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## **OAM Commands-1**



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## Chapter 1 OAM Commands

### 1.1 clear oam event

**[Function]**

Clear OAM event information note.

**[Command format]**

**clear oam event**

**[Command Modes]**

Interface configuration mode, Privileged user

**[Executing Command Instruction]**

Log OAM event, including link event and fault event. This command will clear the entire event and log again.

**[Explanation of command execution echo]**

*Set successfully*

*Set unsuccessfully*

**[Example]**

Clear OAM event information note:

Raisecom(config-port)#**clear oam event**

**[Related commands]**

| Commands              | Description                     |
|-----------------------|---------------------------------|
| <b>show oam event</b> | Show OAM statistic information. |

### 1.2 clear oam statistics

**[Function]**

Clear OAM frame statistic.

**[Command format]**

**clear oam statistics**

**[Command Modes]**

Interface configuration mode, Privileged EXEC

**[Executing Command Instruction]**

Statistic transmission and receiving frame on OAM link, including frame types: information, link event note, loopback, variable request, variable response, organization private, unknown

type and repeat link event notes. This command will clear the entire frame type statistics and start again from zero.

**[Explanation of command execution echo]**

*Set successfully*

**[Example]**

Clear link OAM frame statistic:

Raisecom(config-port)#**clear oam statistics**

**[Related commands]**

| Commands                   | Description                           |
|----------------------------|---------------------------------------|
| <b>show oam statistics</b> | Show OAM frame statistic information. |

## 1.3 oam {disable | enable}

**[Function]**

Enable and disable OAM function.

**[Command format]**

**oam** {*disable* | *enable*}

**[Parameter]**

*disable*: disable OAM function;

*enable*: enable OAM function.

**[Default]**

Enable OAM function.

**[Command Modes]**

Interface configuration mode, Privileged EXEC

**[Executing Command Instruction]**

Open and close OAM link function. When OAM function enables and if the link interface is UP, it enter OAM discovery process immediately. When there is at least one OAM in subject mode at the link ends, OAM enters operational state after discovering successfully, use can manage and monitor by command provide by OAM.

**[Explanation of command execution echo]**

*Set successfully.*

*Set unsuccessfully.*

**[Example]**

Disable OAM link function:

Raisecom(port)#**oam disable**

Enable OAM link function:

Raisecom(port)#**oam enable**

**[Related commands]**

| Commands        | Description           |
|-----------------|-----------------------|
| <b>show oam</b> | Show OAM information. |

## 1.4 oam peer event trap

**[Function]**

Enable and disable all OAM link event trap at the other end.

**[Command format]**

**oam peer event trap** {*disable* / *enable*}

**[Default]**

Disable the entire OAM link event trap at the other end.

**[Command Modes]**

Interface configuration mode, Privileged EXEC

**[Executing Command Instruction]**

Enable and disable all OAM link event trap for the other end.

If the OAM link event trap is enabled, OAM will send the trap to network management center when it receive OAM link event (OAM must be in master mode).

**[Explanation of command execution echo]**

*Set successfully.*

**[Example]**

Enable peer link OAM event trap:

Raisecom(port)#**oam peer event trap enable**

Disable peer link OAM event trap:

Raisecom(port)#**oam peer event trap disable**

**[Related commands]**

| Commands             | Description                      |
|----------------------|----------------------------------|
| <b>show oam trap</b> | Show OAM event trap information. |

## 1.5 oam remote-loopback

**[Function]**

Enable and disable remote loopback function.

**[Command format]**

**[no] oam remote-loopback**

**[Command Modes]**

Privileged EXEC, interface configuration mode

**[Executing Command Instruction]**

This function helps to detecting network faults in time.

With remote loopback enabled, the OAM entity operating in active OAM mode issues remote loopback requests and the peer responds to them.

This function can only take effect when OAM work in master mode and operational state. It is only allow one link in loopback.

**[Explanation of command execution echo]**

*Set successfully.*

*Set unsuccessfully. OAM discovery unsuccessfully complete.*

*Set unsuccessfully. There is another loopback.*

*Set unsuccessfully. There is a loopback on another interface.*

*Set unsuccessfully. The peer doesn't react.*

*Set unsuccessfully. OAM is passive.*

*Set unsuccessfully. There is no remote loopback.*

**[Example]**

Startup link OAM remote loopback:

Raisecom(port)#**oam remote-loopback**

Stop link OAM remote loopback:

Raisecom(port)#**no oam remote-loopback**

**[Related commands]**

| Commands                 | Description                    |
|--------------------------|--------------------------------|
| <b>show oam loopback</b> | Show OAM loopback information. |

**1.6 show oam****[Function]**

Review OAM basic function configuration.

