



Application Layer Functionality and Protocols



Network Fundamentals – Chapter 3

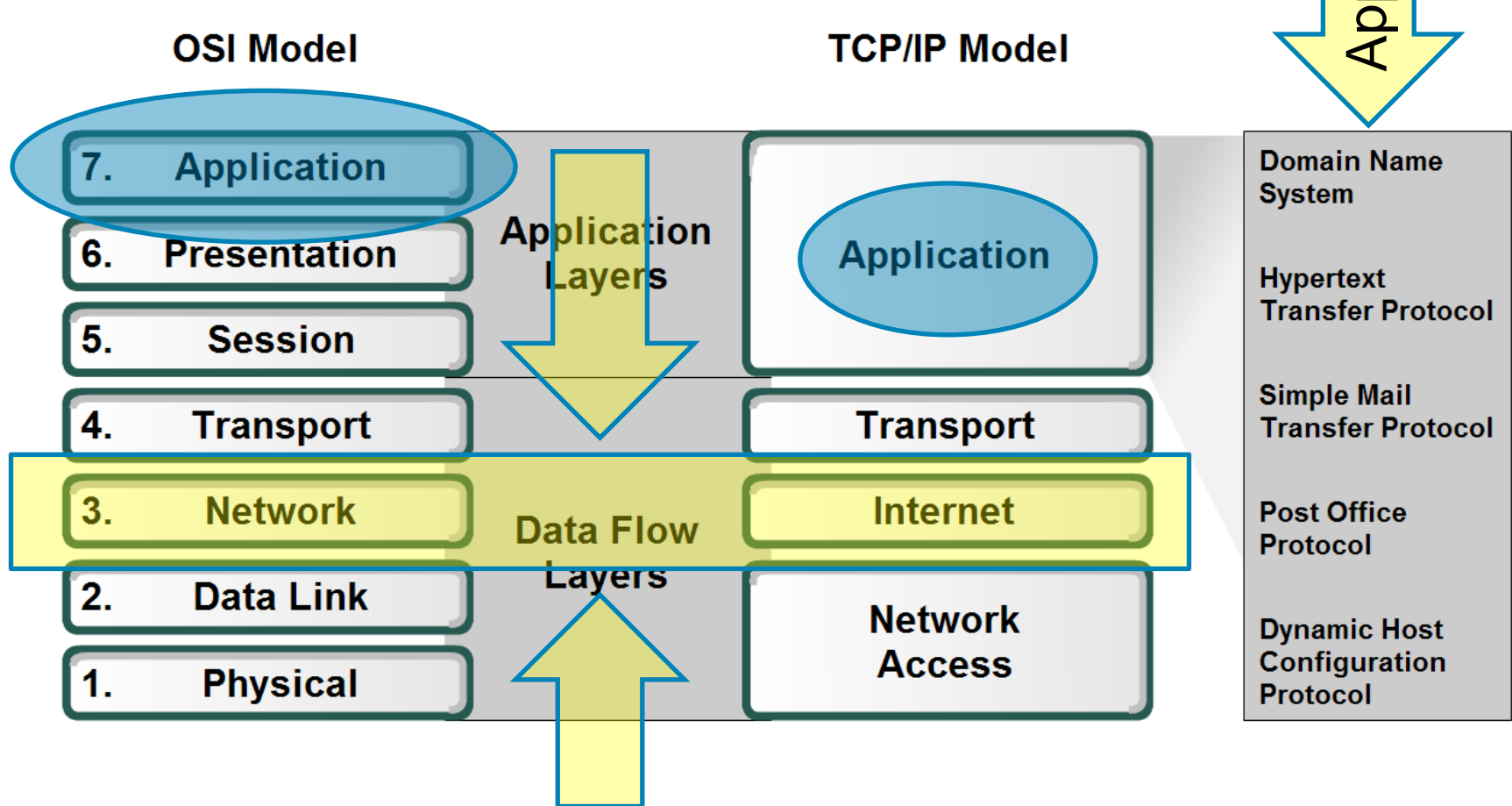
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Objectives:

- Define the application layer as the source and destination of data for communication across networks.
- Explain the role of protocols in supporting communication between server and client processes.
- Describe the features, operation, and use of well-known TCP/IP application layer services (HTTP, DNS, SMTP).

