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FACULTY OF ENGINEERING & TECHNOLOGY

DCS-503 Computer Networks

Lecture-24

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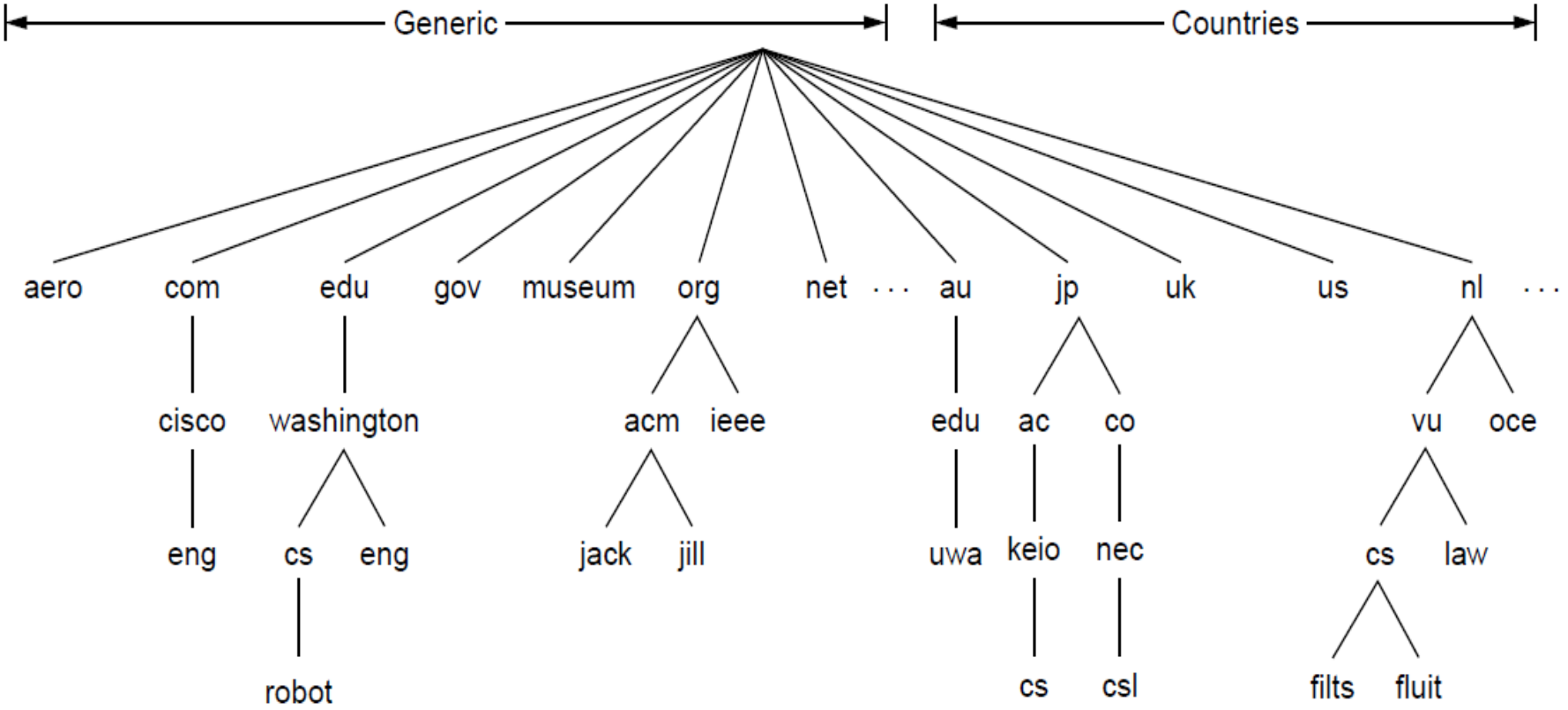
OUTLINE

