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Ethernet OAM commands

display oam

Use **display oam** to display Ethernet OAM connection information.

Syntax

```
display oam { local | remote } [ interface interface-type  
interface-number ]
```

Views

Any view

Predefined user roles

network-admin
network-operator

Parameters

local: Specifies the local end.

remote: Specifies the remote end.

interface *interface-type interface-number*: Specifies an interface by its type and number. If you do not specify an interface, the command displays Ethernet OAM connection information for all interfaces.

Examples

Display Ethernet OAM connection information for all local interfaces.

```
<Sysname> display oam local  
----- [Ten-GigabitEthernet1/0/1] -----  
Enable status      : Enable  
Loopback status   : No loopback  
Link status        : UP  
OAM mode           : Active  
PDU                 : ANY  
Mux action         : FWD  
Par action         : FWD
```

Display Ethernet OAM connection information for the local interface Ten-GigabitEthernet 1/0/1.

```
<Sysname> display oam local interface ten-gigabitethernet 1/0/1  
Enable status      : Enable  
Loopback status   : No loopback  
Link status        : UP  
OAM mode           : Active  
PDU                 : ANY  
Mux action         : FWD  
Par action         : FWD  
Flags  
Link fault         : Not occurred  
Dying gasp         : Not occurred  
Critical event     : Not occurred
```

```

Local evaluating : COMPLETE
Remote evaluating : COMPLETE
Packets statistics
Packet type                Sent                Received
-----
OAMPDU                    100                80
OAMInformation            64                 60
OAMEventNotification     36                 20
OAMUniqueEventNotification 36                 10
OAMDuplicateEventNotification 0                 10

```

Table 1 Command output

Field	Description
Ten-GigabitEthernet1/0/1	Information on Ten-GigabitEthernet 1/0/1.
Enable status	Ethernet OAM state: <ul style="list-style-type: none"> • Enable. • Disable.
Loopback status	Ethernet OAM loopback state: <ul style="list-style-type: none"> • No loopback—Remote loopback is disabled. • Remote loopback—Controlling end of remote loopback. • Local loopback—Controlled end of remote loopback.
Link status	Link physical state: <ul style="list-style-type: none"> • UP • DOWN.
OAM mode	Local Ethernet OAM mode: <ul style="list-style-type: none"> • Active—The interface operates in active Ethernet OAM mode. • Passive—The interface operates in passive Ethernet OAM mode.
PDU	The way in which the local end processes Ethernet OAMPDUs: <ul style="list-style-type: none"> • RX_INFO—The interface receives only Information OAMPDUs and does not send any Ethernet OAMPDUs. • LF_INFO—The interface sends only Information OAMPDUs without Information TLV triplets and with their link error flag bits being set. • INFO—The interface sends and receives only Information OAMPDUs. • ANY—The interface sends and receives Ethernet OAMPDUs of any type.
Mux action	Operating mode of the local transmitter: <ul style="list-style-type: none"> • FWD—The interface can send any packets. • DISCARD—The interface only sends Ethernet OAMPDUs.
Par action	Operating mode of the local receiver: <ul style="list-style-type: none"> • FWD—The interface can receive any packets. • DISCARD—The interface only receives Ethernet OAMPDUs. • LB—The local receiver is in loopback state. All the packets, other than Ethernet OAMPDUs, received on the local receiver are returned to their sources along their original routes.
Flags	Local flags inserted in the local flag fields of the sent Ethernet OAMPDUs.

Field	Description
Link fault	Indicates whether an Ethernet OAM link error is present.
Dying gasp	Indicates whether a fatal error is present.
Critical event	Indicates whether a critical error is present.
Local evaluating	Indicates whether the local-to-remote configuration negotiation is complete: <ul style="list-style-type: none"> • COMPLETE—The negotiation is completed. • NOTCOMPLETE—The negotiation is uncompleted.
Remote evaluating	Indicates whether the remote-to-local configuration negotiation is complete: <ul style="list-style-type: none"> • COMPLETE—The negotiation is completed. • NOTCOMPLETE—The negotiation is uncompleted. • RESERVED—The field is reserved and the negotiation is uncompleted. • UNSATISFIED—The remote end is not satisfied with the local configuration and the negotiation is uncompleted.
Packets statistics	Statistics about Ethernet OAMPDUs.
OAMPDU	Total number of sent or received Ethernet OAMPDUs.
OAMInformation	Number of sent or received Information OAMPDUs.
OAMEventNotification	Number of sent or received Event notification OAMPDUs.
OAMUniqueEventNotification	Number of unduplicated sent or received Event notification OAMPDUs.
OAMDuplicateEventNotification	Number of duplicate sent or received Event notification OAMPDUs.

Display Ethernet OAM connection information for all remote interfaces.

```
<Sysname> display oam remote
----- [Ten-GigabitEthernet1/0/1] -----
OAM mode          : Active
MAC address       : 3822-d6a2-a800
MTU size          : 1500
Mux action        : FWD
Par action        : FWD
```

Display Ethernet OAM connection information for the peer interface Ten-GigabitEthernet 1/0/1.

```
<Sysname> display oam remote interface ten-gigabitethernet 1/0/1
OAM mode          : Active
MAC address       : 3822-d6a2-a800
MTU size          : 1500
Mux action        : FWD
Par action        : FWD
Configuration
  Unidirectional  : Not supported
  Remote loopback  : Supported
  Link events      : Supported
  MIB retrieval    : Not supported
Flags
  Link fault       : Not occurred
```

Dying gasp : Not occurred
 Critical event : Not occurred
 Local evaluating : COMPLETE
 Remote evaluating : COMPLETE

