

Initial Setup

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Initial Setup of Cisco Spaces: Connector

To get the Cisco Spaces: Connector up and running, perform these steps:

- Install connector 3 in your local deployment network. See Deploying the Connector 3 OVA (Single Interface)
- 2. On the Cisco Spaces dashboard, create a Cisco Spaces: Connector and generate a token for connector. See Activating Connector 3 on Cisco Spaces, on page 2
- **3.** Configure this token on the deployed Cisco Spaces: Connector. This establishes a connection between Cisco Spaces and the deployed Cisco Spaces: Connector. The equivalent connector 3 (based on the token) on the Cisco Spaces now turns active. See Activating Connector 3 on Cisco Spaces, on page 2
- 4. Add the services based on your required workflow on Cisco Spaces.

Table 1: Enabling Services

Service	Link
Service manager service	Enabled by default.
IoT service (wireless)	For information, see Configure IoT Service (Wireless).
IoT service (wired)	For information, see Configure IoT Service (Wireless).
Hotspot service	For information, see Configure Hotspot Service.
Local firehose service	For information, see Configure Hotspot Service.

Activating Connector 3 on Cisco Spaces

This section provides information about how to activate a deployed connector on your Cisco Spaces account.

Using the following procedure, you generate a token for a deployed connector that you want to add to your Cisco Spaces account. Note that you need a separate token for each deployed connector. Each token is specific to a connector and hence enables Cisco Spaces to identify and connect to connector.

Cisco Spaces supports multiple connectors, and you can associate each connector with one or multiple wireless controllers.



Note

A Cisco Spaces: Connector instance can communicate with only one Cisco Spaces account at a time.

Before you begin

Download and deploy the Cisco Spaces: Connector OVA. See Deploying the Connector 3 OVA (Single Interface)

Step 1 Log in to Cisco Spaces.

Note The Cisco Spaces URL is region-dependent.

- **Step 2** From the left navigation pane, choose **Setup > Wireless Networks**.
- Step 3 In the Get your wireless network connected with Cisco DNA Spaces area, click Add New.
- Step 4 In the Cisco AireOS Controller/Catalyst 9800 Wireless Controller area, click Select.

Figure 1: Choose Cisco AireOS Controller/Catalyst 9800 Wireless Controller

 Step 5
 In the Via Spaces Connector area, click Select.

 Figure 2: Via Spaces Connector

How do	you want to connect to Cisco DNA	Spaces?
Via Spaces Connector	Connect WLC directly	Via CMX On-Prem
Requires you to install Spaces Connector on a virtual machine in order to connect your WLC to Caco DNA Spaces cloud. None: Not compatible with Catalyst 9800 controller	Requires WLC with software version 8.8 MR2 and above or Casoo Statylox Wireless Controller with software version 16.12.2 and above. Wireless controller needs direct interest connectority.	Configure your CMX On-Prem distributed to send location updates to Calco DNA Spaces, either by configuring the Notification URL is the Calco CMX distributed of by manually uplicating a JSCN file that contain usur location hierestry.

Step 6

Figure 3: Read Prerequisites for Spaces Connector

	Based on your inputs, we have customized setup to help you connect your wireless network to Cisco DNA Spaces using Spaces Connector
Prere	equisites for Spaces Connector
	You must have WLC version 8.0 and above.
	2 You must have access to a virtual machine (VMware) to install Spaces Connector.
	3 Spaces Connector needs access to your Wireless LAN Controllers and connectivity to the Internet (direct connection or via HTTPS proxy)

In the Prerequisites for Spaces Connector dialog box, click Continue Setup.

 Step 7
 Expand the Connect via Spaces Connector area using the respective drop-down arrow.

