

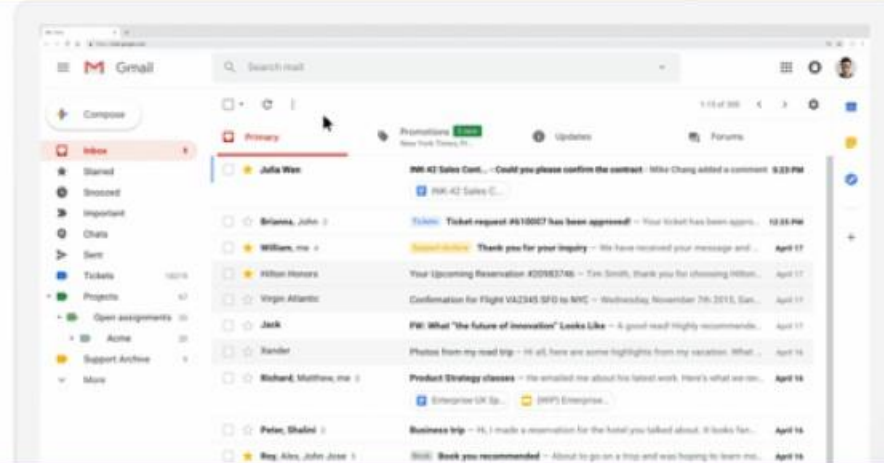
COMPUTER NETWORKS

Electronic mail protocols : SMTP, POP3,IMAP



E-mail Protocols

- These are set of rules that help the client to properly transmit the information to or from the mail server.
- Examples of protocols are as **SMTP, POP, and IMAP.**



SMTP

SMTP stands for **Simple Mail Transfer Protocol**. It was first proposed in 1982. It is a standard protocol used for sending e-mail efficiently and reliably over the internet.

- **Key Points:**

- SMTP is application level, connection oriented, text based protocol.
- It handles exchange of messages between e-mail servers over TCP/IP network.
- Apart from transferring e-mail, SMTP also provides notification regarding incoming mail.
- When you send e-mail, your e-mail client sends it to your e-mail server which further contacts the recipient mail server using SMTP client.
- These SMTP commands specify the sender's and receiver's e-mail address, along with the message to be send.
- The exchange of commands between servers is carried out without intervention of any user.
- In case, message cannot be delivered, an error report is sent to the sender which makes SMTP a reliable protocol.

POP

- POP stands for Post Office Protocol. It is generally used to support a single client. There are several versions of POP but the POP 3 is the current standard.
- **Key Points**
 - POP is an application layer internet standard protocol.
 - Since POP supports offline access to the messages, thus requires less internet usage time.
 - POP does not allow search facility.
 - In order to access the messages, it is necessary to download them.
 - It allows only one mailbox to be created on server.
 - It is not suitable for accessing non mail data.
 - POP commands are generally abbreviated into codes of three or four letters. Eg. STAT.

IMAP

IMAP stands for **Internet Message Access Protocol**. It was first proposed in 1986. There exist five versions of IMAP as follows:

- Original IMAP
- IMAP2
- IMAP3
- IMAP2bis
- IMAP4

Features

- IMAP allows the client program to manipulate the e-mail message on the server without downloading them on the local computer.
- The e-mail is hold and maintained by the remote server.
- It enables us to take any action such as downloading, delete the mail without reading the mail.It enables us to create, manipulate and delete remote message folders called mail boxes.
- IMAP enables the users to search the e-mails.
- It allows concurrent access to multiple mailboxes on multiple mail servers.

