



## R Commands

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This chapter describes the Cisco NX-OS system management commands that begin with the letter R.

### rollback running-config checkpoint

To implement a rollback for the configured checkpoint file, use the **rollback running-config checkpoint** command.

**rollback running-config checkpoint** *name* [**atomic** | **best-effort** | **stop-at-first-failure**]

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#### Syntax Description

<b>best-effort</b>	(Optional) Implements a rollback and skips any errors.
<b>atomic</b>	(Optional) Implements a rollback only if no errors occur.
<b>stop-at-first-failure</b>	(Optional) Implements a rollback that stops if an error occurs.
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#### Defaults

None

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#### Command Modes

Configuration mode

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#### Supported User Roles

network-admin  
vdc-admin

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#### Command History

Release	Modification
4.0(1)	This command was introduced.

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#### Usage Guidelines

This command does not require a license.

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**Examples**

This example shows how to implement a rollback for the configured checkpoint file:

```
switch# rollback running-config checkpoint stable
```

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**Related Commands**

Command	Description
<b>show diff</b>	Displays the differences between the source and the destination file.
<b>rollback-patch</b>	

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## rmon alarm

To configure a 32-bit remote monitoring RMON alarm, use the **rmon alarm** command. To delete RMON alarms, use **no** form of this command.

**rmon alarm** *alarm number mib-object sample-interval* {**absolute** | **delta**} **rising-threshold** *value* [*rising-event*] **falling-threshold** *value* [*falling-event*] [**owner** *alarm-owner*]

**no rmon alarm** *alarm-number*

### Syntax Description

<i>alarm number</i>	RMON alarm number. The range is from 1 to 65535.
<i>mib-object</i>	MIB object to monitor. The maximum length is 80 characters.
<i>sample-interval</i>	Sample interval in seconds. The range is from 1 to 2147483647
<b>absolute</b>	Specifies to test each sample directly.
<b>delta</b>	Specifies to test the difference (delta) between the current and previous sample.
<b>rising-threshold</b> <i>value</i>	Specifies the rising threshold value. The range is from en-2147483648 to 2147483647.
<i>rising-event</i>	(Optional) Specifies the event to trigger on a rising threshold crossing. The range is from 1 to 65535. If no event is specified, event 0 is used.
<b>falling-threshold</b> <i>value</i>	Specifies the falling threshold value. The range is from en-2147483648 to 2147483647.
<i>falling-event</i>	(Optional) Specific the event to trigger on a falling threshold crossing. The range is from 1 to 65535. If no event is specified, event 0 is used.
<b>owner</b> <i>alarm owner</i>	(Optional) Specifies an owner for the alarm. The maximum size is 80 characters.

### Defaults

None

### Command Modes

Global Configuration mode

### SupportedUserRoles

network-admin  
vdc-admin

### Command History

Release	Modification
4.0(1)	This command was introduced.

### Usage Guidelines

This command does not require a license.

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### Examples

This example shows how to configure the 32-bit alarm number 20 for OID (1.3.6.1.2.1.2.2.1.14). The sample interval is 30 seconds and delta samples are tested. The rising threshold is 15 errors per sample window; reaching this level triggers event1. The falling threshold is 0 errors in the sample window; reaching this level triggers event 0 (no action).

```
switch# config terminal
switch(config)# rmon alarm 20 1.3.6.1.2.1.2.2.1.14.16777216 30 delta rising-threshold 15 1
falling-threshold 0 owner cisco
switch(config)#
```

### Related Commands

Command	Description
<b>rmon event</b>	Configures an RMON event.
<b>rmon hcalarm</b>	Configures the 64-bit RMON alarm.
<b>show rmon</b>	Displays RMON configuration and logged information.

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## rmon event

To configure a RMON event, use the **rmon event** command. To delete an RMON event, use the **no** form of this command.

**rmon event** *event-number* [**description** *text*] [**log**] [**trap** *community-string*] [**owner** *owner-name*]

**no rmon event** *event-number*

Syntax Description	
<i>event-number</i>	RMON event number. The range is from 1 to 65535.
<b>description</b> <i>text</i>	(Optional) Specifies a description of the event. The maximum length is 80 characters.
<b>log</b>	(Optional) Generates an RMON log entry in the onboard RMON log when the event is triggered by an alarm.
<b>trap</b> <i>community-string</i>	(Optional) Generates SNMP traps with the specified name when the event is triggered by an alarm. The maximum length is 32 characters.
<b>owner</b> <i>owner-name</i>	(Optional) Specifies an owner for the alarm. The maximum length is 80 characters.