Table 2 Command output

Field	Description
Ten-GigabitEthernet1/0/1	Information on Ten-GigabitEthernet 1/0/1.
OAM mode	Ethernet OAM mode on the remote end: <ul style="list-style-type: none"> • Active—The interface operates in active Ethernet OAM mode. • Passive—The interface operates in passive Ethernet OAM mode.
MAC address	MAC address of the remote end.
MTU size	MTU size, in bytes.
Mux action	Operating mode of the remote transmitter: <ul style="list-style-type: none"> • FWD—The interface can send any packets. • DISCARD—The interface only sends Ethernet OAMPDUs.
Par action	Operating mode of the remote receiver: <ul style="list-style-type: none"> • FWD—The interface can receive any packets. • DISCARD—The interface only receives Ethernet OAMPDUs. • LB—The local receiver is in loopback state. All the packets, other than Ethernet OAMPDUs, received on the local receiver are returned to their sources along their original routes.
Configuration	Configuration of the remote Ethernet OAM entity.
Unidirectional	Indicates whether unidirectional transmission is supported.
Remote loopback	Indicates whether Ethernet OAM remote loopback is supported.
Link events	Indicates whether Ethernet OAM link error events are supported.
MIB retrieval	Indicates whether MIB variable retrieval is supported.
Flags	Values of the peer Ethernet OAM flag fields in OAM packets.
Link fault	Indicates whether an Ethernet OAM link error is present.
Dying gasp	Indicates whether a fatal error is present.
Critical event	Indicates whether a critical error is present.
Local evaluating	Indicates whether the local-to-remote configuration negotiation is complete: <ul style="list-style-type: none"> • COMPLETE—The negotiation is completed. • NOTCOMPLETE—The negotiation is uncompleted. • RESERVED—The field is reserved and the negotiation is uncompleted. • UNSATISFIED—The remote end is not satisfied with the local configuration and the negotiation is uncompleted.
Remote evaluating	Indicates whether the remote-to-local configuration negotiation is complete: <ul style="list-style-type: none"> • COMPLETE—The negotiation is completed. • NOTCOMPLETE—The negotiation is uncompleted. • UNSATISFIED—The remote end is not satisfied with the local configuration and the negotiation is uncompleted.

Related commands

`reset oam`

display oam configuration

Use `display oam configuration` to display Ethernet OAM configuration information.

Syntax

```
display oam configuration [ interface interface-type interface-number ]
```

Views

Any view

Predefined user roles

network-admin

network-operator

Parameters

interface *interface-type* *interface-number*: Specifies an interface by its type and number. If you do not specify an interface, the command displays Ethernet OAM configuration globally and for interfaces that do not use the default configuration.

Examples

Display Ethernet OAM configuration globally and for interfaces that do not use the default configuration.

```
<Sysname> display oam configuration
----- [Global] -----
OAM timers
  Hello timer      : 1000 milliseconds
  Keepalive timer  : 5000 milliseconds
Link monitoring
  Errored symbol period
    Window         : 100 x 1000000 symbols
    Threshold      : 1 error symbols
  Errored frame
    Window         : 10 x 100 milliseconds
    Threshold      : 1 error frames
  Errored frame period
    Window         : 1000 x 10000 frames
    Threshold      : 1 error frames
  Errored frame seconds
    Window         : 600 x 100 milliseconds
    Threshold      : 1 error seconds

----- [Ten-GigabitEthernet1/0/1] -----
OAM timers
  Hello timer      : 500 milliseconds
  Keepalive timer  : 5000 milliseconds
Link monitoring
  Errored symbol period
    Window         : 100 x 1000000 symbols
```

```

Threshold          : 1 error symbols
Errored frame
Window             : 10 x 100 milliseconds
Threshold          : 1 error frames
Errored frame period
Window             : 1000 x 10000 frames
Threshold          : 1 error frames
Errored frame seconds
Window             : 600 x 100 milliseconds
Threshold          : 1 error seconds

```

Table 3 Command output

Field	Description
Global	Global information.
Ten-GigabitEthernet1/0/1	Information on Ten-GigabitEthernet 1/0/1.
OAM timers	Ethernet OAM connection detection timers.
Hello timer	Ethernet OAM handshake packet transmission interval.
Keepalive timer	Ethernet OAM connection timeout timer.
Link monitoring	Link event detection window and threshold.
Errored symbol period	Errored symbol event.
Errored frame	Errored frame event.
Errored frame period	Errored frame period event.
Errored frame seconds	Errored frame seconds event.
Window	Detection window configured for link events.
Threshold	Triggering threshold configured for link events.

display oam critical-event

Use **display oam critical-event** to display statistics for critical Ethernet OAM link events.

Syntax

```
display oam critical-event [ interface interface-type interface-number ]
```

Views

Any view

Predefined user roles

network-admin

network-operator

Parameters

interface *interface-type interface-number*: Specifies an interface by its type and number. If you do not specify an interface, the command displays statistics for the critical Ethernet OAM link events for all interfaces.

Examples

```
# Display statistics for critical Ethernet OAM link events on all interfaces.
```

```

<Sysname> display oam critical-event
----- [Ten-GigabitEthernet1/0/1] -----
Local link status   : UP
Event statistics
  Link fault        : Not occurred
  Dying gasp        : Not occurred
  Critical event    : Not occurred

```

Table 4 Command output

Field	Description
Ten-GigabitEthernet1/0/1	Information on Ten-GigabitEthernet 1/0/1.
Local link status	Local link status, up or down.
Event statistics	Statistics for critical Ethernet OAM link events.
Link fault	Indicates whether a link fault is present.
Dying Gasp	Indicates whether a fatal fault is present.
Critical Event	Indicates whether a critical fault is present.

display oam link-event

Use **display oam link-event** to display statistics for Ethernet OAM link error events for local or peer interfaces.

