RAMA UNIVERSITY

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FACULTY OF ENGINEERING & TECHNOLOGY

DCS-503 Computer Networks

Lecture-18

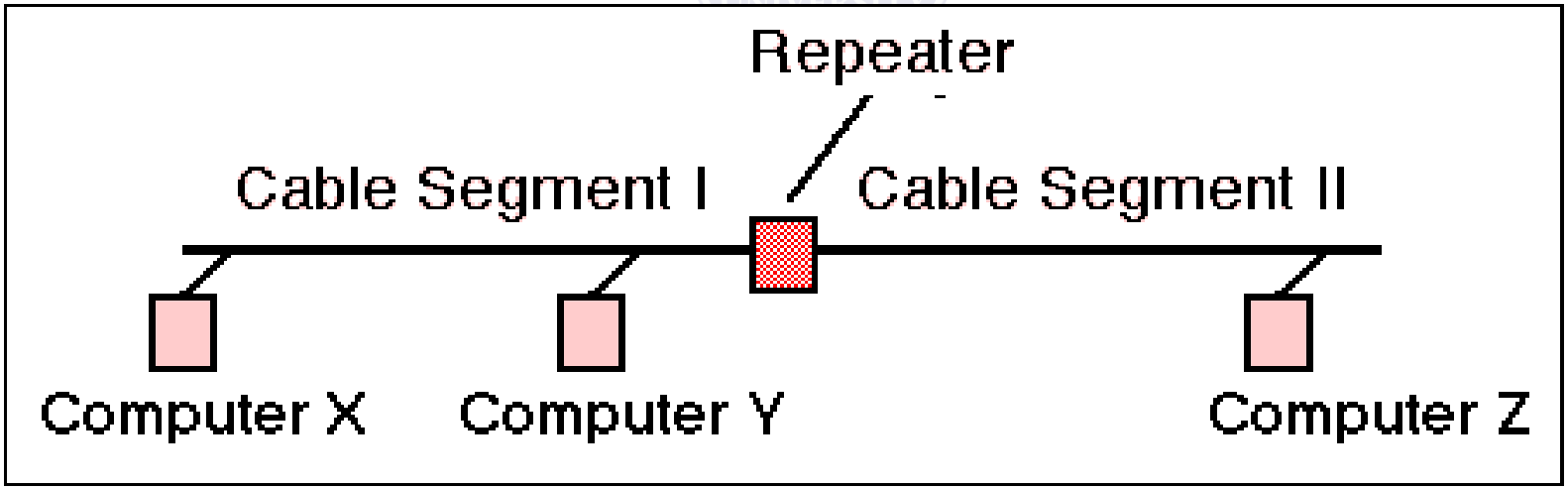
Mr. Dilip Kumar J Saini
Assistant Professor
Computer Science & Engineering

