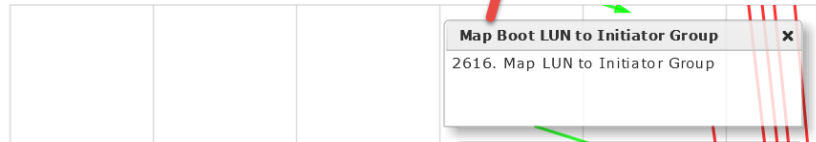
Execute Now



Auto Layout Compact View Mode

Full View

- ▶ APIC Tasks
- ▶ Cloupia Tasks
- ▶ Compound Tasks
- ▶ Context Mapper Tasks
- ▶ Custom Tasks



Click OK.

Valid Workflow

This workflow is valid.



5.4. Execute 'Provision Blade from Server Pool with ESXi'

Test/Execute Workflow.

Workflow Designer - Provision Blade from Server Pool with ESXi (256)

Available Tasks:

Auto Layout Compact View Mode

- APIC Tasks
- Cloupia Tasks
- Compound Tasks
- Context Mapper Tasks
- Custom Tasks

Map Boot LUN to Initiator Group [X]
2616. Map LUN to Initiator Group

Enter the ESXi hostname in the 'Server Host Name' Field and select the vCenter you want to deploy the host on in the Cloud field. Click Submit.

Executing Workflow: Provision Blade from Server Pool with ESXi

Workflow Version:
0 (default version) *

Server Host Name: *

Cloud: *

Watch the Service Request Logs and verify it completes successfully.

Workflow Status:

Service Request

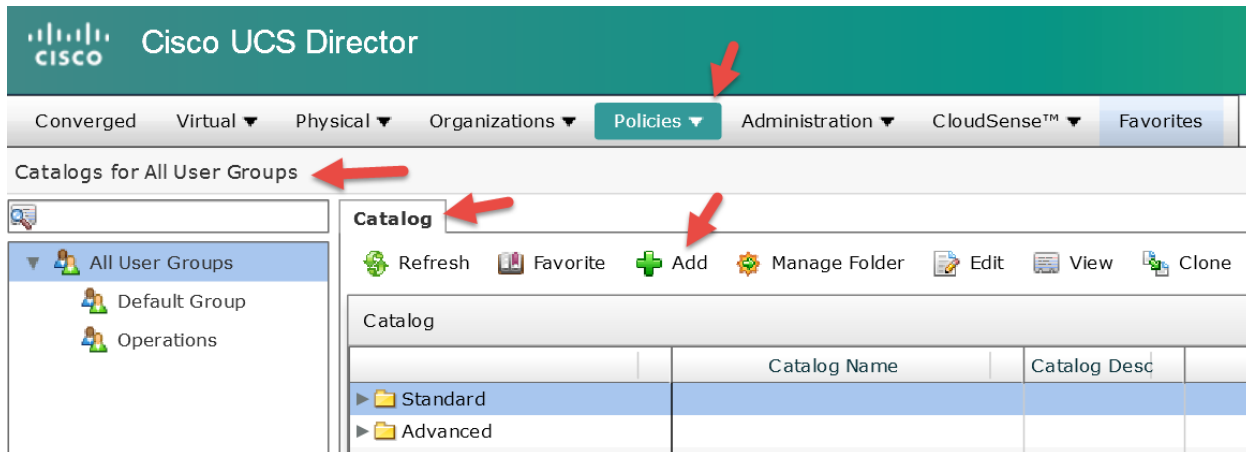
Status

▼ Overview

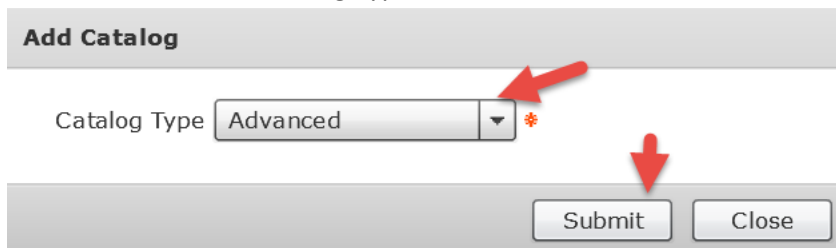
Request ID	215	Current status for the service request.	
Request Type	Admin Workflow	12	Setup PXE boot (OS type: ESXi-5.1.0-cus... 09/29/2015 20:42:49
Workflow Name	Provision Blade from Server Pool with ESXi	13	UCS Blade Power ON Action 09/29/2015 20:42:51
Workflow Version Label	0	14	Wait Duration (600) 09/29/2015 20:52:53
Request Time	09/29/2015 20:39:48 GMT-0500	15	Remove PXE Boot Setup 09/29/2015 20:52:59
Request Status	Complete	16	Now Boot from SAN 1st 09/29/2015 20:53:06
Comments		17	Add vlan 84 to profile 09/29/2015 20:53:10
▼ Ownership		18	Delete PXE Vlan from vNIC 2 09/29/2015 20:53:16
Initiating User	admin	19	Delete PXE Vlan from vNIC 1 09/29/2015 20:53:22
		20	Power OFF 09/29/2015 20:53:28
		21	Power ON 09/29/2015 20:54:02
		22	Wait for boot to finish 09/29/2015 21:01:02
		23	Register Host Node 172.17.84.190 Completed action 09/29/2015 21:02:28
		24	Complete Completed successfully. 09/29/2015 21:02:29

5.5. Create Catalog Item for ESXi Baremetal Install

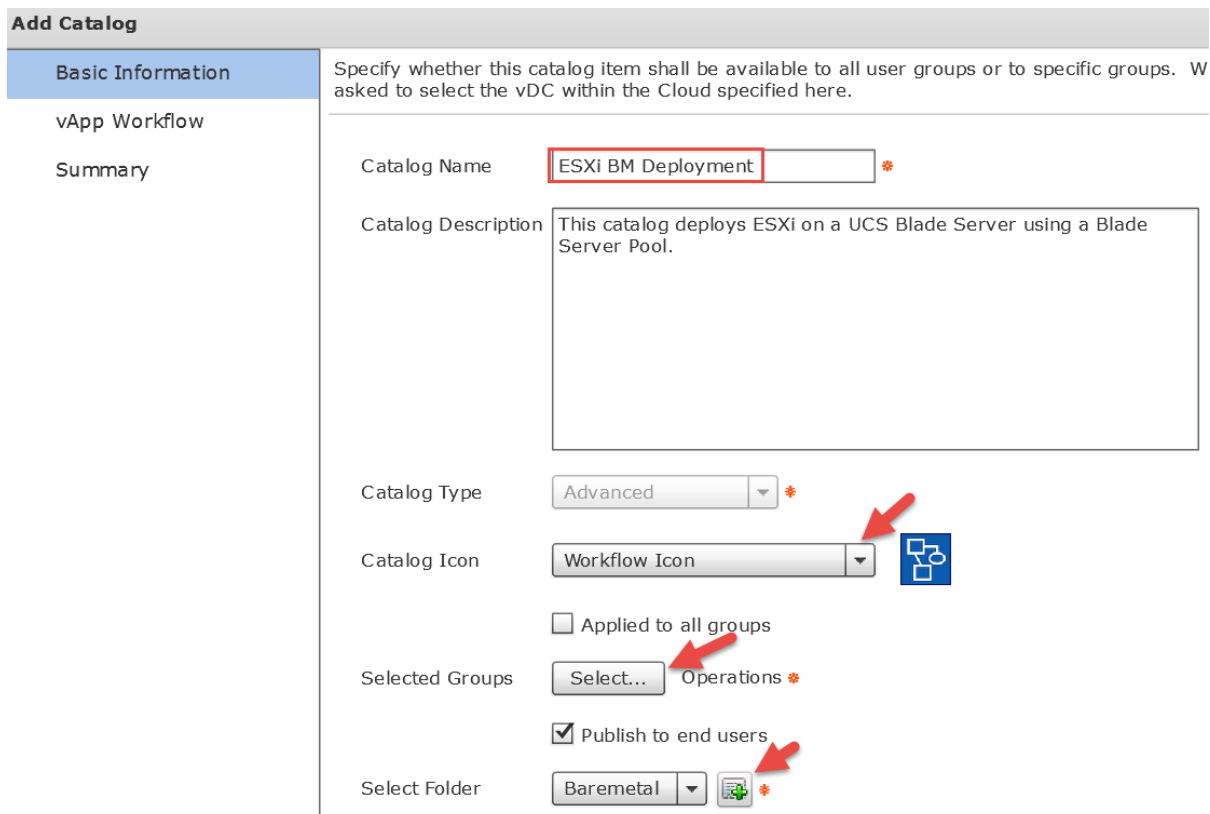
Create a new Catalog Item for the ESXi Baremetal Install. Navigate to Policies -> Catalogs -> select Add.



Select Advanced for 'Catalog Type' and click Submit.



Enter the Catalog Name 'ESXi BM Deployment', change the Catalog Icon using the dropdown menu, select the Groups that can see this catalog item when the log into their self-service portal, click the + to add a folder or select an existing folder from the dropdown. When done, click Next.




This is the group selection from above. This selection defines which group will be able to see and execute this catalog item.

Select									
Group Name	Host	Domain	Group Code	Group Descri	Source	Cost Center	Group Contai	Group Conta	
Default Group			DEF	Default Group. A	Local		Administrator		
<input checked="" type="checkbox"/> Operations					Local				sam.fontene

Here we are demonstrating the Folder Creation.

Add New Folder

Folder Name *

Folder Icon  *

Select OK to acknowledge the Folder has been created.

Submit Result

New Folder Added Successfully

Press Select to pick the 'Provision Blade from Server Pool with ESX' workflow.

Add Catalog

Basic Information

vApp Workflow

Summary

vApp Workflow

Workflow *

Enter 'Provision Blade from Server Pool with ESX' in the filter box on the right and then select the workflow.

Select				
Workflow Id	Name	Description	Folder Name	
<input checked="" type="checkbox"/> 256	Provision Blade from Server Pool wi		ESXI Baremetal	<input type="text" value="Provision Blade from Server"/>

Verify the workflow and click Next.

Add Catalog

Basic Information

vApp Workflow

Summary

vApp Workflow

Workflow *

Selected Workflow has 29 tasks (Create Service Profile from template, Modi

Check out the summary and click Submit.

Add Catalog

- ✓ Basic Information
- ✓ vApp Workflow
- Summary**


Summary
Review the information below. Click Back to make further changes to the catalog. Click Submit to modify the catalog.

Catalog	ESXi BM Deployment
Catalog Description	This catalog deploys ESXi on a UCS Blade Server using a Blade Server Pool.
Groups	Operations
Workflow Name	Provision Blade from Server Pool with ESXi
Workflow Description	

Click OK.

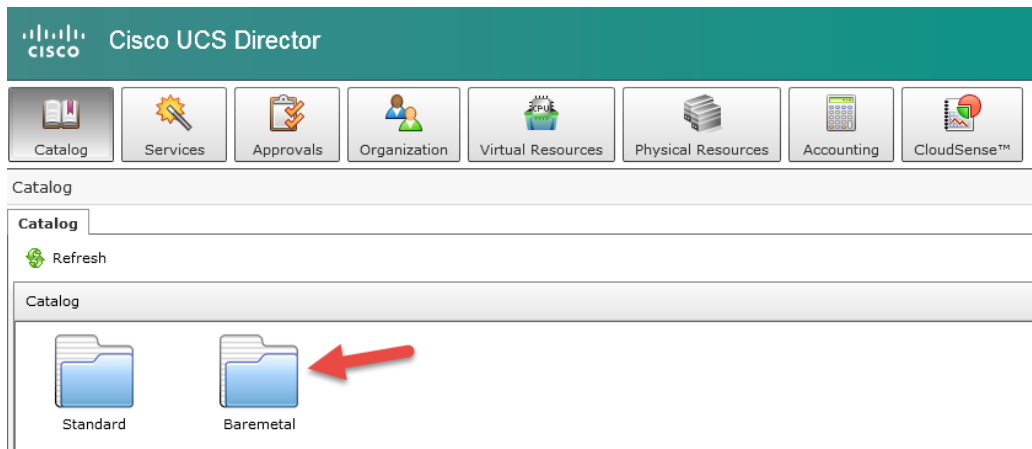
Submit Result

Catalog submitted successfully



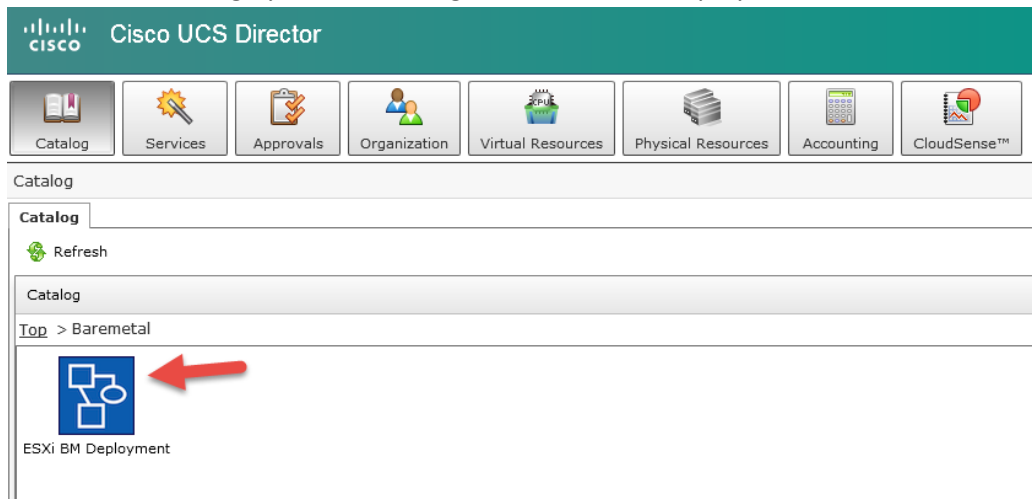
5.6. Execute Catalog item 'ESXi BM Deployment'

Log into UCS Director as a user in the group you selected in the catalog configuration. Double Click the 'Baremetal' folder.



The screenshot shows the Cisco UCS Director interface. At the top, there is a navigation bar with the Cisco logo and the text "Cisco UCS Director". Below this is a row of icons for various functions: Catalog, Services, Approvals, Organization, Virtual Resources, Physical Resources, Accounting, and CloudSense™. The main content area is titled "Catalog" and contains a "Refresh" button. Below that, there is a section labeled "Catalog" which displays two folder icons: "Standard" and "Baremetal". A red arrow points to the "Baremetal" folder.

Execute the Catalog by double clicking on the 'ESXi BM Deployment' icon.



The screenshot shows the Cisco UCS Director interface, similar to the previous one. The navigation bar and function icons are the same. The main content area is titled "Catalog" and contains a "Refresh" button. Below that, there is a section labeled "Catalog" which displays a breadcrumb "Top > Baremetal". Underneath, there is a blue icon representing the "ESXi BM Deployment" workflow. A red arrow points to this icon.

Verify catalog selection and click Next.

Create Service Request


Catalog Selection
Select catalog to be deployed

Custom Workflow

Summary

Catalog Type

Select Catalog



This catalog deploys ESXi on a UCS Blade Server using a Blade Server Pool.

Enter the ESXi Hostname for the new server that will be deployed and select the vCenter/cloud to register this new ESXi host with.

Create Service Request

✓ Catalog Selection

Custom Workflow
If applicable, specify workflow input values

Summary

Server Host Name

Cloud

Verify and click Submit.

Create Service Request

✓ Catalog Selection

✓ Custom Workflow

Summary
Review information below and click Submit to initiate the service request

Group	Operations
Owner	operator
Catalog	ESXi BM Deployment
Catalog Description	This catalog deploys ESXi on a UCS Blade Server using a Blade Server Pool.
Port Groups	
VM Networks	

Click OK.

Submit Result

Service Request 217 submitted successfully



Monitor the Service Request from the Self-Service Portal. Click the Services tab.

Cisco UCS Director

Catalog Services Approvals Organization Virtual Resources Physical Resources Accounting CloudSense™

Catalog

Refresh

Catalog

Standard Baremetal

Find your service request and click on it to see the status of the request. Double click on it or select it and click the View Details above it.

The screenshot shows the Cisco UCS Director interface. At the top, there is a navigation bar with icons for Catalog, Services, Approvals, Organization, Virtual Resources, Physical Resources, Accounting, and CloudSense™. Below this, the 'Service Requests' tab is selected, and there are buttons for 'Refresh' and 'Create Request'. A table lists service requests, with the first row highlighted in red:

Service Reql	Request Type	Initiating Use	Group	Catalog/Workflow Name	Initiator Cl	Request Ti	Request St
217	Advanced	operator	Operations	ESXi BM Deployment / Provision Blade from Serve		09/29/2015 2	In Progress

Watch the status of the Server Request and wait until it is complete. If you want to see more details, you can log into UCS Director with the admin account and view the Service Request from there. Completed Successfully.

The screenshot shows the 'Service Request' details page. The status is 'Complete'. A detailed timeline of 24 steps is shown, with the final step 'Complete Completed successfully.' highlighted in red.

Step	Description	Timestamp
1	Initiated by operator	09/30/2015 19:40:52
2	Create UCS Service Profile from template	09/30/2015 19:41:08
3	Boot From PXE vlan	09/30/2015 19:41:13
4	MDS A + B	09/30/2015 19:42:05
5	Create Flexible Volume	09/30/2015 19:42:12
6	Create Initiator Group	09/30/2015 19:42:21
7	Add Initiator to Initiator Group	09/30/2015 19:42:27
8	Add Initiator to Initiator Group	09/30/2015 19:42:33
9	Create LUN	09/30/2015 19:42:40
10	Map NetApp LUN	09/30/2015 19:42:49
11	Multi Blade selector	09/30/2015 19:46:20
12	Setup PXE Boot (OS Type: ESXi-5.1.0-cus...	09/30/2015 19:46:35
13	UCS Blade Power ON Action	09/30/2015 19:46:37
14	Wait Duration (600)	09/30/2015 19:56:42
15	Remove PXE Boot Setup	09/30/2015 19:56:45
16	Now Boot from SAN 1st Server has Local Disks	09/30/2015 19:56:52
17	Add vlan 84 to profile	09/30/2015 19:57:00
18	Delete PXE Vlan from vNIC 2	09/30/2015 19:57:02
19	Delete PXE Vlan from vNIC 1	09/30/2015 19:57:08
20	Power OFF	09/30/2015 19:57:14
21	Power ON	09/30/2015 19:58:22
22	Wait for boot to finish	09/30/2015 20:05:25
23	Register Host Node 172.17.84.190 Completed action	09/30/2015 20:06:49
24	Complete Completed successfully.	09/30/2015 20:06:50

6. Optional – Manual IP

6.1. Create new workflow Version

Create a new workflow version for 'Provision Blade from Server Pool with ESXi'.

The screenshot shows the Cisco UCS Director interface. The top navigation bar includes 'Converged', 'Virtual', 'Physical', 'Organizations', 'Policies', 'Administration', 'CloudSense™', and 'Favor'. The 'Policies' menu is highlighted with a red arrow. Below the navigation bar, the 'Orchestration' section is visible, with a red arrow pointing to the 'Workflows' tab. The 'Workflows' tab is active, and a red arrow points to the 'Add Workflow' button. The 'Workflows' table is displayed, with the following columns: 'Workflow Name', 'Workflow Descrip', 'Ve', and 'I'. The table contains several rows, including 'Provision Any Open UCS Blade with ESXi' and 'Provision Blade from Server Pool with ESXi'. A red arrow points to the 'Provision Blade from Server Pool with ESXi' row, which is selected. A context menu is open over this row, with a red arrow pointing to the 'Create New Version' option.

Workflow Name	Workflow Descrip	Ve	I
Provision Any Open UCS Blade with ESXi		OK	1
Provision Blade from Server Pool with ESXi		Failed	1

Name the new Version and enter a description. Click Submit.

Create New Version

Version Label *

Description *

Manage the Versions for this workflow.

The screenshot shows the Cisco UCS Director interface. The top navigation bar includes 'Converged', 'Virtual', 'Physical', 'Organizations', 'Policies', 'Administration', 'CloudSense™', and 'Favorites'. The 'Policies' menu is highlighted with a red arrow. Below this, the 'Orchestration' section is visible, with a red arrow pointing to it. The 'Workflows' tab is active, showing a list of workflow folders and items. A red arrow points to the 'Provision Blade from Server Pool with ESXi' workflow. A context menu is open over this workflow, with 'Manage Versions' highlighted by a red arrow.

Verify you are now using the new 'ESXi Manual IP Address' version. By default it is set to the latest version so you shouldn't have to do anything here. Close the window by clicking Close.

Manage Versions

- Set latest version as default
Latest version would be set as default
- Set selected version as default
Selected version would be set as default

Version Label	Description	Last modified	Created
<input type="checkbox"/> ESXi Manual IP Address	ESXi Manual IP Address	Thu Oct 01 01:45:43 UTC	Thu Oct 01 01:38:50 UTC 2
<input type="checkbox"/> 0		Thu Oct 01 00:25:18 UTC	

6.2. Create Global Inputs for IP Address, Subnet Mask and Gateway

Open Workflow Designer for this workflow.