Syntax

```

display oam link-event { local | remote } [ interface interface-type
interface-number ]

```

Views

Any view

Predefined user roles

network-admin
network-operator

Parameters

local: Specifies the local end.

remote: Specifies the peer end.

interface interface-type interface-number: Specifies an interface by its type and number. If you do not specify an interface, the command displays statistics for Ethernet OAM link error events for all local or peer interfaces.

Usage guidelines

Ethernet OAM link error events include errored symbol events, errored frame events, errored frame period events, and errored frame seconds events.

Examples

Display statistics for Ethernet OAM link error events for all local interfaces.

```

<Sysname> display oam link-event local
----- [Ten-GigabitEthernet1/0/1] -----

```



```

Link status: UP
OAM local errored symbol event
  Event time stamp      : 35498 x 100 milliseconds
  Errored symbol window : 100000000 symbols
  Errored symbol threshold : 1 error symbols
  Errored symbol       : 1 error symbols
  Error running total   : 4 error symbols
  Event running total   : 4 events
OAM local errored frame event
  Event time stamp      : 49582 x 100 milliseconds
  Errored frame window  : 10 x 100 milliseconds
  Errored frame threshold : 1 error frames
  Errored frame        : 1 error frames
  Error running total   : 6 error frames
  Event running total   : 6 events
OAM local errored frame period event
  Event time stamp      : 16382 x 100 milliseconds
  Errored frame period window : 10000000 frames
  Errored frame period threshold : 1 error frames
  Errored frame period   : 1 error frames
  Error running total    : 5 error frames
  Event running total    : 5 events
OAM local errored frame seconds summary event
  Event time stamp      : 50022 x 100 milliseconds
  Errored frame seconds window : 600 x 100 milliseconds
  Errored frame seconds threshold : 1 error seconds
  Errored frame seconds   : 1 error seconds
  Error running total     : 1 error seconds
  Event running total     : 1 events

```

Display statistics for Ethernet OAM link error events for all peer interfaces.

```

<Sysname> display oam link-event remote
----- [Ten-GigabitEthernet1/0/1] -----
Link status: UP
OAM remote errored symbol event
  Event time stamp      : 35498 x 100 milliseconds
  Errored symbol window : 100000000 symbols
  Errored symbol threshold : 1 error symbols
  Errored symbol       : 1 error symbols
  Error running total   : 4 error symbols
  Event running total   : 4 events
OAM remote errored frame event
  Event time stamp      : 49582 x 100 milliseconds
  Errored frame window  : 10 x 100 milliseconds
  Errored frame threshold : 1 error frames
  Errored frame        : 1 error frames
  Error running total   : 6 error frames
  Event running total   : 6 events
OAM remote errored frame period event

```

```

Event time stamp          : 16382 x 100 milliseconds
Errored frame period window : 10000000 frames
Errored frame period threshold : 1 error frames
Errored frame period      : 1 error frames
Error running total       : 5 error frames
Event running total       : 5 events

OAM remote errored frame seconds summary event
Event time stamp          : 50022 x 100 milliseconds
Errored frame seconds window : 600 x 100 milliseconds
Errored frame seconds threshold : 1 error seconds
Errored frame seconds      : 1 error seconds
Error running total       : 1 error seconds
Event running total       : 1 events

```

Table 5 Command output

Field	Description
Ten-GigabitEthernet1/0/1	Information on Ten-GigabitEthernet 1/0/1.
Link status	Link status, up or down.
OAM local/remote errored symbol event	<p>Information about local/remote errored symbol events (available only when remote errored symbol events occur):</p> <ul style="list-style-type: none"> • Event time stamp—Time when an errored symbol event occurred. • Errored symbol window—Errored symbol detection interval. • Errored symbol threshold—Errored threshold that triggers an errored symbol event. • Errored symbol—Number of detected errored symbols in the most recent errored symbol event. • Error running total—Total number of errored symbols. • Event running total—Total number of errored symbol events that have occurred.
OAM local/remote errored frame event	<p>Information about local/remote end errored frame events (available only when local/remote end errored frame events occur):</p> <ul style="list-style-type: none"> • Event time stamp—Time when an errored frame event occurred. • Errored frame window—Errored frame detection interval. • Errored frame threshold—Errored threshold that triggers an errored frame event. • Errored frame—Number of detected errored frames in the most recent errored frame event. • Error running total—Total number of errored frames. • Event running total—Total number of errored frame events that have occurred.
OAM local/remote errored frame period event	<p>Information about local or remote errored frame period events (available only when local/remote errored frame period events occur):</p> <ul style="list-style-type: none"> • Event time stamp—Time when an errored frame period event occurred. • Errored frame period window—Errored frame period detection interval. • Errored frame period threshold—Errored threshold that triggers an errored frame period event. • Errored frame period—Number of detected errored frames in the most recent errored frame period event. • Error running total—Total number of errored frames that have detected. • Event running total—Total number of errored frame period events.

Field	Description
OAM local/remote errored frame seconds summary event	<p>Information about local/remote end errored frame seconds events (available only when local/remote end errored frame seconds events occur):</p> <ul style="list-style-type: none"> • Event time stamp—Time when an errored frame seconds event occurred. • Errored frame second window—Errored frame second detection interval. • Errored Frame seconds threshold—Errored threshold that triggers an errored frame seconds event. • Errored frame seconds—Number of detected errored frame seconds in the most recent errored frame seconds event. • Error running total—Total number of errored frame seconds. • Event running total—Total number of errored frame seconds events that have occurred.

Related commands

`reset oam`

oam enable

Use `oam enable` to enable Ethernet OAM.

Use `undo oam enable` to disable Ethernet OAM.

