



PNP SDWAN Overlay Migration Guide

PNP SDWAN Overlay Smart Account Migration

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Introduction/Purpose

This document is to clarify the process for a customer looking to move Edge routers from one Cisco PNP Smart Account to another. In any non-SDWAN case this would be trivial. However, with the added dependency of the “controller profile” within Cisco Software Central’s Plug and Play Connect, extra steps must be taken.

Overall Process

- Access the PnP page on software.cisco.com
- Disassociate the current serial numbers associated with the controller profile
- Transfer the serial numbers from the old Smart Account to the new Smart Account
- Move the Controller Profile from smart account to the other by deleting it from the old Smart Account and recreating it in the new Smart Account
- Re-associate the serial numbers in the new Smart Account with the newly placed Controller Profile

Each Step is detailed with screenshots below. This workflow process has no impact to the overlay. It is recommended that a full backup of the controller environment is taken prior to performing this migration procedure – inclusive of VM snapshots, configuration-db backups and running-config backups on vManage.

Step 1. Access the Plug and Play Connect page on Cisco.com

Login to the current Smart Account/Virtual Account at software.cisco.com. Once logged in, navigate to the Plug and Play Connect page by selecting the menu button in the top right corner and selecting Cisco Software Central → Provisioning → Plug and Play Connect:



Figure 1 - Software Central Menu Button

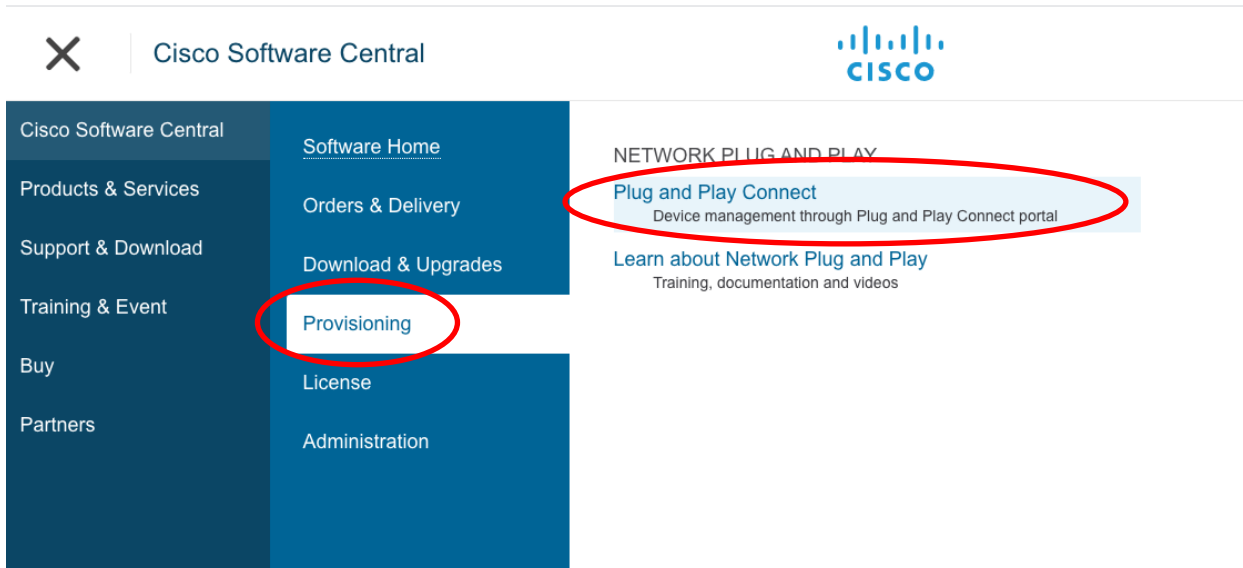


Figure 2 - Software Central PnP Connect Menu Navigation Example

From the Plug and Play Connect page verify that you're in the right Smart Account / Virtual Account. For the purposes of this test, we will be migrating from the following:

Source (Legacy)	
Smart Account	Cisco SVS temp-request access licensing@cisco.com
Virtual Account	FP.TAC

Table 1 – Source Smart Account / Virtual Account Details

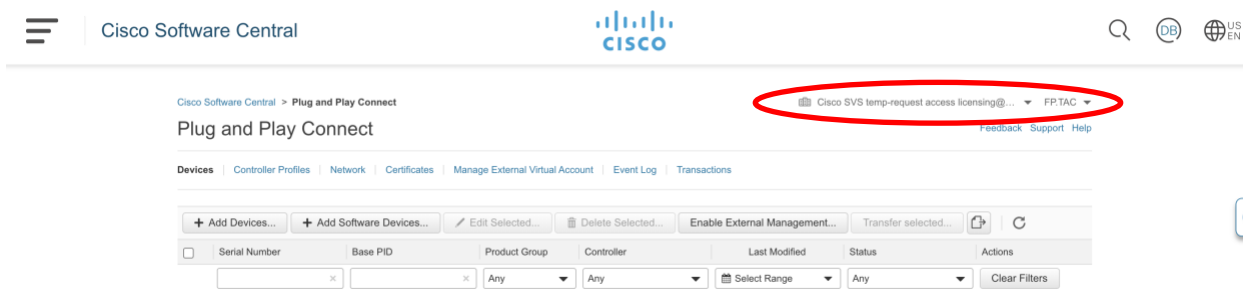


Figure 3 – SVS Lab Source SA/VA Example

And migrating to the following:

Destination (Target)	
Smart Account	InternalTestDemoAccount42.cisco.com
Virtual Account	SDWAN-SA-Migration_Testing

Table 2 – Destination Smart Account / Virtual Account Details

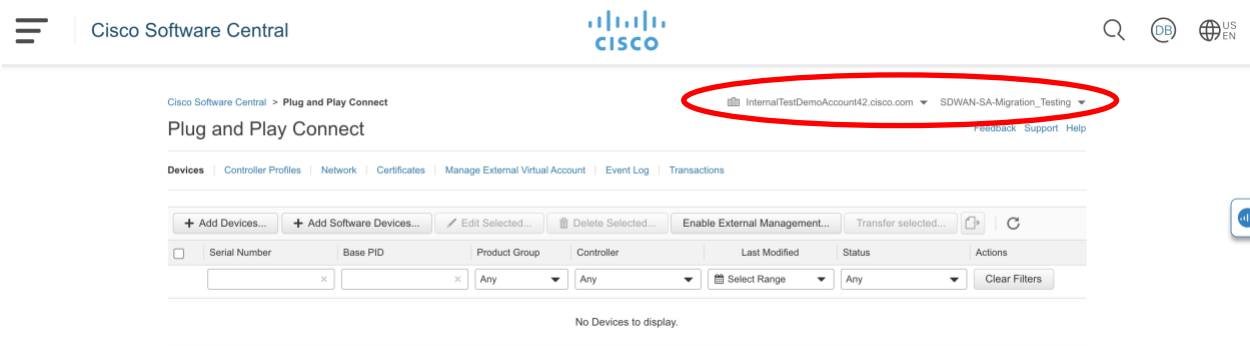


Figure 4 – SVS Lab Destination SA/VA Example

Step 2. Disassociate all device serials from the current controller profile in the Legacy Smart Account / Virtual Account

Note: This **will not** affect your production overlay, unless you do Sync Smart Account on the vManage right away after this step. First, select the devices that are currently associated with your SDWAN controller profile.

