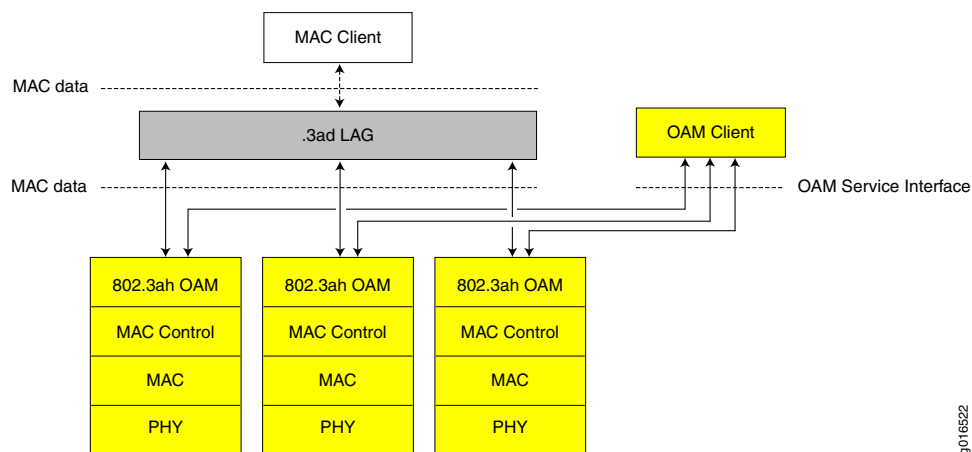


Interrelationship of OAM Link-Fault Management with Ethernet Subsystems

802.3ah OAM assists the monitoring of individual Ethernet links. Link aggregation mechanisms, such as 802.3ad, operate above the 802.3ah sublayer. Figure 1 shows the interconnection between OAM and LAG bundles. You can use the results of OAM link monitoring to configure the LAG sublayer accordingly to improve failover and recovery times.

Figure 1: Interrelationship Between 802.3ah OAM and 802.3ad LAG



Link events can be generated locally using the health monitoring of an Ethernet link. These link events can be supplied to the link aggregation multiplexing logic, in addition to the logic generated by the LAC protocol. For example, if the configured symbol-period threshold is exceeded, you can configure the link aggregator to remove the member link from the bundle and rebalance the bundle. Where a LAG member link is designated as a redundant member, you can use the link monitor functionality to trigger the failover and the reversal of the link.

Certain line module and IOA combinations support physical level redundancy. The redundancy feature enables a primary Gigabit Ethernet link to fail over to the secondary link without signaling higher-layer protocols and by maintaining the same MAC address on the link. The preservation of the same MAC address on the link also retains bindings to the MAC address (for example, ARP entries). When the OAM entity signals that a health monitoring threshold is exceeded, the event can trigger the failover to the secondary link.

JUNOS Software implements the Marker Responder segment of the Marker protocol. If the OAM entity signals a link event, such as the exceeding of a high threshold value, using the health monitoring system, then Marker Response PDUs are not sent in such circumstances.

- Related Topics**
- OAM Feature Overview
 - OAM Elements Overview

- Configuring 802.3ah OAM Link-Fault Management
- Guidelines for Configuring 802.3ah OAM Link-Fault Management

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