Chassis and FEX Lifecycle

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### Chassis and Fabric Extender Discovery and Actions

#### Chassis and Fabric Extender Discovery

Chassis and Fabric Extenders (FEX) that are connected to a Fabric Interconnect are automatically discovered in Cisco Intersight. To discover chassis and FEX connected to a Fabric Interconnect, ensure that the Fabric Interconnect is claimed in Cisco Intersight.

After the Fabric Interconnect is claimed, do the following:

1. Connect the server ports to both Fabric Interconnects. For example, ports 1 and 2 to FI-A and ports 3 and 4 to FI-B.
2. Configure the server ports on both Fabric Interconnects by using a UCS Domain profile. *Creating a UCS Domain Profile* provides detailed information about creating a UCS Domain profile and assigning it to a UCS Fabric Interconnect Domain.

After the server ports are configured and applied, all the chassis and FEX that are connected to the Fabric Interconnect are automatically discovered. During discovery, the chassis and FEX will auto sync firmware with the Fabric Interconnect if their firmware versions do not match the firmware version of the Fabric Interconnect. Because of this, it may take 25-30 minutes for the chassis and FEX to appear in the GUI. You can check the chassis and FEX status through the nxos CLI by using the show fex command.

#### Chassis Actions

From the left navigation panel, click **Chassis** for the **Chassis** table view. You can perform the following operations to manage one or more chassis.

**Chassis Actions**
Rediscover—Rediscovering the chassis initiates the chassis discovery process and then the chassis inventory process.

Decommission—Decommissioning is performed when a chassis is physically present and connected, but you want to temporarily remove it from the Cisco Intersight configuration. This action removes the chassis and IOM inventories. Because it is expected that a decommissioned chassis will be eventually recommissioned, a portion of the chassis information, including the chassis ID, is retained by Cisco Intersight.

Remove—Removing a chassis involves physically removing a chassis from the system.

Before removing a chassis from the system, ensure that you unconfigure the server ports to which the chassis is connected. After the physical removal of the chassis is completed, the configuration for that chassis is removed from Cisco Intersight.

If you need to add a chassis, which was earlier removed, back to the Cisco Intersight configuration, it must be reconnected and then rediscovered. During rediscovery Cisco Intersight will assign the chassis a new ID that may be different from ID that it was assigned earlier.

Recommission—Recommissioning a chassis brings the chassis and IOM back online and initiates the chassis discovery process and then the chassis inventory process. After this action is complete, you can access the chassis and any servers in it.

A list of decommissioned chassis is available in the Devices area under Fabric Interconnects > Fabric Interconnect Name > Connections > Decommissioned.

FEX Actions

From the left navigation panel, click Fabric Interconnects > Fabric Interconnect Name > Connections > Fabric Extenders for the FEX table view. You can perform the following operations to manage one or more FEX.

FEX Actions

Decommission—Decommissioning is performed when a FEX is physically present and connected, but you want to temporarily remove it from the Cisco Intersight configuration. This action takes the FEX offline and removes the FEX inventory. Because it is expected that a decommissioned FEX will be eventually recommissioned, a portion of the FEX information is retained by Cisco Intersight.

Remove—Removing a FEX involves physically removing a FEX from the system. After the physical removal of the FEX is completed, the configuration for that FEX is removed from Cisco Intersight.

To add a removed FEX back to the Cisco Intersight configuration, it must be reconnected to server ports that are configured on the Fabric Interconnect. The FEX is automatically discovered. During discovery Cisco Intersight will assign the FEX a new ID that may be different from ID that it was assigned earlier.

Recommission—Recommissioning a FEX brings the FEX back online, initiates the FEX discovery process and then the FEX inventory process. After this action is complete, you can access the FEX.

A list of decommissioned FEX is available in the Devices area under Fabric Interconnects > Fabric Interconnect Name > Connections > Decommissioned.

Turn On Locator—Turn on the LED Locator on the selected FEX. Locators are indicators that help direct administrators to specific nodes in large data center environments.

Turn Off Locator—Turn off the LED Locator on the selected FEX. Locators are indicators that help direct administrators to specific nodes in large data center environments.
Chassis Details View

When you select a chassis in the chassis table view, a Details page with information specific to the chassis is displayed. In addition to the chassis Health status, you can view the following information in the Chassis Details page:

- **Name**
- **Serial**—The serial number of the chassis
- **Model**—The model number of the chassis, for example, UCSB-5108-AC2
- **Revision**—The revision number of the chassis
- **Part Number**—The part number of the chassis
- **UCS Domain**—The name of the UCS Domain of which the selected chassis is a part
- **Firmware Version**—The firmware version on the chassis
- **Tags**—The existing tags for the selected object are displayed by default. Click Manage to add new tags or modify the existing ones.

