Sessions

This chapter has details of the sessions created on the Cisco Nexus Dashboard Data Broker.

Beginning with Release 3.10.1, Cisco Nexus Data Broker (NDB) has been renamed to Cisco Nexus Dashboard Data Broker. However, some instances of NDB are present in this document, to correspond with the GUI, and installation folder structure. References of NDB/ Nexus Data Broker/ Nexus Dashboard Data Broker can be used interchangeably.

Note All references of DNA/ DNAC in this chapter/ guide denote Cisco DNA/ Cisco DNAC.

- Span Sessions, on page 1

Span Sessions

The **Span Sessions** tab displays details of the span sessions of the Nexus Dashboard Data Broker controller.

A span session is the link between the span destination of span devices, and the input port of an NDB device. A span session is partially outside the Nexus Dashboard Data Broker network, and defines the path of the packets from the span destination to the monitoring tool port.

A table is displayed with the following details:

Table 1: Span Sessions

Column Name	Description
Status	The status of a SPAN session depends on the operational status of the session in the device/ controller and the status of the connection attached to it. Click the displayed status icon to view the details of the session and connection. The factors impacting session status are—span destination, source (production switch/ controller), input port, monitoring tool port, ISL links(if any). The available statuses are: • Green—session is successful • Yellow—session is partially successful • Red—session has failed • Gray—session has not been installed
Span Session	Span session name. This field is a hyperlink. Click the **SPAN session** name and a new pane is displayed on the right. The following additional actions can be performed here: • Editing or Cloning a Span Session, on page 6
IP Address	IP address of the span session source (span device).
Span Sources	The number of source ports for the span session. **Note** In case of VLAN, the source ports are EPGs on the ACI device.
Span Destination	The number of span destination(s) for the session. **Note** Only ACI devices can have multiple SPAN destinations If there are more than one span destination, then, internal sessions are created. These internal sessions are created based on the availability of source ports. Nexus devices support only one span destination per session.
Connection	Name(s) of connection(s) associated to the span session.
Created By	User who created the span session.

Column Name	Description
Last Modified By	User who last modified the span session.

The following actions can be performed from the **Span Sessions** tab:

- **Add Span Session**—Use this action to add a span session, see Adding a Span Session, on page 3.
- **Synchronize Span Session / Destination**—Use this action to synchronize the information on the production switch (Nexus / Catalyst) or controller (Cisco APIC/ Cisco DNAC) with the Nexus Dashboard Data Broker controller. In case the span session information is deleted /removed on the switch or controller, this action synchronizes span destination configuration and span session configuration on the switch or controller with the configuration on the Nexus Dashboard Data Broker controller.
- **Toggle Install** —Use this action to install/ uninstall a span session. You can install a span session on the switch (Nexus / Catalyst) / controller or uninstall a span session without removing it from the Nexus Dashboard Data Broker controller. The SPAN session is uninstalled from the switch/ controller, but remains saved on the Nexus Dashboard Data Broker controller for future use.
- **Delete Span Session(s)**—Select the span session to be deleted by checking the check box which is available at the beginning of the row and then click **Actions** > **Delete Span Session(s)**. The selected span session is deleted. If you choose the delete action without selecting a check box, an error is displayed. You will be prompted to select a span session.

Adding a Span Session

Use this procedure to add a span session.

Note You can add a maximum of 4 active span sessions for a Nexus switch.

You can add a maximum of 8 active span sessions for a Catalyst switch.

Before you begin

Add a controller / production switch before setting up a span session.

Procedure

Step 1 Navigate to **Sessions** > **Span Sessions**.

Step 2 From the **Actions** drop-down list, select **Add Span Session**.

Step 3 In the **Add Span Session** dialog box, enter the following details:

Table 2: Add Span Session

Field	Description
Span Session Name	Enter a name for the span session.

