Simple Mail Transfer Protocol

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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.