Syntax

`oam enable`

`undo oam enable`

Default

Ethernet OAM is disabled.

Views

Layer 2 Ethernet interface view

Layer 3 Ethernet interface view

Predefined user roles

network-admin

Examples

```
# Enable OAM on Ten-GigabitEthernet 1/0/1.
<Sysname> system-view
[Sysname] interface ten-gigabitethernet 1/0/1
[Sysname-Ten-GigabitEthernet1/0/1] oam enable
```

oam errored-frame threshold

Use `oam errored-frame threshold` to set the errored frame event triggering threshold for an interface.

Use `undo oam errored-frame threshold` to restore the default.

Syntax

`oam errored-frame threshold threshold-value`

`undo oam errored-frame threshold`

Default

An interface uses the global setting.

Views

Layer 2 Ethernet interface view

Layer 3 Ethernet interface view

Predefined user roles

network-admin

Parameters

threshold-value: Specifies the errored frame event triggering threshold in number of errored frame events, in the range of 0 to 4294967295.

Usage guidelines

The configuration in interface view takes effect only on the specified interface. For an interface, the configuration in interface view takes precedence.

Examples

```
# Set the errored frame event triggering threshold to 100 on Ten-GigabitEthernet 1/0/1.
<Sysname> system-view
[Sysname] interface ten-gigabitethernet 1/0/1
[Sysname-Ten-GigabitEthernet1/0/1] oam errored-frame threshold 100
```

Related commands

```
display oam configuration
display oam link-event
oam global errored-frame threshold
```

oam errored-frame window

Use `oam errored-frame window` to set the errored frame event detection window.

Use `undo oam errored-frame window` to restore the default.

Syntax

```
oam errored-frame window window-value
undo oam errored-frame window
```

Default

An interface uses the global setting.

Views

Layer 2 Ethernet interface view

Layer 3 Ethernet interface view

Predefined user roles

network-admin

Parameters

window-value: Specifies the errored frame event detection window in the range of 10 to 600, in steps of 10, in 100 milliseconds.

Usage guidelines

The configuration in interface view takes effect only on the specified interface. For an interface, the configuration in interface view takes precedence.

Examples

```
# Set the errored frame event detection window to 2000 milliseconds on Ten-GigabitEthernet 1/0/1.
<Sysname> system-view
[Sysname] interface ten-gigabitethernet 1/0/1
[Sysname-Ten-GigabitEthernet1/0/1] oam errored-frame window 20
```

Related commands

```
display oam configuration
display oam link-event
oam global errored-frame window
```

oam errored-frame-period threshold

Use `oam errored-frame-period threshold` to set the errored frame period event triggering threshold on an interface.

Use `undo oam errored-frame-period threshold` to restore the default.

Syntax

```
oam errored-frame-period threshold threshold-value
undo oam errored-frame-period threshold
```

Default

An interface uses the global setting.

Views

Layer 2 Ethernet interface view
Layer 3 Ethernet interface view

Predefined user roles

network-admin

Parameters

threshold-value: Specifies the errored frame period event triggering threshold in the range of 0 to 4294967295.

Usage guidelines

The configuration in interface view takes effect only on the specified interface. For an interface, the configuration in interface view takes precedence.

Examples

```
# Set the errored frame period event triggering threshold to 100 on Ten-GigabitEthernet 1/0/1.
<Sysname> system-view
[Sysname] interface ten-gigabitethernet 1/0/1
[Sysname-Ten-GigabitEthernet1/0/1] oam errored-frame-period threshold 100
```

Related commands

```
display oam configuration
display oam link-event
```

```
oam global errored-frame-period threshold
```

oam errored-frame-period window

Use `oam errored-frame-period window` to set the errored frame period event detection window.

Use `undo oam errored-frame-period window` to restore the default.

Syntax

```
oam errored-frame-period window window-value
```

```
undo oam errored-frame-period window
```

Default

An interface uses the global setting.

Views

Layer 2 Ethernet interface view

Layer 3 Ethernet interface view

Predefined user roles

network-admin

Parameters

window-value: Specifies the errored frame period event detection window in the range of 1 to 65535. The value of this argument must be a multiple of 10000.

Usage guidelines

The configuration in interface view takes effect only on the specified interface. For an interface, the configuration in interface view takes precedence.

Examples

```
# Set the errored frame period event detection window to 20000000 on Ten-GigabitEthernet 1/0/1.
<Sysname> system-view
[Sysname] interface ten-gigabitethernet 1/0/1
[Sysname-Ten-GigabitEthernet1/0/1] oam errored-frame-period window 2000
```

Related commands

```
display oam configuration
```

```
display oam link-event
```

```
oam global errored-frame-period window
```

oam errored-frame-seconds threshold

Use `oam errored-frame-seconds threshold` to set the errored frame seconds event triggering threshold on an interface.

Use `undo oam errored-frame-seconds threshold` to restore the default.

Syntax

```
oam errored-frame-seconds threshold threshold-value
```

```
undo oam errored-frame-seconds threshold
```

Default

An interface uses the global setting.

Views

Layer 2 Ethernet interface view

Layer 3 Ethernet interface view

Predefined user roles

network-admin

Parameters

threshold-value: Specifies the errored frame seconds event triggering threshold in the range of 0 to 900.

Usage guidelines

The value of the errored frame seconds event triggering threshold cannot be greater than the value of the errored frame seconds event detection window (in seconds). Otherwise, errored frame seconds events cannot be generated.

The configuration in interface view takes effect only on the specified interface. For an interface, the configuration in interface view takes precedence.

