



High Availability

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Configuring Connectors as VIP Paired

This task shows you how to configure two connectors and pair them with a virtual IP address (VIP).



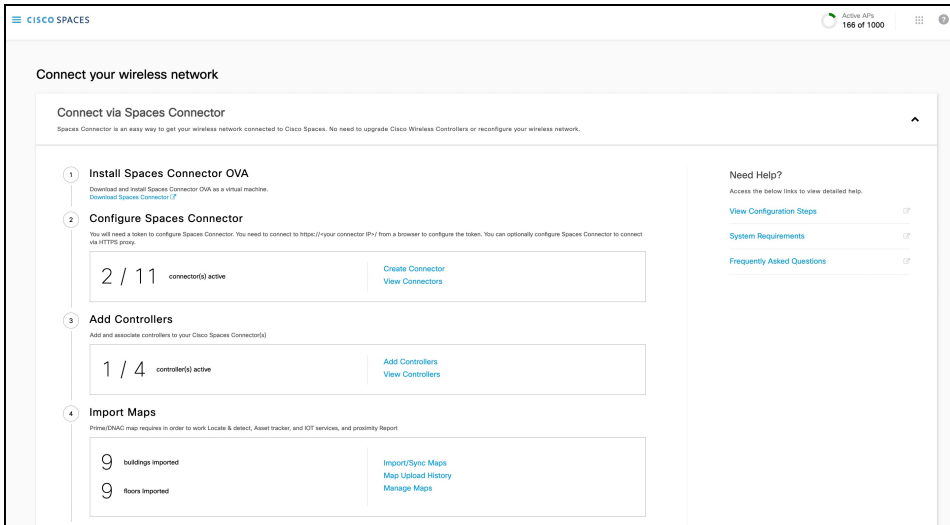
Note Cisco Spaces: Connector high availability uses Virtual Router Redundancy Protocol (VRRP) protocol to determine the state of the instance in the high availability pair.

Before you begin

Install two different Cisco Spaces: Connectors. Configure each connector with a unique IP address.

Step 1 Login to **Cisco Spaces > Setup > Wireless Networks** and in the **Configure Spaces Connector** area, click **Create Connector**.

Figure 1: Create Connector

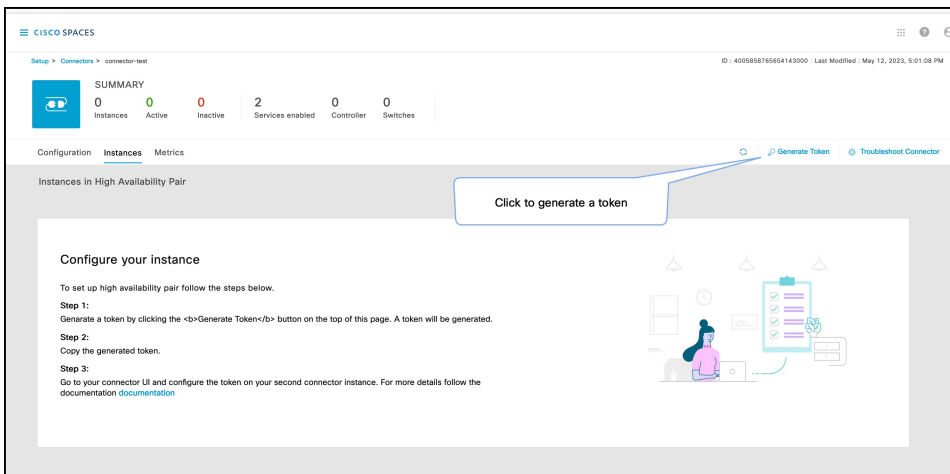


Step 2 Enter a name for the connector and choose the version.

A connector is created. Click **Go to the connector Details** page.

Step 3 In the connector details page, click **Generate Token** in the top-right corner.

