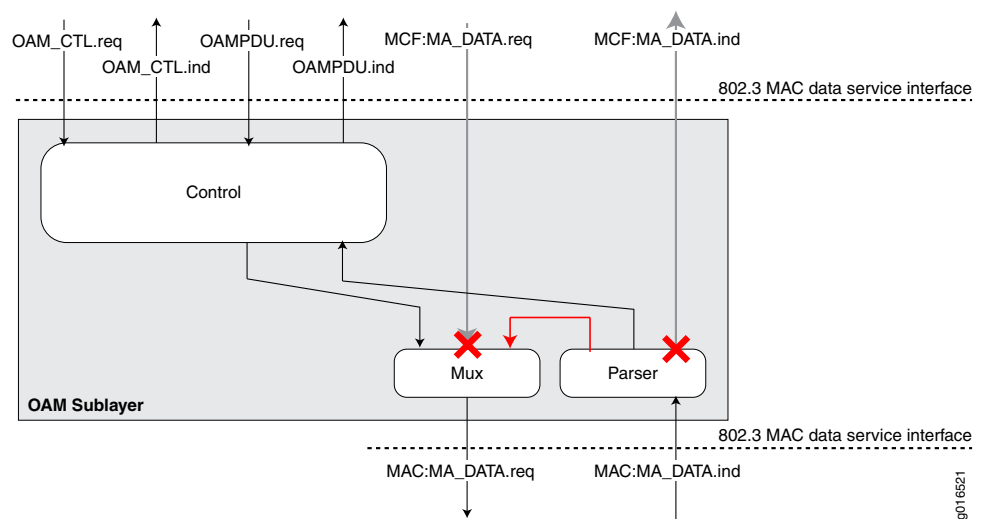


OAM Sublayer

The OAM sublayer presents two standard IEEE 802.3 MAC service interfaces: one pointed toward the superior sublayers, which include the MAC client (or link aggregation), and the other interface pointed toward the subordinate MAC control sublayer. The OAM sublayer provides a dedicated interface for transmission of OAM control information and OAM PDUs to and from a client.

The OAM sublayer is made up of three entities: control block, multiplexer, and packet parser. The following sections describe each of the entities. Figure 1 shows the entities of the OAM sublayer and the traversal of OAM PDUs among the different entities.

Figure 1: OAM Sublayer Entities



Control Block

The control block functions as the interface between the OAM client and other blocks internal to the OAM sublayer. The control block implements the discovery process, which detects the existence and capabilities of remote OAM peers. It also includes the transmit process that administers the transmission of OAM PDUs to the multiplexer and a set of rules that manage the receipt of OAM PDUs from the packet parser.

Multiplexer

The multiplexer manages frames generated or forwarded from the MAC client, control block, and packet parser. The multiplexer passes through frames generated by the MAC client untouched. It sends OAM PDUs generated by the control block to the subordinate sublayer; for example, the MAC sublayer. The multiplexer also forwards loopback frames from the packet parser to the same subordinate sublayer when the interface is in OAM remote loopback mode.

Parser

The parser categorizes frames as OAM PDUs, MAC client frames, or loopback frames and then transfers each class to the appropriate entity. OAM PDUs are delivered to the control block. MAC client frames are transmitted to the superior sublayer. Loopback frames are distributed to the multiplexer.

- Related Topics**
- OAM Client
 - OAM Elements Overview

Published: 2010-04-07