



Customizing Cisco UCS Central Management Pack

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Overview of Customizing Cisco UCS Central Management Pack

For each UCS Central added for monitoring in Operations Manager, a Management Pack Template is created in the Management Pack Templates tab of the Cisco Unified Computing System. It is important to understand the components of the Management Pack to perform any customization.

Cisco UCS Central Instance Object Discoveries

All the object discoveries are interval based and they can be periodically run to get the discovery data from monitoring service. To view the list of object discoveries in the pack, complete the following steps:

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| Step 1 | In the Operations Manager console, click the Go tab in the menu bar. |
| Step 2 | From the drop-down list, select Authoring . |
| Step 3 | Select Management Pack Templates > Cisco UCS Central |
| Step 4 | Select the template pack for which you want to view the object discoveries. |
| Step 5 | Right click and select View Management Pack Objects > Object Discoveries . |
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Cisco UCS Central Root (Object Discovery)

This is the top level Object Discovery and the first discovery to run for an UCS Central. It discovers an instance of Cisco UCS Central into Operations Manager. This discovery runs to fetch the inventory and monitoring information from Cisco UCS Central using the Cisco UCS Monitoring Service. These discoveries can be overridden. The later sections shows how to override the object discoveries.

The following are the set of Overrides available for this Object Discovery:

- **CacheClass**—Defines the managed object for an inventory or monitoring information to be collected from the UCS Central
- **Discovery Level**—Defines the level up to which Organizations and Service Profiles from the UCS Central should be discovered in the Operations Manager
- **Enabled**—Defines the enabled state of the object discovery
- **Interval Seconds**—Defines the interval of execution
- **ShowUnassociatedProfiles**—Defines whether or not the associated or unassociated Service Profiles should be discovered in Operations Manager.

The default value is **False** which means an unassociated service profile is not shown.

- **Logging Level**—Defines if the logging is enabled or disabled for this object discovery
- **Timeout Seconds**—Defines the timeout period for the discovery script to execute

**Note**

By default the Cisco UCS Central Root discovery is programmed to execute every two hours (7200 seconds) to get any modifications from the Cisco UCS Central.

Overriding Object Discoveries

- Step 1** Go to **Object Discovery** page of the Cisco UCS Central instance.
- Step 2** Select the object for which you want to override the properties.
- Step 3** Right-click and select **Override > Override the Object Discovery > For All Objects of Class**.
- Step 4** In the **Override Properties** dialog box, complete the following:
 - Check the Override check box
 - Modify the override values
 - Click **OK > Apply**.

Note

When an object discovery is enabled using override, all its target class discoveries to the top level of Cisco UCS Central instance must be enabled. When disabled, the class discoveries targeted at this class to the leaf levels are not monitored.

Overriding Object Discoveries using PowerShell Cmdlets

You can disable or override object discoveries using PowerShell Cmdlets. For more details, see Retrieving, enabling, or disabling UCS Manager Object Discoveries.

Rules

Cisco UCS Core Library Management Pack has rule or rules for each UCS Central faults. The rules are inherited whenever the UCS Manager templates instance is create from **Add Monitoring Wizard**.



Note Rules are included for faults with Severity equal to Critical, Major, Minor, Warning, and Type, and not equal to FSM or Configuration.

Depending on the UCS Manager component on which a fault can occur, there can be one or multiple rules defined per UCS fault.

For example, F10000210 can occur on the following UCS Central components:

"org-[name]/ip-pool-[name]"

In the given example, parsing from the back side of the DN, Organization is the discovered components, so one rule is available that is

Fault Rule: Organization.F10000210

Now, consider the fault F10000195, which can occur of the following UCS Central components.

"extpol/reg/controllers/contro-[id]"

In the given example, parsing from the back side of the DNs, component are not discovered by the UCS Central Management Pack. So, a single rule is available whose target would be Cisco UCS Central Root Class and the fault name is:

Fault Rule: F10000195

Rules are event-based. Each rule can generate multiple alerts in the Operations Manager based on the event raised by the Cisco UCS Monitoring Service.



Note Currently, the Cisco UCS Manager Management Pack does not support display of informational faults from the Cisco UCS in Operations Manager.



Note UCS Central FSM faults are transient faults. So, the running version of the management pack does not support such faults.

For a complete list of FSM faults not supported in the Management Pack, see [FSM Faults](#).

PreConfigure Rule

When all the Management Packs are imported, before Cisco UCS Central templates are created, configure (Enable/Disable) the rule from UI or Cmdlets. Once configured, you can import the templates and the configuration takes effect on all the templates which are added later. If you want to change the configuration of rules after the templates are imported, re-configure the rule. This automatically takes effect on the existing templates and for all the future templates they are to be added.

Enabling Rules using PowerShell Cmdlets

You can enable rules using PowerShell Cmdlets. For more details, see retrieving, enabling or disabling UCS Manager Fault Rules.

Severity Mapping

This section describes the mapping between the severity of faults in the UCS Central and the alert severity rules in Operations Manager console.

The following table shows the mapping of severity levels between the Cisco UCS Central and rules.

Severity Level	Cisco UCS (Severity)	Rules (Alert Severity)
2	Critical, Major	Critical
1	Minor, Warning	Warning



Note

All Rules are enabled by default.

Viewing List of Rules in the Management Pack

- Step 1** From the Operations Manager menu bar, click **Go** and select **Authoring**.
- Step 2** From the navigation pane, select **Management Pack Templates**.
- Step 3** Select **Cisco UCS Central**.
- Step 4** Right-click the Cisco UCS Central instance, and select **View Management Pack Objects > Rules**.

Overriding a Rule

- Step 1** From Operations Manager menu bar, click **Go** and select **Authoring**.
- Step 2** From the navigation pane, select **Management Pack Templates**.

- Step 3** Select **Cisoc UCS Central**.
 - Step 4** Right-click the Cisco UCS Central instance, and select **View Management Pack Objects > Rules**.
 - Step 5** On the **Rules** page, select the rule which you want to override.
 - Step 6** Right-click the rule and click **Overrides > Override the Rule > For all objects of class**.
 - Step 7** On the **Override Properties** page, check the parameter you want to override and then modify the override value.
 - Step 8** Click **OK** to close the Override page.
 - Step 9** Close the **Rules** page.
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Migrating the Cisco UCS Central to a Different Monitoring Service

In a deployment where multiple Operations Manager Management Servers and Agent Managed Computers are present, Cisco UCS Monitoring Service could be installed on more than one computer to monitor multiple Cisco UCS Central. This helps in sharing the load of monitoring multiple Cisco UCS Central among different Management Servers and Agent Managed Computers. While doing so, sometimes it may be required to assign the monitoring of Cisco UCS Central from one Cisco UCS Monitoring Service to another Monitoring Service.

- Step 1** From the menu bar of the Operations Manager console, click the **Go** tab.
 - Step 2** From the drop-down menu, select **Authoring**.
 - Step 3** Select **Management Pack Templates**.
 - Step 4** Select **Cisco UCS Central**.
 - Step 5** Right-click one of the Cisco UCS Central instances and click **Properties**.
 - Step 6** From the drop-down list, Select a different machine type or service machine or both.
 - Step 7** Click **OK > Apply**.
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