Field	Description
Span Sources	Select a Span Source. Select **Production Switch** or **Controller**. Each of these have a unique set of fields, which are discussed in the subsequent rows.
Span Source: Controller	
Controller	Click **Select Controller**, and choose either **Cisco ACI** or **Cisco DNAC**. For creating a span source for Nexus devices that are part of the ACI network, select **Cisco ACI**. For creating a span source for catalyst switches, select **Cisco DNAC**.
Leaf Ports	(Only for ACI Controller) Select **Leaf Ports** to add a leaf port to capture the traffic from multiple leaf ports. Click **Select Leaf Ports**. In the **Select Leaf Port(s)** window that is displayed, select a **Pod**. The devices in the selected pod are displayed. Select a **Device** and **Port(s)** of the device.
EPG/ AAEP	(Only for ACI Controller) Select **EPG/ AAEP** to add an EPG/ AAEP source. Click **Select EPG/ AAEP**. In the **Select EPG/ AAEP** window that is displayed, select a **Tenant**, **Profile** , **EPG** and **EPG Members**. The displayed EPG members are- Dynamic, Static, AAEP. When you select, Dynamic or Static, the member details are displayed on the right. When you select **AAEP** as an EPG Member, in the **Select AAEP** column, select an AAEP. **Note** EPG interfaces work only when all the ports are within the same leaf switch. If an EPG is spread across multiple switches, select the corresponding SPAN destination on all the leaf switches.
Interface	(Only for Cisco DNAC) Click **Select Interface** and select a Catalyst switch and interface.
VLAN	(Only for Cisco DNAC) Enter a VLAN id.
Span Source: Production Switch	

Field	Description
Interface	Click **Select Interface(s)** . and select a **Device** and **Port(s)**. The selected device and port(s) are used in the session.
VLAN	Click **Select Production Switch** and select a device. Enter a VLAN ID. The device matching the VLAN ID is used in the session.
Direction	Indicates traffic for the session source port of the device. Select from one of these options: • Incoming • Outgoing • Both
SPAN Destination	Click **Select SPAN Destination** and select the span destination port. The fields displayed are based on your earlier **Span Sources** selection. **Note** The Span Destination port was earlier created using Adding an Input Port procedure. If directly connected to the NDB device, select a local span destination, else select remote span destination. Remote span destination is applicable only for Nexus switches. To install ACI SPAN session, Nexus Dashboard Data Broker controller lists the SPAN destination(s) created in ACI. To install Nexus SPAN session, Nexus Dashboard Data Broker controller lists the SPAN destination(s) created for the Nexus devices. To install a Catalyst SPAN session, Nexus Dashboard Data Broker controller lists the SPAN destination(s) created for the Catalyst switch.

Field	Description
Apply Connection	Select a connection for the session. You can associate an existing connection to the span session or create a new connection for the span session. **Note** All span destinations which are part of a session should be a part of a connection too, to direct traffic to the monitoring tool. Click the button to enable addition of a connection to the span session. Click **Select Connection** and select a connection from the **Select Connection**window.

Note
For EPG:

- For EPG selection, if an EPG is selected, by default, the Nexus Dashboard Data Broker controller listens for the changes in the statically or dynamically configured interfaces of the selected EPG. If there is any change, it is applied to the SPAN session. The web socket connection is not secured with the certificates. To disable the event listening,add `enableWebSocketHandle=false` in the `config.ini` file under `ndb/configuration` folder.
- When new EPG members are added in APIC, if there is no SPAN destination on the leaf switch that matches the newly added EPG member as part of the configured SPAN session, Nexus Dashboard Data Broker ignores this event and the new EPG member are not shown in Nexus Dashboard Data Broker.

Note
For SPAN Destination:

Ensure that each leaf switch in the SPAN source has at least one corresponsing SPAN destination.

Step 4 Click **Add Span Session** to add the created span session, without installing it on the production switch or controller.
Click **Install Span Session** to save and install the created span session on the production switch or controller.

