

Chapter 16

Summary of RMON Alarm and Event Configuration Statements

The following sections explain each of the remote monitoring (RMON) alarm and event configuration statements. The statements are organized alphabetically.

alarm

Syntax	<pre>alarm <i>index</i> { description <i>text-description</i>; falling-event-index <i>index</i>; falling-threshold <i>integer</i>; interval <i>seconds</i>; rising-event-index <i>index</i>; rising-threshold <i>integer</i>; sample-type (absolute-value delta-value); startup-alarm (falling-alarm rising-alarm rising-or-falling alarm); variable <i>oid-variable</i>; }</pre>
Hierarchy Level	[edit snmp rmon]
Description	Configure RMON alarm entries.
Options	<i>index</i> —Identifies this alarm entry as an integer. The remaining statements are explained separately.
Usage Guidelines	See “Configure an Alarm Entry and Its Attributes” on page 181.
Required Privilege Level	snmp—To view this statement in the configuration. snmp-control—To add this statement to the configuration.
See Also	event on page 201.

community

Syntax	<code>community <i>community-name</i>;</code>
Hierarchy Level	[edit snmp rmon event <i>index</i>]
Description	The trap group that is used when generating a trap (if <code>eventType</code> is configured to send traps). If that trap group has the <code>rmon-alarm</code> trap category configured, a trap is sent to all the targets configured for that trap group. The community string in the trap matches the name of the trap group (and hence, the value of <code>eventCommunity</code>). If nothing is configured, traps are sent to each group with the <code>rmon-alarm</code> category set.
Options	<code>community-name</code> —Identifies the trap group that is used when generating a trap if the event is configured to send traps.
Usage Guidelines	See “Configure an Event Entry and Its Attributes” on page 185.
Required Privilege Level	<code>snmp</code> —To view this statement in the configuration. <code>snmp-control</code> —To add this statement to the configuration.

description

Syntax	<code>description <i>description</i>;</code>
Hierarchy Level	[edit snmp rmon alarm <i>index</i>], [edit snmp rmon event <i>index</i>]
Description	Text description of alarm or event.
Options	<code>description</code> —Text description of an alarm or event entry. If the description includes spaces, enclose it in quotation marks (" ").
Usage Guidelines	See “Configure the Description” on page 182 and “Configure an Event Entry and Its Attributes” on page 185.
Required Privilege Level	<code>snmp</code> —To view this statement in the configuration. <code>snmp-control</code> —To add this statement to the configuration.

event

Syntax	event <i>index</i> { community <i>community-name</i> ; description <i>text-description</i> ; type <i>type</i> ; }
Hierarchy Level	[edit snmp rmon]
Description	Configure RMON event entries.
Options	<i>index</i> —Identifies a specific event entry. The remaining statements are explained separately.
Usage Guidelines	See “Configure an Event Entry and Its Attributes” on page 185.
Required Privilege Level	snmp—To view this statement in the configuration. snmp-control—To add this statement to the configuration.
See Also	alarm on page 199.

falling-event-index

Syntax	falling-event-index <i>index</i> ;
Hierarchy Level	[edit snmp rmon alarm <i>index</i>]
Description	The index of the event entry that is used when a falling threshold is crossed. If this value is zero, no event is triggered.
Options	<i>index</i> —Index of the event entry that is used when a falling threshold is crossed. Range: 0 through 65,535 Default: 0 seconds
Usage Guidelines	See “Configure the Falling Event Index or Rising Event Index” on page 182.
Required Privilege Level	snmp—To view this statement in the configuration. snmp-control—To add this statement to the configuration.
See Also	rising-event-index on page 203

falling-threshold

Syntax	falling-threshold <i>integer</i> ;
Hierarchy Level	[edit snmp rmon alarm <i>integer</i>]
Description	The lower threshold for the sampled variable. When the current sampled value is less than or equal to this threshold, and the value at the last sampling interval is greater than this threshold, a single event is generated. A single event is also generated if the first sample after this entry becomes valid is less than or equal to this threshold, and the associated startup-alarm is equal to falling-alarm or rising-or-falling-alarm. After a falling event is generated, another falling event cannot be generated until the sampled value rises above this threshold and reaches the rising-threshold.
Options	<i>integer</i> —The lower threshold for the alarm entry. Range: -2,147,483,648 through 2,147,483,647 Default: 20 percent less than rising-threshold
Usage Guidelines	See “Configure the Falling Threshold or Rising Threshold” on page 182.
Required Privilege Level	snmp—To view this statement in the configuration. snmp-control—To add this statement to the configuration.
See Also	rising-threshold on page 203.

interval

Syntax	interval <i>seconds</i> ;
Hierarchy Level	[edit snmp rmon alarm <i>index</i>]
Description	Interval between samples.
Options	<i>interval</i> —Time between samples, in seconds. Range: 1 through 2,147,483,647 seconds Default: 60 seconds
Usage Guidelines	See “Configure the Interval” on page 183.
Required Privilege Level	snmp—To view this statement in the configuration. snmp-control—To add this statement to the configuration.

