



CHAPTER 15

Configuring Upstream Alarm Hosts and Tuning Event and Alarm Parameters

The following topics tell you how to add upstream OSS hosts for Prime Performance Manager alarm SNMP traps. It also tells you how to tune Prime Performance Manager alarms and events:

- [Adding Upstream OSS Hosts, page 15-1](#)
- [Editing Upstream OSS Hosts, page 15-2](#)
- [Tuning Event and Alarm Parameters, page 15-2](#)
- [Prime Performance Manager SNMP Traps, page 15-3](#)

Adding Upstream OSS Hosts

To add OSS hosts for Prime Performance Manager SNMP traps:

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- Step 1** log into the Prime Performance Manager GUI as an administrator (Level 5) user.
- Step 2** In the navigation area, click **Administrative**.
- Step 3** In the Administrative window, click the **Event Editor** tab.
- Step 4** On the Event Editor toolbar, click the **Add a New Host** tool.
- Step 5** In the Add Upstream OSS Host dialog box, enter the host parameters:
- Host—Enter the hostname or IP address
 - Port—Enter the port Prime Performance Manager should use to connect to the host.
 - Community—Enter the SNMP community string.
 - SNMP Version—Enter the SNMP version, either Version 1 or 2c.



Note Prime Performance Manager supports SNMP v3 for device SNMP credentials. However, only SNMP v1 and 2c are supports for upstream OSS hosts.

- Trap Type—Enter the SNMP trap type:
 - CISCO-PRIME—The Cisco Prime trap type.
 - CISCO-SYSLOG—The Cisco Syslog trap type. See [CISCO-PRIME Notification Attributes, page 15-8](#).

- CISCO-EPM—The Cisco EPM trap type. See [CISCO-EPM Trap Notification Attributes, page 15-4](#).
- CISCO-EPM-2—The Cisco EPM 2 trap type. See [CISCO-EPM-2 Trap Notification Attributes, page 15-5](#)

Step 6 Click **OK**.

Step 7 On the Event Editor toolbar, click **Save Configuration**.

The new host is added to the Upstream OSS Hosts table.

Editing Upstream OSS Hosts

To edit OSS hosts for Prime Performance Manager SNMP traps:

Step 1 Log into the Prime Performance Manager GUI as an administrator (Level 5) user.

Step 2 In the navigation area, click **Administrative**.

Step 3 In the Administrative window, click the **Event Editor** tab.

Step 4 In the Upstream OSS Host table, select the host entry you want to edit, then modify the following as needed. For field descriptions, see [Adding Upstream OSS Hosts, page 15-1](#).

- Host
- Port
- Community
- SNMP Version
- Trap Type:
 - CISCO-PRIME
 - CISCO-SYSLOG
 - CISCO-EPM
 - CISCO-EPM-2

Step 5 Click **OK**.

Step 6 On the Event Editor toolbar, click **Save Configuration**.

Tuning Event and Alarm Parameters

To modify Prime Performance Manager event and alarm parameters:

Step 1 log into the Prime Performance Manager GUI as an administrator (Level 5) user.

Step 2 In the navigation area, click **Administrative**.

Step 3 In the Administrative window, click the **Event Editor** tab.

Step 4 Under properties, edit the following parameters:

- **Maximum Events**—Edit the maximum number of events that Prime Performance Manager should retain in the events database. The default is 50,000.
- **Maximum Alarms**—Edit the maximum number of alarms that Prime Performance Manager should retain in the alarms database. The default is 25,000.
- **Maximum Database Size**—Edit the maximum database size, in MB, that Prime Performance Manager should allow the database to reach. The default is 200,000 MB.
- **Event Age**—Edit the number of days Prime Performance Manager should retain events. The default is 7 days.
- **Alarm Age**—Edit the number of days Prime Performance Manager should retain alarms. The default is 14 days.
- **Cleared Alarm Age**—Edit the number of seconds Prime Performance Manager should retain cleared alarms. The default is 1440 minutes (24 hours).
- **Archive Active Alarms**—Indicate whether active alarms should be archived, True (default) or False.
- **Send Events**—Indicates whether traps are sent to the OSS upstream host for events, True or False (default).
- **Send Alarms**—Indicates whether traps are sent to the OSS upstream host for alarms, True (default) or False.
- **Send Updates**—Indicates whether traps are sent to the OSS upstream host for updates, True (default) or False.



