

## Emerging WAN Technologies

### Objective

Troubleshoot WAN issues that affect internetwork communications in a small- to medium-sized business network.

### Scenario

As the network administrator, in your small- to medium-sized business, you have already moved from leased-line WAN to Frame Relay connectivity for WAN network communication. You are responsible to keep current with all future network upgrades.

To stay current with emerging and developing technologies, you find that there are some alternate options available for WAN connectivity. Some of these include:

- Frame Relay
- Broadband DSL
- Broadband cable modem
- GigaMAN
- VPN
- MPLS

Because you want to offer the best quality, lowest-cost WAN network service to your company, you decide to research, at least, two emerging and developing technologies. It is your intent to gather information about these two alternate WAN options to intelligently discuss the future goals of your network with your business manager and other network administrators.

### Resources

- Internet access to the World Wide Web
- Presentation software

### Directions

**Step 1: Choose two of the following emerging and developing WAN technologies:**

- a. Frame Relay
- b. Broadband DSL
- c. Broadband cable modem
- d. GigaMAN
- e. VPN
- f. MPLS

**Step 2: Create a matrix to record information about the two WAN technologies you chose. At a minimum, include:**

- a. A short description of the technology
- b. Physical requirements to set up the technology
  - 1) Cabling requirements

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- 2) Network devices necessary to operate the WAN technology
  - 3) Who provides the network devices necessary to operate the WAN technology
- c. Benefits of this type of WAN technology
  - d. Disadvantages to implementing or changing to this form of WAN technology
  - e. Costs associated with this type of technology

**Step 3: Create a five-slide presentation for future use with discussions with your business manager or other network administrators.**