Internet Protocols and Email Messaging

News Groups, Email Protocols, HTTP, FTP, DNS, TCP/IP

News Group

- Online public discussion forums.
- Users post articles in categories called newsgroups.
- Protocol used: NNTP (Network News Transfer Protocol).
- Similar to forums or Reddit.

Email Messaging Protocols

- SMTP: Sends email from client to server or server to server.

- POP3: Downloads and deletes emails from the server.

- IMAP: Accesses and syncs emails without deleting them.

- Used together to send and receive email efficiently.

Common Internet Protocols

- HTTP: Transfers web pages.
- FTP: Transfers files over the Internet.
- DNS: Converts domain names to IP addresses.
- All run on top of TCP/IP protocol suite.

TCP/IP Model and Layered Protocols

- Application Layer: HTTP, FTP, SMTP, POP3, IMAP, DNS.

- Transport Layer: TCP (reliable), UDP (fast but less reliable).

- Internet Layer: IP (handles addressing).

- Network Access Layer: Ethernet, Wi-Fi, etc.

Summary

- News groups use NNTP for discussions.
- Email uses SMTP (sending), POP3/IMAP (receiving).
- HTTP, FTP, DNS are essential web protocols.
- All operate over the TCP/IP architecture.