**[Command format]**

**show oam** [**port-list** *port-list*]

**[Parameter]**

*port-list*: port list.

**[Command Modes]**

Privileged EXEC, Privileged user

**[Executing Command Instruction]**

Use this command to review link OAM basic information. Including local working mode, management state, maximal message length, configuration version and function in support.

**[Explanation of command execution echo]**

Raisecom#**show oam**

*Port: 1*

*Mode: Active*

*Administrate state: Enable*

*Operation state: Disabled*

*Max OAMPDU size: 1518*

*Config revision: 0*

*Supported functions: Loopback, Event*

.....

Raisecom#**show oam port-list 1**

*Port: 1*

*Mode: Active*

*Administrate state: Enable*

*Operation state: Disabled*

*Max OAMPDU size: 1518*

*Config revision: 0*

*Supported functions: Loopback, Event*

**[Example]**

Show basic information of the entire OAM links:

Raisecom#**show oam**

**[Related commands]**

| Commands                      | Description              |
|-------------------------------|--------------------------|
| <b>oam</b> {active / passive} | Set OAM working mode.    |
| <b>oam</b> {disable / enable} | Enable/disable OAM link. |

## 1.7 show oam capability

**[Function]**

Show OAM management capability supported by remote device.

**[Command format]**

**show oam capability**

**[Command Modes]**

Remote configuration mode, Privileged user

**[Executing Command Instruction]**

The OAM management capability of remote device under remote configuration mode contains: OAM file transmission, IP address and gateway configuration, SNMP community configuration, port configuration, environment monitor, remote device reset, save and erase of remote device configuration and host name configuration.

The remote device information won't be shown if it is not connected or OAM link is not built.

#### [Explanation of command execution echo]

Raisecom(config-remote)#**show oam capability**

*Local port: 12*

*OID parse capability* [Support]

*File transmission via OAM* [Support]

*IP address and default-gateway configuration* [Support]

*SNMP community configuration* [Support]

*Port configuration* [Support]

*Device environment monitor* [Support]

*Device reboot* [Support]

*Save remote device current configuration to flash file* [Support]

*Device configuration file erasion* [Support]

*Device hostname configuration* [Support]

*OAM notification enable configuration* [Support]

*SFP* [Support]

*Q-in-Q* [Support]

*Cable-diagnostics* [Support]

#### [Example]

Raisecom(config-remote)#**show oam capability**

## 1.8 show oam loopback

#### [Function]

Review OAM remote loopback information.

#### [Command format]

**show oam loopback** [port-list port-list]

#### [Parameter]

*port-list*: port list.

#### [Command Modes]

Privileged EXEC, Privileged user

#### [Executing Command Instruction]

Use this command to review link OAM remote loopback information. Including local loopback state and loopback response enable condition.



**[Explanation of command execution echo]**

Raisecom#**show oam loopback**

*Port: 1*

*Loopback status: No*

*Loopback react: Ignore*

*.....*

Raisecom#**show oam loopback port-list 1**

*Port: 1*

*Loopback status: No*

*Loopback react: Ignore*

**[Example]**

Show loopback information of the entire OAM link:

Raisecom#**show oam loopback**

**[Related commands]**

| Commands                        | Description                                  |
|---------------------------------|--|
| [no] <b>oam remote-loopback</b> | Start/stop OAM remote loopback.              |
| <b>oam loopback</b>             | Enable/disable OAM remote loopback response. |

**1.9 show oam notify****[Function]**

Review OAM event notify relative setting.

**[Command format]**

**show oam notify [port-list port-list]**

**[Parameter]**

*port-list*: port list.

**[Command Modes]**

Privileged EXEC, Privileged user

**[Executing Command Instruction]**

Uses this command to review link OAM event notify relative setting. The showing information includes link monitor event windows and threshold setting as well as monitor event and fault event notify enable setting.

**[Explanation of command execution echo]**

Raisecom#**show oam notify**

*Port: line1*

*Errored frame period: Enable*

*Errored frame period window: 1000ms*

*Errored frame period threshold: 1*

*Errored frame: Enable*

*Errored frame window: 1s*

*Errored frame threshold: 1*

*Errored frame seconds summary: Enable*

*Errored frame seconds summary window: 60s*

*Errored frame seconds summary threshold: 1*

*Dying gasp: Enable*

*Critical event: Enable*

*Port: client1*

*Errored frame period: Enable*

*Errored frame period window: 1000ms*

*Errored frame period threshold: 1*

*Errored frame: Enable*

*Errored frame window: 1s*

*Errored frame threshold: 1*

*Errored frame seconds summary: Enable*

*Errored frame seconds summary window: 60s*

*Errored frame seconds summary threshold: 1*

*Dying gasp: Enable*

*Critical event: Enable*

.....