The screenshot shows the Cisco UCS Director interface. At the top, there is a navigation bar with tabs for Converged, Virtual, Physical, Organizations, Policies, Administration, CloudSense™, and Favorites. Below this is the 'Orchestration' section with a sub-tab for 'Workflows'. A red arrow points to the 'Policies' tab, and another points to the 'Workflows' sub-tab. Below the sub-tabs are icons for Refresh, Favorite, Add Workflow, Export, Import, Task Library, Edit Workflow, and Validate. A table lists various workflow categories and specific workflows. The 'Provision Blade from Server Pool with ESXi' workflow is selected, and a context menu is open over it, with a red arrow pointing to the 'Workflow Designer' option.

	Workflow Name	Workflow Descrip	Ver	Li
▶ APIC Usecases				
▶ Debug Workflows				
▶ Default				
▼ ESXi Baremetal				
▶ Provision Any Open UCS Blade with ESXi			OK	1
▶ Provision Blade from Server Pool with ESXi			OK	12
▶ File Browser				
▶ IBM Storwize				
▶ NetApp Storage Usecase				
▶ OrfsWorkFlows				
▶ Sam Workflows				
▶ System				

Click 'Edit Workflow Properties'.

The screenshot shows the 'Workflow Designer - Provision Blade from Server Pool with ESXi (261)' interface. At the top, there are buttons for 'Edit Workflow Properties', 'Create New Version', 'Validate Workflow', and 'Execute Now'. Below these are checkboxes for 'Auto Layout' (checked), 'Compact View Mode', and a 'Full View' button. On the left, there is a tree view showing 'APIC Tasks' and 'Cloupia Tasks'.

Leave everything default and click Next.

The screenshot shows the 'Edit Workflow - Provision Blade from Server Pool with ESXi (261)' details page. On the left, there are tabs for 'Edit Workflow Details', 'Edit User Inputs', and 'Edit User Outputs'. The 'Edit Workflow Details' tab is active, showing the following information:

Workflow Details	
Workflow Name	Provision Blade from Server Pool with ESXi
Version	1
Description	

Add Host IP Address input. Click the + to add a Global User Input.

Edit Workflow

Workflow User Inputs

Associate to Activity
If selected, existing workflow's user input(s) will be overridden by selected activities user input(s).

+ ✎ ✕ ⬆ ⬇

Input Label	Input Description	Mandatory	Type	Admin Input Value
Server Host Name	Hostname of the the	Yes		
Cloud	Which Cloud to place	Yes		

Enter the Input Label and click Select for the Input Type.

Add Entry to

Input Label *

Input Description

Optional

Input Type *

Enter 'generic text input' into the filter on the right and then select 'Generic Text Input' check box on the left. Click Select at the bottom to close the window.

Select

	Name	Type
<input checked="" type="checkbox"/>	Generic Text Input	gen_text_input

Verify and click Submit.

Add Entry

Input Label *

Input Description

Optional

Input Type *

Value Restrictions

Admin Input






Add Host Subnet Mask input. Click the + to add a Global User Input.

Edit Workflow

- ✓ Edit Workflow Details
- Edit User Inputs**
- Edit User Outputs

Workflow User Inputs

Associate to Activity
If selected, existing workflow's user input(s) will be overridden by selected activities user input(s).

Input Label	Input Description	Mandatory	Type	Admin Input Value
Server Host Name	Hostname of the the	Yes		
Cloud	Which Cloud to place	Yes		

Enter the Input Label and click Select for the Input Type.

Add Entry to

Input Label *

Input Description

Optional

Input Type *

Enter 'generic text input' into the filter on the right and then select 'Generic Text Input' check box on the left. Click Select at the bottom to close the window.

Select

	Name	Type
<input checked="" type="checkbox"/>	Generic Text Input	gen_text_input

Verify and click Submit.

Add Entry

Input Label *


Input Description

Optional

Input Type *

Value Restrictions

Admin Input



Add Host Gateway input. Click the + to add a Global User Input.

Edit Workflow

Workflow User Inputs

Associate to Activity
If selected, existing workflow's user input(s) will be overridden by selected activities user input(s).

Input Label	Input Description	Mandatory	Type	Admin Input Value
Server Host Name	Hostname of the the	Yes		
Cloud	Which Cloud to place	Yes		

Enter the Input Label and click Select for the Input Type.

Add Entry to

Input Label *

Input Description

Optional

Input Type *

Enter 'generic text input' into the filter on the right and then select 'Generic Text Input' check box on the left. Click Select at the bottom to close the window.

Select

	Name	Type
<input checked="" type="checkbox"/>	Generic Text Input	gen_text_input

Verify and click Submit.

Add Entry

Input Label *

Input Description

Optional

Input Type *

Value Restrictions

Admin Input

Highlight each new Input one at a time and select the up arrow to move them to the positions show in the pic below.
Select Next.

Edit Workflow

- ✓ Edit Workflow Details
- Edit User Inputs**
- Edit User Outputs

Workflow User Inputs

Associate to Activity
If selected, existing workflow's user input(s) will be overridden by selected activities user input(s).

+ ✎ ✕ ⬆ ⬇

Input Label	Input Description	Mandatory	Type	Admin Input Value
Server Host Name	Hostname of the the	Yes		
Cloud	Which Cloud to place	Yes		
ESXi Host IP Address		Yes	gen_text_input	
ESXi Host Subnet Mask		Yes	gen_text_input	
ESXi Host Gateway		Yes	gen_text_input	
UserID		Yes	gen_text_input	administrator

Leave 'Workflow User Outputs' default and select Submit.

Edit Workflow

- ✓ Edit Workflow Details
- ✓ Edit User Inputs
- Edit User Outputs**

Workflow User Outputs

+ ✎ ✕

Output Label	Output Description	Mandatory	Type

Click OK.

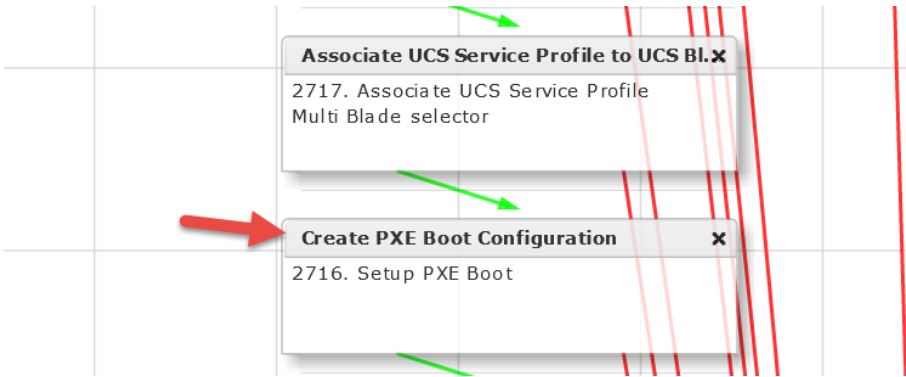
Submit Result

Updated successfully

OK

6.3. Map new inputs for task 'Create PXE Boot Configuration'

Open task 'Create PXE Boot Configuration' by double clicking on it.



Leave 'Workflow Task Basic Information' section default and click Next.

The 'Edit Task (Setup PXE Boot)' form, 'Workflow Task Basic Information' section. The left sidebar has 'Task Information' selected. The main area contains the following fields:

- Task Name: Create PXE Boot Configuration
- Task Category: Network Services Tasks (dropdown)
- Task Type: Setup PXE Boot (dropdown)
- Comment: (empty text box)
- Retry Execution: (checkbox)
- Text below checkbox: If supported the task will retry as specified

Select 'Map to User Input' for the 'Server Address', 'Server Net Mask' and 'Server Gateway'. Then select the 'ESXi Host IP Address', 'ESXi Host Subnet Mask' and 'ESXi Host Gateway' respectively as shown below. Click Next.

The 'Edit Task (Setup PXE Boot)' form, 'User Input Mapping' section. The left sidebar has 'User Input Mapping' selected. The main area is titled 'User Input Mappings to Task Input Attributes' and contains the following mappings:

- Server Address (Mandatory)**: Type: Generic Text Input. Map to User Input. User Input: ESXi Host IP Address.
- Server Net Mask (Mandatory)**: Type: Generic Text Input. Map to User Input. User Input: ESXi Host Subnet Mask.
- Server Host Name (Mandatory)**: Type: Generic Text Input. Map to User Input. User Input: Server Host Name.
- Server Gateway (Mandatory)**: Type: Generic Text Input. Map to User Input. User Input: ESXi Host Gateway.

At the bottom, there are 'Back', 'Next', and 'Close' buttons. A red arrow points to the 'Next' button.

Confirm the following are still applicable and click Next.

Edit Task (Setup PXE Boot)

- ✓ Task Information
- ✓ User Input Mapping
- Task Inputs**
- User Output Mapping

Provide the values for the task inputs which are not mapped to workflow inputs.

Revalidate

OS Type: ESXi-5.1.0-custom-Cisco-5.1.3.2 *

Server Name Server: 172.17.80.104

Management VLAN: 84

Timezone: US/Central *

Network Configurations

IP Address

Leave default and click Submit.

Edit Task (Setup PXE Boot)

- ✓ Task Information
- ✓ User Input Mapping
- ✓ Task Inputs
- User Output Mapping**

User Output Mappings to Task Output Attribute:
Select which of the following attributes you want to map to the user output.


OUTPUT_PXE_BOOT_ID
Type: gen_text_input
 Map to User Output

OUTPUT_HOST_IP_ADDRESS
Type: gen_text_input
 Map to User Output

Click OK.

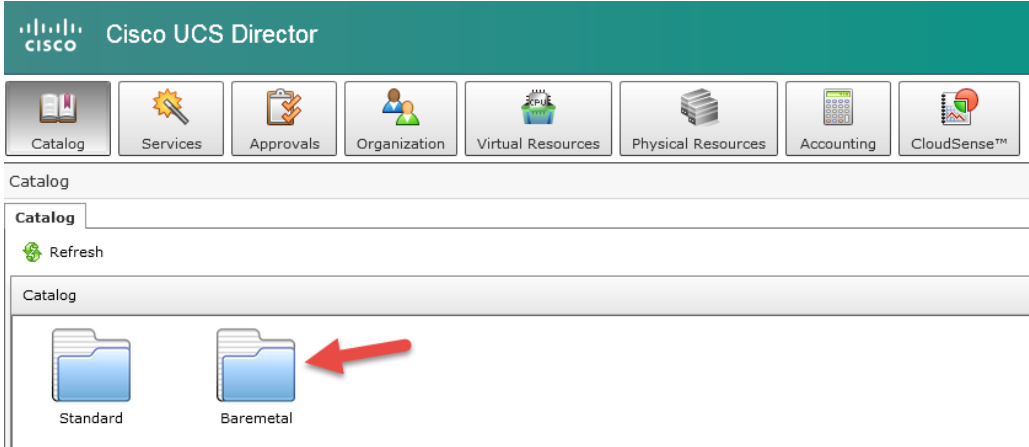
Submit Result

Task Saved Successfully.

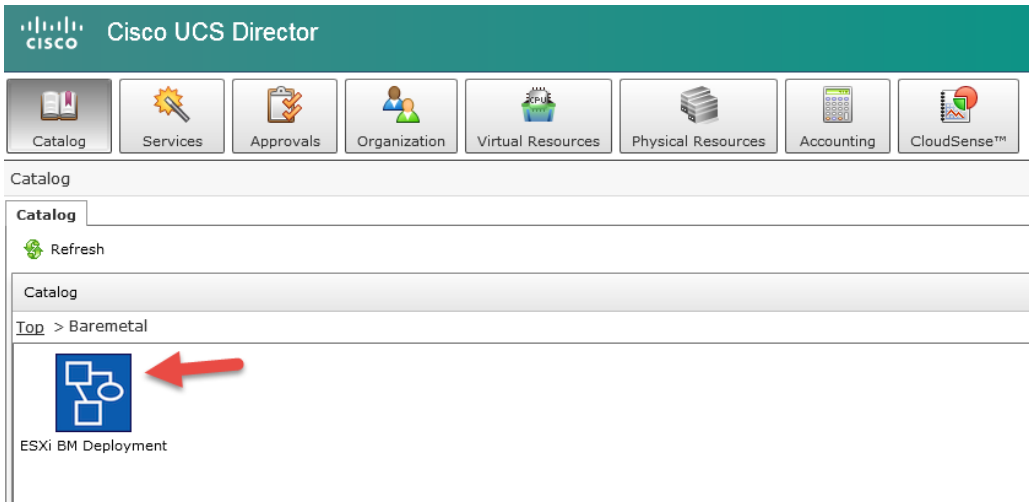


6.4. Test workflow from Self Service Portal

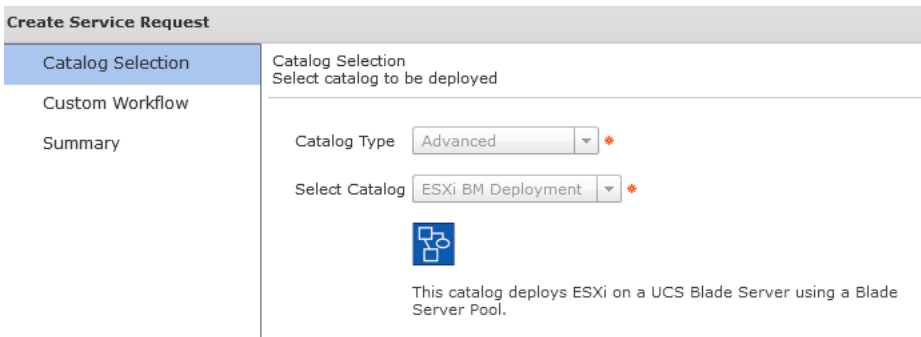
Log into UCS Director as a user in the group you selected in the catalog configuration. Double Click the 'Baremetal' folder.



Execute the Catalog by double clicking on the 'ESXi BM Deployment' icon.



Verify catalog selection and click Next.



Enter the ESXi Hostname for the new server that will be deployed and select the vCenter/cloud to register this new ESXi host with.

Create Service Request

✓ Catalog Selection
Custom Workflow

Custom Workflow Inputs
If applicable, specify workflow input values

Summary

Server Host Name *

Cloud *

ESXi Host IP Address *

ESXi Host Subnet Mask *

ESXi Host Gateway *

Verify and click Submit.

Create Service Request

✓ Catalog Selection
✓ Custom Workflow

Summary

Summary
Review information below and click Submit to initiate the service request

Group	Operations
Owner	operator
Catalog	ESXi BM Deployment
Catalog Description	This catalog deploys ESXi on a UCS Blade Server using a Blade Server Pool.
Port Groups	
VM Networks	

Click OK.

Submit Result

Service Request 217 submitted successfully



Monitor the Service Request from the Self-Service Portal. Click the Services tab.

Cisco UCS Director

Catalog Services Approvals Organization Virtual Resources Physical Resources Accounting CloudSense™

Catalog

Catalog

Refresh

Catalog

Standard Baremetal

Find your service request and click on it to see the status of the request. Double click on it or select it and click the View Details above it.

The screenshot shows the Cisco UCS Director interface. At the top, there is a navigation bar with icons for Catalog, Services, Approvals, Organization, Virtual Resources, Physical Resources, Accounting, and CloudSense™. Below this, there are tabs for 'Service Requests' and 'User OVF Management'. A 'Refresh' button and a 'Create Request' button are visible. The main table lists service requests with columns for Service Request ID, Request Type, Initiating User, Group, Catalog/Workflow Name, Initiator, Request Time, and Request Status. The request with ID 217 is highlighted in red.

Service Request ID	Request Type	Initiating User	Group	Catalog/Workflow Name	Initiator	Request Time	Request Status
217	Advanced	operator	Operations	ESXi BM Deployment / Provision Blade from Serve		09/29/2015 2	In Progress

Watch the status of the Server Request and wait until it is complete. If you want to see more details, you can log into UCS Director with the admin account and view the Service Request from there. Completed Successful.

The screenshot shows the 'Service Request' details page for request ID 222. The status is 'Complete'. The page is divided into sections: Overview, Ownership, and Catalog Information. A detailed timeline of 24 steps is shown, with the final step, 'Complete', highlighted in red.

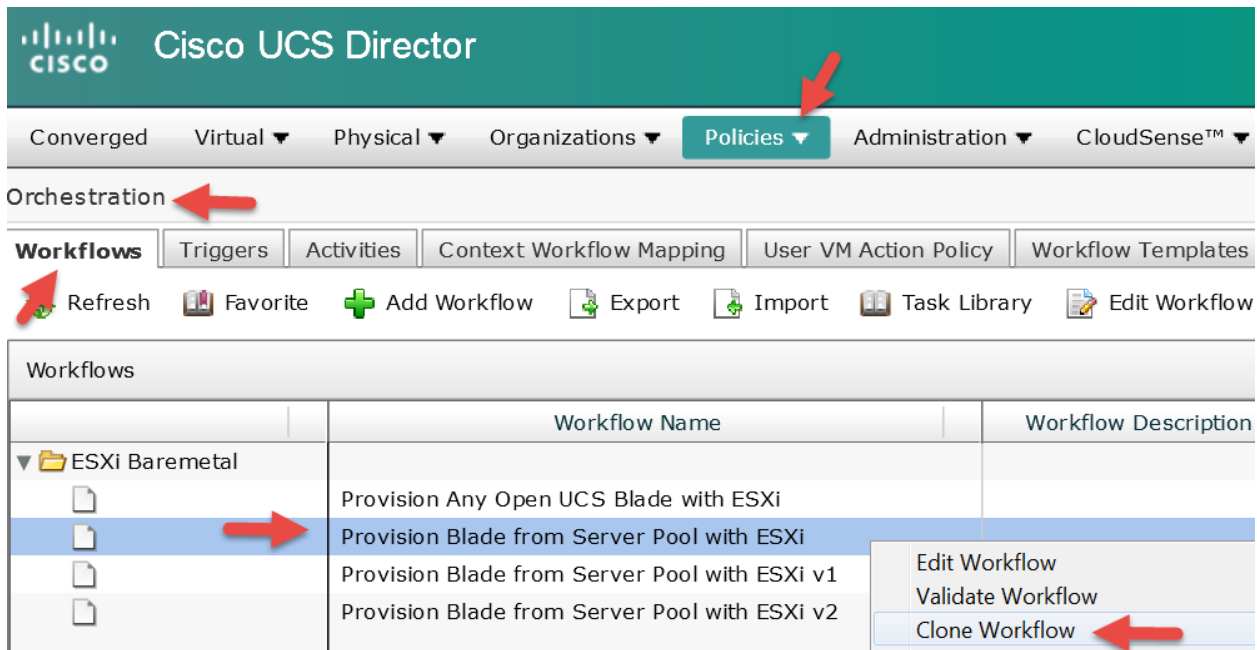
Step	Action	Timestamp
1	Initiated by operator	09/30/2015 19:40:57
2	Create UCS Service Profile from template	09/30/2015 19:41:08
3	Boot From PXE vlan	09/30/2015 19:41:13
4	MDS A + B	09/30/2015 19:42:05
5	Create Flexible Volume	09/30/2015 19:42:12
6	Create Initiator Group	09/30/2015 19:42:21
7	Add Initiator to Initiator Group	09/30/2015 19:42:27
8	Add Initiator to Initiator Group	09/30/2015 19:42:33
9	Create LUN	09/30/2015 19:42:40
10	Map NetApp LUN	09/30/2015 19:42:49
11	Multi Blade selector	09/30/2015 19:46:20
12	Setup PXE Boot (OS Type: ESXi-5.1.0-cus...	09/30/2015 19:46:35
13	UCS Blade Power ON Action	09/30/2015 19:46:37
14	Wait Duration (600)	09/30/2015 19:56:42
15	Remove PXE Boot Setup	09/30/2015 19:56:45
16	Now Boot from SAN 1st Server has Local Disks	09/30/2015 19:56:52
17	Add vlan 84 to profile	09/30/2015 19:57:00
18	Delete PXE Vlan from vNIC 2	09/30/2015 19:57:02
19	Delete PXE Vlan from vNIC 1	09/30/2015 19:57:08
20	Power OFF	09/30/2015 19:57:14
21	Power ON	09/30/2015 19:58:22
22	Wait for boot to finish	09/30/2015 20:05:25
23	Register Host Node 172.17.84.190 Completed action	09/30/2015 20:06:49
24	Complete Completed successfully.	09/30/2015 20:06:50

7. Optional – Configure Service Profile Name to match ESXi Host Name

The byproduct of using Service Profile Templates to create Service Profiles is a Service Profile name with a number at the end of the name. This is a function of UCS Manager but can be addressed with tasks in UCS Director. For some this may not be an issue but for others who want the Service Profile Name to match the ESXi Host Name, we have a solution for you here.

