Managing Power in Cisco UCS

This chapter includes the following sections:

Power Policies

Cisco UCS Central supports global equipment policies defining the global power allocation policy (based on policy driven chassis group cap or manual blade level cap methods), power policy (based on grid, n+1 or non-redundant methods). Registered Cisco UCS domains choosing to define power management and power supply units globally within that client's policy resolution control will defer power management and power supply units to its registration with Cisco UCS Central.

Configuring Global Power Allocation Equipment Policies

Configuring a Global Power Allocation Equipment Policy

Before You Begin

Before configuring a global power allocation equipment policy under a domain group, this policy must first be created. Policies under the Domain Groups root were already created by the system and ready to configure.

Procedure

Step 1   On the menu bar, click **Operations Management**.

Step 2   In the **Navigation** pane, expand **Domain Groups** > **Domain Group root**.

Step 3   Under the **Domain Groups root** node, do one of the following choices:

      • To configure the policy in the domain group root, click **Operational Policies**.

• To configure the policy in a specific domain group, expand the node for that domain group and click **Operational Policies**.

Step 4 In the **Navigation** pane, click **Operational Policies**.

Step 5 In the **Work** pane, click **Equipment**.

Step 6 In the **Work** pane, click the **Global Power Allocation Policy** tab.

Step 7 In the **Actions** area, click **Create** and complete all applicable fields.
For **Operational Policies** under the **Domain Group root** node, it is not necessary to click **Create** to complete all applicable fields.

Name	Description
Create button	Creates an instance of the policy that will be used by all Cisco UCS domains included in the selected domain group.
Import button	Allows you to import the policy from one of the Cisco UCS domains registered with Cisco UCS Central.
Delete button	Deletes the instance of the policy defined for the selected domain group. After you delete the policy, it remains greyed-out until you click **Save**. When you do so, Cisco UCS Central deletes the policy and any configuration data you may have specified. While you can create a new instance of the policy later, you cannot restore the configuration data from a deleted instance. To cancel the delete request, click **Reset**.
Allocation Method field	The power allocation management mode used in the Cisco UCS domains included in the Cisco UCS Central domain group. This can be one of the following: • **Policy Driven Chassis Group Cap**—Power allocation is configured at the chassis level through power control policies included in the associated service profiles. If you select this option, you can also create power groups that contain one or more chassis in the Cisco UCS domain. • **Manual Blade Level Cap**—Power allocation is configured on each individual blade server in all chassis. If you select this option, you cannot create power groups.

Step 8 Click **Save**.

Deleting a Global Power Allocation Equipment Policy

Procedure

Step 1	On the menu bar, click **Operations Management**.
Step 2	In the **Navigation** pane, expand **Domain Groups** > **Domain Group root**.
Step 3	Under the **Domain Groups root** node, do one of the following choices:

- To configure the policy in the domain group root, click **Operational Policies**.

- To configure the policy in a specific domain group, expand the node for that domain group and click **Operational Policies**.

Step 4	In the **Navigation** pane, click **Operational Policies**.
Step 5	In the **Work** pane, click **Equipment**.
Step 6	In the **Work** pane, click the **Global Power Allocation Policy** tab.
Step 7	In the **Actions** area, click **Delete**. A policy that is deleted will inherit its settings from its domain group's parent until it is reconfigured.
Step 8	Click **Save**.

Configuring Power Equipment Policies

Configuring a Power Equipment Policy

Before You Begin

Before configuring a power equipment policy under a domain group, this policy must first be created. Policies under the Domain Groups root were already created by the system and ready to configure.

Procedure

Step 1	On the menu bar, click **Operations Management**.
Step 2	In the **Navigation** pane, expand **Domain Groups** > **Domain Group root**.
Step 3	Under the **Domain Groups root** node, do one of the following choices:

- To configure the policy in the domain group root, click **Operational Policies**.

• To configure the policy in a specific domain group, expand the node for that domain group and click **Operational Policies**.

Step 4 In the **Navigation** pane, click **Operational Policies**.

Step 5 In the **Work** pane, click **Equipment**.

Step 6 In the **Work** pane, click the **Power Policy** tab.

Step 7 In the **Actions** area, click **Create** and complete all applicable fields.
For **Operational Policies** under the **Domain Group root** node, it is not necessary to click **Create** to complete all applicable fields.

Name	Description
Create button	Creates an instance of the policy that will be used by all Cisco UCS domains included in the selected domain group.
Import button	Allows you to import the policy from one of the Cisco UCS domains registered with Cisco UCS Central.
Delete button	Deletes the instance of the policy defined for the selected domain group. After you delete the policy, it remains greyed-out until you click **Save**. When you do so, Cisco UCS Central deletes the policy and any configuration data you may have specified. While you can create a new instance of the policy later, you cannot restore the configuration data from a deleted instance. To cancel the delete request, click **Reset**.
Redundancy field	This can be one of the following: • **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 8 Click **Save**.

Deleting a Power Equipment Policy

Procedure

Step 1 On the menu bar, click **Operations Management**.

Step 2 In the **Navigation** pane, expand **Domain Groups** > **Domain Group root**.

Step 3 Under the **Domain Groups root** node, do one of the following choices:

  • To configure the policy in the domain group root, click **Operational Policies**.

  • To configure the policy in a specific domain group, expand the node for that domain group and click **Operational Policies**.

Step 4 In the **Navigation** pane, click **Operational Policies**.

Step 5 In the **Work** pane, click **Equipment**.

Step 6 In the **Work** pane, click the **Power Policy** tab.

Step 7 In the **Actions** area, click **Delete**.
A policy that is deleted will inherit its settings from its domain group's parent until it is reconfigured.

Step 8 Click **Save**.