



Configuring System-Related Policies

This chapter includes the following sections:

- [Configuring the Chassis Discovery Policy, page 1](#)
- [Configuring the Power Policy, page 3](#)
- [Configuring the Aging Time for the MAC Address Table, page 4](#)

Configuring the Chassis Discovery Policy

Chassis Discovery Policy

The chassis discovery policy determines how the system reacts when you add a new chassis. Cisco UCS Manager uses the settings in the chassis discovery policy to determine the minimum threshold for the number of links between the chassis and the fabric interconnect. However, the configuration in the chassis discovery policy does not prevent you from connecting multiple chassis to the fabric interconnects in a Cisco UCS instance and wiring those chassis with a different number of links.

If you have a Cisco UCS instance that has some chassis wired with 1 link, some with 2 links, and some with 4 links, we recommend that you configure the chassis discovery policy for the minimum number links in the instance so that Cisco UCS Manager can discover all chassis. After the initial discovery, you must reacknowledge the chassis that are wired for a greater number of links and Cisco UCS Manager configures the chassis to use all available links.

Cisco UCS Manager cannot discover any chassis that is wired for fewer links than are configured in the chassis discovery policy. For example, if the chassis discovery policy is configured for 4 links, Cisco UCS Manager cannot discover any chassis that is wired for 1 link or 2 links. Reacknowledgement of the chassis does not resolve this issue.

The following table provides an overview of how the chassis discovery policy works in a multi-chassis Cisco UCS instance:

Table 1: Chassis Discovery Policy and Chassis Links

Number of Links Wired for the Chassis	1-Link Chassis Discovery Policy	2-Link Chassis Discovery Policy	4-Link Chassis Discovery Policy
1 link between IOM and fabric interconnects	Chassis is discovered by Cisco UCS Manager and added to the Cisco UCS instance as a chassis wired with 1 link.	Chassis cannot be discovered by Cisco UCS Manager and is not added to the Cisco UCS instance.	Chassis cannot be discovered by Cisco UCS Manager and is not added to the Cisco UCS instance.
2 links between IOM and fabric interconnects	Chassis is discovered by Cisco UCS Manager and added to the Cisco UCS instance as a chassis wired with 1 link. After initial discovery, reacknowledge the chassis and Cisco UCS Manager recognizes and uses the additional links.	Chassis is discovered by Cisco UCS Manager and added to the Cisco UCS instance as a chassis wired with 2 link.	Chassis cannot be discovered by Cisco UCS Manager and is not added to the Cisco UCS instance.
4 links between IOM and fabric interconnects	Chassis is discovered by Cisco UCS Manager and added to the Cisco UCS instance as a chassis wired with 1 link. After initial discovery, reacknowledge the chassis and Cisco UCS Manager recognizes and uses the additional links.	Chassis is discovered by Cisco UCS Manager and added to the Cisco UCS instance as a chassis wired with 2 links. After initial discovery, reacknowledge the chassis and Cisco UCS Manager recognizes and uses the additional links.	Chassis is discovered by Cisco UCS Manager and added to the Cisco UCS instance as a chassis wired with 4 link.

Configuring the Chassis Discovery Policy

Procedure

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- Step 1** In the **Navigation** pane, click the **Equipment** tab.
 - Step 2** On the **Admin** tab, 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 Discovery Policy** area, choose the number of links to be used by the chassis from the **Action** drop-down list.
 - Step 6** In the **Power Policy** area, click one of the following radio buttons in the **Redundancy** field:

- **non-redundant**—All installed power supplies are turned on and the load is evenly balanced. Only smaller configurations (requiring less than 2500W) can be powered by a single power supply.
- **n+1**—The total number of power supplies to satisfy non-redundancy, plus one additional power supply for redundancy, are turned on and equally share the power load for the chassis. If any additional power supplies are installed, Cisco UCS Manager sets them to a "turned-off" state.
- **grid**—Two power sources are turned on, or the chassis requires greater than N+1 redundancy. If one source fails (which causes a loss of power to one or two power supplies), the surviving power supplies on the other power circuit continue to provide power to the chassis.

Step 7 Click **Save Changes**.

Configuring the Power Policy

Power Policy

The power policy is a global policy that specifies the redundancy for power supplies in all chassis in the Cisco UCS instance. This policy is also known as the PSU policy.

For more information about power supply redundancy, see *Cisco UCS 5108 Server Chassis Hardware Installation Guide*.

Configuring the Power Policy

Procedure

- Step 1** In the **Navigation** pane, click the **Equipment** tab.
- Step 2** On the **Admin** tab, 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 **Power Policy** area, click one of the following radio buttons in the **Redundancy** field:
 - **non-redundant**—All installed power supplies are turned on and the load is evenly balanced. Only smaller configurations (requiring less than 2500W) can be powered by a single power supply.
 - **n+1**—The total number of power supplies to satisfy non-redundancy, plus one additional power supply for redundancy, are turned on and equally share the power load for the chassis. If any additional power supplies are installed, Cisco UCS Manager sets them to a "turned-off" state.
 - **grid**—Two power sources are turned on, or the chassis requires greater than N+1 redundancy. If one source fails (which causes a loss of power to one or two power supplies), the surviving power supplies on the other power circuit continue to provide power to the chassis.

For more information about power supply redundancy, see *Cisco UCS 5108 Server Chassis Hardware Installation Guide*.

Step 6 Click **Save Changes**.

Configuring the Aging Time for the MAC Address Table

Aging Time for the MAC Address Table

To efficiently switch packets between ports, the fabric interconnect maintains a MAC address table. It dynamically builds the MAC address table by using the MAC source address from the packets received and the associated port on which the packets were learned. The fabric interconnect uses an aging mechanism, defined by a configurable aging timer, to determine how long an entry remains in the MAC address table. If an address remains inactive for a specified number of seconds, it is removed from the MAC address table.

You can configure the amount of time (age) that a MAC address entry (MAC address and associated port) remains in the MAC address table.

Configuring the Aging Time for the MAC Address Table

Procedure

- Step 1** In the **Navigation** pane, click the **Equipment** tab.
- Step 2** On the **Admin** tab, 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 **MAC Address Table Aging** area, complete the following fields:

Name	Description
Aging Time field	The length of time an idle MAC address remains in the MAC address table before it is removed by Cisco UCS. This can be: <ul style="list-style-type: none"> • never—MAC addresses are never removed from the table regardless of how long they have been idle. • mode-default—The system uses the default value. If the fabric interconnect is set to end-host mode, the default is 14,500 seconds. If it is set to switching mode, the default is 300 seconds. • other—Cisco UCS Manager GUI displays the dd:hh:mm:ss field which allows you to enter a custom value.
dd:hh:mm:ss field	The length of time a MAC address must remain idle before Cisco UCS removes it from the MAC address table. This field is only visible if you choose other for the aging time. Enter a time in the format days:hours:minutes:seconds.

Step 6 Click **Save Changes**.
