

Cisco Plug and Play Support Guide for Cisco SD-WAN Products

June 2019

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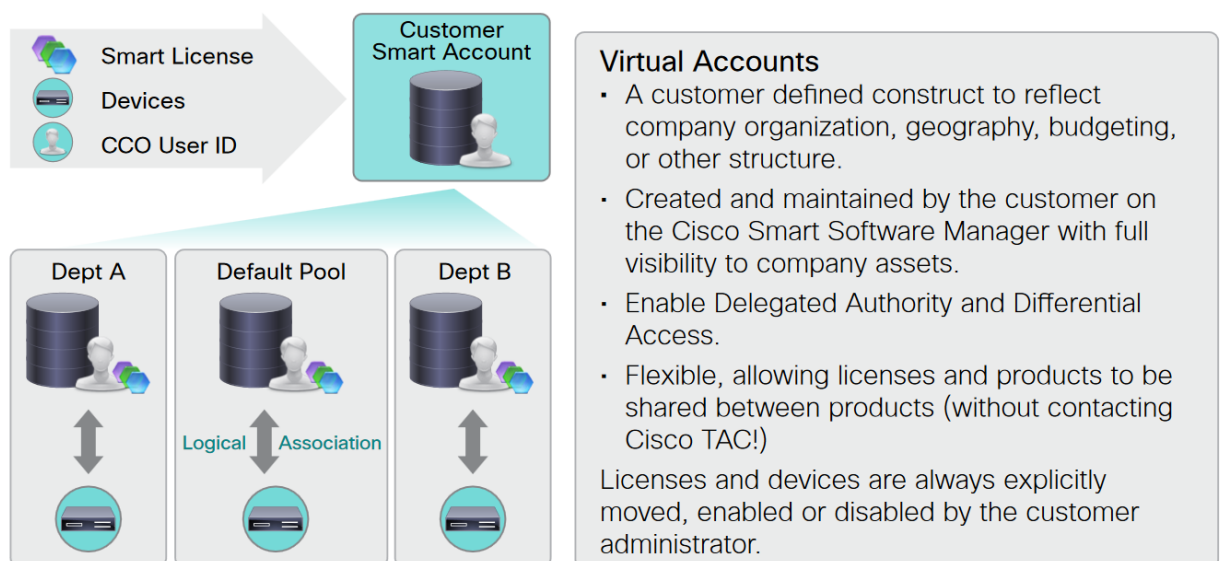
Introduction

The purpose of this document is to go through capabilities that are created on the Cisco® Plug and Play (PnP) portal to support the on-boarding of SD-WAN (formerly Viptela) products. This document will help Cisco SD-WAN customers understand the different steps that are needed to either bring up or debug on-boarding of a Cisco vEdge device or a vBond controller.

Cisco Smart Account and Virtual Account

Introduction to Cisco Smart Account and Virtual Account

After creating a Smart Account, customers can create Virtual Accounts that reflect their organizational departments, then associate licenses and devices with those departments.



How Smart and Virtual Accounts are used for on-boarding

Smart Accounts and Virtual Accounts are essential in a successful on-boarding of a vEdge router to its corresponding network.

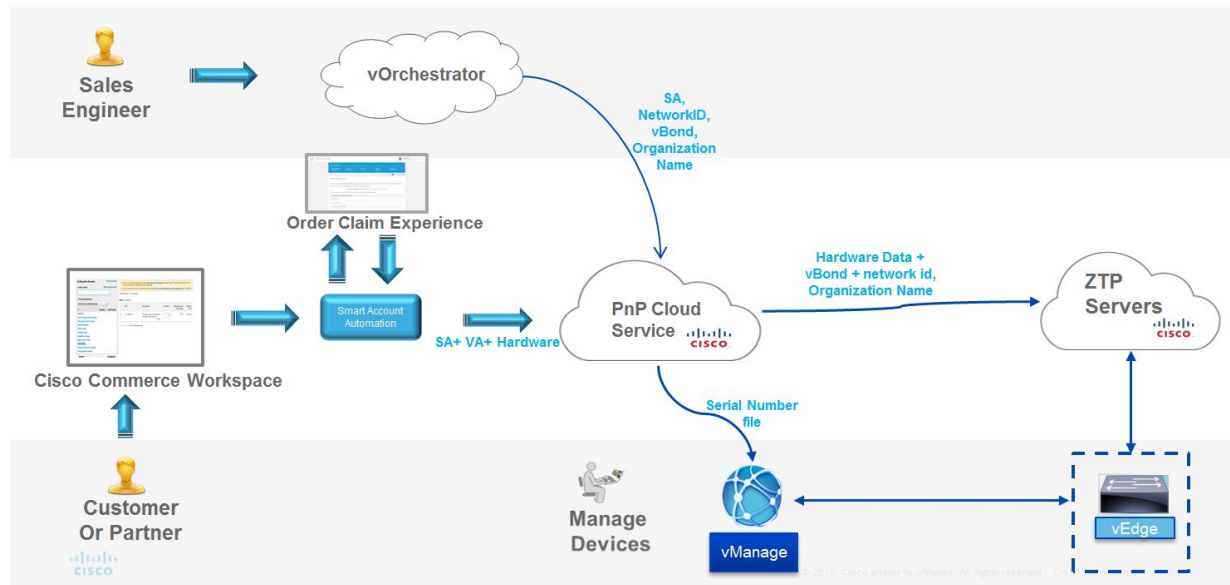
While placing an order on [Cisco Commerce Workspace](#), a customer can assign the same Smart Account and Virtual Account to the order. They can log in to Cisco vManage (version 18.x and above) to find the Smart and Virtual Accounts (Administer→Setting→Organization Name→View).

The devices manufactured as part of this order would flow into the Cisco Plug-and-Play (PnP) portal and would be associated to the vBond controller that was pushed by Cisco SD-WAN CloudOps. Once the association is successful, the data is pushed to zero-touch provisioning (ZTP).

For on-premises deployment

The customer or sales engineer who is helping with the customer's deployment would need to enter the vBond profile information into the Plug-and-Play portal, so that the controller information can be passed to zProv. Steps to set up a vBond controller and how to associate devices to it are demonstrated later in this document.

Figure 1. PnP workflow



Note: A Smart Account and a Virtual Account are non-mandatory fields during ordering. If the values are left blank, the customer would either be assigned system-generated Smart and Virtual Accounts or would be guided through a claiming experience to select the right Smart and Virtual Accounts under his organization. This claiming experience would occur after submitting an order.

Cisco PnP terms

Terms	Description
Network ID	The equivalent of the overlay ID in Viptela. Auto-generated when a profile is present in PnP. Can be edited only when no profiles exist in a Virtual Account. All devices for a given organization name in ZTP should be associated to one network ID.
Organization name	An attribute that vManage used to tie all the controllers together. The organization name is associated to a vBond controller in the PnP portal.
vBond controller	Represents the vBond IP or domain name. Only IPv4 is supported today.
Base product ID (PID)	Hardware product ID that is on the label.
Ordered PID	An ordered SKU that was selected in CCW. In some cases, the ordered PID and base PID can have the same value.
Secure device ID (SUDI)	A secure board ID that is used to validate anti-tampered devices.
International Mobile station Equipment Identity (IMEI) or device IMEI	IMEI information for an LTE-enabled vEdge controller. Both of the values would be the same for vEdge devices.

On-boarding sequence flow using PnP

For on-premises equipment

1. Place an order in CCW

- Either the customer or the partner enters the end-customer's email address (mandatory) or the customer's Smart Account and Virtual Account numbers (not mandatory).
- Serial number information with the Smart Account and Virtual Account is pushed to PnP.