7.1. Create new workflow Version or Clone it

You can either create a new workflow version or Clone it and start on the new cloned one. Here I have chosen to clone the workflow since I demonstrated creating and managing versions in a previous section. Right click on 'Provision Blade from Server Pool with ESXi' and select Clone Workflow.



The screenshot shows the Cisco UCS Director interface. The top navigation bar includes 'Converged', 'Virtual', 'Physical', 'Organizations', 'Policies', 'Administration', and 'CloudSense™'. Below this is the 'Orchestration' section with tabs for 'Workflows', 'Triggers', 'Activities', 'Context Workflow Mapping', 'User VM Action Policy', and 'Workflow Templates'. A toolbar contains 'Refresh', 'Favorite', 'Add Workflow', 'Export', 'Import', 'Task Library', and 'Edit Workflow'. The main area displays a table of workflows under the 'ESXi Baremetal' folder. The workflow 'Provision Blade from Server Pool with ESXi' is selected, and a context menu is open with the 'Clone Workflow' option highlighted.

	Workflow Name	Workflow Description
▼ ESXi Baremetal		
📄	Provision Any Open UCS Blade with ESXi	
📄	Provision Blade from Server Pool with ESXi	
📄	Provision Blade from Server Pool with ESXi v1	
📄	Provision Blade from Server Pool with ESXi v2	

Enter a Workflow Name 'Provision Blade from Server Pool with ESXi v01', add a description similar to below, select a folder to place the workflow in and click Next.

Clone Workflow

Add Workflow Details

Workflow Details

Workflow Name:

Version: 0

Description:

Workflow Context:

Save as Compound Task

Always execute during System initialization

Save Options

Place in New Folder

Select Folder:

Notifications

Notify status of execution to initiating User

Email Policy:

Next

Leave 'Workflow User Inputs' default and click Next.

Clone Workflow

Add Workflow Details

Add User Inputs

Add User Outputs

Workflow User Inputs

Associate to Activity

If selected, existing workflow's user input(s) will be overridden by selected activity user input(s).

Input Label	Input Description	Mandatory	Type	Admin Input Value
Server Host Name	Hostname of the the	Yes		
Cloud	Which Cloud to place	Yes		
ESXi Host IP Address		Yes	gen_text_input	
ESXi Host Subnet Mas		Yes	gen_text_input	
ESXi Host Gateway		Yes	gen_text_input	
UserID	ESXi root account na	Yes	gen_text_input	root
ServerPassword	ESXi root password	Yes	password	*****
SUBMITTER_EMAIL		Yes	gen_text_input	'safonten@cisco.com'
POD4_ESXi_Server_f		Yes	ucsServerPoolIdentit	RCDN5-POD4;org-rod

Leave 'Workflow User Outputs' default and click Submit.

Clone Workflow

Add Workflow Details

Add User Inputs

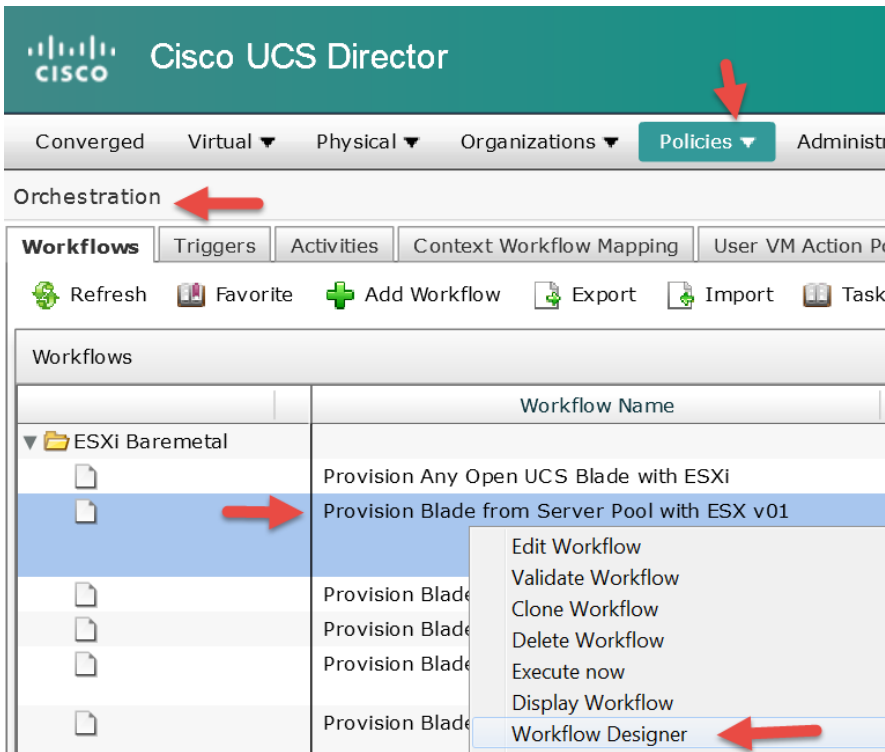
Add User Outputs

Workflow User Outputs

Output Label	Output Description	Mandatory	Type

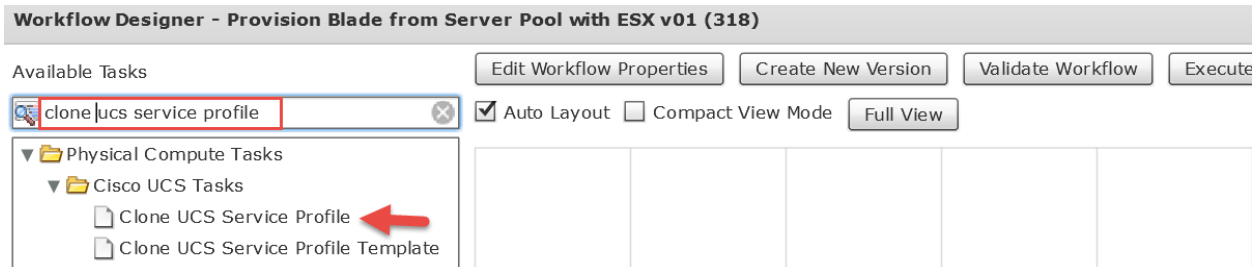
7.2. Add 'Clone UCS Service Profile' task to workflow

Open Workflow Designer for this workflow.



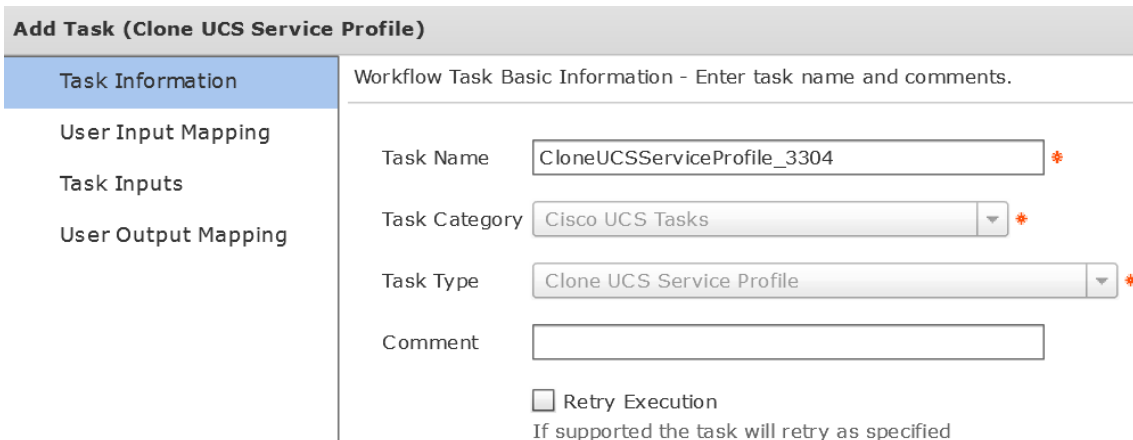
The screenshot shows the Cisco UCS Director interface. At the top, there is a navigation bar with tabs for Converged, Virtual, Physical, Organizations, Policies, and Administration. A red arrow points to the Policies tab. Below this, there is an 'Orchestration' section with a sub-tab for 'Workflows'. A red arrow points to the 'Workflows' sub-tab. Underneath, there are icons for Refresh, Favorite, Add Workflow, Export, Import, and Task. A table lists various workflows, with 'Provision Blade from Server Pool with ESX v01' selected. A context menu is open over this workflow, with a red arrow pointing to the 'Workflow Designer' option.

Enter 'Clone UCS Service Profile' in the search field on the left for Available Task. Click on and drag 'Clone UCS Service Profile' from the left to the right pane. Put it near the left side of the right pane.



The screenshot shows the 'Workflow Designer - Provision Blade from Server Pool with ESX v01 (318)' interface. At the top, there are buttons for 'Edit Workflow Properties', 'Create New Version', 'Validate Workflow', and 'Execute'. Below these, there is a search field containing 'clone ucs service profile'. A red arrow points to the search field. To the right of the search field, there are checkboxes for 'Auto Layout' and 'Compact View Mode', and a 'Full View' button. Below the search field, there is a tree view showing 'Physical Compute Tasks' and 'Cisco UCS Tasks'. Under 'Cisco UCS Tasks', there are two items: 'Clone UCS Service Profile' and 'Clone UCS Service Profile Template'. A red arrow points to 'Clone UCS Service Profile'. To the right of the tree view, there is a large empty area representing the workflow canvas.

Leave 'Workflow Task Basic Information' section default and click Next.



The screenshot shows the 'Add Task (Clone UCS Service Profile)' dialog box. On the left, there is a sidebar with tabs for 'Task Information', 'User Input Mapping', 'Task Inputs', and 'User Output Mapping'. The 'Task Information' tab is selected. The main area is titled 'Workflow Task Basic Information - Enter task name and comments.' and contains the following fields:

- Task Name: CloneUCSServiceProfile_3304 *
- Task Category: Cisco UCS Tasks *
- Task Type: Clone UCS Service Profile *
- Comment: (empty text box)
- Retry Execution
If supported the task will retry as specified

On the 'User Input Mappings to Task Input Attributes' section:

- Under Section 'Service Profile', check the 'Map to User Input' check box and from the drop down select 'Create Service Profile from Template.SERVICE_PROFILE_IDENTITY'
- Under Section 'Clone Service Profile Name', check the 'Map to User Input' check box and from the drop down select 'Server Host Name'
- Under Section 'Organization', check the 'Map to User Input' check box and from the drop down select 'Create Service Profile from Template.ORGANIZATION_IDENTITY'
- Click Next

Add Task

Task Information ✓
User Input Mapping
Task Inputs
User Output Mapping

User Input Mappings to Task Input Attributes
Select which of the following attributes you would like to use values from workflow input fields or provide the values in the

Manage Workflow User Inputs

If 'Map to User Input' is checked, inputs are prompted during workflow execution unless specified by admin in the work

Service Profile (Mandatory)
Type: UCS Service Profile Identity
 Map to User Input
User Input: Create Service Profile from Template.SERVICE_PROFILE_IDENTITY

Clone Service Profile Name (Mandatory)
Type: Generic Text Input
 Map to User Input
User Input: Server Host Name

Organization (Mandatory)
Type: UCS Organization Identity
 Map to User Input
User Input: Create Service Profile from Template.ORGANIZATION_IDENTITY

Back Next

Leave 'Provide the values for the task inputs which are not mapped to workflow inputs.' default and click Next.

Add Task (Clone UCS Service Profile)

Task Information ✓
User Input Mapping ✓
Task Inputs
User Output Mapping

Provide the values for the task inputs which are not mapped to workflow inputs.

Leave 'User Output Mappings to Task Output Attributes' default and click Submit.

Add Task (Clone UCS Service Profile)

- ✓ Task Information
- ✓ User Input Mapping
- ✓ Task Inputs
- User Output Mapping**

User Output Mappings to Task Output Attributes
Select which of the following attributes you would like to

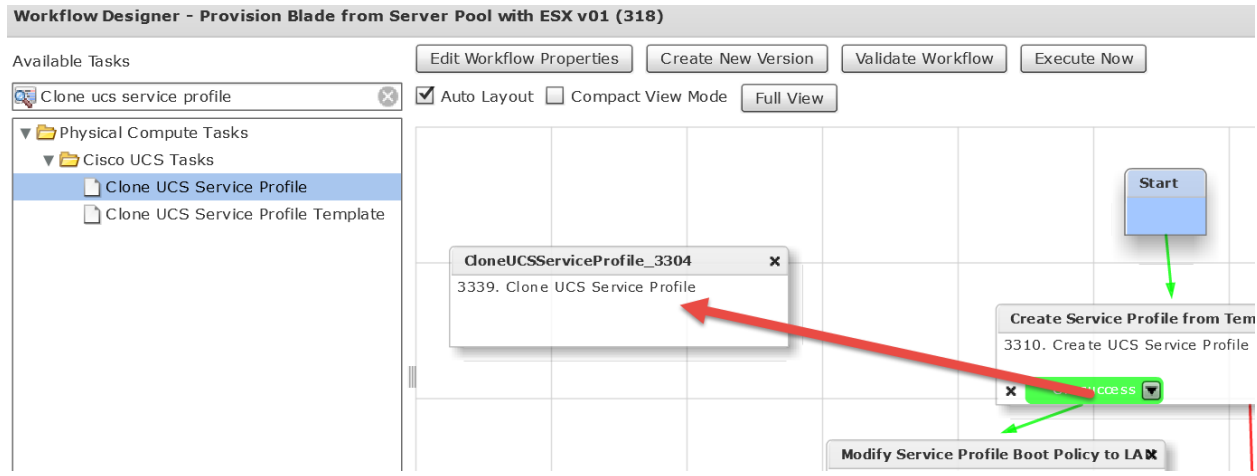
SERVICE_PROFILE_NAME
Type: gen_text_input
 Map to User Output

SERVICE_PROFILE_IDENTITY
Type: ucsServiceProfileIdentity
 Map to User Output

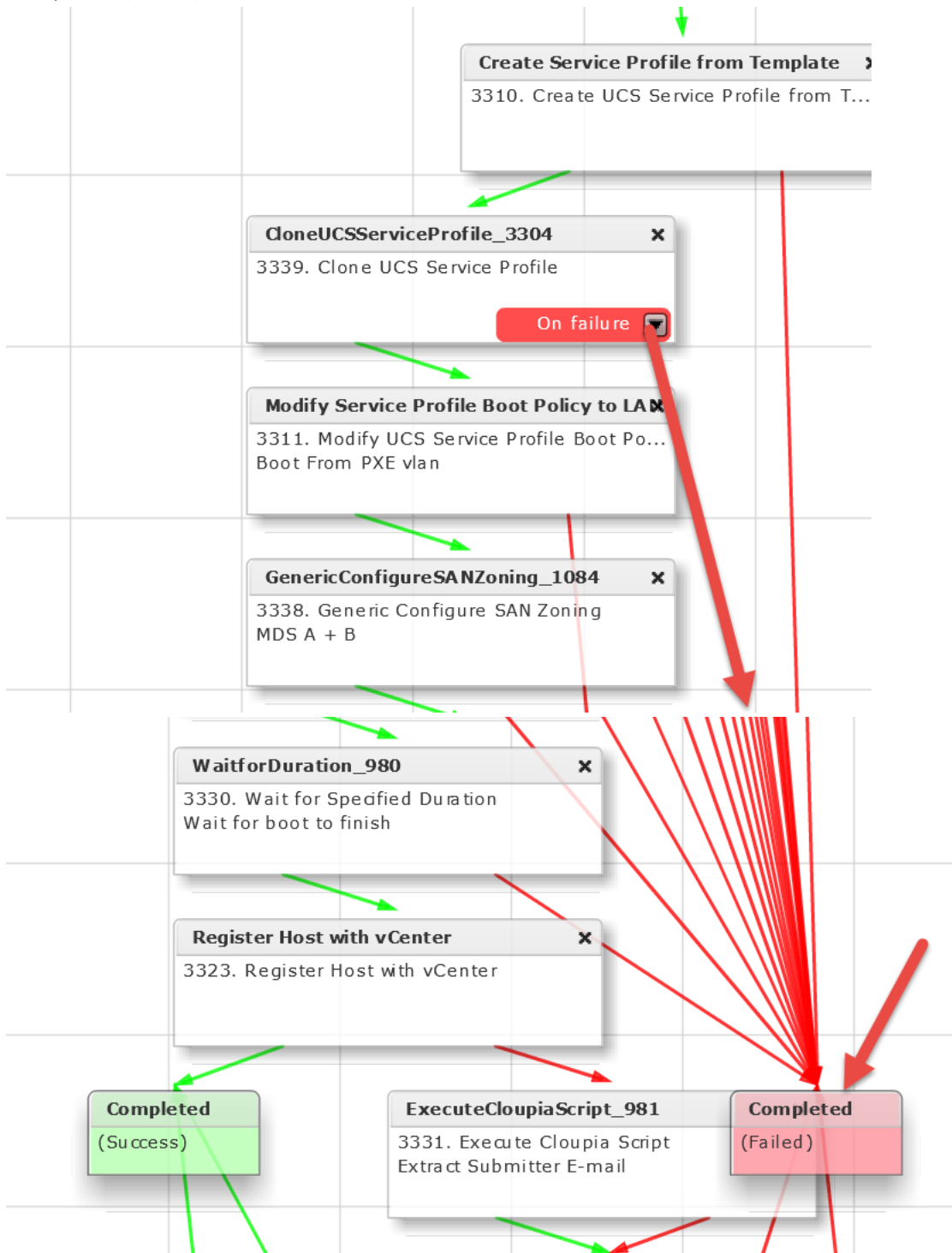
ORGANIZATION_IDENTITY
Type: ucsOrganizationIdentity
 Map to User Output

SERVICE_PROFILE_IDENTITY1
Type: ucsServiceProfileIdentity
 Map to User Output

Highlight the green box (On Success) on 'Create Service Profile from Template' task and drag the arrow to 'CloneUCSServiceProfile_3304' task. The 'CloneUCSServiceProfile_3304' task will move above the 'Modify Service Profile Boot Policy to LAN' task automatically if you have the Auto Layout check box selected.

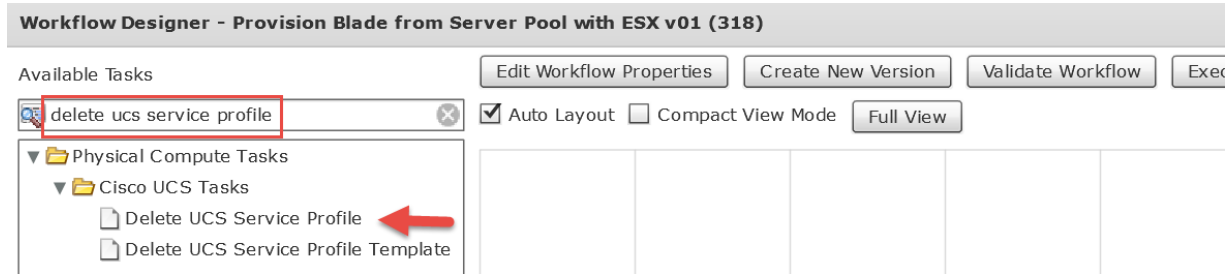


Select the red box (On Failure) for the 'CloneUCSServiceProfile_3304' task and drag the arrow all the way down to the Completed (Failed) Task as shown below.

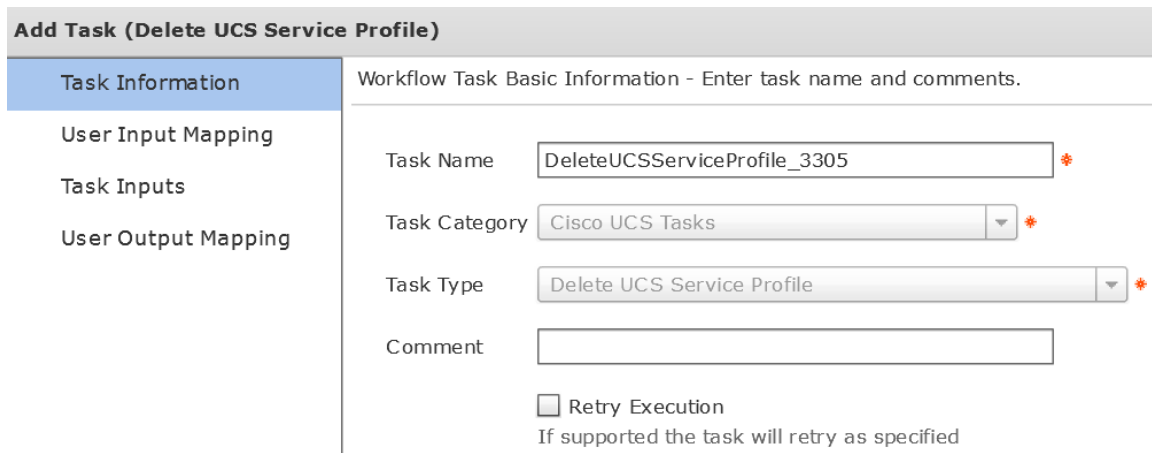


7.3. Add 'Delete UCS Service Profile' task to workflow

Scroll back to the top of the Workflow Designer. Enter 'Delete UCS Service Profile' in the search field on the left for Available Task. Click on and drag 'Delete UCS Service Profile' from the left to the right pane. Put it near the left side of the right pane.

