



Alarms

This chapter, which provides information on Cisco Unified Serviceability alarms, contains the following topics:

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Alarms overview

Cisco Unified Serviceability alarms provide information on runtime status and the state of the system, so you can troubleshoot problems that are associated with your system; for example, to identify issues with the Disaster Recovery System. Alarm information, which includes an explanation and recommended action, also includes the application name, machine name, and so on, to help you perform troubleshooting. If you have clusters, this is even true for problems that are not on your local Cisco Unified CCX.

You configure the alarm interface to send alarm information to multiple locations, and each location can have its own alarm event level (from debug to emergency). You can direct alarms to the Syslog Viewer (local syslog), Syslog file (remote syslog), an SDI trace log file, or to all destinations.

When a service issues an alarm, the alarm interface sends the alarm information to the locations that you configure (and that are specified in the routing list in the alarm definition) (for example, SDI trace). The system can either forward the alarm information, as is the case with SNMP traps, or the system can write the alarm information to its final destination (such as a log file).



Note

Cisco Unified CCX supports SNMP traps.

**Tip**

For the Remote Syslog Server, do not specify a Cisco Unified CCX server, which cannot accept syslog messages from other servers.

You use the Trace and Log Central option in the Cisco Unified Real-Time Monitoring Tool (RTMT) to collect alarms that get sent to an SDI trace log file. You use the SysLog Viewer in RTMT to view alarm information that gets sent to the local syslog.

Alarm configuration

You can configure alarms for services, such as Cisco Database Layer Monitor, in Cisco Unified Serviceability. Then, you configure the locations, such as Syslog Viewer (local syslog), where you want the system to send the alarm information. With this option, you can

- Configure alarms for services on a particular server or on both servers in a Unified CCX cluster
- Configure different remote syslog servers for the configured services or servers
- Configure different alarm event level settings for different destinations

The alarms include system (OS and hardware platform), application (services), and security alarms.

Cisco Unified CCX Components also uses alarms, which are available in Cisco Unified CCX Serviceability. For detailed information on how to configure alarms in Cisco Unified CCX, see the *Cisco Unified CCX Serviceability Administration Guide*.

**Note**

If local syslog is enabled for an application alarm, the system sends the alarm to the local syslog server when the alarm exceeds the local syslog threshold. If remote syslog is also enabled in Cisco Unified Serviceability, the system forwards the alarm to the remote syslog server by using the application threshold that is configured in Cisco Unified Serviceability.

The event level and severity settings provide a filtering mechanism for the alarms and messages that the system collects. This setting helps to prevent the Syslog and trace files from becoming overloaded. The system forwards only alarms and messages that exceed the configured threshold.

For more information about the severity levels attached to alarms and events, see the [Alarm configuration checklist](#), on page 4.

Alarm definitions

Used for reference, alarm definitions describe alarm messages: what they mean and how to recover from them. You search the Alarm Definitions window for alarm information of Unified CCX Administration and platform. When you click any service-specific alarm definition, a description of the alarm information (including any user-defined text that you have added) and a recommended action display.

You can search for definitions of all alarms that display in Cisco Unified Serviceability. To aid you with troubleshooting problems, the definitions, which exist in a corresponding catalog, include the alarm name, description, explanation, recommended action, severity, parameters, monitors, and so on.

When the system generates an alarm, it uses the alarm definition name in the alarm information, so you can identify the alarm. In the alarm definition, you can view the routing list, which specifies the locations where the system can send the alarm information. The routing list may include the following locations, which correlate to the locations that you can configure in the Alarm Configuration window:

- SDI —The system sends the alarm information to the SDI trace if you enable the alarm for this option and specify an appropriate event level in the Alarm Configuration window.
- Sys Log—The system sends the alarm information to the remote syslog server if you enable the alarm for this option, specify an appropriate event level in the Alarm Configuration window, and enter a server name or IP address for the remote syslog server.
- Event Log—The system sends the alarm information to the local syslog, which you can view in the SysLog Viewer in the Cisco Unified Real-Time Monitoring Tool (RTMT), if you enable the alarm for this option and specify an appropriate event level in the Alarm Configuration window.
- Data Collector—System sends the alarm information to the real-time information system (RIS data collector) (for alert purposes only). You cannot configure this option in the Alarm Configuration window.

**Tip**

If the SNMP Traps location displays in the routing list, the system forwards the alarm information to the appropriate SNMP agents, which generates the required traps according to the definition in the respective MIB.

The system sends an alarm if the configured alarm event level for the specific location in the Alarm Configuration window is equal to or lower than the severity that is listed in the alarm definition. For example, if the severity in the alarm definition equals `WARNING_ALARM`, and, in the Alarm Configuration window, you configure the alarm event level for the specific destination as `Warning`, `Notice`, `Informational`, or `Debug`, which are lower event levels, the system sends the alarm to the corresponding destination. If you configure the alarm event level as `Emergency`, `Alert`, `Critical`, or `Error`, the system does not send the alarm to the corresponding location.

