CHAPTER 6

Event and Alarm Configuration Parameters

This chapter describes the different options that exist to modify the alarm behavior by editing the appropriate alarm parameters in the system registry.

- Alarm Type Definition—Describes the alarm type concept.
- Event (Sub-Type) Configuration Parameters—Describes the event and alarm configuration parameters and values that can be controlled through the registry.

The parameters described in the following section are defined per event (subtype) that belongs to the alarm.

Note Changes to the registry should only be carried out with the support of Cisco Professional Services.

Alarm Type Definition

The alarm type serves as an identifier which enables group events from different subtypes to share the same type and source in a single event sequence.

The event subtype is a specific occurrence of fault in the network. For example, link down and link up are two subtypes that share the same type.

Event (Sub-Type) Configuration Parameters

General Event Parameters

Parameter Name	Description	Permitted Values
severity	Severity level of the event.	Either: • CRITICAL • MAJOR • MINOR • WARNING • CLEARED • UNKNOWN • INFO
is-ticketable	Determines whether the alarm will generate a new ticket, if there is no root-cause alarm to correlate to.	True (ticketable) False (not ticketable)
functionality-type	Determines the event type.	Either: • SERVICE (Cisco ANA-generated) • SYSLOG • TRAP

Root Cause Configuration Parameters

These parameters define the behavior of the alarm when serving as the root cause of other alarms.

Name	Description	Permitted Values
is-correlation-allowed	Defines whether the alarm may serve as a root cause, and allow child alarms to correlate to it.	True (correlates) or False (will not correlate)
short description	Textual description that describes the event.	User defined text
gw-correlation-timeout	The period of time in milliseconds for how long an alarm with the severity Clear or Info is open for sequence. Alarms with non-cleared severity are always open for a consequent alarm. This parameter is deprecated for non-clearing events (its value is defined as a very large number, so that it does not interfere with correlation decisions from a VNE). This parameter only affects chaining to clearing events.	Positive integer

Name	Description	Permitted Values
select-root-cause-method	Used to determine the most fitting alarm from the set of possible root causes sets. This set may be a result of a correlation flow or may represent all alarms in the local Event Correlator component having a correlation key that matches one of the EventData object correlation keys.	Select the class name to be used from the set of classes
correlation-filters	Used to define a set of filters that will remove, from the potential set of alarms, unnecessary root causes. For example, remove from the list all the root causes that have a weight lower than the event that wants to correlate.	Select the class name to be used from the set of classes
post-correlation-applications	Used to define a set of applications that will be invoked after the event was correlated. For example, running affected is such an application.	Select the class name to be used from the set of classes

For more information about root cause see Correlation By Root Cause, page 1-5.

Correlation Configuration Parameters

These parameters define the behavior of the alarm in finding its root-cause alarm:

Name	Description	Permitted values
correlate	Determines whether the alarm should attempt to find and correlate to a root-cause alarm. If this parameter is set to true at least box level correlation will be performed.	Trueor false

Network Correlation Parameters

These parameters control the alarm's behavior in initiating an active correlation-search flow:

Name	Description	Permitted values
activate-flow	Determines whether to initiate network level correlation.	True or false
weight	Defines the weight of an alarm as a correlation candidate. The heavier the alarm, the more likely it will be chosen as the root cause.	Positive integer

Note All delays should be smaller than the expiration time to allow correlation to take place. Flow activation delay is being counted only when the correlation delay has expired.

Flapping Event Definitions Parameters

If a flapping event application is enabled on an event, then the following parameters control the alarm's behavior regarding its flapping state:

Name	Description	Permitted values
Flapping interval	The maximum amount of time in milliseconds between two alarms which can be considered as a flapping change.	Positive integer
Flapping threshold	After this amount of changes (each change arriving at an interval lower then the flapping interval), the event will be considered as flapping.	Positive integer
Update interval	After this interval in milliseconds an update will be sent.	Positive integer
Clear interval	The amount of time in milliseconds an event has to stay in one state to be considered as a normal alarm and not in a flapping state.	Positive integer
Update threshold	After this number of flapping alarms, an update will be sent to the gateway updating the alarm with the number of events received.	Positive integer

System Correlation Configuration Parameters

These parameters correctly correlate all the events that occur within the specified timeframe.

Name	Description	Permitted values
correlation-delay	Period of time in milliseconds to wait before attempting to find and correlate to a root-cause parameter (it is system-wide, not configured per event).	Positive integer
time-stamp-delay	Used for normalization of the event occurrence time. The value in milliseconds is subtracted from the event time, to compensate for the time difference with the root-cause alarm. It is also used for running the network correlation against the historic network configuration.	Positive integer