

Prerequisites

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Prerequisites of IoT Service (Wireless)

Cisco Spaces: Connector Scale and Size Guidance for IoT Service

This section guides you on choosing a size for the Connector based on your scale of your deployment, such as

- number of APs in your network
- the messages that the Connector may have to send, and
- and the number of devices handled.

Note

- The table below is an approximation and assumes that only two services, namely Service manager service and IoT service (wireless), are in use. Also, every deployment is different and multiple factors impact the load on the Connector.
- Ensure that you have upgraded to the latest versions of these services to achieve the numbers mentioned in the table below.

Note We recommend that you use the **Advanced2** Connector sizing in most cases because IoT Wireless increases resource constraints.

Table 1: Cisco Spaces: Connector Scale and Size Guidance for IoT Service

Connector Size	Scale
Standard Connector (2vCPU, 4 GB RAM)	The **Standard** Connector can • Support up to 250 APs. • Send up to 25,000 outbound messages per second. • Process up to 1000 BLE tags or devices.
Advanced1 Connector (4vCPU, 8 GB RAM)	**Advanced1** Connector can • Support up to 2000 APs. • Send up to 120,000 outbound messages per second. • Process up to 20,000 BLE tags or devices.
Advanced2 Connector (8vCPU, 16 GB RAM)	**Advanced2** Connector can • Support up to 3000 APs. • Send up to 170,000 outbound messages per second. • Process up to 30,000 BLE tags or devices.

Prerequisites

These prerequisites can get you started with Cisco Spaces: IoT Service.

- Install Cisco Spaces: Connector in your network.
- Install a Cisco Catalyst 9800 Series Wireless Controller with a **Cisco IOS XE 17.12.x** or above image version.

Note There are significant improvements in Cisco Spaces: IoT Service on **Cisco IOS XE 17.9.5**. However, the minimum recommended version is **Cisco IOS XE 17.9.6** for better performance.

- Deploy supported APs in your network (refer to the Compatibility Matrix for IoT Service (Wireless)).
- Ensure that Cisco Spaces is configured with maps either from Cisco Prime Infrastructure or Catalyst Center.
- If the Cisco Spaces: Connector is an Amazon Elastic Compute Cloud (EC2) Instance from Amazon Machine Images (AMI), ensure that the wireless controller and connector are in the same virtual private cloud (VPC). Ensure that the wireless controller has a private IP address so that the security group of connector does not block the traffic, allowing enabled IOT streams to function.

- Permit all the TCP traffic at the Virtual private clouds (VPC) level so that the Telemetry Data Logger (TDL) is established without any issues.
- If location service is not added before adding a Cisco Catalyst 9800 Series Wireless Controller to a connector, run these commands on the Catalyst 9800 controller in a sequence:
  - **aaa new-model**
  - **aaa authentication login default local**
  - **aaa authorization exec default local**
- Cisco Spaces: IoT Service and Intelligent Capture (iCAP) feature can now co-exist on Cisco Catalyst 9800 Series Wireless Controller Cisco IOS XE Cupertino 17.7.x release and later. For releases earlier than Cisco IOS XE Cupertino 17.7.x, disable iCAP, if already enabled on the controller.
- Perform NTP synchronization over wireless controllers, a connector, and APs in the network.
- If a USB BLE module is inserted in an AP, reboot the AP.
- NETCONF must be enabled in Cisco Catalyst 9800 Series Wireless Controller in port 830, along with permission to use NETCONF.



Caution The application (app) installed and running over the AP uses the default 17.17.0.0/16 subnet. So, using this subnet for other purposes might create network issues.

- IPv6 is not supported on Cisco Spaces: Connector.
- If your require two connectors installed with 3.x to work with IoT service (wireless) and function as a high-availability pair, you must configure the connectors as Virtual IP (VIP) pair.

Before activating IoT services

This topic describes the prerequisites that you need before you activate IoT services:

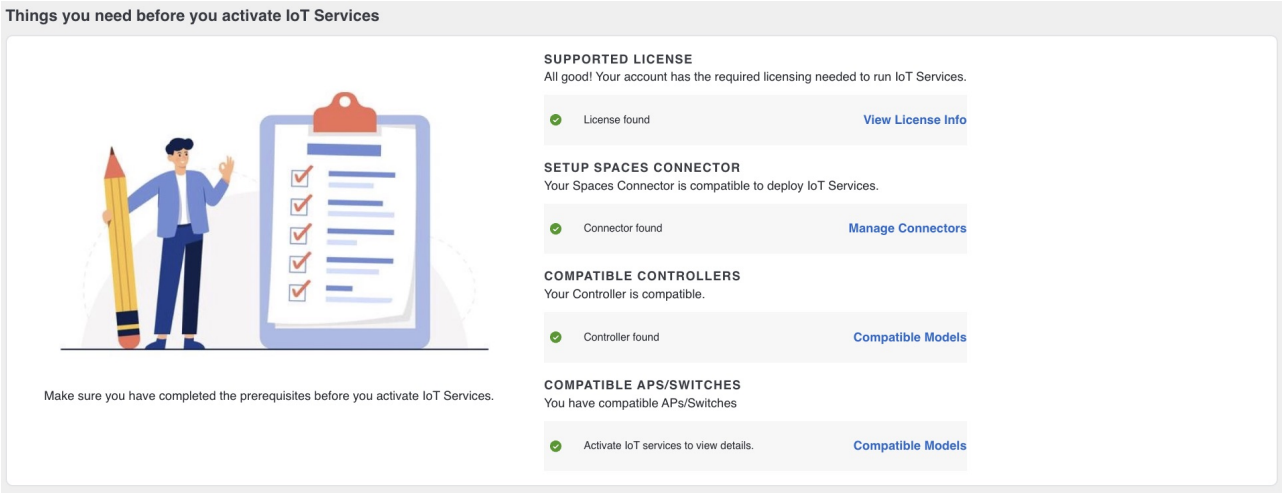
- Supported License
- Setup Spaces Connector
- Compatible Controllers
- Compatible Apps/Switches

