



4.9.4.2 Standard Application Layer Protocols

Application Level Protocols

FTP (File Transfer Protocol)

Used to move files across a network.

Port number 20 and 21.

HTTP (Hypertext Transfer Protocol)

Used for communication between web browsers and web servers to request web pages, images and scripts.

Webpages are written in HTML, CSS and JavaScript and used by a browser to render the page on the screen.

Port number 80.

HTTPS (Hypertext Transfer Protocol Secure)

Also used for communication between web browsers and web servers but the data is encrypted.

Used when secure/encrypted communication is required, such as online shopping, banking and logins.

Port number 443.

SMTP (Simple Mail Transfer Protocol)

Used to send and transfer emails between mail server until they reach their destination.

Port number 25.

POP3 (Post Office Protocol v3)

Used to download email from a server to a client.

By default, emails are removed from the server after they are downloaded.

Port number 110.

IMAP (Internet Message Access Protocol)

Used to access and manage email stored on a server from a client.

Emails remain on the server, so they can be accessed from multiple clients.

Port number 143.





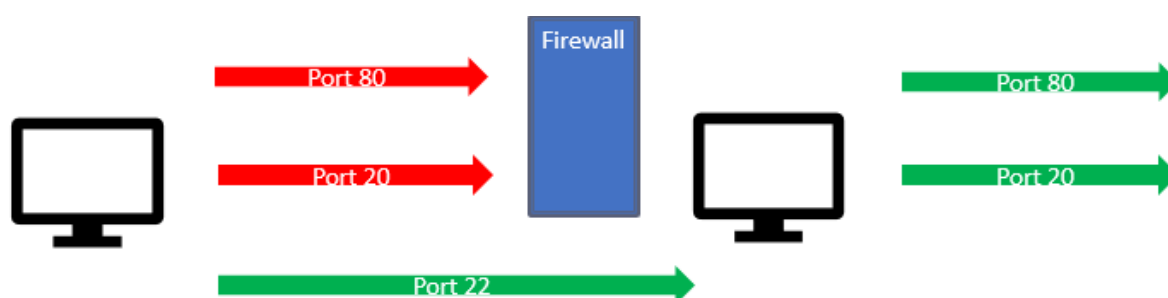
SSH (Secure Shell)

An encrypted protocol that allows secure communication between nodes across a network.

It is commonly used to remotely manage servers and computers.

Encryption is used to protect data during transmission.

Port number 22.



SSH creates a tunnel through a network which might otherwise have been blocked

This firewall is blocking ports 80 and 20 but allowing remote access via SSH on port 22

The SSH client can then send HTTP GET requests or SMTP/POP3 commands

