

RPR MAC Reference Model Proposal

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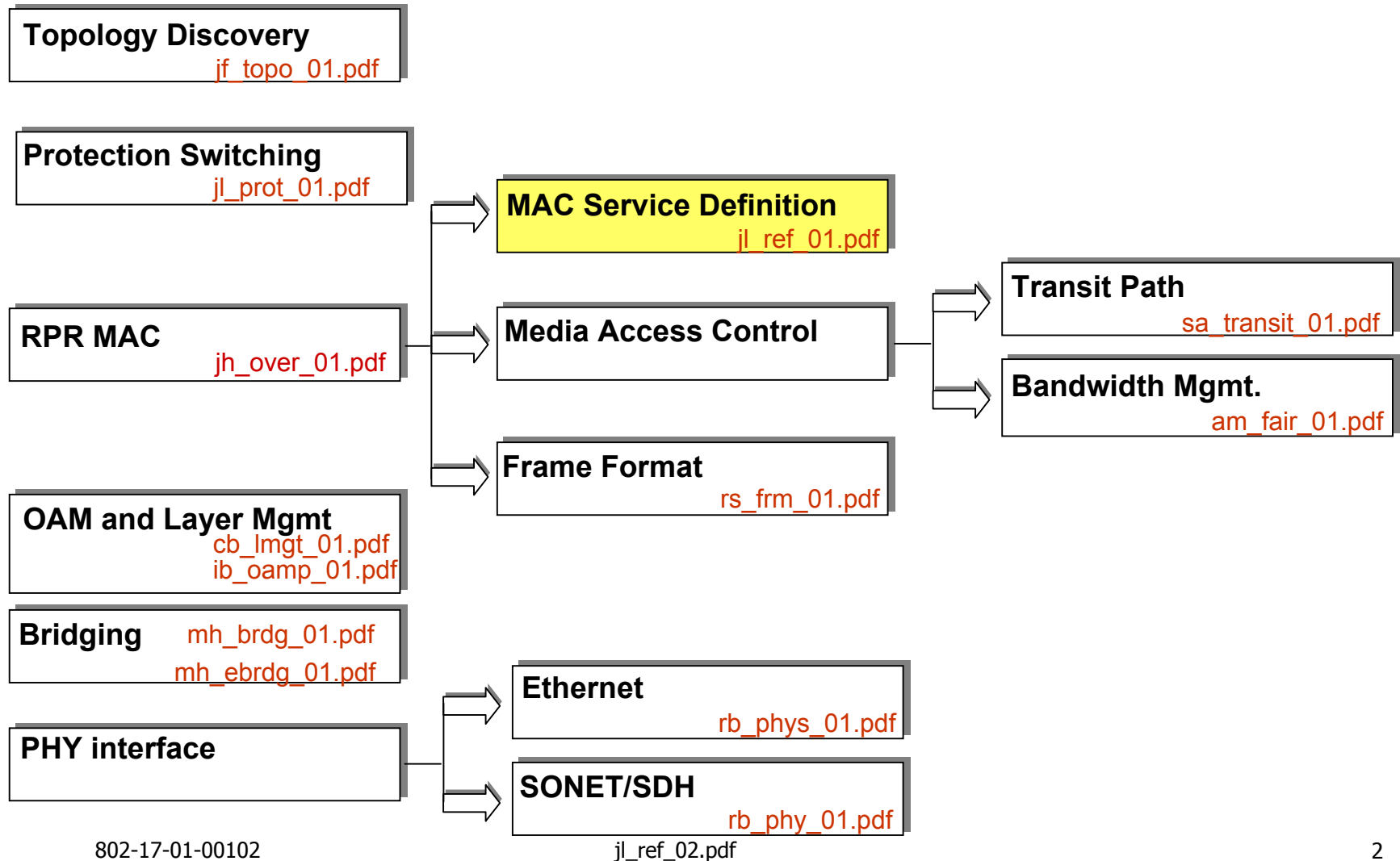
John Lemon, Lantern