Editing or Cloning a Span Session

Use this procedure to edit or clone a span session.

Editing a span session means changing some of the parameters of an exisiting span session.

Cloning a span session means creating a new span session with identical parameters of an exisiting span session, with required modifications. Ensure to change the name of the span session before saving it.

Before you begin

Add one or more span sessions.

Procedure

Step 1 Navigate to **Sessions** > **Span Sessions**.

Step 2 In the displayed table, click a **Session**.

A new pane is displayed on the right.

Step 3 Click **Actions** and select **Edit Span Session** or **Clone Span Session**.

Edit the displayed parameters in the table.

Table 3: Edit Span Session

Field	Description
Span Session Name	Span session name is displayed. This field can not be edited.
Span Sources	The earlier selected span source is indicated. The span source can not be changed.
Span Source: Controller	
Controller	Click **Select Controller**, and choose either **(Cisco) ACI** or **(Cisco) DNAC**. For creating a span source for Nexus devices that are part of the ACI network, select **(Cisco) ACI**. For creating a span source for catalyst switches, select **(Cisco) DNAC**.
Leaf Ports	(Only for ACI Controller) Select **Leaf Ports** to add a leaf port to capture the traffic from multiple leaf ports. Click **Select Leaf Ports**. In the **Select Leaf Port(s)** window that is displayed, select a **Pod**. The devices in the selected pod are displayed. Select a **Device** and **Port(s)** of the device.

Field	Description
EPG/ AAEP	(Only for ACI Controller) Select **EPG/ AAEP** to add an EPG/ AAEP source. Click **Select EPG/ AAEP**. In the **Select EPG/ AAEP** window that is displayed, select a **Tenant**, **Profile** , **EPG** and **EPG Members**. The displayed EPG members are- Dynamic, Static, AAEP. When you select, Dynamic or Static, the member details are displayed on the right. When you select **AAEP** as an EPG Member, in the **Select AAEP** column, select an AAEP. **Note** EPG interfaces work only when all the ports are within the same leaf switch. If an EPG is spread across multiple switches, select the corresponding SPAN destination on all the leaf switches.
Interface	(Only for Cisco DNAC) Click **Select Interface** and select a Catalyst switch and interface.
VLAN	(Only for Cisco DNAC) Enter a VLAN id.
Span Source: Production Switch	
Interface	The interfaces selected earlier while adding a span session are displayed. You can add or delete these interfaces. Click **Select Interface(s)** . and select a **Device** and **Port(s)**. The selected device and port(s) are used in the session.
VLAN	Click **Select Production Switch** and select a device. Enter a VLAN ID. The device matching the VLAN ID is used in the session.
Direction	Indicates traffic for the session source port of the device. Select from one of these options: • Incoming • Outgoing • Both

Field	Description
SPAN Destination	Click **Select SPAN Destination** and select the span destination port. The fields displayed are based on your earlier **Span Sources** selection. **Note** The Span Destination port was earlier created using Adding an Input Port procedure. If directly connected to the NDB device, select a local span destination, else select remote span destination. Remote span destination is applicable only for Nexus switches. To install ACI SPAN session, Nexus Dashboard Data Broker controller lists the SPAN destination(s) created in ACI. To install Nexus SPAN session, Nexus Dashboard Data Broker controller lists the SPAN destination(s) created for the NX-OS devices. To install a Catalyst SPAN session, Nexus Dashboard Data Broker controller lists the SPAN destination(s) created for the Catalyst switch.
Apply Connection	Select a connection for the session. You can associate an existing connection to the span session or create a new connection for the span session. **Note** All span destinations which are part of a session should be a part of a connection too, to direct traffic to the monitoring tool. Click the button to enable addition of a connection to the span session. Click **Select Connection** and select a connection from the **Select Connection**window.

Step 4 Click **Edit Span Session** or **Clone Span Session**.