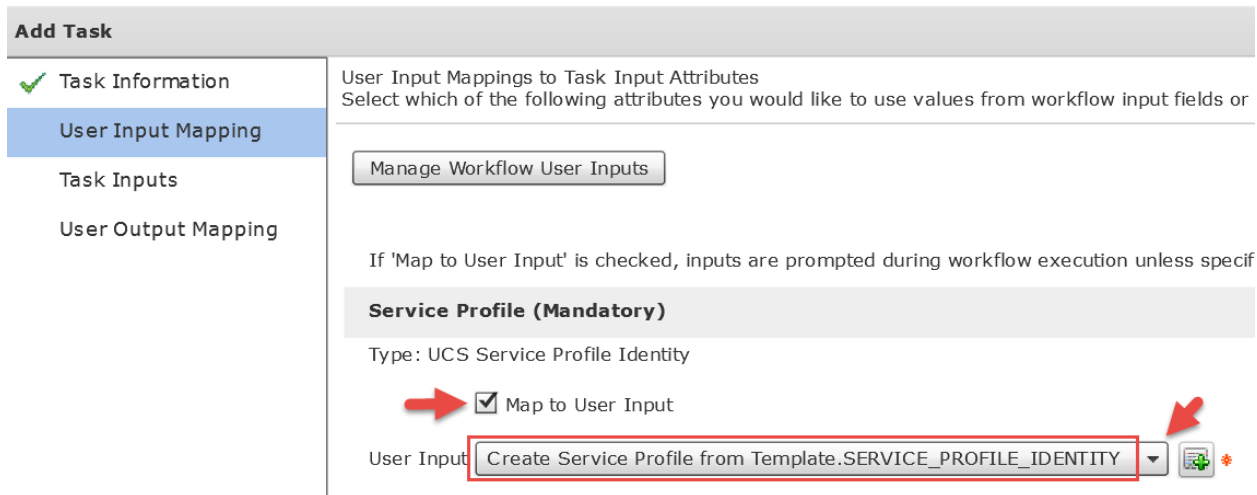


Leave 'Workflow Task Basic Information' section default and click Next.



On the 'User Input Mappings to Task Input Attributes' section:

- Under Section 'Service Profile', check the 'Map to User Input' check box and from the drop down select 'Create Service Profile from Template.SERVICE_PROFILE_IDENTITY'



Leave 'Provide the values for the task inputs which are not mapped to workflow inputs.' default and click Next.

Add Task (Delete UCS Service Profile)

- ✓ Task Information
- ✓ User Input Mapping
- Task Inputs**
- User Output Mapping

Provide the values for the task inputs which are not mapped to workflow inputs.

Leave 'User Output Mappings to Task Output Attributes' default and click Submit.

Add Task (Delete UCS Service Profile)

- ✓ Task Information
- ✓ User Input Mapping
- ✓ Task Inputs
- User Output Mapping**

User Output Mappings to Task Output Attributes
Select which of the following attributes you would like


ORGANIZATION_IDENTITY
Type: ucsOrganizationIdentity
 Map to User Output

SERVICE_PROFILE_IDENTITY
Type: ucsServiceProfileIdentity
 Map to User Output

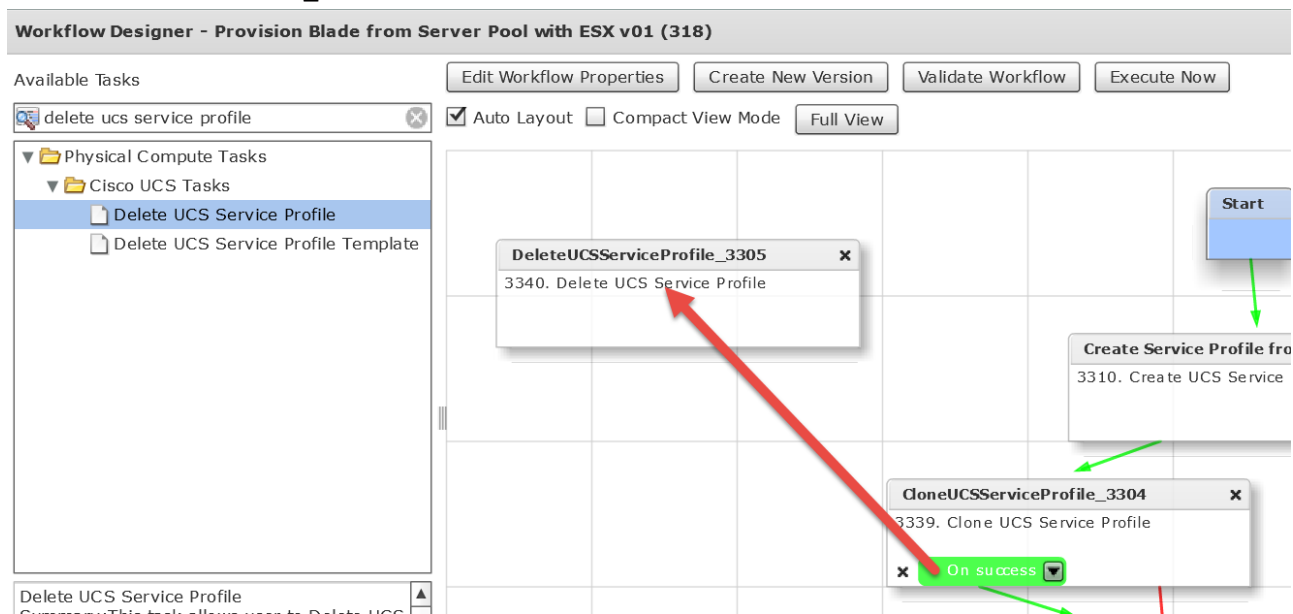
Click OK.

Submit Result

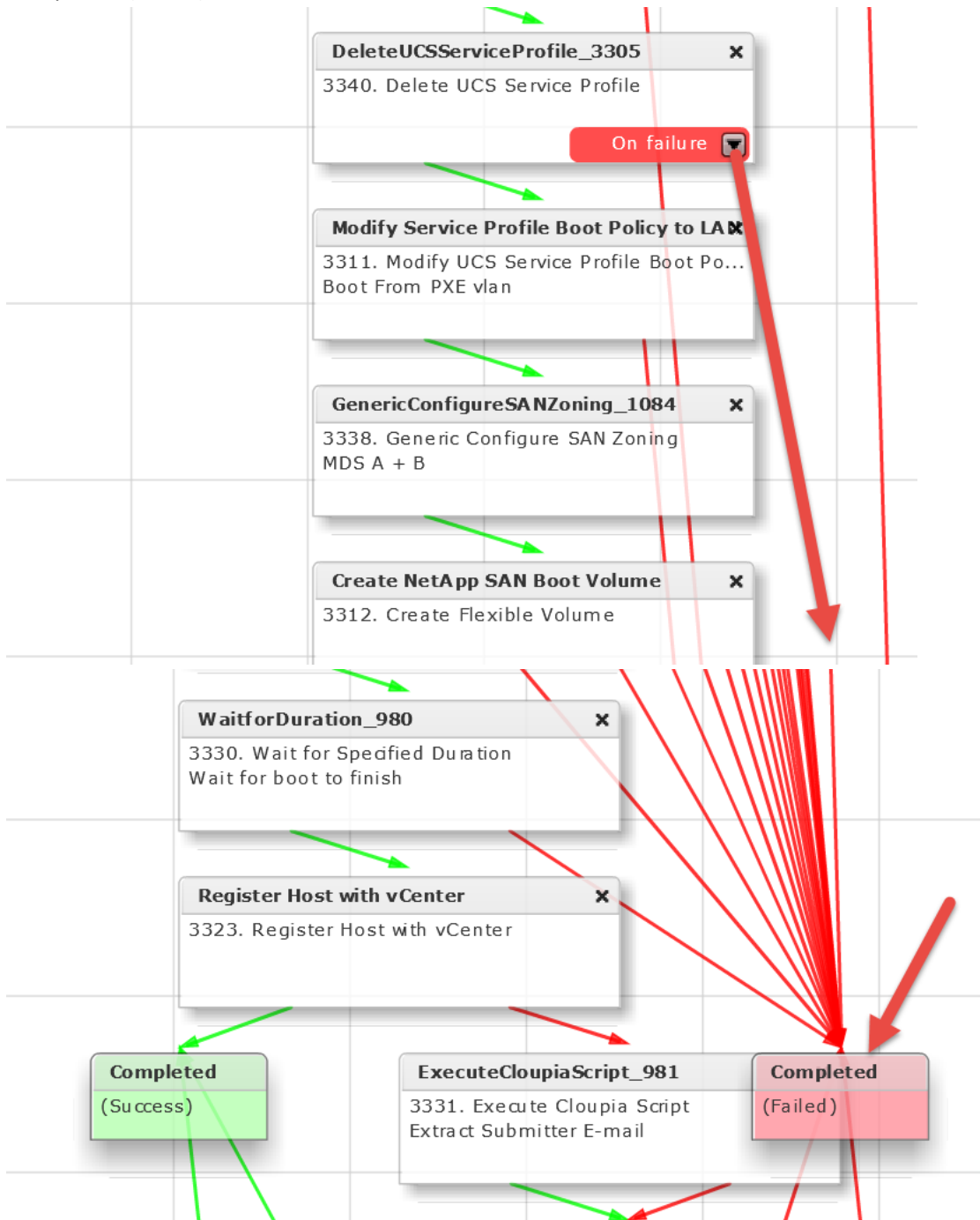
Task Saved Successfully.



Highlight the green box (On Success) on 'CloneUCSServiceProfile_3304' task and drag the arrow to 'DeleteUCSServiceProfile_3305' task.

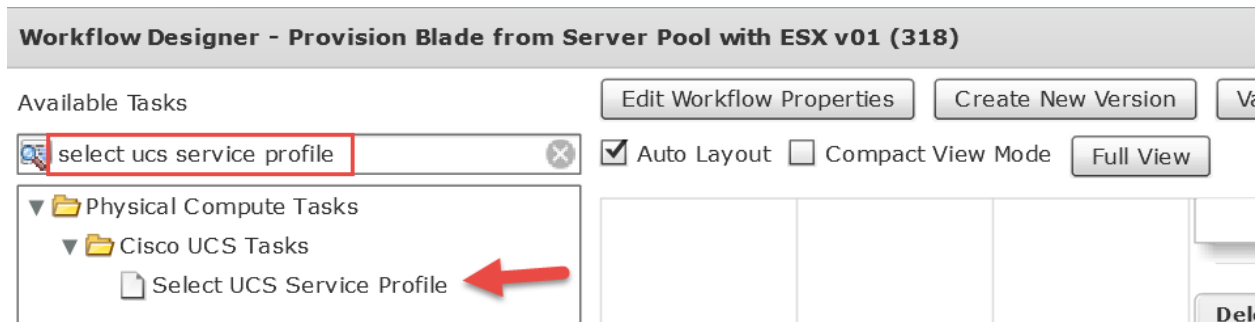


Select the red box (On Failure) for the 'DeleteUCSServiceProfile_3305' task and drag the arrow all the way down to the Completed (Failed) Task as shown below.

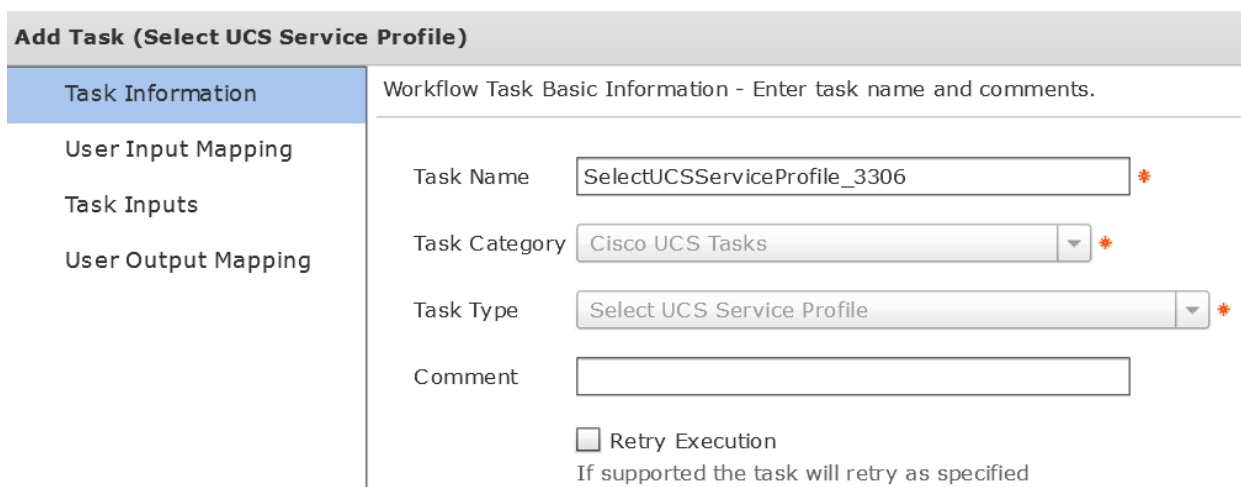


7.4. Add 'Select UCS Service Profile' task to workflow

Scroll back to the top of the Workflow Designer. Enter 'Select UCS Service Profile' in the search field on the left for Available Task. Click on and drag 'Select UCS Service Profile' from the left to the right pane. Put it near the left side of the right pane.

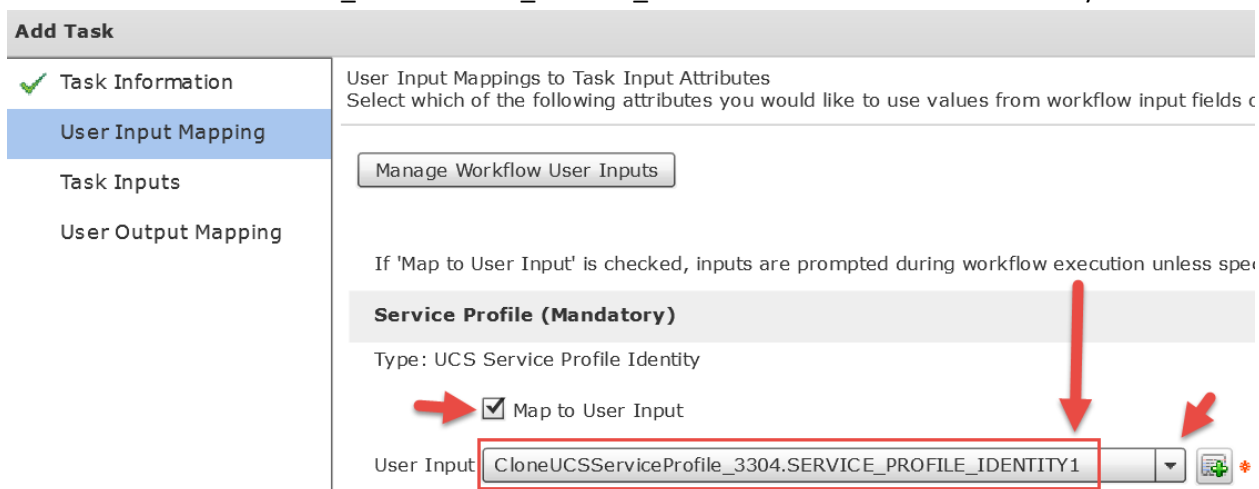


Leave 'Workflow Task Basic Information' section default and click Next.



On the 'User Input Mappings to Task Input Attributes' section:

- Under Section 'Service Profile', check the 'Map to User Input' check box and from the drop down select 'CloneUCSServiceProfile_3304.SERVICE_PROFILE_IDENTITY1' **Note:** The 1 after Identity.



Leave 'Provide the values for the task inputs which are not mapped to workflow inputs.' default and click Next.

Add Task (Select UCS Service Profile)

- ✓ Task Information
- ✓ User Input Mapping
- Task Inputs**
- User Output Mapping

Provide the values for the task inputs which are not mapped to workflow inputs.

Leave 'User Output Mappings to Task Output Attributes' default and click Submit.

Add Task (Select UCS Service Profile)

- ✓ Task Information
- ✓ User Input Mapping
- ✓ Task Inputs
- User Output Mapping**

User Output Mappings to Task Output Attributes
Select which of the following attributes you would like to use values from workflow

SERVICE_PROFILE_IDENTITY
Type: ucsServiceProfileIdentity
 Map to User Output

ACCOUNT_NAME
Type: ucsAccountName
 Map to User Output


ORGANIZATION_IDENTITY
Type: ucsOrganizationIdentity
 Map to User Output

BLADE_NETWORK_POLICY
Type: ucs blade network policy

Click OK.

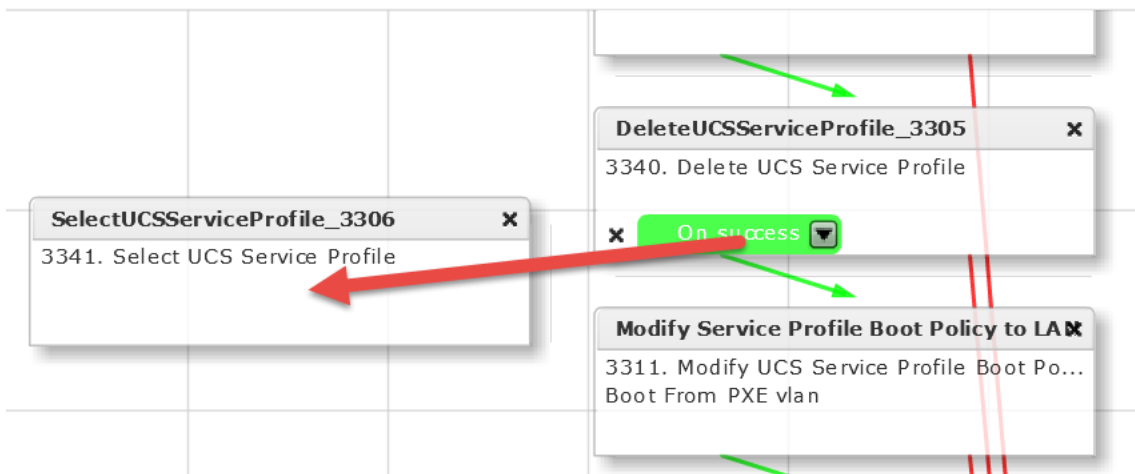
Submit Result

Task Saved Successfully.

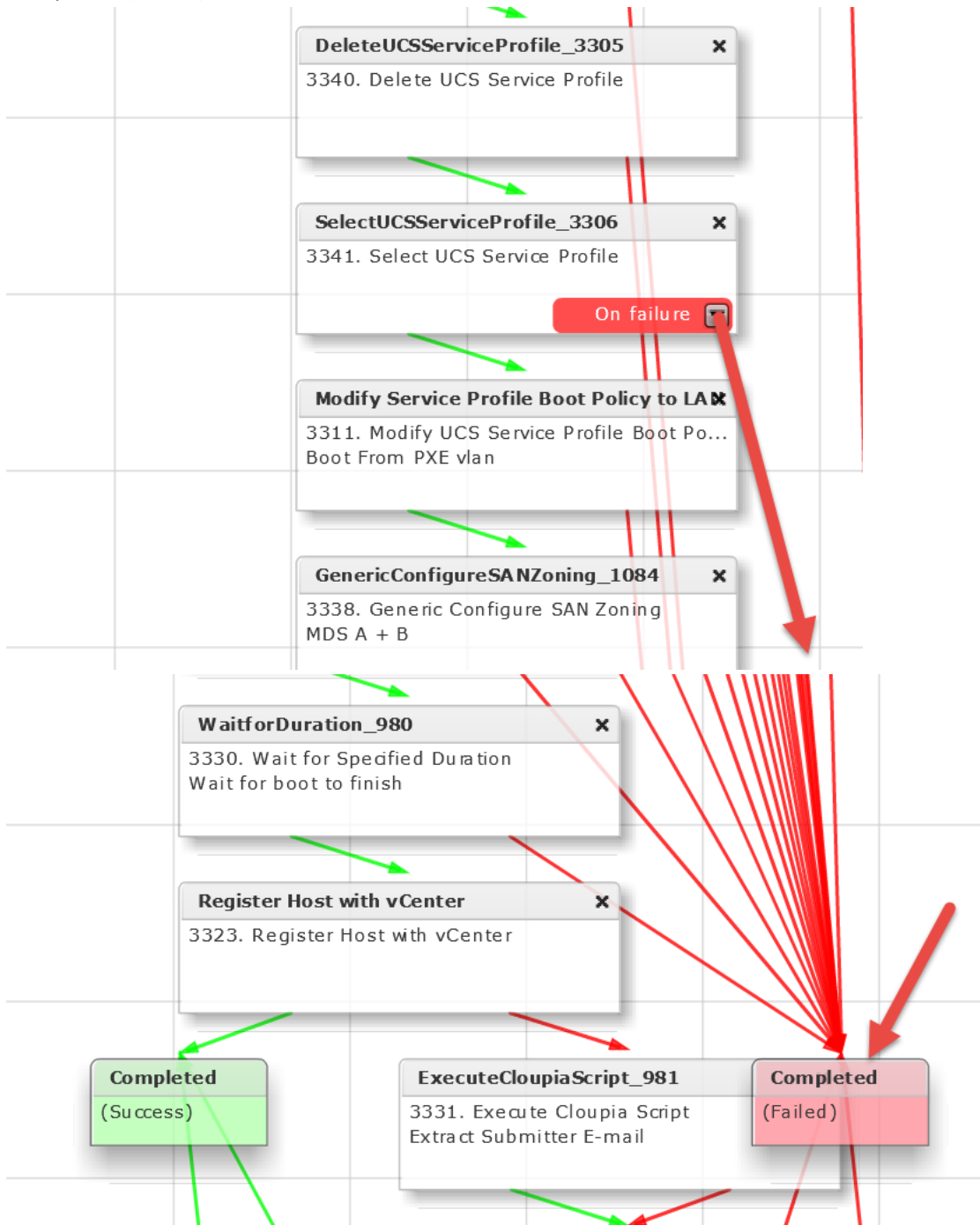


Highlight the green box (On Success) on 'DeleteUCSServiceProfile_3305' task and drag the arrow to 'SelectUCSServiceProfile_3306' task.