Prior to disassociation, it's wise to grab a baseline to see just how many devices are associated with the profile. By having this information, you can confirm you see the same number of associations post migration to ensure nothing was missed. To get this number, look at the "Used By" column within the current controller profile:

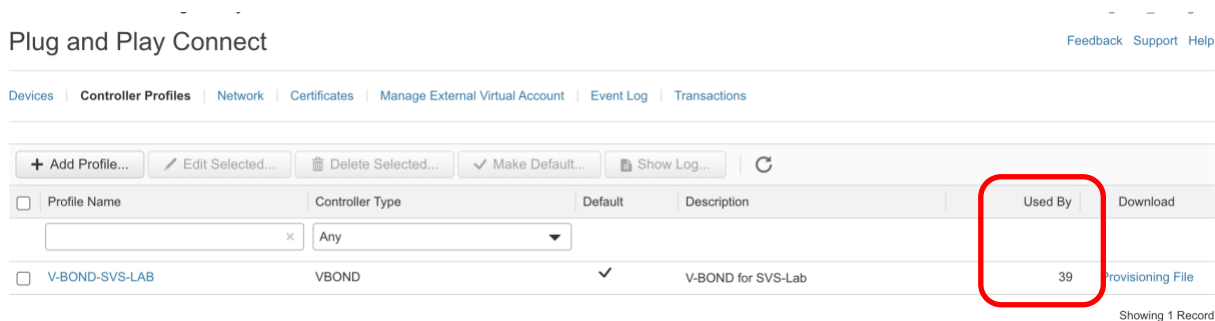


Figure 5 – Controller Profile Association Number Baseline

Select your devices to disassociate with the current controller profile. In your selection, you must group devices by their "Status". If you try to select all at once and there is a mix of Status among the selection {example – some "Pending (Redirection)" and others "Provisioned"} then you will get an error:

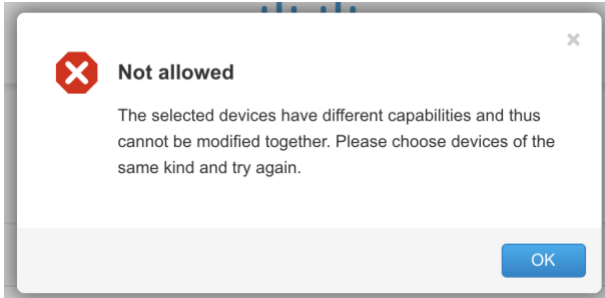


Figure 6 – Example Error If You Select A Mixed Capability Set For Disassociation

Once you've selected your devices, in the edit workflow choose "Controller Profile" in the device property pulldown:

Edit Devices

Select the property of the device, provide the value and apply to all selected devices. Once done submit the changes.

Selected Devices

Product Group : Router

Figure 7 – Navigation to the Controller Profile / Edit Properties Selection

Leave the Provide a value pulldown set to "Choose Controller Profile" and click the green Apply button. In doing so, you will see the New controller set to – for all devices. Once that is the case, click the blue Submit button on the bottom right:

Serial Number	Base PID	Certificate Serial Number	Controller	Description	Actions
	ASR1002-X	9E303C16	New: -- Current: V-BOND-SVS-LAB	--	
	ASR1002-X	35F9BD35	New: -- Current: V-BOND-SVS-LAB	--	
	ASR1002-X	01	New: -- Current: V-BOND-SVS-LAB	--	
	ISR4431/K9	DA7F7E	New: -- Current: V-BOND-SVS-LAB	--	
	ASR1002-X	--	New: -- Current: V-BOND-SVS-LAB	--	

Figure 8 – Disassociation From Controller Profile Example

Give the portal some time to make the changes and refresh the device table. You should no longer see anything listed under the Controller column and the Status column should now show as “Unconfigured” for all devices:

Cisco Software Central > Plug and Play Connect Cisco SVS temp-request access licensing@... FP.TAC

Plug and Play Connect Feedback Support Help

Devices | Controller Profiles | Network | Certificates | Manage External Virtual Account | Event Log | Transactions

+ Add Devices... + Add Software Devices... Edit Selected... Delete Selected... Enable External Management... Transfer selected...

Serial Number	Base PID	Product Group	Controller	Last Modified	Status	Actions
		Any	Any	Select Range	Any	Clear Filters
<input type="checkbox"/>	ASR1002-X	Router	--	2021-May-20, 18:22:52	Unconfigured	Show Log...
<input type="checkbox"/>	ISR4351/K9	Router	--	2021-May-20, 18:22:52	Unconfigured	Show Log...
<input type="checkbox"/>	ISR4331/K9	Router	--	2021-May-20, 18:22:52	Unconfigured	Show Log...
<input type="checkbox"/>	ASR1002-X	Router	--	2021-May-20, 18:22:52	Unconfigured	Show Log...
<input type="checkbox"/>	ISR4331/K9	Router	--	2021-May-20, 18:22:52	Unconfigured	Show Log...
<input type="checkbox"/>	ASR1002-HX	Router	--	2021-May-20, 18:22:52	Unconfigured	Show Log...
<input type="checkbox"/>	ISR4431/K9	Router	--	2021-May-20, 18:22:52	Unconfigured	Show Log...