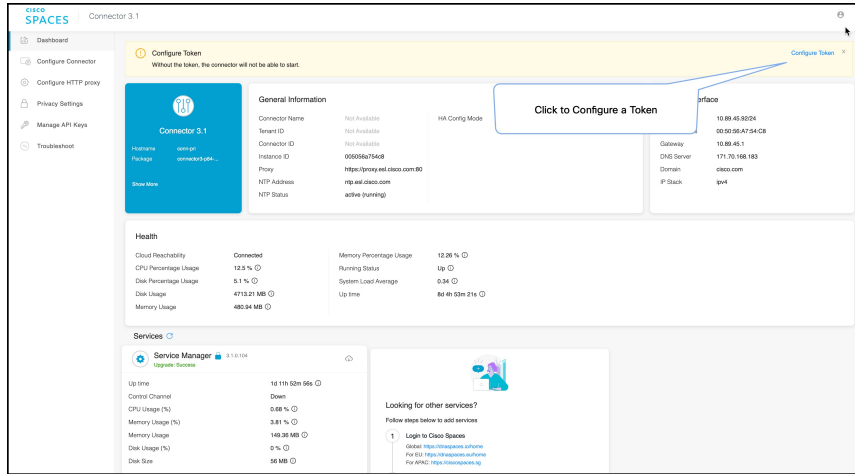
Figure 2: Generate Token



Copy the displayed token.

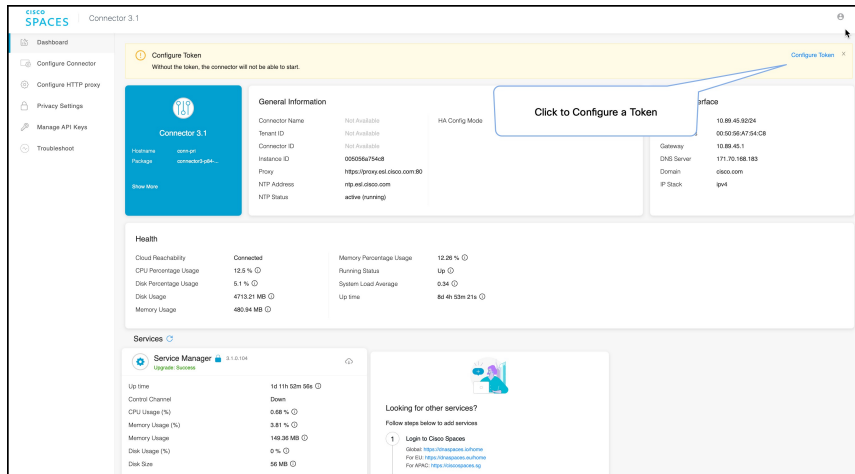
Step 4 Log in to the GUI of the first instance of connector and click **Configure Token** in the top-right corner to provision the first copied token there.

Figure 3: Configure a Token



Step 5 Log in to the GUI of the second instance of connector, and click **Configure Token** in the top-right corner to provision the second copied token there as well.

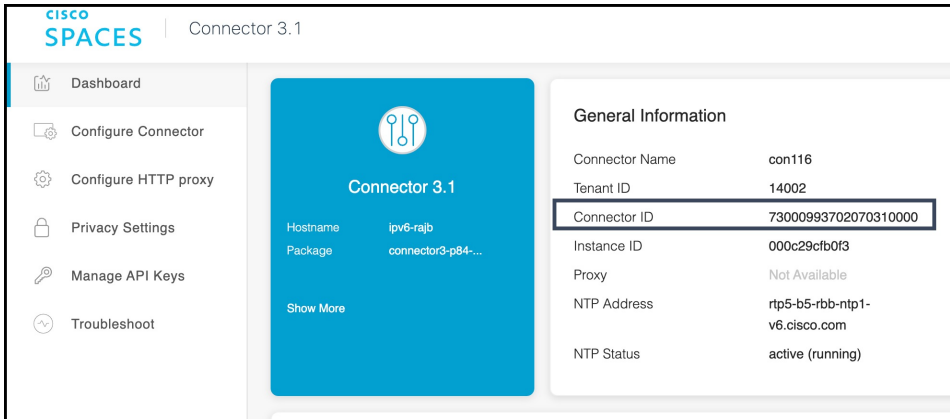
Figure 4: Configure a Token



Two tokens have been configured on two connector instances. You can observe that the connector ID on each instance of the connector is the same

