



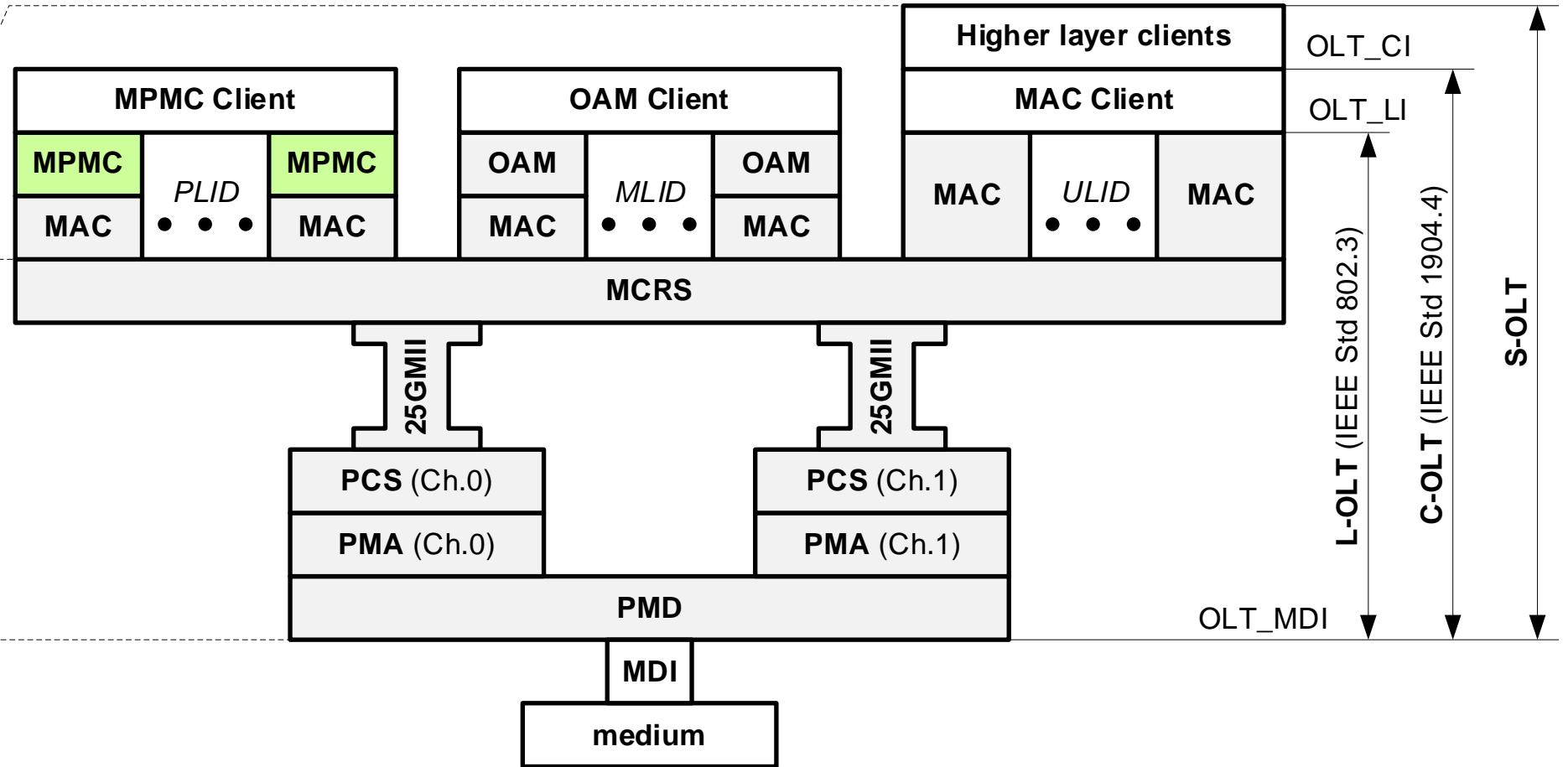
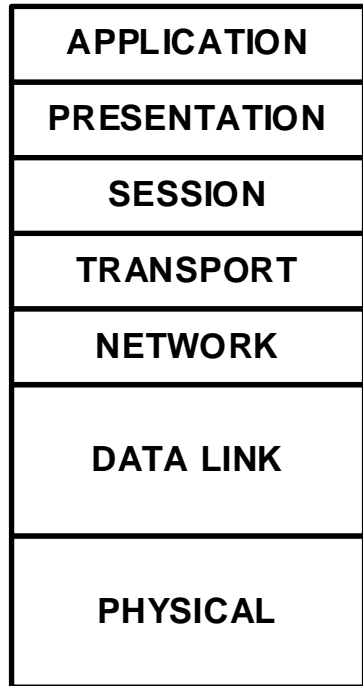
How many instances of MPMC are in the OLT?