Figure 9 – Disassociation Confirmation Example

Step 3. Transfer all the devices to the new Smart Account / Virtual Account

Plug and Play Connect

[Feedback](#) [Support](#) [Help](#)

[Devices](#) | [Controller Profiles](#) | [Network](#) | [Certificates](#) | [Manage External Virtual Account](#) | [Event Log](#) | [Transactions](#)

+ Add Devices... + Add Software Devices... Edit Selected... Delete Selected... Enable External Management... **Transfer selected...**

<input checked="" type="checkbox"/>	Serial Number	Base PID	Product Group	Controller	Last Modified	Status	Actions
<input checked="" type="checkbox"/>			Any	Any	Select Range	Any	Clear Filters
<input checked="" type="checkbox"/>		VEDGE-CLOUD-DNA	Router	--	2021-May-20, 18:25:27	Unconfigured	Show Log...
<input checked="" type="checkbox"/>		VEDGE-CLOUD-DNA	Router	--	2021-May-20, 18:25:27	Unconfigured	Show Log...
<input checked="" type="checkbox"/>		VEDGE-CLOUD-DNA	Router	--	2021-May-20, 18:25:27	Unconfigured	Show Log...
<input checked="" type="checkbox"/>		VEDGE-CLOUD-DNA	Router	--	2021-May-20, 18:25:27	Unconfigured	Show Log...
<input checked="" type="checkbox"/>		VEDGE-CLOUD-DNA	Router	--	2021-May-20, 18:25:27	Unconfigured	Show Log...
<input checked="" type="checkbox"/>		VEDGE-CLOUD-DNA	Router	--	2021-May-20, 18:25:27	Unconfigured	Show Log...
<input checked="" type="checkbox"/>		VEDGE-CLOUD-DNA	Router	--	2021-May-20, 18:25:27	Unconfigured	Show Log...

Figure 10 – Serial Transfer Workflow Example

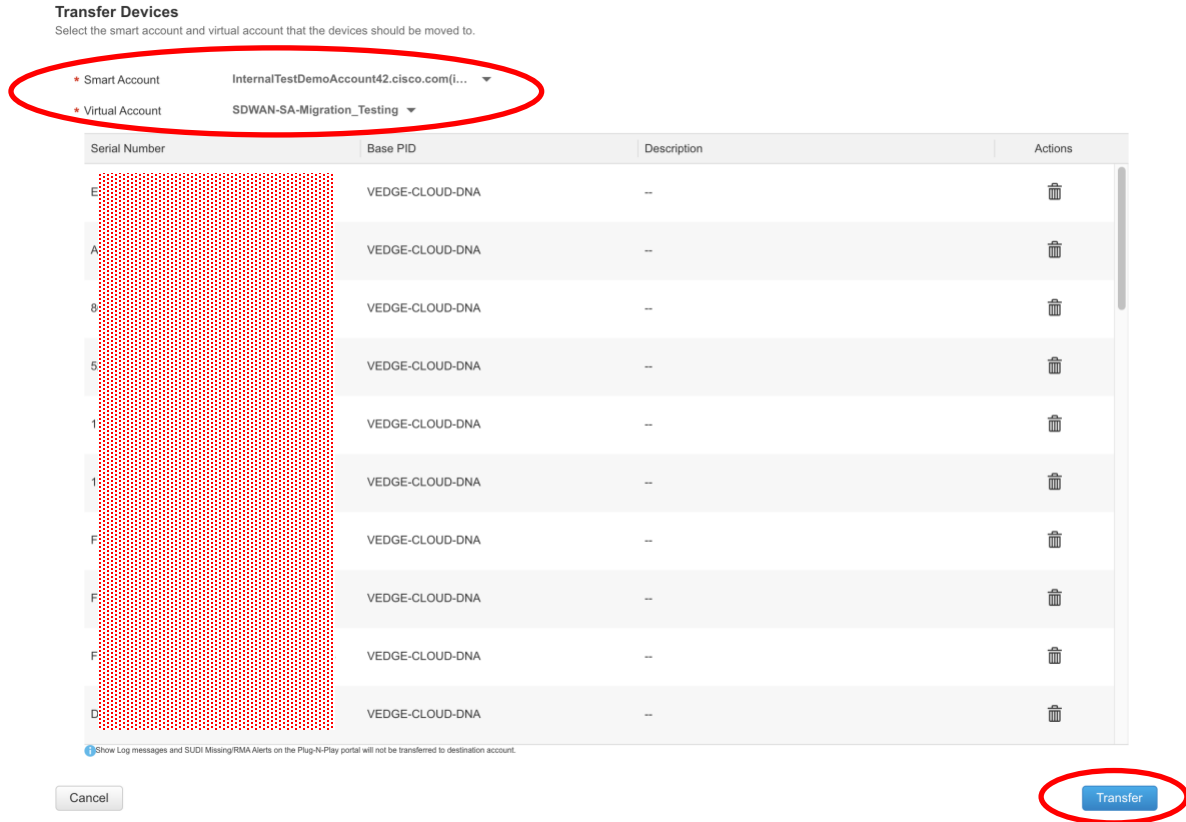


Figure 11 – Serial Transfer Workflow Confirmation

Step 4. Grab all the data from the current Controller Profile and delete it from the old Smart Account

Go to your controller profile tab and select your profile and choose the “Edit Selected” button to display your current profile settings. Grab a screenshot of this and be sure to copy the Server Root CA over into a text file and save it for later use.

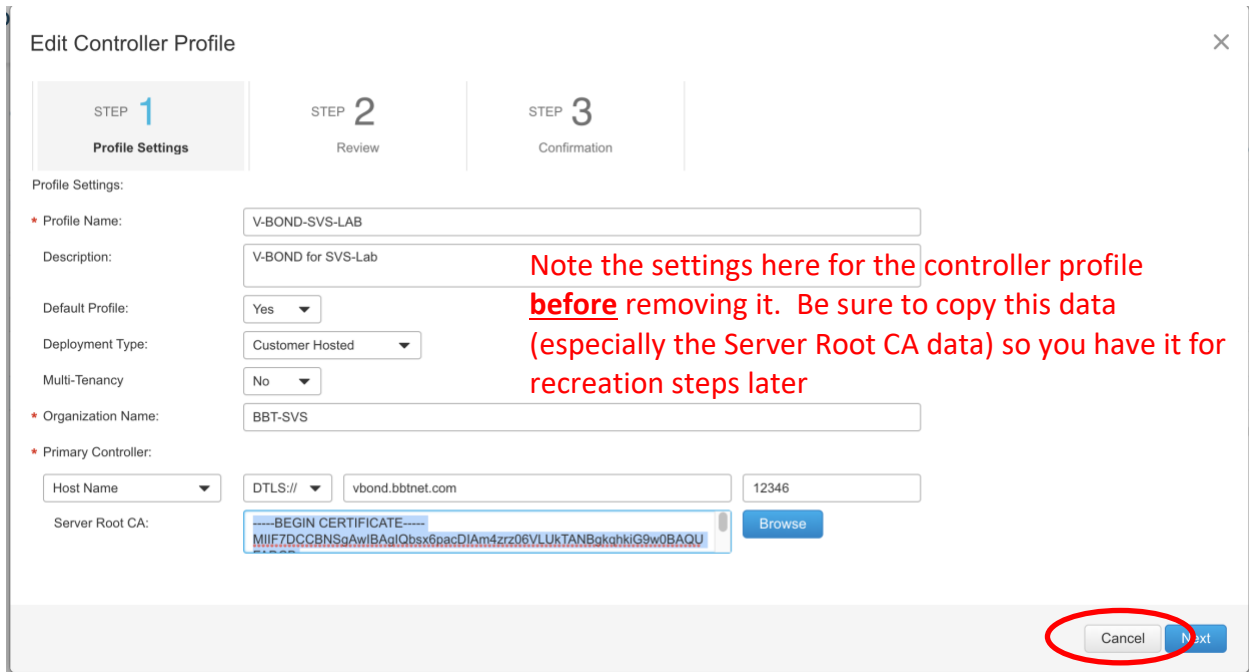


Figure 12 – IMPORTANT!!!! – Pre-deletion Controller Profile Information Gathering / Backup

Click cancel to exit out of the popup. Highlight the controller profile, and click the “Delete Selected” Button. Click Yes on the popup to confirm that you want to delete the controller profile.

