

Ethernet OAM Commands

This module provides command line interface (CLI) commands for configuring Ethernet Operations, Administration, and Maintenance (EOAM) on the Cisco NCS 6000 Series Router.

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action capabilities-conflict

To configure what action is taken on an interface when a capabilities-conflict event occurs, use the **action capabilities-conflict** command in Ethernet OAM configuration mode or interface Ethernet OAM configuration mode. To return to the default, use the **no** form of this command.

action capabilities-conflict {disable| efd | error-disable-interface| log}

no action capabilities-conflict {disable| efd | error-disable-interface| log}

Syntax Description	disable	Performs no action on the interface when a capabilities-conflict event occurs.
	efd	Puts the line protocol into the down state for an interface when a capabilities-conflict event occurs. The state is removed when the first packet is received without a conflict.
	error-disable-interface	Puts the interface into the error-disable state when a capabilities-conflict event occurs.
	log	(Interface Ethernet OAM configuration only) Creates a syslog entry when a capabilities-conflict event occurs. This action is available only in interface Ethernet OAM configuration mode to override the OAM profile on a specific interface.
Command Default	The default action is to	create a syslog entry.
Command Modes	Ethernet OAM configur Interface Ethernet OAM	ation (config-eoam) I configuration (config-if-eoam)
Command History	Release	Modification
	Release 5.0.0	This command was introduced.
Usage Guidelines	To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.	
Task ID	Task ID	Operations
	ethernet-services	read, write

The following example shows how to configure that no action is performed on the interface when a capabilities-conflict event occurs.

```
RP/0/RP0/CPU0:router# configure
RP/0/RP0/CPU0:router(config)# ethernet oam profile Profile 1
RP/0/RP0/CPU0:router(config-eoam)# action capabilities-conflict disable
```

The following example shows how to configure putting the interface into the line-protocol-down state when a capabilities-conflict event occurs.

```
RP/0/RP0/CPU0:router# configure
RP/0/RP0/CPU0:router(config)# ethernet oam profile Profile 1
RP/0/RP0/CPU0:router(config-eoam)# action capabilities-conflict efd
```

The following example shows how to configure that the interface is put into the error-disable state when a capabilities-conflict event occurs.

```
RP/0/RP0/CPU0:router# configure
RP/0/RP0/CPU0:router(config)# ethernet oam profile Profile 1
RP/0/RP0/CPU0:router(config-eoam)# action capabilities-conflict error-disable-interface
```

The following example shows how to configure that a syslog entry is created when a capabilities-conflict event occurs. This configuration overrides the interface Ethernet OAM profile.

```
RP/0/RP0/CPU0:router# configure
RP/0/RP0/CPU0:router(config)# interface gigabitethernet 0/1/0/0
RP/0/RP0/CPU0:router(config-if)# ethernet oam
RP/0/RP0/CPU0:router(config-if-eoam)# action capabilities-conflict log
```

Related Commands	Command	Description
	ethernet oam profile, on page 30	Creates an EOAM profile and enters EOAM configuration mode.
	ethernet oam, on page 27	Enables Ethernet Link OAM, with default values, on an interface and enter interface Ethernet OAM configuration mode.
	profile (EOAM), on page 49	Attaches an Ethernet OAM profile to an interface.

action critical-event

To configure what action is taken on an interface when a critical-event notification is received from the remote Ethernet OAM peer, use the **action critical-event** command in Ethernet OAM configuration mode or interface Ethernet OAM configuration mode. To return to the default, use the **no** form of this command.

action critical-event {disable| error-disable-interface| log}

no action critical-event {disable| error-disable-interface| log}

Syntax Description	disable	Performs no action on the interface when a critical-event notification is received.
	error-disable-interface	Puts the interface into the error-disable state when a critical-event notification is received.
	log	(Interface Ethernet OAM configuration only) Creates a syslog entry when a critical-event notification is received. This action is available only in interface Ethernet OAM configuration mode to override the OAM profile on a specific interface.
Command Default	The default action is to cr	reate a syslog entry.
Command Modes	Ethernet OAM configura	
	Interface Ethernet OAM	configuration (config-if-eoam)
Command History	Release	Modification
	Release 5.0.0	This command was introduced.
Usage Guidelines	To use this command, you must be in a user group associated with a task group that includes appropriate tas IDs. If the user group assignment is preventing you from using a command, contact your AAA administrate for assistance.	
Task ID	Task ID	Operations
IASK ID	THORE	

The following example shows how to configure that no action is performed on the interface when a critical-event notification is received.

```
RP/0/RP0/CPU0:router# configure
RP/0/RP0/CPU0:router(config)# ethernet oam profile Profile_1
RP/0/RP0/CPU0:router(config-eoam)# action critical-event disable
```

The following example shows how to configure that the interface is put into the error-disable state when a critical-event notification is received.

```
RP/0/RP0/CPU0:router# configure
RP/0/RP0/CPU0:router(config)# ethernet oam profile Profile_1
RP/0/RP0/CPU0:router(config-eoam)# action critical-event error-disable-interface
```

The following example shows how to configure that a syslog entry is created when a critical-event notification is received. This configuration overrides the interface Ethernet OAM profile.

```
RP/0/RP0/CPU0:router# configure
RP/0/RP0/CPU0:router(config)# interface gigabitethernet 0/1/0/0
RP/0/RP0/CPU0:router(config-if)# ethernet oam
RP/0/RP0/CPU0:router(config-if-eoam)# action critical-event log
```

Related Commands	Command	Description
	ethernet oam profile, on page 30	Creates an EOAM profile and enters EOAM configuration mode.
	ethernet oam, on page 27	Enables Ethernet Link OAM, with default values, on an interface and enter interface Ethernet OAM configuration mode.
	profile (EOAM), on page 49	Attaches an Ethernet OAM profile to an interface.

action discovery-timeout

To configure what action is taken on an interface when a connection timeout occurs, use the **action discovery-timeout** command in Ethernet OAM configuration mode or interface Ethernet OAM configuration mode. To return to the default, use the **no** form of this command.

action discovery-timeout {disable| efd error-disable-interface| log}

no action discovery-timeout {disable| efd error-disable-interface| log}

Syntax Description	disable	Performs no action on the interface when a connection timeout occurs.
	efd	Puts the line protocol into the down state for an interface when a connection timeout occurs. The state is removed when the session is re-established.
	error-disable-interface	Puts the interface into the error-disable state when a connection timeout occurs.
	log	(Interface Ethernet OAM configuration only) Creates a syslog entry when a connection timeout occurs. This action is available only in interface Ethernet OAM configuration mode to override the OAM profile on a specific interface.
Command Default	The default action is to	create a syslog entry.
Command Modes	Ethernet OAM configuration (config-eoam) Interface Ethernet OAM configuration (config-if-eoam)	
Command History	Release	Modification
	Release 5.0.0	This command was introduced.
	To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.	
Usage Guidelines	IDs. If the user group as	
Usage Guidelines Task ID	IDs. If the user group as	

The following example shows how to configure that no action is performed on the interface when a connection timeout occurs.

RP/0/RP0/CPU0:router# configure
RP/0/RP0/CPU0:router(config)# ethernet oam profile Profile_1
RP/0/RP0/CPU0:router(config-eoam)# action discovery-timeout disable
The following example shows how to configure putting the interface into the line-protocol-down state when
a connection timeout occurs.

```
RP/0/RP0/CPU0:router# configure
RP/0/RP0/CPU0:router(config)# ethernet oam profile Profile_1
RP/0/RP0/CPU0:router(config-eoam)# action discovery-timeout efd
```

The following example shows how to configure that the interface is put into the error-disable state when a connection timeout occurs.

```
RP/0/RP0/CPU0:router# configure
RP/0/RP0/CPU0:router(config)# ethernet oam profile Profile_1
RP/0/RP0/CPU0:router(config-eoam)# action discovery-timeout error-disable-interface
```

The following example shows how to configure that a syslog entry is created when a connection timeout occurs. This configuration overrides the interface Ethernet OAM profile.

```
RP/0/RP0/CPU0:router# configure
RP/0/RP0/CPU0:router(config)# interface gigabitethernet 0/1/0/0
RP/0/RP0/CPU0:router(config-if)# ethernet oam
RP/0/RP0/CPU0:router(config-if-eoam)# action discovery-timeout log
```

Related Commands	Command	Description
	ethernet oam profile, on page 30	Creates an EOAM profile and enters EOAM configuration mode.
	ethernet oam, on page 27	Enables Ethernet Link OAM, with default values, on an interface and enter interface Ethernet OAM configuration mode.
	profile (EOAM), on page 49	Attaches an Ethernet OAM profile to an interface.

action dying-gasp

To configure what action is taken on an interface when a dying-gasp notification is received from the remote Ethernet OAM peer, use the **action dying-gasp** command in Ethernet OAM configuration mode or interface Ethernet OAM configuration mode. To return to the default, use the **no** form of this command.