Auto Layout Compact view mode

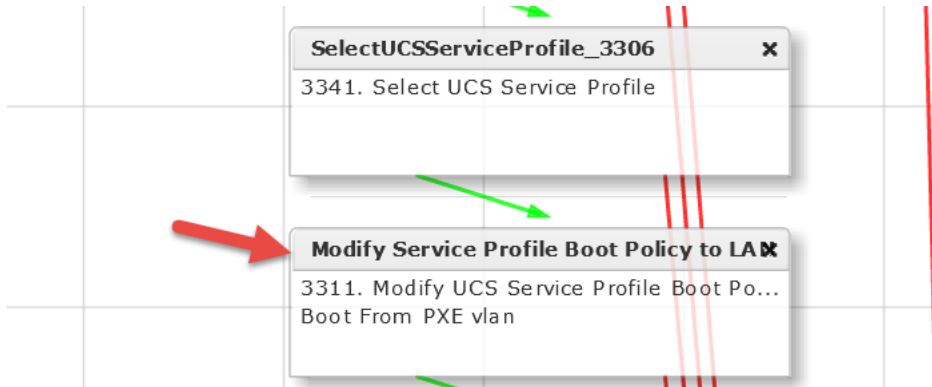


Select the red box (On Failure) for the 'SelectUCSServiceProfile_3306' task and drag the arrow all the way down to the Completed (Failed) Task as shown below.



7.5. Modify Inputs for 'Modify Service Profile Boot Policy to LAN' task

Open the 'Modify Service Profile Boot Policy to LAN' Task by double clicking on it.



Leave 'Workflow Task basic Information' default and click Next.

Edit Task (Modify UCS Service Profile Boot Policy)

Task Information

Workflow Task Basic Information

Task Name: Modify Service Profile Boot Policy to LAN

Task Category: Cisco UCS Tasks *

Task Type: Modify UCS Service Profile Boot Policy *

Comment: Boot From PXE vlan

Retry Execution
If supported the task will retry as specified

On the 'User Input Mappings to Task Input Attributes' section:

- Under Section 'Service Profile', check the 'Map to User Input' check box and from the drop down select 'SelectUCSServiceProfile_3306.SERVICE_PROFILE_IDENTITY'
- click Next

Edit Task (Modify UCS Service Profile Boot Policy)

Task Information

User Input Mapping

Task Inputs

User Output Mapping

User Input Mappings to Task Input Attributes
Select which of the following attributes you would like to use values from workflow input fields

Manage Workflow User Inputs

If 'Map to User Input' is checked, inputs are prompted during workflow execution unless spe

Service Profile (Mandatory)

Type: UCS Service Profile Identity

Map to User Input

User Input: SelectUCSServiceProfile_3306.SERVICE_PROFILE_IDENTITY *

Boot Policy (Mandatory)

Type: UCS Boot Policy Identity

Map to User Input

On the 'Provide the values for the task inputs which are not mapped to workflow inputs.' verify Boot Policy and click Next.

Edit Task (Modify UCS Service Profile Boot Policy)

- ✓ Task Information
- ✓ User Input Mapping
- Task Inputs**
- User Output Mapping

Provide the values for the task inputs which are not mapped to workflow inputs.

Revalidate

Boot Policy

Leave 'User Output Mappings to Task Output Attributes' default and click Submit.

Edit Task (Modify UCS Service Profile Boot Policy)

- ✓ Task Information
- ✓ User Input Mapping
- ✓ Task Inputs
- User Output Mapping**

User Output Mappings to Task Output Attributes
Select which of the following attributes you would like to use values from workflow output fields.

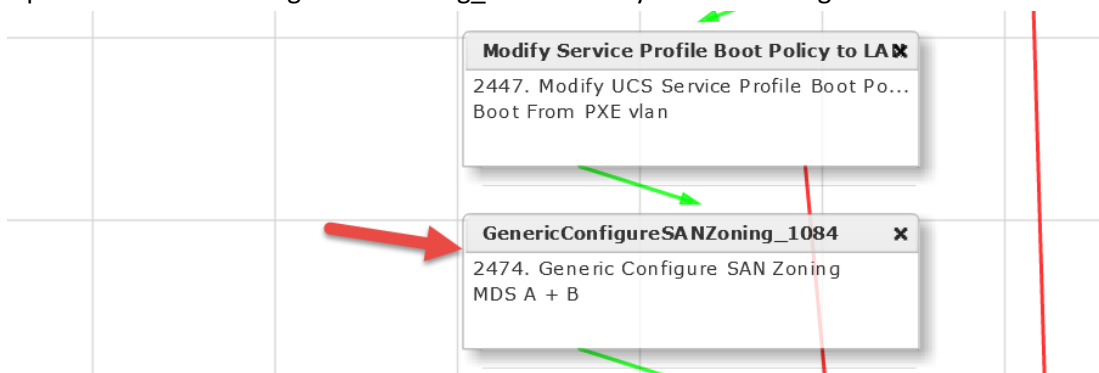
Click OK.

Submit Result

Task Saved Successfully.

7.6. Modify Task 'GenericConfigureSANZoning_1084'

Open the 'GenericConfigureSANZoning_1084' Task by double clicking on it.



Leave 'Workflow Task basic Information' default and click Next.

Edit Task (Generic Configure SAN Zoning)

Task Information	Workflow Task Basic Information
User Input Mapping	
Task Inputs	
User Output Mapping	

Task Name: GenericConfigureSANZoning_1084

Task Category: Cisco Network Tasks *

Task Type: Generic Configure SAN Zoning *

Comment: MDS A + B

Retry Execution
If supported the task will retry as specified

Change the following for 'User Input Mappings to Task Input Attributes' section:

- Service Profile section, drop down and select 'SelectUCSServiceProfile_3306.SERVICE_PROFILE_IDENTITY'
- Select vHBA section, drop down and select 'SelectUCSServiceProfile_3306.SP_VHBA1'
- VSAN ID section, drop down and select 'SelectUCSServiceProfile_3306.OUTPUT_SP_VHBA1_WWN'
- Select Mapping VSAN section, drop down and select 'SelectUCSServiceProfile_3306. OUTPUT_SP_VHBA2_WWN'
- Select vHBA section, drop down and select 'SelectUCSServiceProfile_3306.SP_VHBA2'

Edit Task (Generic Configure SAN Zoning)

Task Information

User Input Mapping

Task Inputs

User Output Mapping

User Input Mappings to Task Input Attributes
Select which of the following attributes you would like to use values from workflow input fields or provide the values in the

Manage Workflow User Inputs

If 'Map to User Input' is checked, inputs are prompted during workflow execution unless specified by admin in the workflow

Service Profile (Mandatory)

Type: UCS Service Profile Identity

Map to User Input

User Input: SelectUCSServiceProfile_3306.SERVICE_PROFILE_IDENTITY *

Select vHBA (Mandatory)

Type: Generic Text Input

Map to User Input

User Input: SelectUCSServiceProfile_3306.SP_VHBA1 *

VSAN ID

Type: Generic Text Input

Map to User Input

User Input: SelectUCSServiceProfile_3306.OUTPUT_SP_VHBA1_WWN *

Select Mapping VSAN (Mandatory)

Type: Generic Text Input

Map to User Input

User Input: SelectUCSServiceProfile_3306.OUTPUT_SP_VHBA2_WWN *

Select vHBA (Mandatory)

Type: Generic Text Input

Map to User Input

User Input: SelectUCSServiceProfile_3306.SP_VHBA2 *

The 'Provide the values for the task inputs which are not mapped to workflow inputs.' should already be configured correctly. Verify and Click Next.

Edit Task

- ✓ Task Information
- ✓ User Input Mapping
- Task Inputs**
- User Output Mapping

Provide the values for the task inputs which are not mapped to workflow inputs.

Configure One to One zones

Activate Zone Set

Commit Zone

Fabric A

Device Alias Fab A vHBA
Device Alias name for Fab A.

Zone Name
Zone Name to configure for the Fabric A.

Storage Account Type

Storage Account Name (Primary)

Storage FC Adapter (Primary)

Device Alias FC Adapter
Device Alias name for the FC Adapter.

Configure Secondary Head

Select Device

Configure Fabric B

Fabric B

Device Alias Fab B vHBA
Device Alias name.

VSAN ID
VSAN ID associated with selected vHBA

Zone Name
Zone Name to configure for the Fabric B.

Storage Account Type

Storage Account Name (Primary)

Storage FC Adapter (Primary)

Device Alias FC Adapter
Device Alias name for the FC Adapter.

Configure Secondary Head

Select Device

Copy Running configuration to Startup configuration

Leave 'User Output Mappings to Task Output Attributes' default and click Submit.

Edit Task (Generic Configure SAN Zoning)

- ✓ Task Information
- ✓ User Input Mapping
- ✓ Task Inputs
- User Output Mapping**

User Output Mappings to Task Output Attributes
Select which of the following attributes you would like to use values from workflow output fields.

FABRIC_A_ZONESET_NAME
Type: gen_text_input
 Map to User Output

OUTPUT_FAB_A_ZONE_1_NAME
Type: gen_text_input
 Map to User Output

Click OK.

Submit Result

Task Saved Successfully.

←

7.7. Modify 'Add NetApp Initiator to Initiator Group' Fabric A Task

Open the 'Add NetApp Initiator to Initiator Group' Task by double clicking on it. In this section, we are adding the Fabric A vHBA of the Blade server to the Initiator Group.



Leave 'Workflow Task basic Information' default and click Next.

Edit Task (Add Initiator to Initiator Group)

Task Information

User Input Mapping

Task Inputs

User Output Mapping

Workflow Task Basic Information

Task Name: Add NetApp Initiator to Initiator Group

Task Category: NetApp ONTAP Tasks *

Task Type: Add Initiator to Initiator Group *

Comment:

Retry Execution
If supported the task will retry as specified

On the 'User Input Mappings to Task Input Attributes' section, use the drop down and select 'SelectUCSServiceProfile_3306.SP_VHBA1_WWPN'. Click Next.

Edit Task (Add Initiator to Initiator Group)

✓ Task Information

User Input Mapping

Task Inputs

User Output Mapping

User Input Mappings to Task Input Attributes
Select which of the following attributes you would like to use values from workflow input fields or provide the values in

Manage Workflow User Inputs

If 'Map to User Input' is checked, inputs are prompted during workflow execution unless specified by admin in the w

Initiator Group Name (Mandatory)

Type: NetApp Initiator Group Identity

Map to User Input

User Input: Create NetApp Initiator Group.OUTPUT_IGROUP_IDENTITY

Initiator Name (Mandatory)

Type: Generic Text Input

Map to User Input

User Input: SelectUCSServiceProfile_3306.SP_VHBA1_WWPN

Leave 'Provide the values for the task inputs which are not mapped to workflow inputs' default and select Next.

Edit Task (Add Initiator to Initiator Group)

✓ Task Information

✓ User Input Mapping

Task Inputs

User Output Mapping

Provide the values for the task inputs which are not mapped to workflow inputs.

Revalidate

Force

Leave 'User Output Mappings to Task Output Attributes' default and click Submit.

Edit Task (Add Initiator to Initiator Group)

✓ Task Information

✓ User Input Mapping

✓ Task Inputs

User Output Mapping

User Output Mappings to Task Output Attributes
Select which of the following attributes you would like to use values from workflow output fields.

DATACENTER

Type: datacenterName

Map to User Output

ACCOUNT_NAME

Type: accountName

Map to User Output

Click OK.

Submit Result

Task Saved Successfully.



OK

7.8. Modify 'Add NetApp Initiator to Initiator Group' Fabric B Task

Open the second 'Add NetApp Initiator to Initiator Group' Task by double clicking on it. In this section, we are adding the Fabric B vHBA of the Blade server to the Initiator Group.



Leave 'Workflow Task basic Information' default and click Next.

Edit Task (Add Initiator to Initiator Group)

Task Information	Workflow Task Basic Information
User Input Mapping	Task Name Add Initiator to Initiator Group
Task Inputs	Task Category <input type="text" value="NetApp ONTAP Tasks"/>
User Output Mapping	Task Type <input type="text" value="Add Initiator to Initiator Group"/>
	Comment <input type="text"/>
	<input type="checkbox"/> Retry Execution If supported the task will retry as specified

On the 'User Input Mappings to Task Input Attributes' section, use the drop down and select 'SelectUCSServiceProfile_3306.SP_VHBA2_WWPN'. Click Next.

Edit Task (Add Initiator to Initiator Group)

Task Information	User Input Mappings to Task Input Attributes
User Input Mapping	Select which of the following attributes you would like to use values from workflow input fields or provide the values in t
Task Inputs	<input type="button" value="Manage Workflow User Inputs"/>
User Output Mapping	If 'Map to User Input' is checked, inputs are prompted during workflow execution unless specified by admin in the wc
	Initiator Group Name (Mandatory) Type: NetApp Initiator Group Identity <input checked="" type="checkbox"/> Map to User Input User Input <input type="text" value="Create NetApp Initiator Group.OUTPUT_IGROUP_IDENTITY"/>
	Initiator Name (Mandatory) Type: Generic Text Input <input checked="" type="checkbox"/> Map to User Input User Input <input type="text" value="SelectUCSServiceProfile_3306.SP_VHBA2_WWPN"/>

Leave 'Provide the values for the task inputs which are not mapped to workflow inputs' default and select Next.

Edit Task (Add Initiator to Initiator Group)

- ✓ Task Information
- ✓ User Input Mapping
- Task Inputs**
- User Output Mapping

Provide the values for the task inputs which are not mapped to workflow inputs.

Force

Leave 'User Output Mappings to Task Output Attributes' default and click Submit.

Edit Task (Add Initiator to Initiator Group)

- ✓ Task Information
- ✓ User Input Mapping
- ✓ Task Inputs
- User Output Mapping**

User Output Mappings to Task Output Attributes
Select which of the following attributes you would like to use values from workflow output fields.


DATACENTER
Type: datacenterName
 Map to User Output

ACCOUNT_NAME
Type: accountName
 Map to User Output

Click OK.

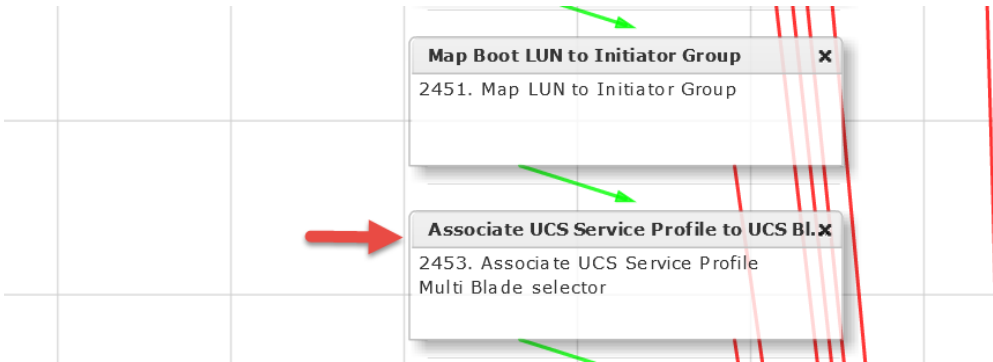
Submit Result

Task Saved Successfully.



7.9. Modify 'Associate UCS Service Profile to UCS Blade' Task

Open the 'Associate UCS Service Profile to UCS Blade' Task by double clicking on it.



Leave 'Workflow Task basic Information' default and click Next.

Edit Task (Associate UCS Service Profile)

Task Information

User Input Mapping

Task Inputs

User Output Mapping

Workflow Task Basic Information

Task Name Associate UCS Service Profile to UCS Blade

Task Category Cisco UCS Tasks *

Task Type Associate UCS Service Profile *

Comment Multi Blade selector

Retry Execution
If supported the task will retry as specified

On the 'User Input Mappings to Task Input Attributes' section, drop down and select 'SelectUCSServiceProfile_3306.SERVICE_PROFILE_IDENTITY'.

Edit Task (Associate UCS Service Profile)

Task Information

User Input Mapping

Task Inputs

User Output Mapping

User Input Mappings to Task Input Attributes
Select which of the following attributes you would like to use values from workflow input fields o

Manage Workflow User Inputs

If 'Map to User Input' is checked, inputs are prompted during workflow execution unless spec

Service Profile (Mandatory)

Type: UCS Service Profile Identity

Map to User Input

User Input SelectUCSServiceProfile_3306.SERVICE_PROFILE_IDENTITY *

Server (Mandatory)

Type: UCS Server Identity

Map to User Input

Server Pool (Mandatory)

Type: UCS Server Pool Identity

Map to User Input

User Input POD4_ESXi_Server_Pool *

Verify 'Include Servers' is selected for 'Server Selection Scope' on the 'Provide the values for the task inputs which are not mapped to workflow inputs' section and click Next.

Edit Task (Associate UCS Service Profile)

- ✓ Task Information
- ✓ User Input Mapping
- Task Inputs**
- User Output Mapping

Provide the values for the task inputs which are not mapped to workflow inputs.

Revalidate

Server Selection Scope: **Include Servers** ▼

Leave 'User Output Mappings to Task Output Attributes' default and click Submit.

Edit Task (Associate UCS Service Profile)

- ✓ Task Information
- ✓ User Input Mapping
- ✓ Task Inputs
- User Output Mapping**

User Output Mappings to Task Output Attributes
Select which of the following attributes you would like to map to user output.


OUTPUT_UCS_BLADE_MAC_ADDRESS
Type: gen_text_input
 Map to User Output

SERVER_IDENTITY
Type: ucsServerIdentity
 Map to User Output

Click OK.

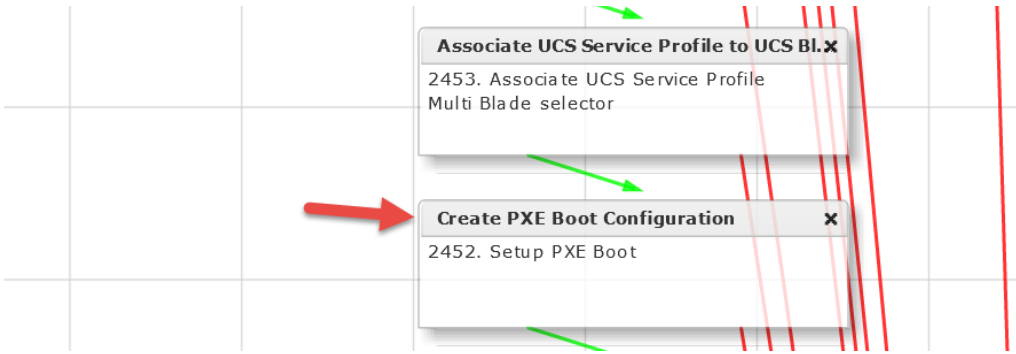
Submit Result

Task Saved Successfully.



7.10. Modify 'Create PXE Boot Configuration' Task

Open the 'Create PXE Boot Configuration' Task by double clicking on it.



Leave 'Workflow Task basic Information' default and click Next.

Edit Task (Setup PXE Boot)

Task Information	Workflow Task Basic Information
User Input Mapping	Task Name: Create PXE Boot Configuration
Task Inputs	Task Category: Network Services Tasks
User Output Mapping	Task Type: Setup PXE Boot
	Comment: <input type="text"/>
	<input type="checkbox"/> Retry Execution If supported the task will retry as specified

On the 'User Input Mappings to Task Input Attribute' section, select the drop down and choose 'SelectUCSServiceProfile_3306.OUTPUT_UCS_BLADE_MAC_ADDRESS'. Click Next.

