Chapter 11

OC-1 is 51.84 Mbps- OC-12 622.08Mbps

To access the internet through the PSTN- Modem

Characteristics of ATM- uses fixed- length cells of 53-bytes, and Adds labels to data units.

Responsible for WAN service provider- PSE, CO, local loop, DCE

Divides transmitted data into smaller pieces and allows for multiple communications on the network- packet-switched

WAN technologies provides packet switching over high-quality digital lines at speeds greater than 1.544 Mbps- Frame Relay

WAN connections types that use digital communications- DSL and ISDN

Multiprotocol label switching- CEF is required for all MPLS enabled cisco routers; it can carry ATM, SONET, and Ethernet traffic

Maximum data rate of an ISDN BRI- 128 Kbps

Characteristics of ISDN- it lets you transmit voice, video, and data over the same lines; It provides enough bandwidth to transmit data at higher speeds than standard modems and analog lines; it is a dial-up service that uses existing copper wired for local loop.

\_\_\_\_\_\_\_-Point to point

\_\_\_\_\_\_\_\_-CSU/DSU

WAN encapsulation method should you recommend your client use- PPP (point to point protocol)

**Change the password-**

Router A(config)# username RouterB password cisco

Router A(config)#int s1

Router A(config)#encap ppp

Router A(config)#ppp auth chap

Two routers with the hostnames SLC and PROVO have been configured- On SLC, Change the username password to chocolate

Link Control Protocol (LCP)- usernames and passwords may be required during the handshake;

LCP provides multilink support;

Data can be compressed at the source and decompressed at the destination.

Benefits of LCP- Monitors data dropped on the link and avoid frame looping; provides load balancing across multiple links; negotiates the use of authentication before starting the session.

Connection order used by two TCP/IP routers to open sessions with PPP- LCP authentication, NCP