Project	**IEEE 802.20 Working Group on Mobile Broadband Wireless Access** **http://grouper.ieee.org/groups/802/20**	
Title	**Evaluation criteria: The Segment Approach**	
Date Submitted	**2003-07-17**	
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Re:	MBWA Call for Contributions 802.20-03/09	
Abstract		
Purpose	The scope of this contribution is to improve the 802.20 Requirement document, Ver. 3.	
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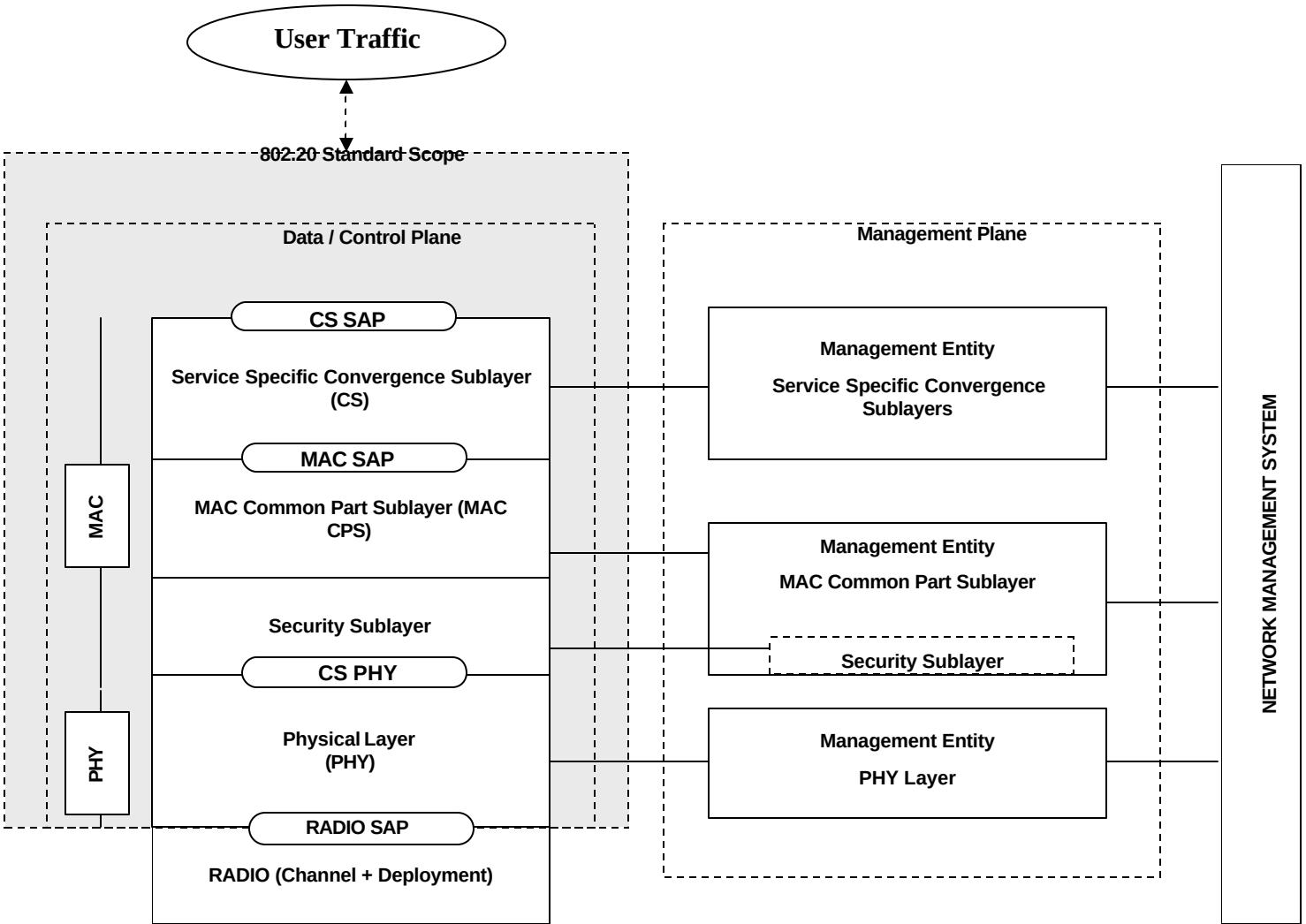
Evaluation criteria: The Segment Approach