OUTLINE

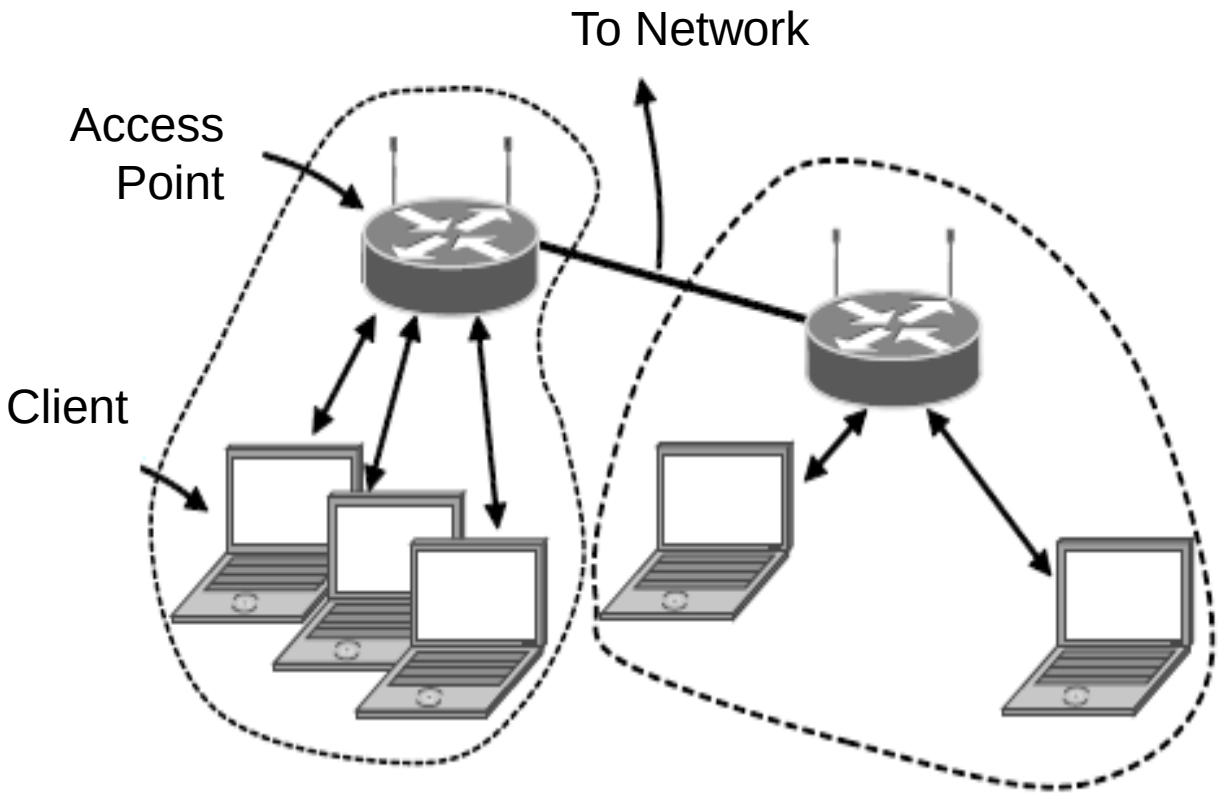
- WIRELESS LANS
- 802.11 ARCHITECTURE AND PROTOCOL STACK
- 802.11 PROTOCOL STACK
- 802.11 MAC SUBLAYER PROTOCOL
- BROADBAND WIRELESS
- 802.16 ARCHITECTURE AND PROTOCOL STACK

WIRELESS LANS

- 802.11 architecture and protocol stack
- 802.11 physical layer
- 802.11 MAC sublayer protocol
- 802.11 frame structure
- Services