 Figure 4: Expand Connect via Spaces Connector

Connect your win	eless network		
Connect via Sp Spaces Connector is an east	vaces Connector way to get your winnies network connected to Claco DIA Spaces. No need to upgrade Winniess LAN Control	lers or reconfigure your wireless network.	
Connect WLC/ Setup	Catalyst 9800 Directly	veless LAN Controllers or reconfigure your wineless network.	expand
	Pring In reterior Connected to Claco DNA Spaces		•
	gin a to connect to Chao Marati Cloud, inport locations in to Cloco DNA Spaces and activativity or t	the Maraki Networks.	x ~
B	Get your wireless network connected with Cisco DNA Spaces There are multiple options to get connected based on your wireless network optionment.	Need Help? Configuration guide Cisco AlreOS/Catalyst	

Step 8 In the displayed list of steps, in the **Configure Spaces Connector** area, click **Create Connector**.



Figure 5: Connect via Spaces Connector > Create Connector

Step 9 In the Create connector window that is displayed, enter a name for connector, and click Version 3.0 (beta). as the Connector Version, and click Save.

Figure 6: Name and Version of Connector

Create Connector
Spaces Connector Name Enter the spaces connector name
 Iconnector Version Version 2.X First generation Connector designed to transfer location data efficiently to Cisco Spaces cloud Oracion 3.0 Support for deploying and managing multiple individual services Beamless services and system upgrades Refer to the Connector 3.0 Configuration Guide for more details Table Location Services ()
Cancel Save

Connector is successfully created. Click Go to Connector Details Page.



Create Connector	
\bigcirc	
Connector Created Successfully	
Next step:	
Please generate a token from connector details page and configure it in your "instance/box"	
Go to Connector Details Page	

Step 10 In the connector details window, you can see a summary of the configurations for this connector. Click Generate Token.

Figure 8: Generate Token

ck Setup > Connectors > Test	ID : 81424448212902120000 Last Modified : Apr 29, 2022, 11:04:25 AM
SUMMARY 0 0 0 0 2 0 Instances Active Inactive Services Switches enabled	
stances Configuration Metrics	
stances in High Availability Pair	
Configure your instance	
stances in High Availability Pair	
stances in High Availability Pair Configure your instance To set up high availability pair follow the steps below.	
stances in High Availability Pair Configure your instance To set up high availability pair follow the steps below. Step 1:	
stances in High Availability Pair Configure your instance To set up high availability pair follow the steps below. Step 1: Generate a token by clicking the Generate Token button on the top of this page. A token will be generated.	

Step 11 In the **Token** window that is displayed, click **Copy Token**.

Figure 9: Copy Token

Token	ex.
Configure the token below on your instance/box	
eyJhbGciOiJIUzI1NilsInR5cCl6lkpXVCJ9.eyJ2ZXJzaW9uljoiVjMiLCJ0b2tlbklkljoiNzM3MTlyYTAtY2l3MS0xMWVjLW YmUtMTU4MTA0NjY3NjQwliwiaWJ5ljoiTG9jYXRpb24iLCJ0eXBlljoiY29ubmVjdG9yX2F1dGhfdG9rZW4iLCJ02W5h JZCl6ljEyMTExliwiY29ubmVjdG9ySWQlOjgxNDI0NDQ4MjEyOTAyMTlwMDAwLCJlbmRwb2ludCl6lmh0dHBzOi8vY2 bmVjdG9yLnFhLWRuYXNwYWNlcy5pbylslmVudmlyb25tZW50ljoidGVzdClsInJlZ2lvbil6lnVzLWVhc3QtMSIsImlhdCl TY1MTY0NDg2N30.0VVo8ozAsaDcZr0Abo_G1Y732TQENGpJr1uXJIW5bY0	Fm bnR 29u 6M
Copy Token View Documentation	
To set up your connector instance, follow the steps below.	
Step 1:	
Copy the generated token above.	
Step 2:	
Login to your connector UI and configure the token. Follow the documentation if you haven't setup your connector yet.	