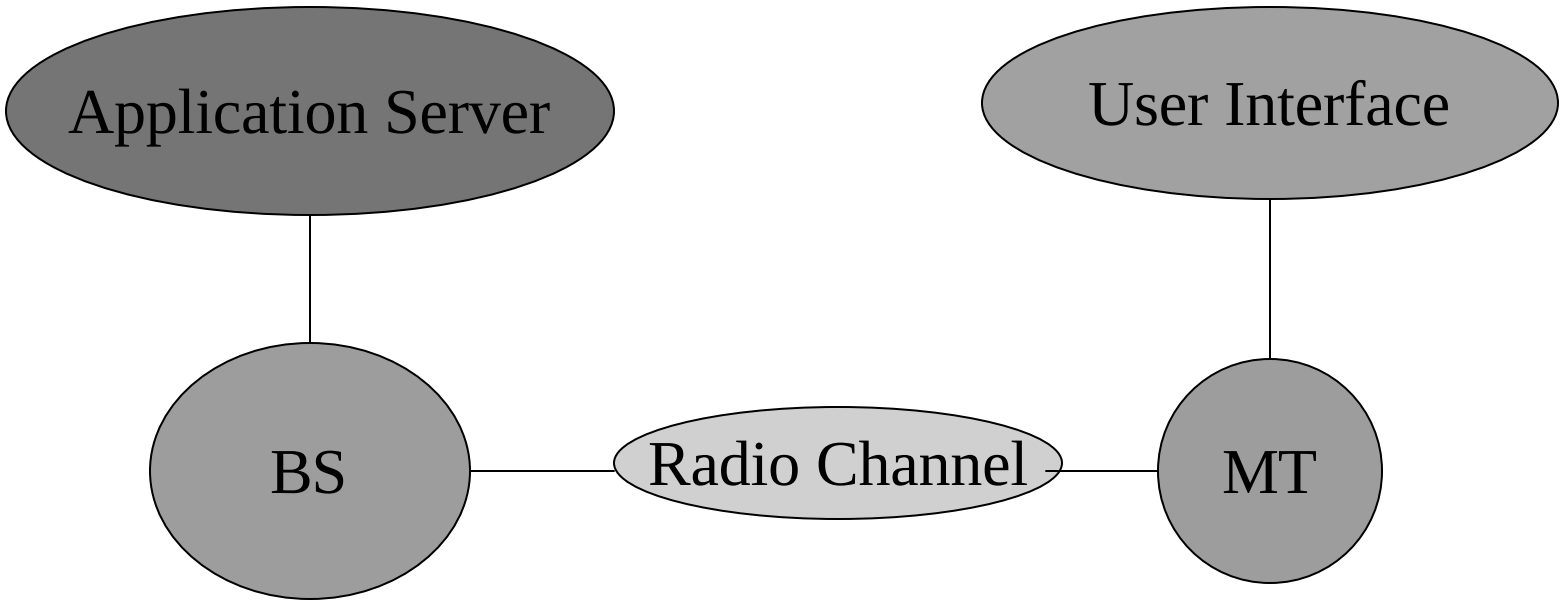
Marianna Goldhammer

Alvarion

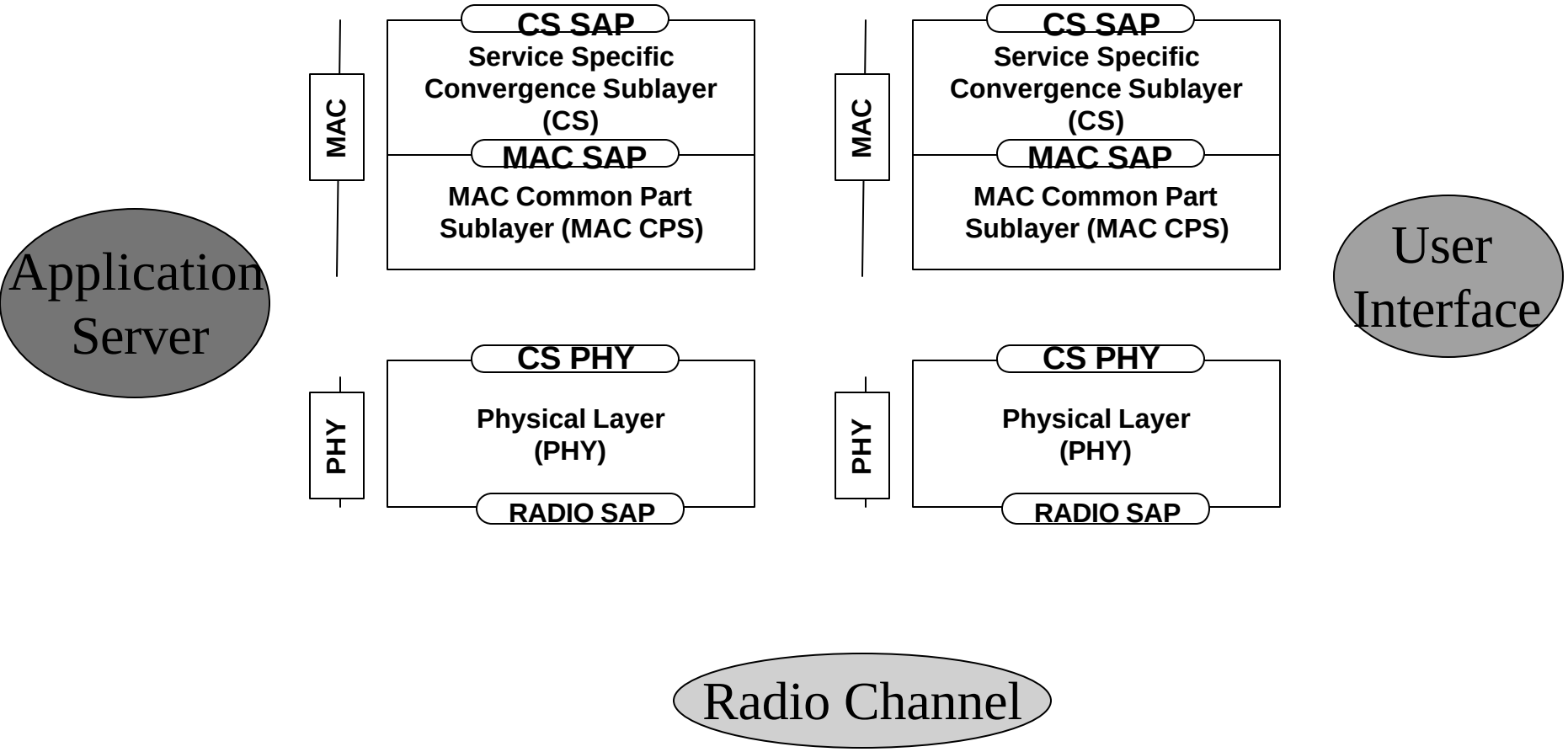
System Model



Communication Model

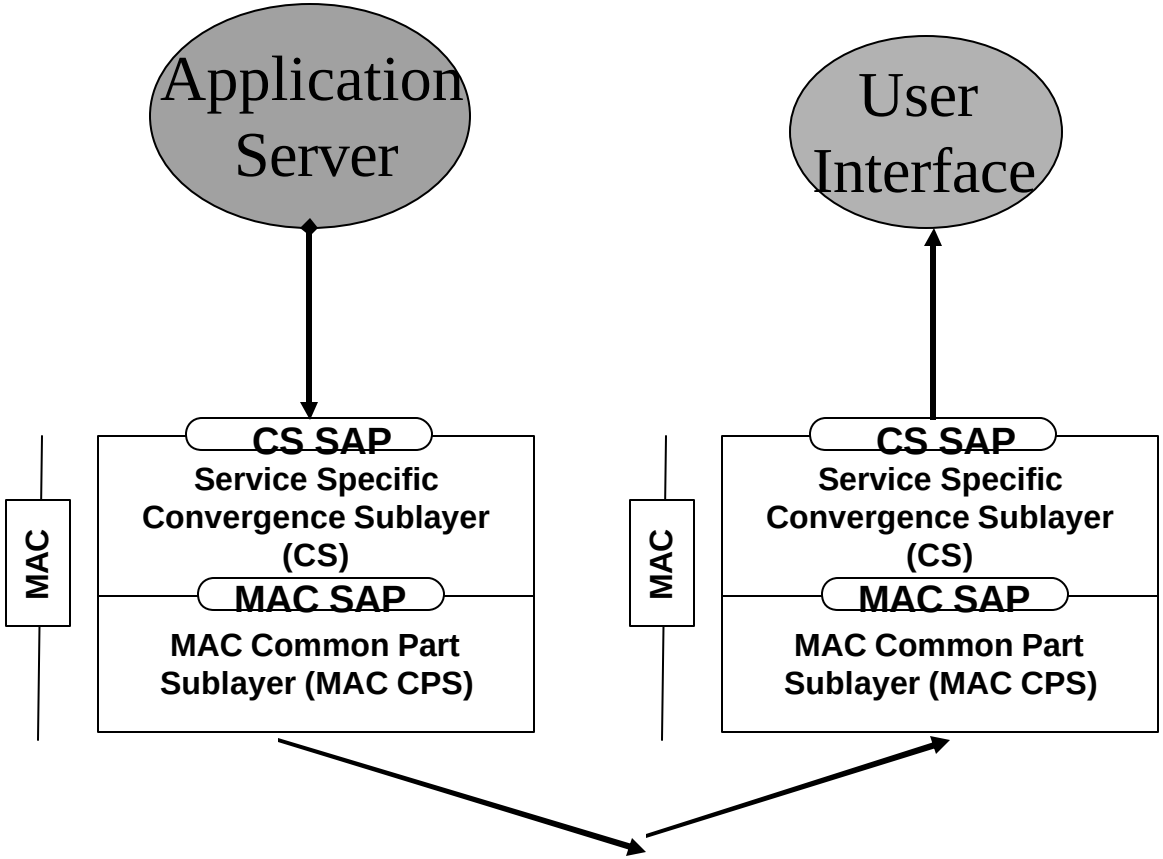


Elements


Application Server
MAC
CS SAP
Service Specific Convergence Sublayer (CS)
MAC SAP
MAC Common Part Sublayer (MAC CPS)
MAC
CS SAP
Service Specific Convergence Sublayer (CS)
MAC SAP
MAC Common Part Sublayer (MAC CPS)
User Interface
PHY
CS PHY
Physical Layer (PHY)
RADIO SAP
PHY
CS PHY
Physical Layer (PHY)
RADIO SAP
Radio Channel

