Getting Started

Activate IoT Service (Wireless)

This task shows you how to activate IoT service (wireless) on some or all your devices, from the Cisco Spaces dashboard.

Before you begin

To activate IoT service (wireless), your network must meet the below prerequisites:

- Cisco Spaces: Connector
- Cisco Catalyst 9800 Series Wireless Controllers, installed with version 17.3.1 or higher
- Supported access points. See Prerequisites of IoT Service (Wireless)

Note

- This workflow is applicable only for Connector Release 3. We recommend you upgrade from Connector 2.x for smooth functioning of your services. If it is essential to enable IoT service (wireless) on Connector 2.x, see Enable IoT Service on Connector2, on page 5.
- The workflow initiated by this procedure automatically checks for prerequisites necessary to complete this task.

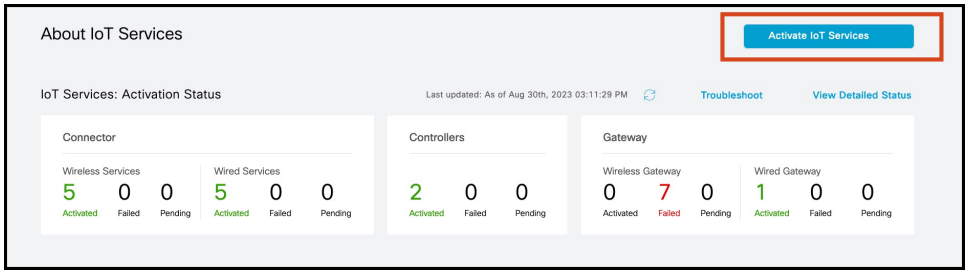
Procedure

Step 1 Login to Cisco Spaces.

Step 2 From the left navigation pane, click **IoT Services** > **About IoT Services**.

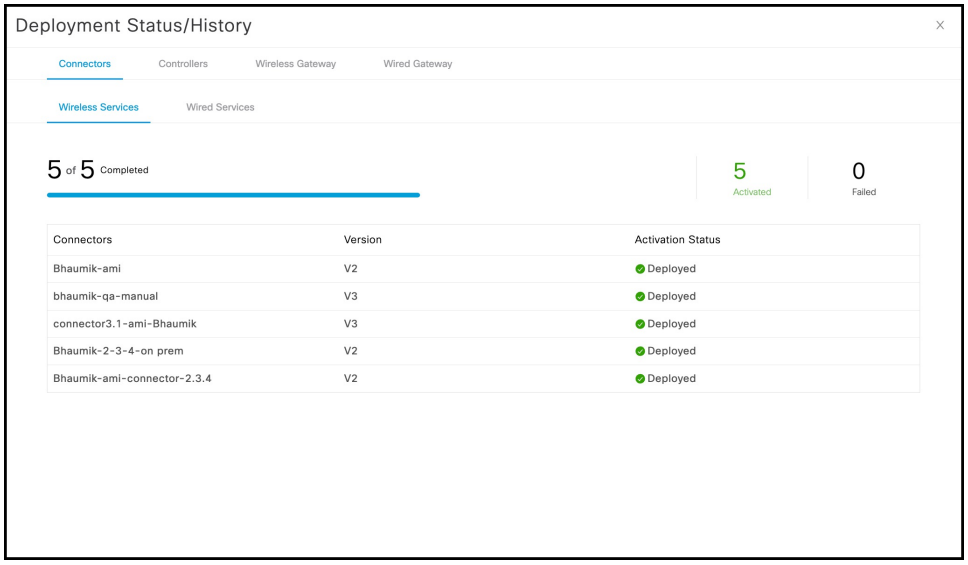
You can see the number of connectors activated with the IoT service (wireless) service. You can also see the number of APs deployed as an IoT service (wireless) gateway.

Figure 1: About IoT Services



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

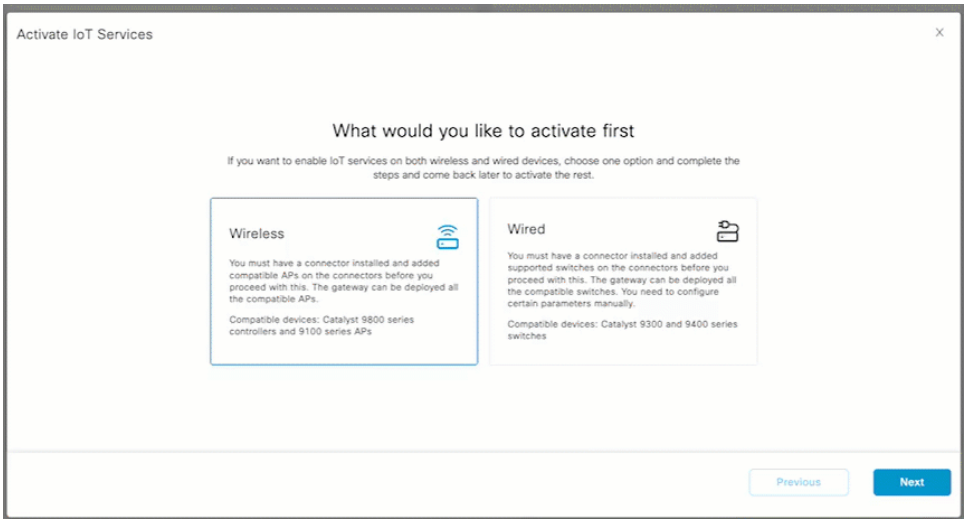
Figure 2: Detailed Status of Devices Activated With IoT Service (Wireless)



Step 3 In the **About IoT Services** window top-right corner, click **Activate IoT Services**.

