



RPR MAC Reference Model

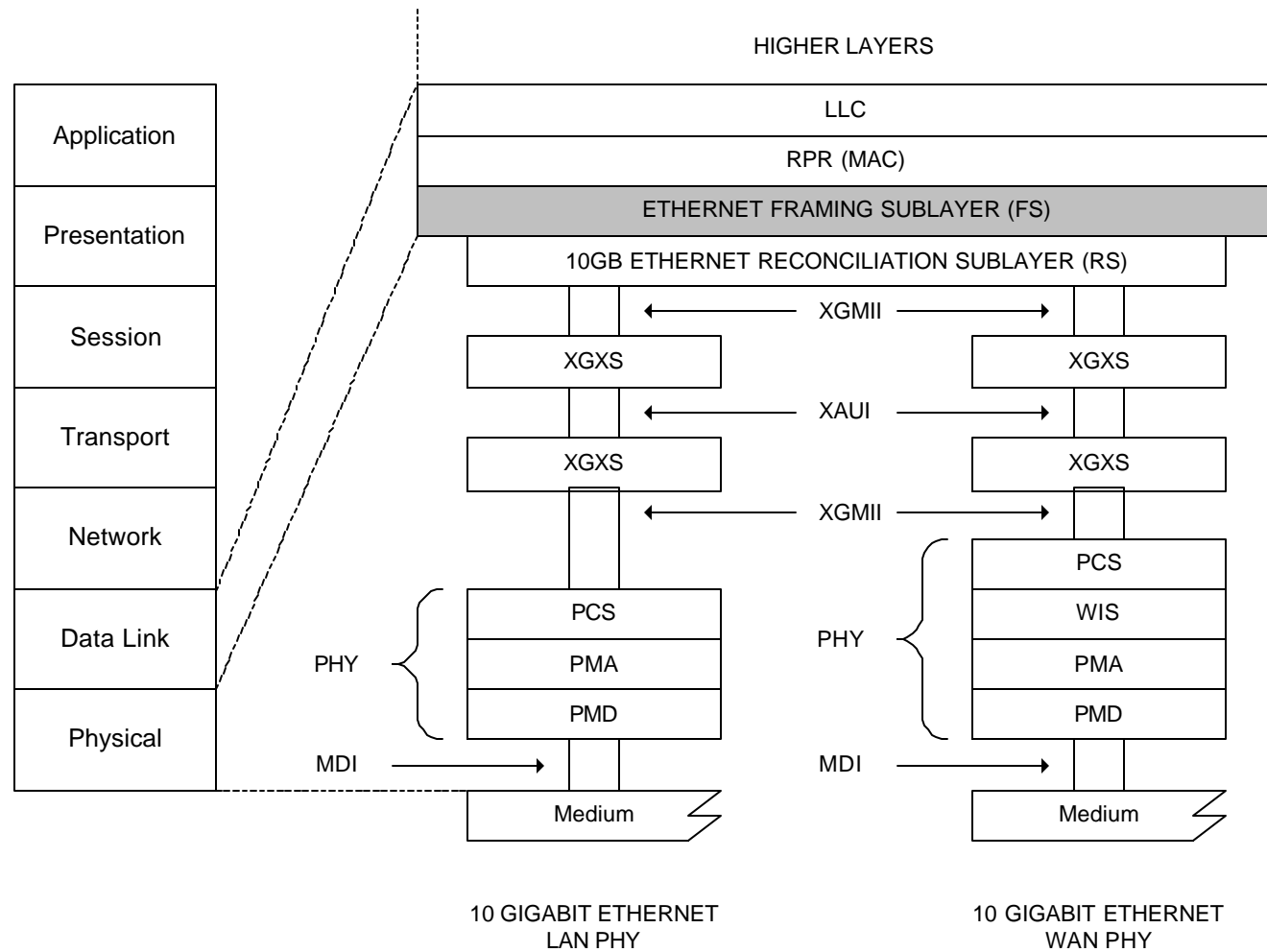
Adisak Mekkittikul,



OSI Reference Model



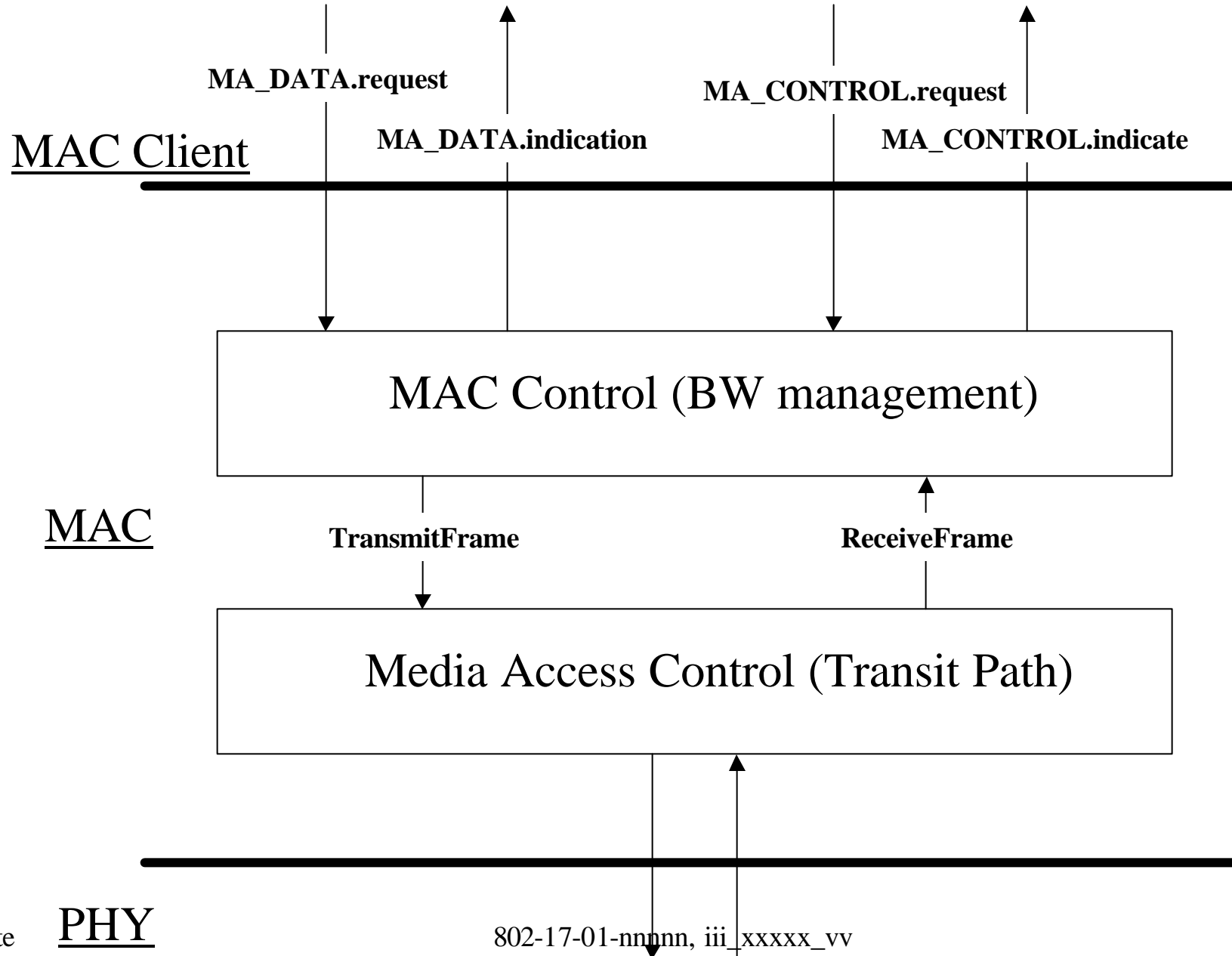
OSI REFERENCE MODEL LAYERS



LLC = LOGICAL LINK CONTROL
 MAC = MEDIA ACCESS CONTROL
 MDI = MEDIUM DEPENDENT INTERFACE
 PCS = PHYSICAL CODING SUBLAYER
 PHY = PHYSICAL LAYER ENTITY
 PMA = PHYSICAL MEDIUM ATTACHMENT
 PMD = PHYSICAL MEDIUM DEPENDENT
 WIS = WAN INTERFACE SUBLAYER
 XGMII = 10 GIGABIT MEDIA INDEPENDENT INTERFACE



Service Definition





Service Primitive



```
MA_DATA.request (  
    Protection_indication,  
    broadcast_indication,  
    Ring_ID,  
    Destination station,  
    Source station,  
    destination_address,  
    source_address,  
    m_sdu,  
    service_class,  
    customer_id  
)
```



Service Primitive



```
MA_DATA.indication (  
    destination_address,  
    source_address,  
    m_sdu,  
    service_class,  
    customer_id  
)
```



Service Primitive



```
MA_CONTROL.request (  
    destination_address,  
    opcode,  
    request_operand_list  
)
```



Service Primitive



```
MA_CONTROL.indication (  
    opcode,  
    indication_operand_list  
)
```

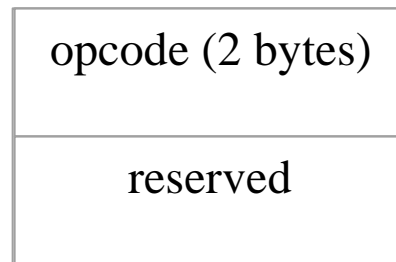


Opcode Assignment

Opcode (Hexadecimal)	MAC Control function	Value/comment
00-00	Reserved	
00-01	PAUSE	Requests that the client stop transmitting
00-02 through 00-FF	Reserved	
01-00	RCF update	Notifies a newly received RCF value
01-01	Protection Event	Notifies a point of failure
01-02	TBD	
01-03 through FF-FF	Reserved	



PAUSE Message Format





RCF Message Format



opcode (2 bytes)
ring ID and segment
RCF upper 2 bytes
RCF lower 2 bytes