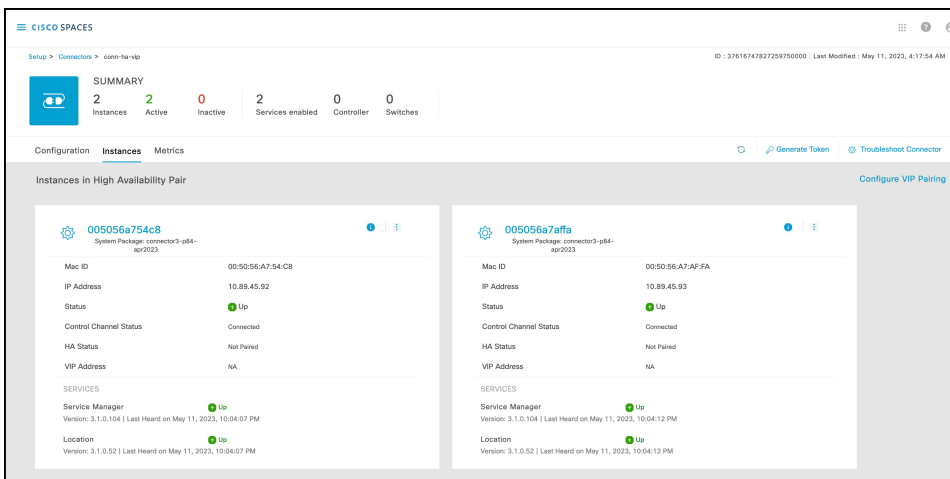
Step 6 On each instance of the connector, observe that the value of the connector ID is the same.

Figure 5: Observe connector ID



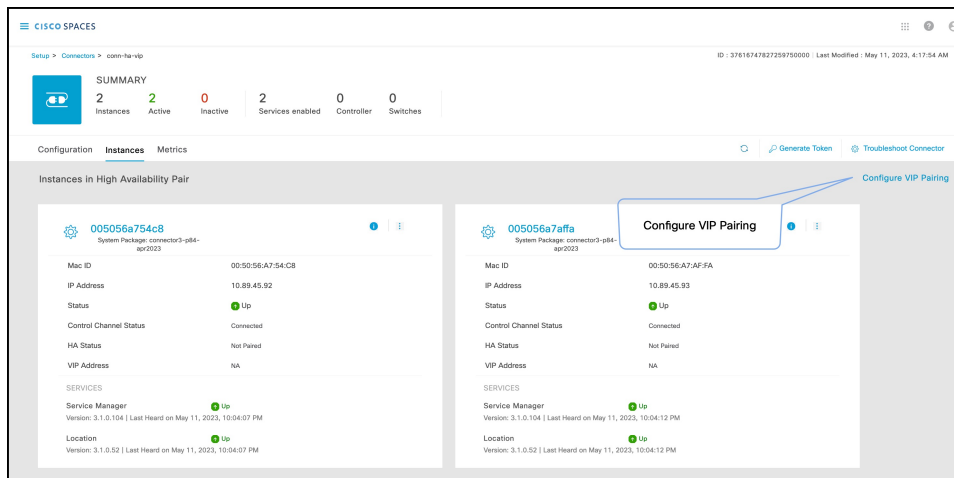
Step 7 On the Cisco Spaces dashboard, go back to the connector details page, and click the **Instances** tab. Here, you can see both the connectors that you configured. Observe that the connector IP addresses are reflected here.

Figure 6: Cisco Spaces dashboard

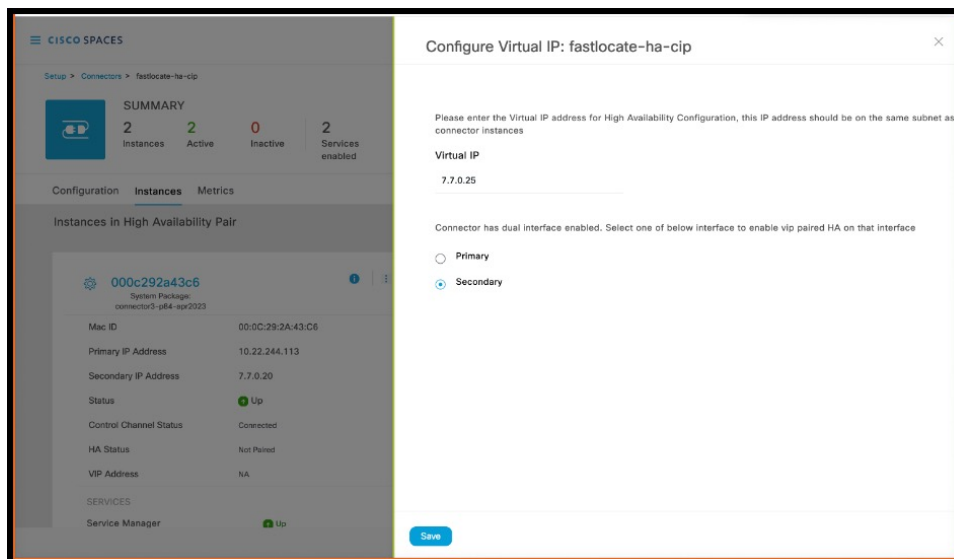


The two connectors are now configured as an active-active pair.