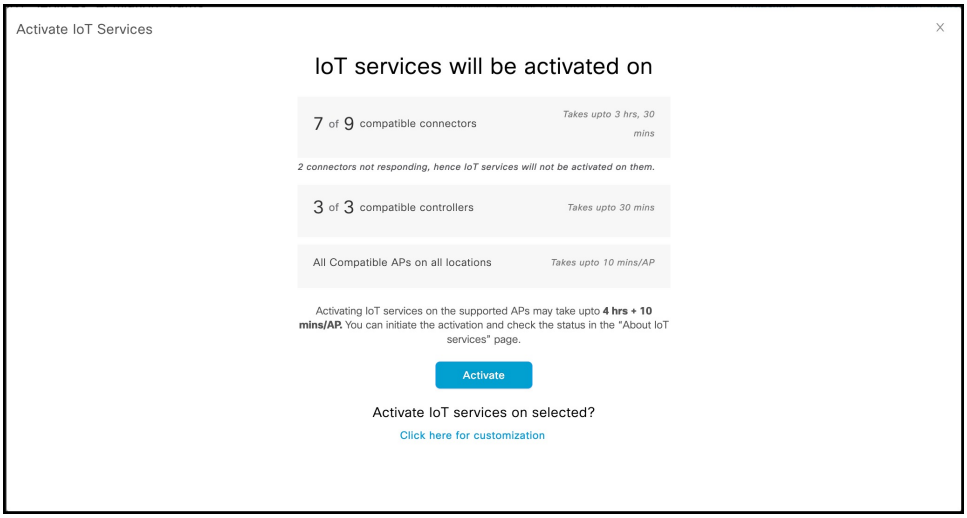
Step 4 In the **Activate IoT Services** window that is displayed, choose **Wireless**.

Figure 3: Activate IoT Service (Wireless)



You can see the list of all devices on which IoT service (wireless) can be activated, along with the activation time.

Figure 4: List of Supported Devices

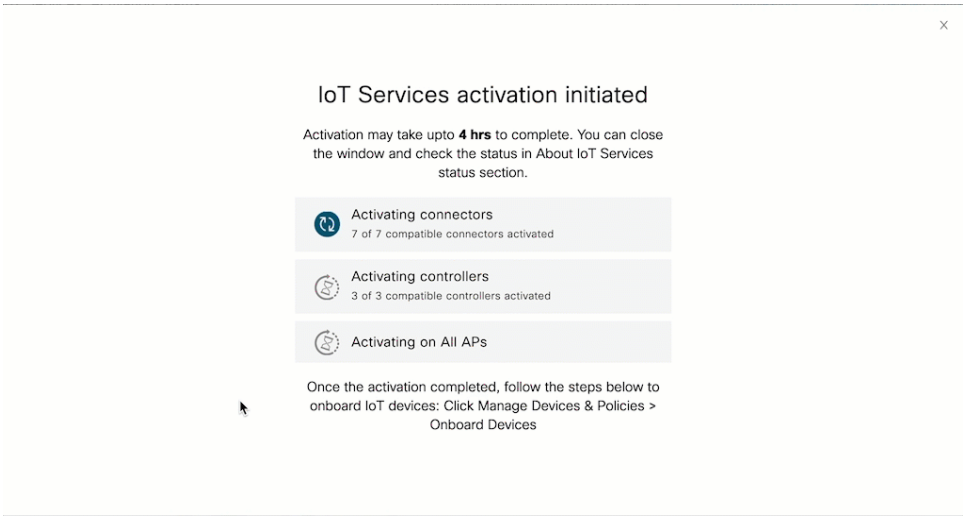


Step 5 To activate IoT service (wireless) on all devices on your network, in the **IoT services will be activated on** window, click **Activate**.

This activation of IoT service (wireless) automates the following tasks:

- Enables IoT streams on the connector
- Enables the wireless controller stream
- Configures APs as a Bluetooth Low Energy (BLE) gateway (this includes turning on the BLE radio, BLE scanning, and deploying the BLE gateway app)

Figure 5: Activate IoT Service (Wireless) on All Devices



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

a) Choose one or more connectors to activate IoT service (wireless).

b) To activate the wireless gateway, click **Activate Wireless**.

c) In the **Deploy Wireless Gateway** window, select the APs on which you want to activate IoT service (wireless).

Figure 6: Activate IoT Service (Wireless) on Preferred Devices

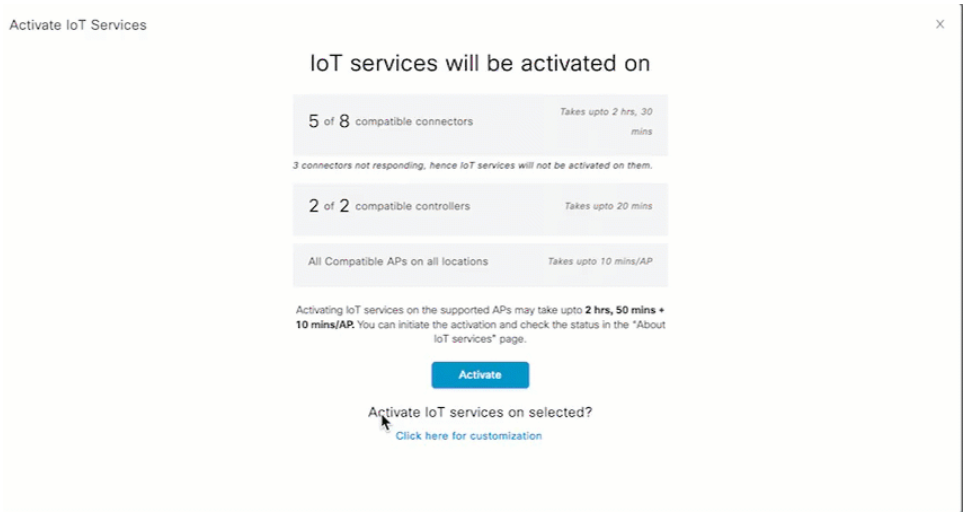
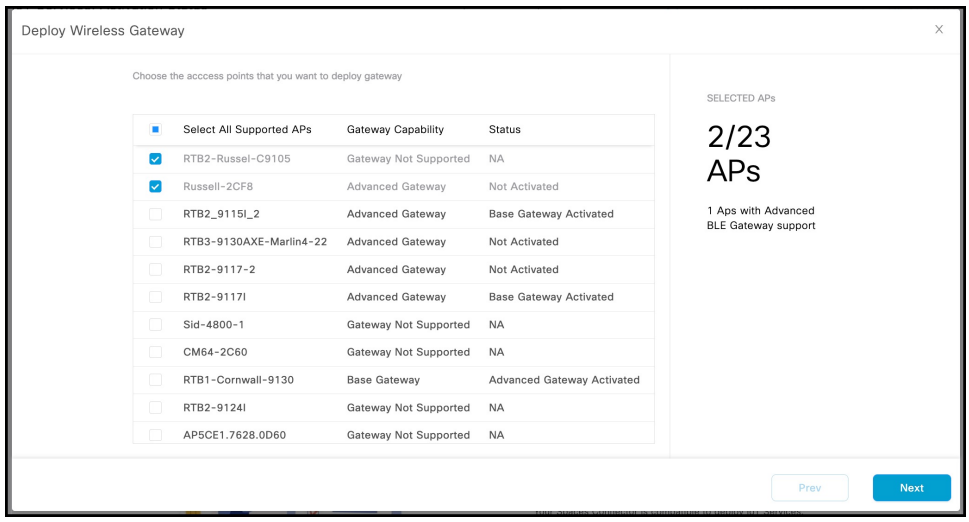