**Raisecom#show oam notify line 1**

*Port: line1*

*Errored frame period: Enable*

*Errored frame period window: 1000ms*

*Errored frame period threshold: 1*

*Errored frame: Enable*

*Errored frame window: 1s*

*Errored frame threshold: 1*

*Errored frame seconds summary: Enable*

*Errored frame seconds summary window: 60s*

*Errored frame seconds summary threshold: 1*

*Dying gasp: Enable*

*Critical event: Enable*

**[Example]**

Show the entire link OAM event notify relative information:

Raisecom#**show oam notify**

Show line 1 OAM event notify relative information:

Raisecom#**show oam notify line 1**

**[Related commands]**

| Commands                         | Description   |
|----------------------------------|---|
| <b>oam notify</b>                | Enable/disable OAM event notification.                                    |
| <b>oam errored-frame</b>         | Set link error frame event monitor window and threshold.                  |
| <b>oam errored-frame-period</b>  | Set link error frame period event monitor window and threshold.           |
| <b>oam errored-frame-seconds</b> | Set link error frame second statistic event monitor window and threshold. |
| <b>oam errored-symbol-period</b> | Set link error symbol period event monitor window and threshold.          |

**1.10 show oam peer****[Function]**

Review peer OAM basic function configuration.

**[Command format]**

**show oam peer** [**port-list** *port-list*]

**[Parameter]**

*port-list*: port list.

**[Command Modes]**

Privileged EXEC, Privileged user

**[Executing Command Instruction]**

Uses this command to review peer link OAM basic information. The showing information includes peer MAC address, manufacturer OUI, manufacturer information, mode setting, maximal message length, configuration version and supported functions. Show nothing if link OAM is in not operational state.

**[Explanation of command execution echo]**

Raisecom#**show oam peer**

*Port: 1*

*Port: 2*

*Peer MAC address: 000E.5E40.6A22*

*Peer vendor OUI: 000E5E*

*Peer vendor info: 1*

*Peer mode: Passive*

*Peer max OAMPDU size: 1518*

*Peer config revision: 0*

*Peer supported functions: Loopback, Event, Variable*

*Port: 3*

*.....*

**Raisecom#show oam peer port-list 2**

*Port: 2*

*Peer MAC address: 000E.5E40.6A22*

*Peer vendor OUI: 000E5E*

*Peer vendor info: 1*

*Peer mode: Passive*

*Peer max OAMPDU size: 1518*

*Peer config revision: 0*

*Peer supported functions: Loopback, Event, Variable*

#### [Example]

Show the peer link OAM basic information:

**Raisecom#show oam peer**

#### [Related commands]

| Commands                      | Description           |
|-------------------------------|-----------------------|
| <b>oam</b> {active   passive} | Set OAM working mode. |
| <b>oam</b> {disable   enable} | Start/stop link OAM.  |

## 1.11 show oam peer event

#### [Function]

Review peer OAM reported event.

#### [Command format]

**show oam peer event** [port-list port-list]

**show oam peer event critical**

**show oam peer event port-list port-list critical**

#### [Parameter]

*port-list*: port list.

*line-list*: line port list;

*client-list*: client port list.

**[Command Modes]**

Privileged EXEC, Privileged user

**[Executing Command Instruction]**

Uses this command to review peer link OAM reported event, including link event and critical event.

The showing information includes peer locate link, event occur time, window, threshold, current value and event number. Critical event doesn't have window and threshold setting and current value items, so these items shows 0.

**[Explanation of command execution echo]**

Raisecom#**show oam peer event**

*Port: 1*

*Port: 2*

.....

Raisecom#**show oam peer event port-list 1**

*Port: 1*

Raisecom#**show oam peer event critical**

*Port: 1*

*Port: 2*

.....

Raisecom#**sh oam event port-list 1 critical**

*Port: 1*

**[Example]**

Show the entire link OAM event note:

Raisecom#**show oam peer event**

Show the entire peer link critical event note:

Raisecom#**show oam peer event critical**

**[Related commands]**

| Commands               | Description               |
|------------------------|---------------------------|
| <b>clear oam event</b> | Clear event notification. |

**1.12 show oam statistics****[Function]**

Review OAM frame statistic information.

