

Getting Started

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Activate IoT Service (Wired)

The following procedure shows you how to activate IoT service (wired) on your devices from the Cisco Spaces dashboard.

Before you begin

To activate IoT service (wired), here are some prerequisites.

- Cisco Spaces: Connector
- Cisco Catalyst 9300 or 9400 Series Switches with Cisco IOS XE Amsterdam 17.3.x and later



Note The workflow initiated by this procedure automatically checks for these prerequisites.

- **Step 1** Log in to Cisco Spaces.
- **Step 2** From the left navigation pane, click **IoT Services > About IoT Services**.

You can see the number of connectors activated with the IoT service (wired) service. You can also see the number of switches deployed as an IoT service (wired) gateway.

Click View Detailed Status to see the breakdown of the activation status by individual devices.

Figure 1: Detailed Status of Connectors Activated With IoT Service (Wired)

Wireless Services Wired Services		
5 of 5 Completed		5 O Activated Failed
Connectors	Version	Activation Status
Bhaumik-ami	V2	Deployed
bhaumik-qa-manual	V3	Ø Deployed
connector3.1-ami-Bhaumik	V3	Deployed
Bhaumik-2-3-4-on prem	V2	Ø Deployed
Bhaumik-ami-connector-2.3.4	V2	👩 Deployed

Figure 2: Detailed Status of Switches Activated as IoT Service (Wired) Gateways

Dep	loyment Sta	atus/Histor	y					×
	Connectors	Controllers	Wireless Gateway	Wired Gateway				
	1 of 1 Completed					1 Switches deployed	0 Switches failed	
	Switch Name		Loca	ion	Deployment	Status		
			N/A		Ø Deployed			



Figure 3: Activate IoT Services

About IoT Serv	ices									C	Activa	te loT Ser	vices
oT Services: Activ	ation Sta	tus			Last up	odated: As o	of Aug 30th, 2023	03:11:29 PM	3	Troubles	shoot	View D	etailed Status
Connector						irs		Gateway					
Wireless Services		Wired Ser	vices					Wireless (Bateway		Wired Gat	eway	
5 0	0	5	0	0	2	0	0	0	7	0	1	0	0
Activated Failed	Pending	Activated	Failed	Pending	Activated	Failed	Pending	Activated	Failed	Pending	Activated	Failed	Pending

Step 4 In the Activate IoT Services window that is displayed, choose Wired.

Figure 4: Activate IoT Service (Wired)

ctivate IoT Services			×
	What would you I	ike to activate first	
	If you want to enable IoT services on both wireless a steps and come back	nd wired devices, choose one option and complete the later to activate the rest.	
	Wireless You must have a connector installed and added compatible APs on the connectors before you proceed with this. The gateway can be deployed all the compatible APs. Compatible APsec: Catalyst 9800 series controllers and 9100 series APs	Wired You must have a connector installed and added supported witches on the connectors before you proceed with this. The gateway can be deployed all certain parameters manually. Compatible devices: Catalyst 9300 and 9400 series switches	
			Previous Next

You can see the list of all devices that can be activated with IoT service (wired), along with the time taken for activation.

Figure 5: List of Devices that Support IoT Service (Wired)

Activate IoT Services		×
	IoT services will be activated on	
	4 of 9 compatible connectors Takes upto 2 hrs	
	5 connectors not responding, hence IoT services will not be activated on them.	
Act (zivating IoT services on the supported connectors may take upto 2 hrs. You can initiate the activation and check the status in the "About IoT services" page.	
	Activate	
	Activate IoT services on selected? Click here for customization	

Step 5 To activate IoT service (wired) on all devices on your network, do the following:

- a) In the IoT services will be activated on window, click Activate.
 - Note For Smart power distribution unit (PDU) and Hella cameras, IoT service (wired) is now activated. Click **Finish** to exit this procedure. Continue the procedure only for sensors and other devices.
- b) To use wired sensors, you can activate wired gateway on your switches. Click Activate Wired.

Figure 6: Activate IoT service (wired)

Activate IoT Services		×
	loT services will be activated on	
	4 of 9 compatible connectors Takes upto 2 hrs	
	5 connectors not responding, hence IoT services will not be activated on them.	
	Activating IoT services on the supported connectors may take upto 2 hrs. You can initiate the activation and check the status in the "About IoT services" page.	
	Activate	
	Activate IoT services on selected?	
	Click here for customization	

c) Continue to Step 7 to deploy the IoT service (wired) gateway.