rising-event-index

Syntax	<code>rising-event-index index;</code>
Hierarchy Level	<code>[edit snmp rmon alarm index]</code>
Description	The index of the event entry that is used when a rising threshold is crossed. If this value is zero, no event is triggered.
Options	<code>index</code> —Index of the event entry that is used when a rising threshold is crossed. Range: 0 through 65,535 Default: 0
Usage Guidelines	See “Configure the Falling Event Index or Rising Event Index” on page 182.
Required Privilege Level	<code>snmp</code> —To view this statement in the configuration. <code>snmp-control</code> —To add this statement to the configuration.
See Also	<code>falling-event-index</code> on page 201

rising-threshold

Syntax	<code>rising-threshold integer;</code>
Hierarchy Level	<code>[edit snmp rmon alarm index]</code>
Description	The upper threshold for the sampled variable. When the current sampled value is greater than or equal to this threshold, and the value at the last sampling interval is less than this threshold, a single event is generated. A single event is also generated if the first sample after this entry becomes valid is greater than or equal to this threshold, and the associated <code>startup-alarm</code> is equal to <code>falling-alarm</code> or <code>rising-or-falling-alarm</code> . After a rising event is generated, another rising event cannot be generated until the sampled value falls below this threshold and reaches the <code>falling-threshold</code> .
Options	<code>integer</code> —The lower threshold for the alarm entry. Range: -2,147,483,648 through 2,147,483,647 Default: 0
Usage Guidelines	See “Configure the Falling Threshold or Rising Threshold” on page 182.
Required Privilege Level	<code>snmp</code> —To view this statement in the configuration. <code>snmp-control</code> —To add this statement to the configuration.
See Also	<code>falling-threshold</code> on page 202

rmon

Syntax	rmon { ... }
Hierarchy Level	[edit snmp]
Description	Configure Remote Monitoring.
Usage Guidelines	See “Configure RMON Alarms and Events” on page 179.
Required Privilege Level	snmp—To view this statement in the configuration. snmp-control—To add this statement to the configuration.

sample-type

sample-type (For RMON Alarms)

Syntax	sample-type (absolute-value delta-value);
Hierarchy Level	[edit snmp rmon alarm <i>index</i>]
Description	sample-type—Method of sampling the selected variable.
Options	absolute-value—Actual value of the selected variable is used when comparing against the thresholds. delta-value—Difference between samples of the selected variable is used when comparing against the thresholds.
Usage Guidelines	See “Configure the Sample Type” on page 183.
Required Privilege Level	snmp—To view this statement in the configuration. snmp-control—To add this statement to the configuration.

sample-type (For RMON Events)

Syntax	sample-type <i>type</i> ;
Hierarchy Level	[edit snmp rmon event <i>index</i>]
Description	Type of notification generated when a threshold is crossed.
Options	<i>type</i> —Type of notification. It can be one of the following: log—Add an entry to logTable. log-and-trap—Send an SNMP trap and make a log entry. none—No notifications are sent. snmptrap—Send an SNMP trap. Default: log-and-trap
Usage Guidelines	See “Configure an Event Entry and Its Attributes” on page 185.
Required Privilege Level	snmp—To view this statement in the configuration. snmp-control—To add this statement to the configuration.

startup-alarm

Syntax	startup-alarm (falling-alarm rising-alarm rising-or-falling-alarm);
Hierarchy Level	[edit snmp rmon alarm <i>index</i>]
Description	The alarm that can be sent upon entry startup.
Options	<p>falling-alarm—Generated if the first sample after the alarm entry becomes active is less than or equal to the falling threshold.</p> <p>rising-alarm—Generated if the first sample after the alarm entry becomes active is greater than or equal to the rising threshold.</p> <p>rising-or-falling-alarm—Generated if the first sample after the alarm entry becomes active satisfies either of the corresponding thresholds.</p> <p>Default: rising-or-falling-alarm</p>
Usage Guidelines	See “Configure the Startup Alarm” on page 184.
Required Privilege Level	snmp—To view this statement in the configuration. snmp-control—To add this statement to the configuration.

variable

Syntax	variable <i>oid-variable</i> ;
Hierarchy Level	[edit snmp rmon alarm <i>index</i>]
Description	Object identifier (OID) of MIB variable to be monitored.
Options	<i>oid-variable</i> —OID of the MIB variable that is being monitored. The OID can be a dotted decimal (for example, 1.3.6.1.2.1.2.1.2.2.1.10.1) or use the MIB objects name (for example, ifInOctets.1.).
Usage Guidelines	See “Configure the Variable” on page 184.
Required Privilege Level	snmp—To view this statement in the configuration. snmp-control—To add this statement to the configuration.