Step 8 To configure the two connector instances as VIP-Paired, click **Configure VIP Pairing** in the top-right corner.

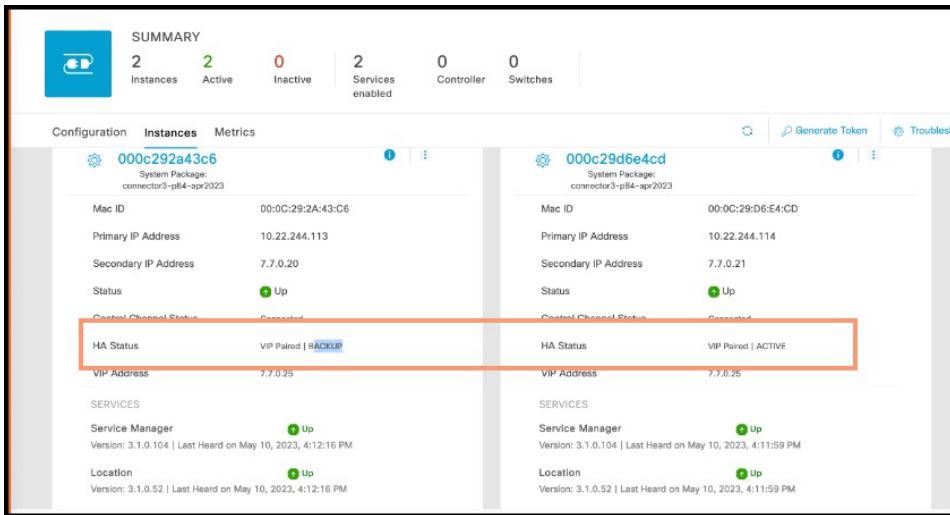
**Step 9**

In the **Configure Virtual IP** popup that is displayed, enter the Virtual IP address (VIP). If the connector has dual interface enabled, you have to choose which interface would be used for VIP pairing.

**Note**

- Ensure that the VIP is in the same subnet as the connector IP address.
- If you have a dual-interface connector, then the VIP should be from the subnet of the secondary interface.

You can now see that the instances are configured as a VIP pair.



Connector Active-Active

You can pair two Cisco Spaces: Connectors in an active-active mode to enable the uninterrupted flow of data to Cisco Spaces.

1. You have to generate two tokens on Cisco Spaces and configure these token on two different connector instances. Each connector instance must have a unique IP address.
2. Both connectors receive configurations from Cisco Spaces .
3. The connectors can then connect to devices and send data back to Cisco Spaces.
4. Cisco Spaces then manages the redundant data.
5. If one connector is down, the other connector continues to send data.

Restrictions for Active-Active

- On the Cisco Spaces dashboard, there is no configuration required for two Connectors to be an active-active pair.
- Both Connectors connect to all Wireless Controllers and send traffic to Cisco Spaces. The traffic from Wireless Controllers to Cisco Spaces hence increases.
- To be an active-active Connector pair, two connectors must run OVA version 3.0 or higher.
- There is no failover support for Hyperlocation.

**Note**

- Cisco FastLocate is re-established after failover with a delay of three to four minutes.
 - Reprovision services after a failover for active-active. For VIP-paired mode, re-provisioning is unnecessary.
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- There is no support for monitoring the Connector active-active feature.
 - You cannot run IoT Service high availability in Active - Active mode. To run IoT Service high availability, use VIP-paired mode.