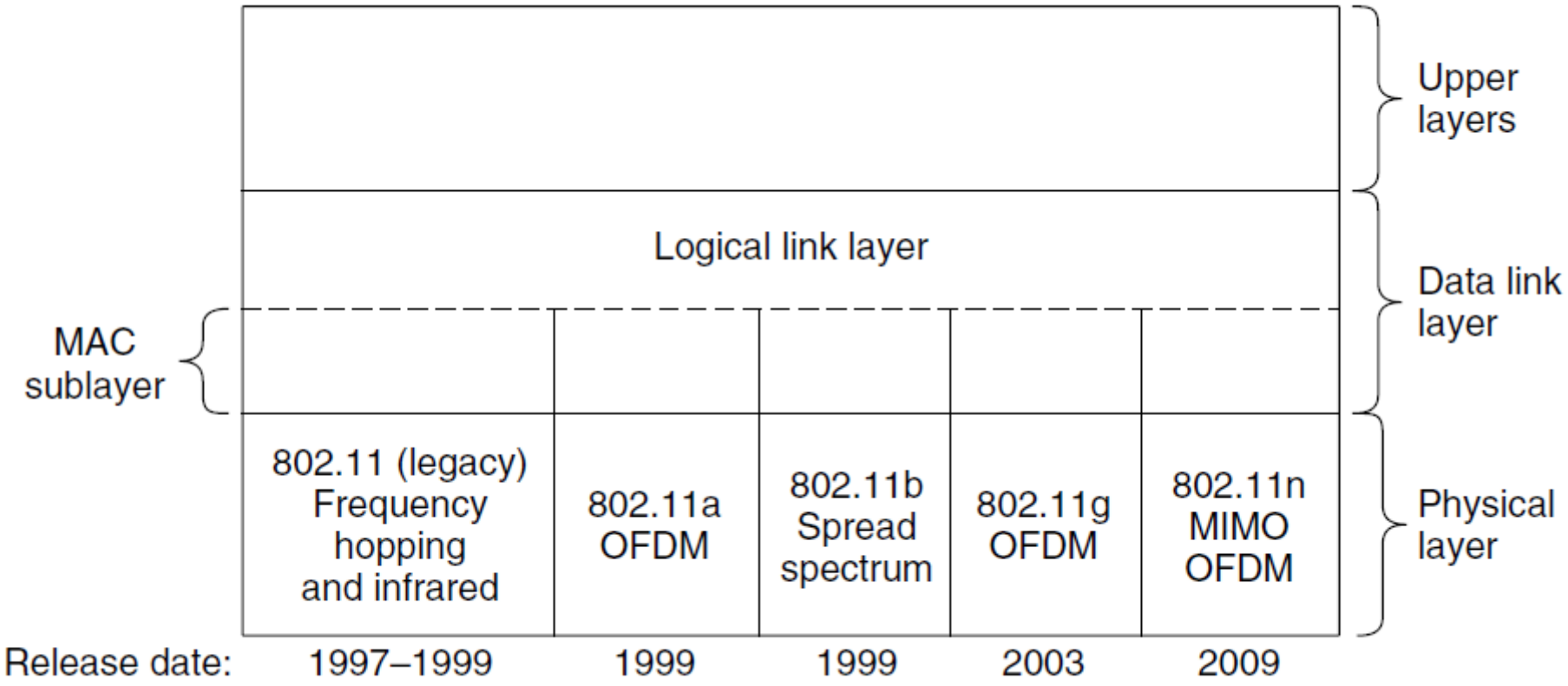


802.11 ARCHITECTURE AND PROTOCOL STACK