action dying-gasp {disable| error-disable-interface| log}

no action dying-gasp {disable| error-disable-interface| log}

Syntax Description	disable	Performs no action on the interface when a dying-gasp notification is received.
	error-disable-interface	Puts the interface into the error-disable state when a dying-gasp notification is received.
	log	(Interface Ethernet OAM configuration only) Creates a syslog entry when a dying-gasp notification is received. This action is available only in interface Ethernet OAM configuration mode to override the OAM profile on a specific interface.
Command Default	The default action is to cr	reate a syslog entry.
Command Modes	Ethernet OAM configura	tion (config-eoam)
	Interface Ethernet OAM	configuration (config-if-eoam)
Command History	Release	Modification
	Release 5.0.0	This command was introduced.
Usage Guidelines	To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrato for assistance.	
		Onevertiene
Task ID	Task ID	Operations

The following example shows how to configure that no action is performed on the interface when a dying-gasp notification is received.

```
RP/0/RP0/CPU0:router# configure
RP/0/RP0/CPU0:router(config)# ethernet oam profile Profile_1
RP/0/RP0/CPU0:router(config-eoam)# action dying-gasp disable
```

The following example shows how to configure that the interface is put into the error-disable state when a dying-gasp notification is received.

```
RP/0/RP0/CPU0:router# configure
RP/0/RP0/CPU0:router(config)# ethernet oam profile Profile_1
RP/0/RP0/CPU0:router(config-eoam)# action dying-gasp error-disable-interface
```

The following example shows how to configure that a syslog entry is created when a dying-gasp notification is received. This configuration overrides the interface Ethernet OAM profile.

```
RP/0/RP0/CPU0:router# configure
RP/0/RP0/CPU0:router(config)# interface gigabitethernet 0/1/0/0
RP/0/RP0/CPU0:router(config-if)# ethernet oam
RP/0/RP0/CPU0:router(config-if-eoam)# action dying-gasp log
```

Related Commands	Command	Description
	ethernet oam profile, on page 30	Creates an EOAM profile and enters EOAM configuration mode.
	ethernet oam, on page 27	Enables Ethernet Link OAM, with default values, on an interface and enter interface Ethernet OAM configuration mode.
	profile (EOAM), on page 49	Attaches an Ethernet OAM profile to an interface.

action high-threshold

To configure what action is taken on an interface when a high threshold is exceeded, use the **action high-threshold** command in Ethernet OAM configuration mode or interface Ethernet OAM configuration mode. To return to the default, use the **no** form of this command.

action high-threshold {disable| error-disable-interface| log}

no action high-threshold {disable| error-disable-interface| log}

Syntax Description	disable	(Interface Ethernet OAM configuration only) Performs no action on the interface when a high threshold is exceeded.
	error-disable-interface	Puts the interface into the error-disable state when a high threshold is exceeded.
	log	Creates a syslog entry when a high threshold is exceeded. This action is available only in interface Ethernet OAM configuration mode to override the OAM profile on a specific interface.
Command Default	The default is that no activ	on is taken when a high threshold is exceeded.
Command Modes	Ethernet OAM configurat	ion (config-eoam)
	Interface Ethernet OAM o	configuration (config-if-eoam)
Command History	Interface Ethernet OAM o	configuration (config-if-eoam) Modification
Command History		
Command History Usage Guidelines	Release Release 5.0.0 To use this command, you	Modification This command was introduced.
	Release Release 5.0.0 To use this command, you IDs. If the user group assi	Modification This command was introduced. a must be in a user group associated with a task group that includes appropriate task

The following example shows how to configure that a syslog entry is created on the interface when a high threshold is exceeded.

```
RP/0/RP0/CPU0:router# configure
RP/0/RP0/CPU0:router(config)# ethernet oam profile Profile_1
RP/0/RP0/CPU0:router(config-eoam)# action high-threshold log
```

The following example shows how to configure that the interface is put into the error-disable state when a high threshold is exceeded.

```
RP/0/RP0/CPU0:router# configure
RP/0/RP0/CPU0:router(config)# ethernet oam profile Profile_1
RP/0/RP0/CPU0:router(config-eoam)# action high-threshold error-disable-interface
```

The following example shows how to configure that no action is taken when a high threshold is exceeded. This configuration overrides the Ethernet OAM profile configuration.

```
RP/0/RP0/CPU0:router# configure
RP/0/RP0/CPU0:router(config)# interface gigabitethernet 0/1/0/0
RP/0/RP0/CPU0:router(config-if)# ethernet oam
RP/0/RP0/CPU0:router(config-if-eoam)# action high-threshold disable
```

Related Commands	Command	Description
	ethernet oam profile, on page 30	Creates an EOAM profile and enters EOAM configuration mode.
	ethernet oam, on page 27	Enables Ethernet Link OAM, with default values, on an interface and enter interface Ethernet OAM configuration mode.
	profile (EOAM), on page 49	Attaches an Ethernet OAM profile to an interface.

action remote-loopback

To configure what action is taken on an interface when a remote-loopback event occurs, use the **action remote-loopback** command in Ethernet OAM configuration mode or interface Ethernet OAM configuration mode. To return to the default, use the **no** form of this command.

action remote-loopback {disable| log}

no action remote-loopback {disable| log}

Cuntov Deservition		
Syntax Description	disable	Performs no action on the interface when a remote-loopback event occurs.
	log	(Interface Ethernet OAM configuration only) Creates a syslog entry when a remote-loopback event occurs. This action is available only in interface Ethernet OAM configuration mode to override the OAM profile on a specific interface.
Command Default	The default action	n is to create a syslog entry.
Command Modes	Ethernet OAM co	onfiguration (config-eoam)
	Interface Ethernet	t OAM configuration (config-if-eoam)
Command History	Release	Modification
	Release 5.0.0	This command was introduced.
Usage Guidelines	To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.	
Task ID	Task ID	Operations
	ethernet-services	read, write
Examples	The following exa remote-loopback	ample shows how to configure that no action is performed on the interface when a event occurs.
		couter# configure couter(config)# ethernet oam profile Profile_1

RP/0/RP0/CPU0:router(config-eoam) # action remote-loopback disable

The following example shows how to configure that a syslog entry is created when a remote-loopback event occurs. This configuration overrides the interface Ethernet OAM profile.

```
RP/0/RP0/CPU0:router# configure
RP/0/RP0/CPU0:router(config)# interface gigabitethernet 0/1/0/0
RP/0/RP0/CPU0:router(config-if)# ethernet oam
RP/0/RP0/CPU0:router(config-if-eoam)# action remote-loopback log
```

Related Commands

Command	Description
ethernet oam profile, on page 30	Creates an EOAM profile and enters EOAM configuration mode.
ethernet oam, on page 27	Enables Ethernet Link OAM, with default values, on an interface and enter interface Ethernet OAM configuration mode.
profile (EOAM), on page 49	Attaches an Ethernet OAM profile to an interface.

action session-down

To configure what action is taken on an interface when an Ethernet OAM session goes down, use the **action session-down** command in Ethernet OAM configuration mode or interface Ethernet OAM configuration mode. To return to the default, use the **no** form of this command.

action session-down {disable| efd | error-disable-interface| log}

no action session-down {disable| efd | error-disable-interface| log}

Syntax Description	disable	Performs no action on the interface when a capabilities-conflict event occurs.
	efd	Puts the line protocol into the down state for an interface when a capabilities-conflict event occurs. The state is removed when the first packet is received without a conflict.
	error-disable-interface	Puts the interface into the error-disable state when a capabilities-conflict event occurs.
	log	(Interface Ethernet OAM configuration only) Creates a syslog entry when a capabilities-conflict event occurs. This action is available only in interface Ethernet OAM configuration mode to override the OAM profile on a specific interface.
Command Default	The default action is to	create a syslog entry.
Command Modes	Ethernet OAM configur	ration (config-eoam)
	Interface Ethernet OAM	I configuration (config-if-eoam)
Command History	Release	Modification
	Release 5.0.0	This command was introduced.
Usage Guidelines	To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.	
Task ID	Task ID	Operations
	ethernet-services	read, write
	-	

The following example shows how to configure that no action is performed on the interface when an Ethernet OAM session goes down.

```
RP/0/RP0/CPU0:router# configure
RP/0/RP0/CPU0:router(config)# ethernet oam profile Profile_1
RP/0/RP0/CPU0:router(config-eoam)# action session-down disable
```

The following example shows how to configure putting the interface into the line-protocol-down state when an Ethernet OAM session goes down.

```
RP/0/RP0/CPU0:router# configure
RP/0/RP0/CPU0:router(config)# ethernet oam profile Profile_1
RP/0/RP0/CPU0:router(config-eoam)# action session-down efd
```

The following example shows how to configure that the interface is put into the error-disable state when an Ethernet OAM session goes down.

```
RP/0/RP0/CPU0:router# configure
RP/0/RP0/CPU0:router(config)# ethernet oam profile Profile_1
RP/0/RP0/CPU0:router(config-eoam)# action session-down error-disable-interface
```