Edit Task (Setup PXE Boot)

Task Information ✓

User Input Mapping

Task Inputs

User Output Mapping

User Input Mappings to Task Input Attributes
Select which of the following attributes you would like to use values from workflow input fields or provide the values in th

Manage Workflow User Inputs

If 'Map to User Input' is checked, inputs are prompted during workflow execution unless specified by admin in the wor

OS Type (Mandatory)
Type: Generic Text Input
 Map to User Input

Server MAC Address (Mandatory)
Type: Generic Text Input
 Map to User Input
User Input: SelectUCSServiceProfile_3306.OUTPUT_UCS_BLADE_MAC_ADDRESS

Server Address (Mandatory)
Type: Generic Text Input
 Map to User Input
User Input: ESXi Host IP Address

Verify the details on the 'Provide the values for the task inputs which are not mapped to workflow inputs.' section and click Next.

Edit Task (Setup PXE Boot)

Provide the values for the task inputs which are not mapped to workflow inputs.

Revalidate

OS Type: ESXi-5.1.0-custom-Cisco-5.1.3.2 *

Server Name Server: 172.17.80.104

Management VLAN: 84

Timezone: US/Central *

Network Configurations

IP Address	Subnet Mask

Leave 'User Output Mappings to Task Output Attributes' default and click Submit.

Edit Task (Setup PXE Boot)

Task Information ✓

User Input Mapping ✓

Task Inputs ✓

User Output Mapping

User Output Mappings to Task Output Attributes
Select which of the following attributes you would like to use

OUTPUT_PXE_BOOT_ID
Type: gen_text_input
 Map to User Output

OUTPUT_HOST_IP_ADDRESS
Type: gen_text_input
 Map to User Output

Click OK.

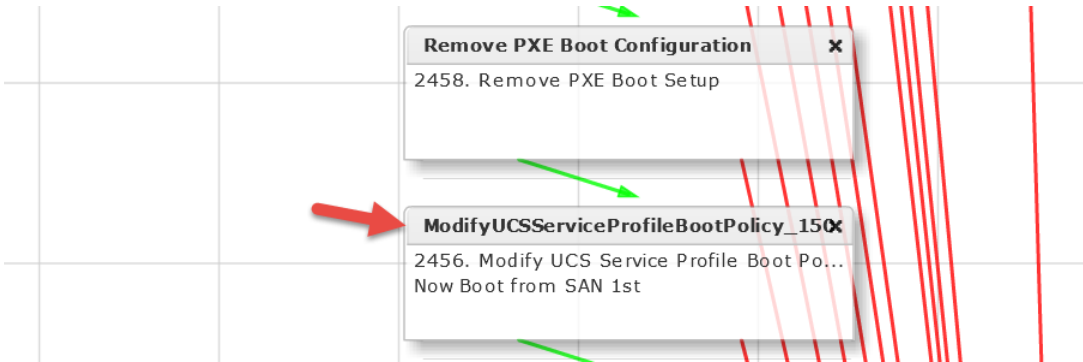
Submit Result

Task Saved Successfully.



7.11. Modify 'ModifyUCSServiceProfileBootPolicy_150' Task

Open the 'ModifyUCSServiceProfileBootPolicy_150' Task by double clicking on it.



Leave 'Workflow Task basic Information' default and click Next.

Edit Task (Modify UCS Service Profile Boot Policy)

Task Information | Workflow Task Basic Information

User Input Mapping

Task Inputs

User Output Mapping

Task Name: ModifyUCSServiceProfileBootPolicy_150

Task Category: Cisco UCS Tasks *

Task Type: Modify UCS Service Profile Boot Policy *

Comment: Now Boot from SAN 1st

Retry Execution
If supported the task will retry as specified

On the 'User Input Mappings to Task Input Attribute' section drop down and select 'SelectUCSServiceProfile_3306.SERVICE_PROFILE_IDENTITY' and click Next.

Edit Task (Modify UCS Service Profile Boot Policy)

✓ Task Information

User Input Mapping | User Input Mappings to Task Input Attributes
Select which of the following attributes you would like to use values from workflow input fields o

Task Inputs

User Output Mapping

Manage Workflow User Inputs

If 'Map to User Input' is checked, inputs are prompted during workflow execution unless spec

Service Profile (Mandatory)

Type: UCS Service Profile Identity

Map to User Input

User Input: SelectUCSServiceProfile_3306.SERVICE_PROFILE_IDENTITY *

Boot Policy (Mandatory)

Type: UCS Boot Policy Identity

Map to User Input

Verify Boot from SAN Policy is correct and click Next.

Edit Task (Modify UCS Service Profile Boot Policy)

✓ Task Information	Provide the values for the task inputs which are not mapped to workflow inputs.
✓ User Input Mapping	
Task Inputs	
User Output Mapping	

Revalidate

Boot Policy

Nothing to change on the 'User Output Mappings to Task Output Attributes' section so click Submit.


Edit Task (Modify UCS Service Profile Boot Policy)

✓ Task Information	User Output Mappings to Task Output Attributes Select which of the following attributes you would like to use values from workflow output fields.
✓ User Input Mapping	
✓ Task Inputs	
User Output Mapping	

Click OK.

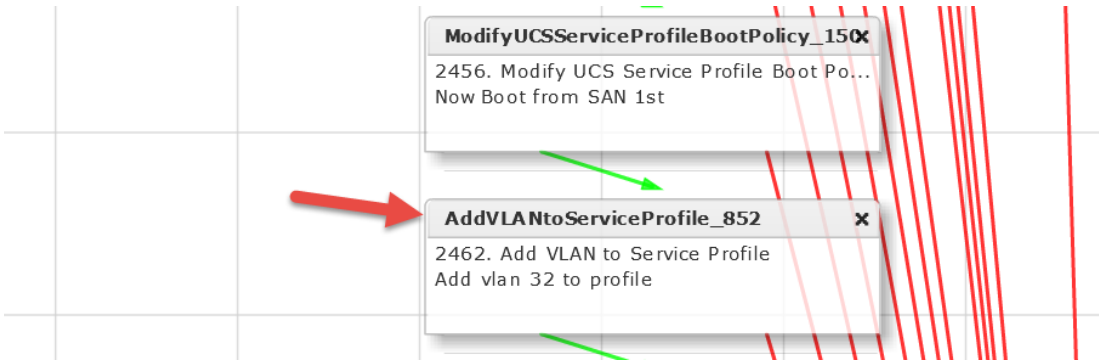
Submit Result

Task Saved Successfully.



7.12. Modify 'AddVLANtoServiceProfile_852' Task

Open the 'AddVLANtoServiceProfile_852' Task by double clicking on it.



Leave 'Workflow Task basic Information' default and click Next. You can change the Comment to match your VLAN ID or leave it as is.

Edit Task (Add VLAN to Service Profile)

Task Information Workflow Task Basic Information

User Input Mapping

Task Inputs

User Output Mapping

Task Name AddVLANtoServiceProfile_852

Task Category Cisco UCS Tasks *

Task Type Add VLAN to Service Profile *

Comment Add vlan 84 to profile

Retry Execution
If supported the task will retry as specified

On the 'User Input Mappings to Task Input Attribute' section drop down and select 'SelectUCSServiceProfile_3306.SERVICE_PROFILE_IDENTITY' and click Next.

Edit Task (Add VLAN to Service Profile)

Task Information

User Input Mapping

Task Inputs

User Output Mapping

User Input Mappings to Task Input Attributes
Select which of the following attributes you would like to use values from workflow input fields or provi

Manage Workflow User Inputs

If 'Map to User Input' is checked, inputs are prompted during workflow execution unless specified by

Service Profile (Mandatory)

Type: UCS Service Profile Identity

Map to User Input

User Input SelectUCSServiceProfile_3306.SERVICE_PROFILE_IDENTITY *

vNICs (Mandatory)

Leave 'Provide the values for the task inputs which are not mapped to the workflow inputs.' section default and click Next.

Edit Task (Add VLAN to Service Profile)

- ✓ Task Information
- ✓ User Input Mapping
- Task Inputs**
- User Output Mapping

Provide the values for the task inputs which are not mapped to workflow inputs.

Revalidate

Add VLAN to selected vNICs

VLAN Type

Common/Global VLANs

Set as Native VLAN

Leave 'User Output Mappings to Task Output Attributes' section default and click Submit.

Edit Task (Add VLAN to Service Profile)

- ✓ Task Information
- ✓ User Input Mapping
- ✓ Task Inputs
- User Output Mapping**

User Output Mappings to Task Output Attributes
Select which of the following attributes you would like to map to user output.


SERVICE_PROFILE_IDENTITY
Type: ucsServiceProfileIdentity
 Map to User Output

OUTPUT_VLAN_IDENTITY1
Type: ucsVlanIdentity

Click OK.

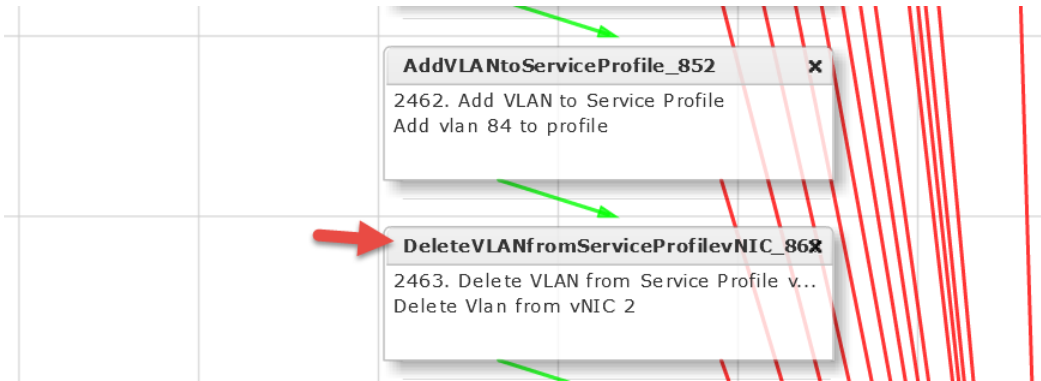
Submit Result

Task Saved Successfully.



7.13. Modify 'DeleteVLANfromServiceProfilevNIC_862' Task

Open the 'DeleteVLANfromServiceProfilevNIC_862' Task by double clicking on it.



Leave 'Workflow Task basic Information' default and click Next. Here we are deleting the PXE VLAN from vNIC 2.

Edit Task (Delete VLAN from Service Profile vNIC)

Task Information

Workflow Task Basic Information

Task Name DeleteVLANfromServiceProfilevNIC_862

Task Category Cisco UCS Tasks *

Task Type Delete VLAN from Service Profile vNIC *

Comment Delete PXE Vlan from vNIC 2

Retry Execution
If supported the task will retry as specified

On the 'User Input Mappings to Task Input Attribute' section drop down and select 'SelectUCSServiceProfile_3306.OUTPUT_SP_VNIC_IDENTITY2' and click Next.

Edit Task (Delete VLAN from Service Profile vNIC)

Task Information

User Input Mapping

User Input Mappings to Task Input Attributes
Select which of the following attributes you would like to use values from workflow input fields or p

Manage Workflow User Inputs

If 'Map to User Input' is checked, inputs are prompted during workflow execution unless specifie

Service Profile vNIC (Mandatory)

Type: UCS Service Profile vNIC Identity

Map to User Input

User Input SelectUCSServiceProfile_3306.OUTPUT_SP_VNIC_IDENTITY2 *

VLAN (Mandatory)

Type: UCS VLAN

Map to User Input

Verify the PXE VLAN is Selected and click Next.

Edit Task (Delete VLAN from Service Profile vNIC)

✓ Task Information

✓ User Input Mapping

Task Inputs

User Output Mapping

Provide the values for the task inputs which are not mapped to workflow inputs.

Revalidate

Select VLAN

Leave 'User Output Mappings to Task Output Attributes' section default and click Submit.

Edit Task (Delete VLAN from Service Profile vNIC)

✓ Task Information

✓ User Input Mapping

✓ Task Inputs

User Output Mapping

User Output Mappings to Task Output Attributes
Select which of the following attributes you would like to use values from workflow output fields.

OUTPUT_VLAN_IDENTITY


Type: ucsVlanIdentity

Map to User Output

Click OK.

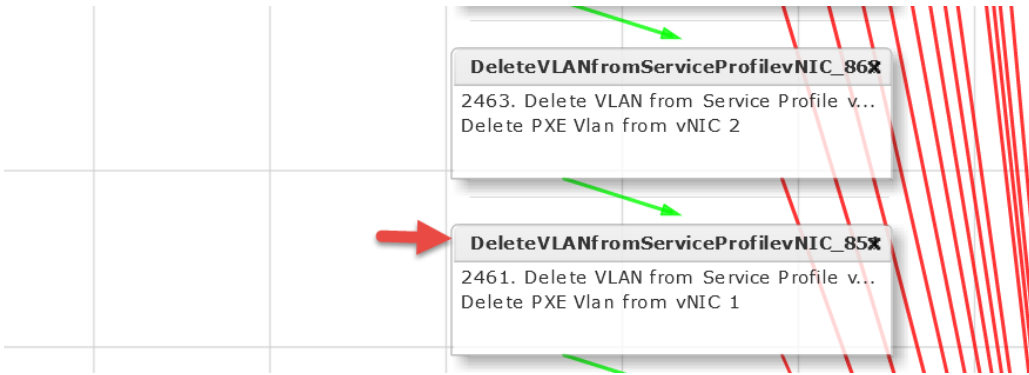
Submit Result

Task Saved Successfully.



7.14. Modify 'DeleteVLANfromServiceProfilevNIC_852' Task

Open the 'DeleteVLANfromServiceProfilevNIC_852' Task by double clicking on it.



Leave 'Workflow Task basic Information' default and click Next. Here we are deleting the PXE VLAN from vNIC 1.

Edit Task (Delete VLAN from Service Profile vNIC)

Task Information	Workflow Task Basic Information
User Input Mapping	Task Name DeleteVLANfromServiceProfilevNIC_851
Task Inputs	Task Category Cisco UCS Tasks *
User Output Mapping	Task Type Delete VLAN from Service Profile vNIC *
	Comment Delete PXE Vlan from vNIC 1
	<input type="checkbox"/> Retry Execution If supported the task will retry as specified

On the 'User Input Mappings to Task Input Attribute' section drop down and select 'SelectUCSServiceProfile_3306.OUTPUT_SP_VNIC_IDENTITY1' and click Next.

Edit Task (Delete VLAN from Service Profile vNIC)

<input checked="" type="checkbox"/> Task Information	User Input Mappings to Task Input Attributes Select which of the following attributes you would like to use values from workflow input fields or p
User Input Mapping	<input type="button" value="Manage Workflow User Inputs"/>
Task Inputs	If 'Map to User Input' is checked, inputs are prompted during workflow execution unless specific
User Output Mapping	
	Service Profile vNIC (Mandatory) Type: UCS Service Profile vNIC Identity <input checked="" type="checkbox"/> Map to User Input
	User Input <input type="text" value="SelectUCSServiceProfile_3306.OUTPUT_SP_VNIC_IDENTITY1"/> *
	VLAN (Mandatory) Type: UCS VLAN <input type="checkbox"/> Map to User Input

Verify PXE VLAN is selected and click Next.

Edit Task (Delete VLAN from Service Profile vNIC)

- ✓ Task Information
- ✓ User Input Mapping
- Task Inputs**
- User Output Mapping

Provide the values for the task inputs which are not mapped to workflow inputs.

Revalidate

Select VLAN

Leave 'User Output Mappings to Task Output Attributes' section default and click Submit.

Edit Task (Delete VLAN from Service Profile vNIC)

- ✓ Task Information
- ✓ User Input Mapping
- ✓ Task Inputs
- User Output Mapping**

User Output Mappings to Task Output Attributes
Select which of the following attributes you would like to use values from workflow output fields.

OUTPUT_VLAN_IDENTITY


Type: ucsVlanIdentity

Map to User Output

Click OK.

Submit Result

Task Saved Successfully.



7.15. Validate and Execute workflow

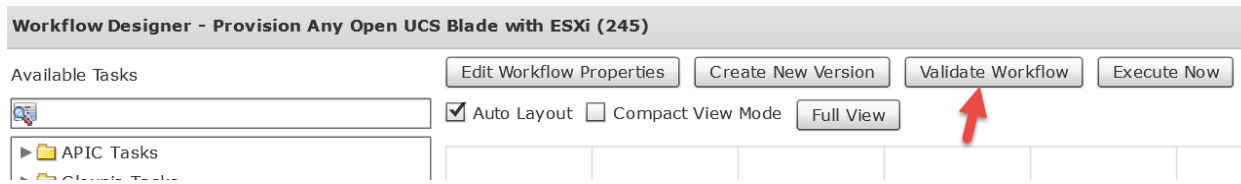
Validate workflow.

Workflow Designer - Provision Any Open UCS Blade with ESXi (245)

Available Tasks

Auto Layout Compact View Mode


APIC Tasks
Cloudia Tasks

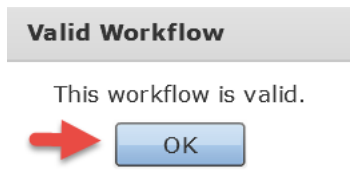


Click OK.

Valid Workflow

This workflow is valid.





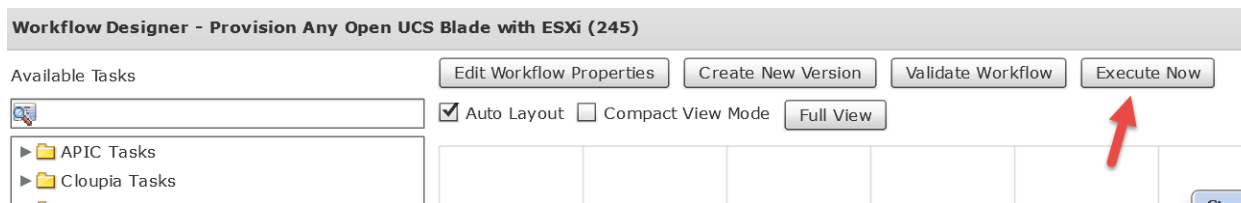
Execute the workflow.

Workflow Designer - Provision Any Open UCS Blade with ESXi (245)

Available Tasks

Auto Layout Compact View Mode

APIC Tasks
Cloudia Tasks



Enter a Host Name for the ESXi Server, Select the vCenter/Cloud and enter IP Address, Subnet Mask and Gateway then click Submit.

Executing Workflow: Provision Blade from Server Pool with ESX v01

Workflow Version:

0 (default version)  *

Baremetal ESXi from Server Pool

ESXi Host Manual IP assignment

SP Name = ESXi Host Name

Server Host Name *

Cloud  *

ESXi Host IP Address *

ESXi Host Subnet Mask *

ESXi Host Gateway *

Click Show Detail Status.

Service Request Submit Status

Service request is submitted successfully ID 227



Show Detail Status

Close

Verify Completed Successfully Status.

Workflow Status | Log | Objects Created and Modified | Input/Output

Service Request

Status

Refresh

▼ Overview		Current status for the service request.	
Request ID	227	12	Setup PXE boot (OS type: ESXI-5.1.U-CUS... 10/01/2015 16:53:44
Request Type	Admin Workflow	13	UCS Blade Power ON Action 10/01/2015 16:53:46
Workflow Name	Provision Any Open UCS Blade with ESXi	14	Wait Duration (600) 10/01/2015 17:03:48
Workflow Version Label	1	15	Remove PXE Boot Setup 10/01/2015 17:03:54
Request Time	10/01/2015 16:48:19 GMT-0500	16	Now Boot from SAN 1st Server has Local Disks 10/01/2015 17:04:01
Request Status	In Progress	17	Add vlan 84 to profile 10/01/2015 17:04:06
Comments		18	Delete PXE Vlan from vNIC 2 10/01/2015 17:04:11
▼ Ownership		19	Delete PXE Vlan from vNIC 1 10/01/2015 17:04:17
Initiating User	admin	20	Power OFF 10/01/2015 17:04:23
		21	Power ON 10/01/2015 17:04:57
		22	Wait for boot to finish 10/01/2015 17:11:57
		23	Register Host Node 172.17.84.190 Completed action 10/01/2015 17:13:21
		24	Complete Completed successfully. 10/01/2015 17:13:26

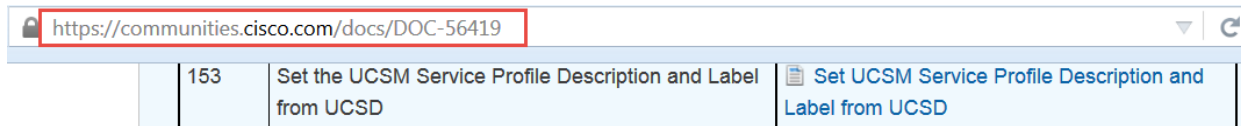
Close

8. Optional – Add User Label and Description to Service Profile

In the previous section 7, we changed the Service Profile name to match the ESXi Host Name. By doing so, we no longer have identifier between the UCS Director Service request and the Service Profile. Before the Service Profile had the SR ID in the name and now there is no reference to the SR ID. You could use this option to add a User Label and/or Description to the Service Profile to have something identifying it with the Service Request in UCS Director. This would be helpful in troubleshooting.