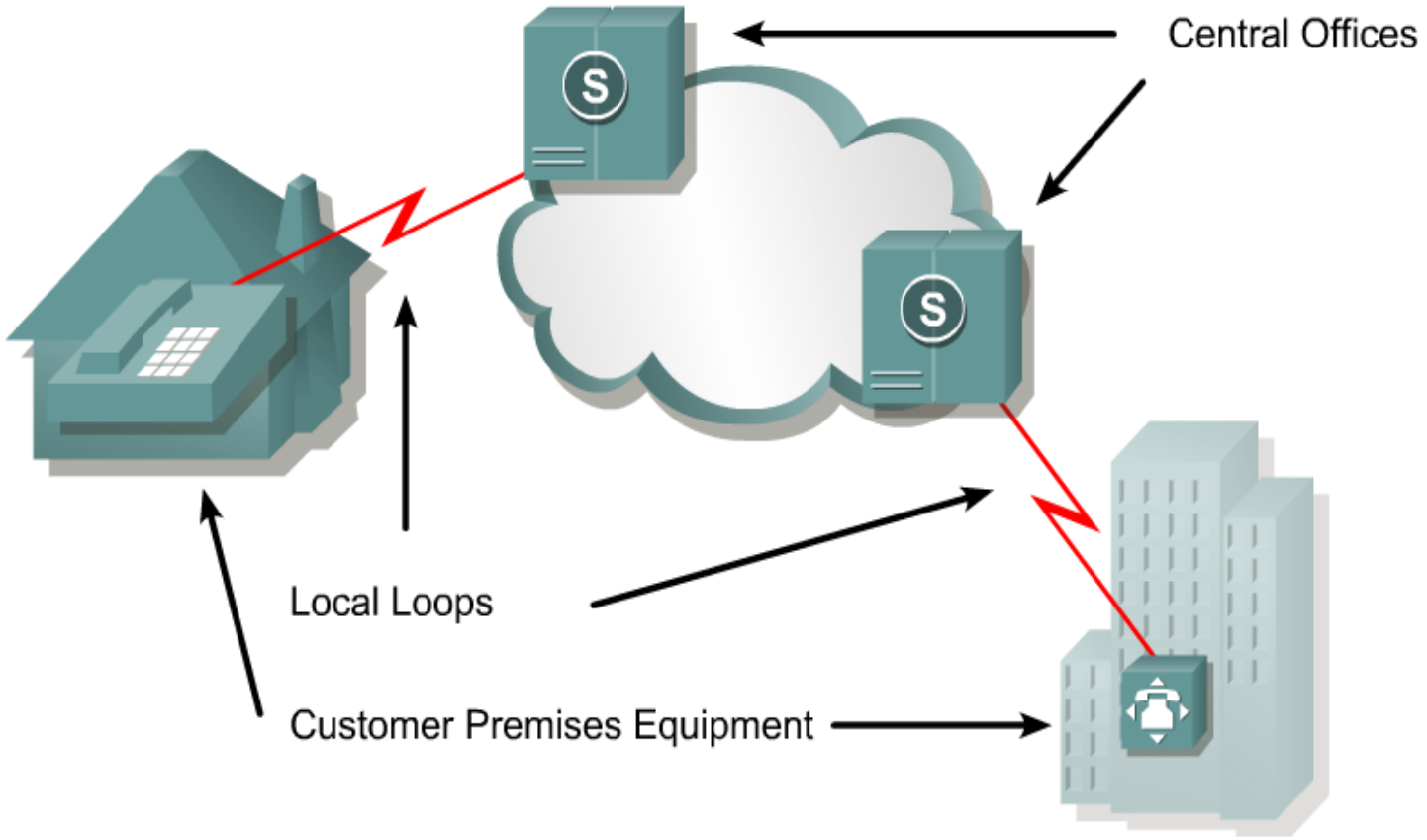
- THE DNS NAME SPACE
- WAN TECHNOLOGY/TERMINOLOGY
- CONNECTING A MODEM TO A ROUTER