- **Step 12** Open the connector GUI.
- Step 13 (Optional) If your network is behind a proxy, configure the GUI with the proxy. See Configure a Proxy
- **Step 14** In the **Configure Token** area that is displayed, click **Configure Token**.

Figure 10: Configure Token



- **Step 15** In the window that is displayed, in the **Token** text, field enter the token copied from Cisco Spaces and click **Configure**.
- **Step 16** Add the following services as required:
 - Configuring IoT Services
 - Configuring Hotspot Services

Upgrading the Connector from Cisco Spaces Dashboard

Use the connector's GUI to upgrade connector. Log in to the connector GUI, check for new upgrades and the summary of changes, and initiate the upgrade. Note that you must ensure that the connector's Service manager service is updated before you start the connector upgrade. You can upgrade the Service manager service from the connector GUI. The following procedure describes how to first upgrade the Service manager service and then upgrade connector itself from the connector GUI.

Step 1 Log in to Cisco Spaces.

Note The Cisco Spaces URL is region-dependent.

- **Step 2** In the Cisco Spaces dashboard, choose **Setup > Wireless Networks**.
- Step 3 From the 2. Configure Spaces Connector area, click View Connectors

Figure 11: View Connectors

Downloa	d Spaces Connector 🗹	
Con	igure Spaces Connector	
You will can opti	need a token to configure Spaces Connector. You nee onally configure Spaces Connector to connect via HTT	.d to connect to https:// <your connector="" ip="">/ from a browser to configure the token. You TPS proxy.</your>
	16	Create Connector
	/ O connector(s) active	View Connectors
Add	Controllers	
Add and	associate controllers to your Cisco DNA Spaces Con	nector(s)
0	10	Add Controllers
0	/ J controller(s) active	View Controllers
Impo	ort Mans	
Prime/D	NAC map requires in order to work Locate & detect, A	sset tracker, and IOT services, and proximity Report
1	buildings imported	Import/Sync Maps
		Map Upload History
3	floors imported	Manage Maps
Catu	n la satian bisnanabu	
Setu	maps imported, you can add them into location hiera	ırchy
Once the	controller(s) imported to	Add Locations
Once the		Manage Location Hierarchy
	location hierarchy	Manago Looddon meralony

Step 4 From the list of connectors that are displayed, click the connector of your choice.

- **Step 5** From the **Configuration** tab of the specific connector, ensure that the Service manager service is upgraded. If not upgraded, under the **Actions** column, check for any available **Upgrade** option.
- **Step 6** Click the **Instances** tab, and choose the instances you want to upgrade.
- **Step 7** In the **System Upgrade Available** area, and click **Upgrade**.

Figure 12: Upgrade

			∷ Ø €
Setup > Connectors > upgradeTest		ID : 30009488	891381166000 Last Modified : May 11, 2023, 12:04:11 AM
SUMMARY 1 1 0 Instances Active Inacti	2 0 0 Vev Services enabled Controller Switches		
Configuration Instances Metrics		0	Degree Generate Token
System Upgrade Available!	urity fixes in the release, click here to see the release note.		Upgrade
O05056a78cc6 System Pickager: connector3-p83- pep2022	0 1		
Mac ID	00:50:56:a7:8c:c6		
IP Address Status	10.89.45.100		
Control Channel Status	Connected		
HA Status	Not Paired		
VIP Address	NA		
SERVICES			

Step 8 From the popup displayed, select the instance you want to upgrade.

Figure 13: Select instance

≡ cisc	O SPACES												
Setup :	> Connectors > upgradeTest										ID : 3000	94888	91381
ē	SUMMARY 1 Instances	1 Active	0 Inactive	2 Services enabled	0 Controller	0 Switches							
Con	figuration Instances	Metrics											
Inst	System Upgrade We have updated the syntances in High Availa	Available! stem library and h ibility Pair cc6	() ave security fixes	in the release, click here to s	ee the role	(Pleas	Se select the instance	to upgrade.	×			
	System Package sep Mac ID	: connector3-p83 2022	00:5	0:56:a7:8c:c6									
	IP Address		10.8	9.45.100				Upgrade					
	Status		0 u	lp									
	Control Channel Status		Conr	nected									
	HA Status		Not F	Paired									
	VIP Address		NA										

An Upgrade Initiated for instance message is displayed.