Glen Kramer

L-OLT Layering Diagram v.1



OSI
REFERENCE MODEL
LAYERS



Should MPMC be a separate instance per PLID or just one instance per OLT?

- Text in 144.1.4 implies that there are multiple MPMC instances

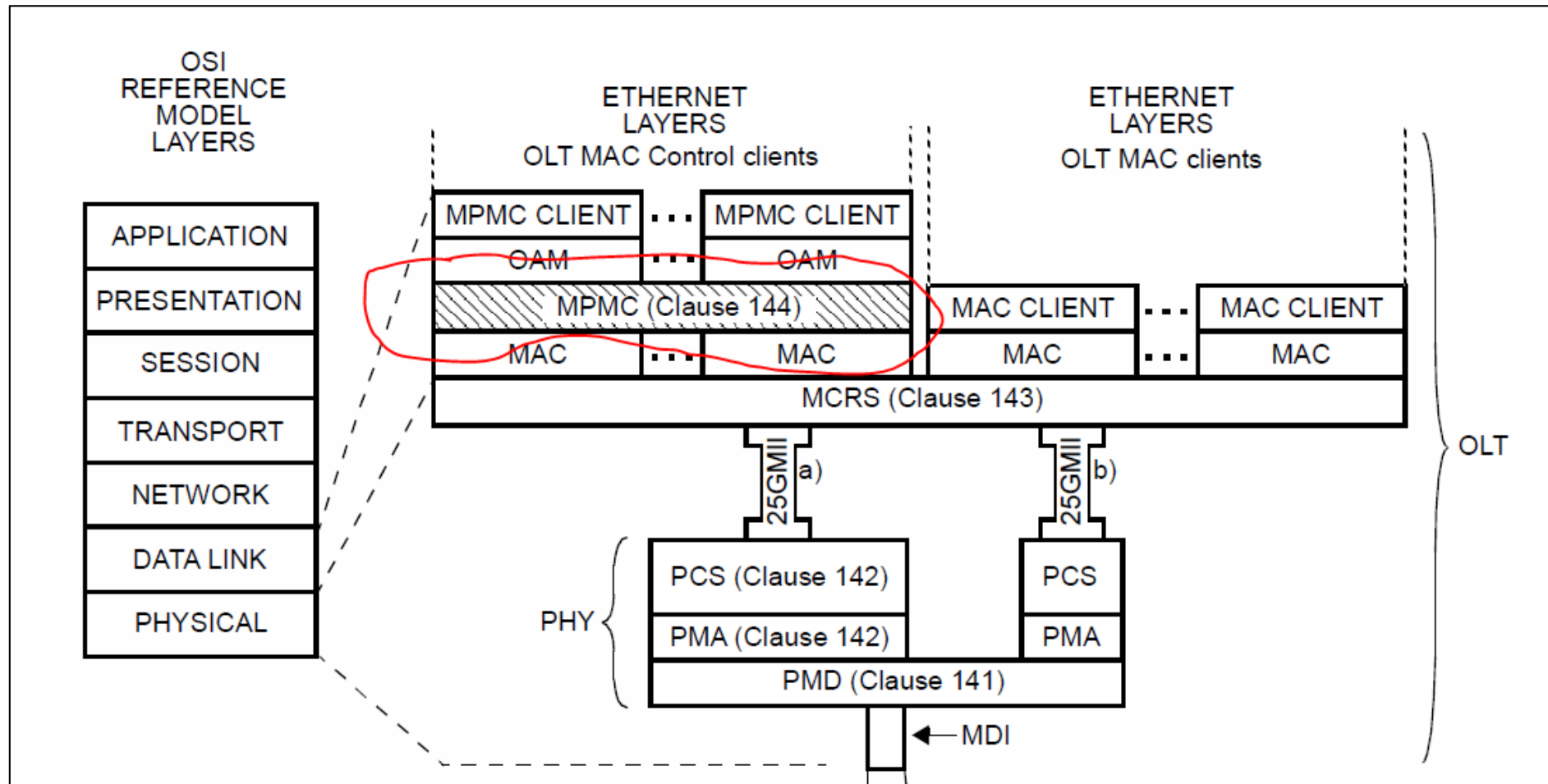
144.1.4 Service interfaces

The MAC clients communicate directly with dedicated MAC instances using the standard service interface specified in 2.3. The MPMC does not interface with any MAC Clients.

The MPMC clients communicate with MPMC instances using the service interface defined in this clause. Each MPMC instance communicates with the underlying MAC sublayer using the standard service interface specified in 4A.3.2. Similarly, MPMC communicates internally using primitives and interfaces consistent with definitions in Clause 31.