Robin Olsson, Vitesse

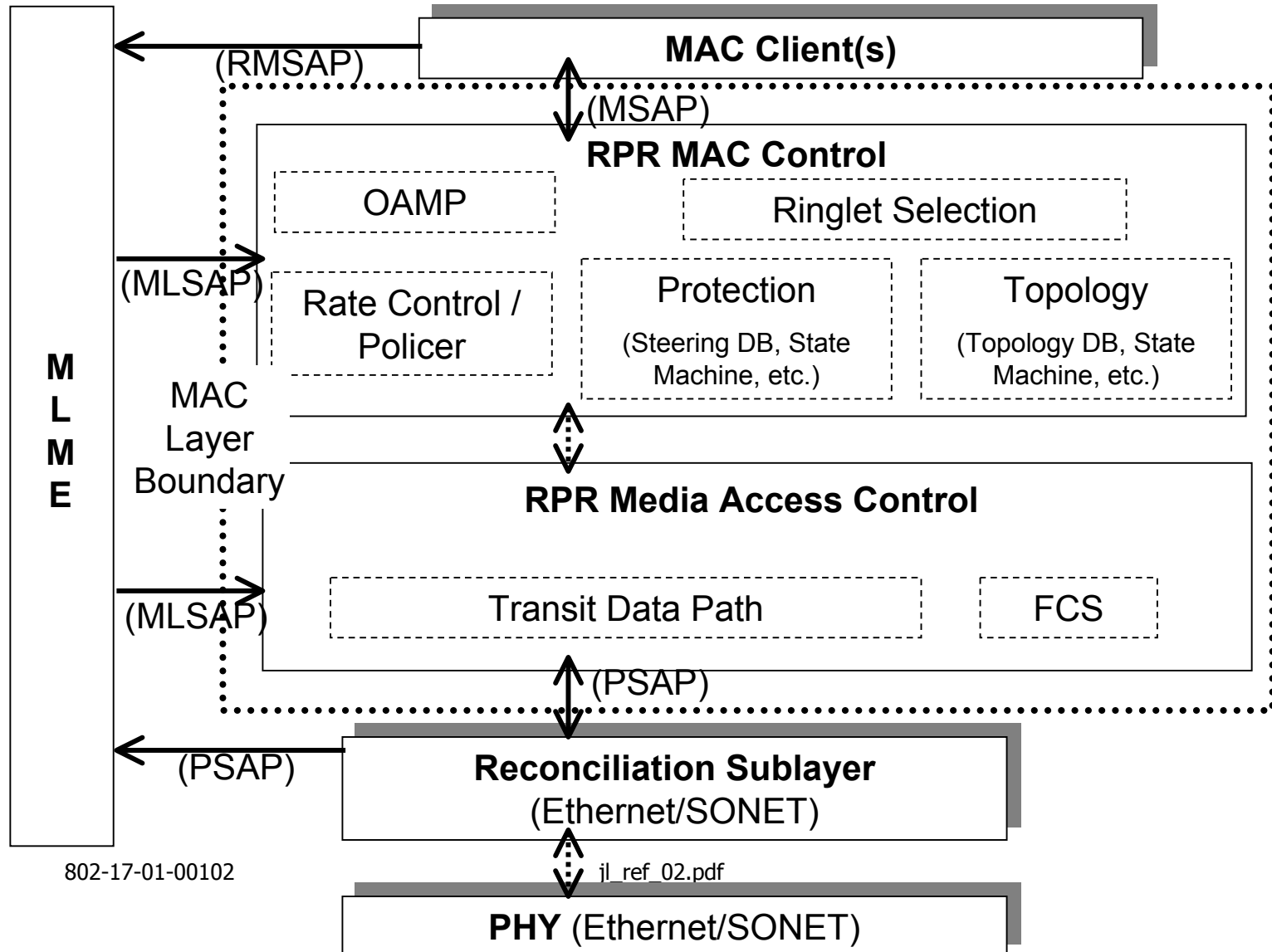
Harry Peng, Nortel

Raj Sharma, Luminous

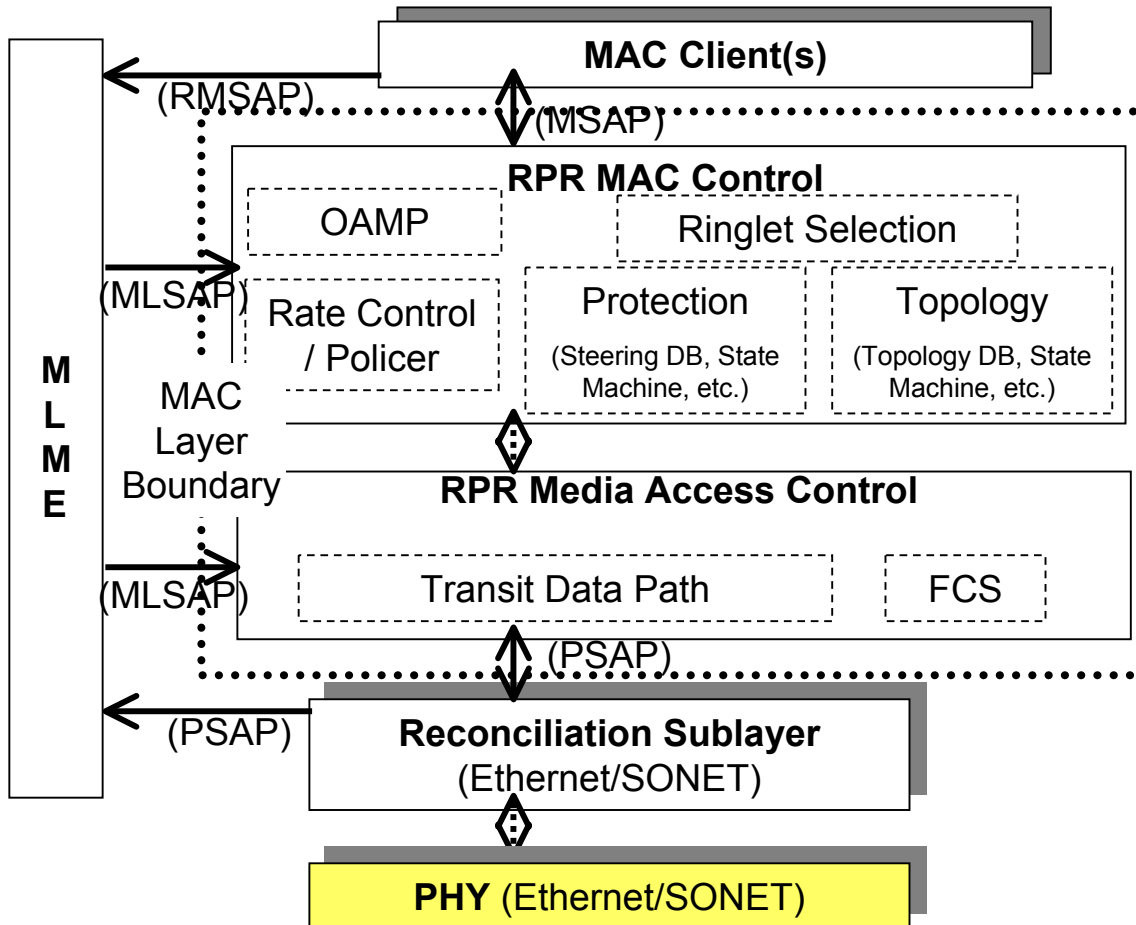
Components of a complete RPR proposal



802.17 MAC Components & Interfaces