Note The Send Event, Alarms, Updates control the traps sent to the OSS. For example, if Send Updates is false, Prime Performance Manager only sends traps when the alarm is raised.

- **Trap Throttle**—Slows down the rate that Prime Performance Manager sends traps to the OSS so that the OSS is not overwhelmed. The default is 10 milliseconds.
- **Heartbeat Interval**—Sets the rate at which Prime Performance Manager sends a heartbeat trap to the OSS to indicate that Prime Performance Manager is still running. The default is 0.
- **Node Display Name**—Sets the device display name in the Prime Performance Manager Alarms and Events window:
 - **CustomName**—Uses the custom name.
 - **NodeName**—Uses the device hostname.
 - **SysName**—Uses the device system name.

Step 5 When finished, on the Event Editor toolbar, click **Save Configuration**.

Prime Performance Manager SNMP Traps

The following sections describe the OSS host traps used by Prime Performance Manager.

- [CISCO-EPM Trap Notification Attributes, page 15-4](#)
- [CISCO-EPM-2 Trap Notification Attributes, page 15-5](#)
- [CISCO-PRIME Notification Attributes, page 15-8](#)

CISCO-EPM Trap Notification Attributes

The CISCO-EPM trap (CISCO-EPM-NOTIFICATION-MIB::ciscoEpmNotificationAlarmRev1) supports new, update, and delete events. This trap is the first EPM trap version. Compare it with CISCO-EPM-2 trap and use the one with the data that meets your Prime Performance Manager northbound OSS integration needs.

Table 15-1 describes the CISCO-EPM notification attributes.

Table 15-1 CISCO-EPM Trap Notification Attributes

Attribute Name	OID	Value
cenAlarmVersion	1.3.6.1.4.1.9.9.311.1.1.2.1.2	Unused
cenAlarmTimestamp	1.3.6.1.4.1.9.9.311.1.1.2.1.3	Unused
cenAlarmUpdatedTimestamp	1.3.6.1.4.1.9.9.311.1.1.2.1.4	Unused
cenAlarmInstanceID	1.3.6.1.4.1.9.9.311.1.1.2.1.5	Unique event ID
cenAlarmStatus	1.3.6.1.4.1.9.9.311.1.1.2.1.6	0, 1, or 2 Corresponds to New, Update, or Delete
cenAlarmStatusDefinition	1.3.6.1.4.1.9.9.311.1.1.2.1.7	0, 1, or 2 Corresponds to New, Update, or Delete
cenAlarmType	1.3.6.1.4.1.9.9.311.1.1.2.1.8	Unused
cenAlarmCategory	1.3.6.1.4.1.9.9.311.1.1.2.1.9	Integer corresponding to user-defined event category.
cenAlarmCategoryDefinition	1.3.6.1.4.1.9.9.311.1.1.2.1.10	String representation of user-defined event category.
cenAlarmServerAddressType	1.3.6.1.4.1.9.9.311.1.1.2.1.11	Always ipv4
cenAlarmServerAddress	1.3.6.1.4.1.9.9.311.1.1.2.1.12	Prime Performance Manager Server IP address.
cenAlarmManagedObjectClass	1.3.6.1.4.1.9.9.311.1.1.2.1.13	The classification of the modeled NE. For example, MWRdevice, ITPdevice, ONSdevice, SP, Linkset, Link, AS, ASPA, SGMP, and Interface.
cenAlarmManagedObjectAddressType	1.3.6.1.4.1.9.9.311.1.1.2.1.14	Always ipv4.
cenAlarmManagedObjectAddress	1.3.6.1.4.1.9.9.311.1.1.2.1.15	The IP address of the managed object, either the router IP address or the Prime Performance Manager server IP address.
cenAlarmDescription	1.3.6.1.4.1.9.9.311.1.1.2.1.16	Event message text.
cenAlarmSeverity	1.3.6.1.4.1.9.9.311.1.1.2.1.17	Integer corresponding to user-defined event severity.