The **Properties** area provides a graphical representation of the front and rear view of the chassis, the health overlay for the chassis, and an overview of the hardware properties of the chassis and its components.

The **Alarms** area in Cisco Intersight provides fault monitoring capabilities to track and set up alarms for all managed UCS systems. An alarm alerts you about a failure in the endpoint (a fault) or a threshold that has been raised.

Chassis Inventory View

After a chassis is discovered, an inventory of all its components is made available. When you select a chassis in the **Chassis** table view, you can view the inventory of its components on the **Inventory** tab.

For the selected chassis, you can view details of each of the following components:

- **IO Modules**—You can see a summary of the IO modules in the chassis. When you click a specific IO module, you can view its properties and graphical view.

  **Action:** You can reset an IO module from the page.

  **Note:** In the Cisco UCS X-series chassis, each Intelligent Fabric Module (IFM) contains fan modules. When you click a fan module, you can view the properties and operational state of the fans.

- **XFM Modules**—You can see a summary of the X-Fabric Modules (XFM) in the chassis. Each XFM contains fan modules. When you click a fan module, you can view the properties and operational state of the fans.
The XFM slots are present only in the Cisco UCS X-series chassis.

- **Fan Modules**—You can see a summary of the fan modules in the chassis. When you click a specific fan module, you can view the list of fans on the fan module, properties, and graphical view of that fan module.

- **PSUs**—You can see a summary of the Power Supply Units (PSUs) in the chassis. When you click a specific PSU, you can view the properties and graphical view of that PSU.

- **Servers**—You can see a summary of the servers in the chassis, including details such as their health, model, and serial number.

### Chassis Connections View

The Connections view provides a list of all the components that are directly or indirectly connected to your chassis, such as Fabric Interconnects and servers.

Depending on the information available for the selected chassis, the following is displayed:

- **Network**
  - **Switches**—Displays the details of the Fabric Interconnects that are connected to the chassis. These details are Name, Health, Model, Vendor, and Serial.

### Fabric Extender Details View

When you select a Fabric Extender (FEX) in the FEX table view, a Details page with information specific to the chassis is displayed. In addition to the FEX **Health** status, you can view the following information in the FEX Details page:

- **Name**
- **Serial**—The serial number of the Fabric Extender
- **Model**—The model number of the Fabric Extender
- **Vendor**—The name of the manufacturer
- **Revision**—The revision number of the Fabric Extender
- **Part Number**—The part number of the Fabric Extender
- **Ports**—The total number of ports on the Fabric Extender, and their operational status. The status can be:
  - **Used**—Number of ports that are currently connected to the Fabric Interconnects and servers
  - **Available**—Number of ports available for use on the Fabric Extender
- **Tags**—The existing tags for the Fabric Extender. You can add new tags, or modify the existing ones from Manage tags.
Fabric Extender Inventory View

After a Fabric Extender (FEX) is discovered, an inventory of all its components is made available. When you select a FEX in the FEX table view, you can view the inventory of its components on the Inventory tab.

For the selected FEX, you can view details of each of the following components:

- **Ports**—The details of all the Backplane Ports and Fabric Ports on the FEX that is selected.
  
  The Backplane Ports table shows the server ports, which are host ports. This includes information such as the port Name, Status, Port Channel ID to which it belongs, Speed of the port and the Peer server port.
  
  The Fabric Ports table shows the network ports that are connected to the Fabric Interconnect. This includes information such as the port Name, Status, Port Channel ID to which it belongs, Switch Slot ID of the Fabric Interconnect to which it is connected, the Peer Fabric Interconnect, and the Switch Port ID of the Fabric Interconnect to which it is connected.
  
  It also includes detailed hardware information and graphic view of each port.

- **Fan Modules**—The details of all the fan modules on the FEX, such as Name, Fans, Model, and Status.
  
  It also includes detailed hardware information and graphic view of each fan module and the fans in it.

- **PSUs**—The details of the Power Supply Units (PSUs) on the FEX, such as Name, ID, Model, Vendor, Serial and Status.
  
  It also includes detailed hardware information and graphic view of each PSU.

Fabric Extender Connection View

The Connections view provides a list of all the components that are directly or indirectly connected to your Fabric Extender (FEX), such as servers and Fabric Interconnects.

Depending on the information available for the selected FEX, the following is displayed:

- **Compute**
  
  - **Servers**—The details of all the servers that are connected to the FEX. These details are Name, Health, User Label, Model, and Serial.

- **Network**
  
  - **Switches**—Displays the details of the Fabric Interconnects that are connected to the FEX. These details are Name, Health, Model, Vendor, and Serial.