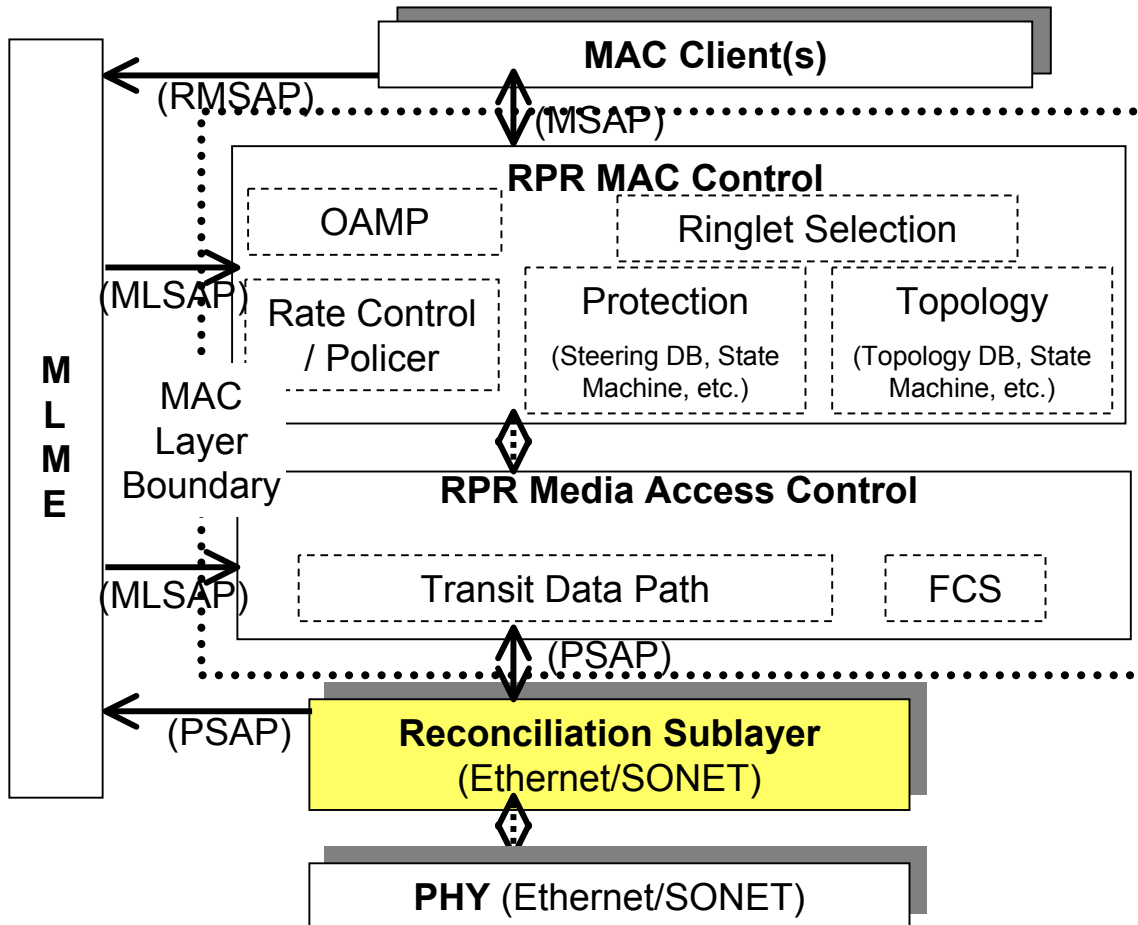


802.17 MAC Components: PHY



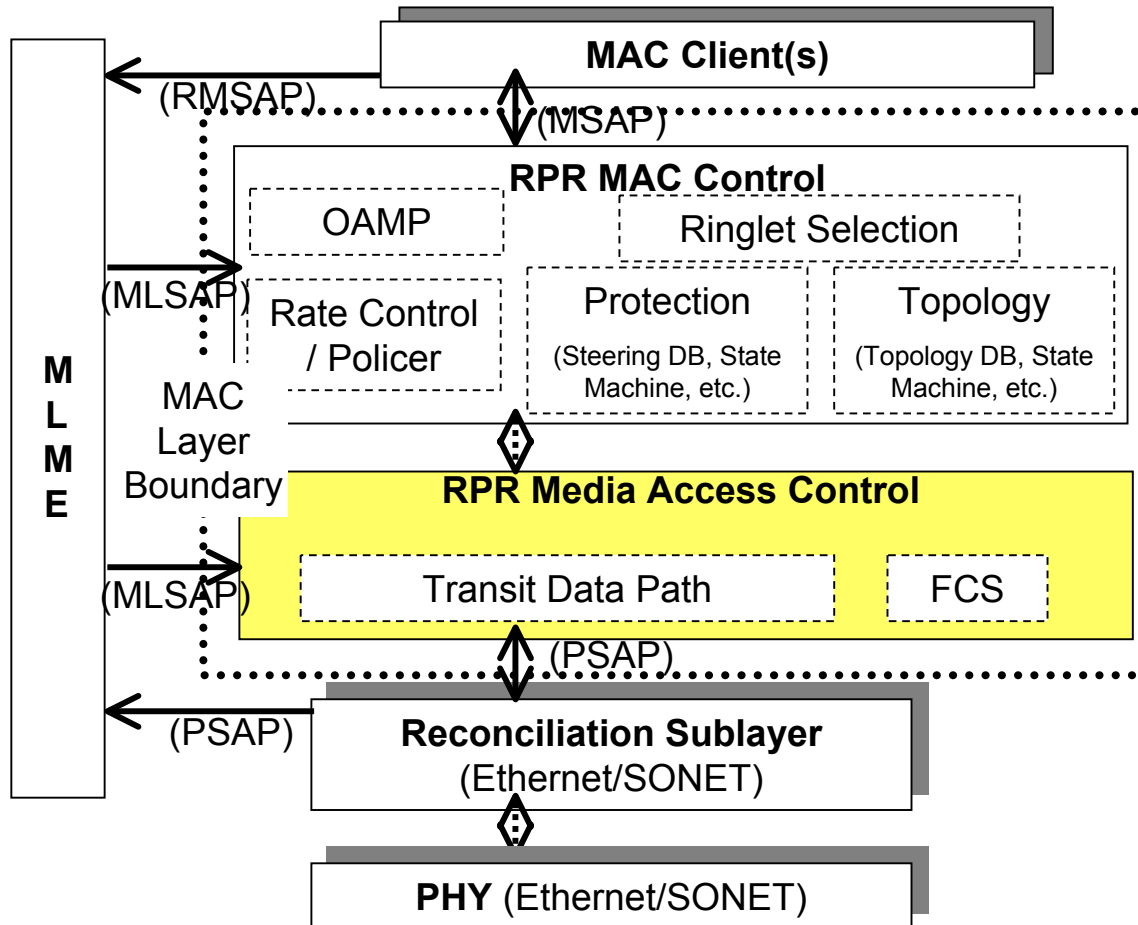
- Physical Layers are referenced, but not described in this standard

802.17 MAC Components: RS



