# Connect Connector to Cisco Catalyst 9800 Series Wireless Controllers

## Configure and Test the Connection Between Connector and Catalyst 9800 Controller

**Before you begin**

1. Deploy a connector OVA and activate it using a token from Cisco Spaces.

2. Note down the IP address of a Catalyst 9800 controller that is reachable from the Cisco Spaces: Connector.

3. On the Catalyst 9800 controller CLI, enter the config mode and enable AAA with local authentication using the **aaa authorization exec default local** and **aaa authentication login default local** commands.

   On the Catalyst 9800 controller CLI, run the following command in the **enable** mode:

   ```
   show run | sec  aaa
   ```

   From the output that is displayed, copy the configuration for **aaa authorization exec default**. In the **config** mode,  append the configuration for local authentication to the copied configuration and configure the appended configuration.

   For instance, if the output displays **aaa authorization exec default group dnac-network-tacacs-group**, the appended configuration is **aaa authorization exec default group dnac-network-tacacs-group local**. This ensures that the existing configuration is not overwritten.

**Step 1** Log in to Cisco Spaces.

**Step 2** In the Cisco Spaces dashboard, choose **Setup > Wireless Networks**.

**Step 3** Expand the **Connect via Spaces Connector** area using the respective drop-down arrow to display a list of steps.

**Step 4** To test the connectivity from the Connector to an existing Catalyst 9800 controller, click **View Controllers** in the **Step 3** Area.

a) Click the pencil icon to edit a Catalyst 9800 controller.

b) Choose an active Connector from the **Connector** drop-down list to enable the **Test Connectivity** button.

      c)   Go to Step 8 to test the connectivity to an existing AireOS controller.

**Step 5**      To add a new Catalyst 9800 controller, click **Add Controllers** from the **Step 3** Area.

*Figure 1: Add a New Catalyst 9800 controller*



**Step 6**      From the **Connector** drop-down list, choose a Connector.

**Step 7**      Enter the **Controller IP** address, **Controller Name**, and from the **Controller Type** drop-down list, choose **Catalyst WLC** to connect to a Cisco Catalyst 9800 Series Wireless Controllers.

**Step 8**      Do one of the following:

- Enter **Netconf username**, **Netconf password**, and **Enable password**. This choice allows the Connector to recover gracefully from NMSP drops and push a fresh configuration to the Catalyst 9800 controller whenever required. If you have not configured an **enable** password in Catalyst 9800 controller you can skip configuring the **Enable password** in this step.
- Copy the configuration commands in the **Catalyst WLC CLI commands** section and run them manually on the Catalyst 9800 controller CLI.

**Step 9**      (Optional) Run the PING and SSH functionalities to test the reachability to the Catalyst 9800 controller and the credentials by clicking **Test Connectivity**. Note that **Test Connectivity** is available only for an active Connector.

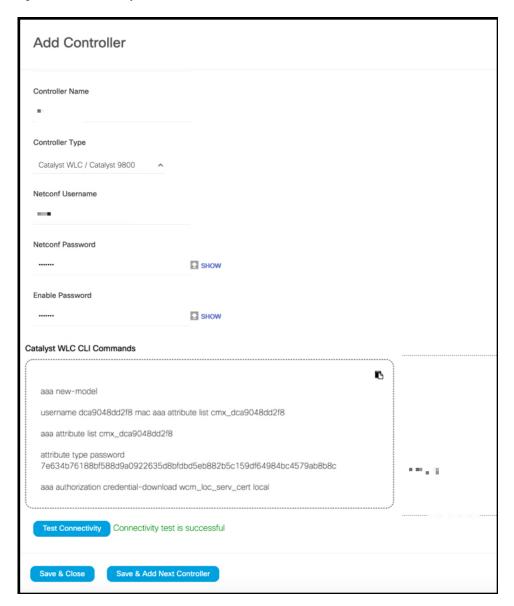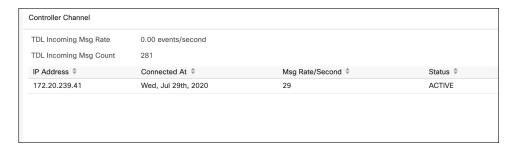*Figure 2: Add a New Catalyst 9800 controller*



*Table 1: Error Description*

| Status of PING | Status of SSH Credential Test | Meaning of status message combination and possible checks. |
|---|---|---|
| SUCCESSFUL | SUCCESSFUL | Connectivity test is successful. |

| Status of PING | Status of SSH Credential Test | Meaning of status message combination and possible checks. |
|---|---|---|
| SUCCESSFUL | FAILED | Ping test to the Catalyst 9800 controller is successful. But SSH test has failed. Check the following: <br><br> a. Is SSH enabled on the controller? <br><br> b. Is the SSH port 22 of the Catalyst 9800 controller reachable from the Connector? <br><br> c. Have you provided accurate SSH read-write credentials? |
| FAILED | SUCCESSFUL | Connectivity test is successful. |
| FAILED | FAILED | Both Ping and SSH test to the Catalyst 9800 controller have failed. Check the following: <br><br> a. Is there IP connectivity between Connector and controller? <br><br> b. Is SSH enabled on the Catalyst 9800 controller? <br><br> c. Is the SSH port 22 of the Catalyst 9800 controller reachable from the Connector? <br><br> d. Have you provided accurate SSH credentials? <br><br> e. Is AAA enabled with local authentication? <br><br> f. Are you using an interface that is NOT the wireless management interface for NMSP and SSH connectivity? |

**Step 10**     Click **Save**, and then click **Close**.

You can see the new Catalyst 9800 controller in the **Controller Channel** area of the Connector GUI. The Catalyst 9800 controller that is connected successfully to the Connector appears as **Active**. It takes approximately five minutes for the wireless controller to change to the **Active** state. Refresh your window to view the status change. The added Catalyst 9800 controller is also listed in the **Controller Channel** area of the Connector.

*Figure 3: Details of the Catalyst 9800 controller*

Controller Channel

| | | | |
|---|---|---|---|
| TDL Incoming Msg Rate | 0.00 events/second | | |
| TDL Incoming Msg Count | 281 | | |

| IP Address | Connected At | Msg Rate/Second | Status |
|---|---|---|---|
| 172.20.239.41 | Wed, Jul 29th, 2020 | 29 | ACTIVE |

You can multiple Catalyst 9800 controllers to a Connector.

## What to do next

You can import the added Catalyst 9800 controller to the Cisco Spaces location hierarchy.