Table 15-1 CISCO-EPM Trap Notification Attributes (continued)

Attribute Name	OID	Value
cenAlarmSeverityDefinition	1.3.6.1.4.1.9.9.311.1.1.2.1.18	String representation of user-defined event severity. The set of alarm severity values are: • 0—Normal • 1—Indeterminate • 2—Informational • 3—Warning • 4—Minor • 5—Major • 6—Critical A separate OID indicating a clear alarm is not provided. A clear alarm is indicated by this OID when the severity is 0 (Normal).
cenAlarmTriageValue	1.3.6.1.4.1.9.9.311.1.1.2.1.19	Unused (always 0).
cenEventIDList	1.3.6.1.4.1.9.9.311.1.1.2.1.20	Communication.
cenUserMessage1	1.3.6.1.4.1.9.9.311.1.1.2.1.21	The event/alarm name.
cenUserMessage2	1.3.6.1.4.1.9.9.311.1.1.2.1.22	The UNIX time when the event occurred. Example: 2030-04-14, 16:05:05.369,0400
cenUserMessage3	1.3.6.1.4.1.9.9.311.1.1.2.1.23	The UNIX time when the event changed, for example: 2030-04-14, 16:05:05.369,0400
cenAlarmMode	1.3.6.1.4.1.9.9.311.1.1.2.1.24	Either 2 for alert or 3 for event.
cenPartitionNumber	1.3.6.1.4.1.9.9.311.1.1.2.1.25	Number of times this event or alert has occurred.
cenPartitionName	1.3.6.1.4.1.9.9.311.1.1.2.1.26	Correlation key.
cenCustomerIdentification	1.3.6.1.4.1.9.9.311.1.1.2.1.27	Network element name.
cenCustomerRevision	1.3.6.1.4.1.9.9.311.1.1.2.1.28	Acknowledged by username.
cenAlertID	1.3.6.1.4.1.9.9.311.1.1.2.1.29	Unique event ID.

CISCO-EPM-2 Trap Notification Attributes

The CISCO-EPM-2 trap (CISCO-EPM-NOTIFICATION-MIB::ciscoEpmNotificationAlarmRev2) supports new, update, and delete events. This is the second EPM trap version. Compare it with the CISCO-EPM trap and use the one that meets your Prime Performance Manager northbound OSS integration needs.

Table 15-2 describes the CISCO-EPM-2 notification attributes.

Table 15-2 CISCO-EPM-2 Notification Attributes

Attribute Name	OID	Value
cenAlarmVersion	1.3.6.1.4.1.9.9.311.1.1.2.1.2	EPM version number: EPM(1), EPM-2(2).
cenAlarmTimestamp	1.3.6.1.4.1.9.9.311.1.1.2.1.3	Unused.

Table 15-2 *CISCO-EPM-2 Notification Attributes (continued)*

Attribute Name	OID	Value
cenAlarmUpdatedTimestamp	1.3.6.1.4.1.9.9.311.1.1.2.1.4	Unused.
cenAlarmInstanceID	1.3.6.1.4.1.9.9.311.1.1.2.1.5	Unique event ID.
cenAlarmStatus	1.3.6.1.4.1.9.9.311.1.1.2.1.6	The alarm status: 0—New 1—Update 2—Delete
cenAlarmStatusDefinition	1.3.6.1.4.1.9.9.311.1.1.2.1.7	The alarm status definition: 0—New 1—Update 2—Delete
cenAlarmType	1.3.6.1.4.1.9.9.311.1.1.2.1.8	AlarmNature (Undefined(0), ADAC(1), ADMC(2))
cenAlarmCategory	1.3.6.1.4.1.9.9.311.1.1.2.1.9	Integer corresponding to user-defined event category.
cenAlarmCategoryDefinition	1.3.6.1.4.1.9.9.311.1.1.2.1.10	String representation of user-defined event category.
cenAlarmServerAddressType	1.3.6.1.4.1.9.9.311.1.1.2.1.11	Always ipv4.
cenAlarmServerAddress	1.3.6.1.4.1.9.9.311.1.1.2.1.12	Prime Performance Manager server IP address.
cenAlarmManagedObjectClass	1.3.6.1.4.1.9.9.311.1.1.2.1.13	The classification of the modeled NE. For example, MWRdevice, ITPdevice, ONSdevice, SP, Linkset, Link, AS, ASPA, SGMP, and Interface.
cenAlarmManagedObjectAddressType	1.3.6.1.4.1.9.9.311.1.1.2.1.14	Always ipv4.
cenAlarmManagedObjectAddress	1.3.6.1.4.1.9.9.311.1.1.2.1.15	The IP address of the managed object. Values are either the IP address of the router or the IP address of the Prime Performance Manager 1.1 server.
cenAlarmDescription	1.3.6.1.4.1.9.9.311.1.1.2.1.16	Event message text.
cenAlarmSeverity	1.3.6.1.4.1.9.9.311.1.1.2.1.17	Integer corresponding to user-defined event severity.