Configuring Connectors in Active-Active

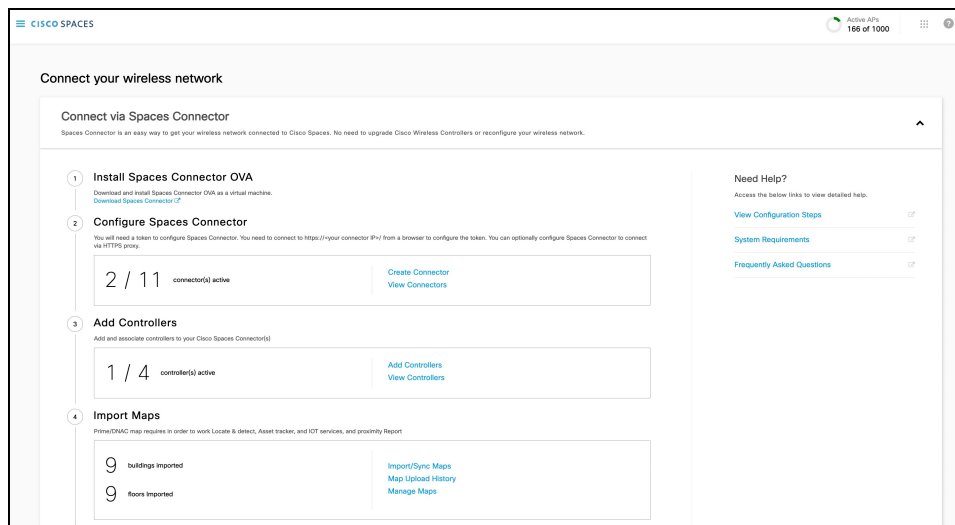
This task shows you how to configure two connectors as active-active.

Before you begin

Install two different instances of Cisco Spaces: Connectors of OVA version 3.0 or higher. Configure each instance of connector with a unique IP address.

Step 1 Login to **Cisco Spaces > Setup > Wireless Networks** and in the **Configure Spaces Connector** area, click **Create Connector**.

Figure 7: Create Connector

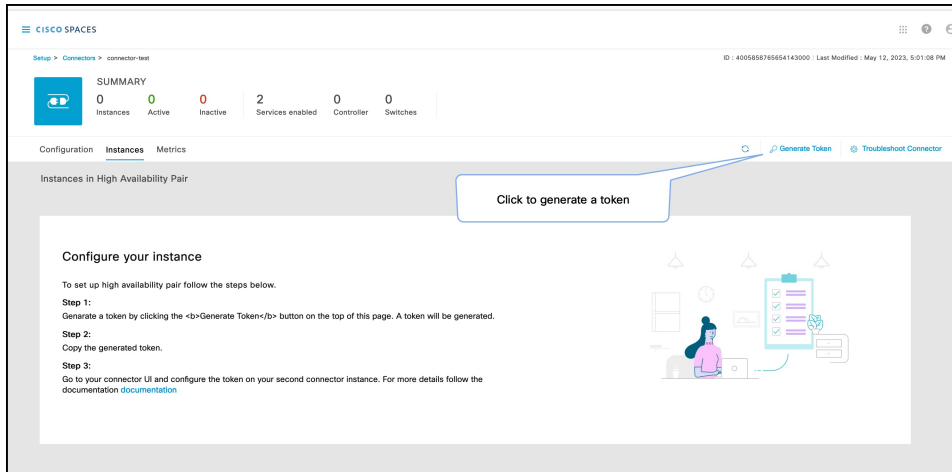


Step 2 Enter a name for the connector and choose the version.

A connector is created. Click **Go to the connector Details** page.

Step 3 In the connector details page, click **Generate Token** in the top-right corner.

Figure 8: Generate Token

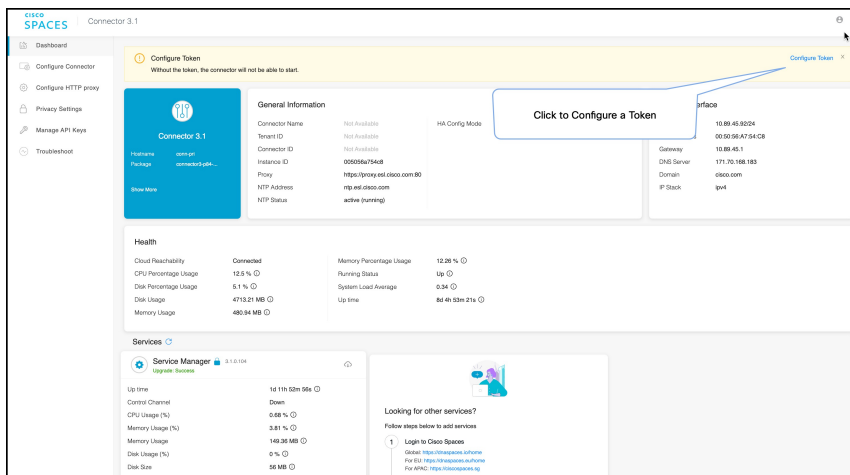


Copy the displayed token.

Step 4 Repeat [Step 3](#) to generate and copy a second token.