8.1. Download and Import 'Set_UCS_SP_Description_and_Userlabel' workflow

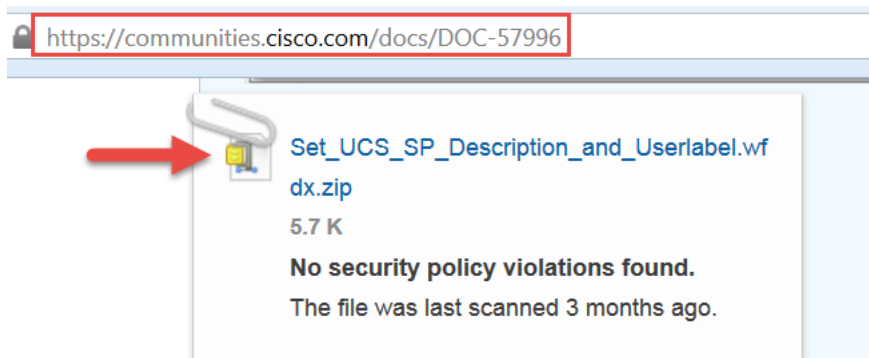
For this task, we will use a custom workflow task that can be found on the UCS Director Communities site. Link to communities site: <https://communities.cisco.com/docs/DOC-56419>



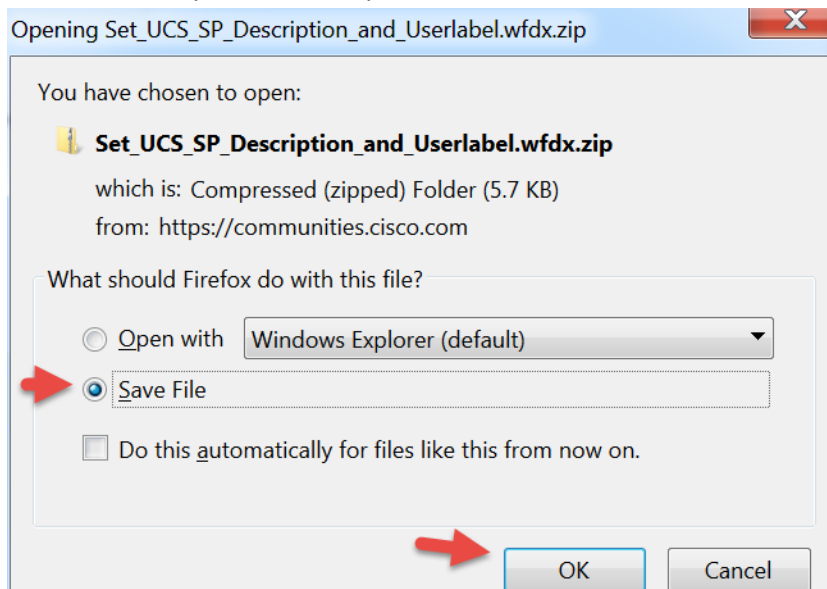
Link to download workflow:

<https://communities.cisco.com/docs/DOC-57996>

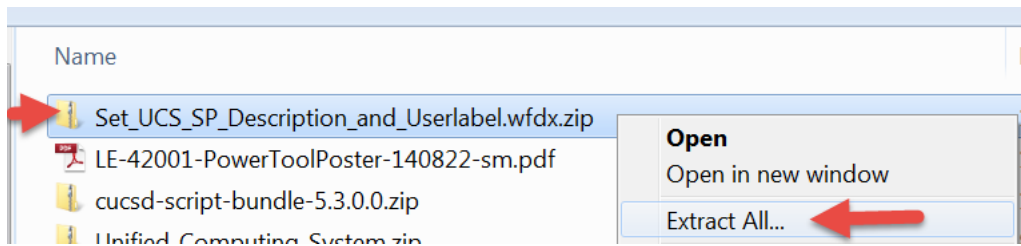
Download the workflow.



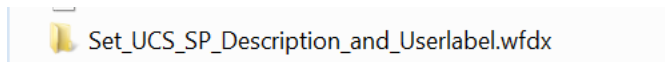
Save the file to your local computer.



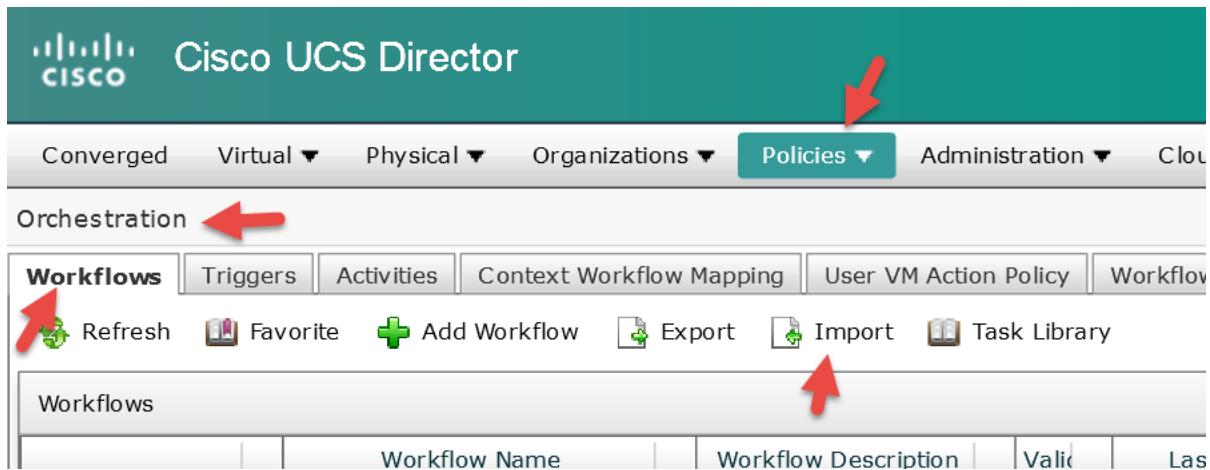
Extract the zip file.



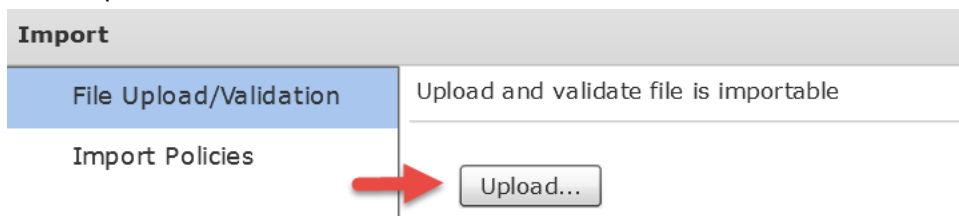
Extracted folder will look like this.



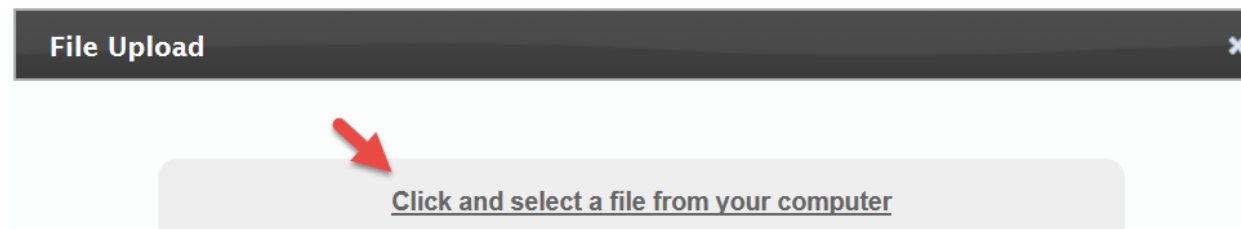
Log into UCS Director and Import this workflow. Browse to Policies -> Orchestration -> Workflows -> select Import



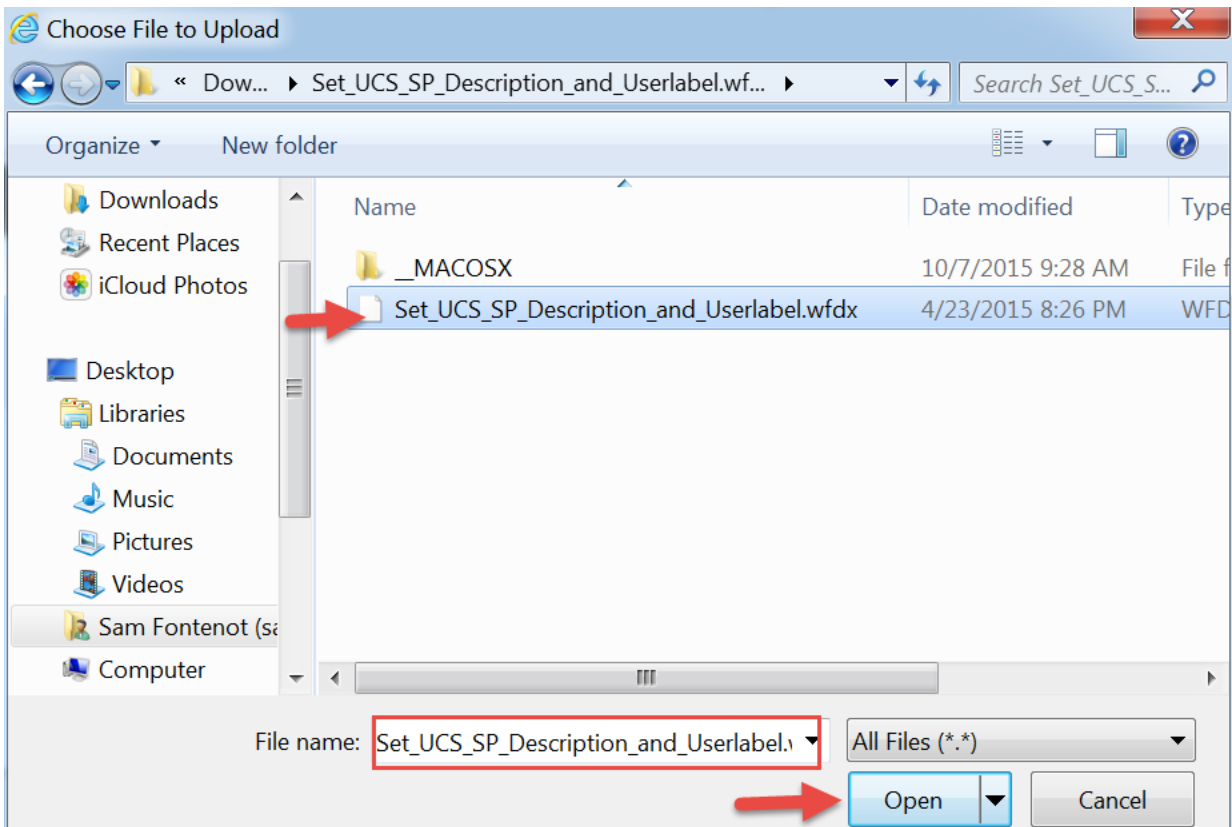
Select Upload.



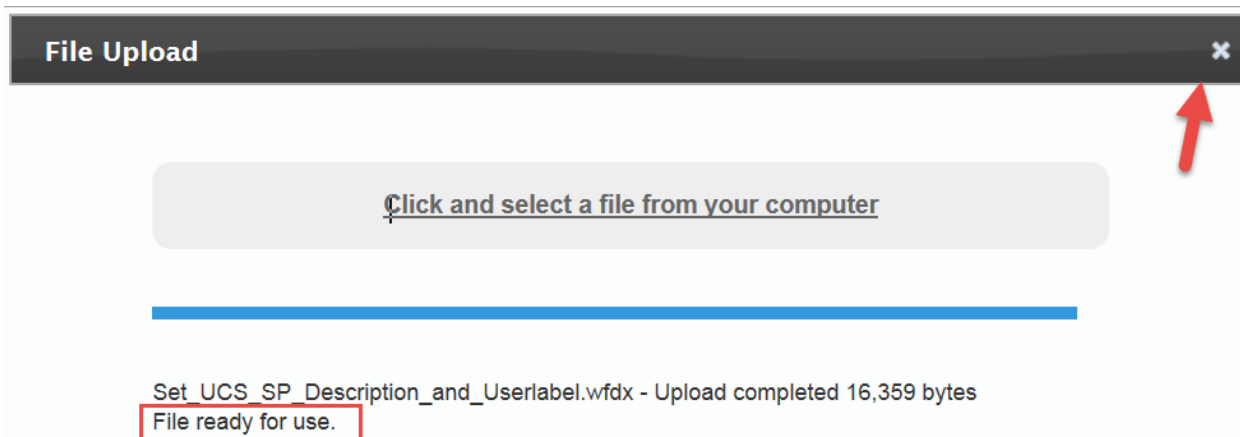
Select 'Click and select a file from your computer'



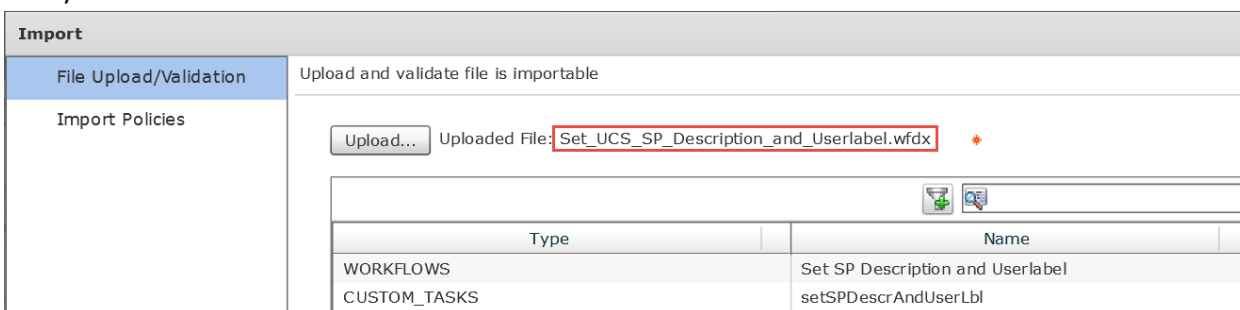
Browse to the 'Set_USC_SP_Description_and_Userlable.wfdx', select it and click Open.



Wait until you see 'File ready for use.' and then click x to close the File Upload window.



Verify the file and click Next.



Leave everything default unless you want to put this workflow in a specific folder. Click Import.

Import

✓ File Upload/Validation

Import Policies

If asset already exists, use following policy

Workflows

Custom Tasks

Script Modules

Activities

Import Workflows to Folder

Click OK.

Submit Result

Import Completed

If you didn't choose a folder, the workflow will be put in a folder named Development.

Cisco UCS Director

Converged Virtual Physical Organizations **Policies** Administration CloudSense™ Favorites

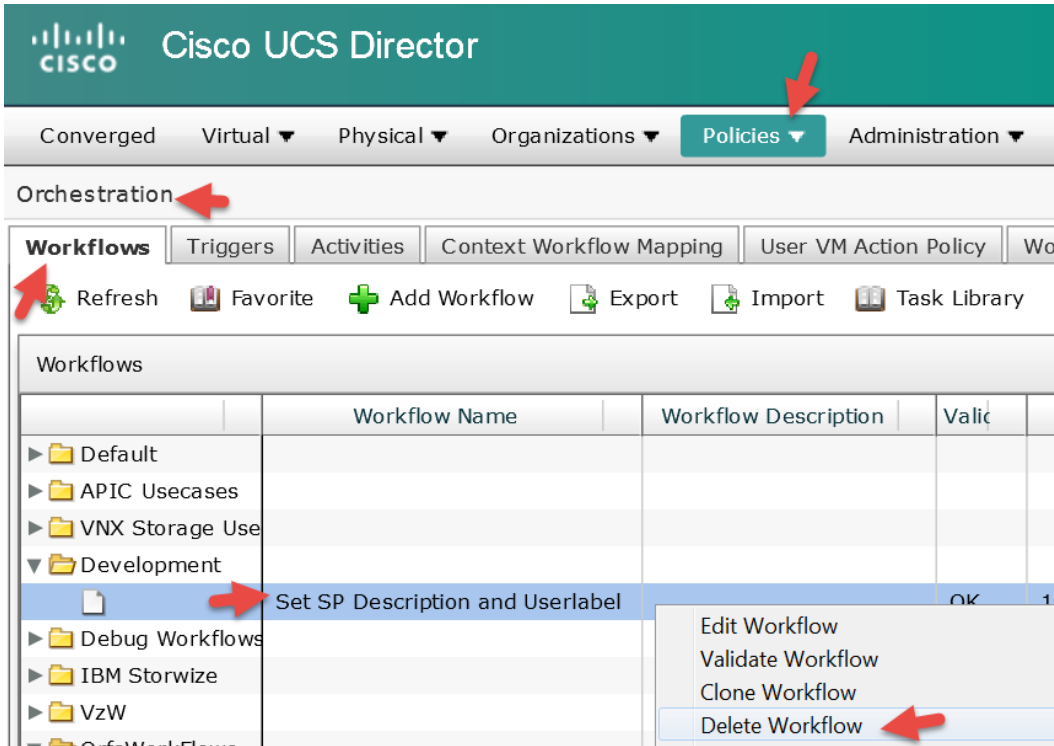
Orchestration

Workflows Triggers Activities Context Workflow Mapping User VM Action Policy Workflow Templates Workflow Scheduler

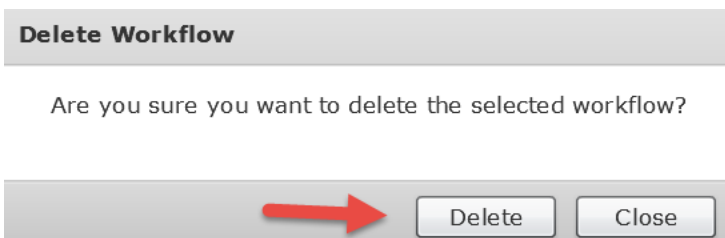
Refresh Favorite Add Workflow Export Import Task Library

	Workflow Name	Workflow Description	Valid	Last Validated	Co	
▶ Default						
▶ APIC Usecases						
▶ VNX Storage Use						
▼ Development						
📄	Set SP Description and Userlabel		OK	1 minute ago	No	0

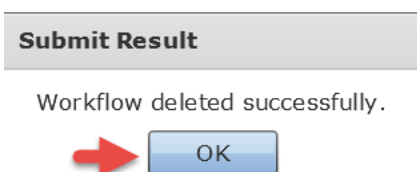
We aren't interested in the workflow so you can delete it unless you want to test it out to see how it works. In our case we will delete it. We are only interested in the Custom workflow Task that is part of this workflow and the only way to import a custom task is part of a workflow.



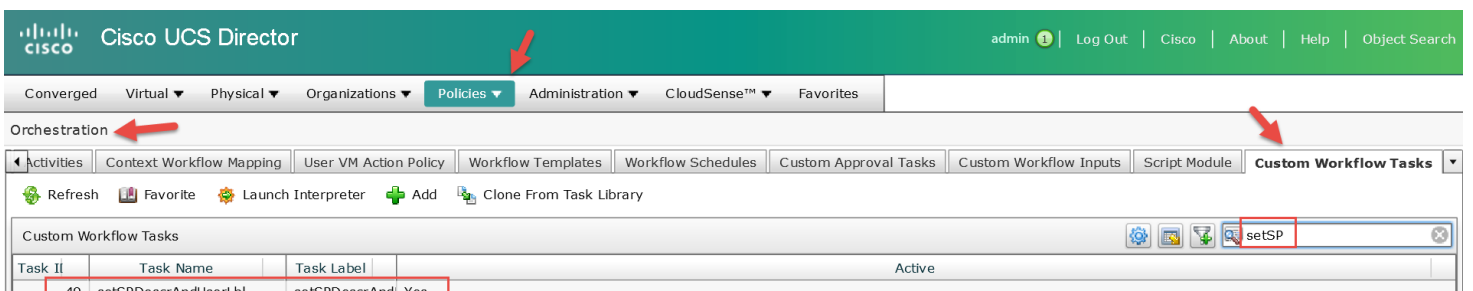
Select Delete.



Click OK.



Here is what we are interested in. Verify the Custom Workflow Task 'setSPDescrAndUserlbl' is now listed as a custom workflow. You can enter 'setSP' in the filter on the right to find it faster.



8.2. Clone the 'Provision Blade from Server Pool with ESXi v01'

Right click on 'Provision Blade from Server Pool with ESXi v01' and select Clone Workflow.

The screenshot shows the Cisco UCS Director interface. The top navigation bar includes 'Converged', 'Virtual', 'Physical', 'Organizations', 'Policies', 'Administration', 'CloudSense™', and 'Favorites'. The 'Policies' menu is highlighted with a red arrow. Below the navigation bar, the 'Orchestration' section is visible, with a red arrow pointing to the 'Workflows' tab. The 'Workflows' tab is active, and a red arrow points to the 'Refresh' button. The main area displays a table of workflows. The workflow 'Provision Blade from Server Pool with ESXi v01' is selected, and a context menu is open over it, with a red arrow pointing to the 'Clone Workflow' option. The context menu also includes 'Edit Workflow' and 'Validate Workflow'.