THE DNS NAME SPACE

A portion of the Internet domain name space



WAN technology/terminology



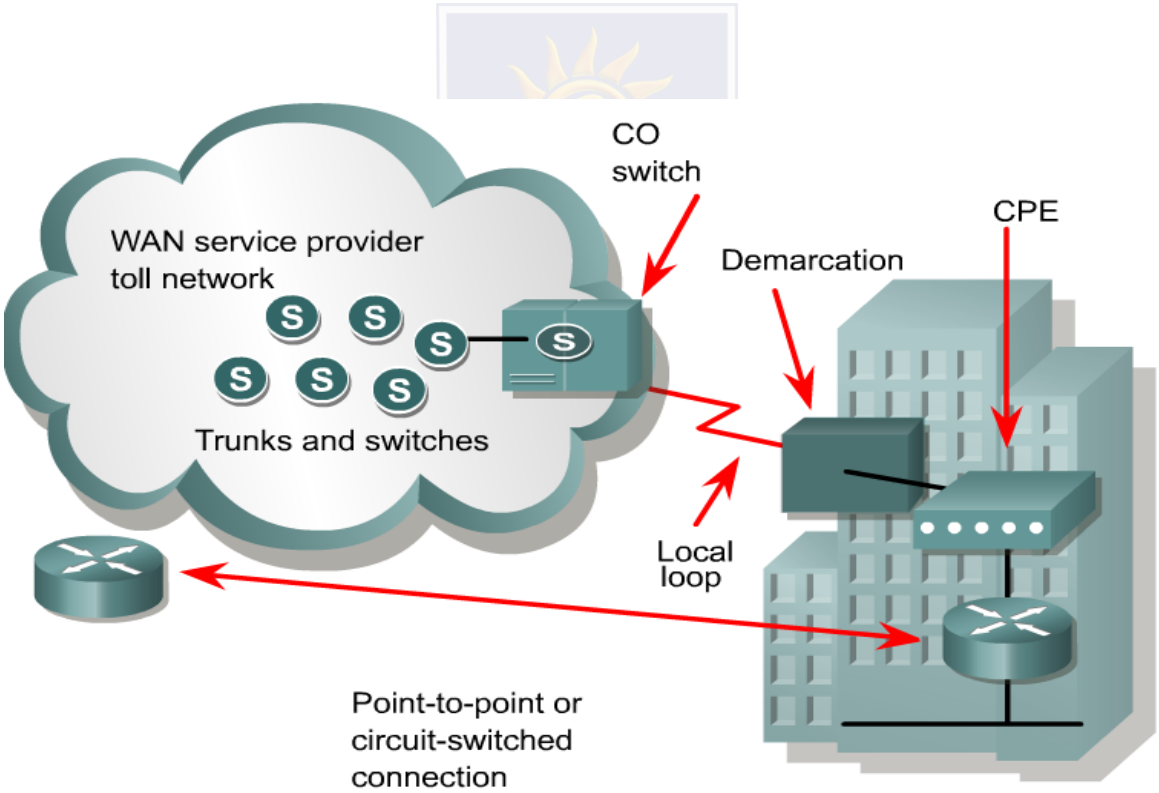
WAN TECHNOLOGY/TERMINOLOGY

Devices on the subscriber premises are called **customer premises equipment (CPE).**

The subscriber owns the CPE or leases the CPE from the service provider.

A copper or fiber cable connects the CPE to the service provider's nearest exchange or **central office (CO).**