The following example shows how to configure that a syslog entry is created when an Ethernet OAM session goes down. This configuration overrides the interface Ethernet OAM profile.

```
RP/0/RP0/CPU0:router# configure
RP/0/RP0/CPU0:router(config)# interface gigabitethernet 0/1/0/0
RP/0/RP0/CPU0:router(config-if)# ethernet oam
RP/0/RP0/CPU0:router(config-if-eoam)# action session-down log
```

Related Commands	Command	Description
	ethernet oam profile, on page 30	Creates an EOAM profile and enters EOAM configuration mode.
	ethernet oam, on page 27	Enables Ethernet Link OAM, with default values, on an interface and enter interface Ethernet OAM configuration mode.
	profile (EOAM), on page 49	Attaches an Ethernet OAM profile to an interface.

action session-up

To configure what action is taken on an interface when an Ethernet OAM session is established, use the **action session-up** command in Ethernet OAM configuration mode or interface Ethernet OAM configuration mode. To return to the default, use the **no** form of this command.

action session-up {disable| log}

no action session-up {disable| log}

Syntax Description	disable	Performs no action on the interface when an Ethernet OAM session is established.
	log	(Interface Ethernet OAM configuration only) Creates a syslog entry when an Ethernet OAM session is established. This action is available only in interface Ethernet OAM configuration mode to override the OAM profile on a specific interface.
Command Default	The default action	n is to create a syslog entry.
Command Modes	Ethernet OAM co	onfiguration (config-eoam)
	Interface Etherne	t OAM configuration (config-if-eoam)
0		
Command History	Release	Modification
	Release 5.0.0	This command was introduced.
Usage Guidelines	To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.	
Task ID	Task ID	Operations
	ethernet-services	read, write
Examples	The following exa OAM session is e	ample shows how to configure that no action is performed on the interface when an Ethernet
		router# configure router(config)# ethernet oam profile Profile_1

RP/0/RP0/CPU0:router(config-eoam) # action session-up disable

The following example shows how to configure that a syslog entry is created when an Ethernet OAM session is established. This configuration overrides the interface Ethernet OAM profile.

```
RP/0/RP0/CPU0:router# configure
RP/0/RP0/CPU0:router(config)# interface gigabitethernet 0/1/0/0
RP/0/RP0/CPU0:router(config-if)# ethernet oam
RP/0/RP0/CPU0:router(config-if-eoam)# action session-up log
```

Related Commands

Command	Description
ethernet oam profile, on page 30	Creates an EOAM profile and enters EOAM configuration mode.
ethernet oam, on page 27	Enables Ethernet Link OAM, with default values, on an interface and enter interface Ethernet OAM configuration mode.
profile (EOAM), on page 49	Attaches an Ethernet OAM profile to an interface.

action uni-directional link-fault

To configure what action is taken on an interface when a link-fault notification is received from the remote Ethernet OAM peer, use the **action uni-directional link-fault** command in Ethernet OAM configuration mode or interface Ethernet OAM configuration mode. To return to the default, use the **no** form of this command.

 $action \ uni-directional \ link-fault \ \{disable| \ efd \ | \ \ error-disable-interface| \ log\}$

no action uni-directional link-fault {disable| efd | error-disable-interface| log}

Syntax Description	disable	Performs no action on the interface when a capabilities-conflict event occurs.
	efd	Puts the line protocol into the down state for an interface when a capabilities-conflict event occurs. The state is removed when the first packet is received without a conflict.
	error-disable-interface	Puts the interface into the error-disable state when a capabilities-conflict event occurs.
	log	(Interface Ethernet OAM configuration only) Creates a syslog entry when a capabilities-conflict event occurs. This action is available only in interface Ethernet OAM configuration mode to override the OAM profile on a specific interface.
Command Default	The default action is to o	create a syslog entry.
Command Modes	Ethernet OAM configuration (config-eoam) Interface Ethernet OAM configuration (config-if-eoam)	
Command History	Release	Modification
	Release 5.0.0	This command was introduced.
Usage Guidelines	IDs. If the user group as for assistance. This command only dete	ou must be in a user group associated with a task group that includes appropriate task signment is preventing you from using a command, contact your AAA administrator ermines the action taken when a uni-directional link fault notification is received from ct the action taken when a fault is detected locally.

Task ID	Task ID	Operations	
	ethernet-services	read, write	
Examples	The following example shows how to c notification is received.	configure that no action is performed on the interface when a link-fault	
	RP/0/RP0/CPU0:router# configure RP/0/RP0/CPU0:router(config)# ethernet oam profile Profile_1 RP/0/RP0/CPU0:router(config-eoam)# action uni-directional link-fault disable		
	The following example shows how to configure putting the interface into the line-protocol-down state when a link-fault notification is received.		
	RP/0/RP0/CPU0:router# configure RP/0/RP0/CPU0:router(config)# ethernet oam profile Profile_1 RP/0/RP0/CPU0:router(config-eoam)# action uni-directional link-fault efd		
	The following example shows how to configure that the interface is put into the error-disable state when a link-fault notification is received.		
	RP/0/RP0/CPU0:router# configure RP/0/RP0/CPU0:router(config)# ethernet oam profile Profile_1 RP/0/RP0/CPU0:router(config-eoam)# action uni-directional link-fault error-disable-interface		
	The following example shows how to configure that a syslog entry is created when a link-fault notification is received. This configuration overrides the interface Ethernet OAM profile.		
	<pre>RP/0/RP0/CPU0:router# configure RP/0/RP0/CPU0:router(config)# in RP/0/RP0/CPU0:router(config-if)# RP/0/RP0/CPU0:router(config-if-e</pre>		
Related Commands	Command	Description	
	ethernet oam profile, on page 30	Creates an EOAM profile and enters EOAM configuration mode.	
	ethernet oam, on page 27	Enables Ethernet Link OAM, with default values, on an interface and enter interface Ethernet OAM configuration mode.	
	profile (EOAM), on page 49	Attaches an Ethernet OAM profile to an interface.	

action wiring-conflict

To configure what action is taken on an interface when a wiring-conflict event occurs, use the **action** wiring-conflict command in Ethernet OAM configuration mode or interface Ethernet OAM configuration mode. To return to the default, use the **no** form of this command.

action wiring-conflict {disable| efd | error-disable-interface| log}

no action wiring-conflict {disable| efd | error-disable-interface| log}

Syntax Description	disable	Performs no action on the interface when a capabilities-conflict event occurs.
	efd	Puts the line protocol into the down state for an interface when a capabilities-conflict event occurs. The state is removed when the first packet is received without a conflict.
	error-disable-interface	Puts the interface into the error-disable state when a capabilities-conflict event occurs.
	log	(Interface Ethernet OAM configuration only) Creates a syslog entry when a capabilities-conflict event occurs. This action is available only in interface Ethernet OAM configuration mode to override the OAM profile on a specific interface.
Command Default	The default action is to p	put the interface into error-disable state.
Command Modes	Ethernet OAM configur Interface Ethernet OAM	ation (config-eoam) I configuration (config-if-eoam)
Command History	Release	Modification
	Release 5.0.0	This command was introduced.
Usage Guidelines	To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.	
Task ID	Task ID	Operations
	ethernet-services	read, write

The following example shows how to configure that no action is performed on the interface when a wiring-conflict event occurs.

```
RP/0/RP0/CPU0:router# configure
RP/0/RP0/CPU0:router(config)# ethernet oam profile Profile 1
RP/0/RP0/CPU0:router(config-eoam)# action wiring-conflict disable
```

The following example shows how to configure putting the interface into the line-protocol-down state when a wiring-conflict event occurs.

```
RP/0/RP0/CPU0:router# configure
RP/0/RP0/CPU0:router(config)# ethernet oam profile Profile_1
RP/0/RP0/CPU0:router(config-eoam)# action wiring-conflict efd
```

The following example shows how to configure that a syslog entry is created when a wiring-conflict event occurs.

```
RP/0/RP0/CPU0:router# configure
RP/0/RP0/CPU0:router(config)# ethernet oam profile Profile 1
RP/0/RP0/CPU0:router(config-eoam)# action wiring-conflict log
```

The following example shows how to configure that the interface is put into the error-disable state when a wiring-conflict event occurs. This configuration overrides the interface Ethernet OAM profile.

```
RP/0/RP0/CPU0:router# configure
RP/0/RP0/CPU0:router(config)# interface gigabitethernet 0/1/0/0
RP/0/RP0/CPU0:router(config-if)# ethernet oam
(config-if-eoam)# action wiring-conflict error-disable-interface
```

Related Commands	Command	Description
	ethernet oam profile, on page 30	Creates an EOAM profile and enters EOAM configuration mode.
	ethernet oam, on page 27	Enables Ethernet Link OAM, with default values, on an interface and enter interface Ethernet OAM configuration mode.
	profile (EOAM), on page 49	Attaches an Ethernet OAM profile to an interface.

