

Monitoring OAM Link-Fault Management Sessions on All Configured Interfaces

Purpose Display a summary of the MAC-layer OAM status of all Ethernet links on which OAM link-fault management is enabled. This command displays the state of each of the links, with a brief synopsis about the OAM configurations of each of the links, such as the discovery mode of the OAM entity, state of the discovery mechanism, MAC address of the remote peer, the Link Flag details that contain information about the interface, and loopback configuration.

Action To display Ethernet OAM link-fault management settings for all interfaces on which OAM is enabled:

```
host1#show ethernet oam lfm summary
```

```
FastEthernet4/0 is Up, Administrative status is Up
    Ethernet OAM (ver 1)
    Mode: Active, Discovery State: Send any
    Remote address: 0090.0a38.0208
    Flags: Remote-Stable Remote-State-Valid Local-Stable
    Loopback: Supported, Remote enabled
```

```
FastEthernet4/1 is Down, Administrative status is Up
    Ethernet OAM (ver 1)
    Mode: Active, Discovery State: Fault
    Remote address: 0090.0b92.032a
    Flags: Local Evaluating
    Loopback: Supported, Local enabled
```

Meaning Table 1 lists the `show ethernet oam lfm summary` command output fields.

Table 1: show ethernet oam lfm summary Output Fields

Field Name	Field Description
Interface type/name <i>interfaceSpecifier</i>	Status of the hardware on this interface: <ul style="list-style-type: none">■ Up—Hardware is operational■ Down—Hardware is not operational
Administrative status	Operational state that you configured for this interface: <ul style="list-style-type: none">■ Up—Interface is enabled■ Down—Interface is disabled
Ethernet OAM (ver 1)	Revision of the OAM configuration. A new revision results from each change to the configuration.

Table 1: show ethernet oam lfm summary Output Fields (continued)

Field Name	Field Description
Mode	Discovery mode of the interface: <ul style="list-style-type: none">■ Active—The interface discovers and monitors the peer on the link if the peer also supports IEEE 802.3ah OAM functionality. An OAM entity in active mode initiates the discovery process by sending an Information OAM PDU to the multicast address of the slow protocol (0180.c200.0002) at a configured rate. The default discovery mode of the OAM client is active■ Passive—An OAM entity does not initiate the discovery process. You cannot perform link-fault management if you configure both the local client and the remote peer for passive mode operation
Remote address	MAC Address of the remote peer

Table 1: show ethernet oam lfm summary Output Fields (continued)

Field Name	Field Description
Discovery State	<p>State of the discovery mechanism:</p> <ul style="list-style-type: none">■ Fault—When the discovery process enters the Fault state, the local PDU value is set based on the value of local link status field. While the local link status is set to Fail, the local OAM entity remains in this state indicating to the remote peer there is link fault. This condition is accomplished by sending Information OAM PDUs once per second with the Link Fault bit of the Flags field set and no Information TLVs in the Data field■ Active send local—A local entity configured in Active mode sends Information OAM PDUs that only contain the Local Information TLV. This state is referred to as Active Send Local. While in this state, the local entity waits for Information OAM PDUs received from the remote entity■ Passive wait—An entity configured in passive mode waits until receiving Information OAM PDUs with Local Information TLVs before sending any Information OAM PDUs with Local Information TLVs. This state is called Passive Wait. By waiting until first receiving an Information OAM PDU with the Local Information TLV, a passive entity cannot complete the OAM Discovery process when connected to another entity in passive mode■ Send any—After an OAM PDU has been received indicating the remote device is satisfied with the respective settings, the local device enters the SEND_ANY state. This is the expected normal operating state for OAM on fully operational links■ Send local remote—After the local entity has received an Information OAM PDU with the Local Information TLV from the remote entity, the local entity begins sending Information OAM PDUs that contain both the Local and Remote Information TLVs. This state is called Send Local Remote. If at any time the settings on either the local or remote entity change resulting in the local OAM client becoming unsatisfied with the settings, the discovery process returns to the Send Local Remote state■ Send local remote ok—If the local OAM client deems the settings on both the local and remote entities are appropriate, it enters the Send Local Remote Ok state. If at any time the settings on the local OAM client change resulting in the remote OAM client becoming unsatisfied with the settings, the OAM discovery process returns to the Send Local Remote Ok state

Table 1: show ethernet oam lfm summary Output Fields (continued)

Field Name	Field Description
Flags	<p>Provides information about the physical link; displays one or more of the following values:</p> <ul style="list-style-type: none">■ Remote-Stable—Indicates remote OAM client acknowledgment and acceptance of local OAM state information. False indicates that remote entity either has not received or remote state settings do not match local state information. True indicates that remote entity has received and remote state settings match local state information■ Local-Stable—Indicates local OAM client acknowledgment and acceptance of remote OAM state information. False indicates that local entity either has not received or local state settings do not match remote state information. True indicates that local entity has received and local state settings match remote state information■ Local-Evaluating—The Local Stable and Local Evaluating bits of the Flags field communicate the status of the local discovery process to the peer. When the OAM discovery process is started, the local entity sets the Local Stable to 0 and Local Evaluating bits to 1 indicating OAM discovery has not completed. When Local Stable is set to 1 and Local Evaluating is set to 0 and Remote Stable is set to 1 and Remote Evaluating is set to 0 indicating that the settings of both the local and remote OAM clients match, the OAM Discovery process has successfully completed■ Remote-State-Valid—Indicates the OAM client has received remote state information found within Local Information TLVs of received Information OAM PDUs. False indicates that OAM client has not seen remote state information. True indicates that the OAM client has seen remote state information
Loopback	<p>State of the loopback functionality of the local and remote OAM entities; displays one or more of the following values:</p> <ul style="list-style-type: none">■ Supported—Indicates that the Ethernet OAM configuration on the interface is configured to initiate remote loopback or respond to a remote loopback request it receives from a peer. When you place a remote entity into loopback mode, the interface receives the remote-loopback request and puts the interface into remote-loopback mode. When a remote-loopback request is sent by a remote entity, the local interface is placed into loopback mode■ Local enabled—Indicates that the loopback operation is enabled on the specified interface of the local OAM entity, which causes the local entity to loop back the received frames other than OAM PDUs to the remote peer■ Remote enabled—Indicates that the loopback operation is enabled on the specified interface of the remote peer, which causes the remote peer to loop back all received frames other than OAM PDUs to the local OAM entity

- Related Topics**
- Configuring 802.3ah OAM Link-Fault Management
 - show ethernet oam lfm summary

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