The image displays two screenshots from the Cisco CCW (Cisco Configuration Wizard) interface. The top screenshot shows the 'Review and Submit' step of an order for a Cisco 850 Series Integrated Services Router. The bottom screenshot shows the 'Assign Customer Smart Account' dialog box, which prompts the user to either search for an existing Smart Account or request a new one. A red arrow points from the 'End Customer email' label to the 'Search for a Customer Smart Account' input field. Another red arrow points from the 'Assign Smart and Virtual Account' label to the 'Request New Customer Smart Account' button.

ORDER NAME: PnP Test Order (web) | STATUS: UNASSIGNED | SMART ACCOUNT: Assign Smart Account

PURCHASE ORDER # * | WEB ORDER ID: 8048780 | Check Local Validations | Save | Save and Continue

Set preferences for this order

Search by Qty, Description and Product Family | Find Products and Solutions | More Actions

Remove Selected Lines | Validate | Assign Smart Account

	Hardware, Software and Services	P.O. Line Reference	Lead Time (d)	Unit List Price (USD)	Qty	Ext. List Price (USD)
	Cisco 850 Series Integrated Services Routers more		14 days	1,395.00	1	1,395.00

Smart Account Required: Assign New

Valid as of 10-Feb-2017 to 10-Mar-2017

End Customer email

Assign Smart and Virtual Account

Assign Customer Smart Account

Smart Account will only be assigned to Smart Account enabled items.

Search for a Customer Smart Account

pnp-test.com PnP Test Account DEFAULT

OR

Request New Customer Smart Account

Set the Smart Account at Order Level

Assign | Cancel

2. Customer on-premises controller

- Make note of the organization name used to bring up the setup and also the vBond controller IP address or domain name.
- You will be required to enter this information in PnP.

3. Define the vBond controller in Plug and Play

- Add the vBond controller profile into PnP under the same Smart and Virtual Accounts used in Step 1 (for on premises).
- The steps to take to add a vBond controller profile are provided later in this document.
- Once the vBond Controller is added, manually associate the device to the controller.

▼ Add controller on the portal

The screenshot displays the Cisco PnP portal interface. At the top, a red arrow points to the 'Add controller on the portal' section. Below this, a modal window titled 'Add Controller Profile' is open, showing a four-step process: Step 1 (Profile Type) is complete, Step 2 (Profile Settings) is active, Step 3 (Review) is next, and Step 4 (Confirmation) is last. The 'Profile Settings' step includes fields for Profile Name, Description, Default Profile, Organization Name, and Primary Controller. Below the modal, the 'Devices' tab is selected, showing a table of devices. A red box highlights the 'Controller' column in the table, which contains the value 'VIBOND-FEATURE-T...'. The table also shows columns for Serial Number, Base PID, Product Group, Configuration, Last Modified, Status, and Actions.

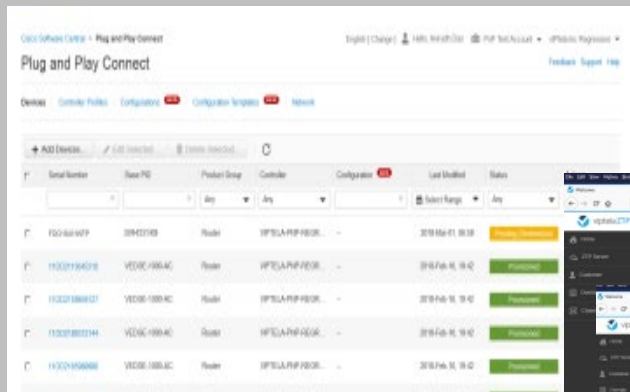
Serial Number	Base PID	Product Group	Controller	Configuration	Last Modified	Status	Actions
FUM1947W123 PMS TB130	ISR4331KB	Router	VIBOND-FEATURE-T...		2018-Feb-11, 09:08	Redirect Successful	Show Log

▲ Associate devices to a controller

4. PnP data push to ZTP

- PnP will automatically send the data with the vBond controller information, the organization name, network ID, and associated serial numbers to ZTP.

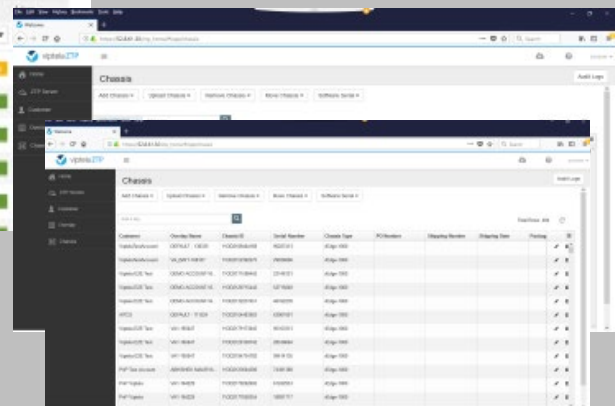
▼ Chassis SNs in PnP from CCW associated to vBond profile from Step 3



The screenshot shows the 'Plug and Play Connect' interface with a table of devices. The table has columns for Serial Number, Base PE, Product Group, Controller, Configuration, Last Modified, and Status. Five devices are listed, all with a 'Proposed' status.

Serial Number	Base PE	Product Group	Controller	Configuration	Last Modified	Status
F20-844-92P	30M-03789	Router	WTSU-PP-P000...		2018-Mar-01 16:18	Proposed
F100P184518	VE08-100-AC	Router	WTSU-PP-P000...		2018-Feb-16 16:42	Proposed
F100P1868107	VE08-100-AC	Router	WTSU-PP-P000...		2018-Feb-16 16:42	Proposed
F100P18802144	VE08-100-AC	Router	WTSU-PP-P000...		2018-Feb-16 16:42	Proposed
F100P1890006	VE08-100-AC	Router	WTSU-PP-P000...		2018-Feb-16 16:42	Proposed

▼ Overlay data available in ZTP



The screenshot shows the 'vBond ZTP Chassis' overlay table. It lists chassis information including Chassis Name, Chassis ID, Serial Number, Chassis Type, PC Number, Missing Number, Missing Date, and Pending. The table contains 10 rows of data.

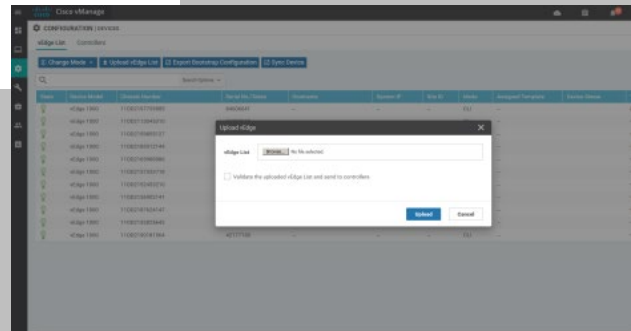
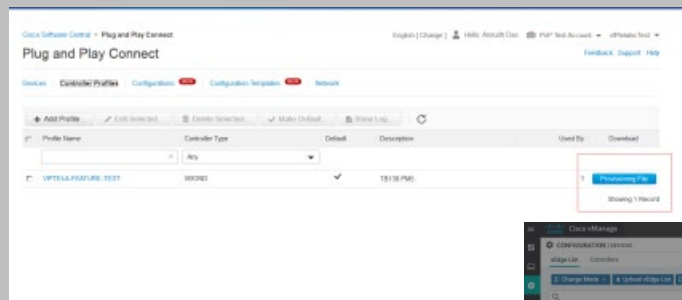
Chassis Name	Chassis ID	Serial Number	Chassis Type	PC Number	Missing Number	Missing Date	Pending
Chassis1	000001	000001	Edge-100				
Chassis2	000002	000002	Edge-100				
Chassis3	000003	000003	Edge-100				
Chassis4	000004	000004	Edge-100				
Chassis5	000005	000005	Edge-100				
Chassis6	000006	000006	Edge-100				
Chassis7	000007	000007	Edge-100				
Chassis8	000008	000008	Edge-100				
Chassis9	000009	000009	Edge-100				
Chassis10	000010	000010	Edge-100				