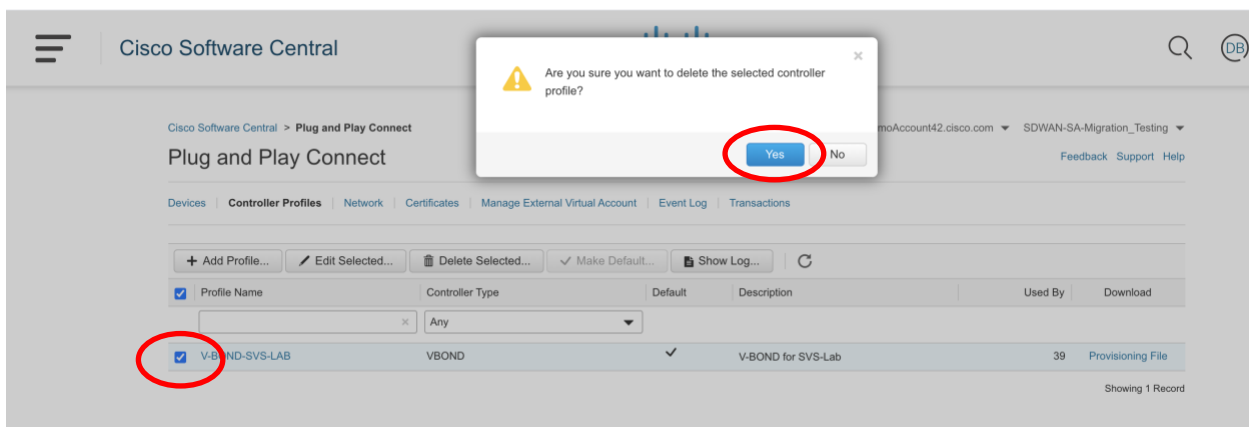


Figure 13 – Deletion of Controller Profile Example

Step 5. Navigate to your new Smart Account / Virtual Account and Recreate the Controller Profile in the new Smart Account

In the upper right corner of the page, select the Smart account pulldown and click the new Smart Account where you placed the serial numbers when you completed transferring them in step 3 above.

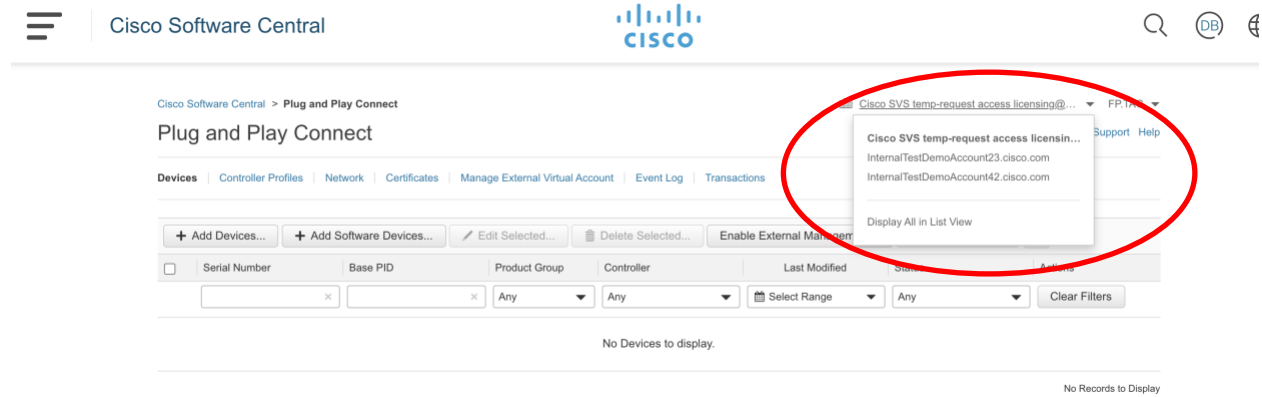


Figure 14 – SA/VA Navigation Pulldown

From within the new Smart Account, navigate to the Controller Profiles Tab and click the “Add Profile” Button.

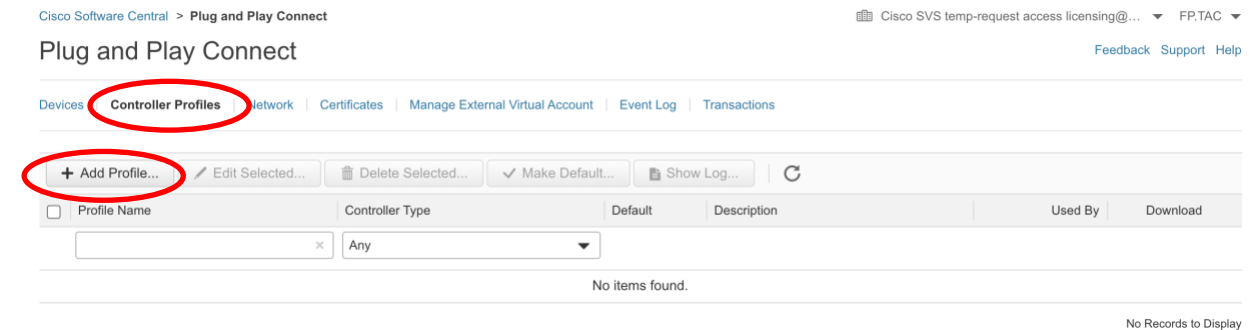


Figure 15 – Creation of New Controller Profile Example

In the resultant pop-up, for Step 1 (Profile Type), select VBOND from the pulldown and click next.