clear ethernet oam statistics

To clear the packet counters on Ethernet OAM interfaces, use the **clear ethernet oam statistics** command in EXEC mode.

clear ethernet oam statistics [interface type interface-path-id] location node-id all]

Syntax Description		
Syntax Description	interface type interface-path-id	(Optional) Physical interface or virtual interface.
		Note Use the show interfaces command to see a list of all interfaces currently configured on the router.
		For more information about the syntax for the router, use the question mark (?) online help function.
	location	Clears the statistics for a specific node.
		For more information about the syntax for the router, use the question mark (?) online help function.
	node-id	Path ID of the node.
	all	Clears the statistics for all nodes on the router.
Command Default Command Modes	No parameters clears the XR EXEC	e packet counters on all Ethernet OAM interfaces.
Command History	Release	Modification
	Release 5.0.0	This command was introduced.
Usage Guidelines		ou must be in a user group associated with a task group that includes appropriate task signment is preventing you from using a command, contact your AAA administrator

Task ID	Task ID	Operations
	ethernet-services	execute

Examples The following example shows how to clear the packet counters on a specific interface:

RP/0/RP0/CPU0:router# clear ethernet oam statistics interface gigabitethernet 0/1/5/1

Related Commands	Command	Description
	show ethernet oam statistics, on page 64	Displays the local and remote Ethernet OAM statistics for interfaces.
	show ethernet oam interfaces, on page 61	

connection timeout

To configure the timeout value for an Ethernet OAM session, use the **connection timeout** command in Ethernet OAM configuration mode.

connection timeout seconds

Syntax Description	seconds	Connection timeout period in seconds. The range is 2 to 30.
Command Default	The default value is 5.	
Command Modes	Ethernet OAM configur	ration (config-eoam)
	Interface Ethernet OAM	A configuration (config-if-eoam)
Command History	Release	Modification
	Release 5.0.0	This command was introduced.
Usage Guidelines	To use this command, you must be in a user group associated with a task group that includes appropria IDs. If the user group assignment is preventing you from using a command, contact your AAA admini for assistance. If no packets are received from the OAM peer in the specified time, the OAM session is brought dow the negotiation phase starts again.	
Task ID	Task ID	Operations
	ethernet-services	read, write
Examples	The following example	shows how to configure the connection timeout value of an Ethernet OAM session:
		c# configure c(config)# ethernet oam profile Profile_1 c(config-eoam)# connection timeout 20

Related Commands

Command	Description
action discovery-timeout, on page 7	Configures what action is taken on an interface when a connection timeout occurs.
ethernet oam, on page 27	Enables Ethernet Link OAM, with default values, on an interface and enter interface Ethernet OAM configuration mode.
ethernet oam profile, on page 30	Creates an EOAM profile and enters EOAM configuration mode.
show ethernet oam configuration, on page 55	Displays the current active Ethernet OAM configuration on an interface.
show ethernet oam discovery, on page 58	Displays the currently configured OAM information of Ethernet OAM sessions on interfaces.
show ethernet oam interfaces, on page 61	

ethernet oam

To enable Ethernet Link OAM, with default values, on an interface and enter interface Ethernet OAM configuration mode, use the **ethernet oam** command in interface configuration mode. To disable Ethernet Link OAM, use the **no** form of this command.

ethernet oam

no ethernet oam

Syntax Description This command has no keywords or arguments.

Command Default When enabled on an interface, the Ethernet Link OAM default values apply.

Command Modes Interface configuration (config-if)

Command History	Release	Modification
	Release 5.0.0	This command was introduced.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.

When you enable Ethernet Link OAM on an interface, the default Ethernet Link OAM values are applied to the interface. For the default Ethernet Link OAM values, see the related Ethernet Link OAM commands.

Task ID	Task ID	Operations
	ethernet-services	read, write

Examples The following example shows how to enable Ethernet Link OAM and enter interface Ethernet OAM configuration mode.

```
RP/0/RP0/CPU0:router# configure
RP/0/RP0/CPU0:router(config)# interface gigabitethernet 0/1/5/6
RP/0/RP0/CPU0:router(config-if)# ethernet oam
RP/0/RP0/CPU0:router(config-if-eoam)#
```

ethernet oam loopback

To start or stop a loopback at the remote end of an Ethernet OAM interface, use the **ethernet oam loopback** command in EXEC mode.

ethernet oam loopback {enable| disable} type interface-path-id

Syntax Description	enable	Starts a loopback at the remote end.
	disable	Stops the loopback at the remote end.
	type	Interface type. For more information, use the question mark (?) online help function.
	interface-path-id	Physical interface or virtual interface.
		Note Use the show interfaces command to see a list of all interfaces currently configured on the router.For more information about the syntax for the router, use the question mark (?) online help function.

Command Default Loopback is not enabled.

Command Modes XR EXEC

Command History	Release	Modification
	Release 5.0.0	This command was introduced.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.

This command puts the remote peer device into loopback mode. This means that all traffic sent to the peer is looped back, which means that it is sent back from the peer and received by the router. All traffic received from the peer device is discarded.

This command returns when the OAM client receives confirmation from the remote end that the remote loopback has been enabled or disabled. If no response or a failure response is received, an error is returned.

Task ID	Task ID	Operations
	ethernet-services	execute
Examples	The following example shows how to start a loc RP/0/RP0/CPU0:router# ethernet oam looph	opback at the far end of an Ethernet OAM interface. Dack enable tengigabitethernet 0/6/1/0
Related Commands	Command	Description
Related Commands	Command remote-loopback	Description Enables a remote loopback on the far end of an Ethernet OAM interface.
Related Commands		Enables a remote loopback on the far end of an Ethernet
Related Commands	remote-loopback	Enables a remote loopback on the far end of an Ethernet OAM interface. Configures what action is taken on an interface when a remote-loopback event occurs.

ethernet oam profile

To create an Ethernet Operations, Administration and Maintenance (EOAM) profile and enter EOAM configuration mode, use the **ethernet oam profile** command in XR Config mode. To delete an EOAM profile, use the **no** form of this command.

ethernet oam profile profile-name

no ethernet oam profile profile-name

Syntax Description	profile-name	Text string name of the OAM profile. The maximum length is 32 bytes.
Command Default	No default behavior or v	alues
Command Modes	XR config	
Command History	Release	Modification
	Release 5.0.0	This command was introduced.
Usage Guidelines	IDs. If the user group ass for assistance.	ou must be in a user group associated with a task group that includes appropriate task signment is preventing you from using a command, contact your AAA administrator EOAM profile, you must remove the profile from all interfaces to which it is attached.
Task ID	Task ID	Operations
	ethernet-services	read, write
Examples	-	v to create an Ethernet OAM profile and enter Ethernet OAM configuration mode: (config) # ethernet oam profile Profile_1 (config-eoam) #

frame-period threshold

To configure the thresholds that trigger an Ethernet OAM frame-period error event, use the **frame-period threshold** command in Ethernet OAM link monitor or interface Ethernet OAM link monitor configuration mode. To return the threshold to the default value, use the **no** form of this command.

frame-period threshold low threshold [high threshold]

no frame-period threshold low threshold [high threshold]

Syntax Description	low threshold	Low threshold, in frames, that triggers a frame-period error event. The range is 0 to 1000000.
	high threshold	(Optional) High threshold, in frames, that triggers a frame-period error event. The range is 0 to 1000000. The high threshold value can be configured only in conjunction with the low threshold value.
Command Default	The default low thresh	nold is 1.
Command Modes	Ethernet OAM link m	onitor configuration (config-eoam-lm)
	Interface Ethernet OA	M link monitor configuration (config-if-eoam-lm)
Command History	Release	Modification
	Release 5.0.0	This command was introduced.
Usage Guidelines		you must be in a user group associated with a task group that includes appropriate task assignment is preventing you from using a command, contact your AAA administrator
	OAM peer. Additional (CFM), are also notified	Id is passed, a frame-period error event notification is generated and transmitted to the lly, any registered higher level OAM protocols, such as Connectivity Fault Management ed. When the high threshold is passed, the configured high threshold action is performed threshold actions. The high threshold is optional and is configurable only in conjunction 1.
Task ID	Task ID	Operations
	ethernet-services	read, write

The following example shows how to configure the low and high thresholds that trigger a frame-period error event.

