

# E-Mail

- To send an E-Mail
  - Client should connect to an Message Transport Agent (MTA)
  - MTAs communicate by using Message Transport System (MTS)
  - MTAs implemented in SMTP:
    - Open-source MTAs
      - SendMail
      - Postfix
      - Exim
      - Qmail
    - Commercial MTAs
      - Microsoft Exchange
      - Lotus Notes Domino Mail Server

# Simple Mail Transfer Protocol

- Steps
  - Connect to server
  - Log in (if applicable)
  - Make service request(s)
  - Quit
- Module to be imported: `smtplib`
  - `from smtplib import SMTP`
- Connecting to server
  - `n = SMTP('smtp.yourdomain.com')`
- Quitting connection
  - `n.quit()`

# smtplib.SMTP class Methods



Method	Description
login(user, passwd)	Log into SMTP server with username and passwd
sendmail(from, to, msg,[, mopts, ropts])	Sends msg from <i>from</i> to <i>to</i> (list/tuple) with optional ESMTP mail (mopts) and recipient (ropts) options
ehlo() or helo()	Initiates a session with an SMTP or ESMTP server using EHLO or HELO respectively. It is optional because sendmail() will automatically call these as necessary
starttls(keyfile=None, certfile=None)	Directs server to begin TLS security mode. If either keyfile or certfile are given they are used in the creation of the secure socket

# smtplib.SMTP class Methods

Method	Description
set_debuglevel(level)	Sets the debug level for server communication
quit()	Close the connection and quits

# E-Mail



- To receive an E-Mail
  - POP3 (Post Office Protocol version 3)
  - IMAP4(Internet Message Access Protocol version 4)
    - Provides facility to access mail from more than one device

# Post Office Protocol (POP)

- Steps
  - Connect to server
  - Log in (if applicable)
  - Make service request(s)
  - Quit
- Module to be imported: poplib
  - from poplib import POP3
- Connecting to server
  - p = POP3('pop.yourdomain.com')
  - p.user('username')
  - P.pass\_('password')
- Quitting connection
  - p.quit()

# poplib.POP3 class Methods

Method	Description
user(login)	Sends the login name to the server, awaits reply indicating the server is waiting for user's password
pass_(passwd)	Sends the passwd; an exception occurs on login / password failure
stat()	Returns mailbox status, a 2-tuple (msg_cnt, mbox_siz); the total message count and the total message size in octets)
list([msgnum])	Superset of stat(); returns entire message list from server as a 3-tuple (rsp, msg_list, rsp_siz); if msgnum is given returns the data for that message only

# poplib.POP3 class Methods

Method	Description
retr(msgnum)	Retrieves message msgnum from server and sets its “seen” flag; returns a 3-tuple (rsp, msglines, msg_siz)
dele(msgnum)	Tag message number for deletion; deletes upon quit
quit()	Logs out, commits changes, unlocks mailbox, terminates connection and then quits



# Internet Mail Access Protocol (IMAP)

- Steps
  - Connect to server
  - Log in (if applicable)
  - Make service request(s)
  - Quit
- Module to be imported: imaplib
  - from imaplib import IMAP4\_SSL
- Connecting to server
  - server = IMAP4\_SSL('imap.yourdomain.com')
  - server.login('username', 'password')
- Quitting connection
  - server.logout()

# imaplib.IMAP4 class Methods

Method	Description
login(user, passwd)	Login user by using given password
fetch(message_set, message_parts)	Retrieve e-mail messages (or requested parts via message_parts) stated by message_set
noop()	Ping server but take no action
search(charset, *criteria)	Searches mailbox for messages matching at least one piece of criteria; if charset is False, it defaults to US-ASCII
select(mailbox='INBOX', read-only = False)	Selects a mailbox (default is INBOX); user not allowed to modify contents if readonly is set

# imaplib.IMAP4 class Methods

Method	Description
close()	Closes the current mailbox. If access is not set to read-only any deleted messages will be discarded
logout()	Logs out from server