

Understanding Wide Area Networks

Lesson 7

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Objectives

Objective Domain Matrix

Skills/Concepts	Objective Domain Description	Objective Domain Number
Understanding Routing	Understand routers.	2.2
Defining Common WAN Technologies and Connections	Understand wide area networks (WANs).	1.3

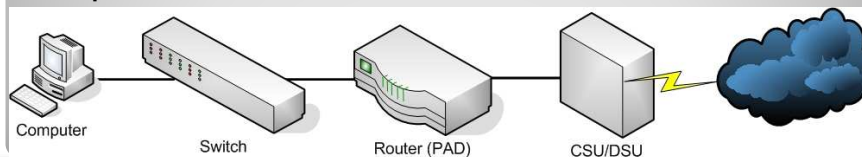
X.25

- X.25 communications protocol was one of the first implementations of packet switching, and it is still in use today.
- Packet switching was originally created to break down large messages into smaller, more manageable segments for transmission over a WAN.

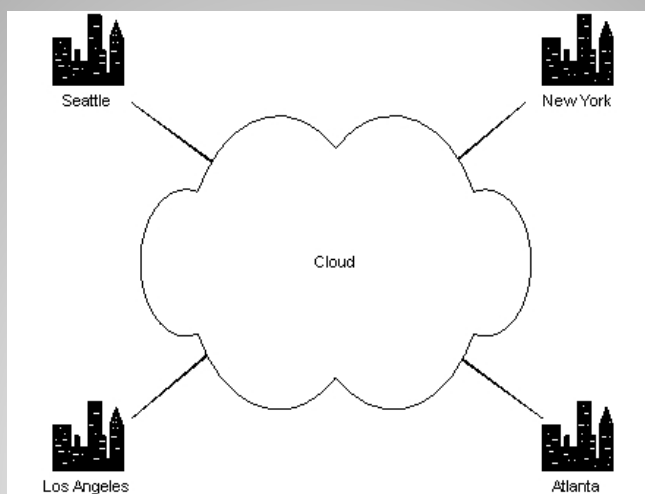
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X.25

- Data is gathered by the router (known as a PAD), but the router then disassembles the entire lot into jumbled packets.
- The PAD sends the packets to a **CSU/DSU** (high-speed digital data interchange device) as serial information. The CSU/DSU is the equivalent of the modem for the entire LAN.



Frame Relay Network



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Permanent Virtual Circuits

- With Frame Relay, multiple sessions can run simultaneously on the same link.
- These connections to the cloud are known as permanent logical links or permanent virtual circuits (PVCs).
- The PVC links the sites together in the cloud, and this is accomplished, once again, by the PSE (packet switching exchange).