RP/0/RP0/CPU0:router(config) # ethernet oam profile Profile_1 RP/0/RP0/CPU0:router(config-eoam) # link-monitor RP/0/RP0/CPU0:router(config-eoam-lm) # frame-period threshold low 100 high 600000

frame-period window

To configure the window size for an Ethernet OAM frame-period error event, use the **frame-period window** command in Ethernet OAM link monitor or interface Ethernet OAM link monitor configuration mode. To return the window size to the default value, use the **no** form of this command.

frame-period window window

no frame-period window window

Syntax Description	window	Size of the window for a frame-period error in milliseconds. The range is 100 to 60000.
Command Default	The default value is 1	000.
Command Modes	Ethernet OAM link n	nonitor configuration (config-eoam-lm)
	Interface Ethernet OA	AM link monitor configuration (config-if-eoam-lm)
Command History	Release	Modification
	Release 5.0.0	This command was introduced.
Usage Guidelines		, you must be in a user group associated with a task group that includes appropriate task assignment is preventing you from using a command, contact your AAA administrator
Task ID	Task ID	Operations
	ethernet-services	read, write
Examples	RP/0/RP0/CPU0:rout RP/0/RP0/CPU0:rout	ble shows how to configure the window size for a frame-period error. ter (config) # ethernet oam profile Profile_1 ter (config-eoam) # link-monitor ter (config-eoam-lm) # frame-period window 60000

frame-seconds threshold

To configure the thresholds that trigger a frame-seconds error event, use the **frame-seconds threshold** command in Ethernet OAM link monitor or interface Ethernet OAM link monitor configuration mode. To return the threshold to the default value, use the **no** form of this command.

frame-seconds threshold low threshold [high threshold]

no frame-seconds threshold low threshold [high threshold]

Syntax Description	low threshold	Low threshold, in seconds, that triggers a frame-seconds error event. The range is 0 to 900.
	high threshold	(Optional) High threshold, in seconds, that triggers a frame-seconds error event. The range is 1 to 900. The high threshold value can be configured only in conjunction with the low threshold value.
Command Default	The default value is 1.	
Command Modes	Ethernet OAM link m	onitor configuration (config-eoam-lm)
	Interface Ethernet OA	M link monitor configuration (config-if-eoam-lm)
Command History		
communa motory	Release	Modification
	Release 5.0.0	This command was introduced.
Usage Guidelines		you must be in a user group associated with a task group that includes appropriate task assignment is preventing you from using a command, contact your AAA administrator
	the OAM peer. Additi Management (CFM), a	ld is passed, a frame-seconds error event notification is generated and transmitted to onally, any registered higher level OAM protocols, such as Connectivity Fault are also notified. When the high threshold is passed, the configured high threshold action on to the low threshold actions. The high threshold is optional and is configurable only e low threshold.
Task ID	Task ID	Operations
	ethernet-services	read, write

Examples The following example shows how to configure the low and high thresholds that trigger a frame-seconds error event:

```
RP/0/RP0/CPU0:router(config) # ethernet oam profile Profile_1
RP/0/RP0/CPU0:router(config-eoam) # link-monitor (config-eoam) # link-monitor
RP/0/RP0/CPU0:router(config-eoam-lm) # frame-seconds threshold low 10 high 900
```

Related Commands

Command	Description
ethernet oam profile, on page 30	Creates an EOAM profile and enters EOAM configuration mode.
link-monitor, on page 42	Enters Ethernet OAM link monitor configuration mode.

frame-seconds window

To configure the window size for the OAM frame-seconds error event, use the **frame-seconds window** command in Ethernet OAM link monitor or interface Ethernet OAM link monitor configuration mode. To return the window size to the default value, use the **no** form of this command.

frame-seconds window window

no frame-seconds window window

Syntax Description	window	Size of the window for a frame-seconds error in milliseconds. The range is 10000 to 900000.
Command Default	The default value is 6	50000.
Command Modes	Ethernet OAM link n	nonitor configuration (config-eoam-lm)
	Interface Ethernet OA	AM link monitor configuration (config-if-eoam-lm)
Command History	Release	Modification
	Release 5.0.0	This command was introduced.
Usage Guidelines		, you must be in a user group associated with a task group that includes appropriate task assignment is preventing you from using a command, contact your AAA administrator
Task ID	Task ID	Operations
	ethernet-services	read, write
Examples	RP/0/RP0/CPU0:rout	ble shows how to configure the window size for a frame-seconds error.
		cer(config-eoam)# link-monitor cer(config-eoam-lm)# frame-seconds window 900000
Command	Description	
----------------------------------	---	
ethernet oam profile, on page 30	Creates an EOAM profile and enters EOAM configuration mode.	
link-monitor, on page 42	Enters Ethernet OAM link monitor configuration mode.	

frame threshold

To configure the thresholds that triggers an Ethernet OAM frame error event, use the **frame threshold** command in Ethernet OAM link monitor or interface Ethernet OAM link monitor configuration mode. To return the threshold to the default value, use the **no** form of this command.

frame threshold low threshold [high threshold]

no frame threshold low threshold [high threshold]

Syntax Description	low threshold	Low threshold, in symbols, that triggers a frame error event. The range is 0 to 12000000.
	high threshold	(Optional) High threshold, in symbols, that triggers a frame error event. The range is 0 range is 0 to 12000000. The high threshold value can be configured only in conjunction with the low threshold value.
Command Default	The default low thresh	nold is 1.
Command Modes	Ethernet OAM link m	onitor configuration (config-eoam-lm)
	Interface Ethernet OA	M link monitor configuration (config-if-eoam-lm)
Command History	Release	Modification
	Release 5.0.0	This command was introduced.
Usage Guidelines		you must be in a user group associated with a task group that includes appropriate task assignment is preventing you from using a command, contact your AAA administrator
	peer. Additionally, and (CFM), are also notified	Id is passed, a frame error event notification is generated and transmitted to the OAM y registered higher level OAM protocols, such as Connectivity Fault Management ed. When the high threshold is passed, the configured high threshold action is performed threshold actions. The high threshold is optional and is configurable only in conjunction d.
Task ID	Task ID	Operations
	ethernet-services	read, write

Examples The following example shows how to configure the low and high thresholds that trigger a frame error event:

RP/0/RP0/CPU0:router(config)# ethernet oam profile Profile_1
RP/0/RP0/CPU0:router(config-eoam)# link-monitor
RP/0/RP0/CPU0:router(config-eoam-lm)# frame threshold low 100 high 60000

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Command	Description
ethernet oam profile, on page 30	Creates an EOAM profile and enters EOAM configuration mode.
link-monitor, on page 42	Enters Ethernet OAM link monitor configuration mode.

frame window

To configure the frame window size of an OAM frame error event, use the **frame window** command in Ethernet OAM link monitor or interface Ethernet OAM link monitor configuration mode. To return the window size to the default value, use the **no** form of this command.

frame window window

no frame window window

Syntax Description	window	Size of the window for a frame error in seconds. The range is 1000 to 60000.
Command Default	The default value is 1	000.
Command Modes	Ethernet OAM link m	onitor configuration (config-eoam-lm)
	Interface Ethernet OA	M link monitor configuration (config-if-eoam-lm)
Command History	Release	Modification
	Release 5.0.0	This command was introduced.
Usage Guidelines		you must be in a user group associated with a task group that includes appropriate task assignment is preventing you from using a command, contact your AAA administrator
Task ID	Task ID	Operations
	ethernet-services	read, write
Examples	RP/0/RP0/CPU0:rout RP/0/RP0/CPU0:rout	e shows how to configure the window size for a frame error. er(config) # ethernet oam profile Profile_1 er(config-eoam) # link-monitor er(config-eoam-lm) # frame window 60

Command	Description
ethernet oam profile, on page 30	Creates an EOAM profile and enters EOAM configuration mode.
link-monitor, on page 42	Enters Ethernet OAM link monitor configuration mode.

link-monitor

To enter Ethernet OAM link monitor configuration mode, use the **link-monitor** command in Ethernet OAM configuration mode. To enter interface Ethernet OAM link monitor configuration mode, use the **link-monitor** command in interface Ethernet OAM configuration mode.

link-monitor

- **Syntax Description** This command has no keywords or arguments.
- **Command Default** No default behavior or values

 Command Modes
 Ethernet OAM configuration (config-eoam)

 Interface Ethernet OAM configuration (config-if-eoam)

Command History	Release	Modification
	Release 5.0.0	This command was introduced.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.

Task ID	Task ID	Operations
	ethernet-services	read, write

Examples

S This example shows how to enter the Ethernet OAM link monitor configuration mode.