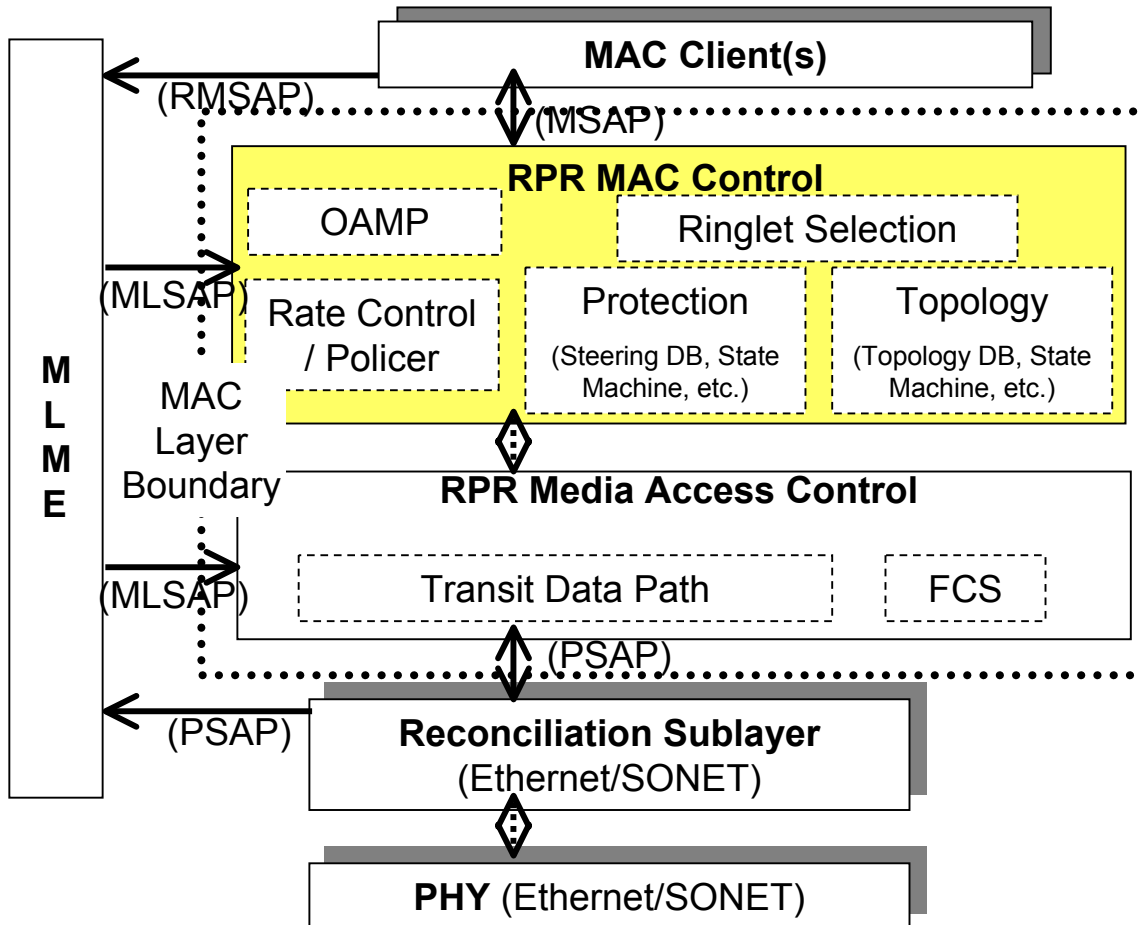
- Part of the Physical Layer, but defined within this standard
- Provides uniform, reconciled interface to the MAC Layer
- One for each Physical Layer interface (each ringlet)