Summary

Complete all prerequisites before activating IoT Services.

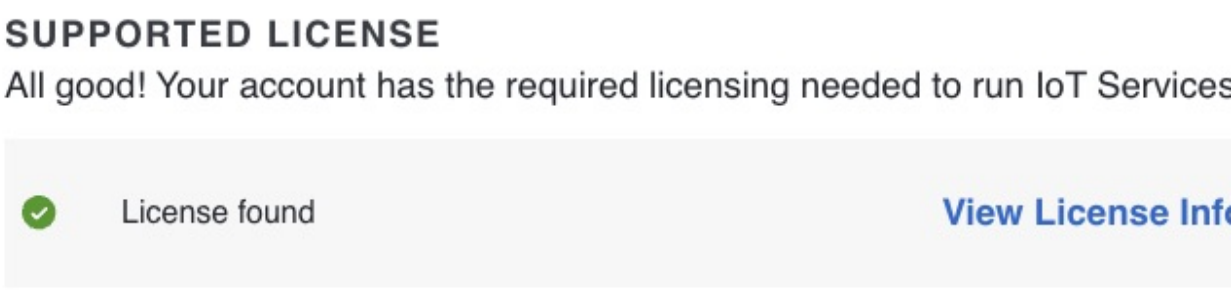
Workflow

Figure 1: Before you activate IoT Services tab



1. To confirm that the account has the required licensing for IoT Services under the **Supported License** point, click the **View License Info** button. This step redirects to the **License Info** section in the My account page.

   Figure 2: Supported License option

2. To determine if the Spaces Connector is compatible for deploying IoT Services under **Setup Spaces Connector** point, click the **Manage Connectors** button. This action redirects to the **Connectors** section in the Cisco Spaces Dashboard page.

   Figure 3: Setup Spaces Connector option

3. To verify compatibility for controllers under the **Compatible Controllers** point, click on the **Compatible Models** button. The **Compatible Models** button displays the lists of **Controllers**, **APs** and **Switches**.

Figure 4: Compatible Controllers option

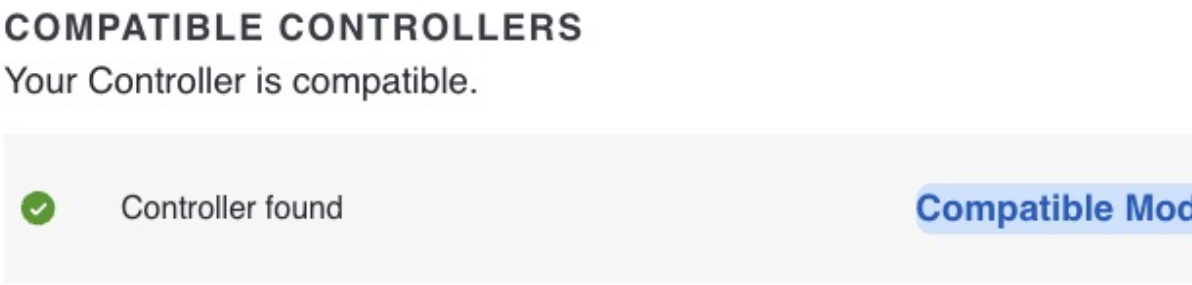
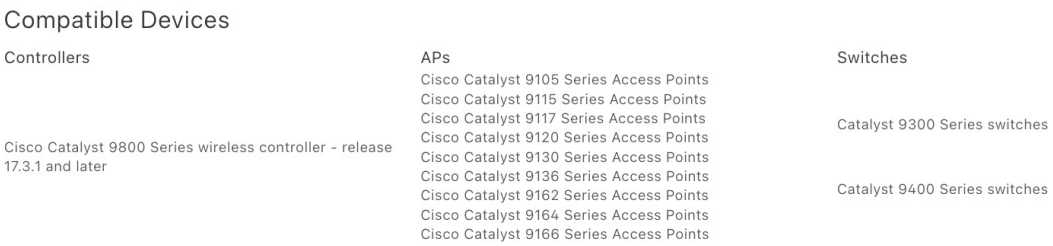


Figure 5: List of compatible devices



4. To verify compatibility for APs or Switches under **Compatible APs/Switches** point, click the **Compatible Models** button. The **Compatible Models** button displays lists of **Controllers**, **APs** and **Switches**.

Figure 6: Compatible APs/Switches option