RP/0/RP0/CPU0:router# configure
RP/0/RP0/CPU0:router(config)# ethernet oam profile Profile_1
RP/0/RP0/CPU0:router(config-eoam)# link-monitor
RP/0/RP0/CPU0:router(config-eoam-lm)#

The following example shows how to enter the link monitor configuration mode from interface Ethernet OAM configuration mode.

```
RP/0/RP0/CPU0:router# configure
RP/0/RP0/CPU0:router(config)# interface gigabitethernet 0/1/5/6
RP/0/RP0/CPU0:router(config-if)# ethernet oam
RP/0/RP0/CPU0:router(config-if-eoam)# link-monitor
```

mib-retrieval

To enable MIB retrieval in an Ethernet OAM profile or on an Ethernet OAM interface, use the **mib-retrieval** command in Ethernet OAM or interface Ethernet OAM configuration mode. To return the interface to the default (disabled), use the **disable** keyword.

mib-retrieval [disable]

Syntax Description	disable	Disables MIB retrieval the Ethernet OAM interface.
Command Default	MIB retrieval is disable	d by default.
Command Modes	Ethernet OAM configu	ration (config-eoam)
	Interface Ethernet OAM	A configuration (config-if-eoam)
Command History	Release	Modification
	Release 5.0.0	This command was introduced.
Usage Guidelines	IDs. If the user group as for assistance.When MIB retrieval is retrieval to the peer.When MIB retrieval is of the set of the set	rou must be in a user group associated with a task group that includes appropriate task ssignment is preventing you from using a command, contact your AAA administrator enabled on an Ethernet OAM interface, the OAM client advertises support for MIB disabled (the default), only the enable form of the mib-retrieval command is available AM configuration mode. The disable keyword is provided to override the profile when
Task ID	Task ID	Operations
	ethernet-services	read, write
Examples	The following example	shows how to enable MIB retrieval on a Gigabit Ethernet interface:
		r# configure r(config)# interface gigabitethernet 0/1/5/6 r(config-if)# ethernet oam

RP/0/RP0/CPU0:router(config-if-eoam)# mib-retrieval

reates an EOAM profile and enters EOAM configuration
ode.
nables Ethernet Link OAM, with default values, on an terface and enter interface Ethernet OAM configuration ode.
ttaches an Ethernet OAM profile to an interface.
isplays the current active Ethernet OAM configuration on n interface.

mode (Ethernet OAM)

To configure the Ethernet OAM mode on an interface, use the **mode** command in Ethernet OAM or interface Ethernet OAM configuration mode. To return to the default, use the **no** form of the command.

mode {active| passive}

Syntax Description	passive	Specifies that the interface operates in passive mode, where it cannot initiate the discovery process, generate a retrieval PDU, or request loopback.
	active	(Interface Ethernet OAM configuration only) Specifies that the interface operates in active mode to initiate processes and make requests.
Command Default	The default is activ	/e.
Command Modes	Ethernet OAM cor	nfiguration (config-eoam)
	Interface Ethernet	OAM configuration (config-if-eoam)
Command History	Release	Modification
	Release 5.0.0	This command was introduced.
Usage Guidelines		nd, you must be in a user group associated with a task group that includes appropriate task oup assignment is preventing you from using a command, contact your AAA administrator
	If a profile exists of on an interface.	n the interface, setting the mode with this command overrides the mode setting in the profile
Task ID	Task ID	Operations
	ethernet-services	read, write
Examples	The following exa	mple shows how to enable Ethernet OAM passive mode on a Gigabit Ethernet interface:
	RP/0/RP0/CPU0:ro	outer# configure outer(config)# interface gigabitethernet 0/1/5/6 outer(config-if)# ethernet oam outer(config-if-eoam)# profile Profile_1

RP/0/RP0/CPU0:router(config-if-eoam) # mode passive

Command	Description
ethernet oam profile, on page 30	Creates an EOAM profile and enters EOAM configuration mode.
ethernet oam, on page 27	Enables Ethernet Link OAM, with default values, on an interface and enter interface Ethernet OAM configuration mode.
profile (EOAM), on page 49	Attaches an Ethernet OAM profile to an interface.
show ethernet oam configuration, on page 55	Displays the current active Ethernet OAM configuration on an interface.
show ethernet oam interfaces, on page 61	

monitoring

To enable Ethernet OAM link monitoring, use the **monitoring** command in Ethernet OAM link monitor or interface Ethernet OAM link monitor configuration mode. To return link monitoring to its default state of enabled, use the **no** form of this command.

monitoring [disable]

no monitoring [disable]

Syntax Description	disable	(Optio	nal) Disables Ethernet OAM link monitoring.
		Note	When configuring on a profile, only the monitoring disable form of the command is supported.
Command Default	Link monitoring is	enabled l	by default.
Command Modes	Ethernet OAM lin	k monitor	configuration (config-eoam-lm)
	Interface Ethernet	OAM linl	k monitor configuration (config-if-eoam-lm)
Command History	Release		Modification
	Release 5.0.0		This command was introduced.
Usage Guidelines			nust be in a user group associated with a task group that includes appropriate task ment is preventing you from using a command, contact your AAA administrator
	Monitoring is enab		fault. To disable it either on a profile or an interface, use the monitoring disable
	e		a profile, but you want to override the configuration and enable it for an interface, and in interface Ethernet OAM link monitor configuration mode.
	You cannot config	ure the m	onitoring command without the disable keyword on a profile.
Task ID	Task ID		Operations
	ethernet-services		read, write

Examples

The following example shows how to disable link-monitoring on an Ethernet OAM interface:

```
RP/0/RP0/CPU0:router(config)# ethernet oam profile Profile_1
RP/0/RP0/CPU0:router(config-eoam)# link-monitor
RP/0/RP0/CPU0:router(config-eoam-lm)# monitoring disable
```

tes an EOAM profile and enters EOAM configuration
les Ethernet Link OAM, with default values, on an face and enter interface Ethernet OAM configuration
rs Ethernet OAM link monitor configuration mode.
hes an Ethernet OAM profile to an interface.
ays the current active Ethernet OAM configuration on terface.
lays the local and remote Ethernet OAM statistics for faces.

profile (EOAM)

To attach an Ethernet OAM profile to an interface, use the **profile** command in interface Ethernet OAM configuration mode. To remove the profile from the interface, use the no form of this command.

profile name no profile name **Syntax Description** Text name of the Ethernet OAM profile to attach to the interface. name **Command Default** No profile is attached. **Command Modes** Interface Ethernet OAM configuration (config-if-eoam) **Command History** Release Modification Release 5.0.0 This command was introduced. **Usage Guidelines** To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance. When an Ethernet OAM profile is attached to an interface using this command, all of the parameters configured for the profile are applied to the interface. Individual parameters that are set by the profile configuration can be overridden by configuring them directly on the interface. Task ID Task ID Operations ethernet-services read, write **Examples** The following example shows how to attach an Ethernet OAM profile to a Gigabit Ethernet interface. RP/0/RP0/CPU0:router# configure RP/0/RP0/CPU0:router(config)# interface gigabitethernet 0/1/5/6 RP/0/RP0/CPU0:router(config-if)# ethernet oam RP/0/RP0/CPU0:router(config-if-eoam)# profile Profile 1

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Command	Description
ethernet oam profile, on page 30	Creates an EOAM profile and enters EOAM configuration mode.
ethernet oam, on page 27	Enables Ethernet Link OAM, with default values, on an interface and enter interface Ethernet OAM configuration mode.
show ethernet oam configuration, on page 55	Displays the current active Ethernet OAM configuration on an interface.

require-remote

To require that certain features are enabled before an OAM session can become active, or to disable a requirement that is part of an active OAM profile, use the **require-remote** command in Ethernet OAM configuration or interface Ethernet OAM configuration mode. To remove the configuration and return to the default, use the **no** form of this command.

require-remote {mode {active| passive}| mib-retrieval| remote-loopback| link-monitoring [disabled]} no require-remote {mode {active| passive}| mib-retrieval| remote-loopback| link-monitoring [disabled]}

Syntax Description		
Syntax Description	mode {active passive}	Requires that active or passive mode is configured on the peer device before the OAM profile can become active.
	mib-retrieval	Requires that MIB-retrieval is configured on the peer device before the OAM profile can become active.
	remote-loopback	Requires that remote-loopback is configured on the peer device before the OAM profile can become active.
	link-monitoring	Requires that link-monitoring feature is configured on the peer device before the OAM profile can become active.
	disabled	(Optional—Interface Ethernet OAM configuration only) Overrides the Ethernet OAM profile configuration for this option and disables the feature at the specified interface.
Command Default	No default behavior or valu	es
Command Modes	Ethernet OAM configuratio	on (config-eoam)
	Interface Ethernet OAM co	nfiguration (config-if-eoam)
Command History	Release	Modification
	Release 5.0.0	This command was introduced.
Usage Guidelines	· · ·	nust be in a user group associated with a task group that includes appropriate task ment is preventing you from using a command, contact your AAA administrator
		ailable only when you are configuring Ethernet OAM on an interface, and is used n that is part of an active OAM profile.

The **disabled** keyword does not remove the configuration of the command. Use the **no** form of this command to do that.

