Mail User Agents (MUAs): Resident MS+MTA

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Part I

Mail User Agents (MUAs): Resident MS+MTA

Part 1: Mail User Agents (MUAs): Resident MS+MTA

The MUA Model

- Message Transfer Service (MTS) – SMTP
- Message Store – The MailBox On the server
- Mail User Agent – Mail Reader /Sorter
- Mail Box Access – IMAP
- Searching Your Email

The MUA Model
Types Of MUAs
Concept Of Resident MS+MTA MUA

What Are The Characteristics Of The Ultimate MUA
Diversity In MUAs Is A Good Thing
The Protocols Hour Glass Model
Linux Native MUAs Landscape
Web Based MUAs Landscape
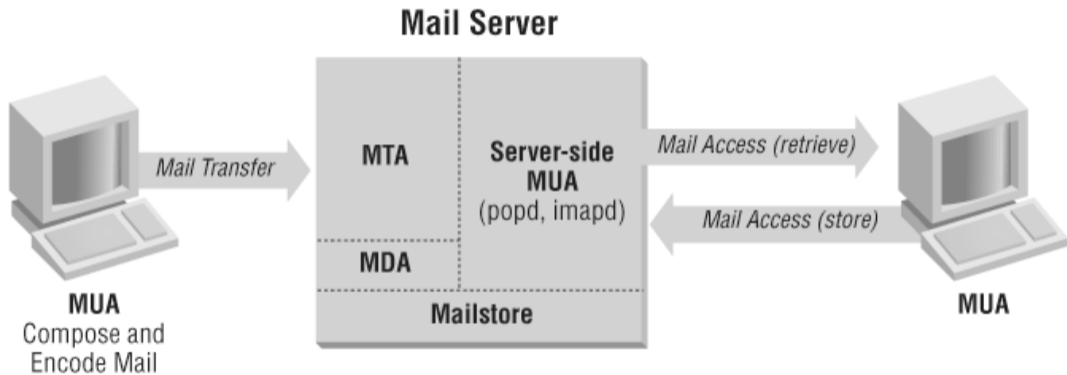
Types Of MUAs

- Native MUAs
- Web Based MUAs
- Mobile MUAs

What Are The Characteristics Of The Ultimate MUA

- Watches For Your Privacy
- Is Fully integrated in your user environment
    - Address Book, Calendar, Spell Checker, Editor, Multi-Lingual
- Strong Search Capabilities
- Scriptable
- Mail Folder Organization
- Offline reading and writing
- Dynamic Mailing List Capabilities
- Ability To Manage Multiple Back-Ends
- Importance, Urgency, Alerts

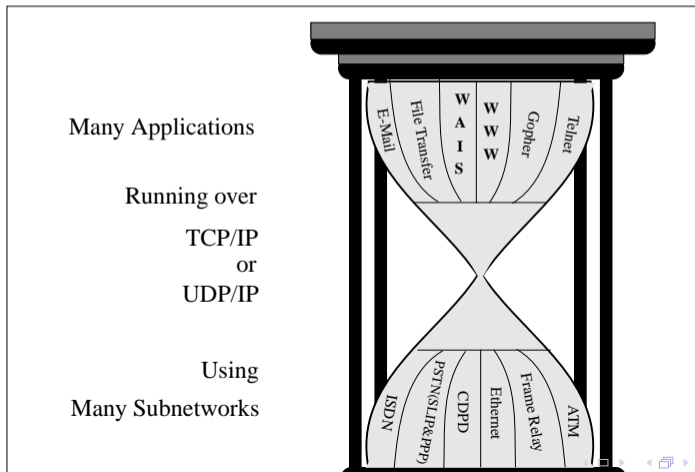# Comparison Of Mail Systems – (servers, clients, webmail providers)

- Comparison of mail servers - Wikipedia — https://en.wikipedia.org/wiki/Comparison_of_mail_servers
- Comparison of email clients - Wikipedia — https://en.wikipedia.org/wiki/Comparison_of_email_clients
- Comparison of webmail providers - Wikipedia — https://en.wikipedia.org/wiki/Comparison_of_webmail_providers
- List of collaborative software - Wikipedia — https://en.wikipedia.org/wiki/List_of_collaborative_software

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Diversity In MUAs Is A Good Thing

- Concept Of Hour Glass Shape In Software/Communications Architecture
- MUAs are at the very top – Diversity Is Expected
- Cohesion In Mail Sending Facilities
- Cohesion In Mail Receiving Facilities