Examples

```
# Set the errored frame seconds event triggering threshold to 100 on Ten-GigabitEthernet 1/0/1.
<Sysname> system-view
[Sysname] interface ten-gigabitethernet 1/0/1
[Sysname-Ten-GigabitEthernet1/0/1] oam errored-frame-seconds threshold 100
```

Related commands

display oam configuration

display oam link-event

oam errored-frame-seconds window

oam global errored-frame-seconds threshold

oam errored-frame-seconds window

Use **oam errored-frame-seconds window** to set the errored frame seconds event detection window.

Use **undo oam errored-frame-seconds window** to restore the default.

Syntax

oam errored-frame-seconds window *window-value*

undo oam errored-frame-seconds window

Default

An interface uses the global setting.

Views

Layer 2 Ethernet interface view

Layer 3 Ethernet interface view

Predefined user roles

network-admin

Parameters

window-value: Specifies the errored frame seconds event detection window in the range of 100 to 9000, in steps of 10, in 100 milliseconds.

Usage guidelines

The value of the errored frame seconds event triggering threshold cannot be greater than the value of the errored frame seconds event detection window (in seconds). Otherwise, errored frame seconds events cannot be generated.

The configuration in interface view takes effect only on the specified interface. For an interface, the configuration in interface view takes precedence.

Examples

```
# Set the errored frame seconds event detection window to 10000 milliseconds on
Ten-GigabitEthernet 1/0/1.
<Sysname> system-view
[Sysname] interface ten-gigabitethernet 1/0/1
[Sysname-Ten-GigabitEthernet1/0/1] oam errored-frame-seconds window 100
```

Related commands

```
display oam configuration
display oam link-event
oam errored-frame-seconds threshold
oam errored-frame-seconds period
```

oam errored-symbol-period threshold

Use `oam errored-symbol-period threshold` to set the errored symbol event triggering threshold.

Use `undo oam errored-symbol-period threshold` to restore the default.

Syntax

```
oam errored-symbol-period threshold threshold-value
undo oam errored-symbol-period threshold
```

Default

An interface uses the global setting.

Views

Layer 2 Ethernet interface view
Layer 3 Ethernet interface view

Predefined user roles

network-admin

Parameters

threshold-value: Specifies the errored symbol event triggering threshold in the range of 0 to 4294967295.

Usage guidelines

The configuration in interface view takes effect only on the specified interface. For an interface, the configuration in interface view takes precedence.

Examples

```
# Set the errored symbol event triggering threshold to 100 on Ten-GigabitEthernet 1/0/1.
<Sysname> system-view
[Sysname] interface ten-gigabitethernet 1/0/1
[Sysname-Ten-GigabitEthernet1/0/1] oam errored-symbol-period threshold 100
```

Related commands

```
display oam configuration
display oam link-event
oam global errored-symbol-period threshold
```

oam errored-symbol-period window

Use `oam errored-symbol-period window` to set the errored symbol event detection window.

Use `undo oam errored-symbol-period window` to restore the default.

Syntax

```
oam errored-symbol-period window window-value
undo oam errored-symbol-period window
```

Default

An interface uses the global setting.

Views

Layer 2 Ethernet interface view
Layer 3 Ethernet interface view

Predefined user roles

network-admin

Parameters

window-value: Specifies the errored symbol event detection window in the range of 1 to 65535. The value of this argument must be a multiple of 1000000.

Usage guidelines

The configuration in interface view takes effect only on the specified interface. For an interface, the configuration in interface view takes precedence.

Examples

```
# Set the errored symbol event detection window to 200000000 on Ten-GigabitEthernet 1/0/1.
<Sysname> system-view
[Sysname] interface ten-gigabitethernet 1/0/1
[Sysname-Ten-GigabitEthernet1/0/1] oam errored-symbol-period window 200
```

Related commands

```
display oam configuration
display oam link-event
```

```
oam global errored-symbol-period window
```

oam global errored-frame threshold

Use `oam global errored-frame threshold` to set the global errored frame event triggering threshold.

Use `undo oam global errored-frame threshold` to restore the default.

Syntax

```
oam global errored-frame threshold threshold-value  
undo oam global errored-frame threshold
```

Default

The errored frame event triggering threshold is 1.

Views

System view

Predefined user roles

network-admin

Parameters

threshold-value: Specifies the errored frame event triggering threshold in the range of 0 to 4294967295.

Usage guidelines

The configuration in system view takes effect on all interfaces, but has a lower precedence than the configuration in interface view.

Examples

```
# Set the errored frame event triggering threshold to 100.  
<Sysname> system-view  
[Sysname] oam global errored-frame threshold 100
```

Related commands

```
display oam configuration  
display oam link-event  
oam errored-frame threshold
```

oam global errored-frame window

Use `oam global errored-frame window` to set the global errored frame event detection window.

Use `undo oam global errored-frame window` to restore the default.

Syntax

```
oam global errored-frame window window-value  
undo oam global errored-frame window
```

Default

The global errored frame event detection window is 1000 milliseconds.

Views

System view

Predefined user roles

network-admin

Parameters

window-value: Specifies the errored frame event detection window in the range of 10 to 600, in steps of 10, in 100 milliseconds.

Usage guidelines

The configuration in system view takes effect on all interfaces, but has a lower precedence than the configuration in interface view.

Examples

```
# Set the errored frame event detection window to 2000 milliseconds.
<Sysname> system-view
[Sysname] oam global errored-frame window 20
```

Related commands

```
display oam configuration
display oam link-event
oam errored-frame window
```

oam global errored-frame-period threshold

Use **oam global errored-frame-period threshold** to set the global errored frame period event triggering threshold.

Use **undo oam global errored-frame-period threshold** to restore the default.

Syntax

```
oam global errored-frame-period threshold threshold-value
undo oam global errored-frame-period threshold
```

Default

The errored frame period event triggering threshold is 1.