**Defaults** None

**Command Modes** Global configuration mode

**SupportedUserRoles** network-admin  
vdc-admin

Command History	Release	Modification
	4.0(1)	This command was introduced.

**Usage Guidelines** You can trigger an events created by this command with an alarm that you configured by using the **rmon alarm** or **rmon hcalarm** commands.

**Usage Guidelines** This command does not require a license.



**Note**

Events can be used by both **rmon alarm** (32-bit) and **hcalarm** (64-bit) commands.

**Examples** This example shows how to configure RMON event 2 to log the onboard RMON log and send an SNMP trap to public community trap destinations:

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```
switch# config terminal
switch(config)# rmon event 2 log trap public description CriticalErrors owner cisco
switch#
```

**Related Commands**

<b>Command</b>	<b>Description</b>
<b>rmon alarm</b>	Configures a 32-bit RMON alarm.
<b>rmon hcalarm</b>	Configures a 64-bit RMON alarm.
<b>show rmon</b>	Displays RMON configuration and logging information.

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## rmon hcalarm

To configure a 64-bit RMON high-capacity alarm (hcalarm), use the **rmon hcalarm** command. To delete an rmon hcalarm, use the **no** form of this command.

```
rmon hcalarm alarm-number mib-object sample-interval {absolute | delta} {rising-threshold-high value rising-threshold-low value [rising-event] [falling-threshold-high value falling-threshold-low value [falling-event]]} [owner alarm-owner]
```

```
no rmon hcalarm alarm-number
```

Syntax Description	
<i>alarm-number</i>	RMON hcalarm number. The range is from 1 to 65535.
<i>mib-object</i>	MIB object to monitor. The maximum length is 80 characters.
<i>sample-interval</i>	Sample-interval in seconds. The range is from 1 to 700000.
<b>absolute</b>	Specifies to test each sample directly.
<b>delta</b>	Specifies to test the difference (delta) between the current and previous sample.
<b>rising-threshold-high</b> <i>value</i>	Configures the upper 32 bits of the 64-bit rising threshold value. The range is from 0 to 4294967295.
<b>rising-threshold-low</b> <i>value</i>	Configures the lower 32 bits of the 64-bit rising threshold value. The range is from 0 to 4294967295.
<i>rising-event</i>	(Optional) Event to trigger on rising threshold crossing. The range is from 0 to 65535.
<b>falling-threshold-high</b> <i>value</i>	Configures the upper 32 bits of the 64-bit falling threshold value. The range is from 0 to 4294967295.
<b>falling-threshold-low</b> <i>value</i>	Configures the lower 32 bits of the 64-bit falling threshold value. The range is from 0 to 4294967295.
<i>falling-event</i>	(Optional) Event to trigger on a falling threshold crossing. The range is from 0 to 65535.
<b>owner</b> <i>alarm-owner</i>	(Optional) Specifies an owner for the alarm. The maximum size is 80 characters.

**Defaults** None

**Command Modes** Configuration mode

**SupportedUserRoles** network-admin  
vdc-admin

Command History	Release	Modification
	4.0(1)	This command was introduced.

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### **Usage Guidelines**

Event number 0 is a predefined null (or no operation) event. When no event is specified by the user in an alarm, this event is automatically used by the system. The event causes no action to be taken when triggered; however, the alarm is still reset. The event cannot be redefined by the user. It is a predefined event.

This command does not require a license.

### **Examples**

This example shows how to configure a RMON high-capacity alarm:

```
switch# config terminal
switch(config) rmon hcalarm 2 1.3.6.1.2.1.31.1.1.1.6.22544384 30 delta
rising-threshold-high 55 rising-threshold-low 3776798720 4 falling-threshold-high 41
falling-threshold-low 3906340864 owner cisco
```

### **Related Commands**

<b>Command</b>	<b>Description</b>
<b>rmon alarm</b>	Configures a 32-bit RMON alarm.
<b>rmon hcalarm</b>	Configures a 64-bit RMON alarm.
<b>show rmon</b>	Displays RMON configuration and logging information.