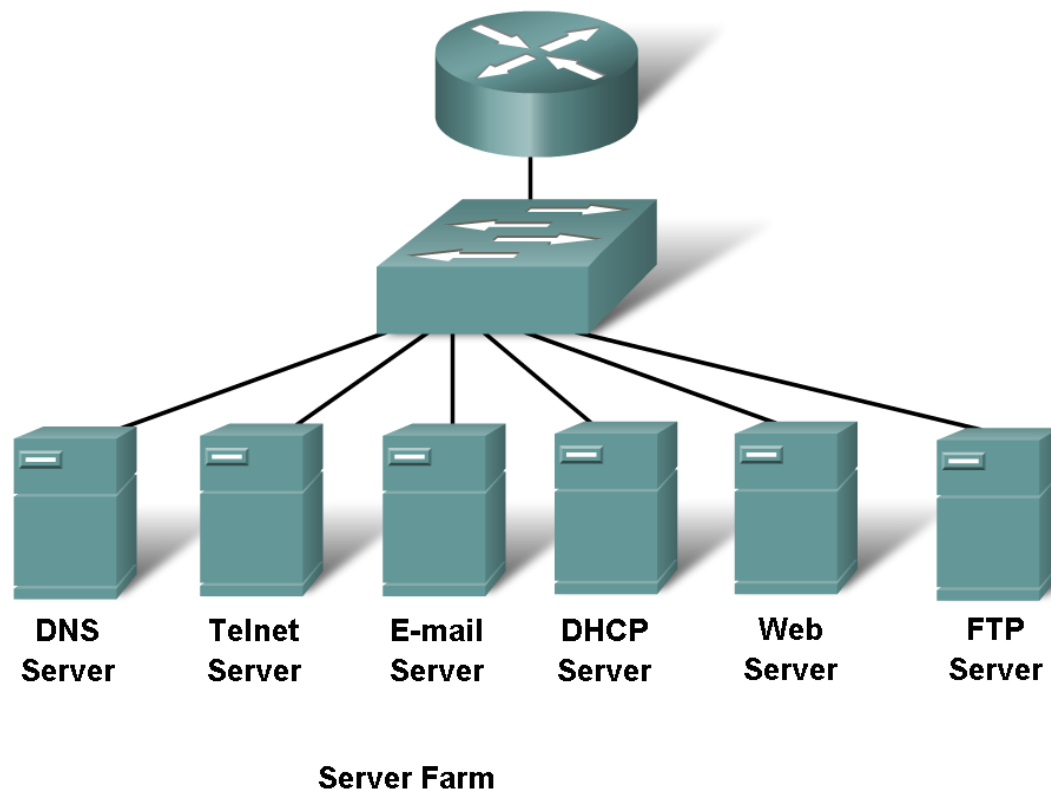
The Protocol Stack Concept:

- The Interface Between Human and Data Networks:



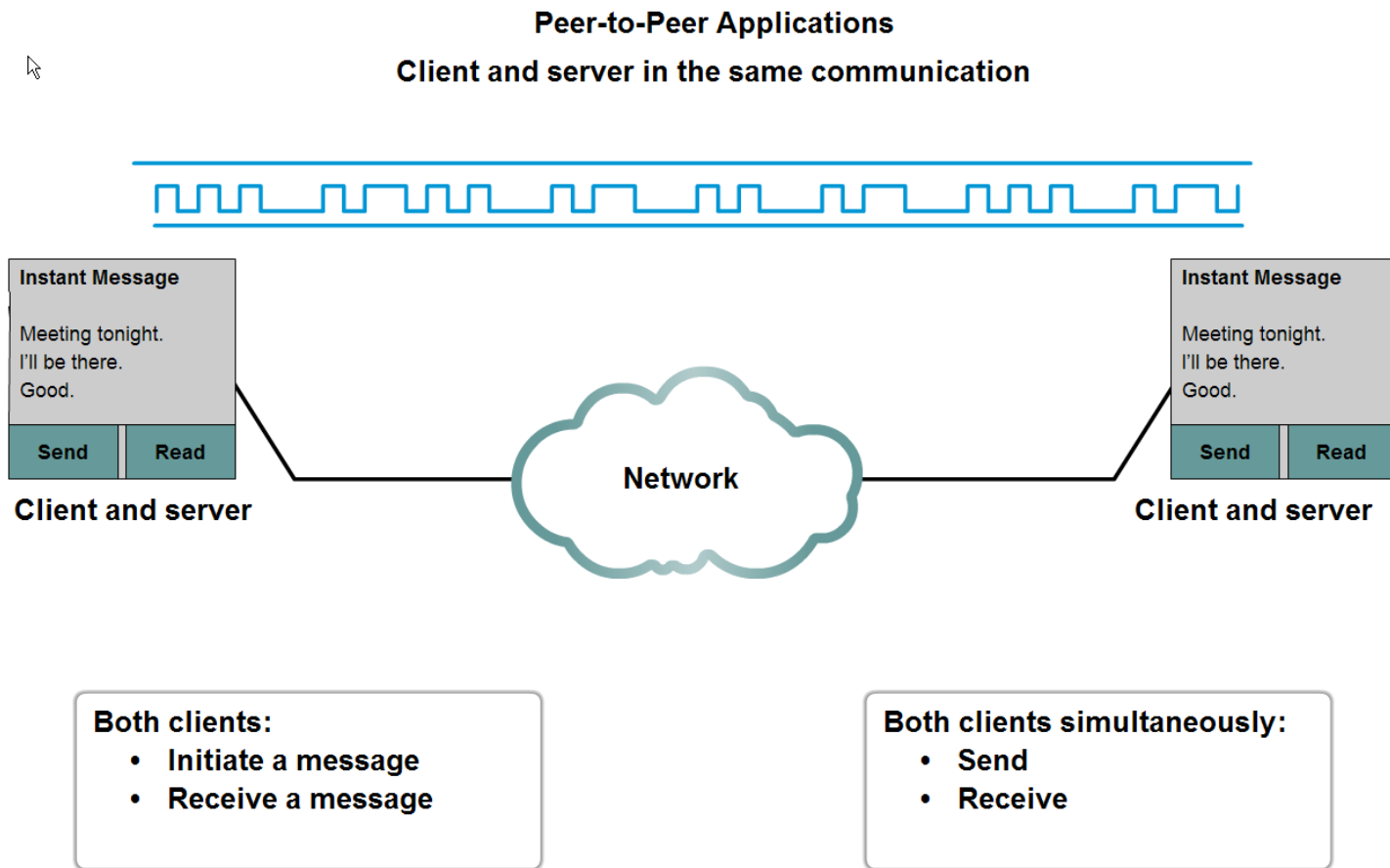
Client/Server Network:

- In a Client/Server Network, we use the Network to connect a Client's Browser (for example) to a Server Application:



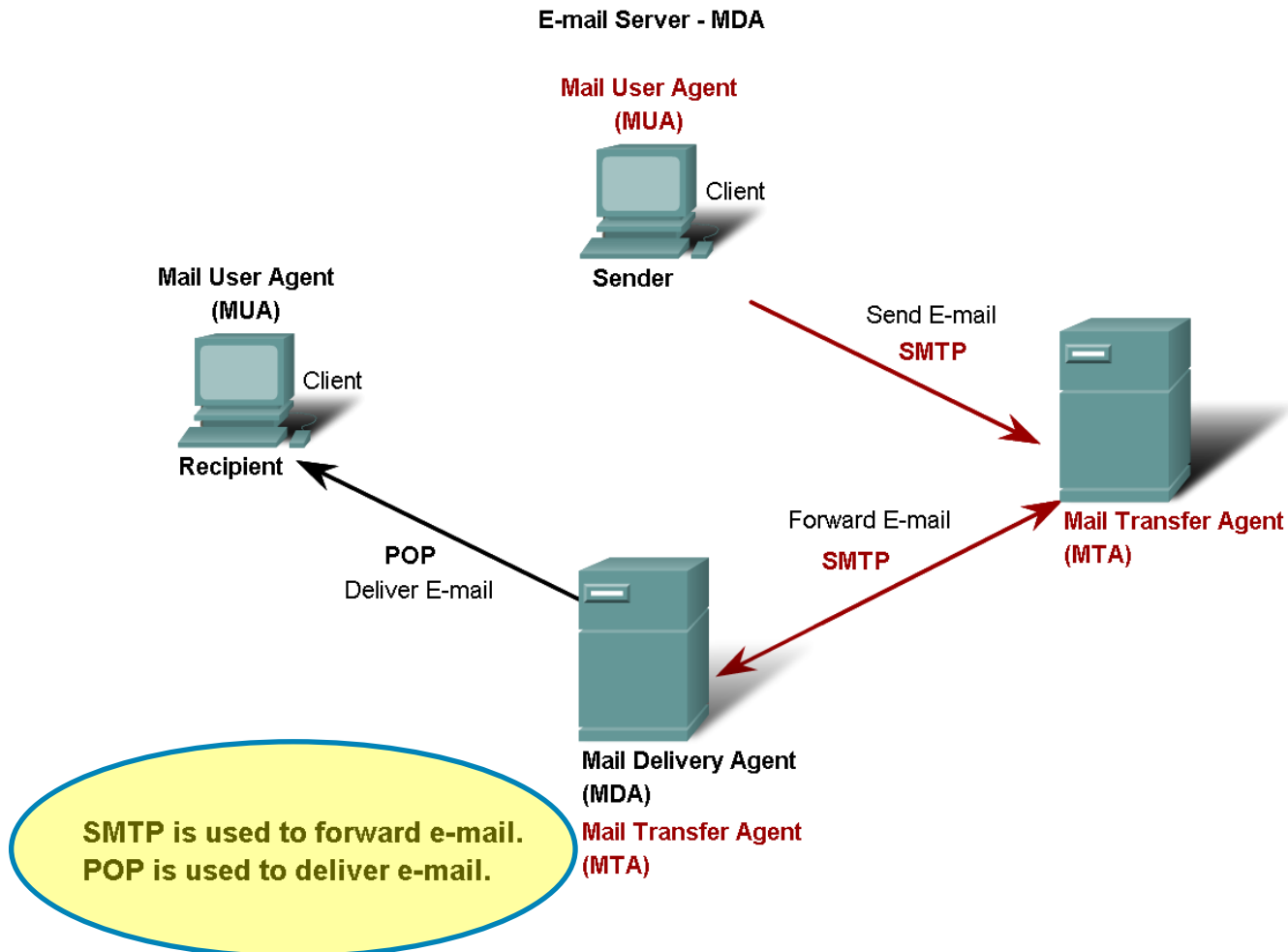
Peer-to-Peer Networks:

- In a Peer-to-Peer Network, the Network is responsible for connecting Peers.

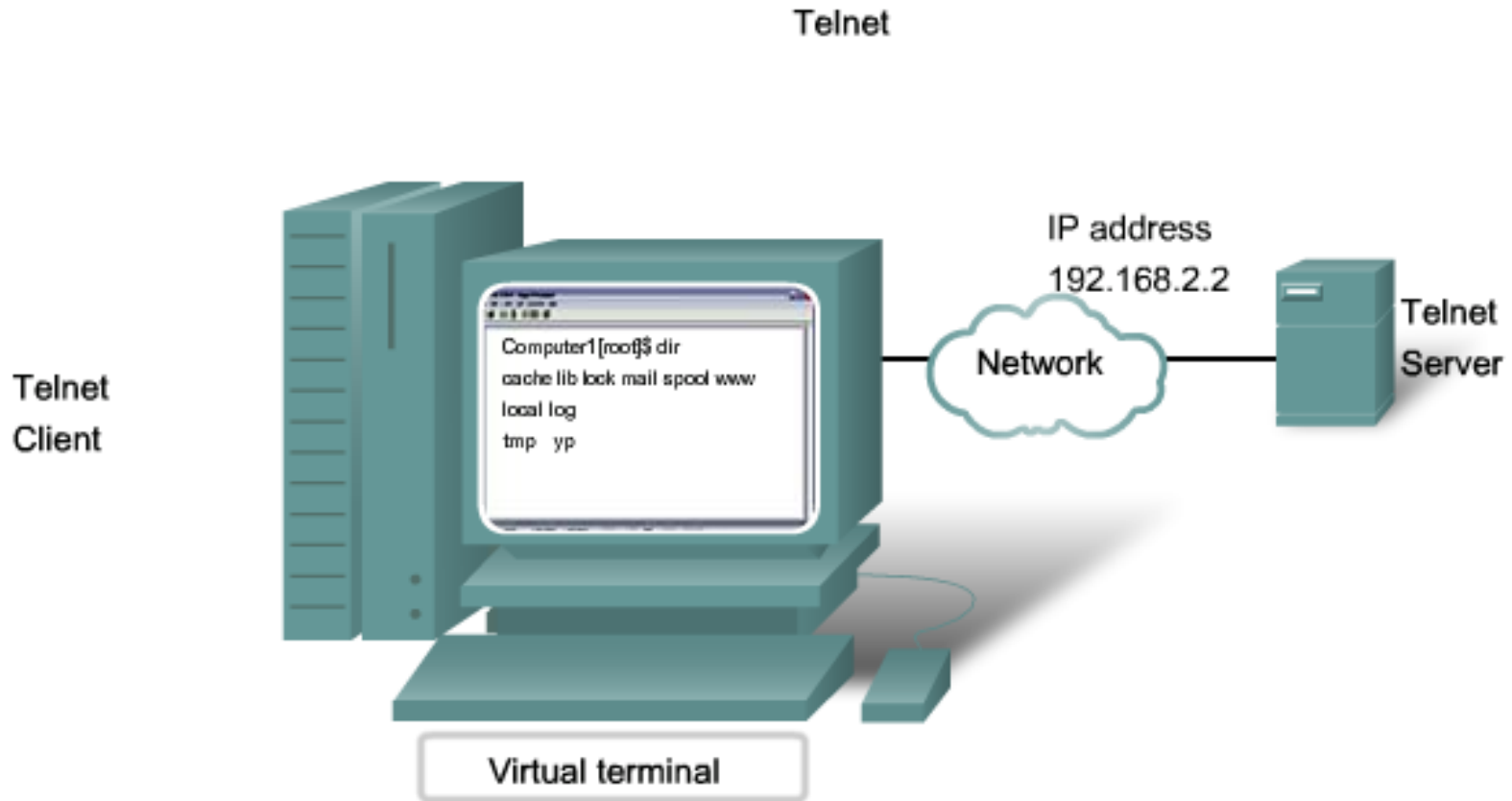


An Example of a TCP/IP Application

- POP and SMTP are the protocols used to support e-mail services:



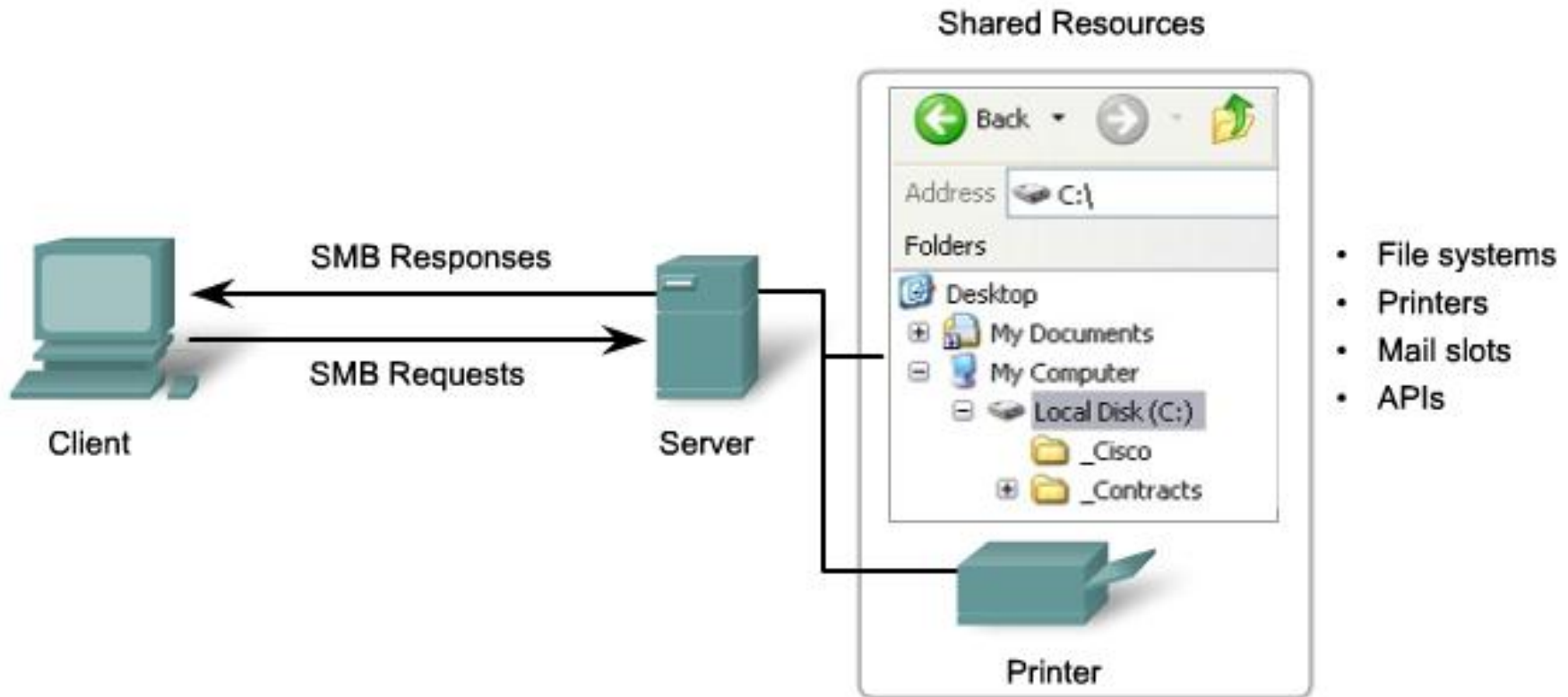
Telnet is used to connect a Terminal to a Host



Telnet provides a way to use a computer, connected via the network, to access a network device as if the keyboard and monitor were directly connected to the device.

SMB protocol Supports Resource Sharing in Microsoft-based Networks:

File Sharing Using the SMB Protocol



SMB is a client-server, request-response protocol. Servers can make their resources available to clients on the network.