Figure 7: Activate IoT Service (Wireless) on Preferred Devices



What to do next

Once the activation completed, you can onboard the IoT Service (Wireless) devices. Click **Manage Devices & Policies > Onboard Devices**.

Enable IoT Service on Connector2

Verify Cisco Spaces: Connector is Added and Active

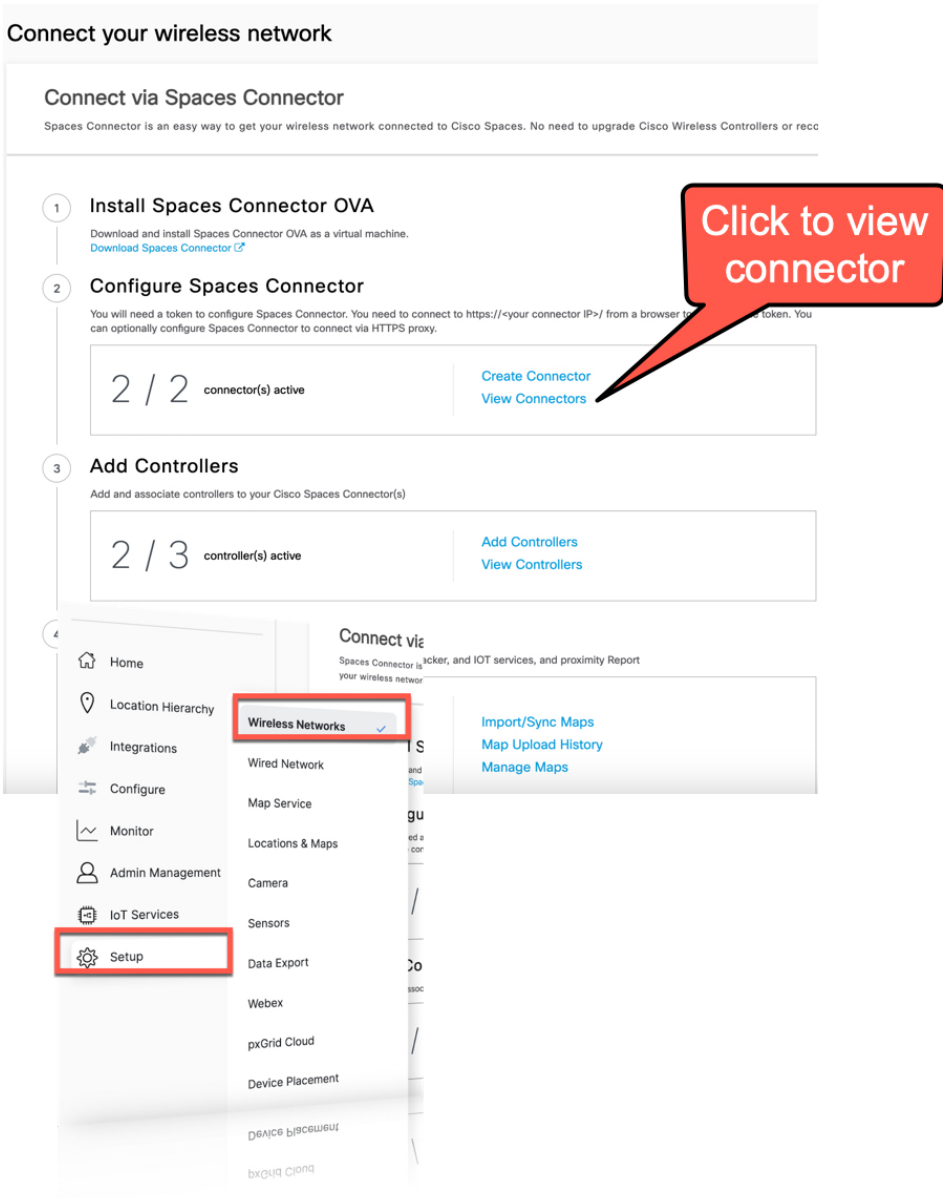
This procedure helps you verify if a Cisco Spaces: Connector is deployed and active.

Procedure

Step 1 From the Cisco Spaces dashboard left-navigation pane, choose **Setup > Wireless Network**.

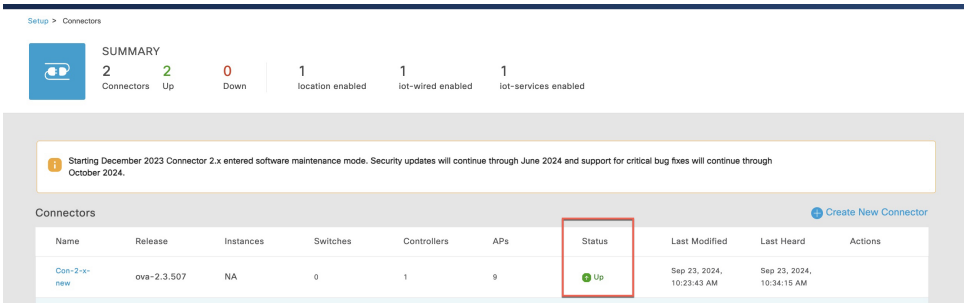
Step 2 From the **Configure Spaces Connector** area, click **View Connectors**.

