System Administration (LTAT.06.003)

Lab 6
E-mail
Email

- A method of exchanging messages between electronic devices.
- Fairly insecure as a method. Security is applied on top.
- Consists of different protocols for different tasks:
  - SMTP to send/receive email.
  - IMAP to read/write and submit emails for sending.
  - DNS for security.
- Very confusing due to the way email has evolved - configuration files are often different, confusing and badly structured.
Mail servers

This is a visualisation how users and other mailservers interact with each other. As you can see, it can be fairly complicated.
Simple Mail Transfer Protocol
(SMTP)

- Mail servers and other message transfer agents use SMTP to send and receive mail messages.
- We will use software called Postfix.
- Uses following ports:
  - 25 - default relay between servers
  - 465 - STARTTLS relay (not used any more)
  - 587 - Authenticated submission
- Anything with the prefix “Simple” in Linux world is not .. simple. (Ex. SMTP, SNMP)
Internet Message Access Protocol (IMAP)

- Mail clients and web services use this protocol to access a mail server and sync emails. We will use software called Dovecot.
- Uses following ports:
  - 143 - Email inbox access.
  - (can use) 587 - Authenticated submission
- A rather verbose protocol that takes a bit of time to understand.
- Better security wise than SMTP, but TLS configuration increases the complexity.
- Setting this up requires moving responsibilities from an Postfix to the IMAP handler.
E-mail lab

- Setting up an SMTP server.
  - Sending email between local users
  - Reading email using a bare-bones approach
  - Sending email to remote servers
- Setting up an IMAP server.
  - Changing from Linux default mail handling to Dovecot mail handling
  - Reading email with Dovecot
  - Setting up authenticated email submission
- Setting up a web email service.
Scoring checks

- Whether required ports are opened.
- Postfix
  - Sending an email out from your machine to our scoring server.
  - If there are issues, check /var/log/maillog for issues.
- Dovecot
  - We cannot check for this too much as we do not know your user’s password.
  - But this will be needed for setting up the Roundcube and TLS lab.
- Roundcube
  - Whether Roundcube works.
  - Check web logs for any issues.