Single MPMC instance

- Figure 144-2 shows a single instance of MPMC



MPMC View

- ❑ There is a single Multipoint MAC Control instance in the OLT
- ❑ MPMC instance receives MAC Control frames from multiple LLIDs (i.e., from multiple MAC instances)

144.4.4.5 OLT CCPDU processing state diagram

The OLT CCP shall implement a single instance of the CCPDU processing state diagram shown in Figure 144–33.

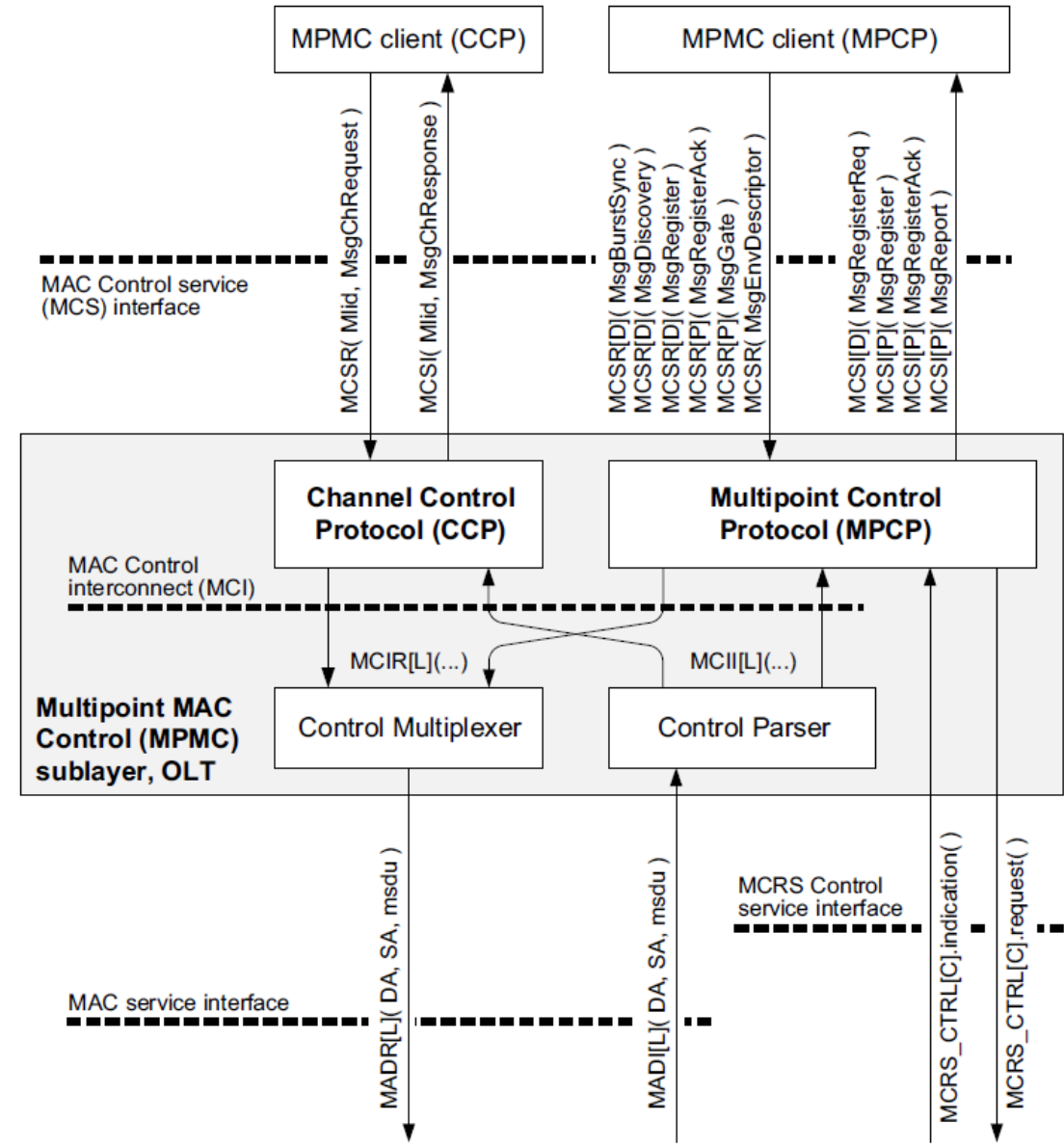


Figure 144–3—OLT Multipoint MAC Control (MPMC) sublayer functional block diagram

MPCP view

- There is a single instance of MPCP
- Within MPCP, there are multiple instances of GATE Generation and Registration Completion processes
 - One instance per PLID