Views

System view

Predefined user roles

network-admin

Parameters

threshold-value: Specifies the errored frame period event triggering threshold in the range of 0 to 4294967295.

Usage guidelines

The configuration in system view takes effect on all interfaces, but has a lower precedence than the configuration in interface view.

Examples

```
# Set the errored frame period event triggering threshold to 100.
```

```
<Sysname> system-view
[Sysname] oam global errored-frame-period threshold 100
```

Related commands

```
display oam configuration
display oam link-event
oam errored-frame-period threshold
```

oam global errored-frame-period window

Use `oam global errored-frame-period window` to set the global errored frame period event detection window.

Use `undo oam global errored-frame-period window` to restore the default.

Syntax

```
oam global errored-frame-period window window-value
undo oam global errored-frame-period window
```

Default

The global errored frame period event detection window is 10000000.

Views

System view

Predefined user roles

network-admin

Parameters

window-value: Specifies the errored frame period event detection window in the range of 1 to 65535. The value of this argument must be a multiple of 10000.

Usage guidelines

The configuration in system view takes effect on all interfaces, but has a lower precedence than the configuration in interface view.

Examples

```
# Set the errored frame period event detection window to 20000000.
```

```
<Sysname> system-view
[Sysname] oam global errored-frame-period window 2000
```

Related commands

```
display oam configuration
display oam link-event
oam errored-frame-period window
```

oam global errored-frame-seconds threshold

Use `oam global errored-frame-seconds threshold` to set the global errored frame seconds event triggering threshold.

Use `undo oam global errored-frame-seconds threshold` to restore the default.

Syntax

```
oam global errored-frame-seconds threshold threshold-value  
undo oam global errored-frame-seconds threshold
```

Default

The global errored frame seconds event detection interval is 1.

Views

System view

Predefined user roles

network-admin

Parameters

threshold-value: Specifies the errored frame seconds event triggering threshold in the range of 0 to 900.

Usage guidelines

The value of the errored frame seconds event triggering threshold cannot be greater than the value of the errored frame seconds event detection window (in seconds). Otherwise, errored frame seconds events cannot be generated.

The configuration in system view takes effect on all interfaces, but has a lower precedence than the configuration in interface view.

Examples

```
# Set the errored frame seconds event triggering threshold to 100.  
<Sysname> system-view  
[Sysname] oam global errored-frame-seconds threshold 100
```

Related commands

```
display oam configuration  
display oam link-event  
oam errored-frame-seconds threshold  
oam global errored-frame-seconds window
```

oam global errored-frame-seconds window

Use `oam global errored-frame-seconds window` to set the global errored frame seconds event detection window.

Use `undo oam global errored-frame-seconds window` to restore the default.

Syntax

```
oam global errored-frame-seconds window window-value  
undo oam global errored-frame-seconds window
```

Default

The global errored frame seconds event detection window is 60000 milliseconds.

Views

System view

Predefined user roles

network-admin

Parameters

window-value: Specifies the errored frame seconds event detection window in the range of 100 to 9000, in steps of 10, in 100 milliseconds.

Usage guidelines

The value of the errored frame seconds event triggering threshold cannot be greater than the value of the errored frame seconds event detection window (in seconds). Otherwise, errored frame seconds events cannot be generated.

The configuration in system view takes effect on all interfaces, but has a lower precedence than the configuration in interface view.

Examples

```
# Set the errored frame seconds event detection window to 10000 milliseconds.
```

```
<Sysname> system-view
```

```
[Sysname] oam global errored-frame-seconds window 100
```

Related commands

```
display oam configuration
```

```
display oam link-event
```

```
oam errored-frame-seconds period
```

```
oam global errored-frame-seconds threshold
```

oam global errored-symbol-period threshold

Use `oam global errored-symbol-period threshold` to set the global errored symbol event triggering threshold.

Use `undo oam global errored-symbol-period threshold` to restore the default.

Syntax

```
oam global errored-symbol-period threshold threshold-value
```

```
undo oam global errored-symbol-period threshold
```

Default

The global errored symbol event triggering threshold is 1.

Views

System view

Predefined user roles

network-admin

Parameters

threshold-value: Specifies the errored symbol event triggering threshold in the range of 0 to 4294967295.

Usage guidelines

The configuration in system view takes effect on all interfaces, but has a lower precedence than the configuration in interface view.

Examples

```
# Set the errored symbol event triggering threshold to 100.
<Sysname> system-view
[Sysname] oam global errored-symbol-period threshold 100
```

Related commands

```
display oam configuration
display oam link-event
oam errored-symbol-period threshold
```

oam global errored-symbol-period window

Use `oam global errored-symbol-period window` to set the global errored symbol event detection window.

Use `undo oam global errored-symbol-period window` to restore the default.

Syntax

```
oam global errored-symbol-period window window-value
undo oam global errored-symbol-period window
```

Default

The global errored symbol event detection window is 100000000.

Views

System view

Predefined user roles

network-admin

Parameters

window-value: Specifies the errored symbol event detection window in the range of 1 to 65535. The value of this argument must be a multiple of 1000000.

Usage guidelines

The configuration in system view takes effect on all interfaces, but has a lower precedence than the configuration in interface view.

Examples

```
# Set the errored symbol event detection window to 200000000.
<Sysname> system-view
[Sysname] oam global errored-symbol-period window 200
```

Related commands

```
display oam configuration
display oam link-event
oam global errored-symbol-period window
```

oam global timer hello

Use `oam global timer hello` to configure the global Ethernet OAM handshake packet transmission interval.

Use `undo oam global timer hello` to restore the default.

Syntax

```
oam global timer hello interval
undo oam global timer hello
```

Default

The global Ethernet OAM handshake packet transmission interval is 1000 milliseconds.