Table 15-2 *CISCO-EPM-2 Notification Attributes (continued)*

Attribute Name	OID	Value
cenAlarmSeverityDefinition	1.3.6.1.4.1.9.9.311.1.1.2.1.18	String representation of user-defined event severity. Alarm severity values are: 0—Normal 1—Indeterminate 2—Informational 3—Warning 4—Minor 5—Major 6—Critical A separate OID indicating a clear alarm is not provided. A clear alarm is indicated by this OID when the severity is 0 (Normal).
cenAlarmTriageValue	1.3.6.1.4.1.9.9.311.1.1.2.1.19	Unused (Always 0).
cenEventIDList	1.3.6.1.4.1.9.9.311.1.1.2.1.20	List of key/value pairs to accommodate alarm attributes not included in other EPM notification varbinds. Includes timestamps in the managed device time zone. NodeCreateTime=2010-06-17,23:25:44.65,-2202 NodeChangeTime=2010-06-17,23:31:41.517,-2202 NodeClearTime=2010-06-17,23:31:41.516,-2202 NodeAckTime=2010-06-17,23:28:38.337,-2202
cenUserMessage1	1.3.6.1.4.1.9.9.311.1.1.2.1.21	The event/alarm name.
cenUserMessage2	1.3.6.1.4.1.9.9.311.1.1.2.1.22	UNIX time when event occurred. See cenAlarmTimestamp . Example: 2030-04-14, 16:05:05.369,0400
cenUserMessage3	1.3.6.1.4.1.9.9.311.1.1.2.1.23	UNIX time when event changed. See cenAlarmUpdatedTimestamp . Example: 2030-04-14, 16:05:05.369,0400
cenAlarmMode	1.3.6.1.4.1.9.9.311.1.1.2.1.24	Either 2 for alert or 3 for event.
cenPartitionNumber	1.3.6.1.4.1.9.9.311.1.1.2.1.25	Number of times this event or alert has occurred.
cenPartitionName	1.3.6.1.4.1.9.9.311.1.1.2.1.26	Correlation key
cenCustomerIdentification	1.3.6.1.4.1.9.9.311.1.1.2.1.27	Network element name

Table 15-2 CISCO-EPM-2 Notification Attributes (continued)

Attribute Name	OID	Value
cenCustomerRevision	1.3.6.1.4.1.9.9.311.1.1.2.1.28	Format: AckUserName;Timestamp AckUserName is one of: < PPM Client Name > - the Prime Performance Manager client name if user access is disabled < PPM username > - the Prime Performance Manager username if user access is enabled
cenAlertID	1.3.6.1.4.1.9.9.311.1.1.2.1.29	Format: ClearUserName;Timestamp ClearUserName is one of: < PPM Client Name > - manual clear: the Prime Performance Manager client name if user access is disabled < PPM username > - manual clear: the Prime Performance Manager username if user access is enabled < AutoClear > - auto clear: the string value "AutoClear"

CISCO-PRIME Notification Attributes

The CISCO-PRIME trap (CISCO-EPM-NOTIFICATION-MIB::ciscoEpmNotification) supports new, update, and delete events. Information was removed from it to correspond to the Cisco Prime Network trap.

Table 15-3 describes the CISCO-PRIME notification attributes.

Table 15-3 CISCO-PRIME Notification Attributes

Attribute Name	OID	Value
cenAlarmVersion	1.3.6.1.4.1.9.9.311.1.1.2.1.2	The version of this MIB. The version string format is: major version.minor version. Note Always set to 3.
cenAlarmTimestamp	1.3.6.1.4.1.9.9.311.1.1.2.1.3	The time when the alarm was raised. The cenAlarmTimestamp value is contained in the SNMP TimeTicks Variable Binding type, which represents the time in hundredths of a second. The event creation time (long) value in Cisco Prime Network is divided by 10 and modulo by $(2^{32})-1$ before it is packaged. For example: Cisco PPM Event Creation time = X cenAlarmTimestamp = $(X / 10) \% ((2^{32}) - 1)$