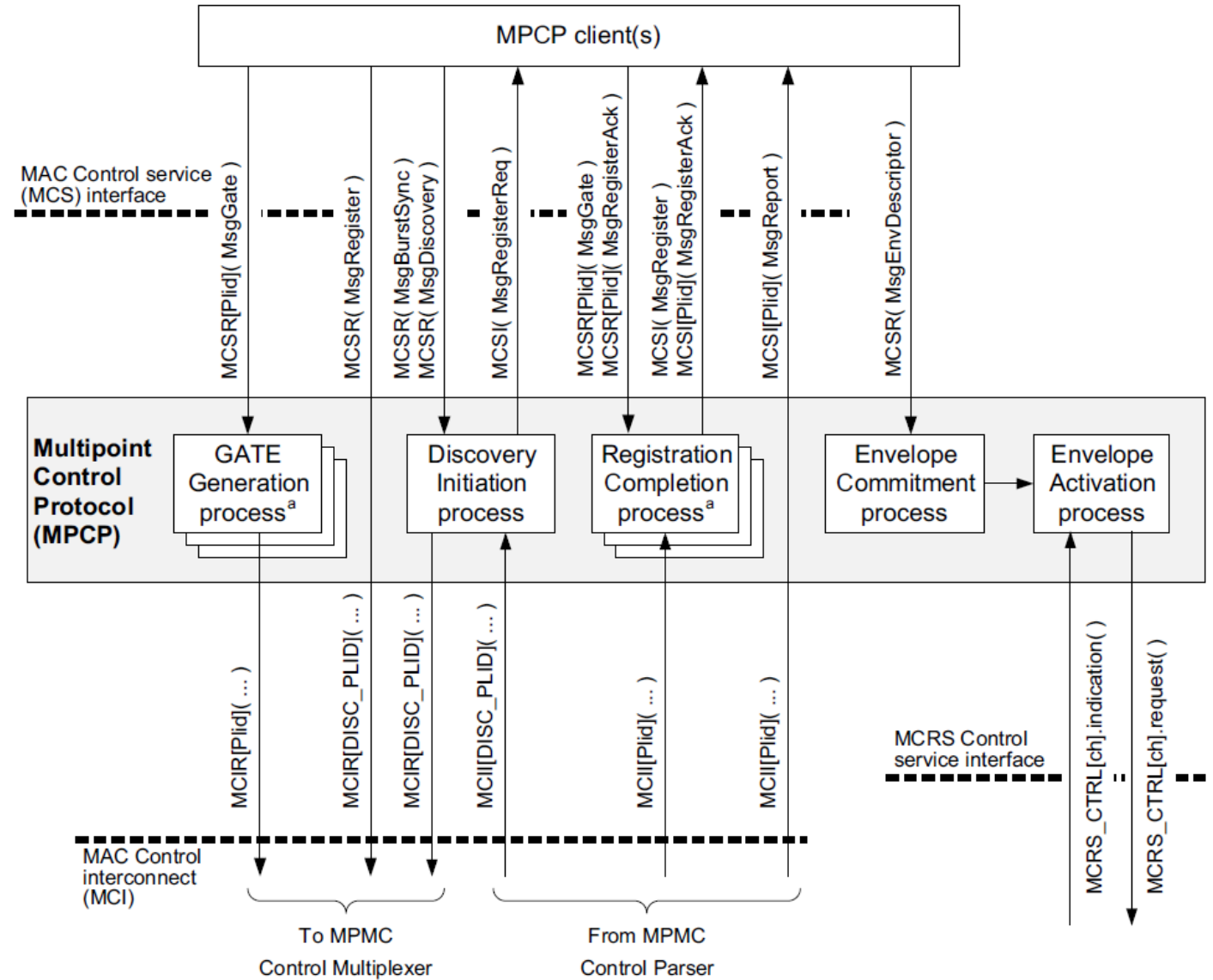
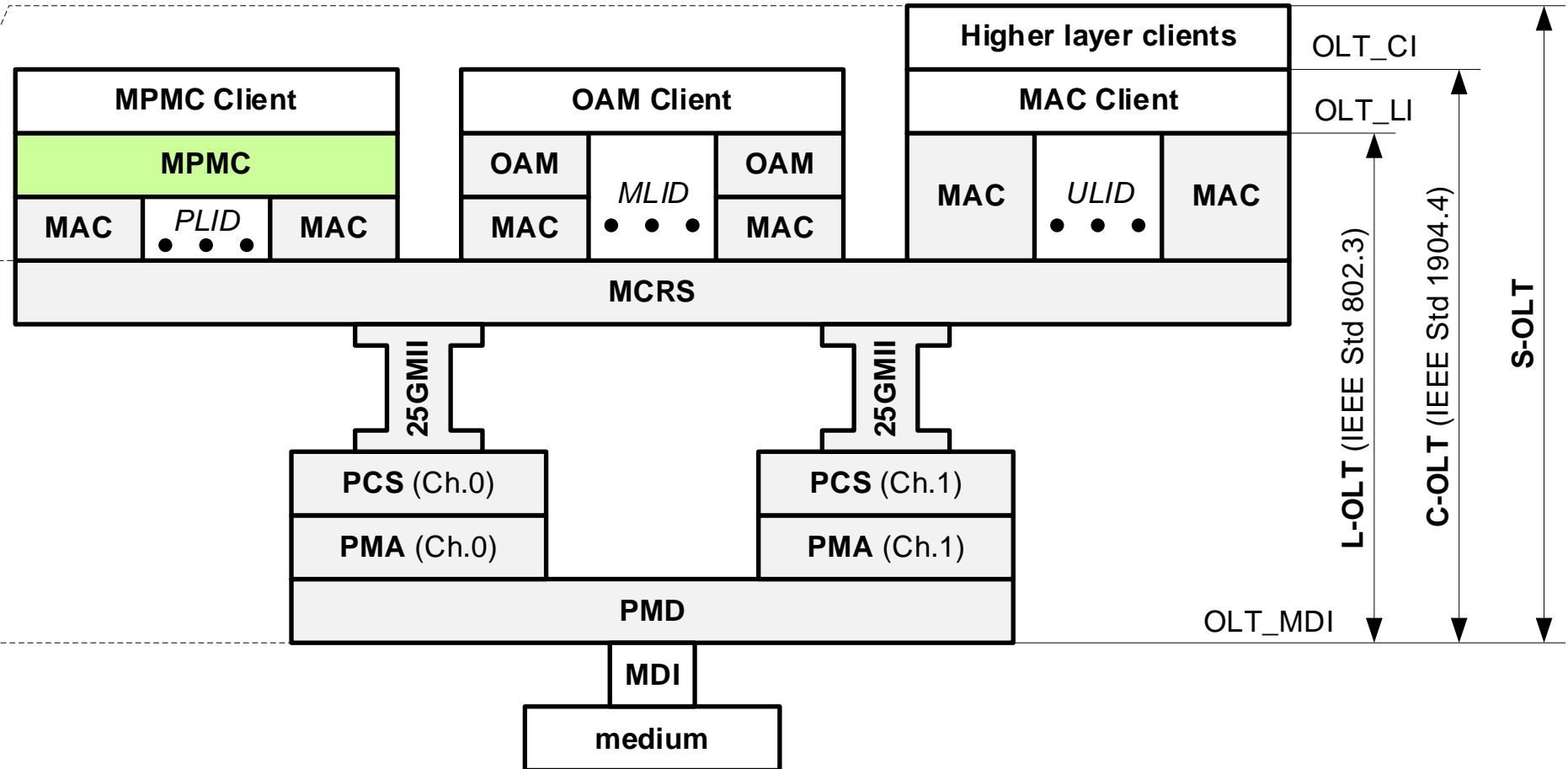
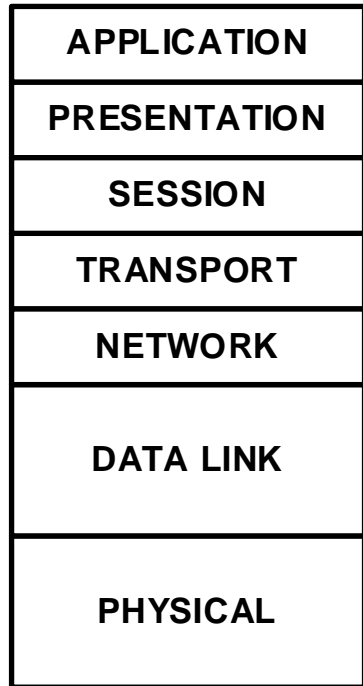


