FACULTY OF ENGINEERING & TECHNOLOGY

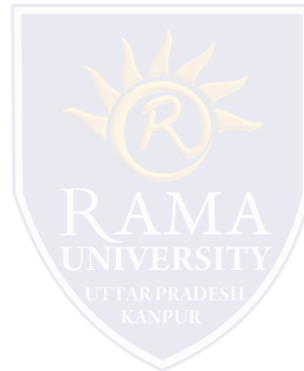# DCS-503 Computer Networks

Lecture-30

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OUTLINE

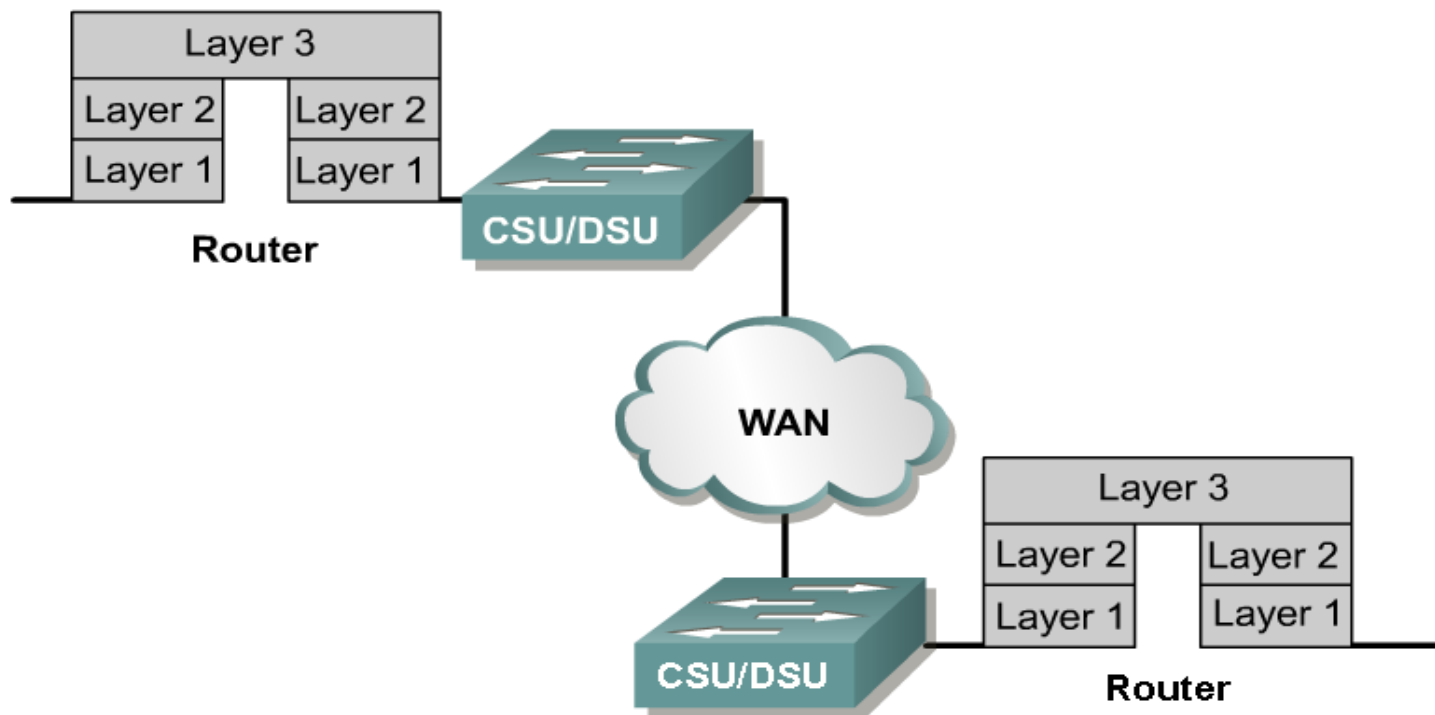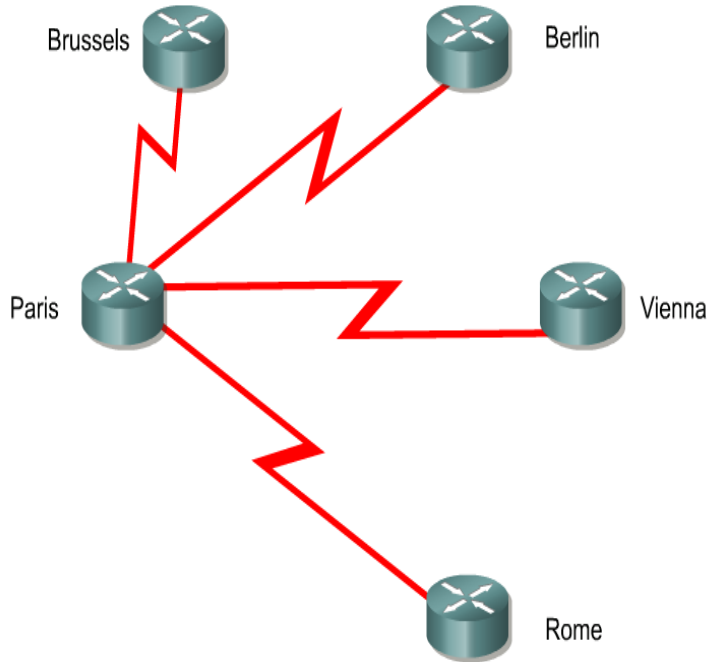➢**WAN COMMUNICATION**