Figure 8: View Connectors



Step 3 Ensure that a connector is listed and its status is **Up**.

Figure 9: Connector Status Up



Verify Cisco Catalyst 9800 Series Wireless Controllers is Added and Active

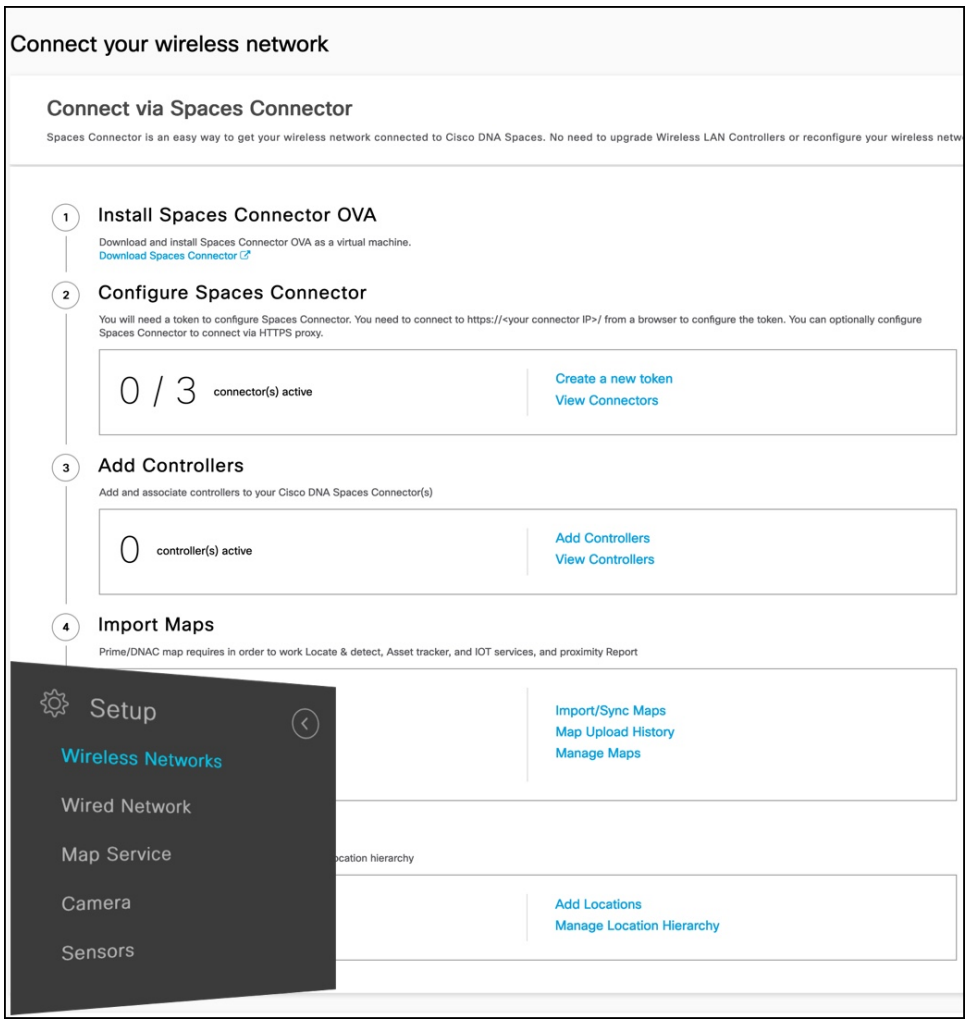
This procedure helps you verify if the Cisco Catalyst 9800 Series Wireless Controller is deployed and active.

Procedure

Step 1 From the Cisco Spaces dashboard left-navigation pane, choose **Setup > Wireless Network**.

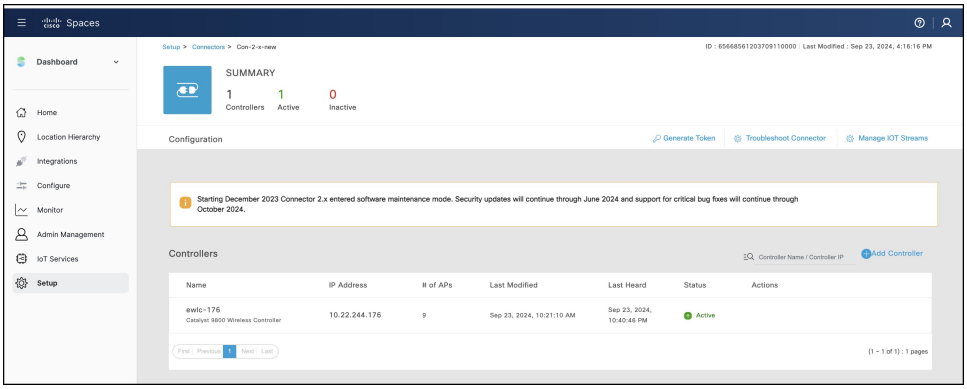
Step 2 From the **Add Controllers** area, click **View Controllers**.

Figure 10: View Controllers



Step 3 Ensure that a controller is listed here, and the corresponding status is **Active**.