Step 6 To activate IoT service (wired) only on specific devices of your network, do the following:

- a) In the IoT services will be activated on window, click Click here for customization.
- b) Check if your preferred connector is activated. If it is not activated, choose one or more connectors you want to activate with IoT service (wired), and click **Activate**.
 - **Note** For Smart PDU and Hella cameras, IoT service (wired) is now activated. There is no further need to proceed with the following steps in this task. Click **Finish** to exit this procedure. Continue the steps only for sensors and other devices, and click **Activate Wired**.
- c) If your connector is already activated, you can click Skip to Gateway Deployment.
- **Step 7** To deploy a switch as a IoT service (wired) gateway, do the following:
 - a) In the **Deploy Wired Gateway: 1. Choose Switches** window that is displayed, check the respective switches check box on which you want to deploy IoT service (wired) gateway.

Connectors Controllers	Wireless Gateway Wired Gateway	
1 of 1 Completed		1 O Switches deployed Switches fail
Switch Name	Location	Deployment Status
	N/A	Ø Deployed

Figure 7: Common Parameters: Wired Gateway

- b) In the **Deploy Wired Gateway: 2. Choose Type** window that is displayed, choose **Static** to configure static IP addresses and other details for the gateway.
- c) In the **Deploy Wired Gateway: 3. Common Parameters** window that is displayed, you can configure the following common parameters of the gateway:
 - Source VLAN list: List of VLANs to which the wired devices are connected. The traffic on these VLANs is monitored. If the wired devices are connected to multiple VLANs, enter the VLANs separated by a comma.
 - **IOx VLAN**: This is the VLAN on which the connector is reachable (for management or data). You must configure the Cisco IOx App's second interface to use this VLAN to send traffic to the connector. This VLAN can be the same as the wired PoE node VLAN. The connector must have the required permissions to accept communications from the Cisco IOx App.
 - **IOx Netmask**: This is the IP subnet mask that you must manually configure for the Cisco IOx App's second interface, and is used to communicate with the connector. This is not required if you select DHCP.
 - IoX Gateway Address: This is the IP address that you must manually configure for the Cisco IOx App's second interface, and is used to communicate with the connector. This is not required if you select DHCP.

Figure 8: Common Parameters: Wired Gateway

1	2	3	4	
Choose Switches	Choose Type	Common Parameters	Configuration Settings	
	Configure the common parameters for t	ne selected switches		
	Source VLAN List			
	111			
	IOx VLAN			
	1234			
	IOx Netmask			
	255.255.155.0			
	IOx Gateway Address	X		
	10.10.111.6			
	Keep it blank if above parameters are no	t common across your switches	S	

Figure 9: ERSPAN Session Interfaces



Figure 10: Sample Configuration



d) In the **Deploy Wired Gateway: 4. Configuration Settings** window that is displayed, you can add the IOx IP Address by clicking the pen icon. This is the IP address that you must manually configure for the Cisco IOx App's second interface, and is used to communicate with the Connector. This is not required if you select DHCP.

You can also see and edit the wired gateway configurations you made previously by checking **Show IoX Configurations** check box. You can edit the IoX configurations:

- Source VLAN list:
- IOx VLAN
- IOx Netmask
- IoX Gateway Address
- IOx IP Address

You can also edit the default advanced configurations:

- **Destination SPAN VLAN**: The VLAN used to send ERSPAN traffic from Power over Ethernet (PoE) nodes to Cisco IOx App. You can use an existing VLAN or create a new one. This VLAN can also be local to the switch.
- Destination SPAN VLAN IP address: This is the Switched Virtual Interface (SVI) or the IP address of the destination VLAN that can be used to route traffic. If you are using an existing VLAN, you can provide the same IP address. We recommend that you create a new VLAN so that you can keep the ERSPAN traffic local without impacting the existing configuration. This VLAN is used only within the switch for the SPAN traffic.
- Destination SPAN VLAN Gateway Address:



Figure 11: Deploy Wired Gateway: 4. Configuration Settings

e) Click Finish to deploy the IoT service (wired) gateway on the selected switch.