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Linux Native MUAs Landscape (2016)

lcaMailToolsBinsPrep.sh

- Evolution
- balsa
- claws-mail
- Gnus

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Web Based MUAs Landscape (2016)

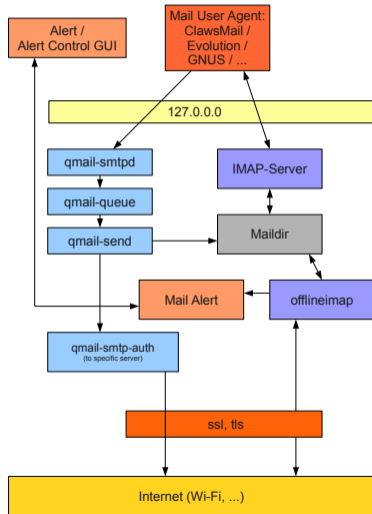lcaMailToolsBinsPrep.sh

- squirrelmail

Concept Of Resident MS+MTA MUA

- A Local (Resident) MS Store is sync-ed with the Remote MS Store
- A Local (Resident) MTA takes care of spooling Of outgoing messages to remote submit servers
- A local agent receives pushed emails

Part II

ByStart Gnus MS+MTA Ultimate Messaging Environment

Part 2: ByStart Gnus MS+MTA Ultimate Messaging Environment

What Is ByStar Gnus++

It is a tight integration of the following:

- Emacs
- Gnus
- qmail (outgoing only)
- offlineimap – Syncs external servers with local maildirs
- courierimap (localhost in the clear for use by Gnus
- notmuch (resident search engine)
- bbdb (Address Book)
- Org-Mode – calendar

Internet News – And Gmane

- Extracts And Appends Mail Header Fields

Searching Through Your Mail – With Total Privacy

- notmuch
- afew
- lcaNotmuchManage.sh

Part III

Class Activities

Part 3: Class Activities

7. Accessing Your Accounts On ByStar Mail Server
   - Your Domains, Your Account+Passwd
   - ByStar Mail Server Basic Tests

8. Bash Scripting – MailBot and MailInjector Exercises
   - mailInjector.sh Evolution
   - mailBot.sh Evolution
   - Offlineimap + notmuch

Your Domains, Your Account+Passwd

- smtp.first.1.last.byname.net – imap.first.1.last.byname.net
- Your account is the first field in the /etc/passwd file that was emailed
- Your passwd was emailed to you

ByStar Mail Server Basic Tests

- ping smtp.first.1.last.byname.net
- From Your Bellevue College Account Send Messages To main@first.1.last.byname.net
- Submit Server Tests Against smtp.first.1.last.byname.net

Accessing Your Accounts On ByStar Mail Server
Bash Scripting – MailBot and MailInjector Exercises

mailInjector.sh Evolution
mailBot.sh Evolution
Offlineimap + notmuch

mailInjector.sh Evolution

- cd ⁊isit442
- mv mailInjector mailInjector.20160223
- cp -r -p /opt/public/osmt/bin/mailInjector .

Accessing Your Accounts On ByStar Mail Server
Bash Scripting – MailBot and MailInjector Exercises

mailInjector.sh Evolution
mailBot.sh Evolution
Offlineimap + notmuch

mailBot.sh Evolution

- Top-Down Design, Bottom-Up Implementation
- Managing Complexity, Cohision, Consistency – mailInjector.sh
- Panel.org Omni-Available Features
- Iim Omni-Available Features
- Bashing – Procedural vs Functional Vs Object-Oriented

Accessing Your Accounts On ByStar Mail Server
Bash Scripting – MailBot and MailInjector Exercises

mailInjector.sh Evolution
mailBot.sh Evolution
Offlineimap + notmuch

Offlineimap + notmuch

- Hit Your ByStar Imap Account With offlineimpa
- run notmuch on your locally synched messages

Part IV

Assignments

Part 4: Assignments

Review Of Last Set Of Assignments

- Familiarize yourself with offlineimap
- Familiarize yourself with notmuch
- Familiarize yourself with gmane
- Configure claws-mail with your bystar account

- Work On Your Own Full Mail Processing Loop:
  - Use mailInjector.sh to send out a pdf attchamnet to your ByStar account.
  - Use offlineimap to automatically retrieve that message.
  - Use mailBot.sh to disect the pdf message into its original pdf file.
  - Print out a command that would have printed that pdf file.
  - Make it such that all of the above can be automated repeatedly.