▲ Serial Numbers in ZTP

5. Upload the provisioning file into vManage

- Download the serial number file, also known as the provisioning file on the PnP portal.
- Upload the file in vManage (version 18.x and above).
- Devices will then be available on vManage

▼ Download Provisioning File from PnP



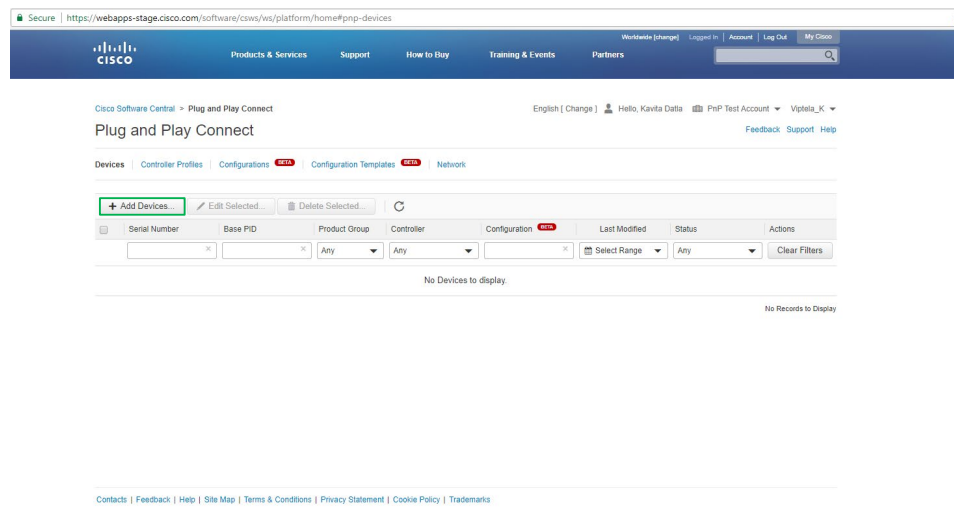
▲ Upload Provisioning file in vManage

Device management

The Cisco PnP portal contains a list of devices that are associated to a given controller. For ease of issue resolution, the PnP portal provides capabilities for device management to support personnel and customers.

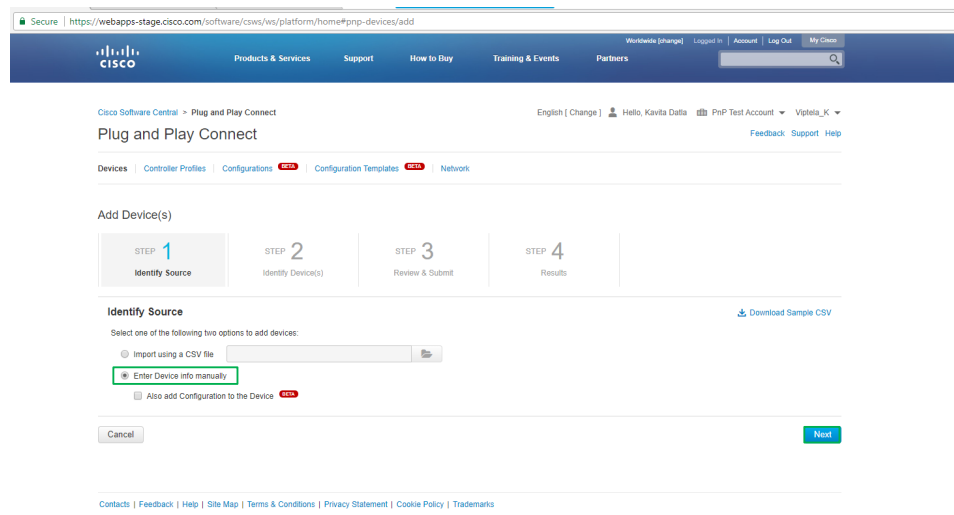
Steps to add a replacement device to your Virtual Account

1. Log in in to PnP with the Smart and Virtual Accounts that the user needs to add to the device. Click “Add Device”



The screenshot shows the Cisco PnP portal interface. The top navigation bar includes the Cisco logo and links for Products & Services, Support, How to Buy, Training & Events, and Partners. The main header indicates the user is logged in as 'PnP Test Account' with a 'Viptela_K' user. The breadcrumb trail shows 'Cisco Software Central > Plug and Play Connect'. The page title is 'Plug and Play Connect'. Below the title, there are tabs for 'Devices', 'Controller Profiles', 'Configurations', 'Configuration Templates', and 'Network'. The 'Add Devices' button is highlighted with a green box. Below the button, there is a table with columns: Serial Number, Base PID, Product Group, Controller, Configuration, Last Modified, Status, and Actions. The table is currently empty, displaying 'No Devices to display.' and 'No Records to Display'.

2. Choose “Enter Device Info manually” and click “Next”



The screenshot shows the 'Add Device(s)' page in the Cisco PnP portal. The page has a progress bar with four steps: STEP 1 Identify Source, STEP 2 Identify Device(s), STEP 3 Review & Submit, and STEP 4 Results. The 'Identify Source' step is currently active. Below the progress bar, there is a section titled 'Identify Source' with the instruction 'Select one of the following two options to add devices:'. There are two radio button options: 'Import using a CSV file' and 'Enter Device Info manually'. The 'Enter Device Info manually' option is selected and highlighted with a green box. Below these options, there is a checkbox labeled 'Also add Configuration to the Device' which is currently unchecked. At the bottom of the form, there are 'Cancel' and 'Next' buttons. The 'Next' button is highlighted with a green box.

3. Click on “Identify Device”

The screenshot shows the Cisco Software Central 'Plug and Play Connect' interface. The top navigation bar includes the Cisco logo and links for Products & Services, Support, How to Buy, Training & Events, and Partners. The main header indicates the user is logged in as 'Hello, Kavita Datta' and provides links for 'PnP Test Account' and 'Viptela_K'. The breadcrumb trail shows 'Cisco Software Central > Plug and Play Connect'. Below the breadcrumb, there are tabs for 'Devices', 'Controller Profiles', 'Configurations', 'Configuration Templates', and 'Network'. The 'Add Device(s)' section displays a progress bar with four steps: STEP 1 Identify Source (completed), STEP 2 Identify Device(s) (active), STEP 3 Review & Submit, and STEP 4 Results. The 'Identify Devices' section prompts the user to 'Enter device details by clicking Identify Device button and click Next to proceed to the next step.' It includes a '+ Identify Device...' button and a table with columns: Row, Serial Number, Base PID, Controller, Description, and Actions. The table currently shows 'No Devices to display.' and 'No Records to Display.' Buttons for 'Cancel', 'Back', and 'Next' are visible at the bottom.

4. The “Identify Device” screen appears. Enter the device details and click “Save”, as shown in the following screenshot. Choose the base PID in the case where a vEdge device is an orderable PID or label on the hardware router called “Model Name”.

The screenshot shows the 'Identify Device' modal form overlaid on the 'Plug and Play Connect' interface. The modal has a title bar with a close button. It contains the following fields: 'Serial Number' (text input with value '110D2190592115'), 'Base PID' (text input with value 'VEDGE-1000-AC'), 'Controller Profile' (dropdown menu with value 'VBOND_ONPREM_PROFILE'), and 'Description' (text input with placeholder 'Enter short optional description for this device.'). At the bottom of the modal are 'Cancel' and 'Save' buttons. The background interface is dimmed, showing the same 'Identify Devices' section as in the previous screenshot.