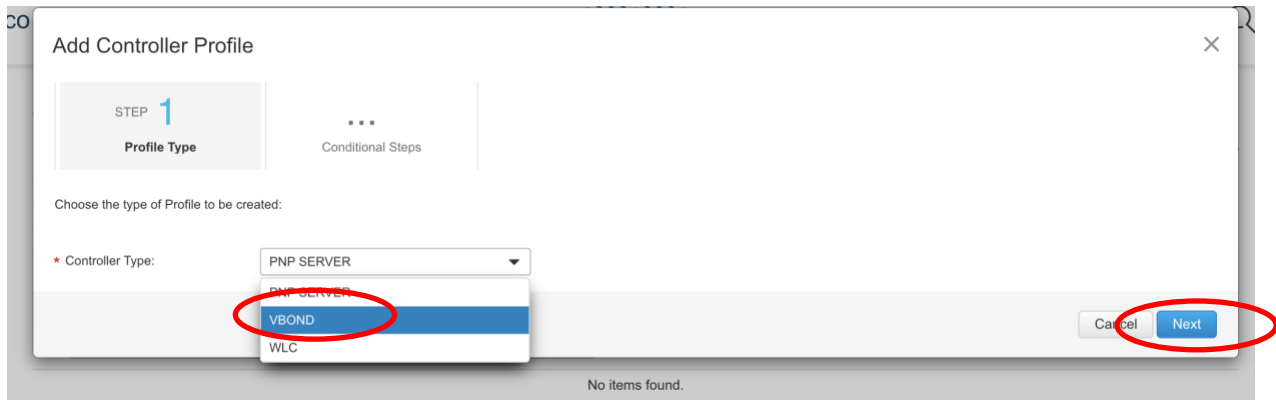


Figure 16 – VBOND Controller Type

For Step 2 (Profile Settings), place back the information you noted above in [Figure 12](#) above. Click next and review your input settings to ensure they are correct. When ready, click submit.

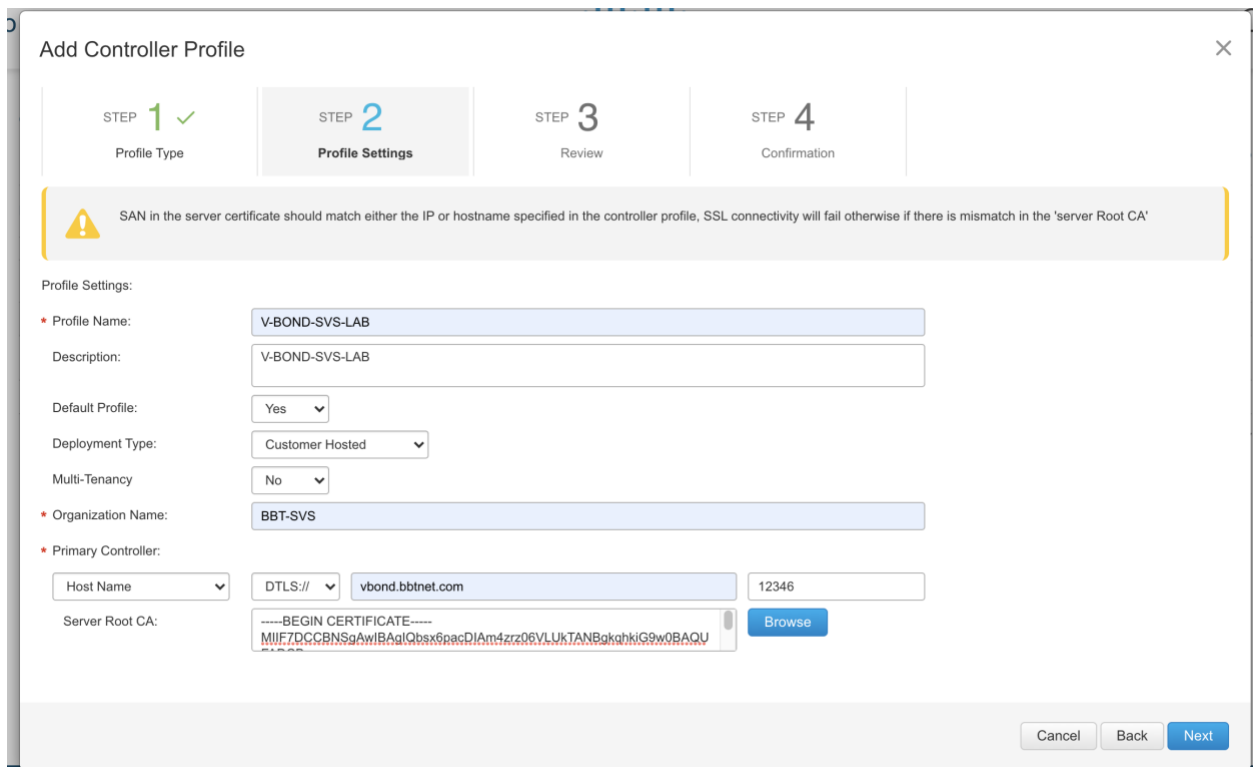


Figure 17 – Recreation of Controller Profile

Step 6. Re-associate the serial numbers in the new Smart Account with the newly placed Controller Profile

Now that you have the serial numbers and controller profile created within the new Smart Account, re-attach the profile to the serials. Go to the Devices tab, select all and click the “Edit Devices” button.

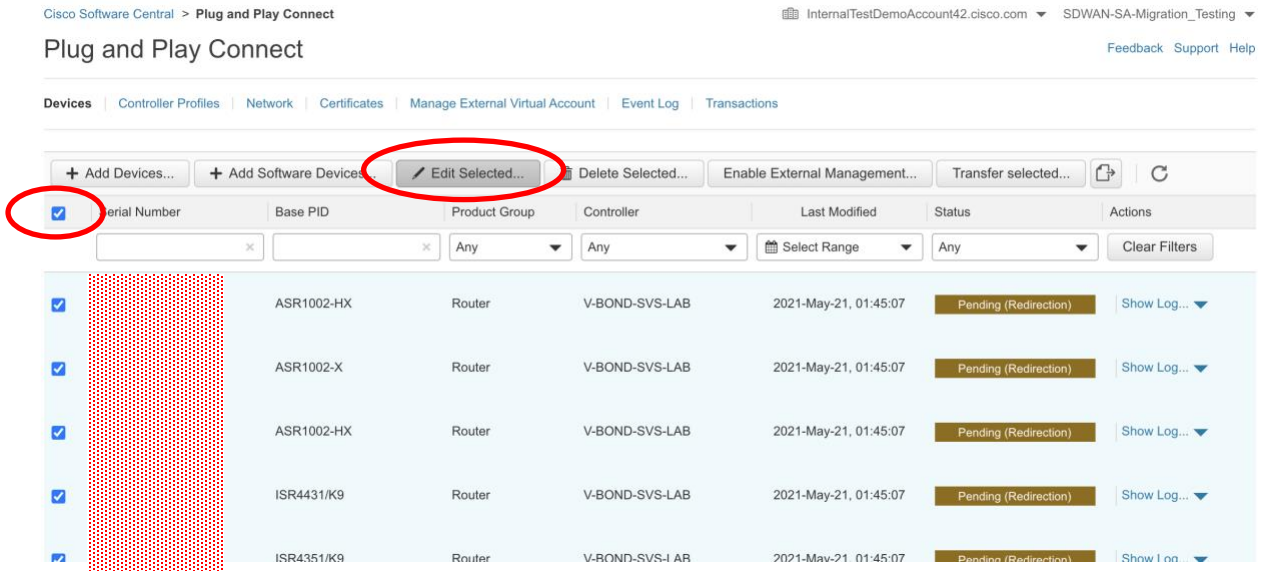


Figure 18 – Bulk Device Edit Example

Select Controller Profile in the Property pulldown and choose your new controller profile. Click Apply.

