



Equipment Related Policies

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Chassis Discovery Policy

The chassis discovery policy determines how the system reacts when you add a new Cisco UCS S3260 chassis or an existing standalone Cisco UCS S3260 chassis to a Cisco UCS system. [Cisco UCS S3260 System Architectural Overview](#) describes the connectivity for a Cisco UCS S3260 system managed by Cisco UCS Manager. Cisco UCS Manager uses the settings in the chassis discovery policy to determine whether to group links from the system I/O controllers (SIOCs) to the fabric interconnects in fabric port channels.

To add a previously standalone Cisco UCS S3260 chassis to a Cisco UCS system, you must first configure it to factory default. You can then connect both SIOCs on the chassis to both fabric interconnects. After you connect the SIOCs on the chassis to the fabric interconnects, and mark the ports as server ports, chassis discovery begins.



Note Chassis/IOM acknowledgement after chassis/FEX discovery policy changes is not applicable for S3260 chassis.

Server Discovery

Cisco UCS Manager automatically discovers the Cisco UCS S3260 server nodes after the Cisco UCS S3260 chassis is discovered.



Note Server discovery fails if the SIOC corresponding to the server is not present.

Link Grouping

In release 4.0(1a), **Link Group Preference** is automatically set to **Port Channel** when using new SIOC with PCIe slots.



Note For the Cisco UCS 6400 Series Fabric Interconnect, and Cisco UCS 6536 Fabric Interconnect, the **Link Group Preference** is always set to **Port Channel**.

When you connect a Cisco UCS S3260 chassis through a FEX to a Cisco UCS 6200 Series fabric interconnect or directly to a Cisco UCS 6300 Series fabric interconnect, or Cisco UCS 6400 Series Fabric Interconnect, and Cisco UCS 6536 Fabric Interconnect, Cisco UCS Manager ignores the **Port Channel** preference and the SIOCs operate in the non-port channel mode.

When you connect a Cisco UCS S3260 chassis directly to a Cisco UCS 6200 Series fabric interconnect, you can use link grouping to determine whether all of the links from the SIOC to the fabric interconnect are grouped into a fabric port channel during chassis discovery. If the link grouping preference is set to **Port Channel**, all of the links from the SIOC to the fabric interconnect are grouped in a fabric port channel. If set to **None**, links from the SIOC are pinned to the fabric interconnect.

Set the link grouping preference to **Port Channel** if the Cisco UCS S3260 chassis is connected to a Cisco UCS 6200 Series fabric interconnect through a 4x10G breakout cable. If this is not done, chassis discovery will not complete.

Set the link grouping preference to **None** if the Cisco UCS S3260 chassis is connected to a fabric interconnect through a single 10G cable.

After changing the **Link Group Preference** value in the Cisco UCS Manager GUI, Decommission and then Recommission the Cisco UCS S3260 chassis for the change to take effect.

In the Cisco UCS domain, if there are other chassis operating in **Port Channel** mode, do the following:

1. Discover the chassis in the Cisco UCS system with the **Link Group Preference** set to **Port Channel**
2. Change the link aggregation preference for the Cisco UCS S3260 chassis through Chassis Connectivity Policy
3. Decommission the chassis
4. Recommission the chassis

Configuring the Chassis/FEX Discovery Policy

Procedure

- Step 1** In the **Navigation** pane, click **Equipment**.
- Step 2** Click the **Equipment** node.
- Step 3** In the **Work** pane, click the **Policies** tab.
- Step 4** Click the **Global Policies** subtab.
- Step 5** In the **Chassis/FEX Discovery Policy** area, specify the action and the link grouping preference.
 - a. From the **Action** drop-down list, select the minimum threshold for the number of links between the chassis or FEX and the fabric interconnect.
 - b. For the **Link Grouping Preference** radio button, select whether the links from the IOMs or FEXes to the fabric interconnects are grouped in a port channel.

In release 4.0(1a), **Link Group Preference** is automatically set to **Port Channel** when using new SIOC with PCIe slots.

Note In a setup with Cisco UCS 6400 Series Fabric Interconnect, and Cisco UCS 6500 Series Fabric Interconnect, the **Link Grouping Preference** value for Chassis/FEX Discovery Policy is not user configurable. The value is set to **Port Channel**.

- c. For the **Backplane Speed Preference** radio button, select the speed preference. The 40G backplane setting is not applicable for 22xx IOMs.

Step 6 Click **Save Changes**.

What to do next

To customize fabric port channel connectivity for a specific chassis, configure the chassis connectivity policy.

Chassis Connectivity Policy

The chassis connectivity policy determines whether a specific chassis is included in a fabric port channel after chassis discovery. This policy is helpful for users who want to configure one or more chassis differently from what is specified in the global chassis discovery policy.

By default, the chassis connectivity policy is set to global. This means that connectivity control is configured when the chassis is newly discovered, using the settings configured in the chassis discovery policy. Once the chassis is discovered, the chassis connectivity policy controls whether the connectivity control is set to none or port channel.