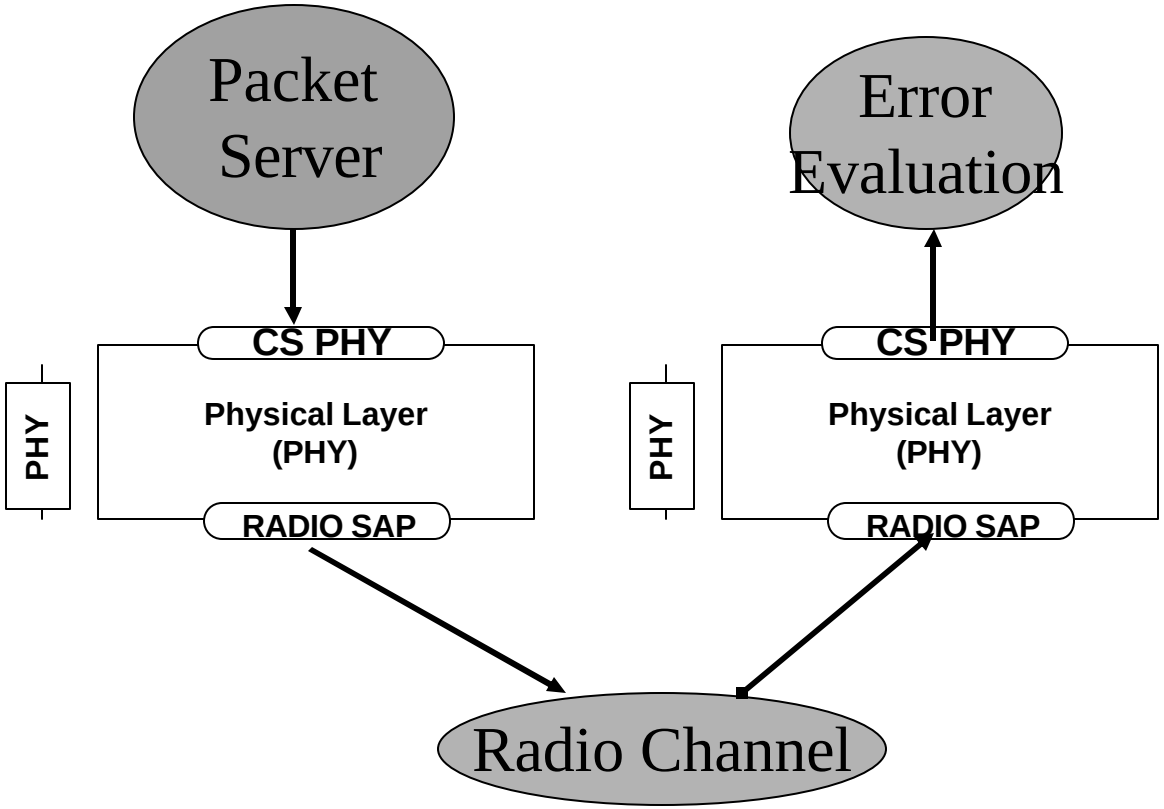
Traffic Models Scope

- Check traffic performance (capacity, delay)



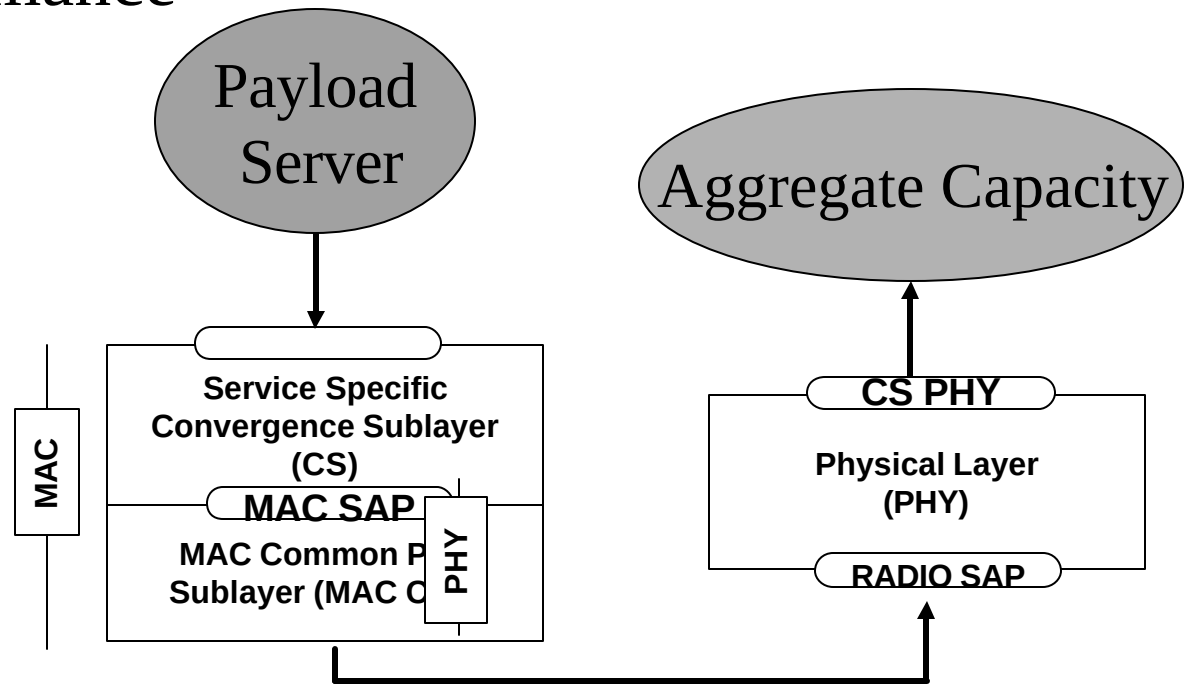
Channel Model Scope

- Check PHY performance (cell size, multipath resistance, speed degradation)



Payload Model Scope

- Check PHY+MAC aggregate capacity and delay performance



Simulation Scope

Downlink				Uplink		
Applica-tion	**MAC**	**PHY**	**Radio Channel**	**PHY**	**MAC**	**User**
Traffic Model					**Traffic Model**	
		Channel Model				
	Payload Model			**Payload Model**		

Conclusion

- Complete end-to-end performance simulation is too complicated
- A segmented approach is needed
  - PHY only
    - Channel model
  - MAC only
    - Traffic model
  - MAC + PHY
    - Payload model