Note: Cisco ISR 4000 Series routers use two separate serial numbers for the unique device identifier (UDI) and secure unique device identifier (SUDI). For a device with two serial numbers, you must also provide the second serial number in PnP. The device may encounter redirection problems if it is provisioned by PnP using only one serial number. The following steps provide both serial numbers, enabling PnP to provision the device correctly.

- a. On the Cisco ISR 4000 Series router, display the two serial numbers (shown in bold in the output below).

```
ISR-4331#show pnp version
----- show pnp version -----
PnP Schema Version: 1.0, Baseline Tracking: rel29.1.20190116
Device UDI: PID:ISR4331/K9,VID:V05,SN:FD02240A1RY
UDI Checking: Yes
SID: AuthOnly:No, MustValidate:No, MustRenew:No
Security Enforced: No, PostReloadPriv'd Profile: N/A
SUDI Certificate: CISCO_IDEVID_SUDI
Device SUDI: PID:ISR4331/K9,SN:FD022371AM5
```

- b. In the "Identify Device" window, enter the PID of an ISR 4000 Series router in the "Base PID" field. When you begin typing, the field provides options based on the typed characters. Select an ISR 4000 Series router. Once the PID is selected additional fields appear in the "Identify Device" window.

Identify Device

* Serial Number: FTX43323

* Base PID: Choose Base PID

Controller Profile

Description

Cancel Save

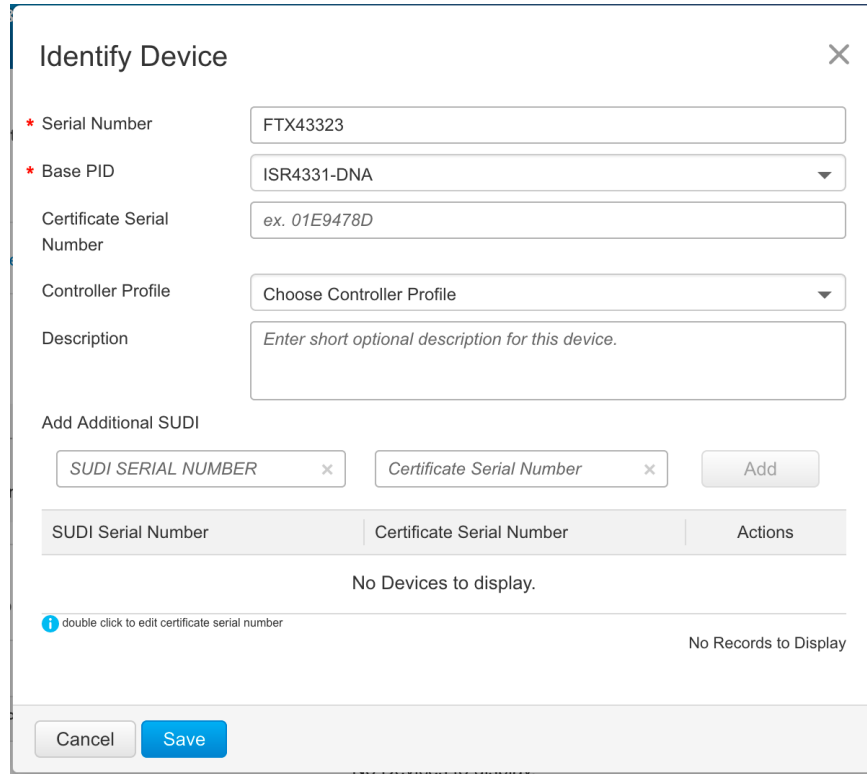
Search: ISR4

RESULTS

- ISR4221-AX/K9
- ISR4221-B/K9
- ISR4221-SEC/K9
- ISR4221/K9
- ISR4221T-P/K9
- ISR4221X/K9
- ISR4321-AX/K9
- ISR4321-AXV/K9
- ISR4321-SEC/K9
- ISR4321-V/K9
- ISR4321-VSEC/K9
- ISR4321/K9
- ISR4331-AX/K9

Clear Selection

- c. In the "SUDI Serial Number" field, enter the SUDI serial number that was displayed in a previous step and click "Add." The "Identify Device" window now contains both serial numbers of the device.

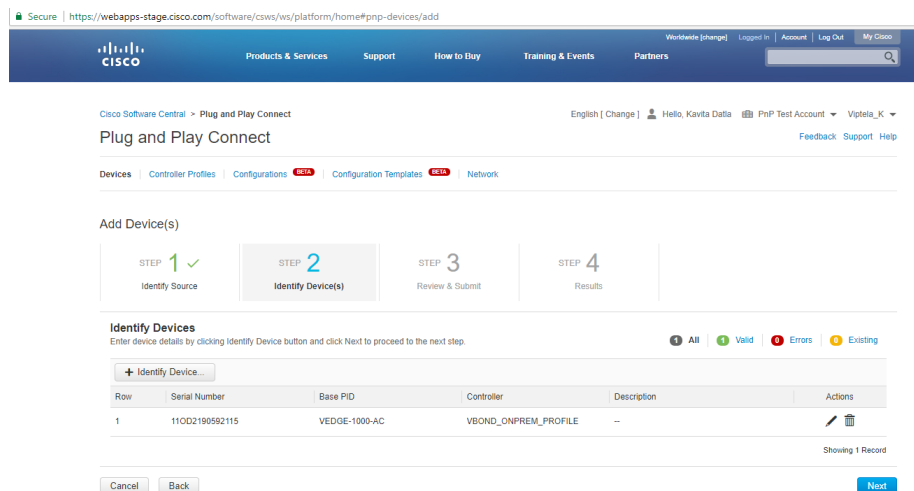


The "Identify Device" dialog box contains the following fields and controls:

- Serial Number:** Text input field with value "FTX43323".
- Base PID:** Dropdown menu with value "ISR4331-DNA".
- Certificate Serial Number:** Text input field with value "ex. 01E9478D".
- Controller Profile:** Dropdown menu with value "Choose Controller Profile".
- Description:** Text input field with placeholder "Enter short optional description for this device."
- Add Additional SUDI:** Section with two input fields: "SUDI SERIAL NUMBER" (value "SUDI SERIAL NUMBER") and "Certificate Serial Number" (value "Certificate Serial Number"), followed by an "Add" button.
- Table:** A table with columns "SUDI Serial Number", "Certificate Serial Number", and "Actions". It currently displays "No Devices to display."
- Buttons:** "Cancel" and "Save" buttons at the bottom.

- d. Click Save.

5. Click "Next"



The "Plug and Play Connect" page shows the following elements:

- Navigation:** "Cisco Software Central > Plug and Play Connect".
- Steps:** A progress bar with four steps: "STEP 1 Identify Source" (completed), "STEP 2 Identify Device(s)" (active), "STEP 3 Review & Submit", and "STEP 4 Results".
- Identify Devices Section:**
 - Header: "Identify Devices".
 - Text: "Enter device details by clicking Identify Device button and click Next to proceed to the next step."
 - Buttons: "Identify Device" (plus icon), "Valid", "Errors", "Existing".
 - Table:
- Table:**

6. Click “Submit”

Secure | <https://webapps-stage.cisco.com/software/cs/ws/platform/home#pnp-devices/add>

Worldwide [change] | Logged In | Account | Log Out | My Cisco

Products & Services | Support | How to Buy | Training & Events | Partners

Cisco Software Central > Plug and Play Connect

English [Change] | Hello, Kavita Datta | PnP Test Account | Vptela_K | Feedback | Support | Help

Devices | Controller Profiles | Configurations **DATA** | Configuration Templates **DATA** | Network

Add Device(s)

STEP 1 ✓ Identify Source | STEP 2 ✓ Identify Device(s) | **STEP 3 Review & Submit** | STEP 4 Results

Review & Submit
Submit action will submit following 1 newly identified device(s).