Figure 144-9—OLT Multipoint Control Protocol (MPCP) functional block diagram

L-OLT Layering Diagram v.2



OSI
REFERENCE MODEL
LAYERS



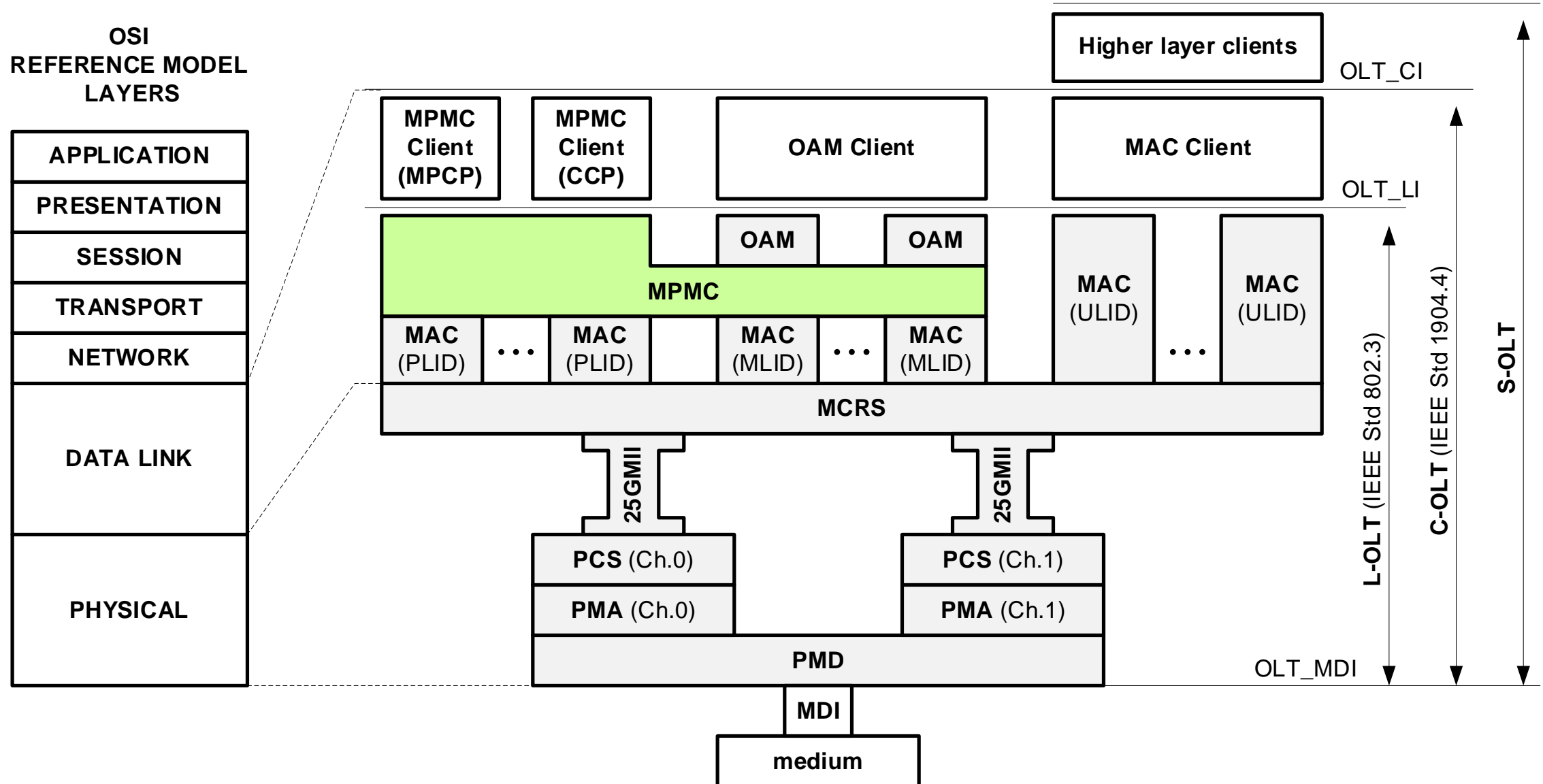
□ According to 802.3ca, CCPDUs are MAC Control frames, but are carried over MLID