Task ID Task ID Operations ethernet-services read, write Examples The following example shows how to require that specific features are enabled before an OAM session can become active RP/0/RP0/CPU0:router# configure RP/0/RP0/CPU0:router(config) # ethernet oam profile Profile_1 RP/0/RP0/CPU0:router(config-eoam) # require-remote mode active RP/0/RP0/CPU0:router(config-eoam) # require-remote mib-retrieval RP/0/RP0/CPU0:router(config-eoam) # require-remote link-monitoring The following example shows how to disable requirements on a particular interface that is part of an active OAM profile: RP/0/RP0/CPU0:router# configure RP/0/RP0/CPU0:router(config) # interface gigabitethernet 0/6/5/0 RP/0/RP0/CPU0:router(config-if)# ethernet oam RP/0/RP0/CPU0:router(config-if-eoam) # require-remote mode active disabled RP/0/RP0/CPU0:router(config-if-eoam) # require-remote mib-retrieval disabled RP/0/RP0/CPU0:router(config-if-eoam) # require-remote link-monitoring disabled

Related Commands		
	Command	Description
	ethernet oam profile, on page 30	Creates an EOAM profile and enters EOAM configuration mode.
	ethernet oam, on page 27	Enables Ethernet Link OAM, with default values, on an interface and enter interface Ethernet OAM configuration mode.
	profile (EOAM), on page 49	Attaches an Ethernet OAM profile to an interface.
	action capabilities-conflict, on page 3	Configures what action is taken on an interface when a capabilities-conflict event occurs.
	show ethernet oam configuration, on page 55	Displays the current active Ethernet OAM configuration on an interface.
	show ethernet oam discovery, on page 58	Displays the currently configured OAM information of Ethernet OAM sessions on interfaces.
	show ethernet oam interfaces, on page 61	

show efd interface

To display all interfaces that are shut down because of Ethernet Fault Detection (EFD), or to display whether a specific interface is shut down because of EFD, use the **show efd interface** command in XR EXEC mode.

show efd interface [type interface-path-id]

Syntax Description	type	(Optional) Interface type. For more information, use the question mark (?) online help function.
	interface-path-id	Physical interface or virtual interface.
		Note Use the show interfaces command to see a list of all interfaces currently configured on the router.
		For more information about the syntax for the router, use the question mark (?) online help function.
Command Default	If no parameters are	specified, all interfaces that are shut down because of EFD are displayed.
	ii no parameters are	
Command Modes	XR EXEC	
Command History	Release	Modification
	Release 5.0.0	This command was introduced.
Usage Guidelines		l, you must be in a user group associated with a task group that includes appropriate task o assignment is preventing you from using a command, contact your AAA administrator
	If this command is is	ssued when no EFD errors are detected, the system displays the following message:
	< date time >	ssued when no EFD errors are detected, the system displays the following message:
Task ID	< date time >	

Examples The following example shows how to display all interfaces that are shut down because of Ethernet Fault Detection (EFD):

RP/0/RP0/CPU0:router# show efd interfaces

Command	Description
efd	Enables EFD on all down MEPs in a down MEPs service.
log efd	Enables logging of EFD state changes to an interface (such as when an interface is shut down or brought up via EFD).

show ethernet oam configuration

To display the current active Ethernet OAM configuration on an interface, use the **show ethernet oam configuration** command in EXEC mode.

show ethernet oam configuration [interface type interface-path-id]

Syntax Description	interface type	(Optional) Displays information about the specified interface type. For more information, use the question mark (?) online help function.
	interface-path-id	(Optional) Physical interface or virtual interface.
		Note Use the show interfaces command to see a list of all interfaces currently configured on the router.For more information about the syntax for the router, use the question mark (?) online help function.
Command Default	If no parameters are s	pecified, the configurations for all Ethernet OAM interfaces is displayed.
Command Modes	XR EXEC	
Command History	Release	Modification
	Release 5.0.0	This command was introduced.
Usage Guidelines	IDs. If the user group for assistance.	you must be in a user group associated with a task group that includes appropriate task assignment is preventing you from using a command, contact your AAA administrator ys the Ethernet OAM configuration information for all interfaces, or a specified interface.
Task ID	Task ID	Operations
	ethernet-services	read
Examples		

<pre>Hello interval: Link monitoring enabled: Remote loopback enabled: Mib retrieval enabled: Uni-directional link-fault detection enabled: Configured mode: Connection timeout: Symbol period window: Symbol period low threshold: Symbol period high threshold: Frame window: Frame low threshold:</pre>	1s Y N Active 5 0 1 None 1000
Frame high threshold: Frame period window: Frame period low threshold: Frame period high threshold: Frame seconds window: Frame seconds low threshold: Frame seconds high threshold: High threshold action: Link fault action: Dying gasp action: Critical event action: Discovery timeout action: Capabilities conflict action: Wiring conflict action: Session up action:	None 1000 1 None 60000 1 None Log Log Log Log Log Log Log Log Log
Session down action: Remote loopback action: Require remote mode: Require remote MIB retrieval: Require remote loopback support: Require remote link monitoring:	Log Log Ignore N N N

The following example shows how to display the configuration for all EOAM interfaces:

<pre>RP/0/RP0/CPU0:router# show ethernet oam configurati Thu Aug 5 22:07:06.870 DST GigabitEthernet0/4/0/0:</pre>	on
Hello interval:	1s
Link monitoring enabled:	Y
Remote loopback enabled:	Ν
Mib retrieval enabled:	N
Uni-directional link-fault detection enabled:	N
Configured mode:	Active
Connection timeout:	5
Symbol period window:	0
Symbol period low threshold:	1
Symbol period high threshold:	None
Frame window:	1000
Frame low threshold:	1
Frame high threshold:	None
Frame period window:	1000
Frame period low threshold:	1
Frame period high threshold: Frame seconds window:	None 60000
Frame seconds low threshold:	60000 1
Frame seconds high threshold:	None
High threshold action:	None
Link fault action:	Loq
Dying gasp action:	Log
Critical event action:	Log
Discovery timeout action:	Loq
Capabilities conflict action:	Loq
Wiring conflict action:	Error-Disable
Session up action:	Log
Session down action:	Log
Remote loopback action:	Log
Require remote mode:	Ignore
Require remote MIB retrieval:	Ν
Require remote loopback support:	Ν

Require remote link monitoring:

Ν

Command	Description
show ethernet oam discovery, on page 58	Displays the currently configured OAM information of Ethernet OAM sessions on interfaces.
show ethernet oam statistics, on page 64	Displays the local and remote Ethernet OAM statistics for interfaces.
show ethernet oam interfaces, on page 61	

show ethernet oam discovery

To display the currently configured OAM information of Ethernet OAM sessions on interfaces, use the **show** ethernet oam discovery command in EXEC mode.

show ethernet oam discovery [brief| interface type interface-path-id [remote]]

Syntax Description	brief	Displays minimal, currently configured OAM information in table form.
	interface type	(Optional) Displays information about the specified interface type. For more information, use the question mark (?) online help function.
	interface-path-id	Physical interface or virtual interface.
		Note Use the show interfaces command to see a list of all interfaces currently configured on the router.For more information about the syntax for the router, use the question mark (?) online help function.
	remote	(Optional) Retrieves and displays information from a remote device, as if the command was run on the remote device.
Command Modes	XR EXEC	Modification
		Modification This command was introduced.
	Release Release 5.0.0 To use this command	
Command History	Release Release 5.0.0 To use this command, IDs. If the user group	This command was introduced.

Examples

The following example shows how to display the minimal, currently configured OAM information for Ethernet OAM sessions on all interfaces:

```
RP/0/RP0/CPU0:router# show ethernet oam discovery brief
```

Sat Jul 4 13:52:42.94	9 PST		
Flags:			
L - Link Monitoring	g support		
M - MIB Retrieval s	support		
R - Remote Loopbacl	k support		
U - Unidirectional	detection suppo	ort	
* - data is unavail	lable		
Local	Remote	Remote	
Interface	MAC Address	Vendor Mode	Capability
Gi0/1/5/1	0010.94fd.2bfa	00000A Active	L
Gi0/1/5/2	0020.95fd.3bfa	00000B Active	М
Gi0/1/6/1	0030.96fd.6bfa	00000C Passive	L R
Fa0/1/3/1	0080.09ff.e4a0	00000C Active	LR

The following example shows how to display detailed, currently configured OAM information for the Ethernet OAM session on a specific interface:

```
RP/0/RP0/CPU0:router# show ethernet oam discovery interface gigabitethernet 0/1/5/1
```

Sat Jul 4 13:56:49.967 PSI GigabitEthernet0/1/5/1: Local client	C
Administrative configurat PDU revision: Mode: Unidirectional support: Link monitor support: Remote loopback support MIB retrieval support: Maximum PDU size: Mis-wiring detection ke	1 Active N Y C: N N 1500
Operational status: Port status: Loopback status: Interface mis-wired: Remote client	Active send None N
MAC address: Vendor (OUI):	0030.96fd.6bfa 00.00.0C (Cisco)
Administrative configurat PDU revision: Mode: Unidirectional support: Link monitor support: Remote loopback support MIB retrieval support: Maximum PDU size:	5 Passive : N Y

Related Commands	Command	Description
	show ethernet oam configuration, on page 55	Displays the current active Ethernet OAM configuration on an interface.