Row	Serial Number	Base PID	Controller	Description
1	110D2190592115	VEDGE-1000-AC	VBOND_ONPREM_PROFILE	--

Showing 1 Record

Cancel Back Submit

7. Click “Done”

Secure | <https://webapps-stage.cisco.com/software/cs/ws/platform/home#pnp-devices/add>

Worldwide [change] | Logged In | Account | Log Out | My Cisco

Products & Services | Support | How to Buy | Training & Events | Partners

Cisco Software Central > Plug and Play Connect

English [Change] | Hello, Kavita Datta | PnP Test Account | Vptela_K | Feedback | Support | Help

Devices | Controller Profiles | Configurations **DATA** | Configuration Templates **DATA** | Network

Add Device(s)

STEP 1 ✓ Identify Source | STEP 2 ✓ Identify Device(s) | STEP 3 ✓ Review & Submit | **STEP 4 Results**

Attempted to add 1 device(s)

✓ Successfully added 1 device(s) !
It may take a few minutes for the new devices to show up in the Devices table. Please wait a minute or two and refresh the page as needed.

Done

8. Devices will be provisioned automatically since the profile is already present. The status shows as “Provisioned” once the data is sent to ZTP.

Secure | <https://webapps-stage.cisco.com/software/cs/ws/platform/home#pnp-devices>

Worldwide [change] | Logged In | Account | Log Out | My Cisco

Products & Services | Support | How to Buy | Training & Events | Partners

Cisco Software Central > Plug and Play Connect

English [Change] | Hello, Kavita Datta | PnP Test Account | Vptela_K | Feedback | Support | Help

Devices | Controller Profiles | Configurations **DATA** | Configuration Templates **DATA** | Network

+ Add Devices... | Edit Selected... | Delete Selected... | Refresh

Serial Number	Base PID	Product Group	Controller	Configuration DATA	Last Modified	Status	Actions
110D2190592115	VEDGE-1000-AC	Router	VBOND_ONPREM_P...	--	2018-Mar-06, 01:22	Provisioned	Show Log... ▼

Showing 1 Record

Associate controllers to a device

1. Select the device under the “Devices” tab and Click “Edit Selected”

The screenshot shows the Cisco Software Central interface. The top navigation bar includes links for Products & Services, Support, How to Buy, Training & Events, and Partners. The main content area is titled 'Plug and Play Connect' and features a breadcrumb trail: Cisco Software Central > Plug and Play Connect. Below this, there are tabs for Devices, Controller Profiles, Configurations, Configuration Templates, and Network. The 'Devices' tab is active, displaying a table of devices. The table has columns for Serial Number, Base PID, Product Group, Controller, Configuration, Last Modified, Status, and Actions. One device, with Serial Number 110D2191378801, is selected, and the 'Edit Selected' button is highlighted in green. The table shows four records, all with a status of 'Provisioned'.

Serial Number	Base PID	Product Group	Controller	Configuration	Last Modified	Status	Actions
110D2157739666	VEDGE-1000-AC	Router	VIPTELA-CLOUD-HO...	--	2018-Feb-28, 18:05	Provisioned	Show Log...
110D2191378801	VEDGE-1000-AC	Router	VIPTELA-TEST-PRO...	--	2018-Feb-24, 11:47	Provisioned	Show Log...
110D2184762606	VEDGE-1000-AC	Router	VIPTELA-TEST-PRO...	--	2018-Feb-21, 23:18	Provisioned	Show Log...
110D2178743356	VEDGE-1000-AC	Router	VIPTELA-TEST-PRO...	--	2018-Feb-20, 00:18	Provisioned	Show Log...

2. Select the profile that the user wants to change and click “Apply”

The screenshot shows the 'Edit Devices' page in the Cisco Software Central interface. The page title is 'Edit Devices' and it includes a sub-header: 'Select the property of the device, provide the value and apply to all selected devices. Once done submit the changes.' Below this, there is a form with a 'Select Device Property' dropdown set to 'Controller Profile' and a 'Provide a value' dropdown set to 'Choose Controller Profile'. The 'Apply' button is highlighted in green. Below the form, there is a table titled 'Selected Devices' showing one device with Serial Number 110D2191378801, Base PID VEDGE-1000-AC, and Controller VIPTELA-TEST-PROFILE2. The table has columns for Serial Number, Base PID, Controller, and Actions. The 'Apply' button is highlighted in green.

Serial Number	Base PID	Controller	Actions
110D2191378801	VEDGE-1000-AC	VIPTELA-TEST-PROFILE2	Show Log...

3. The new and old profiles are shown under the “Controller” label

Secure | <https://webapps-stage.cisco.com/software/csws/ws/platform/home#png-devices/edit/Router>

Worldwide [change] | Logged In | Account | Log Out | My Cisco

Products & Services | Support | How to Buy | Training & Events | Partners

Cisco Software Central > Plug and Play Connect

English [Change] | Hello, Kavita Datta | Viptela E2E Test | DEFAULT

Feedback | Support | Help

Devices | Controller Profiles | Configurations **EDIT** | Configuration Templates **EDIT** | Network

Edit Devices

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

Select Device Property: Controller Profile | Provide a value: VIPTELA-CLOUD-HOSTED-PROFILE | **Apply** | Reset

Selected Devices

Product Group : Router

Serial Number	Base PID	Controller	Configuration	Description	Actions
110D2191378801	VEDGE-1000-AC	New: VIPTELA-CLOUD-HOSTED-P... Current: VIPTELA-TEST-PROFILE2	--	--	

Showing 1 Record

Cancel | **Submit**

4. Click the “Submit” button. The device is now associated with a new profile (cloud-hosted in this case) as shown in the following screenshot.

Secure | <https://webapps-stage.cisco.com/software/csws/ws/platform/home#png-devices>

Worldwide [change] | Logged In | Account | Log Out | My Cisco

Products & Services | Support | How to Buy | Training & Events | Partners

Cisco Software Central > Plug and Play Connect

English [Change] | Hello, Kavita Datta | Viptela E2E Test | DEFAULT

Feedback | Support | Help

Devices | Controller Profiles | Configurations **EDIT** | Configuration Templates **EDIT** | Network

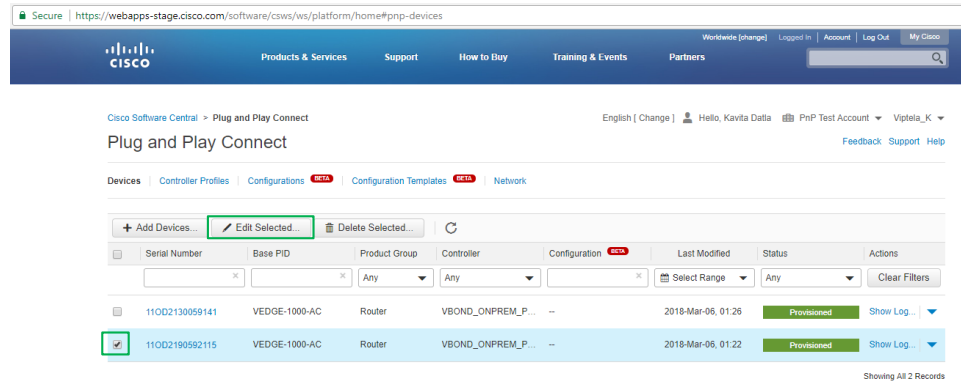
+ Add Devices | **Edit Selected** | **Delete Selected** | **Refresh**

☐	Serial Number	Base PID	Product Group	Controller	Configuration EDIT	Last Modified	Status	Actions
☐	110D2191378801	VEDGE-1000-AC	Router	VIPTELA-CLOUD-HO...	--	2018-Mar-06, 05:45	Provisioned	Show Log...
☐	110D2157739666	VEDGE-1000-AC	Router	VIPTELA-CLOUD-HO...	--	2018-Feb-28, 18:05	Provisioned	Show Log...
☐	110D2184762606	VEDGE-1000-AC	Router	VIPTELA-TEST-PRO...	--	2018-Feb-21, 23:18	Provisioned	Show Log...
☐	110D2178743356	VEDGE-1000-AC	Router	VIPTELA-TEST-PRO...	--	2018-Feb-20, 00:18	Provisioned	Show Log...