Views

System view

Predefined user roles

network-admin

Parameters

interval: Specifies the Ethernet OAM handshake packet transmission interval, in steps of 100, in milliseconds. The value range for the *interval* argument is 500 to 5000.

Usage guidelines

After the timeout timer of an Ethernet OAM connection expires, the local OAM entity ages out and terminates its connection with the peer OAM entity. To keep the Ethernet OAM connections stable, set the connection timeout timer to be a minimum of five times the handshake packet transmission interval.

The configuration in system view takes effect on all interfaces, but has a lower precedence than the configuration in interface view.

Examples

```
# Set the Ethernet OAM handshake packet transmission interval to 600 milliseconds.
<Sysname> system-view
[Sysname] oam global timer hello 600
```

Related commands

```
display oam configuration
oam timer hello
```

oam global timer keepalive

Use `oam global timer keepalive` to configure the global Ethernet OAM connection timeout timer.

Use `undo oam global timer keepalive` to restore the default.

Syntax

```
oam global timer keepalive interval
undo oam global timer keepalive
```

Default

The global Ethernet OAM connection timeout timer is 5000 milliseconds.

Views

System view

Predefined user roles

network-admin

Parameters

interval: Specifies the Ethernet OAM connection timeout timer, in steps of 100, in milliseconds. The value range for the *interval* argument is 1000 to 25000.

Usage guidelines

After the timeout timer of an Ethernet OAM connection expires, the local OAM entity ages out and terminates its connection with the peer OAM entity. To keep the Ethernet OAM connections stable, set the connection timeout timer to be a minimum of five times the handshake packet transmission interval.

The configuration in system view takes effect on all interfaces, but has a lower precedence than the configuration in interface view.

Examples

```
# Set the Ethernet OAM connection timeout timer to 6000 milliseconds.
<Sysname> system-view
[Sysname] oam global timer keepalive 6000
```

Related commands

```
display oam configuration
oam timer keepalive
```

oam mode

Use **oam mode** to set the Ethernet OAM mode.

Use **undo oam mode** to restore the default.

Syntax

```
oam mode { active | passive }
undo oam mode
```

Default

An Ethernet OAM-enabled Ethernet interface operates in active Ethernet OAM mode.

Views

Layer 2 Ethernet interface view

Layer 3 Ethernet interface view

Predefined user roles

network-admin

Parameters

active: Specifies the active Ethernet OAM mode.

passive: Specifies the passive Ethernet OAM mode.

Usage guidelines

To change the Ethernet OAM mode of an Ethernet OAM-enabled Ethernet interface, first disable Ethernet OAM on the interface.

Examples

```
# Disable Ethernet OAM on Ten-GigabitEthernet 1/0/1, and then configure Ten-GigabitEthernet 1/0/1 to operate in passive Ethernet OAM mode.
```

```
<Sysname> system-view
[Sysname] interface ten-gigabitethernet 1/0/1
[Sysname-Ten-GigabitEthernet1/0/1] undo oam enable
[Sysname-Ten-GigabitEthernet1/0/1] oam mode passive
```

Related commands

oam enable

oam remote-failure action

Use **oam remote-failure action** to configure the action an interface takes after it receives an Ethernet OAM event from the remote end.

Use **undo oam remote-failure action** to remove the configuration.

Syntax

```
oam remote-failure { connection-expired | critical-event | dying-gasp | link-fault } action error-link-down
```

```
undo oam remote-failure { connection-expired | critical-event | dying-gasp | link-fault } action error-link-down
```

Default

An interface only logs the Ethernet OAM event it receives from the remote end.

Views

Layer 2 Ethernet interface view

Layer 3 Ethernet interface view

Predefined user roles

network-admin

Parameters

connection-expired: Specifies a connection timeout event.

critical-event: Specifies a critical event.

dying-gasp: Specifies a fatal event.

link-fault: Specifies a link fault event.

error-link-down: Terminates the OAM connection, and sets the link state of the interface to down.

Examples

```
# Configure Ten-GigabitEthernet 1/0/1 to terminate the OAM connection after it receives a critical event from the remote end, and set the link state of the interface to down.
```

```
<Sysname> system-view
[Sysname] interface ten-gigabitethernet 1/0/1
[Sysname-Ten-GigabitEthernet1/0/1] oam remote-failure critical-event action error-link-down
```

oam remote-loopback

Use `oam remote-loopback start` to enable Ethernet OAM remote loopback on an interface.

Use `oam remote-loopback stop` to disable Ethernet OAM remote loopback on an interface.

Syntax

```
oam remote-loopback start
```

```
oam remote-loopback stop
```

Default

Ethernet OAM remote loopback is disabled on an interface.

Views

Layer 2 Ethernet interface view

Layer 3 Ethernet interface view

Predefined user roles

network-admin

Usage guidelines

Ethernet OAM remote loopback is available only after the Ethernet OAM connection is established. It can be performed only by the Ethernet OAM entities operating in active Ethernet OAM mode.

You can enable Ethernet OAM remote loopback on a specified interface in user view or system view. You can also enable it on the current interface in interface view. The configurations have the same effect.

Examples

```
# Configure active Ethernet OAM mode and enable Ethernet OAM on Ten-GigabitEthernet 1/0/1.  
Enable Ethernet OAM remote loopback on Ten-GigabitEthernet 1/0/1.
```

```
<Sysname> system-view  
[Sysname] interface ten-gigabitethernet 1/0/1  
[Sysname-Ten-GigabitEthernet1/0/1] oam mode active  
[Sysname-Ten-GigabitEthernet1/0/1] oam enable  
[Sysname-Ten-GigabitEthernet1/0/1] oam remote-loopback start
```

Related commands

```
oam enable
```

```
oam mode
```

```
oam remote-loopback interface
```

oam remote-loopback interface

Use `oam remote-loopback start interface` to enable Ethernet OAM remote loopback on an interface.