Figure 11: Active Controller



Configure Connector for gRPC and Certificate Services

This procedure enables IoT streams. This procedure ensures that your APs visible on Cisco Spaces: IoT Service. In this procedure you:

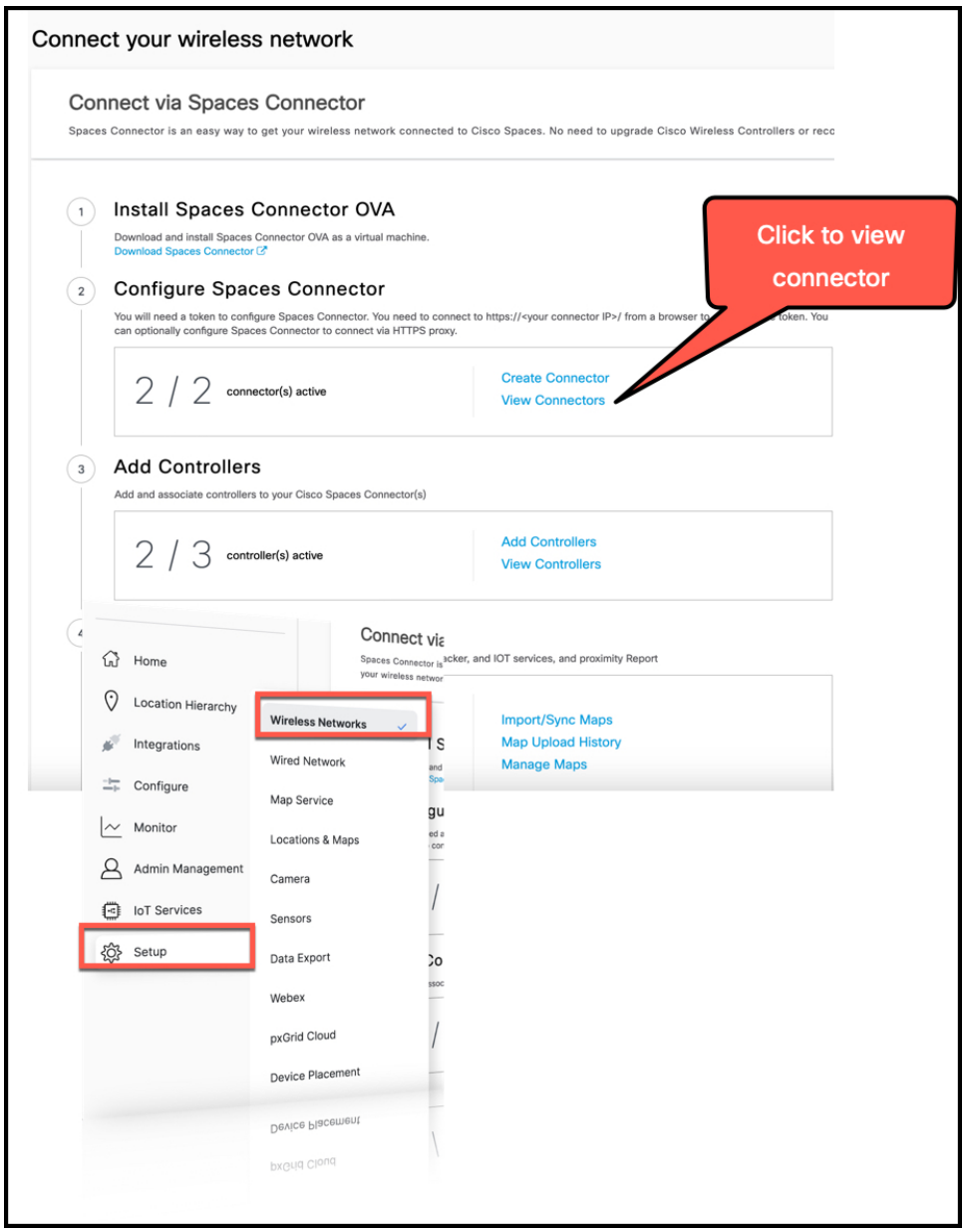
- Enable the Cisco Spaces: Connector to listen for gRPC Remote Procedure Call (gRPC) and certificate services.
- Activate these IoT streams on the wireless controller.

Procedure

Step 1 From the Cisco Spaces dashboard left-navigation pane, click **Setup** > **Wireless Network**.

Step 2 From the **Configure Spaces Connector** area, click **View Connectors**.

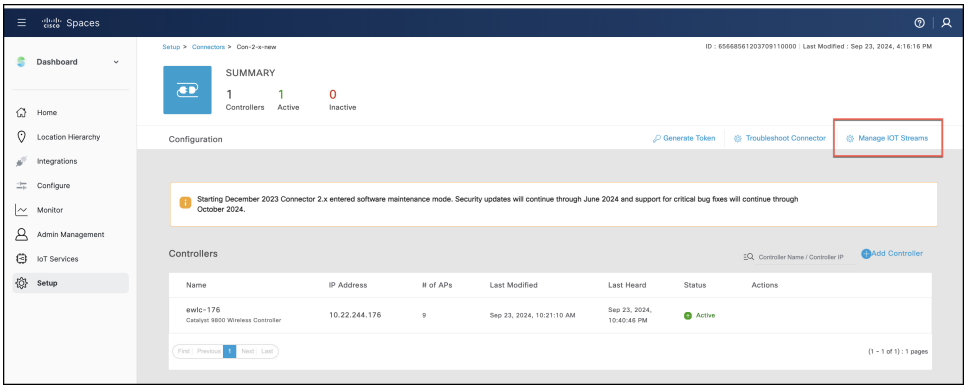
Figure 12: View Connectors



Step 3 From the list of connectors displayed, choose your connector, and then click **Manage IoT Streams**.