Showing All 4 Records

Un-configure a device (disassociate a device from the controller)

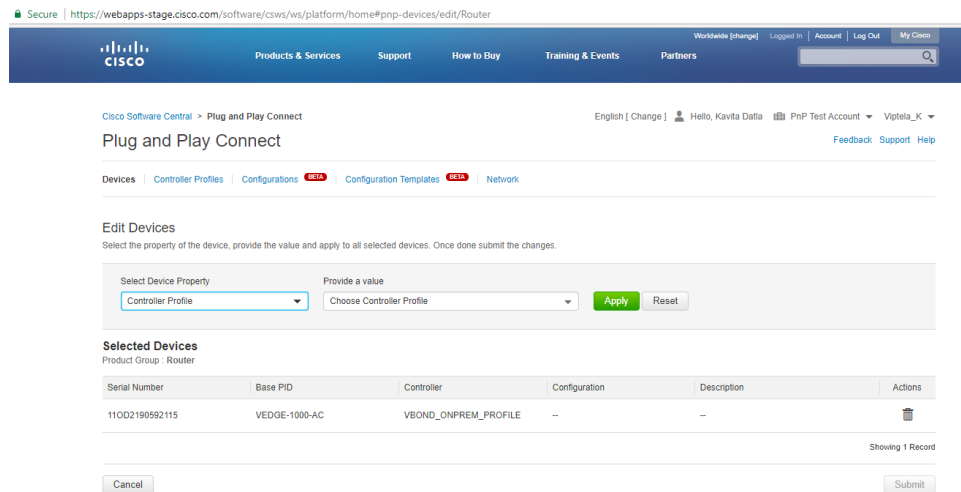
1. Click on the device that you want to un-configure and click “Edit Selected”



The screenshot shows the Cisco Software Central interface. The breadcrumb trail is "Cisco Software Central > Plug and Play Connect". The page title is "Plug and Play Connect". The navigation bar includes "Devices", "Controller Profiles", "Configurations" (marked BETA), "Configuration Templates" (marked BETA), and "Network". The "Edit Selected..." button is highlighted with a green box. Below the table, it says "Showing All 2 Records".

Serial Number	Base PID	Product Group	Controller	Configuration	Last Modified	Status	Actions
110D2130059141	VEDGE-1000-AC	Router	VBOND_ONPREM_P...	--	2018-Mar-06, 01:26	Provisioned	Show Log...
110D2190592115	VEDGE-1000-AC	Router	VBOND_ONPREM_P...	--	2018-Mar-06, 01:22	Provisioned	Show Log...

2. Click “Controller Profile” and click “Apply”



The screenshot shows the "Edit Devices" page. The breadcrumb trail is "Cisco Software Central > Plug and Play Connect". The page title is "Plug and Play Connect". The navigation bar includes "Devices", "Controller Profiles", "Configurations" (marked BETA), "Configuration Templates" (marked BETA), and "Network". The "Edit Devices" section has a sub-header "Select the property of the device, provide the value and apply to all selected devices. Once done submit the changes." Below this, there is a "Select Device Property" dropdown menu with "Controller Profile" selected. The "Provide a value" section has a "Choose Controller Profile" dropdown menu. The "Apply" button is highlighted with a green box. Below the form, there is a "Selected Devices" section with a table showing the selected device.

Select Device Property: Controller Profile

Provide a value: Choose Controller Profile

Apply Reset

Selected Devices

Product Group: Router

Serial Number	Base PID	Controller	Configuration	Description	Actions
110D2190592115	VEDGE-1000-AC	VBOND_ONPREM_PROFILE	--	--	

Showing 1 Record

Cancel Submit

3. The new and old profile will be shown

Cisco Software Central > Plug and Play Connect

English [Change] Hello, Kavita Datta PnP Test Account Viptela_K

Plug and Play Connect

Feedback Support Help

Devices | Controller Profiles | Configurations **EDIT** | Configuration Templates **EDIT** | Network

Edit Devices

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

Select Device Property
Controller Profile

Provide a value
Choose Controller Profile

Apply

Reset

Selected Devices

Product Group : Router

Serial Number	Base PID	Controller	Configuration	Description	Actions
110D2190592115	VEDGE-1000-AC	New -- Current: VBOND_ONPREM_PROF...	--	--	

Showing 1 Record

Cancel Submit

4. Click the “Submit” button. The device will be shown with an “unconfigured” status on the “Devices” tab as there is no vBond controller associated with it

Secure | <https://webapps-stage.cisco.com/software/csws/ws/platform/home#pnp-devices>

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Cisco Software Central > Plug and Play Connect

English [Change] Hello, Kavita Datta PnP Test Account Viptela_K

Plug and Play Connect

Feedback Support Help

Devices | Controller Profiles | Configurations **EDIT** | Configuration Templates **EDIT** | Network

+ Add Devices

Edit Selected

Delete Selected

Refresh

☐	Serial Number	Base PID	Product Group	Controller	Configuration EDIT	Last Modified	Status	Actions
☐	110D2190592115	VEDGE-1000-AC	Router	--	--	2018-Mar-06, 01:36	Unconfigured	Show Log...
☐	110D219059141	VEDGE-1000-AC	Router	VBOND_ONPREM_P...	--	2018-Mar-06, 01:26	Provisioned	Show Log...

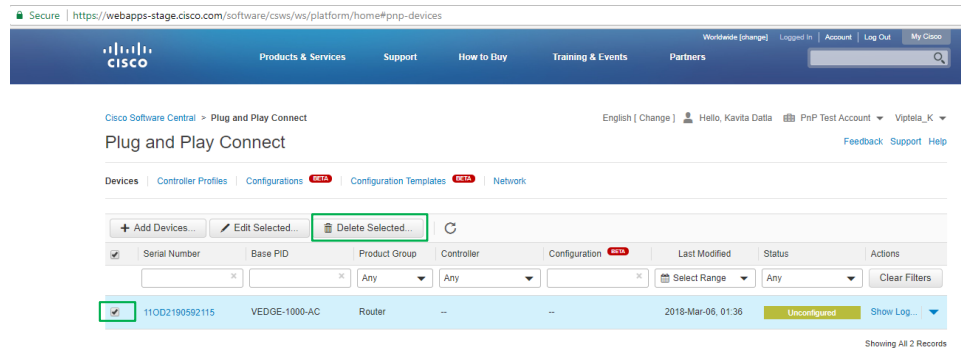
Showing All 2 Records

Moving devices from one Virtual Account to another Virtual Account

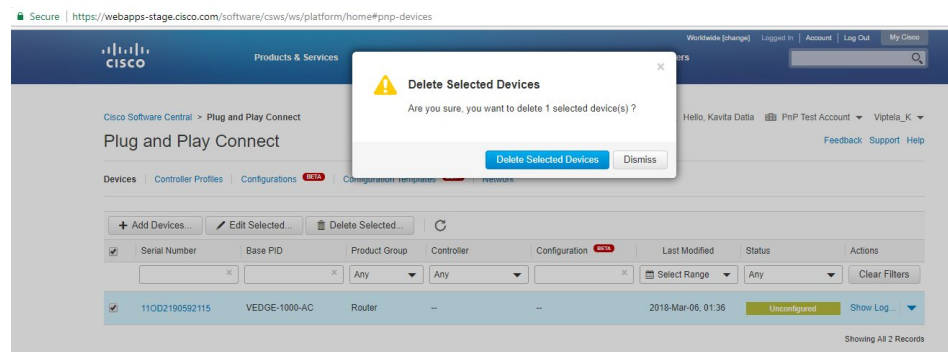
1. Delete the device from one Virtual Account
2. Add the device into another Virtual Account