For each Cisco Unified Serviceability alarm definition, you can include an additional explanation or recommendation. All administrators have access to the added information. You directly enter information into the User Defined Text pane that displays in the Alarm Details window. Standard horizontal and vertical scroll bars support scrolling. Cisco Unified Serviceability adds the information to the database.

View alarm definition

This section describes how to search and view an alarm definition for Unified CCX and platform components through Cisco Unified Serviceability.

Procedure

- Step 1** In Cisco Unified Serviceability, choose **Alarm > Definitions**. The Alarm Message Definitions window displays.

- Step 2** From the Find alarms where drop-down list box, choose the catalog for which you want to view the definitions.
- Step 3** From the Equals drop-down list box, choose a catalog of alarm definitions or enter the alarm name in the Enter Alarm Name field. For a list of System Alarm Catalog options, see [System alarm catalog descriptions, on page 5](#).
- Step 4** Click **Find**.
The definitions list displays for the alarm catalog that you chose.
- Tip** Multiple pages of alarm definitions may exist. To choose another page, click the appropriate navigation button at the bottom of the Alarm Message Definitions window or enter a page number in the Page field. To change the number of alarms that display in the window, choose a different value from the Rows per Page drop-down list box.
- Step 5** In the list, click the hyperlink alarm definition for which you want to view alarm details, such as a description, alarm severity, and so on.
The Alarm Information window displays.
- Step 6** If you want to add information to the alarm, enter text in the User Defined Text pane and click **Save**.
Tip To delete the description from the User Defined Text pane, click **Clear All**.
- Step 7** To return to the Alarm Message Definitions window, choose **Back to Find/List Alarms** from the Related Links drop-down list box; then, click **Go**.
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Alarm information

You view alarm information to determine whether problems exist. The method that you use to view the alarm information depends on the destination that you chose when you configured the alarm. You can view alarm information that is sent to the SDI trace log file by using the Trace and Log Central option in RTMT or by using a text editor. You can view alarm information that gets sent to local syslog by using the SysLog Viewer in RTMT.

Alarm configuration checklist

An overview of the steps for configuring alarms.

Procedure

- Step 1** In Cisco Unified Serviceability, configure the servers, services, destinations, and event levels for the alarm information you want to collect.
- Note**
- All services can go to the SDI log (but must be configured in Trace also).
 - All services can go to the SysLog Viewer.
 - To send syslog messages to the Remote Syslog Server, check the Remote Syslog destination and specify a host name. If you do not configure the remote server name, Cisco Unified Serviceability does not send the Syslog messages to the remote syslog server.
- Tip** Do not configure a Cisco Unified CCX server as a remote Syslog server.

- Step 2** (Optional) Add a definition to an alarm.
- Step 3** Select any of the following depending on your requirements:
- If you chose an SDI trace file as the alarm destination, collect traces and view the information with the Trace and Log Central option in RTMT.
 - If you chose local syslog as the alarm destination, view the alarm information in the SysLog Viewer in RTMT
- Step 4** See the corresponding alarm definition for the description and recommended action.
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Related Topics

- [Cisco Unified CCX Real-Time Monitoring Tool Administration Guide](#)
- [Alarms overview, on page 1](#)
- [Configure alarm for feature or network service](#)
- [Configure alarm for service using Cisco Tomcat](#)
- [Alarm settings](#)
- [Alarm definitions, on page 2](#)
- [View alarm definition, on page 3](#)

System alarm catalog descriptions

The table below contains the System Alarm Catalog alarm descriptions.

Table 1: System Catalogs

Name	Description
ClusterManagerAlarmCatalog	All cluster manager alarm definitions that are related to the establishment of security associations between servers in a cluster.
DBAlarmCatalog	All Cisco database (aupair) alarm definitions
DRFAlarmsCatalog	All Disaster Recovery System alarm definitions
GenericAlarmCatalog	All generic alarm definitions that all applications share
JavaApplications	All Java Applications alarm definitions.
EMAlarmCatalog	Alarms for Extension Mobility
LoginAlarmCatalog	All login-related alarm definitions
LpmTctCatalog	All log partition monitoring and trace collection alarm definitions
RTMTAlarmCatalog	All Cisco Unified Real-Time Monitoring Tool alarm definitions

Name	Description
SystemAccessCatalog	All alarm definitions that are used for tracking whether SystemAccess provides all thread statistic counters together with all the process statistic counters.
ServiceManagerAlarmCatalogs	All service manager alarm definitions that are related to the activation, deactivation, starting, restarting, and stopping of services.
TFTPAlarmCatalog	All Cisco TFTP alarm definitions
TVSAlarmCatalog	Alarms for Trust Verification Service
TestAlarmCatalog	All alarm definitions that are used for sending test alarms through SNMP traps from the Command Line Interface (CLI). For information on the CLI, refer to the Command Line Interface Reference Guide for Cisco Unified Solutions.
CertMonitorAlarmCatalog	All certificate expiration definitions.
CTLproviderAlarmCatalog	Alarms for Certificate Trust List (CTL) Provider service
CDPAlarmCatalog	Alarms for Cisco Discovery Protocol (CDP) service
IMSAlarmCatalog	All user authentication and credential definitions.