802.17 MAC Components: RPR MAC



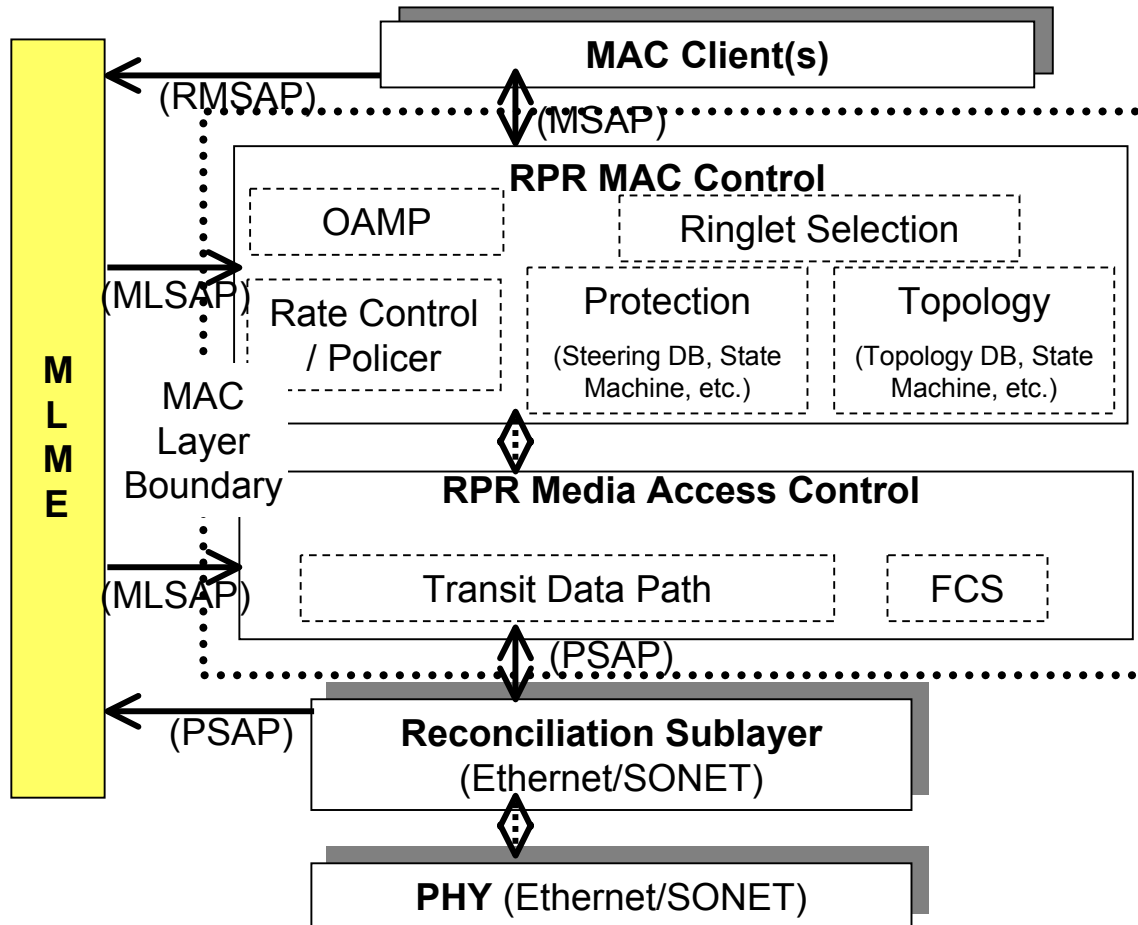
- Provides access control for the Physical Layer
- Provides control of the transit path through the MAC
- Provides data packets to MAC Client and control packets to MAC Control

802.17 MAC Components: MAC Control



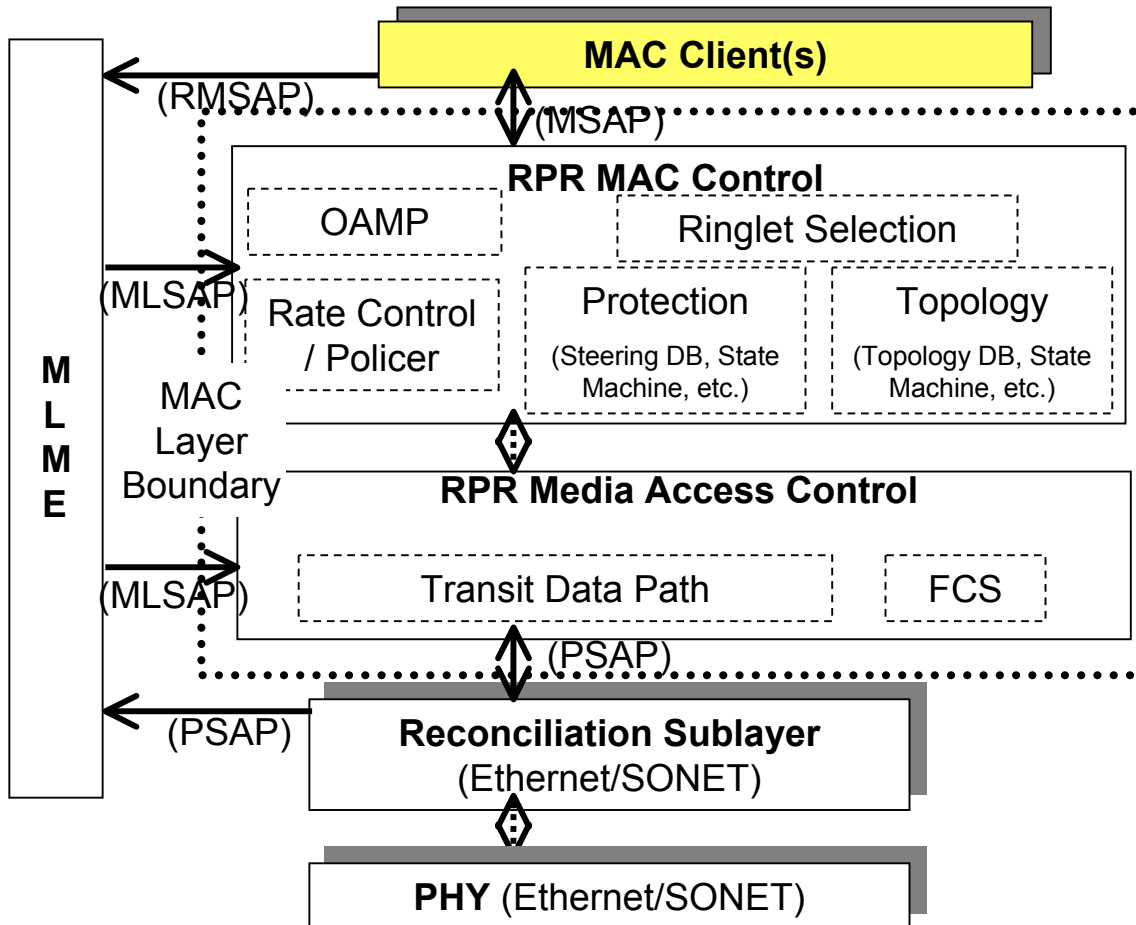
- Provides control of the RPR MAC, including: OAMP, Rate Control, Policing, Protection, Topology, and Ringlet Selection