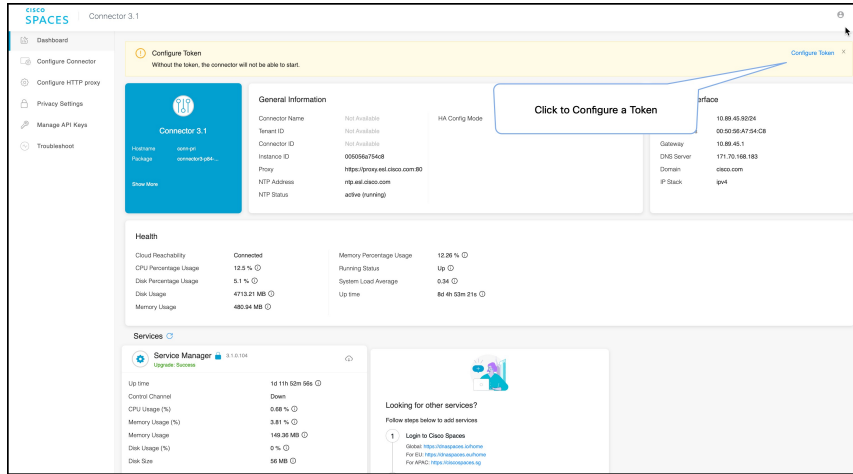
Step 5 Log in to the GUI of the first instance of connector and click **Configure Token** in the top-right corner to provision the first copied token there.

Figure 9: Configure a Token



Step 6 Log in to the GUI of the second instance of connector, and click **Configure Token** in the top-right corner to provision the second copied token there as well.

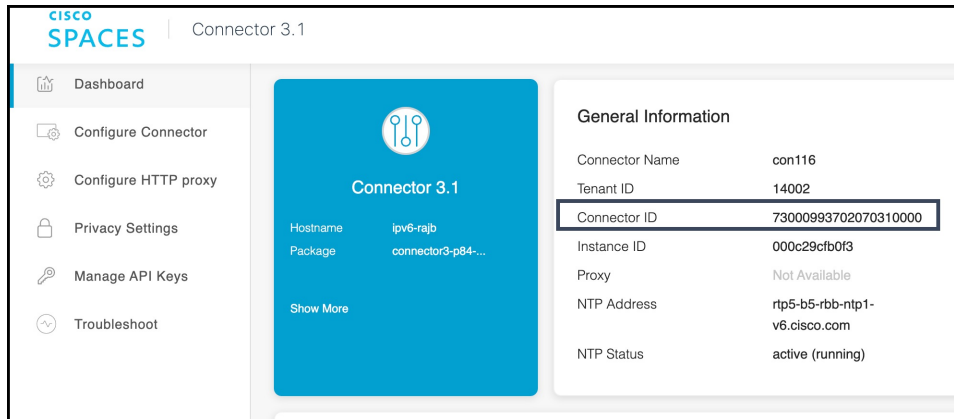
Figure 10: Configure a Token



Two tokens have been configured on two connector instances. You can observe that the connector ID on each instance of the connector is the same

Step 7 On each instance of the connector, observe that the value of the connector ID is the same.

Figure 11: Observe connector ID



Step 8 On the Cisco Spaces dashboard, go back to the connector details page, and click the **Instances** tab. Here, you can see both the connectors that you configured. Observe that the connector IP addresses are reflected here.

Figure 12: Cisco Spaces dashboard

The screenshot displays the Cisco Spaces dashboard for a High Availability (HA) pair of connectors. The top navigation bar shows 'CISCO SPACES' and a breadcrumb trail: 'Setup > Connectors > conn-ha-vip'. A summary section indicates 2 instances, with 2 active, 0 inactive, 2 services enabled, 0 controllers, and 0 switches. Below this, the 'Instances' tab is selected, showing two connector cards side-by-side under the heading 'Instances in High Availability Pair'.

Connector ID	Mac ID	IP Address	Status	Control Channel Status	HA Status	VIP Address
005056a754c8	00:50:56:A7:54:C8	10.89.45.92	Up	Connected	Not Paired	NA
005056a7affa	00:50:56:A7:AF:FA	10.89.45.93	Up	Connected	Not Paired	NA

Each connector card also lists services: Service Manager (Up, Version: 3.1.0.104, Last Heard on May 11, 2023, 10:04:07 PM) and Location (Up, Version: 3.1.0.52, Last Heard on May 11, 2023, 10:04:07 PM).

The two connectors are now configured as an active-active pair.