This cabling is often called the local loop, or **"last-mile".**

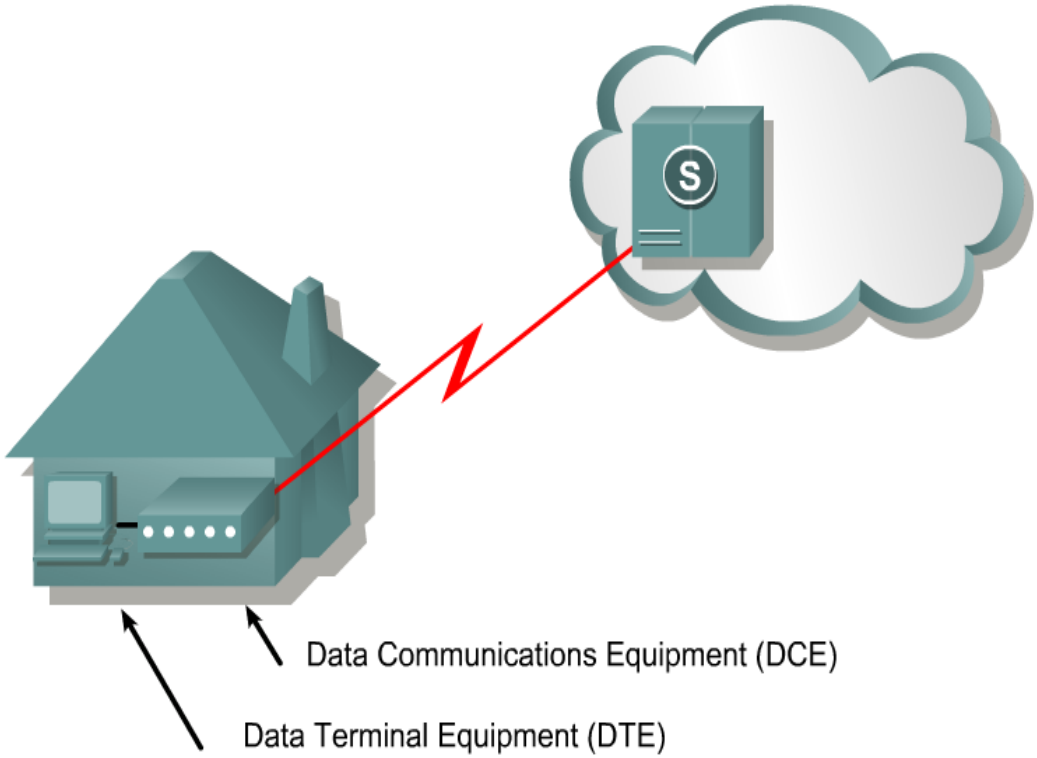


WAN TECHNOLOGY/TERMINOLOGY

Devices that put data on the local loop are called data circuit-terminating equipment, or data communications equipment (DCE).

The customer devices that pass the data to the DCE are called data terminal equipment (DTE).

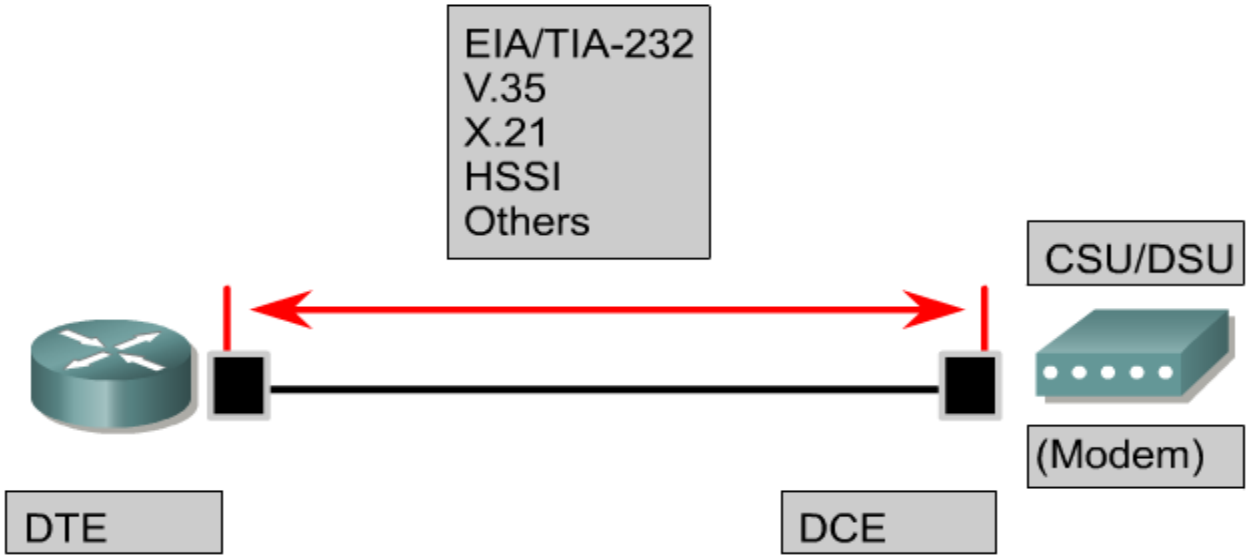
The DCE primarily provides an interface for the DTE into the communication link on the WAN cloud.



WAN TECHNOLOGY/TERMINOLOGY

The DTE/DCE interface uses various physical layer protocols, such as High-Speed Serial Interface (HSSI) and V.35.

These protocols establish the codes and electrical parameters the devices use to communicate with each other