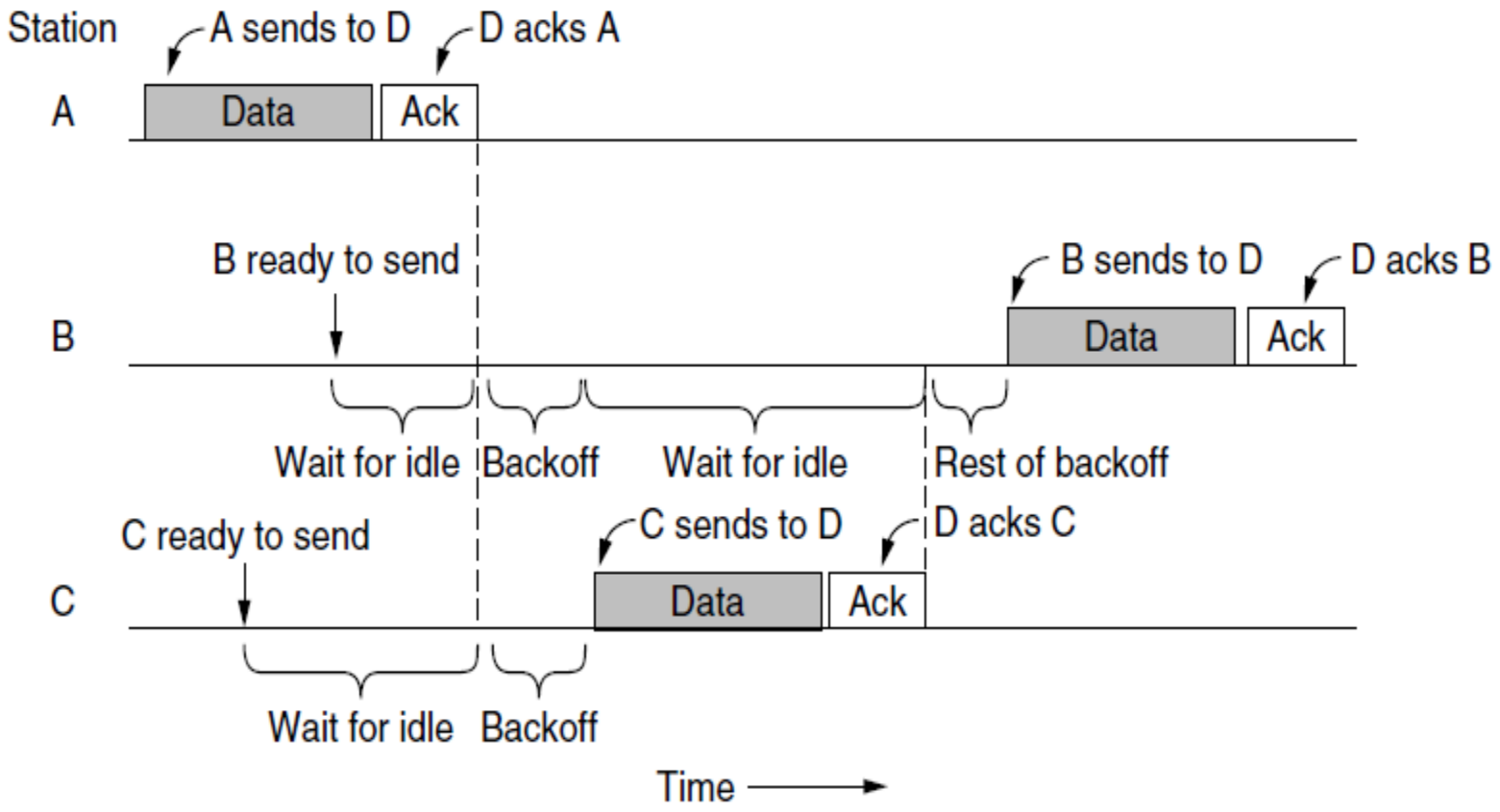


802.11 ARCHITECTURE AND PROTOCOL STACK

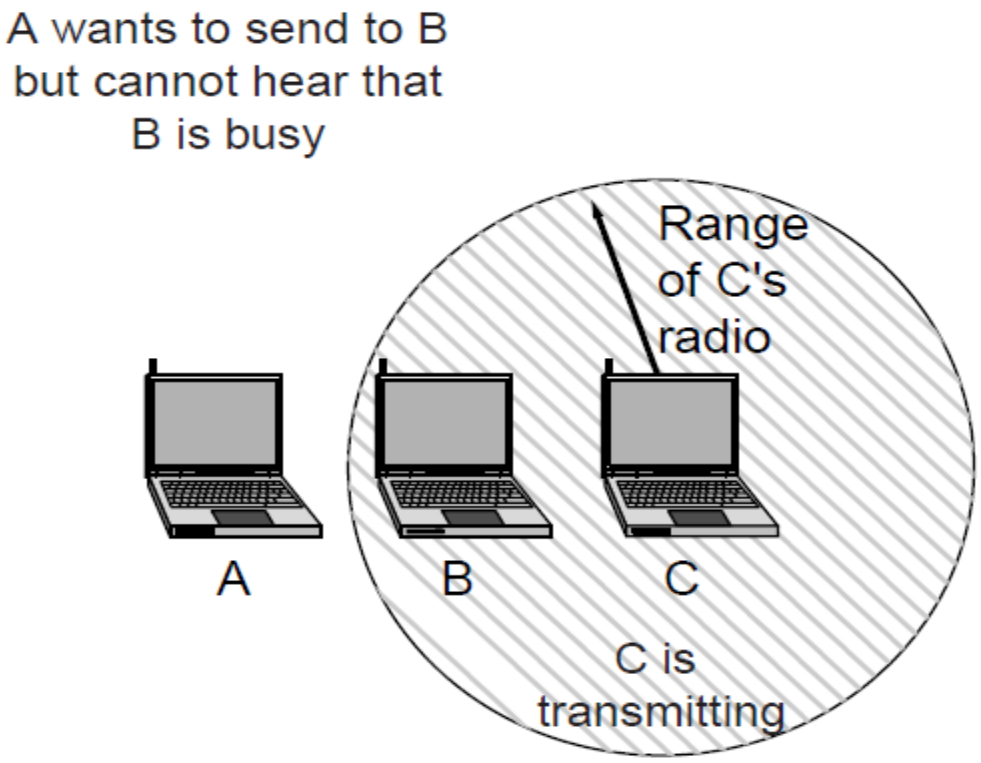