Delete the device from one Virtual Account

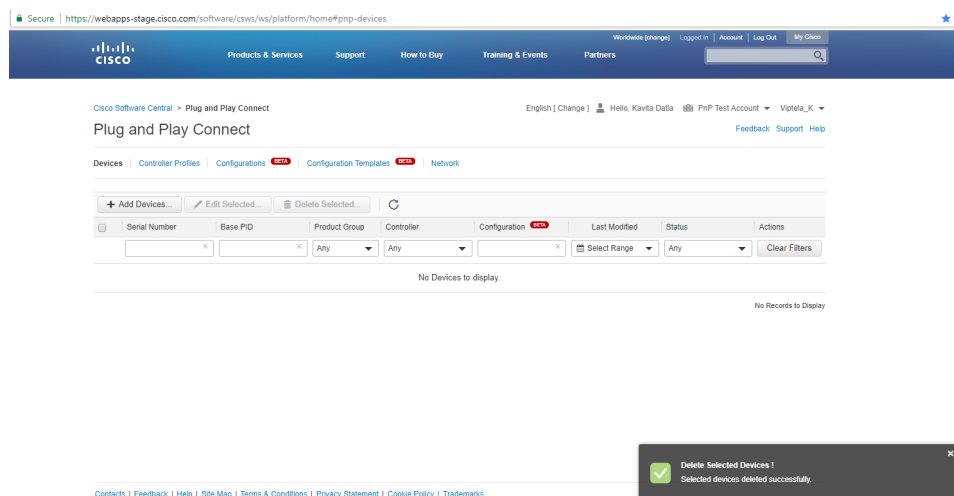
1. On the Devices tab, select the devices that need to be deleted and click the “Delete Selected” button



2. The system prompts a message, illustrated in the following screenshot. Click “Delete Selected Devices”



3. Devices will be deleted from the Virtual Account



Add a device into another Virtual Account

1. Choose another Virtual Account where you want to add a device

The screenshot shows the Cisco Software Central interface for the 'Plug and Play Connect' section. The breadcrumb trail is 'Cisco Software Central > Plug and Play Connect'. The page title is 'Plug and Play Connect'. Below the title, there are tabs for 'Devices', 'Controller Profiles', 'Configurations', 'Configuration Templates', and 'Network'. The 'Devices' tab is active. A table with columns 'Serial Number', 'Base PID', 'Product Group', 'Controller', 'Configuration', 'Last Modified', 'Status', and 'Actions' is displayed. The table is empty, with a message 'No Devices to display.' below it. The status bar at the bottom indicates 'No Records to Display'.

2. Make sure that there is a vBond profile in that account. If not, it needs to be created.

The screenshot shows the Cisco Software Central interface for the 'Plug and Play Connect' section. The breadcrumb trail is 'Cisco Software Central > Plug and Play Connect'. The page title is 'Plug and Play Connect'. Below the title, there are tabs for 'Devices', 'Controller Profiles', 'Configurations', 'Configuration Templates', and 'Network'. The 'Controller Profiles' tab is active. A table with columns 'Profile Name', 'Controller Type', 'Default', 'Description', 'Used By', and 'Download' is displayed. The table contains one record: 'PPP' with 'VBOND' as the controller type, 'Default' as the status, and '0' as the used by count. The status bar at the bottom indicates 'Showing 1 Record'.

3. Add the device to the Virtual Account (see steps for adding the device).

The device will be added to the new Virtual Account and be provisioned automatically as there is a vBond profile associated to it.

The screenshot shows the Cisco Software Central interface for the 'Plug and Play Connect' section. The breadcrumb trail is 'Cisco Software Central > Plug and Play Connect'. The page title is 'Plug and Play Connect'. Below the title, there are tabs for 'Devices', 'Controller Profiles', 'Configurations', 'Configuration Templates', and 'Network'. The 'Devices' tab is active. A table with columns 'Serial Number', 'Base PID', 'Product Group', 'Controller', 'Configuration', 'Last Modified', 'Status', and 'Actions' is displayed. The table contains one record: '110D2190592115' with 'VEDGE-1000-AC' as the base PID, 'Router' as the product group, 'PPP' as the controller, and 'Provisioned' as the status. The status bar at the bottom indicates 'Showing 1 Record'.

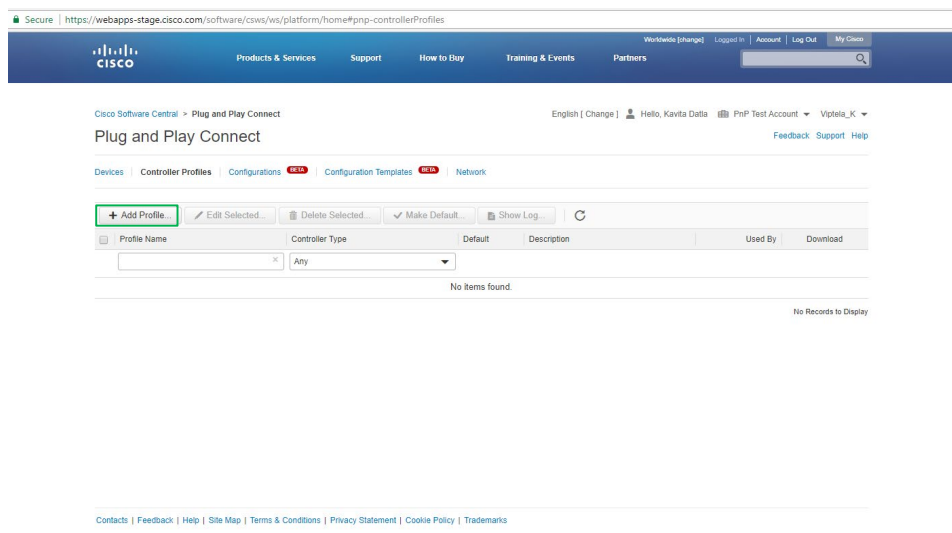
Controller management

The PnP portal allows users with the right access levels to add and modify controllers to help manage their re-direction service.

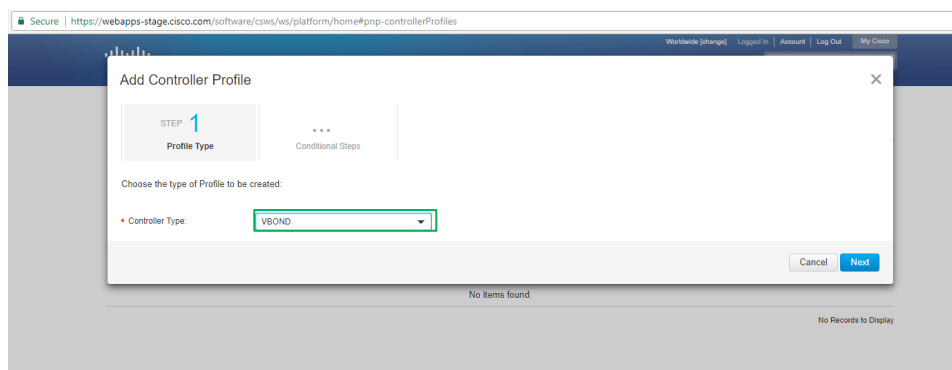
Note: There can be only one cloud-hosted and one on-premises controller in a given Virtual Account. Only one of them can be active.

Add controller

1. On the Controller Profiles tab, click “Add Profile”



2. Enter the controller type as “vBond” and click “Next”



3. Enter the data in “Add Controller Profile” and click “Next”. Enter the organization name used in vManage and the domain/IP address of the vBond controller.