➢**WAN TOPOLOGIES**

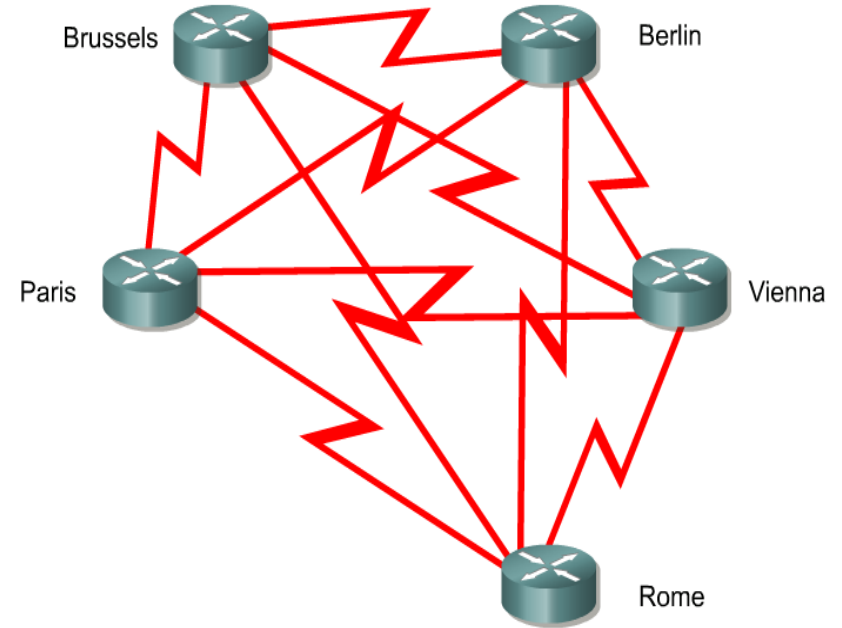**WAN protocols operate at only the lower TWO layers of the OSI stack.**

Star or Hub-and-Spoke

Full-Mesh
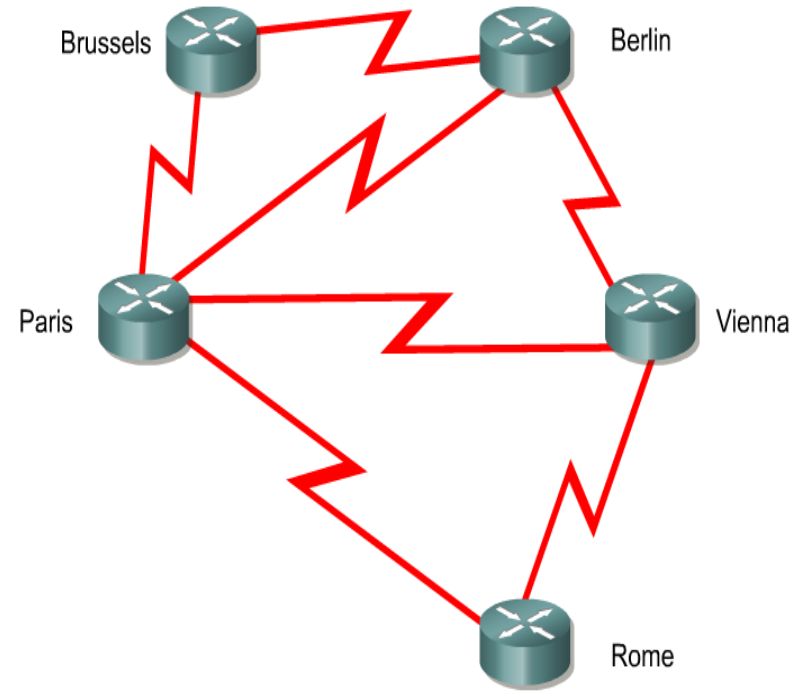
Partial-Mesh

Technology	Charge	Max Bit Rate	Other
Leased Line	Distance, capacity	Unlimited	Permanent fixed capacity
Basic Telephone	Distance, time	33 kbps	Dialed, slow connection
ISDN	Distance, capacity	64 or 128 kbps <2 Mbps, PRI	Dialed, fast connection
X.25	Volume	<48 kbps	Switched fixed capacity
Frame Relay	Capacity	<4 Mbps	Permanent variable capacity
ATM	Capacity	<155 Mbps	Permanent variable capacity

MUTIPLE CHOICE QUESTIONS:

Sr no	Question	Option A	Option B	OptionC	OptionD
1	When were VPNs introduced into the commercial world?	Early 80's	Late 80's	Early 90's	Late 90's
2	Which of the following statements is NOT true concerning VPNs?	Financially rewarding compared to leased lines	Allows remote workers to access corporate data	Allows LAN-to-LAN connectivity over public networks	Is the backbone of the Internet
3	When the mail server sends mail to other mail servers it becomes _____	SMTP server	SMTP client	Peer	Master
4	If you have to send multimedia data over SMTP it has to be encoded into _____	Binary	Signal	ASCII	Hash
5	Expansion of SMTP is _____	Simple mail transfer	Simple Message Transfer Protocol	Simple Mail Transmission Protocol	Simple Message Transmission Protocol

REFERENCES

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