



Fault Monitoring

This chapter describes the tasks to view alarms and create alarm profiles.

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Fault Monitoring

The Fault Monitoring panel displays a summary of all encountered alarms and conditions. It displays the number of Critical (CR), Major (MJ), Minor (MN), Warnings (W), and Non-applicable (NA) alarms. It displays the alarms, transient conditions, and historical alarms that are related to chassis, passive devices, pluggables, line cards, amplifier cards, and control cards. You can also create custom alarm profiles and apply them on the node using this pane.

Figure 1: Fault Monitoring

The screenshot displays the 'Fault Monitoring' section of the Cisco Optical Site Manager. On the left, there is a visual representation of 'Rack 1' with various components. On the right, the 'Alarms' tab is active, showing a summary of 17 alarms. The summary includes counts for Critical (10), Major (5), Minor (0), Warning (2), and Indeterminate (0). Below the counts is an 'Alarm Summary' table with the following data:

Rack	Device Name	Severity	Service Affect	Condition	Timestamp	Actual
		Warning	NSA	USER-LOGIN	08/29/2024, 13:17:33 (UTC+00:00)	
		Warning	NSA	USER-LOGOUT	08/29/2024, 13:07:44 (UTC+00:00)	
1/15		Critical	SA	OPWR-LFAIL	08/29/2024, 11:00:42 (UTC+00:00)	NCS11
1/18		Critical	SA	LOS-P	08/29/2024, 11:00:42 (UTC+00:00)	NCS11
1/15		Critical	SA	LOS-P	08/29/2024, 11:00:42 (UTC+00:00)	NCS11
1/18		Critical	SA	LOS-P	08/29/2024, 11:00:42 (UTC+00:00)	NCS11
1/8		Critical	SA	LOS-P	08/29/2024, 10:59:25 (UTC+00:00)	NCS11
1/8		Critical	SA	OPWR-LFAIL	08/29/2024, 10:59:25 (UTC+00:00)	NCS11

View Rack, Chassis, or Card Alarms

Use this task to display the alarms raised on a rack, chassis, or card.

Before you begin

[Log into Cisco Optical Site Manager](#)

Procedure

- Step 1** Click **COSM Topology** in the left panel.
The COSM Topology page appears.
- Step 2** Perform one of the following steps to view alarms for a rack, chassis or card:
- Click the rack name from the Rack view to view alarms for a rack.
 - Right-click the chassis screws from the Rack view and select **Open** to view alarms for a chassis.
 - Right-click the card from the Rack view and select **Open** to view alarms for a card.
- The **Alarms** tab displays the alarms with several severities, such as Critical, Major, Minor, Warning, and Intermediate. The alarm severities are indicated by different colors.
- Step 3** Select a specific time slot from the **Show Transient Alarms** drop-down list to view alarms for a specific time slot.
- Step 4**
- Step 5** (Optional) Click the **Auto Delete Cleared Alarms** toggle button to automatically delete the cleared alarms.
- Step 6** (Optional) Click the **Excel Export** button to export the alarms to an Excel sheet.
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View All Alarms and Conditions

Use this task to display all alarms and transient conditions for all the racks, chassis, and cards.

Before you begin

[Log into Cisco Optical Site Manager](#)

Procedure

- Step 1** Click **Fault Monitoring** in the left panel.
Alternatively, you can also click the bell icon on the top-right corner.
- Step 2** Click the **Alarms** tab to view all the alarms.
Alarms are displayed with several severities, such as Critical, Major, Minor, Warning, and Intermediate. The alarm severities are indicated by different colors.

- Step 3** Click the **Conditions** tab to view all the transient conditions.
- Step 4** Click the **History** tab to view the alarms.
- Step 5** (Optional) Click the **Auto Delete Cleared Alarms** toggle button to automatically delete the cleared alarms.
- Step 6** (Optional) Click the **Excel Export** button to export the alarms to an Excel sheet.
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View Rack, Chassis, or Card Transient Conditions

Use this task to display the transient conditions raised on a rack, chassis, or card.

Before you begin

[Log into Cisco Optical Site Manager](#)

Procedure

- Step 1** Click **COSM Topology** in the left panel.
The COSM Topology page appears.
- Step 2** Perform one of the following steps to view the transient conditions:
- Click the rack name from the Rack view to view the transient conditions for a rack.
 - Right-click the chassis screws from the Rack view and select **Open** the transient conditions for a chassis.
 - Right-click the card from the Rack view and select **Open** the transient conditions for a card.
- Step 3** Click the **Conditions** tab.
- Step 4** Select a time slot from the **Show Transient Alarms In** drop-down list to view transient conditions for a specific time slot.
- Step 5** (Optional) Click the **Excel Export** button to export the conditions to an Excel sheet.
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View Alarms History

Use this task to display the alarms history raised on a rack, chassis, or card.