Figure 14: Upgrade Initiated for Instance



Step 9 Observe the status of the installation by clicking the three-dot icon of an instance. From the menu displayed, choose **Configuration History**.

Figure 15: Configuration History

		nstances	Active	Inactiv	е	Service enabled
C	onfiguration	Instance	s Metrics			
Ir	nstances in I	High Avai	ability Pair			
	 OOE S Pri cor p84- up Mac ID IP Addres Status 	5056a754 System innector3 rnov202 ggrade1 Rei SS Rei Co	4a5 start Services start Connecto fresh Instance move nfiguration hist	r	I	
	Control C Status	Channel	Connected			

Figure 16: Configuration History

	005056a754a5: Service o	configuration history	\times
active	Operation: Service: Status:	May 8, 2023, 11:10:34 PM System upgrade connector3-p84-may2023 upgrade in progress	

Upgrading the Connector Using CLI

Use the connector's CLI to upgrade connector. Log in to the connector CLI, check for new upgrades and the summary of changes, and initiate the upgrade. Note that you must ensure that the connector's Service manager service is updated before you start the connector command line upgrade. You can upgrade the Service manager service from the connector GUI. then upgrade connector itself from the connector CLI.

Before you begin

Ensure that the Service manager service is upgraded from the connector GUI.

Step 1 Log in to the connector CLI.

progress

- **Step 2** Check the availability of upgrades, and view a summary of the changes that are part of this upgrade package. Run the **connectorctl systemupgrade list** command.
- **Step 3** Initiate the upgrade of connector packages. Run the **connectorctl systemupgrade install** command:

[spacesadmin@connector03 ~]\$ connectorctl systemupgrade install Executing command:systemupgrade Command execution status :Success System upgrade operation is queued. Use tail -f /opt/spaces-connector/runtime/logs/service-manager/system-upgrade/system-upgrade. log to see upgrade

- **Step 4** Observe the status of the upgrade. Do one of the following:
 - To populate the CLI with regular updates of the upgrade, run the **tail -f** /**opt/spaces-connector/runtime/logs/service-manager/system-upgrade/system-upgrade.log** command.
 - To view the status of the upgrade at any point in time, run the **connectorctl systemupgrade status** command:

[spacesadmin@connector ~]\$ connectorctl systemupgrade status Executing conmand:systemupgrade Command execution status: Success System upgrade is in progress for package:connector3-p84-jan2023-upgrade2 at:Jan-10-2023 05:31:33. Details:Downloading image. [spacesadmin@connector ~]\$ connectorctl systemupgrade status Executing command: systemupgrade Command execution status: Success Successfully upgraded system to package: connector3-p84-jan2023-upgrade2 at :Jan-1 0-2023 04:34:04

Occasionally, you may see the following error while running the **connectorctl systemupgrade status** command. Ignore this output and wait for a few minutes before running the **connectorctl systemupgrade status** command again:

```
[spacesadmin@connector ~]$ connectorct1 systemupgrade status
Traceback (most recent call last>:
    File "/opt/spaces-connector/static/service-agent/core/src/cli/cli.py'.line10,in<module>
    from core.src.log.log_task import Loglask
File"/opt/spaces-connector/static/service-agent/core/src/cli/../../core/src/log/log_task-py".line16,in<module>
    from -utils import pathconstant, constant, utilities
    File
"/opt/spaces-connector/static/service-agent/core/src/cli/../../core/src/utils/utilities-py',line31,in<module>
```

import psutil ModuleNotFoundError: No module named >psutil'

I