

# Network Applications

## Outline

Simple Mail Transfer  
Protocol

The Web, HTTP

# Simple Mail Transfer Protocol

- Basic protocol for email exchange over the Internet
- Runs on top of TCP
- SMTP is NOT an interactive protocol, unlike, say, FTP
  - Messages are queued and spooled by SMTP agent
- Users interact with email application
  - Lots!
- Application interfaces with Message Transfer Agent or mail daemon
  - *Sendmail* on UNIX
  - Setup and configured by admins.
- SMTP specifies how MTA's pass email across the Internet

# Simple Mail Transfer Protocol

- **Client uses email application to construct and send messages**
  - Addresses consist of machine name and mailbox address
    - Mailbox is usually the same as one's login but you can have aliases
    - Destination machine can also be an alias@cs.wisc.edu
- **Message is passed to mail spooler which is part of MTA**
  - Application communicates with MTA via email transfer protocol
    - Post Office Protocol (POP3) is common, but not very secure
    - Our department uses IMAP
- **MTA's on remote systems listen for incoming mail on well known port (25)**
- **Messages are delivered in two parts - header and body**
  - Header format has exact specification = RFC 822
  - Body content types are specified by MIME