Enter a Workflow Name 'Provision Blade from Server Pool with ESXi v02', add a description similar to below, select a folder to place the workflow in and click Next.

The screenshot shows the 'Clone Workflow' dialog box. The 'Workflow Details' section is visible, and the following information is entered:

- Workflow Name:** Provision Blade from Server Pool with ESXi v02 *
- Version:** 0
- Description:** Baremetal ESXi from Server Pool
ESXi Host Manual IP assignment
SP Name = ESXi Host Name
SP Add Description and User Label *
- Workflow Context:** Any *
- Workflow Context Description:** This workflow shall be used in the specified context
- Save as Compound Task:**
- Always execute during System initialization:**

The 'Save Options' section is also visible, with the following information entered:

- Place in New Folder:**
- Select Folder:** ESXi Baremetal *

Leave 'Workflow User Inputs' default and click Next.

Clone Workflow

Workflow User Inputs

Associate to Activity
If selected, existing workflow's user input(s) will be overridden by selected activities user input(s).

Input Label	Input Description	Mandatory	Type	Admin Input Value
Server Host Name	Hostname of the the	Yes		
Cloud	Which Cloud to place	Yes		
ESXi Host IP Address		Yes	gen_text_input	
ESXi Host Subnet Mas		Yes	gen_text_input	
ESXi Host Gateway		Yes	gen_text_input	
UserID	ESXi root account nar	Yes	gen_text_input	root
ServerPassword	ESXi root password	Yes	password	*****
SUBMITTER_EMAIL		Yes	gen_text_input	'safonten@cisco.com'
POD4_ESXi_Server_f		Yes	ucsServerPoolIdentit	RCDN5-POD4;org-ro

Leave 'Workflow User Outputs' default and click Submit.

Clone Workflow

Workflow User Outputs

Output Label	Output Description	Mandatory	Type

Click OK.

Submit Result

Cloned successfully



8.3. Add 'Clone UCS Service Profile' task to the workflow

Open Workflow Designer for this workflow.

The screenshot shows the Cisco UCS Director interface. The top navigation bar includes 'Converged', 'Virtual', 'Physical', 'Organizations', 'Policies', 'Administration', 'CloudSense™', and 'Fav'. The 'Policies' menu is highlighted with a red arrow. Below it, the 'Orchestration' section is also highlighted with a red arrow. The 'Workflows' tab is selected, and a red arrow points to the 'Refresh' button. A table lists several workflows, with 'Provision Blade from Server Pool with ESXi v02' selected. A context menu is open over this workflow, and a red arrow points to the 'Workflow Designer' option.

	Workflow Name	Workflow Description
	Provision Blade from Server Pool with ESXi	
	Provision Blade from Server Pool with ESXi v02	Baremetal ESXi from Server P
	Provision Blade from Server Pool with ESXi v1	
	Provision Blade from Server Pool with ESXi v2	
	Provision Blade from Server Pool with ESXi v3	

Enter 'SetSP' in the search field on the left for Available Task. Click on and drag 'setSPDescrAndUserLbl' from the left to the right pane. Put it near the left side of the right pane.

The screenshot shows the 'Workflow Designer - Provision Blade from Server Pool with ESXi v02 (320)' interface. The 'Available Tasks' section has a search bar containing 'setsp'. Below the search bar, a list of tasks is shown under 'Custom Tasks', with 'setSPDescrAndUserLbl' selected and highlighted by a red arrow. Buttons for 'Edit Workflow Properties', 'Create New Version', and 'Validate' are visible at the top right. There are also checkboxes for 'Auto Layout' and 'Compact View Mode', and a 'Full View' button.

Leave 'Workflow Task Basic Information' section default and click Next.

The screenshot shows the 'Add Task (setSPDescrAndUserLbl)' configuration screen. The 'Task Information' section is active, and the 'Workflow Task Basic Information - Enter task name and comments.' form is displayed. The form includes fields for 'Task Name' (custom_setSPDescrAndUserLbl_3357), 'Task Category' (Custom Tasks), 'Task Type' (setSPDescrAndUserLbl), and 'Comment'. There is also a checkbox for 'Retry Execution' with the text 'If supported the task will retry as specified'.

Add Task (setSPDescrAndUserLbl)

Task Information

User Input Mapping

Task Inputs

User Output Mapping

Workflow Task Basic Information - Enter task name and comments.

Task Name: custom_setSPDescrAndUserLbl_3357 *

Task Category: Custom Tasks *

Task Type: setSPDescrAndUserLbl *

Comment: [Empty field]

Retry Execution
If supported the task will retry as specified

Before continuing with the next step, read both Examples 1 and 2 to determine which one you want to implement.

Example 1: On the 'User Input Mappings to Task Input Attributes' section, select 'Map to User Input' for all sections and then drop down and select the options as shown below. For the Service_Profile_Description and the Service_Profile_Userlabel, I am grabbing the original Service Profile name which includes the SR number which is what I am interested in here. You should modify these inputs to achieve the description and/or user label you want on your service profile.

Add Task

- ✓ Task Information
- User Input Mapping**
- Task Inputs
- User Output Mapping

User Input Mappings to Task Input Attributes
Select which of the following attributes you would like to use values from workflow input fields or provide the values in the

[Manage Workflow User Inputs](#)

If 'Map to User Input' is checked, inputs are prompted during workflow execution unless specified by admin in the work

Service_Profile_Identity (Mandatory)
Type: UCS Service Profile Identity

Map to User Input

User Input

Service_Profile_Description (Mandatory)
Type: Generic Text Input

Map to User Input

User Input

Service_Profile_Userlabel (Mandatory)
Type: Generic Text Input

Map to User Input

User Input

Leave 'Provide the values for the task inputs which are not mapped to workflow inputs.' section default and click Next.

Add Task (setSPDescrAndUserLbl)

- ✓ Task Information
- ✓ User Input Mapping
- Task Inputs**
- User Output Mapping

Provide the values for the task inputs which are not mapped to workflow inputs.

Example 2: Here is a different example for the inputs for the User Label and Description. On the 'User Input Mappings to Task Input Attributes' section, de-select 'Map to User Input' for the Service_Profile_Description and the Service_Profile_Userlabel.


Edit Task (setSPDescrAndUserLbl)


- Task Information
- User Input Mapping**
- Task Inputs
- User Output Mapping

User Input Mappings to Task Input Attributes
Select which of the following attributes you would like to use values from workflow input fields or provide

If 'Map to User Input' is checked, inputs are prompted during workflow execution unless specified by

Service_Profile_Identity (Mandatory)
Type: UCS Service Profile Identity
 Map to User Input
User Input: CloneUCSServiceProfile_3304.SERVICE_PROFILE_IDENTITY1

Service_Profile_Description (Mandatory)
Type: Generic Text Input
 Map to User Input

Service_Profile_Userlabel (Mandatory)
Type: Generic Text Input
 Map to User Input

Here I am putting together the Server Host Name input that is enter when you execute the workflow and the Service Request ID.

Edit Task (setSPDescrAndUserLbl)

- Task Information
- User Input Mapping
- Task Inputs**
- User Output Mapping

Provide the values for the task inputs which are not mapped to workflow inputs.

Service_Profile_Description: *

Service_Profile_Userlabel: *

Leave 'User Output Mappings to Task Output Attributes' section default and click Submit.

Add Task (setSPDescrAndUserLbl)

- Task Information
- User Input Mapping
- Task Inputs
- User Output Mapping**

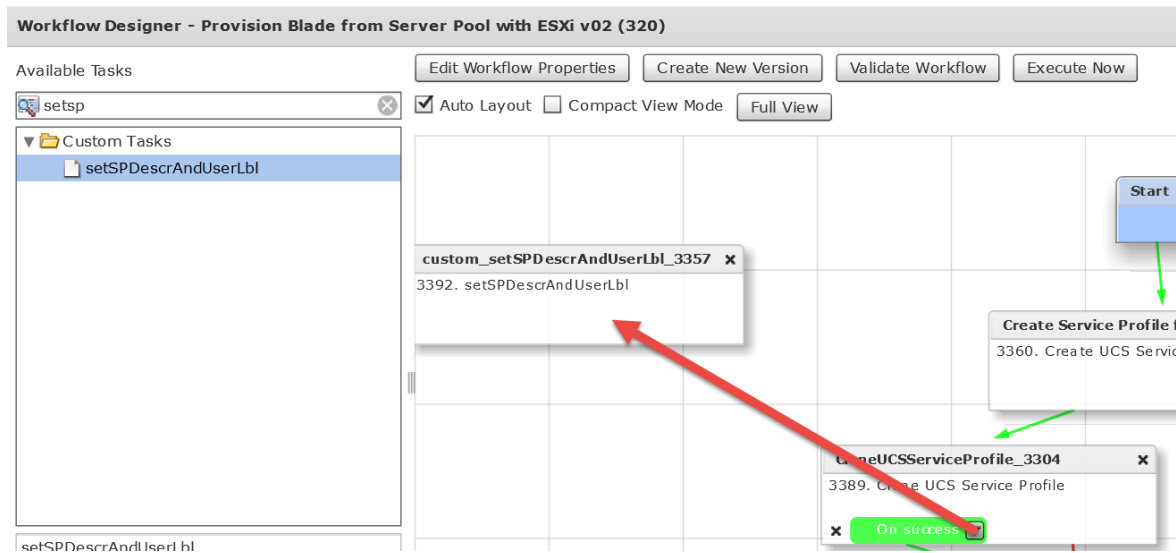
User Output Mappings to Task Output Attributes
Select which of the following attributes you would like to use values from workflow output fields.

Click OK.

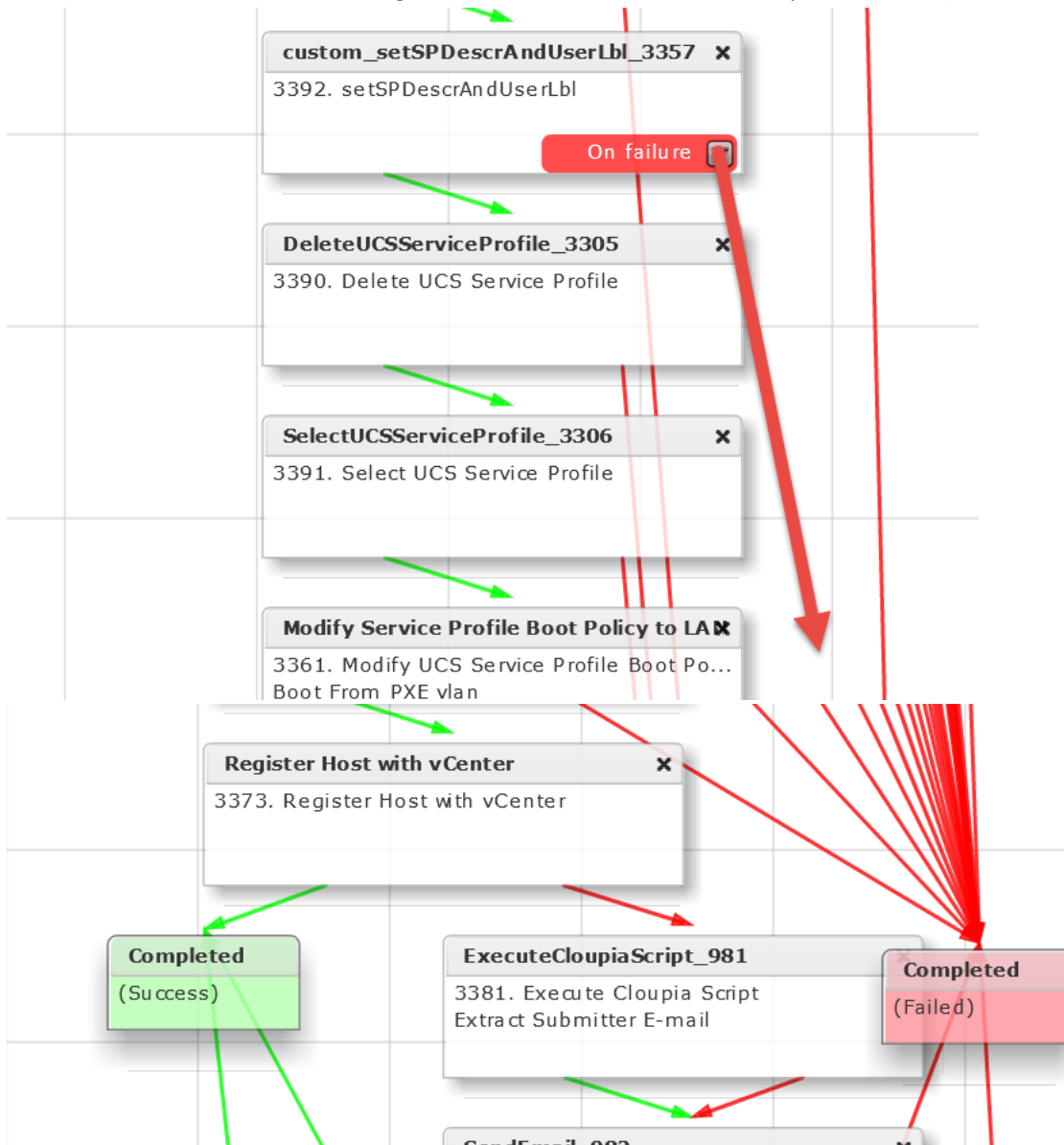
Task Saved Successfully.



Click on the green 'On success' of the 'CloneUCSServiceProfile_3304' and drag the arrow to the new custom task 'custom_setSPDescrAndUserLbl_3357'.



On the custom workflow task, drag the 'On failure' down to the Completed (Failed) as shown below.



8.4. Validate and Execute workflow

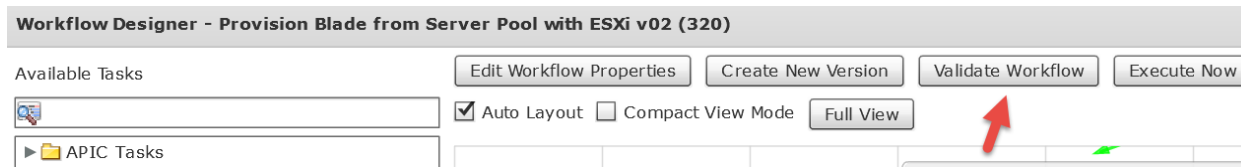
Validate the workflow.

Workflow Designer - Provision Blade from Server Pool with ESXi v02 (320)

Available Tasks

Auto Layout Compact View Mode

APIC Tasks



Click OK.

Valid Workflow

This workflow is valid.



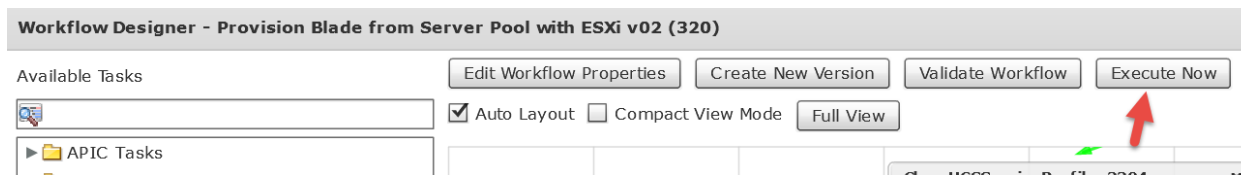
Execute Workflow.

Workflow Designer - Provision Blade from Server Pool with ESXi v02 (320)

Available Tasks

Auto Layout Compact View Mode

APIC Tasks



Enter the details for the new ESXi Host and click Submit.

Executing Workflow: Provision Blade from Server Pool with ESXi v02

Workflow Version:

0 (default version) *

Baremetal ESXi from Server Pool
ESXi Host Manual IP assignment
SP Name = ESXi Host Name
SP Add Description and User Label

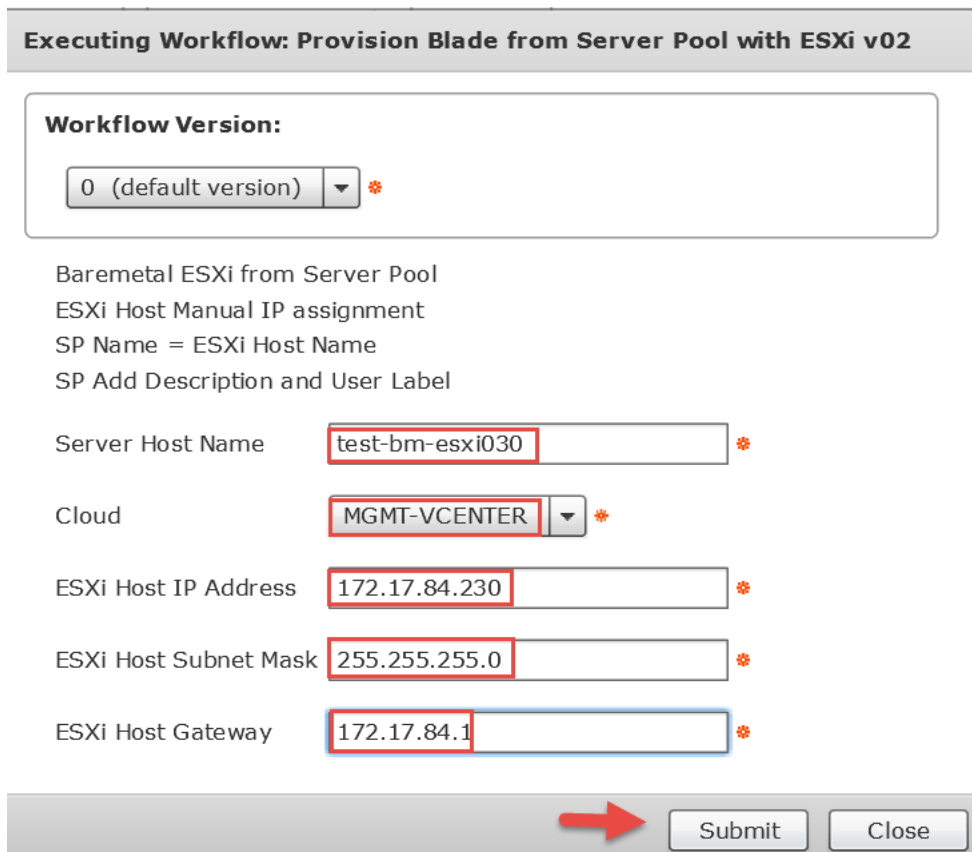
Server Host Name *

Cloud *

ESXi Host IP Address *

ESXi Host Subnet Mask *

ESXi Host Gateway *



Click Show Detail Status.

Service Request Submit Status


Service request is submitted successfully ID 227
















Verify Completed Successfully Status.

Workflow Status | [Log](#) | [Objects Created and Modified](#) | [Input/Output](#)

Service Request

Status  Refresh

▼ Overview		Current status for the service request.	
Request ID	227	 Setup PXE boot (OS type: ESXI-5.1.U-CUS...	10/01/2015 16:53:44
Request Type	Admin Workflow	 UCS Blade Power ON Action	10/01/2015 16:53:46
Workflow Name	Provision Any Open UCS Blade with ESXi	 Wait Duration (600)	10/01/2015 17:03:48
Workflow Version Label	1	 Remove PXE Boot Setup	10/01/2015 17:03:54
Request Time	10/01/2015 16:48:19 GMT-0500	 Now Boot from SAN 1st Server has Local Disks	10/01/2015 17:04:01
Request Status	In Progress	 Add vlan 84 to profile	10/01/2015 17:04:06
Comments		 Delete PXE Vlan from vNIC 2	10/01/2015 17:04:11
▼ Ownership		 Delete PXE Vlan from vNIC 1	10/01/2015 17:04:17
Initiating User	admin	 Power OFF	10/01/2015 17:04:23
		 Power ON	10/01/2015 17:04:57
		 Wait for boot to finish	10/01/2015 17:11:57
		 Register Host Node 172.17.84.190 Completed action	10/01/2015 17:13:21
		 Complete Completed successfully.	10/01/2015 17:13:26

Verify the User Label and Description on the service profile in UCS Manger.

The screenshot displays the UCS Manager interface. On the left, a tree view shows the hierarchy: Servers > Service Profiles > root > tesx-bm-esxi030. A red arrow points to the 'tesx-bm-esxi030-SR392' entry. The main window shows the 'Service Profile tesx-bm-esxi030' details. The 'Fault Summary' section shows 0 critical, 0 major, 0 minor, and 1 warning faults. The 'Status' section shows 'Overall Status: Ok'. The 'Properties' section shows 'Name: tesx-bm-esxi030', 'User Label: tesx-bm-esxi030-SR392', 'Description: tesx-bm-esxi030-SR392', 'Owner: Local', and 'UUID: 45887e98-f4f9-11e4-0804-t'.

Category	Count
Critical	0
Major	0
Minor	0
Warning	1

Property	Value
Name	tesx-bm-esxi030
User Label	tesx-bm-esxi030-SR392
Description	tesx-bm-esxi030-SR392
Owner	Local
UUID	45887e98-f4f9-11e4-0804-t