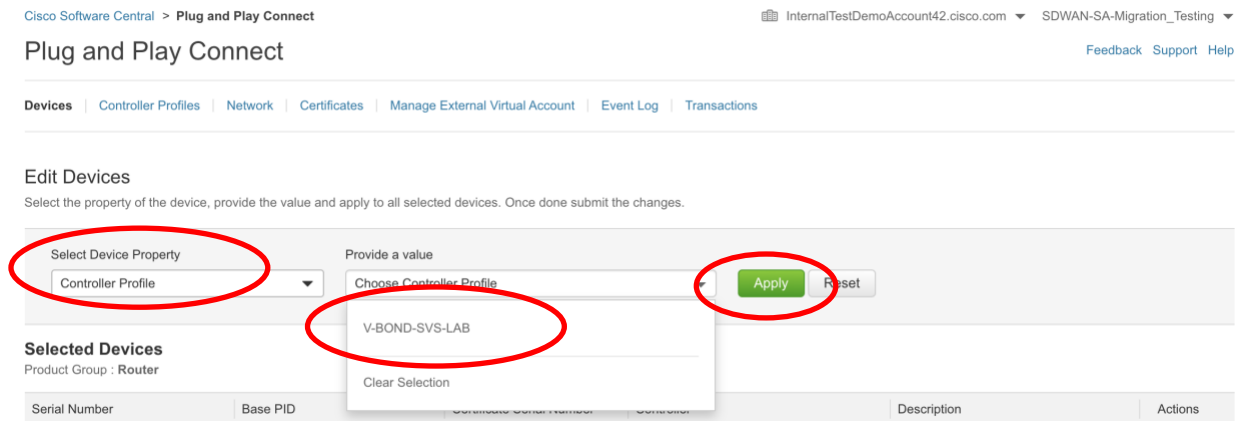


Figure 19 – Associating the Devices with the Controller Profile

Note that you may see a padlock icon next to the newly created controller profile stating that the profile is Locked and cannot be accessed at this time. This is normal. Essentially this is there to let you know that the system is processing the profile programming internally and won't let you change it until internal systems are fully synchronized.

Plug and Play Connect

Devices | **Controller Profiles** | Network | Certificates | Manage External Virtual Account

+ Add Profile... | Edit Selected... | Delete Selected... | Make Default..

<input type="checkbox"/>	Profile Name	Controller Type
	V-BOND-SVS-LAB	VBOND

Controller Profile is Locked and cannot be accessed at this time.

Figure 20 – Lock Icon Example (to be expected at profile creation)

That’s it! You’ve completed the migration! You should now confirm that you see the device serial numbers all showing the Controller Profile in the Controller Column.

Cisco Software Central

InternalTestDemoAccount42.cisco.com | SDWAN-SA-Migration_Testing

Plug and Play Connect

Feedback Support Help

Devices | Controller Profiles | Network | Certificates | Manage External Virtual Account | Event Log | Transactions

+ Add Devices... | + Add Software Devices... | Edit Selected... | Delete Selected... | Enable External Management... | Transfer selected... | Refresh

<input type="checkbox"/>	Serial Number	Base PID	Product Group	Controller	Last Modified	Status	Actions
<input type="checkbox"/>		ASR1002-HX	Router	V-BOND-SVS-LAB	2021-May-21, 01:45:07	Pending (Redirection)	Show Log...
<input type="checkbox"/>		ASR1002-X	Router	V-BOND-SVS-LAB	2021-May-21, 01:45:07	Pending (Redirection)	Show Log...
<input type="checkbox"/>		ASR1002-HX	Router	V-BOND-SVS-LAB	2021-May-21, 01:45:07	Pending (Redirection)	Show Log...
<input type="checkbox"/>		ISR4431/K9	Router	V-BOND-SVS-LAB	2021-May-21, 01:45:07	Pending (Redirection)	Show Log...
<input type="checkbox"/>		ISR4351/K9	Router	V-BOND-SVS-LAB	2021-May-21, 01:45:07	Pending (Redirection)	Show Log...
<input type="checkbox"/>		ISR4331/K9	Router	V-BOND-SVS-LAB	2021-May-21, 01:45:07	Pending (Redirection)	Show Log...
<input type="checkbox"/>		ASR1002-X	Router	V-BOND-SVS-LAB	2021-May-21, 01:45:07	Pending (Redirection)	Show Log...

Figure 21 – Completion Check #1

One additional confirmation is to look at the Controller Profile page and ensure the “Used By” Column matches the number you captured in your Baseline collection back in Figure 5.

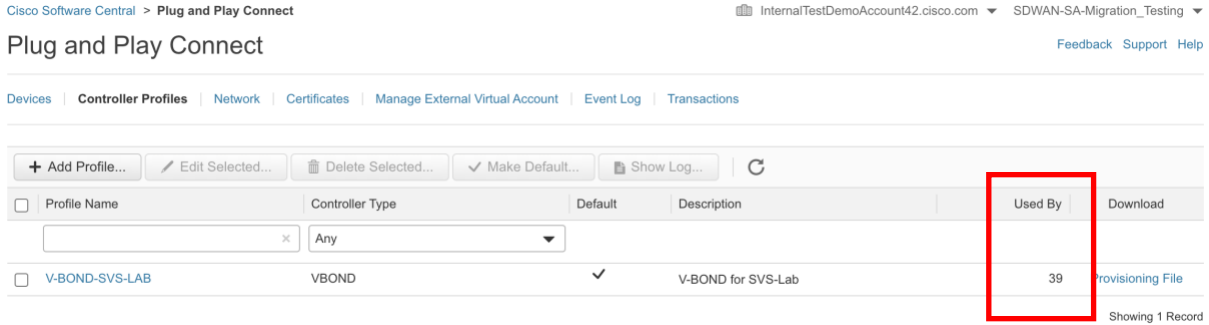


Figure 22 – Completion Check #2

Step 7. Test newly placed Controller Profile by adding a new serial number to the list, and performing a provisioning file upload to vManage

Now that the migration is complete and all looks well in Software Central, add a new cEdge device serial list to the SA/VA and associate it with the controller profile. Since the Sync Smart Account feature is not synchronous, this change will not be automatically pushed to the vManage.