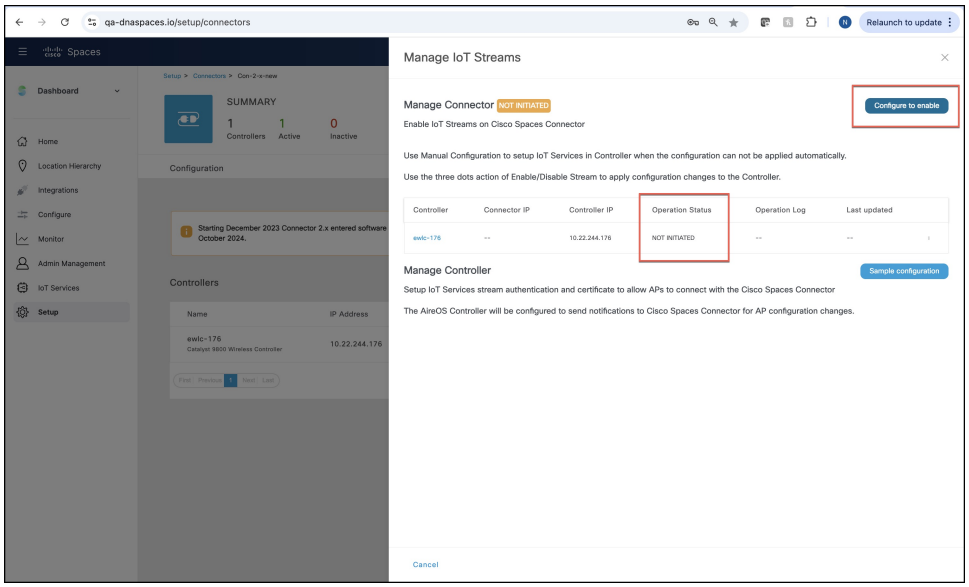
Step 4 In the **Manage IoT Streams** page that is displayed,

Figure 13: Manage IoT Streams



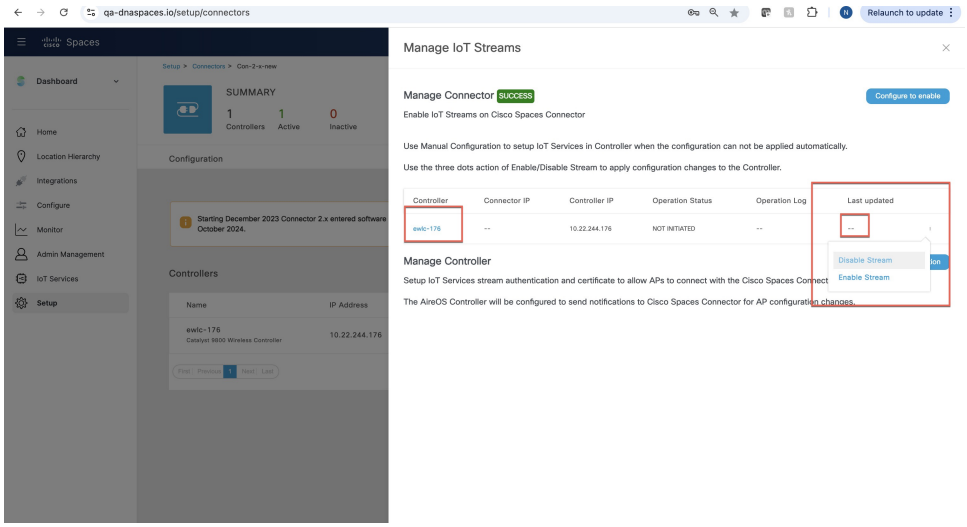
a) Click **Configure to Enable** to enable the connector stream.

Figure 14: Configure to Enable



b) For each wireless controller displayed, click the three-dot icon to display a menu. Choose **Enable Stream** to enable the wireless controller stream.

Figure 15: Enabling IoT Streams for the Connector and for each associated Wireless Controller



c) Verify if the **Operation Status** of the connector is **SUCCESS**. Click the wireless controller in the list to check for any errors.

Figure 16: Operation Status of Wireless Controller is SUCCESS

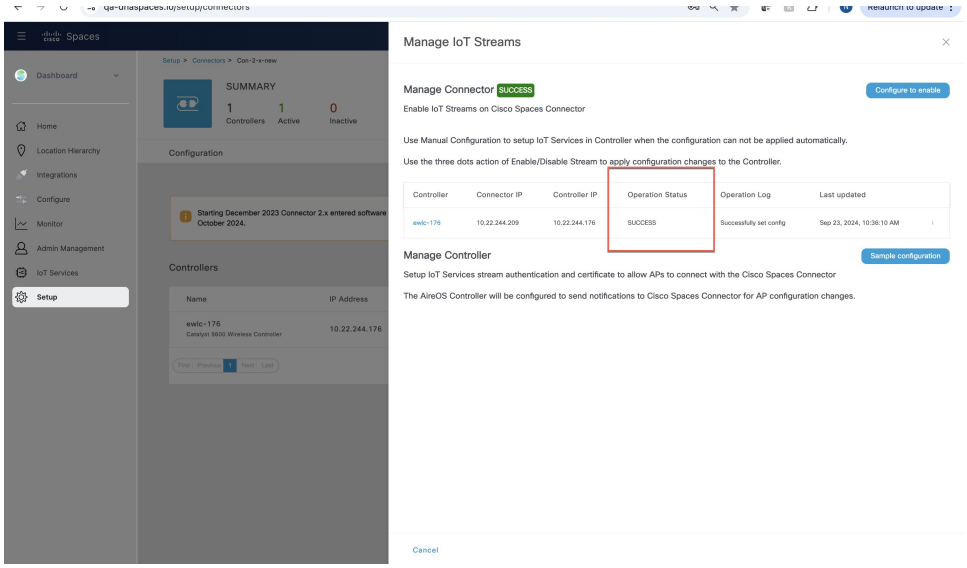
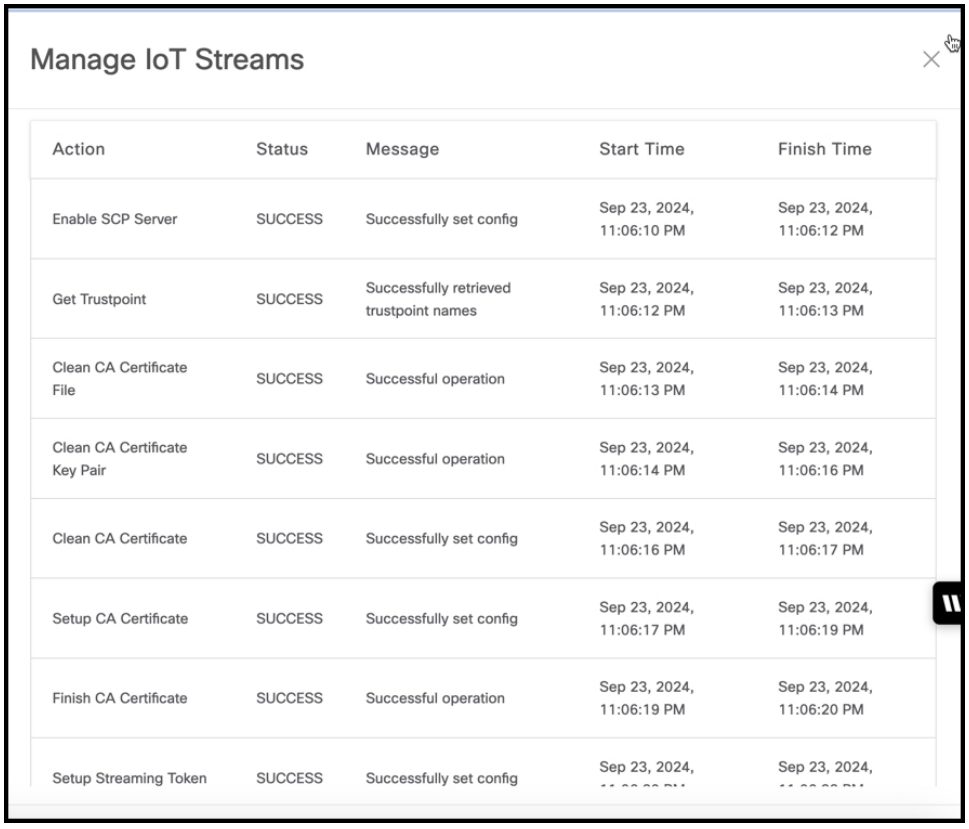


