

Email – The original killer app of the internet, now not so much...

UUCP – Unix to Unix Copy Protocol – Before SMTP this was the way to transfer email

Sending server needed to know exactly how to reach the recipient server. It programmed “routing” for email.

SMTP – Simple Mail Transfer Protocol

Leverages DNS – Domain Name Service (system)

MX Records in DNS is what permits system to system communication without pre-built routing

Primary Server to Server email transfer protocol (port 25)

Primary User to Server email transfer protocol (port 25,465,587)

Some ISPs (consumer) will block port 25 inbound to customers to keep you from running a mail server, does not really change much, as you can use an SMTP relay service such as SpamTitian to relay the messages on a port other than 25.

I personally tend to block port 25 outbound from most of my networks, to require the use of my mail server (and permit it outbound access on port 25). This is because a lot of spambot malware will try to send email directly via SMTP outbound.

Examples include:

Sendmail

One of the original SMTP implementations, evil, ugly, and not fit for use

Exim/Exim4

Default Debian SMTP

qMail

If you like DJB software, you may like this, otherwise, it's too “all in one” for most Unix people to like

Postfix

Default Ubuntu? And RedHat SMTP, very well liked and documented

Exchange*

Microsoft

IBM Notes*

IBM

GroupWise*

Novell

Email Client mail communication:

POP3

Great for service providers

Gets user email off the server rather quickly

IMAP

Great for small/medium/large business, and home users

All messages are stored on the server

Great for backup purposes.

Clients can sync local copies of messages for speed, and purge local copies as needed

Messages are marked at the server level, read, unread, importance, delete, etc

If you read a message on your **smartphone (corporate or BYOD)**

When you login to your “mail client” that message will show as read

Implementations:

Dovecot

uw-imapd

courier-imapd

qMail

IBM Notes

IBM

Exchange

Microsoft

GroupWise

Novell

Disk Email Storage formats (linux/Unix)

mbox – older format

One file for your inbox normally in /var/spool/mail

One file for each of your mail folders normally in your homedir

each file contains all of the messages, concatenated

Maildir – newer format

Directory in your homedir

Maildir

Each mail folder is a hidden subfolder inside the Maildir

All folders contain the following folders

“new” - Incoming messages to the folder

“cur” - read messages in the folder, or have been touched by a client

“tmp” - Newly arrived messages coming in go here, before it goes to the new folder, to keep the new folder from having incomplete/partial files in it.

Each message is stored as an individual text file

You can run an offline antivirus scan of the entire Maildir to catch anything that was missed by your incoming mail antivirus scans.