Data Terminal Equipment
User device with interface connecting to the WAN link

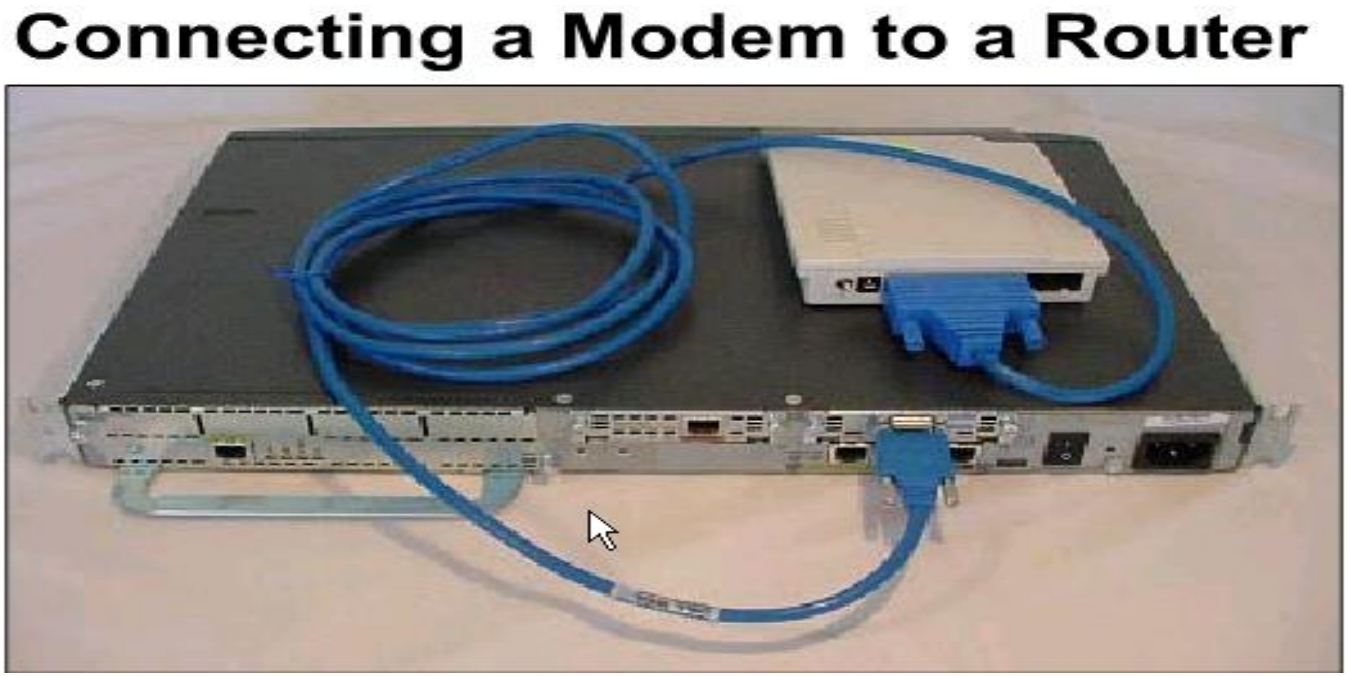
Data Circuit-Terminating Equipment
End of the WAN provider's side of the communication facility

CONNECTING A MODEM TO A ROUTER

Connecting to a serial interface :physical-layer async interface command

The Picture shows a connection between a Cisco 2620 series router and an external modem using an EIA/TIA-232 Smart

Serial cable



CONNECTING A MODEM TO A ROUTER

AUX (Auxiliary): To connect a modem to a Cisco router's AUX port, you typically use a rollover cable and a RJ-45-to-DB-25 male DCE modem adapter

WAN TECHNOLOGY/TERMINOLOGY

Line Type	Signal Standard	Bit Rate Capacity
56	DS0	56 Kbps
64	DS0	64 Kbps
T1	DS1	1.544 Mbps
E1	ZM	2.048 Mbps
E3	M3	34.064 Mbps
J1	Y1	2.048 Mbps
T3	DS3	44.736 Mbps
OC-1	SONET	51.84 Mbps
OC-3	SONET	155.54 Mbps
OC-9	SONET	466.56 Mbps
OC-12	SONET	622.08 Mbps
OC-18	SONET	933.12 Mbps
OC-24	SONET	1244.16 Mbps
OC-36	SONET	1866.24 Mbps
OC-48	SONET	2488.32 Mbps

Multiple Choice Question

MUTIPLE CHOICE QUESTIONS:

Sr no	Question	Option A	Option B	OptionC	OptionD
1	Transport layer aggregates data from different applications into a single stream before passing it to _____	network layer	data link layer	application layer	physical layer
2	Which of the following are transport layer protocols used in networking?	TCP and FTP	UDP and HTTP	TCP and UDP	HTTP and FTP
3	User datagram protocol is called connectionless because _____	all UDP packets are treated independently by transport layer	it sends data as a stream of related packets	it is received in the same order as sent order	it sends data very quickly
4	Transmission control protocol _____	is a connection-oriented protocol	uses a three way handshake to establish a connection	receives data from application as a single stream	all of the mentioned
5	An endpoint of an inter-process communication flow across a computer network is called _____	socket	pipe	port	machine

REFERENCES

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