

# **Configuring Link OAM**

The Link OAM feature available on the ME 1200 Web GUI allows you to configure the Link OAM port and the Link Event for a given port.

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## **Link OAM Port Configuration**

This option allows you to inspect the current Link OAM port configurations and change them as well.

cisco				ME12	00™ GigaBit Eth	ernet Switch	<b>ff (}</b>			
Configuration	Link OAM Port Configuration									
Green Ethernet     Thermal Protection	Port	OAM Enabled	OAM Mode	Loopback Support	Link Monitor Support	MIB Retrieval Support	Loopback Operation			
Ports			0 Y		2		8			
DHCP	1		Passive V		8		0			
<ul> <li>Security</li> <li>Aggregation</li> </ul>	2		Passive V		8					
Link OAM	3		Passive V		×					
<ul> <li>Port Settings</li> </ul>	4		Passive V	0	2					
Event Settings     Loop Protection	5		Passive V		2					
Spanning Tree	6		Passive V		2					
IPMC Profile     MVR     IPMC     IPMC     LLDP     SyncE	Save	Reset								

- Port: The switch port number.
- **OAM Enabled**: Controls whether Link OAM is enabled on this switch port. Enabling Link OAM provides the network operators the ability to monitor the health of the network and quickly determine the location of failing links or fault conditions.
- OAM Mode: Configures the OAM Mode as Active or Passive. The default mode is Passive.
  - Active: DTE is configured in Active mode initiate the exchange of Information OAMPDUs as defined by the Discovery process. Once the Discovery process completes, Active DTEs are permitted to send any OAMPDU while connected to a remote OAM peer entity in Active mode. Active DTEs operate in a limited respect if the remote OAM entity is operating in Passive mode. Active devices should not respond to OAM remote loopback commands and variable requests from a Passive peer.

- *Passive*: DTE is configured in Passive mode do not initiate the Discovery process. Passive DTE's react to the initiation of the Discovery process by the remote DTE. This eliminates the possibility of passive to passive links. Passive DTE's shall not send Variable Request or Loopback Control OAMPDUs.
- Loopback Support: Controls whether the loopback support is enabled for the switch port. Link OAM remote loopback can be used for fault localization and link performance testing. Enabling the loopback support will allow the DTE to execute the remote loopback command that helps in the fault detection.
- Link Monitor Support: Controls whether the Link Monitor support is enabled for the switch port. On enabling the Link Monitor support, the DTE supports event notification that permits the inclusion of diagnostic information.
- **MIB Retrieval Support**: Controls whether the MIB Retrieval Support is enabled for the switch port. On enabling the MIB retrieval support, the DTE supports polling of various Link OAM based on the contents of the MIB variables.
- Loopback Operation: If the Loopback support is enabled, enabling this field will start a loopback operation for the port.

#### **Related Topics**

Monitoring Link OAM

### Link OAM Link Event Configuration

This option allows you to inspect the current Link OAM Link Event configurations and change them.

cisco				ME1200™ GigaBit Ethernet Switch			6	2
Configuration     System	^	Link Event Configuration	on for Port 1	Port 1 🗸	-1			
<ul> <li>Green Ethernet</li> <li>Thermal Protection</li> </ul>		Event Name	Error Window	Error Threshold				
Ports     Ports     DHCP     Security     Aggregation     Link OAM     Port Settings     Event Settings		Error Frame Event	1	1				
		Symbol Period Error Event	1	1				
		Seconds Summary Event	60	1				LO LO
		Save Reset						409545

- Port: The switch port number.
- Event Name: Name of the Link Event which is being configured.
- Error Window: Represents the window period in the order of 1 sec for the observation of various link events.
- Error Threshold: Represents the threshold value for the window period for the appropriate Link event so as to notify the peer of this error.
- Error Frame Event: Counts the number of errored frames detected during the specified period. The period is specified by a time interval (Window in order of 1 sec). This event is generated if the errored frame count is equal to or greater than the specified threshold for that period (Period Threshold). Errored frames are frames that had transmission errors as detected at the Media Access Control sublayer. Error

Window for 'Error Frame Event' must be an integer value between 1-60 and its default value is '1'. Whereas Error Threshold must be between 0-4294967295 and its default value is '0'.

- Symbol Period Error Event: Counts the number of symbol errors that occurred during the specified period. The period is specified by the number of symbols that can be received in a time interval on the underlying physical layer. This event is generated if the symbol error count is equal to or greater than the specified threshold for that period. Error Window for 'Symbol Period Error Event' must be an integer value between 1-60 and its default value is '1'. Whereas Error Threshold must be between 0-4294967295 and its default value is '0'.
- Seconds Summary Event: The Errored Frame Seconds Summary Event TLV counts the number of errored frame seconds that occurred during the specified period. The period is specified by a time interval. This event is generated if the number of errored frame seconds is equal to or greater than the specified threshold for that period. An errored frame second is a one second interval wherein at least one frame error was detected. Errored frames are frames that had transmission errors as detected at the Media Access Control sublayer. Error Window for 'Seconds Summary Event' must be an integer value between 10-900 and its default value is '60'. Whereas Error Threshold must be between 0-65535 and its default value is '1'.



Note

The port select box determines which port is affected by clicking the buttons.

#### **Related Topics**

Monitoring Link OAM

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