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Command	Description
show ethernet oam statistics, on page 64	Displays the local and remote Ethernet OAM statistics for interfaces.
show ethernet oam interfaces, on page 61	

show ethernet oam interfaces

To display the current state of Ethernet OAM interfaces, use the **show ethernet oam interfaces** command in EXEC mode.

show ethernet oam interfaces [interface type interface-path-id]

Syntax Description	interface type	(Optional) Displays information about the specified interface type. For more information, use the question mark (?) online help function.	
	interface-path-id	Physical interface or virtual interface.	
		Note Use the show interfaces command to see a list of all interfaces currently configured on the router. For more information about the syntax for the router, use the question mark (?)	
		online help function.	
Command Default	No parameters display	ys the current state for all Ethernet OAM interfaces.	
Command Modes	XR EXEC		
Command History	Release	Modification	
	Release 5.0.0	This command was introduced.	
Usage Guidelines		you must be in a user group associated with a task group that includes appropriate task assignment is preventing you from using a command, contact your AAA administrator	
Task ID	Task ID	Operations	
	ethernet-services	read	
Examples		81234	

EFD triggered: Yes (link-fault)

Field	Description
In type state	The possible discovery state <i>type</i> values are:
	• ACTIVE_SEND_LOCAL—The interface is configured in active mode (the default), but no Information PDUs have been received from the peer (except possibly link-fault PDUs). Information PDUs are sent.
	• FAULT—A local unidirectional link fault has been detected. Link-fault PDUs are sent.
	• INACTIVE—The interface is down.
	• PASSIVE_WAIT—The interface is configured in passive mode (mode passive command) but no Information PDUs have been received from the peer (except possibly link-fault PDUs). No PDUs are sent.
	• REMOTE—(Also known as SEND_LOCAL_REMOTE). Information PDUs are being sent and received, but the local device is not satisfied with the remote peer's capabilities (for example, because there is a 'require-remote' configuration and the peer does not have the required capabilities).
	• REMOTE_OK—(Also known as SEND_LOCAL_REMOTE_OK). Information PDUs are being sent and received, and the local device is satisfied with the peer's capabilities, but the remote peer is not satisfied with the local device capabilities (for example, because there is a 'require-remote' configuration on the peer

Table 1: show ethernet oam interfaces Field Descriptions

• SEND_ANY—The discovery process has completed, both devices are satisfied with the configuration and the session is up. All types of PDU can be sent and received.

device).

Field	Description
EFD triggered	Indicates if an Ethernet Fault Detection (EFD) event has occurred on the interface and the type of fault that triggered the interface to be moved to the down state for the line protocol. The possible EFD trigger events are: • capabilities-conflict • discovery-timeout • link-fault • session-down • wiring-conflict

Related Commands	Command	Description
	show ethernet oam configuration, on page 55	Displays the current active Ethernet OAM configuration on an interface.
	show ethernet oam discovery, on page 58	Displays the currently configured OAM information of Ethernet OAM sessions on interfaces.
	show ethernet oam statistics, on page 64	Displays the local and remote Ethernet OAM statistics for interfaces.

show ethernet oam statistics

To display the local and remote Ethernet OAM statistics for interfaces, use the **show ethernet oam statistics** command in EXEC mode.

show ethernet oam statistics [interface type interface-path-id [remote]]

Syntax Description	interface type	(Optional) Displays information about the specified interface type. For more information, use the question mark (?) online help function.	
	interface-path-id	Physical interface or virtual interface.	
		Note Use the show interfaces command to see a list of all interfaces currently configured on the router.For more information about the syntax for the router, use the question mark (?) online help function.	
	remote	(Optional) Retrieves and displays information from a remote device, as if the command was run on the remote device.	
Command Default	No parameters display	ys statistics for all Ethernet OAM interfaces.	
Command Modes	XR EXEC		
Command History	Release	Modification	
	Release 5.0.0	This command was introduced.	
Usage Guidelines		you must be in a user group associated with a task group that includes appropriate task assignment is preventing you from using a command, contact your AAA administrator	
Task ID	Task ID	Operations	
	ethernet-services	read	
Examples		le shows how to display Ethernet OAM statistics for a specific interface: er# show ethernet oam statistics interface gigabitethernet 0/1/5/1	

GigabitEthernet0/1/5/1: Counters	
Information OAMPDU Tx Information OAMPDU Rx Unique Event Notification OAMPDU Tx Unique Event Notification OAMPDU Tx Duplicate Event Notification OAMPDU Tx Duplicate Event Notification OAMPDU Tx Loopback Control OAMPDU Tx Loopback Control OAMPDU Tx Variable Request OAMPDU Tx Variable Request OAMPDU Tx Variable Response OAMPDU Tx Variable Response OAMPDU Tx Variable Response OAMPDU Tx Organization Specific OAMPDU Tx Unsupported OAMPDU Tx Unsupported OAMPDU Tx Frames Lost due to OAM	161177 151178 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Local event logs	
Errored Symbol Period records Errored Frame records Errored Frame Period records Errored Frame Second records	0 0 0 0
Remote event logs	
Errored Symbol Period records Errored Frame records Errored Frame Period records Errored Frame Second records	0 0 0

Related Commands	Command	Description
	show ethernet oam configuration, on page 55	Displays the current active Ethernet OAM configuration on an interface.
	show ethernet oam discovery, on page 58	Displays the currently configured OAM information of Ethernet OAM sessions on interfaces.
	show ethernet oam interfaces, on page 61	

snmp-server traps ethernet oam events

To enable SNMP traps for Ethernet OAM events, use the **snmp-server traps ethernet oam events** command in XR Config mode.

snmp-server traps ethernet oam events

- **Syntax Description** This command has no keywords or arguments.
- **Command Default** Ethernet OAM event traps are not enabled.
- Command Modes XR config

 Command History
 Release
 Modification

 Release 5.0.0
 This command was introduced.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.

Task ID	Task ID	Operations
	snmp	read, write

Examples

The following example shows how to enable SNMP server traps on an Ethernet OAM interface.

RP/0/RP0/CPU0:router# configure
RP/0/RP0/CPU0:router(config)# snmp-server traps ethernet oam events

symbol-period threshold

To configure the thresholds that trigger an Ethernet OAM symbol-period error event, use the **symbol-period threshold** command in Ethernet OAM link monitor configuration mode. To return the threshold to the default value, use the **no** form of this command.

symbol-period threshold low threshold [high t hreshold]

no symbol-period threshold low threshold [high t hreshold]

Syntax Description			
Syntax Description	low threshold	Low threshold value, in symbols, that triggers a symbol-period error event. The range is 0 to 60000000.	
	high threshold	(Optional) High threshold value, in symbols, that triggers a symbol-period error event. The range is 0 to 60000000. The high threshold value can be configured only in conjunction with the low threshold value.	
Command Default	The default low three	shold is 1.	
Command Modes	Ethernet OAM link monitor configuration (config-eoam-lm)		
	Interface Ethernet OA	AM link monitor configuration (config-if-eoam-lm)	
Command History	Release	Modification	
	Release 5.0.0	This command was introduced.	
Usage Guidelines	To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.		
	the OAM peer. Addit Management (CFM),	old is passed, a symbol-period error event notification is generated and transmitted to tionally, any registered higher level OAM protocols, such as Connectivity Fault , are also notified. When the high threshold is passed, the configured high threshold action ion to the low threshold actions. The high threshold is optional and is configurable only he low threshold.	
Task ID	Task ID	Operations	
	ethernet-services	read, write	

Examples

The following example shows how to configure the symbol-period low and high thresholds that trigger a symbol-period error event:

RP/0/RP0/CPU0:router(config)# ethernet oam profile Profile_1
RP/0/RP0/CPU0:router(config-eoam)# link-monitor
RP/0/RP0/CPU0:router(config-eoam-lm)# symbol-period threshold low 100 high 6000

symbol-period window

To configure the window size for an Ethernet OAM symbol-period error event, use the **symbol-period window** command in Ethernet OAM link monitor or interface Ethernet OAM link monitor configuration mode. To return the window size to the default value, use the **no** form of this command.

symbol-period window window

no symbol-period window window

Syntax Description	window	Size of the window for symbol-period error in milliseconds. The range is 1000 to 60000.	
Command Default	The default value is 1	1000	
Command Modes	Ethernet OAM link monitor configuration (config-eoam-lm)		
	Interface Ethernet OA	AM link monitor configuration (config-if-eoam-lm)	
Command History	Release	Modification	
	Release 5.0.0	This command was introduced.	
Usage Guidelines	To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.		
Task ID	Task ID	Operations	
	ethernet-services	read, write	
Examples	The following even	ale shows how to configure the window size for a symbol period error	
Examples	The following example shows how to configure the window size for a symbol-period error.		
	<pre>RP/0/RP0/CPU0:router(config)# ethernet oam profile Profile_1 RP/0/RP0/CPU0:router(config-eoam)# link-monitor RP/0/RP0/CPU0:router(config-eoam-lm)# symbol-period window 60000</pre>		

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