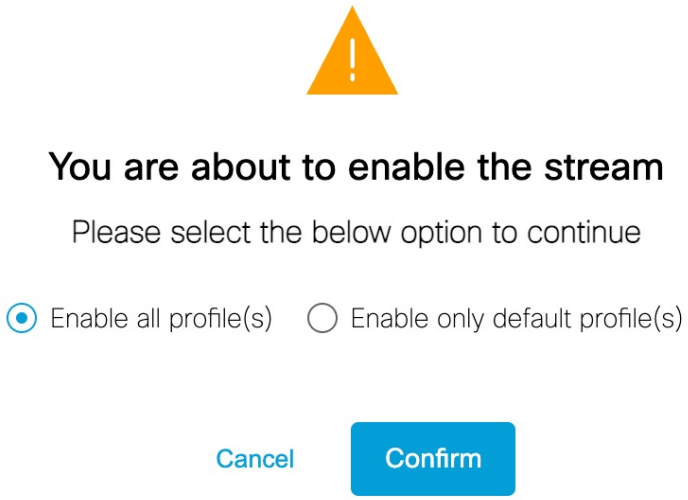
Figure 17: Check for Errors



Reconfigure this step if you move APs to a new AP profile.

d) In the displayed popup, choose the AP profiles to push the IoT configuration. You can choose to push the IoT configuration to one or more default AP profiles on the wireless controller. Or you can also choose to push the IoT configuration to all the AP join profiles on the wireless controller.

Figure 18: Enabling IoT Streams for the Connector and for Each Associated Wireless



Controller

Reconfigure this step if you move APs to a new AP profile.

Enable BLE on AP

This procedure turns on Bluetooth Low Energy (BLE) on an AP, and puts selected APs in the Admin state and in the base scan mode.

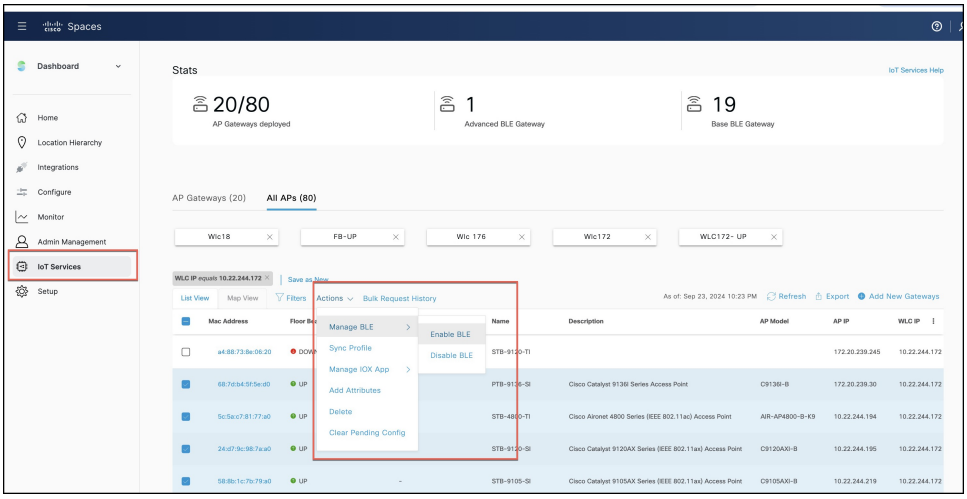
Procedure

Step 1 In the Cisco Spaces dashboard left-navigation pane, choose **IoT Services > IoT Gateways > AP Gateway > All APs**.

Step 2 Check the boxes of specific APs, then hover over **Action**.

Step 3 To turn on BLE Admin state and base scan mode, from the menu that opens, choose **Manage BLE > Enable BLE**.

Figure 19: Enable BLE



Set AP in Advanced Mode

This procedure sets an AP on the Bluetooth Low Energy (BLE) advanced mode.