144.3.4.2 Management link ID (MLID)

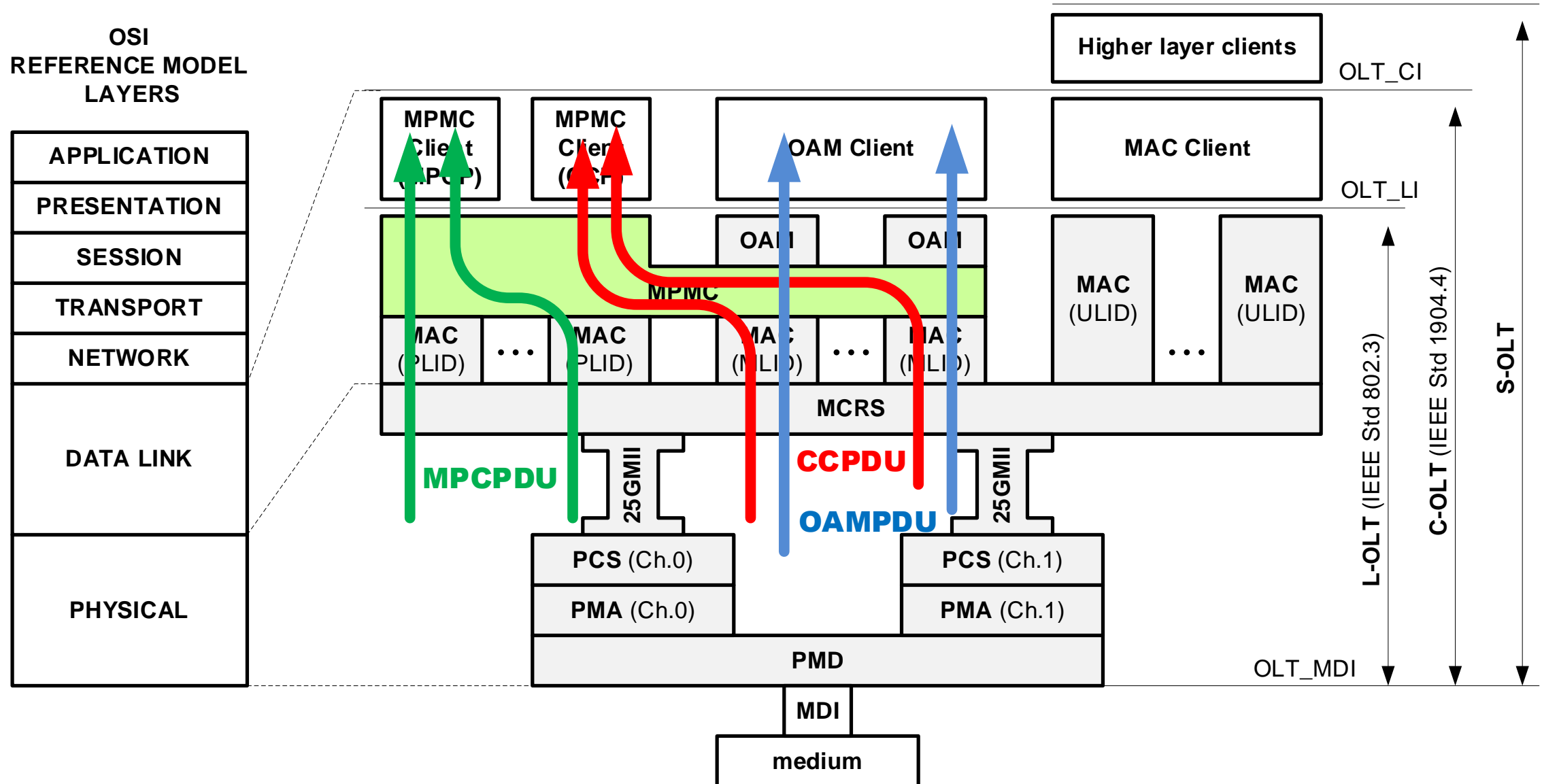
The MLID carries management traffic flows, such as OAMPDUs (see 57.4) and CCPDUs (see 144.4). Each ONU is assigned a single unique MLID value as part of the ONU Discovery and Registration process, described in 144.3.7.8.

- ❑ This means that in order for CCPDUs to reach Channel Control Protocol functional block, the MPMC should extend to all PLID and MLID MAC instances

L-OLT Layering Diagram v.3



PDU Paths



Service Interfaces

- Do we want to include an interface diagram similar to what we had in 1904.2?