Table 15-3 *CISCO-PRIME Notification Attributes (continued)*

Attribute Name	OID	Value
cenAlarmUpdatedTimestamp	1.3.6.1.4.1.9.9.311.1.1.2.1.4	Alarms persist over time and their fields can change values. The last time a field changed, this alarm was updated. The updated time denotes this time.
cenAlarmInstanceID	1.3.6.1.4.1.9.9.311.1.1.2.1.5	The unique alarm instance ID.
cenAlarmStatus	1.3.6.1.4.1.9.9.311.1.1.2.1.6	Unused varbind.
cenAlarmStatusDefinition	1.3.6.1.4.1.9.9.311.1.1.2.1.7	Alarm name (short description).
cenAlarmType	1.3.6.1.4.1.9.9.311.1.1.2.1.8	Unused varbind.
cenAlarmCategory	1.3.6.1.4.1.9.9.311.1.1.2.1.9	Integer corresponding to a user-defined event category.
cenAlarmCategoryDefinition	1.3.6.1.4.1.9.9.311.1.1.2.1.10	String representation of user-defined event category.
cenAlarmServerAddressType	1.3.6.1.4.1.9.9.311.1.1.2.1.11	The Internet address type where the server generating this trap is reached. This value is set to 1 for IPv4 management.
cenAlarmServerAddress	1.3.6.1.4.1.9.9.311.1.1.2.1.12	Prime Performance Manager gateway IP address.
cenAlarmManagedObjectClass	1.3.6.1.4.1.9.9.311.1.1.2.1.13	For device and TCA events, this is a string that identifies the source of the event. For example: Node=1.2.3.4 Node=1.2.3.4,ifDescr=Ethernet0/0 For PPM system events, this is an empty string ("").
cenAlarmManagedObjectAddressType	1.3.6.1.4.1.9.9.311.1.1.2.1.14	The type of internet address at which the managed object is reachable. This value is set to 1 for IPV4 management.
cenAlarmManagedObjectAddress	1.3.6.1.4.1.9.9.311.1.1.2.1.15	IP Address of the managed object: - Node and TCA events - IP Address of the network element - System event-Cisco PPM gateway IP address.
cenAlarmDescription	1.3.6.1.4.1.9.9.311.1.1.2.1.16	Event message text.
cenAlarmSeverity	1.3.6.1.4.1.9.9.311.1.1.2.1.17	Indicates the severity of the alarm using an integer value.

Table 15-3 *CISCO-PRIME Notification Attributes (continued)*

Attribute Name	OID	Value
cenAlarmSeverityDefinition	1.3.6.1.4.1.9.9.311.1.1.2.1.18	String representation of the alarm severity. Alarm severity values are: • 0—Normal • 1—Indeterminate • 2—Informational • 3—Warning • 4—Minor • 5—Major • 6—Critical A separate OID indicating a clear alarm is not provided. A clear alarm is indicated by this OID when the severity is 0 (Normal).
cenAlarmTriageValue	1.3.6.1.4.1.9.9.311.1.1.2.1.19	Unused varbind.
cenEventIDList	1.3.6.1.4.1.9.9.311.1.1.2.1.20	Unused varbind.
cenUserMessage1	1.3.6.1.4.1.9.9.311.1.1.2.1.21	User input message.
cenUserMessage2	1.3.6.1.4.1.9.9.311.1.1.2.1.22	User input message.
cenUserMessage3	1.3.6.1.4.1.9.9.311.1.1.2.1.23	User input message.
cenAlarmMode	1.3.6.1.4.1.9.9.311.1.1.2.1.24	The possible values are: • 2—Alarm • 3—Event
cenPartitionNumber	1.3.6.1.4.1.9.9.311.1.1.2.1.25	Unused varbind.
cenPartitionName	1.3.6.1.4.1.9.9.311.1.1.2.1.26	Unused varbind.
cenCustomerIdentification	1.3.6.1.4.1.9.9.311.1.1.2.1.27	Unused varbind.
cenCustomerRevision	1.3.6.1.4.1.9.9.311.1.1.2.1.28	Unused varbind.
cenAlertID	1.3.6.1.4.1.9.9.311.1.1.2.1.29	Unused varbind.