



RAMA UNIVERSITY

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FACULTY OF ENGINEERING & TECHNOLOGY

BCA-302 Computer Networks

Lecture-32

Mr. Dilip Kumar J Saini

Assistant Professor

Computer Science & Engineering

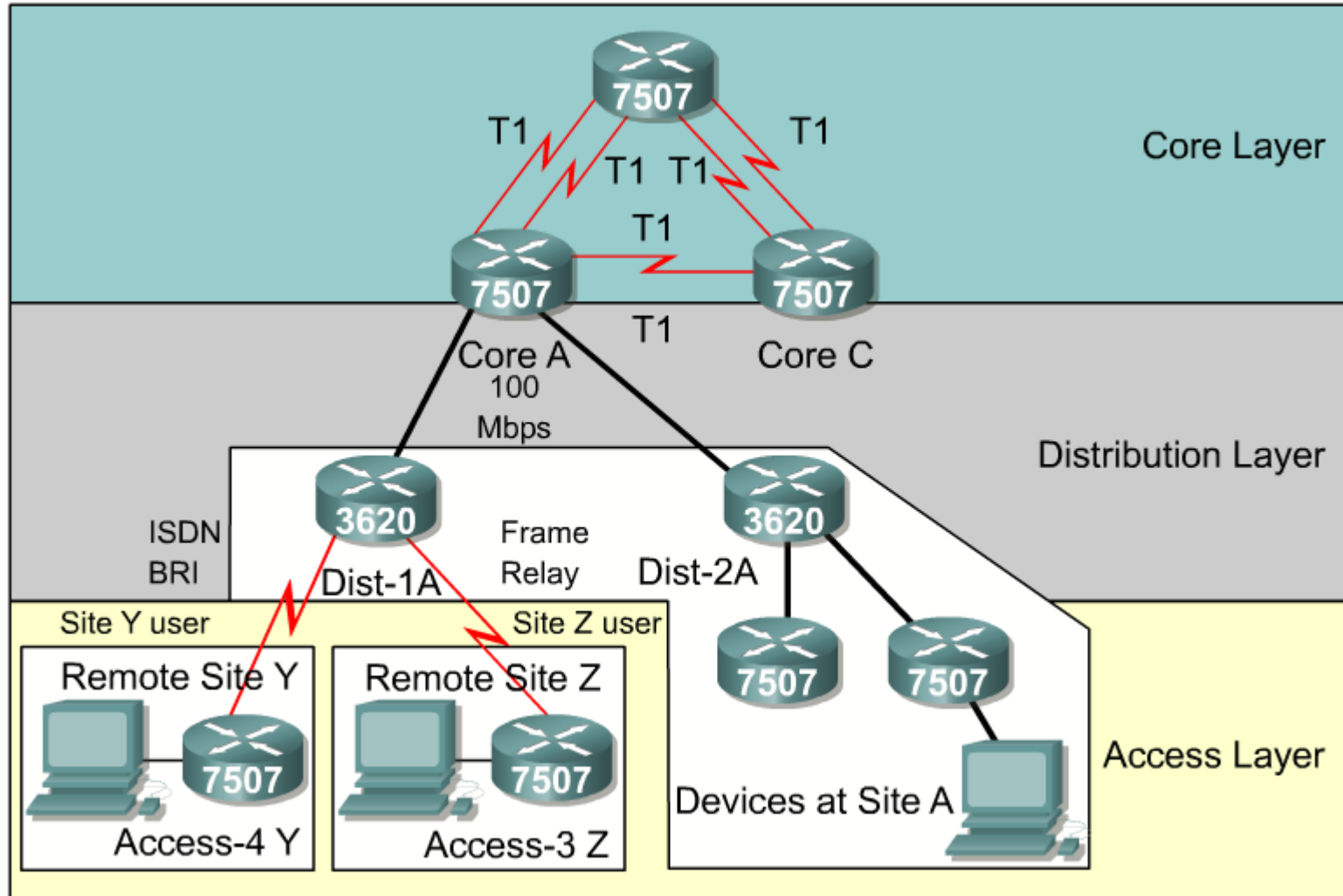
OUTLINE

➤ WAN COMMUNICATION

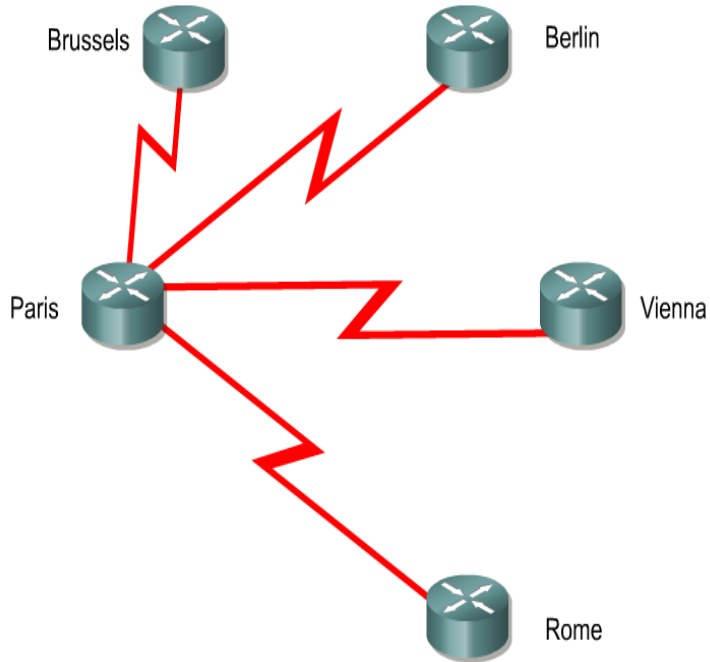
➤ WAN TOPOLOGIES



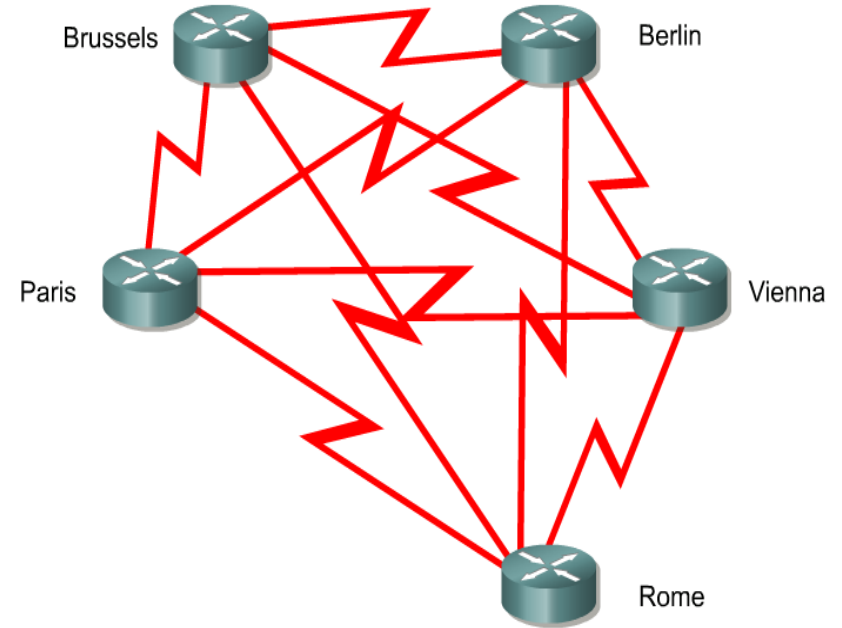
ANOTHER THREE LAYER MODEL



WAN TOPOLOGIES

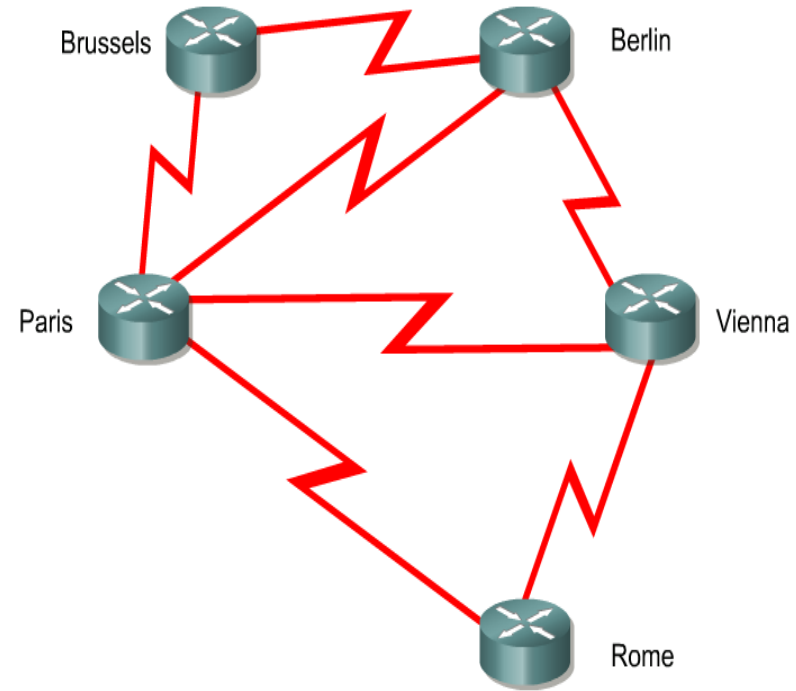


Star or Hub-and-Spoke



Full-Mesh

WAN TOPOLOGIES



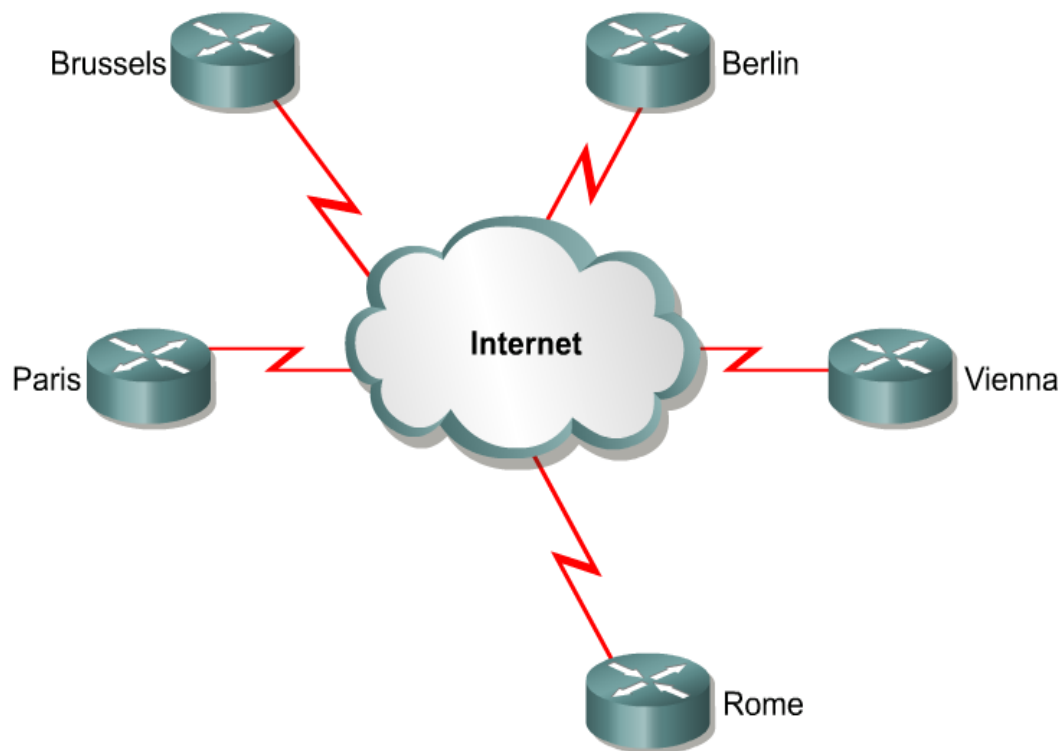
Partial-Mesh

WAN TOPOLOGIES

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

WAN CONSIDERATIONS

- The disadvantage of permitting multiple links, is that the whole enterprise WAN is open to Internet-based attacks.
- It is also difficult to monitor and secure the many connection points.
- A single connection point is more easily monitored and secured, even though the enterprise WAN will be carrying some traffic that would otherwise have been carried on the Internet.



Multiple Choice Question

MUTIPLE CHOICE QUESTIONS:

Sr no	Question	Option A	Option B	OptionC	OptionD
1	The underlying Transport layer protocol used by SMTP is _____	TCP	UDP	Either TCP or UDP	IMAP
2	Choose the statement which is wrong incase of SMTP?	It requires message to be in 7bit ASCII format	It is a pull protocol	It transfers files from one mail server to another mail server	SMTP is responsible for the transmission of the mail through the internet
3	Internet mail places each object in _____	Separate messages for each object	One message	Varies with number of objects	Multiple messages for each object
4	Typically the TCP port used by SMTP is _____	25	35	50	15
5	A session may include _____	Zero or more SMTP transactions	Exactly one SMTP transactions	Always more than one SMTP transactions	Number of SMTP transactions cant be determined

REFERENCES

- <http://www.engppt.com/2009/12/networking-fourzan-ppt-slides.html>