802.17 MAC Components: MLME



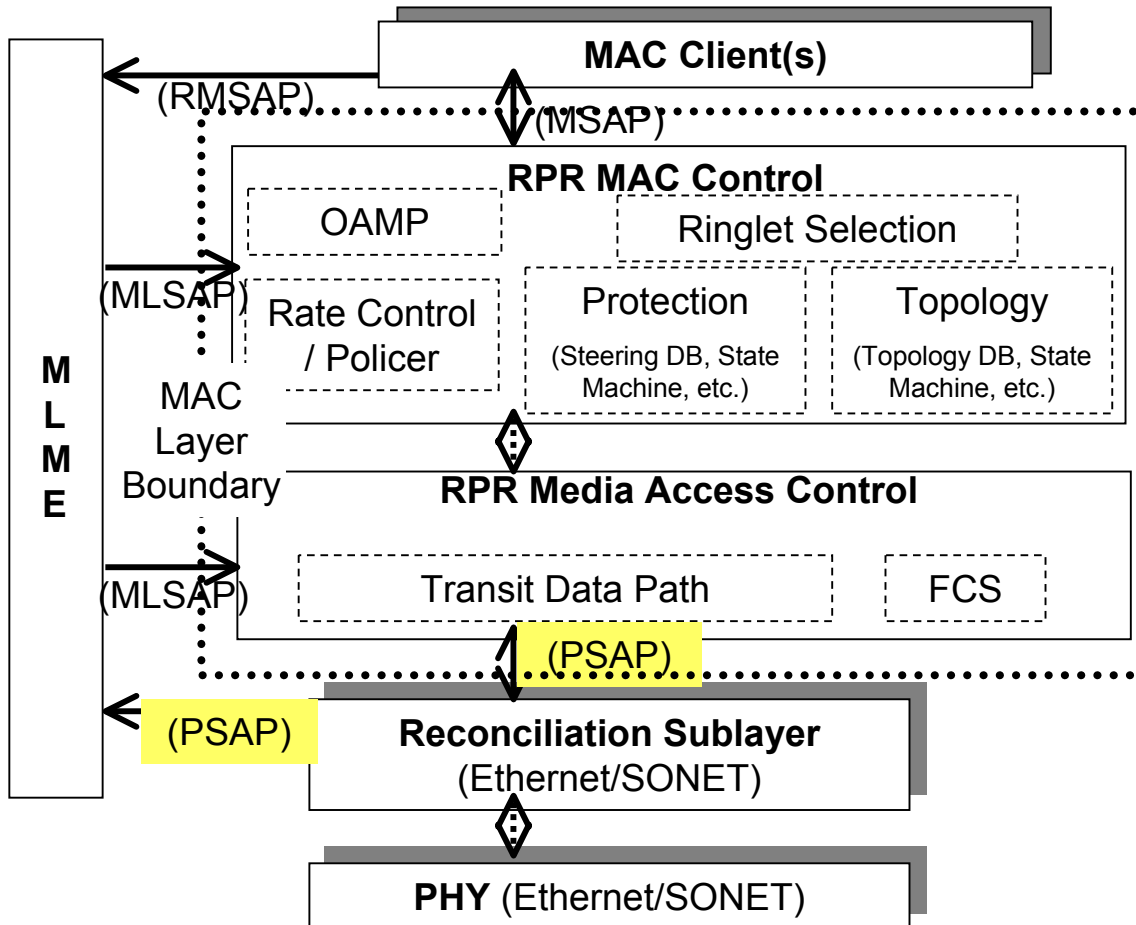
- Independent entity that resides outside of the MAC Layer
- Contains the Management Information Base for the MAC Layer
- Obtains real time attribute values from MAC