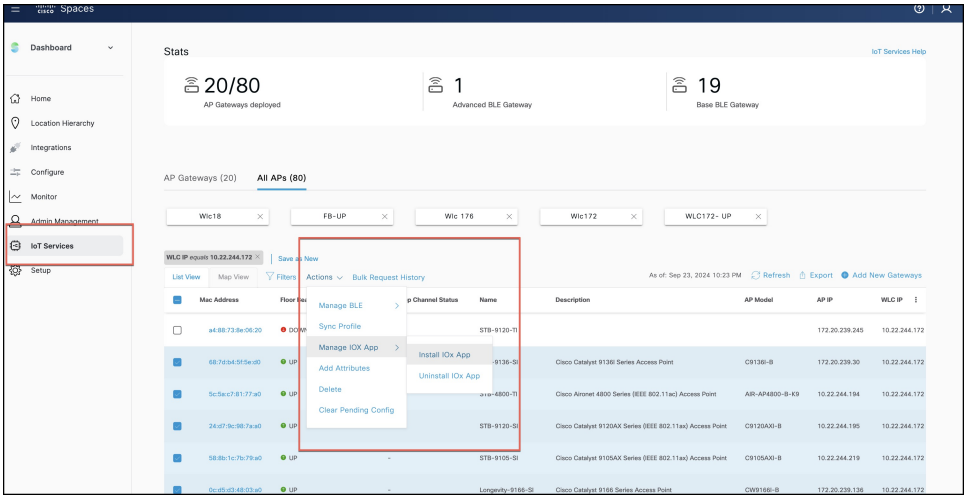
Procedure

Step 1 In the Cisco Spaces dashboard left-navigation pane, choose **IoT Services > IoT Gateways > AP Gateway > All APs**.

Step 2 Check the boxes of specific APs, and then hover over **Action**.

Step 3 To set the AP on BLE advanced mode, from the menu that opens, choose **Manage BLE > Install IOX App**.

Figure 20: Install IOX App



Verify Access Points

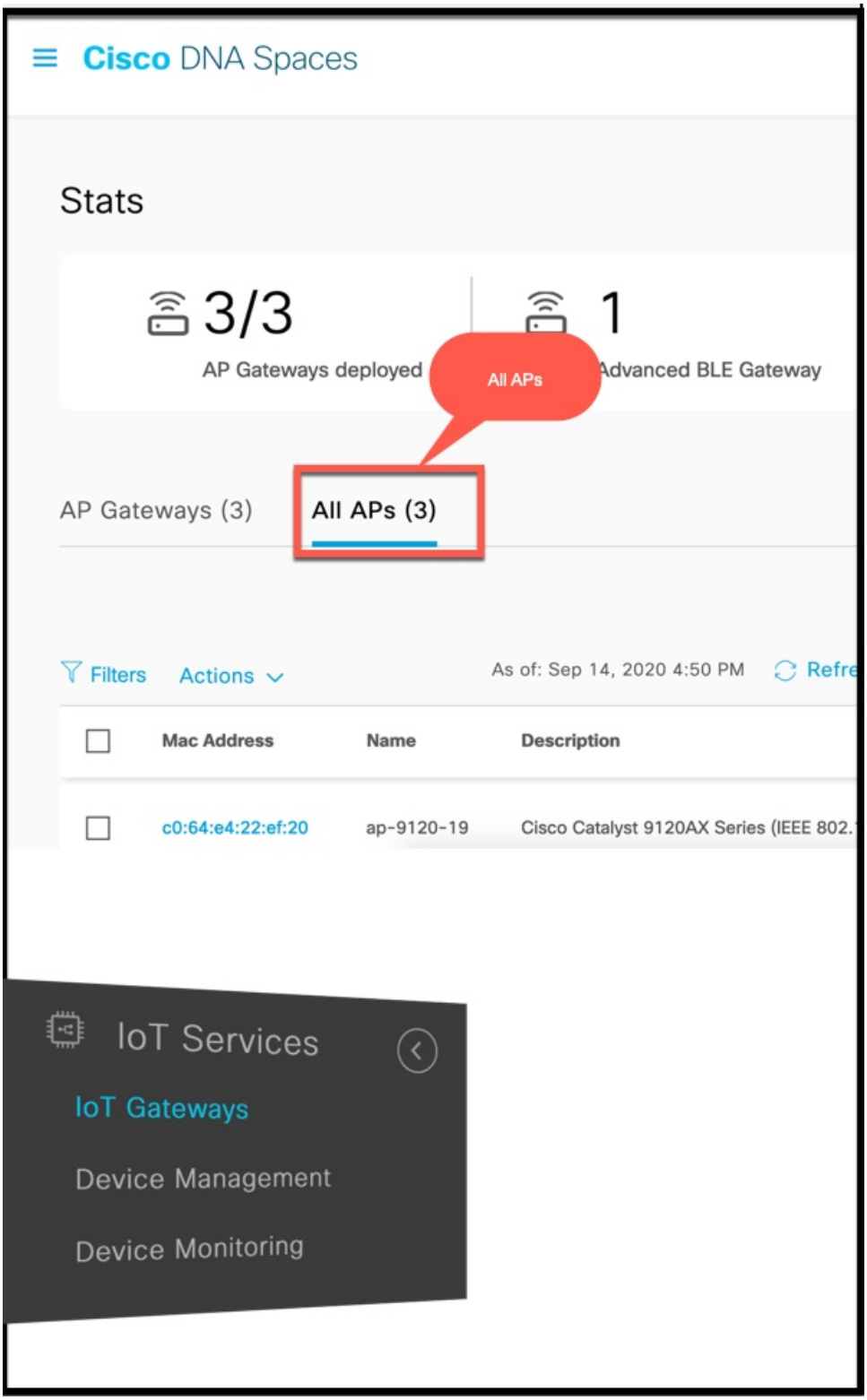
This procedure helps you verify if IoT service (wireless) has synchronized and listed the APs in your network on the GUI

Procedure

Step 1 In the Cisco Spaces dashboard left-navigation pane, choose **IoT Services > IoT Gateways > AP Gateway**.

Step 2 Click the **All APs** tab.

Figure 21: Verify APs



Step 3 Verify if IoT service (wireless) has synchronized and listed the APs in your network. Check the **Floor Beacon Channel Status** and **AP Beacon Channel Last Heard** columns.

Figure 22: Verify APs