You can trigger the Sync Smart Account from the vManage or you can go the manual route by going to the Controller Profile tab and click to download the Provisioning file (ensuring you select 18.3 and newer for Controller Versions):

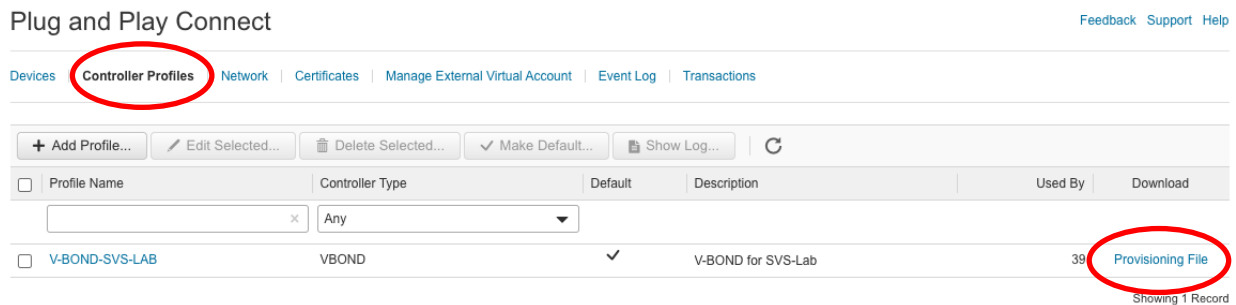


Figure 23 – Download Link for Provisioning File

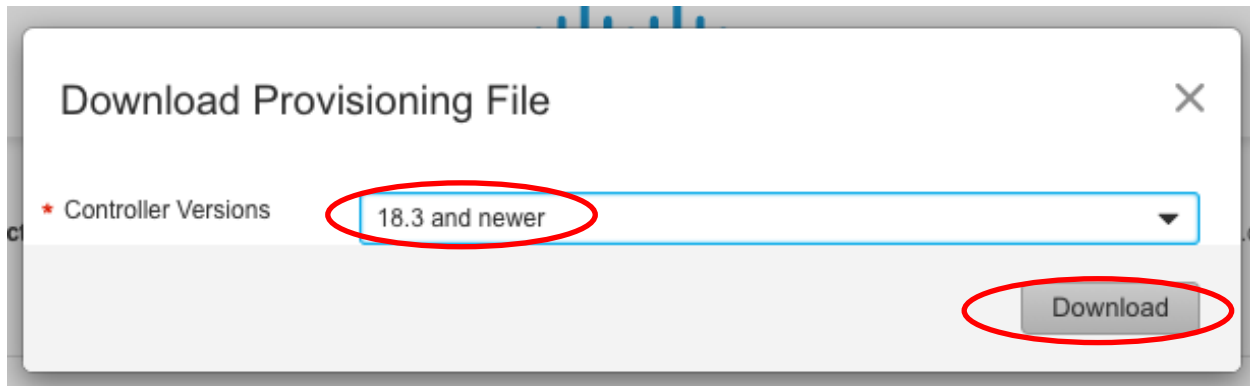


Figure 24 – Provisioning File Version Selection

The file will be placed in your downloads folder as “serialFile.viptela”. If there are already older versions present in the directory it will append a file number – this is normal. (i.e. – “serialFile (4).viptela”).

Open a browser and access the vManage GUI. Take note of the number of WAN Edge devices in the device list:

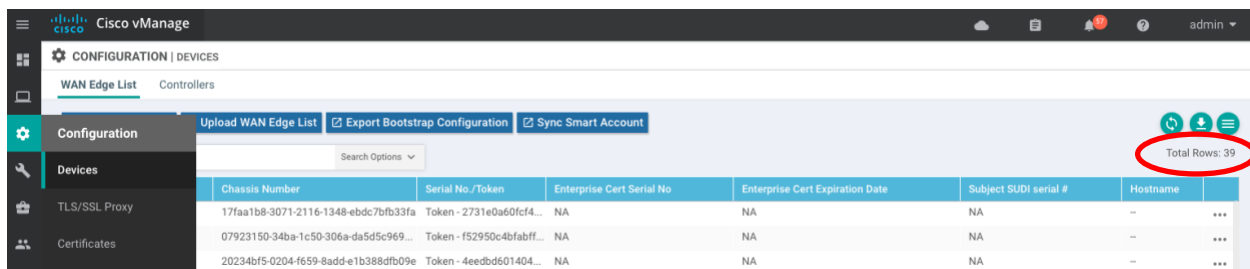


Figure 25 – Note Total Rows

Click the “Upload WAN Edge List” button on this page and select the serial file you downloaded. Check the box to “Validate the uploaded vEdge List and send to controllers”. Checking this box ensures that not only vManage gets the new device added, but that it also synchronizes the certificate whitelist to the other controllers (vBonds / vSmarts) so that the new device can onboard to the overlay successfully.

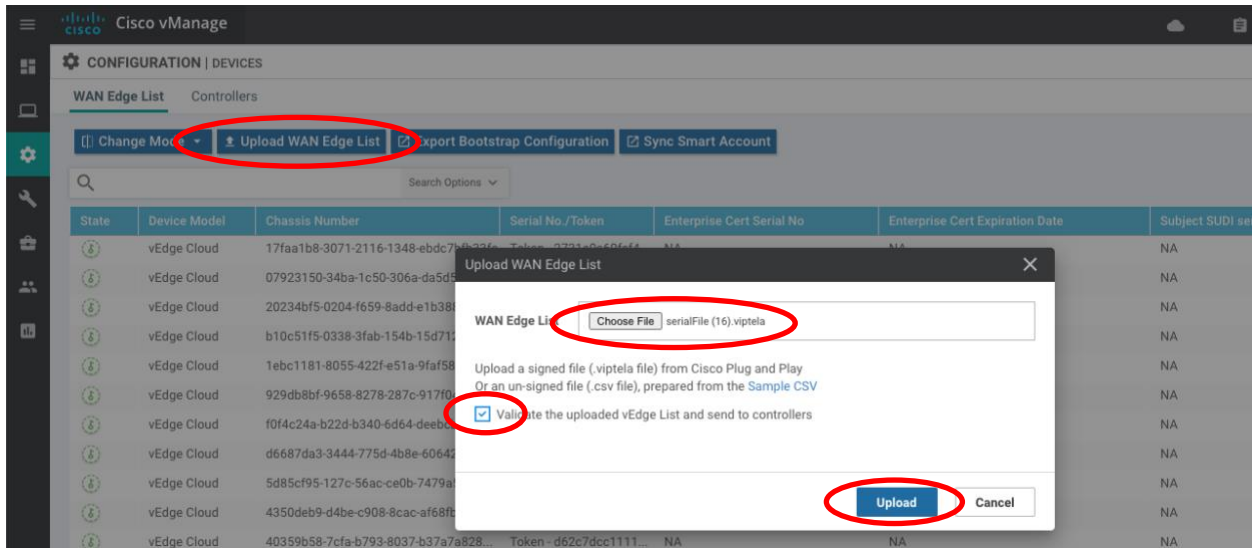


Figure 26 – Upload New Provisioning File

Click OK to confirm you want to take this action:

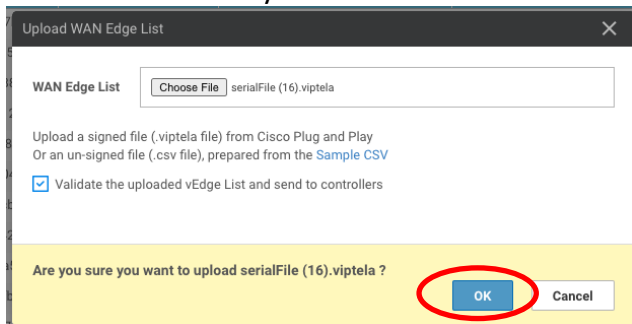


Figure 27 – Confirm Upload

The resultant popup will show quickly if there has been any change that is going to be pushed. In my example, we added one (1) new cEdge. Click OK to add the device to vManage and push the serial number / certificates for it to the controllers:

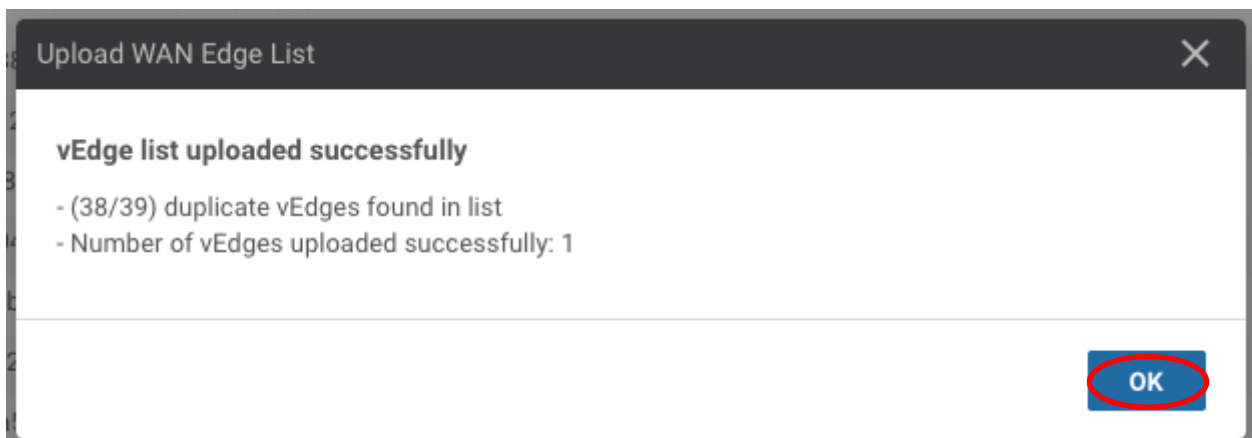


Figure 28 – Clicking OK takes you to the Task Status view

Ensure the Task completed successfully for all controllers:

Status	Message	Device Type	Hostname	System IP	Site ID	vManage IP
Success	Pushed serial list to vSmart-9a...	vSmart	z0003-h1-vsmart1	10.170.255.153	11000001	10.170.255.151
Success	Pushed serial list to vSmart-6e...	vSmart	z0003-h1-vsmart2	10.170.255.154	11000001	10.170.255.151
Success	Pushed serial list to vSmart-47...	vSmart	c0002-vsmart1a	10.130.255.155	11000002	10.170.255.151
Success	Pushed serial list to vSmart-7b...	vSmart	z0003-h2-vsmart1	10.171.255.153	11000001	10.170.255.151
Success	Pushed serial list to vSmart-c1...	vSmart	z0003-h2-vsmart2	10.171.255.154	11000001	10.170.255.151
Success	Pushed serial list to vSmart-8b...	vSmart	c0002-vsmart1b	10.130.255.156	11000002	10.170.255.151
Success	Pushed serial list to vSmart-46...	vSmart	c0002-vsmart2a	10.130.255.157	11000002	10.170.255.151
Success	Pushed serial list to vSmart-1c...	vSmart	c0002-vsmart2b	10.130.255.158	11000002	10.170.255.151
Success	Pushed serial list to vManage...	vManage	z0001-h1-vmanage1	10.170.255.150	11000001	10.170.255.151
Success	Pushed serial list to vManage...	vManage	z0003-h2-vmanage2	10.170.255.151	11000001	10.170.255.151
Success	Pushed serial list to vManage...	vManage	z0003-h1-vmanage3	10.171.255.150	11000001	10.170.255.151
Success	Pushed serial list to vBond-de...	vBond	z0003-h1-vbond1	10.170.255.152	11000001	10.170.255.151
Success	Pushed serial list to vBond-ea...	vBond	c0002-vbond1a	10.130.255.153	11000002	10.170.255.151

Figure 29 – Push vEdge List Task Status

Now that you have successfully uploaded the additional device, confirm once more that the number of devices in the WAN Edge list has increased by the expected amount (one for this example) in the Configuration → Devices page:

Chassis Number	Serial No./Token	Enterprise Cert Serial No	Enterprise Cert Expiration Date	Subject SUDI serial #	Hostname
17faa1b8-3071-2116-1348-ebdc7bfb33fa	Token - 2731e0a60fcf4...	NA	NA	NA	--
07923150-34ba-1c50-306a-da5d5c969...	Token - f52950c4bfabf...	NA	NA	NA	--
20234bf5-0204-f659-8add-e1b388dfb09e	Token - 4eedbd601404...	NA	NA	NA	--
b10c51f5-0338-3fab-154b-15d712891c...	Token - 79f65be97f4fef...	NA	NA	NA	--
1ebc1181-8055-422f-e51a-9faf58742Dee	Token - 609ec7b5fef2e...	NA	NA	NA	--
9794b8bf-9658-8778-787c-917f0493ec...	Token - 877357e64fc31	NA	NA	NA	--