Chapter: 3.5 Internet Accounts by ISP

Topic: 3.5.2 Protocol Options

Protocol Options

Secure Shell (SSH)

- Secure Shell or SSH is a network protocol that allows data to be exchanged using a secure channel between two networked devices.
- It is used primarily on Linux and Unix based system to access shell accounts, SSH was designed as a replacement for Telnet and other in secure remote shells, which send information, notably passwords, in plain text, leaving them open for interception.
- The encryption used by SSH provides confidentially and integrity of data over an insecure network, such as the Internet.
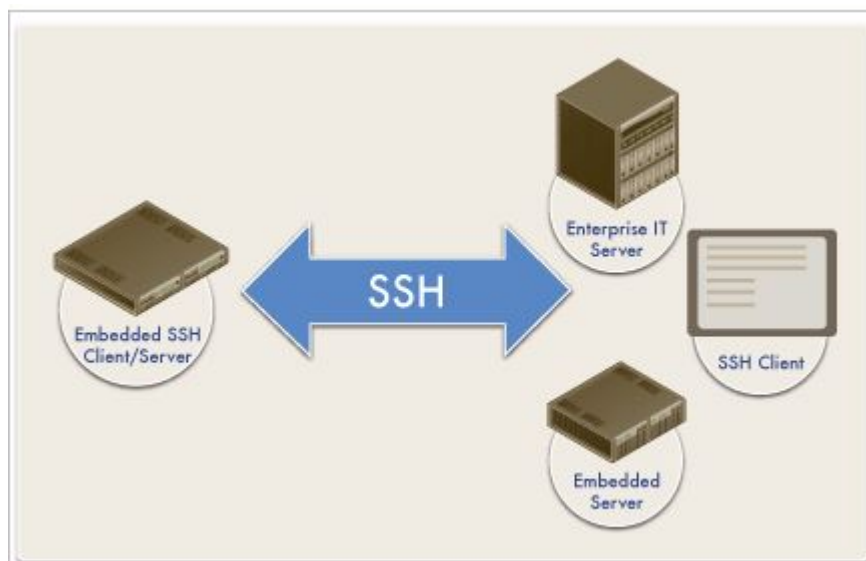- SSH is typically used to log into a remote machine and execute commands

FIG 3.8: Secure Shell (SSH)

SLIP

- The Serial Line Internet Protocol (SLIP) is a mostly obsolete encapsulation of the Internet Protocol designed to work over serial ports and modem connections.

- SLIP (on PCs) has been largely replaced by the Point-to-Point Protocol (PPP), which is better engineered, has more features and does not require its IP address configuration to be set before it is established.

- SLIP does not provide error detection, therefore SLIP on its own is not satisfactory over an error-prone dial-up connection.

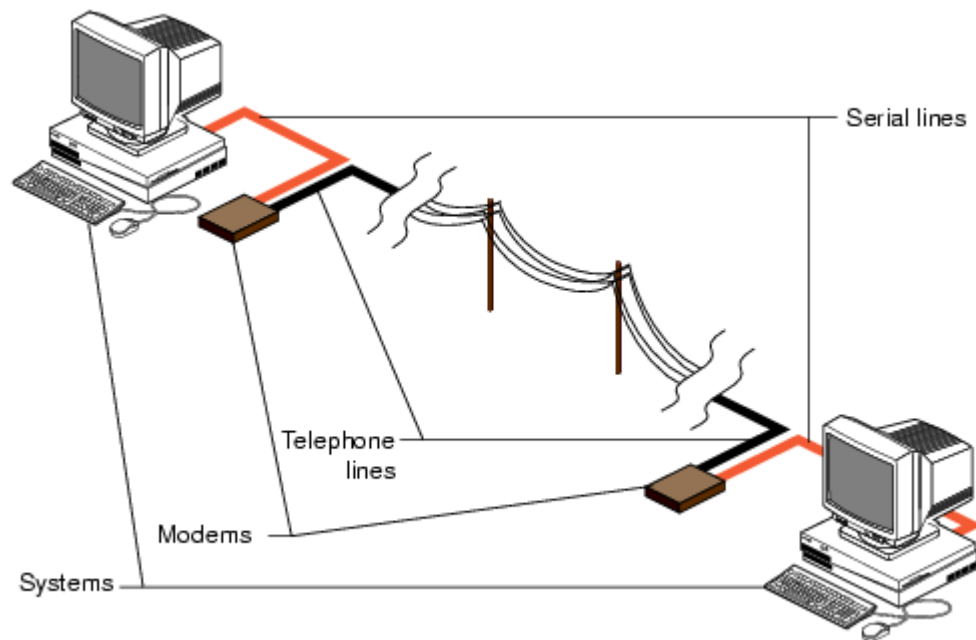- SLIP is a protocol for connection to the Internet via a dial-up connection.

FIG 3.9: SLIP

PPP

- Point-to-Point Protocol or PPP is a data link protocol commonly used to establish a direct connection between two networking nodes.

- PPP originally emerged as are encapsulation protocol for transporting IP traffic over Point-to-Point links.

- It is a protocol for communication between two computers using a serial interface, typically a personal computer connected by phone line to a server.

- PPP is a full duplex protocol that can be used on various physical media, including twisted pair or fiber optic lines or satellite transmission.

- PPP is usually preferred over the earlier de facto standard SLIP because it can handle synchronous as well as asynchronous communication.

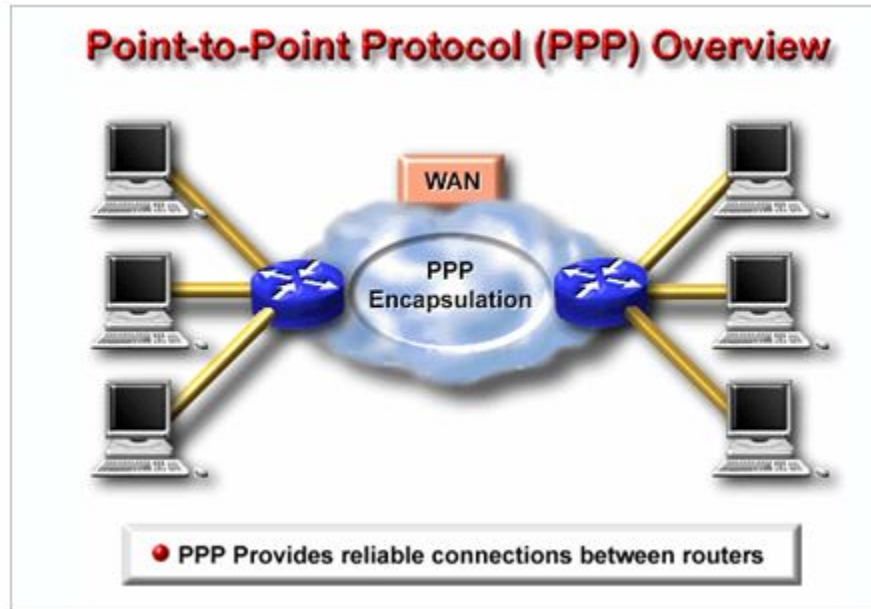- PPP can share a line with other users and it has error detection that SLIP lacks.

FIG 3.10: Point-to-Point Protocol