Use `oam remote-loopback stop interface` to disable Ethernet OAM remote loopback on an interface.

Syntax

```
oam remote-loopback start interface interface-type interface-number
```

```
oam remote-loopback stop interface interface-type interface-number
```

Default

Ethernet OAM remote loopback is disabled on an interface.

Views

User view

System view

Predefined user roles

network-admin

Parameters

interface-type interface-number: Specifies an interface by its type and number.

Usage guidelines

Ethernet OAM remote loopback is available only after the Ethernet OAM connection is established. It can be performed only by the Ethernet OAM entities operating in active Ethernet OAM mode.

You can enable Ethernet OAM remote loopback on a specified interface in user view or system view. You can also enable it on the current interface in interface view. The configurations have the same effect.

Examples

Configure the active Ethernet OAM mode and enable Ethernet OAM on Ten-GigabitEthernet 1/0/1. Enable Ethernet OAM remote loopback on Ten-GigabitEthernet 1/0/1 in system view.

```
<Sysname> system-view
[Sysname] interface ten-gigabitethernet 1/0/1
[Sysname-Ten-GigabitEthernet1/0/1] oam mode active
[Sysname-Ten-GigabitEthernet1/0/1] oam enable
[Sysname-Ten-GigabitEthernet1/0/1] quit
[Sysname] oam remote-loopback start interface ten-gigabitethernet 1/0/1
```

Related commands

oam enable

oam mode

oam remote-loopback

oam remote-loopback reject-request

Use **oam remote-loopback reject-request** to configure an interface to reject the Ethernet OAM remote loopback request from a remote interface.

Use **undo oam remote-loopback reject-request** to restore the default.

Syntax

oam remote-loopback reject-request

undo oam remote-loopback reject-request

Default

An interface does not reject the Ethernet OAM remote loopback request from a remote interface.

Views

Layer 2 Ethernet interface view

Layer 3 Ethernet interface view

Predefined user roles

network-admin

Usage guidelines

If an interface is in loopback state when you execute the `oam remote-loopback reject-request` command, the configuration takes effect when the next loopback starts.

Examples

Configure Ten-GigabitEthernet 1/0/1 to reject the Ethernet OAM remote loopback request from a remote interface.

```
<Sysname> system-view
[Sysname] interface ten-gigabitethernet 1/0/1
[Sysname-Ten-GigabitEthernet1/0/1] oam remote-loopback reject-request
```

oam timer hello

Use `oam timer hello` to configure the Ethernet OAM handshake packet transmission interval.

Use `undo oam timer hello` to restore the default.

Syntax

```
oam timer hello interval
undo oam timer hello
```

Default

An interface uses the global setting.

Views

Layer 2 Ethernet interface view
Layer 3 Ethernet interface view

Predefined user roles

network-admin

Parameters

interval: Specifies the Ethernet OAM handshake packet transmission interval, in steps of 100, in milliseconds. The value range for the *interval* argument is 500 to 5000.

Usage guidelines

After the timeout timer of an Ethernet OAM connection expires, the local OAM entity ages out and terminates its connection with the peer OAM entity. To keep the Ethernet OAM connections stable, set the connection timeout timer to be at least five times the handshake packet transmission interval.

The configuration in interface view takes effect only on the specified interface. For an interface, the configuration in interface view takes precedence.

Examples

Set the Ethernet OAM handshake packet transmission interval to 600 milliseconds on Ten-GigabitEthernet 1/0/1.

```
<Sysname> system-view
[Sysname] interface ten-gigabitethernet 1/0/1
[Sysname-Ten-GigabitEthernet1/0/1] oam timer hello 600
```

Related commands

```
display oam configuration
oam global timer hello
```

oam timer keepalive

Use `oam timer keepalive` to configure the Ethernet OAM connection timeout timer.

Use `undo oam timer keepalive` to restore the default.

Syntax

```
oam timer keepalive interval
undo oam timer keepalive
```

Default

An interface uses the global setting.

Views

Layer 2 Ethernet interface view
Layer 3 Ethernet interface view

Predefined user roles

network-admin

Parameters

interval: Specifies the Ethernet OAM connection timeout timer, in steps of 100, in milliseconds. The value range for the *interval* argument is 1000 to 25000.

Usage guidelines

After the timeout timer of an Ethernet OAM connection expires, the local OAM entity ages out and terminates its connection with the peer OAM entity. To keep the Ethernet OAM connections stable, set the connection timeout timer to be a minimum of five times the handshake packet transmission interval.

The configuration in interface view takes effect only on the specified interface. For an interface, the configuration in interface view takes precedence.

Examples

```
# Set the Ethernet OAM connection timeout timer to 6000 milliseconds on Ten-GigabitEthernet 1/0/1.
<Sysname> system-view
[Sysname] interface ten-gigabitethernet 1/0/1
[Sysname-Ten-GigabitEthernet1/0/1] oam timer keepalive 6000
```

Related commands

```
display oam configuration
oam global timer keepalive
```

reset oam

Use `reset oam` to clear statistics for Ethernet OAM packets and Ethernet OAM link error events.

Syntax

```
reset oam [ interface interface-type interface-number ]
```

Views

User view

Predefined user roles

network-admin

Parameters

interface *interface-type interface-number*: Specifies an interface by its type and number. If you do not specify an interface, the command clears statistics for Ethernet OAM packets and Ethernet OAM link error events for all interfaces.

Examples

```
# Clear statistics for Ethernet OAM packets and Ethernet OAM link error events for all interfaces.  
<Sysname> reset oam
```

Related commands

```
display oam
```

```
display oam link-event
```