802.17 MAC Components: Client



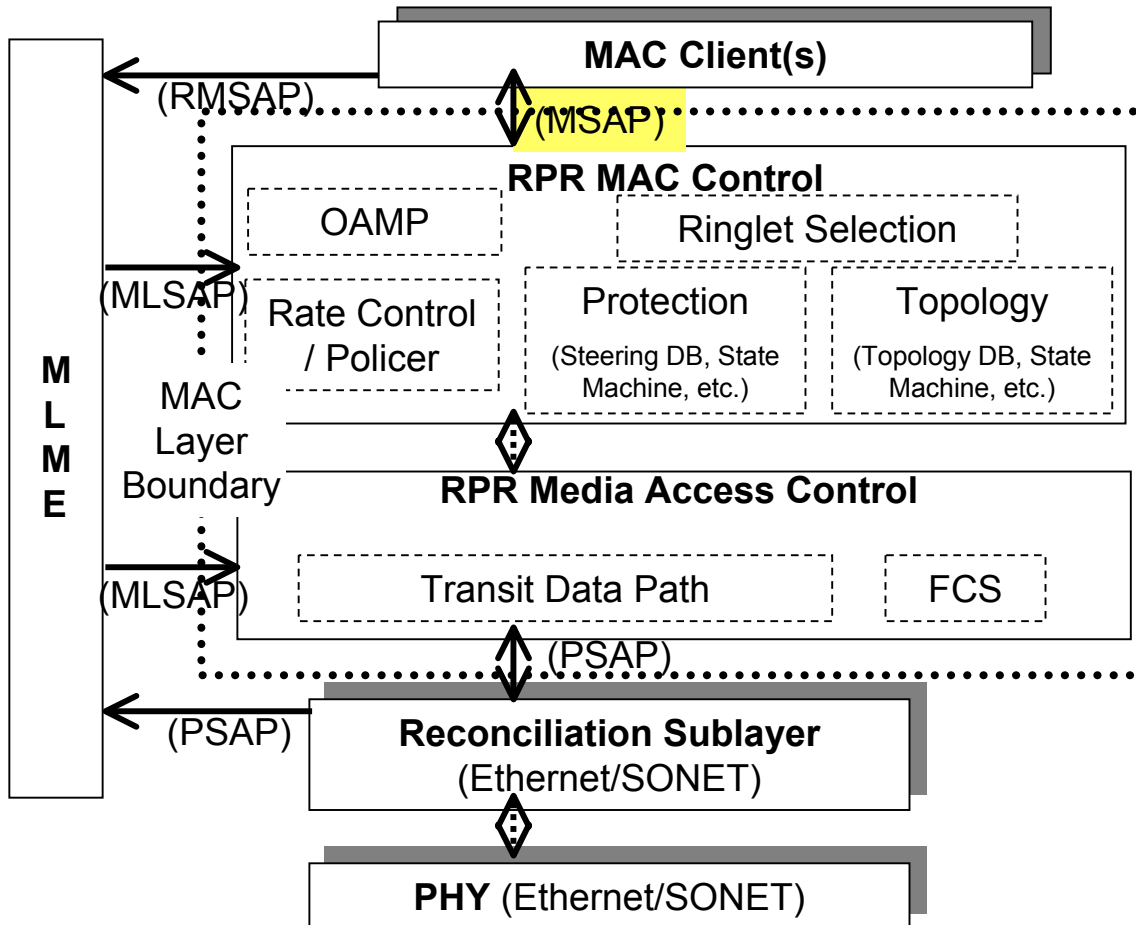
- MAC Client is referenced, but not described in this standard
- Goal is to provide wide range of flexibility in client design

802.17 MAC Interfaces: PSAP



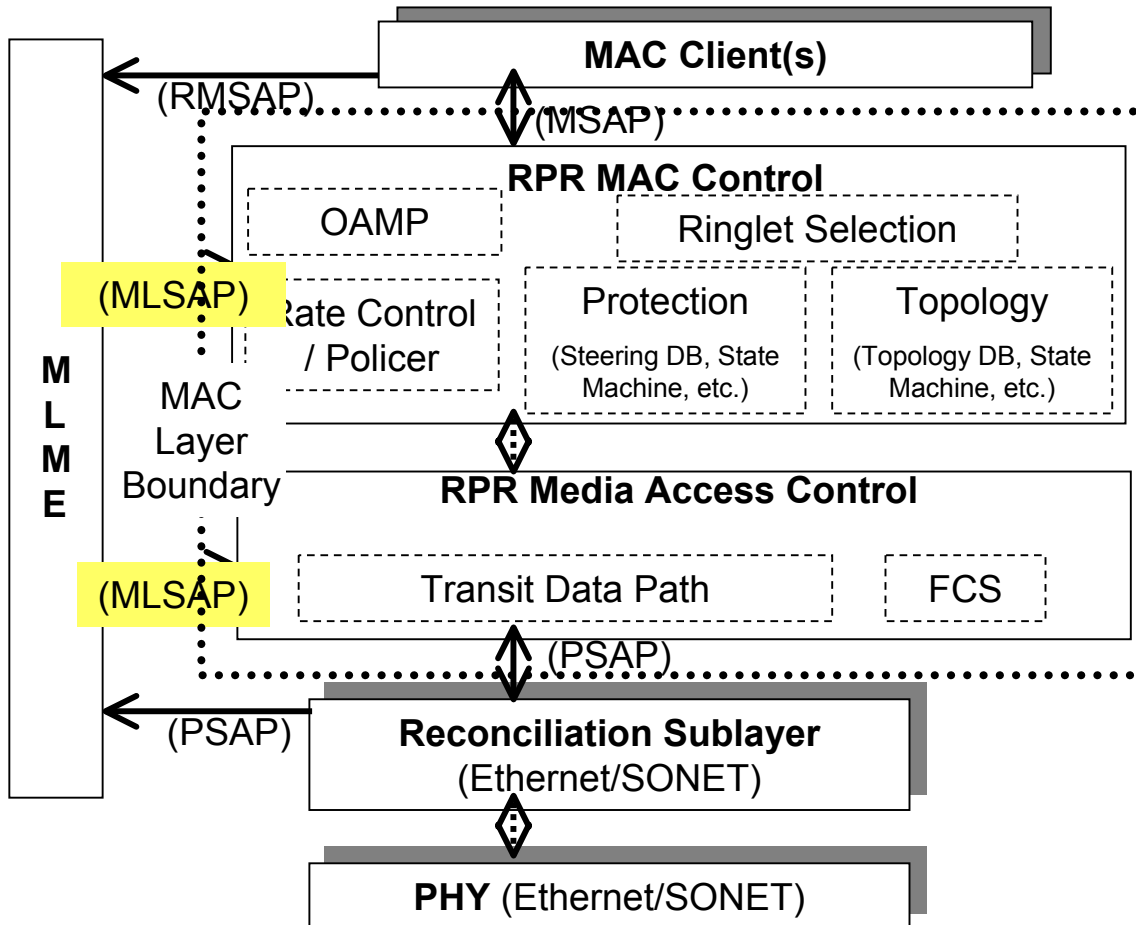
- PHY_LINK_STATUS. indication
- PHY_DATA.request
- PHY_DATA. indication
- PHY_DATA_VALID. indication
- PHY_READY. indication