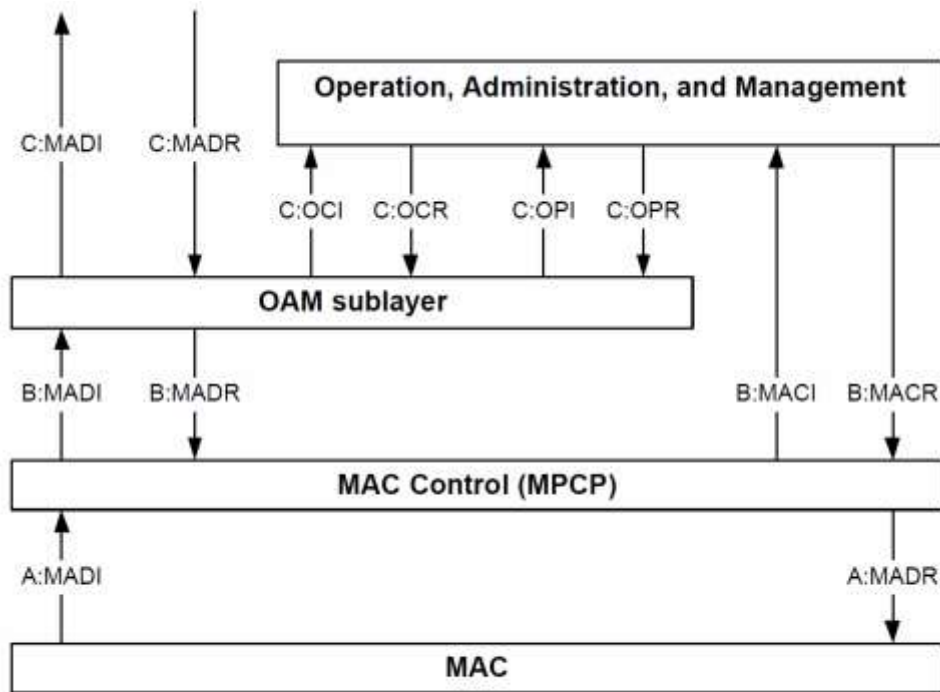


Figure 5-7—Relationship between IEEE 802.3 sublayers and IEEE 1904.1 authentication function

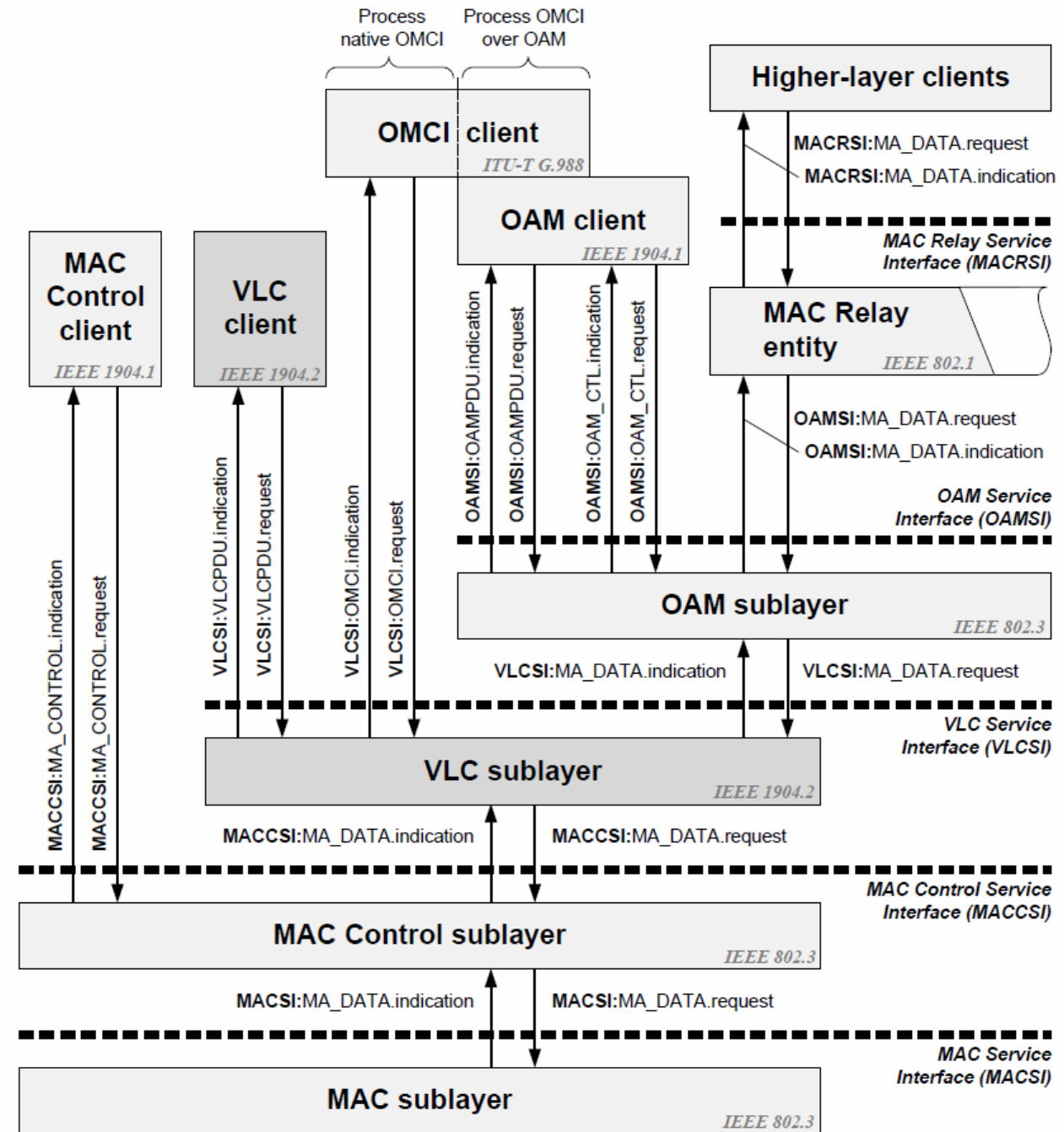


Figure 4-2—Positioning of VLC sublayer and service interfaces



Thank you