Before you begin

[Log into Cisco Optical Site Manager](#)

Procedure

- Step 1** Click **COSM Topology** in the left panel.
The COSM Topology page appears.
- Step 2** Perform one of the following steps to view the alarms history:

- Click the rack name from the Rack view to view alarms history for a rack.
- Right-click the chassis screws from the Rack view and select **Open** to view alarms history for a chassis.
- Right-click the card from the Rack view and select **Open** to view alarms history for a card.

Step 3 Click the **History** tab.

Alarms are displayed with several severities, such as Critical, Major, Minor, Warning, and Intermediate. The alarm severities are indicated by different colors.

Step 4 (Optional) Click the **Excel Export** button to export the alarms history to an Excel sheet.

Alarm Profiles

The alarm profiles feature allows the user to change default alarm severities by creating unique alarm profiles for individual ports, cards, chassis, passive units, optical cross-connects, and optical interfaces.

The Default alarm profile containing all the alarms is preprovisioned on the node. The Default profile sets alarm severities to standard Telcordia GR-474-CORE settings. The alarm severities in the Default profile cannot be changed. After loading the Default profile on the node, you can create custom alarm profiles. In the Inherited alarm profile, alarms inherit or copy severity from the next highest level. For example, a card with an Inherited alarm profile copies the severities that are used by the node hosting the card.

By default, you can view two alarm profiles:

- **Default**—The Default alarm profile containing all the alarms is preprovisioned on the node. The Default profile sets alarm severities to standard Telcordia GR-474-CORE settings. The alarm severities in the Default profile cannot be changed. After loading the Default profile on the node, you can create custom alarm profiles. In the Inherited alarm profile, alarms inherit or copy severity from the next highest level. For example, a card with an Inherited alarm profile copies the severities that are used by the node hosting the card.
- **all-suppressed alarms**—Includes all the suppressed alarms.

You do not have to apply a single alarm profile to the node, card, and port-level alarms. Different profiles can be applied at different levels. You could use the default profile on a node and on all the cards and ports, but apply a custom profile that downgrades an alarm on a specific card.

When you modify severities in an alarm profile, all the Critical (CR) or Major (MJ) default or user-defined severity settings are demoted to Minor (MN) in Non-Service-Affecting (NSA) settings and the other way round as defined in Telcordia GR-474. Default severities are used for all alarms and conditions until you create a new profile and apply it.

Create and Load Alarm Profiles

Use this task to create and load alarm profiles on a node.

Before you begin

[Log into Cisco Optical Site Manager](#)

Procedure

- Step 1** Click **Fault Monitoring** in the left panel.
- Step 2** Click the **Profiles** tab.
- Step 3** Click **Alarm Profile** to expand the section.
The default profile all-suppressed alarms is displayed along with the list of alarms.
- Step 4** Click the + button to create an alarm profile.
The **Alarm Profile** dialog box appears.
- Step 5** Enter the name of the custom alarm profile in the **Name** field.
- Step 6** (Optional) Choose the resources such as card, ecu, and fan-tray from the **Resources** drop-down list.
You can select multiple resources from the list.
- Step 7** Click **Apply**.
The created alarm profile is displayed in the list along with the default alarm profile.
- Step 8** Select the check-box corresponding to the alarm profile you just created and click **Load Profile** to load the alarm profile on the node.
The alarms that belong to the selected alarm profile appear in the **Alarms for Profile** sub-section.
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Associate Alarm Profiles

Use this task to associate alarm profiles with the resources such as ports, cards, chassis, passive units, optical cross-connects, and optical interfaces.

Before you begin

[Log into Cisco Optical Site Manager](#)

Procedure

- Step 1** Click **Fault Monitoring** in the left panel.
- Step 2** Click the **Profiles** tab.
- Step 3** Click **Profile Association** to expand the section.
- Step 4** Click the + button above the *Association* column.
The **Profile Association** dialog box appears.
- Step 5** Enter the name of the association in the **Association** field.
- Step 6** Select the alarm profile from the **Profile** drop-down list.
- Step 7** Click **Apply**.
The association name and profile is displayed in the list under the *Association* and *Profile* column.
- Step 8** Select the check-box corresponding to the association you want to associate with a resource and click **Load Association**.

- Step 9** Click the + button above the *Resource Type* column to associate a resource to the association.
The **Resource** dialog box appears.
- Step 10** Select a resource from the **Resource Type** drop-down list.
The **Resource Type** drop-down list contains all the resources to which the alarm profile can be associated. Multiple resources can be associated with the same alarm profile. The other drop-down list options in the **Resource** dialog box may vary based on the selected resource type.
- Step 11** Choose the desired values from the other drop-down lists in the **Resource** dialog box.
- Step 12** From the **Inherited** drop-down list, choose **true** or **false** to indicate whether the association must be applied to all the children of this resource or not.
- Step 13** Click **Apply**.
When the alarm profile is associated with the resources, all the outstanding and new alarms matching these resources are immediately set with the new alarm severities.
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