802.17 MAC Interfaces: MSAP



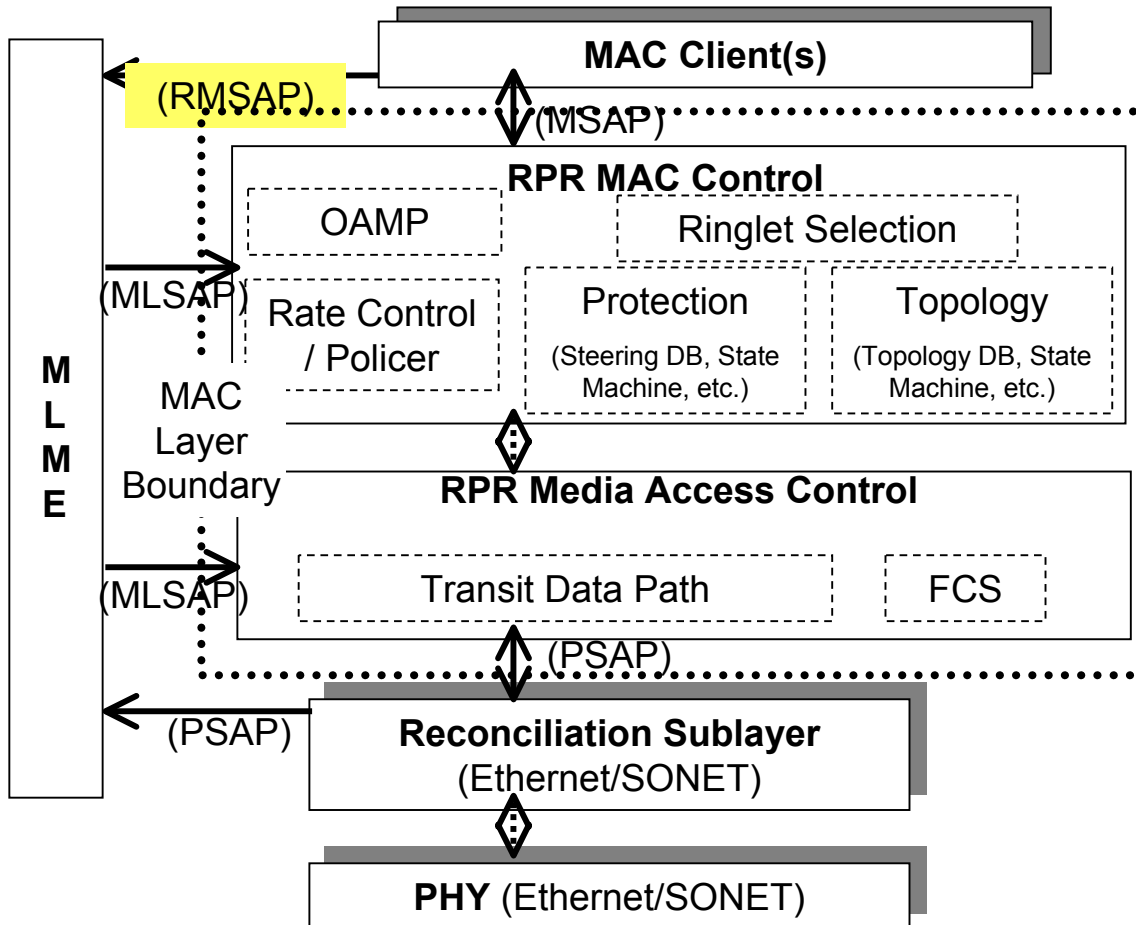
- MA_UNITDATA.indication
- MA_CONTROL.indication
- MA_UNITDATA.request
- MA_CONTROL.request

802.17 MAC Interfaces: MLSAP



- MA_GET.request
- MA_SET.request

802.17 MAC Interfaces: RMSAP



- MLME_GET.
request
- MLME_SET.
request

MAC Model Summary

- Provides semi-detailed model of what this working group needs to describe
- Provides context for upcoming proposals
- Useful for framing the discussions for draft outline