**[Command format]**

**show oam statistics** [**port-list** *port-list*]

**[Parameter]**

*port-list*: port list.

**[Command Modes]**

Privileged EXEC, Privileged user

**[Executing Command Instruction]**

Statistic transmission and receiving frame on OAM link, including frame types: information, link event note, loopback, variable request, variable response, organization private, unknown type and repeat link event notes. This command shows the frame type total received and transmitted by OAM since system boot or the last time frame statistic clear.

**[Explanation of command execution echo]**

Raisecom#**show oam statistics**

*Port: 1*

|                                     | <i>Tx</i> | <i>Rx</i> |
|-------------------------------------|-----------|-----------|
| -----                               |           |           |
| <i>Information</i>                  | : 0       | 0         |
| <i>Event notification</i>           | : 0       | 0         |
| <i>Loopback control</i>             | : 0       | 0         |
| <i>Variable request</i>             | : 0       | 0         |
| <i>Variable response</i>            | : 0       | 0         |
| <i>Organization specific</i>        | : 0       | 0         |
| <i>Unsupported codes</i>            | : 0       | 0         |
| <i>Duplicate event notification</i> | : 0       | 0         |

*Port: 2*

|                                     | <i>Tx</i> | <i>Rx</i> |
|-------------------------------------|-----------|-----------|
| -----                               |           |           |
| <i>Information</i>                  | : 3655    | 500       |
| <i>Event notification</i>           | : 0       | 0         |
| <i>Loopback control</i>             | : 0       | 0         |
| <i>Variable request</i>             | : 0       | 0         |
| <i>Variable response</i>            | : 0       | 0         |
| <i>Organization specific</i>        | : 3       | 500       |
| <i>Unsupported codes</i>            | : 0       | 0         |
| <i>Duplicate event notification</i> | : 0       | 0         |

.....

Raisecom#**show oam statistics** *port-list* 2

Port: 2

|                              | <i>Tx</i> | <i>Rx</i> |
|------------------------------|-----------|-----------|
| -----                        |           |           |
| Information                  | : 3982    | 500       |
| Event notification           | : 0       | 0         |
| Loopback control             | : 0       | 0         |
| Variable request             | : 0       | 0         |
| Variable response            | : 0       | 0         |
| Organization specific        | : 3       | 500       |
| Unsupported codes            | : 0       | 0         |
| Duplicate event notification | : 0       | 0         |

#### [Example]

Show the entire link OAM frame statistic information:

Raisecom#**show oam statistics**

Show the line 2 OAM frame statistic information:

Raisecom#**show oam peer statistics** *port-list* 2

#### [Related commands]

| Commands                    | Description                |
|-----------------------------|----------------------------|
| <b>clear oam statistics</b> | Clear OAM frame statistic. |

## 1.13 show oam trap

#### [Function]

Review OAM link event notify trap information.

#### [Command format]

**show oam trap** [**port-list** *port-list*]

#### [Parameter]

*port-list*: port list.

#### [Command Modes]

Privileged EXEC, Privileged user

#### [Executing Command Instruction]

The showing information contains link monitor event, peer link event trap enable condition and latest OAM loss and discover trap total as well as happen time.

#### [Explanation of command execution echo]

Raisecom#**show oam trap**

*Port: 1*  
*Event trap: Disable*  
*Peer event trap: Disable*  
*Discovery trap total: 0*  
*Discovery trap timestamp: 0 days, 0 hours, 0 minutes*  
*Lost trap total: 0*  
*Lost trap timestamp: 0 days, 0 hours, 0 minutes*

*Port: 2*  
*Event trap: Disable*  
*Peer event trap: Disable*  
*Discovery trap total: 1*  
*Discovery trap timestamp: 0 days, 2 hours, 25 minutes*  
*Lost trap total: 1*  
*Lost trap timestamp: 0 days, 2 hours, 41 minutes*

.....

**Raisecom#show oam trap port-list 2**

*Port: 2*  
*Event trap: Disable*  
*Peer event trap: Disable*  
*Discovery trap total: 1*  
*Discovery trap timestamp: 0 days, 2 hours, 25 minutes*  
*Lost trap total: 1*  
*Lost trap timestamp: 0 days, 2 hours, 41 minutes*

#### [Example]

Show the entire link OAM event notify trap information:

**Raisecom#show oam trap**

Show the line 1 OAM event notify trap information:

**Raisecom#show oam peer trap line 1**

#### [Related commands]

| Commands              | Description                                  |
|-----------------------|--|
| <b>oam event trap</b> | Enable/disable link event trap notification. |





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