Note The chassis connectivity policy is created by Cisco UCS Manager only when the hardware configuration supports fabric port channels.

The following table displays the various connectivity and media type support for FC/FCoE.

Table 1: Connectivity and Media Type Support for FC/FCoE

FI	Connectivity	Supported	Port-Channel	FC/FCoE
Cisco UCS 6536 Fabric Interconnect	Direct Connect– 25 GB – QSA28	Yes	¹ SIOC (Non Port-Channel) ² New gen SIOC - No	Yes
Cisco UCS 6536 Fabric Interconnect	93180YC-FX3 (25G server ports)	Yes	SIOC - No New gen SIOC (Port-Channel)	Yes

FI	Connectivity	Supported	Port-Channel	FC/FCoE
Cisco UCS 6536 Fabric Interconnect	2348 UPQ (10G server ports)	Yes	SIOC - No New gen SIOC (Port-Channel)	Yes
Cisco UCS 6400 Series Fabric Interconnect	Direct Connect– 10 GB – QSA	Yes Not using Breakout	³ SIOC (Non Port-Channel) ⁴ New gen SIOC - No	Yes
Cisco UCS 6400 Series Fabric Interconnect	Direct Connect– 25G SFP 28	Yes Not using Breakout	SIOC - No New gen SIOC (Port-Channel)	Yes
Cisco UCS 6400 Series Fabric Interconnect	2232 FEX - 10 GB - QSA	Yes	SIOC (Non Port-Channel) New gen SIOC (Port-Channel)	Yes
Cisco UCS 6400 Series Fabric Interconnect	2232xx - 4x10 GB - Breakout Cable	Yes	SIOC (Port-Channel) New gen SIOC -No	No
Cisco UCS 6300 Series Fabric Interconnect	Direct Connect 40 GB	Yes	SIOC (Non Port-Channel) New gen SIOC -No	Yes
Cisco UCS 6300 Series Fabric Interconnect	Direct Connect– 10 GB – QSA	Yes Not using Breakout	SIOC - No New gen SIOC (Port-Channel)	No
Cisco UCS 6300 Series Fabric Interconnect	Direct Connect 4x10 GB – Breakout	No	N/A	N/A
Cisco UCS 6300 Series Fabric Interconnect	Direct Connect 2x10 GB – Reverse Breakout	Yes	SIOC - No New gen SIOC (Port-Channel)	No
Cisco UCS 6300 Series Fabric Interconnect	2348UPQ FEX - 10 GB – QSA	Yes	SIOC (Non Port-Channel) New gen SIOC (Port-Channel)	Yes
Cisco UCS 6300 Series Fabric Interconnect	2348UPQ FEX - 4x10 GB - Breakout	No	N/A	N/A

FI	Connectivity	Supported	Port-Channel	FC/FCoE
Cisco UCS 6200 Series Fabric Interconnect	Direct Connect – 4x10 GB - Breakout Cable	Yes	SIOC (Port-Channel) New gen SIOC - No	Yes
Cisco UCS 6200 Series Fabric Interconnect	Direct Connect – 10 GB – QSA	Yes	SIOC (Non Port-Channel) New gen SIOC (Port-Channel)	Yes
Cisco UCS 6200 Series Fabric Interconnect	2232 FEX - 10 GB - QSA	Yes	SIOC (Non Port-Channel) New gen SIOC (Port-Channel)	Yes
Cisco UCS 6200 Series Fabric Interconnect	2232xx - 4x10 GB - Breakout Cable	No	N/A	N/A
Cisco UCS 6324 Fabric Interconnect	Direct Connect - 40 GB	No	N/A	N/A
Cisco UCS 6324 Fabric Interconnect	Direct Connect - 10 GB – QSA	No	N/A	N/A

¹ SIOC without PCIe slots used in release 3.2 and earlier

² New SIOC with PCIe slots used in release 4.0 and higher

³ SIOC without PCIe slots used in release 3.2 and earlier

⁴ New SIOC with PCIe slots used in release 4.0 and higher

Configuring a Chassis Connectivity Policy



Caution Changing the connectivity mode for a chassis results in decommissioning and recommissioning the chassis. Traffic will be disrupted during this time.

Procedure

- Step 1** In the **Navigation** pane, click **Equipment**.
- Step 2** Expand **Equipment** > **Chassis**.
- Step 3** Click the chassis for which you want to configure the connectivity between the SIOCs and fabric interconnects.
- Step 4** In the **Work** pane, click the **Connectivity Policy** tab.
- Step 5** For each SIOC in the chassis, choose one of the following values in the **Admin State** field for the chassis and fabric connectivity:
 - **None**—No links are grouped in a port channel

- **Port Channel**—All links from an IOM to a fabric interconnect are grouped in a port channel.

Note Cisco UCS 6400 Series Fabric Interconnects , and Cisco UCS 6536 Fabric Interconnect support only Port Channel mode.

- **Global**—The chassis inherits this configuration from the chassis discovery policy. This is the default value.

Step 6 Click **Save Changes**.
