

# Simple Mail Transfer Protocol

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Peter C. Chapin

# Why?

- SMTP is an application protocol.
  - So far we've talked about protocols at the transport layer and below.
  - SMTP is above the transport layer.
    - Assumes a reliable, bidirectional channel for data exchange.
    - Normally done over TCP, but could be any transport connection.
  - SMTP is below still higher level protocols
    - Format of mail messages.
    - MIME
  - We will talk about the higher level protocols too.

# Quick References

- This slide set needs elaboration. For now...
  - <http://tools.ietf.org/html/rfc5321>
    - The above link is to the latest SMTP RFC
    - Read (most of) it!
    - Note especially...
      - The sample SMTP sessions in Appendix D.
      - Section 4 is where the protocol itself is described.
  - Server side state diagram from MailFlux
    - Link on the CIS-3152 web page.
  - MailFlux source code on GitHub.

# Additional Notes

- SMTP is a text protocol.
  - Client and server exchange lines of ASCII text
    - Note character set used: ASCII.
    - Creates problems for international email.
      - Problems addressed by the MIME standard.
  - Each line terminated with CR/LF.
  - Line lengths might be limited.
  - Possible to interact with an SMTP server using a terminal and telnet.
    - `telnet smtp.vtc.vsc.edu 25`
    - Must manually type SMTP commands.
    - Good for debugging and learning.