The screenshot shows the 'Add Controller Profile' dialog box with the 'STEP 2 Profile Settings' tab selected. The progress bar at the top indicates four steps: STEP 1 Profile Type (completed), STEP 2 Profile Settings (active), STEP 3 Review, and STEP 4 Confirmation. The 'Profile Settings' section contains the following fields:

- Profile Name: VBOND_ONPREM_PROFILE
- Description: This is vBond On-Prem Profile for Viptela devices
- Default Profile: Yes (dropdown)
- Organization Name: Org66
- Primary Controller: Domain Name (dropdown), DTLS:// (dropdown), gap.com (text), 12346 (text)
- Server Root CA: Max file size up to 1 MB or max characters not to exceed 1048576 (text) with a 'Browse' button.

At the bottom right, there are 'Cancel', 'Back', and 'Next' buttons.

4. The system displays all the vBond Information as in the following screenshot.

The screenshot shows the 'Add Controller Profile' dialog box with the 'STEP 3 Review' tab selected. The progress bar at the top indicates four steps: STEP 1 Profile Type (completed), STEP 2 Profile Settings (completed), STEP 3 Review (active), and STEP 4 Confirmation. The 'Review' section displays the following information:

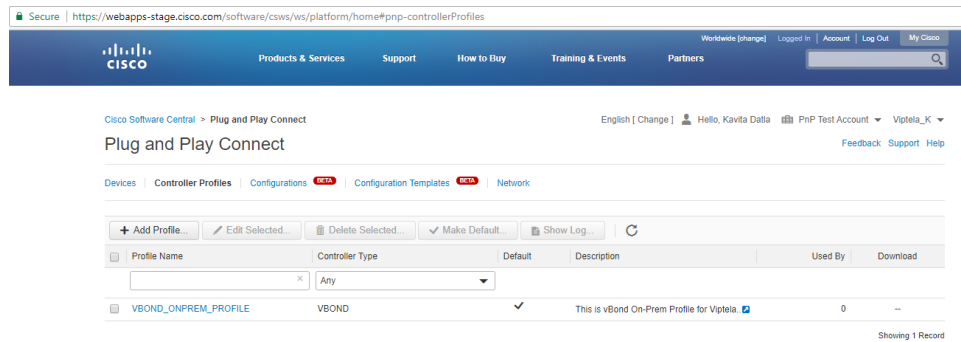
- Profile Type: VBOND
- Profile Settings:
 - Profile Name: VBOND_ONPREM_PROFILE
 - Description: This is vBond On-Prem Profile for Viptela devices
 - Primary Domain Name: gap.com
 - Primary Protocol: dtls
 - Primary Port: 12346
 - Organization Name: Org66

At the bottom right, there are 'Cancel', 'Back', and 'Submit' buttons.

5. Click “Submit”

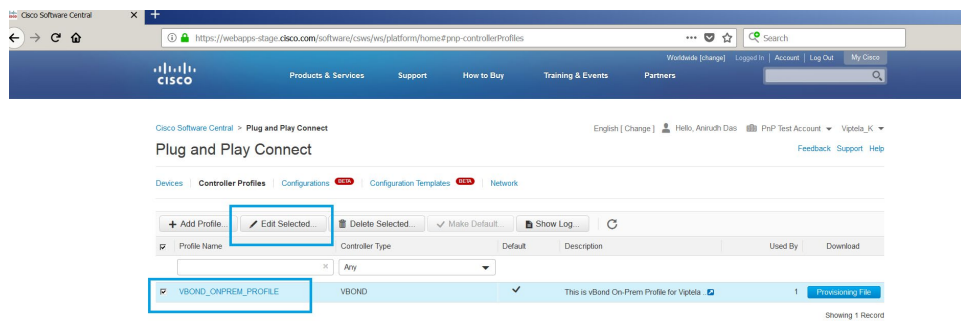
The screenshot shows the 'Add Controller Profile' dialog box with the 'STEP 4 Confirmation' tab selected. The progress bar at the top indicates four steps: STEP 1 Profile Type (completed), STEP 2 Profile Settings (completed), STEP 3 Review (completed), and STEP 4 Confirmation (active). A green checkmark icon is displayed next to the message: 'The controller profile "VBOND_ONPREM_PROFILE" was successfully created.' At the bottom right, there is a 'Done' button.

6. Click “Done”. The profile is created.



Edit controller

1. Select the controller under the Controller Profile tab and click “Edit Selected”



2. The existing value of the controller will be populated in editable format. Change the required value and click “Next”. Rules around editing a controller profile are explained later in this document.

The screenshot shows the 'Add Controller Profile' dialog box with four steps: STEP 1 Profile Type, STEP 2 Profile Settings, STEP 3 Review, and STEP 4 Confirmation. STEP 2 is active. The 'Profile Settings' section includes the following fields:

- Profile Name: VBOND_ONPREM_PROFILE
- Description: This is vBond On-Prem Profile for Viptela devices
- Default Profile: Yes
- Organization Name: Org66
- Primary Controller: Domain Name (DTLS://), gap.com, 12346
- Server Root CA: Max file size up to 1 MB or max characters not to exceed 1048576

Buttons at the bottom: Cancel, Back, Next.

3. The system displays all the vBond information, as shown in the following screenshot.

The screenshot shows the 'Add Controller Profile' dialog box with four steps: STEP 1 Profile Type, STEP 2 Profile Settings, STEP 3 Review, and STEP 4 Confirmation. STEP 3 is active. The 'Review' section displays the following information:

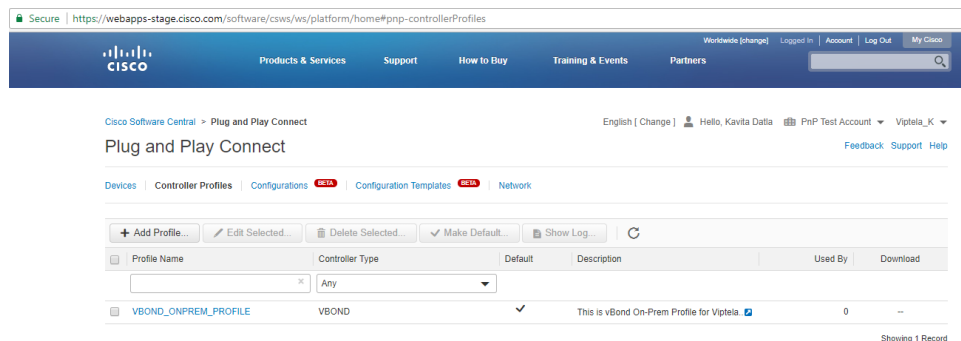
- Profile Type: VBOND
- Profile Settings:
 - Profile Name: VBOND_ONPREM_PROFILE
 - Description: This is vBond On-Prem Profile for Viptela devices
 - Primary Domain Name: gap.com
 - Primary Protocol: dtls
 - Primary Port: 12346
 - Organization Name: Org66

Buttons at the bottom: Cancel, Back, Submit.

4. Click “Submit”

The screenshot shows the 'Add Controller Profile' dialog box with four steps: STEP 1 Profile Type, STEP 2 Profile Settings, STEP 3 Review, and STEP 4 Confirmation. STEP 4 is active. The confirmation message states: "The controller profile 'VBOND_ONPREM_PROFILE' was successfully created." A 'Done' button is located at the bottom right.

5. Click “Done”. The profile is edited.



Rules around editing a vBond controller profile on PnP

Plug and Play enforces certain rules to ensure system integrity:

- The organization name is not editable if there are devices associated to a vBond on PnP
- The network ID is not editable when devices are present in a Virtual Account
- The default field in the vBond controller drives the active controller profile on the zProv tool. Only active profile edits will reflect in zProv.



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Printed in USA

10/18