802.11 protocol stack



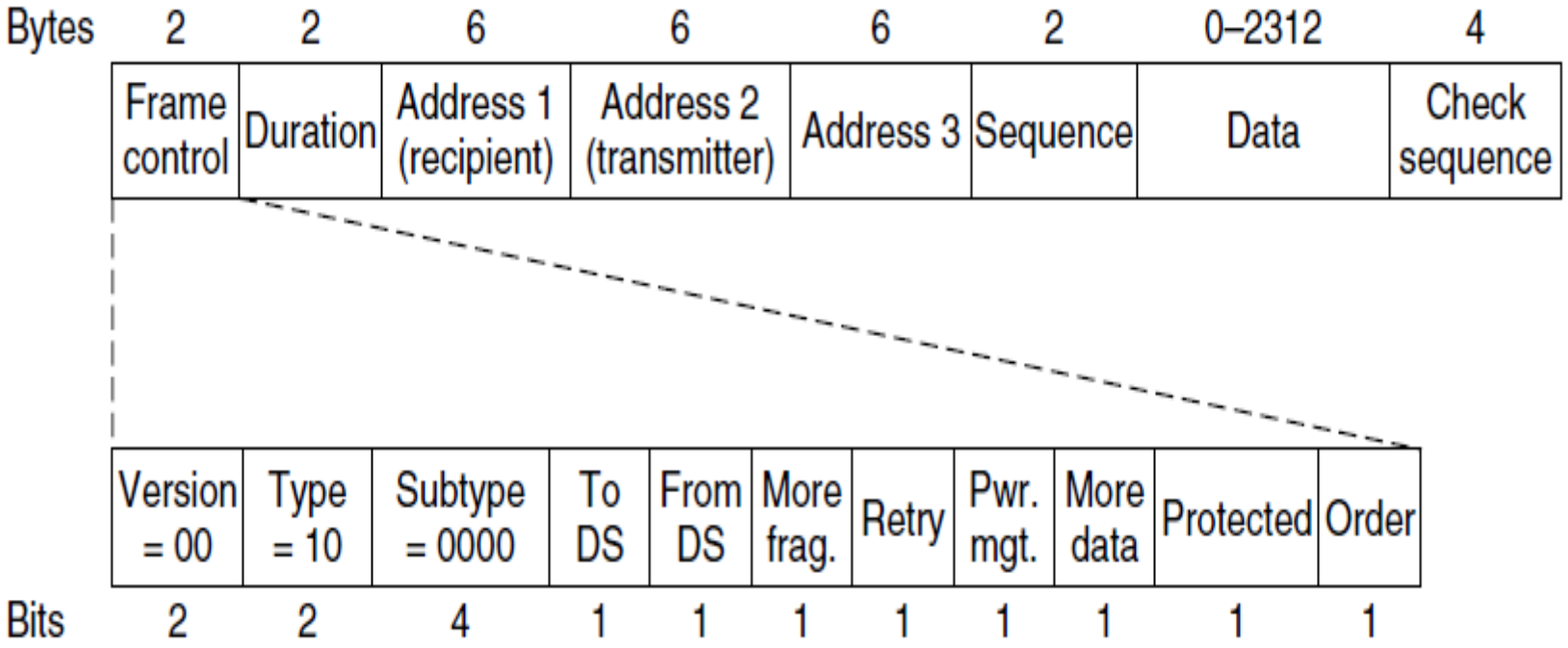
Sending a frame with CSMA/CA.



The hidden terminal problem

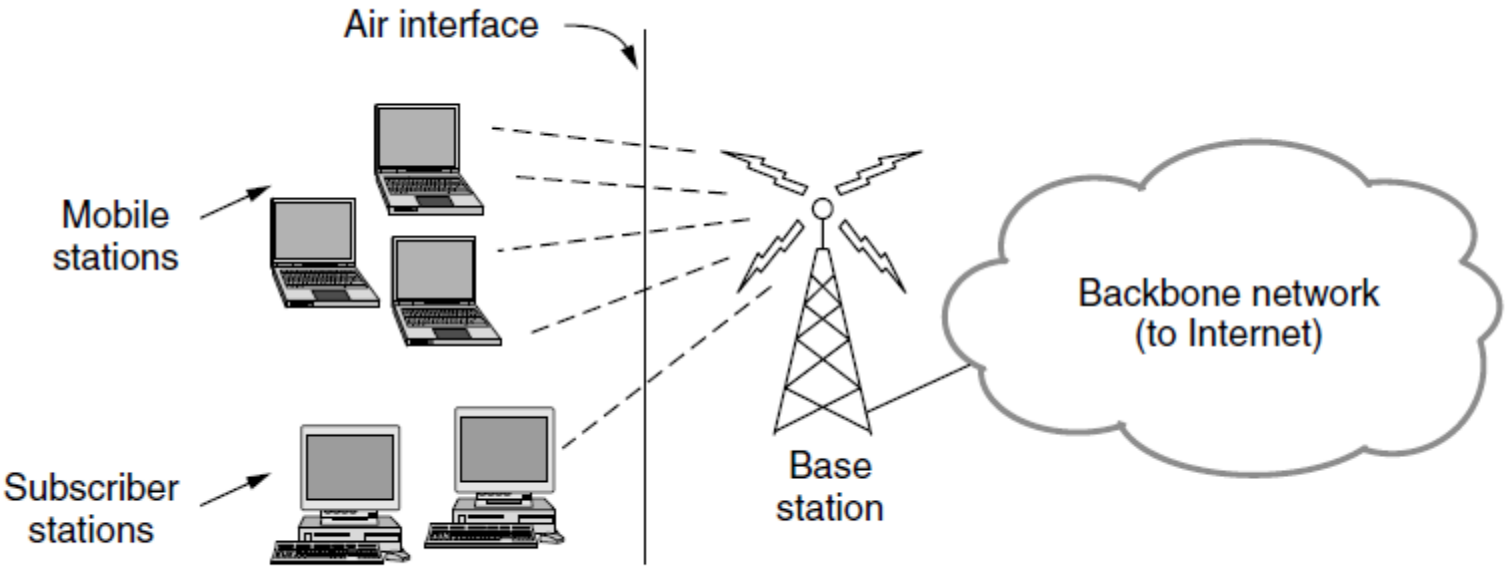


802.11 FRAME STRUCTURE

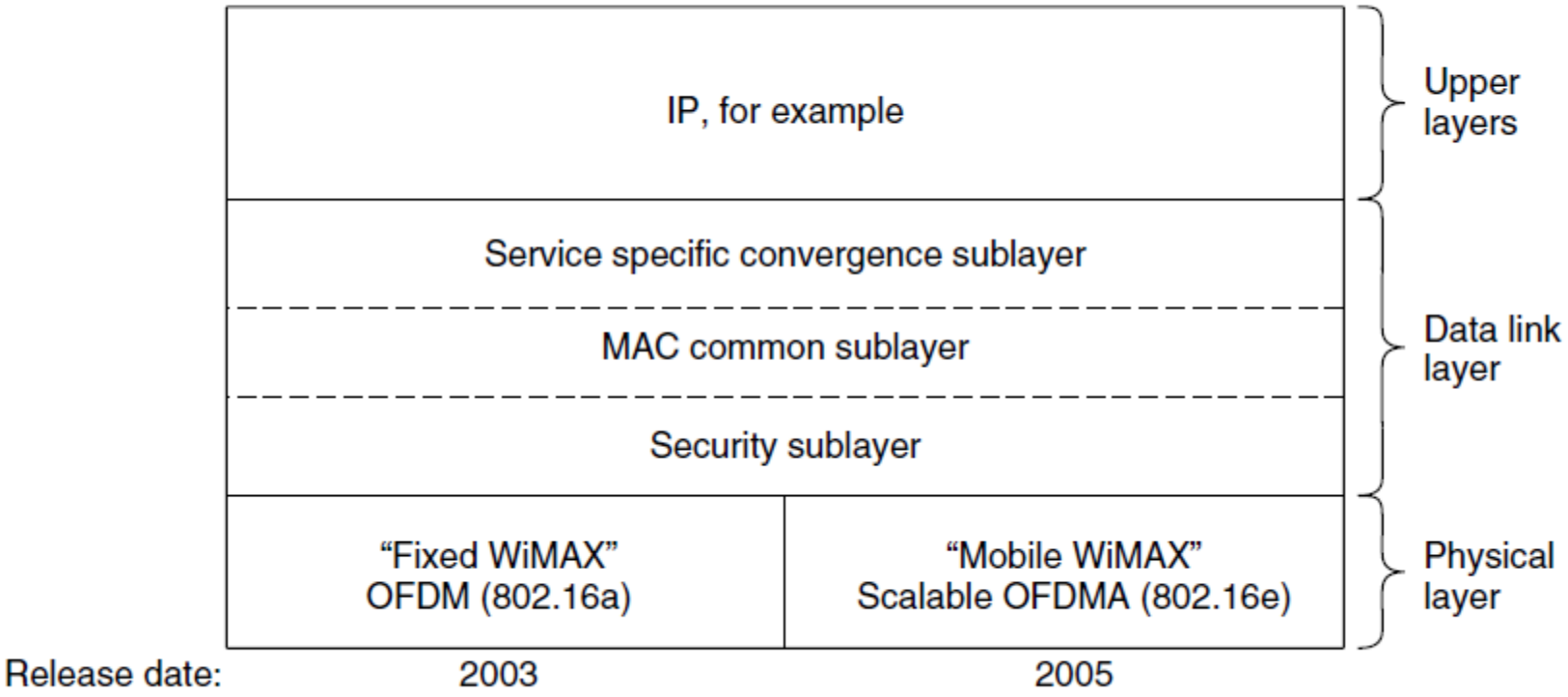


BROADBAND WIRELESS

- Comparison of 802.16 with 802.11, 3G
- 802.16 architecture and protocol stack
- 802.16 physical layer
- 802.16 frame structure



802.16 ARCHITECTURE AND PROTOCOL STACK



Multiple Choice Question

MUTIPLE CHOICE QUESTIONS:

Sr no	Question	Option A	Option B	OptionC	OptionD
1	What is the maximum number of IP addresses that can be assigned to hosts on a local subnet that uses the 255.255.255.224 subnet mask?	14	15	16	30
2	You need to subnet a network into 5 subnets, each with at least 16 hosts. Which classful subnet mask would you use?	255.255.255.192	255.255.255.224	255.255.255.240	255.255.255.248
3	You have a network that needs 29 subnets while maximizing the number of host addresses available on each subnet. How many bits must you borrow from the host field to provide the correct subnet mask?	2	3	4	5
4	If an Ethernet port on a router were assigned an IP address of 172.16.112.1/25, what would be the valid subnet address of this host?	172.16.112.0	172.16.0.0	172.16.96.0	172.16.255.0
5	You have an interface on a router with the IP address of 192.168.192.10/29. Including the router interface, how many hosts can have IP addresses on the LAN attached to the router interface?	6	8	30	32

REFERENCES

- http://www.engppt.com/2009/12/networking-fourozan-ppt-slides.html