

Message Transfer System And Access Platform

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Part I

Message Platform Preparations

Part 1: Message Platform Preparations

- 1 Messaging Software BinsPreps Verification
- 2 Messaging Services Configuration
- 3 Overview Of Mailfront Replacement
- 4 Messaging Services Verification

Installation

- Functionally Grouped Components For Message Transfer Software Preparations
Verify – Install – Verify
- Functionally Grouped Components For Mail Access Software Preparations
Verify – Install – Verify

Messaging Services Configuration

- Functionally Grouped Components For Message Transfer Services Configuration
Verify – Install – Verify
- Functionally Grouped Components For Mail Access Services Configuration
Verify – Install – Verify

Overview Of Mailfront Replacement

- Qmail Processes Are Deleted – Taken Out
- Mailfront Processes Replace Them
- CVM Is Added For Authentication

Messaging Services Verification

- `ps -ef | grep -i mail` – also with `pgrep`
- Look at The Ports
- Locate The Full Command Line That Goes With That Port / Process
`/proc/xx/cmdline`

Part II

SMTP and IMAP/POP Dialogues

Part 2: SMTP and IMAP/POP Dialogues

5 SMTP Dialogue Examples

6 IMAP Dialogue Examples

7 Pop Dialogue Examples

Message Transfer Blee Panel – Walkthrough

- IIM BinsPreps
- Send And Receive
- Send
- Receive
- Monitor
- Test and Diagnose

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Part III

Class Activities

Part 3: Class Activities

- 8 Blee And Emacs Proficiency
 - Using Emacs As An IDE
 - YASnippet

- 9 Bash Scripting – Mail Injector Exercise
 - MailInjector Development
 - MailInjector Initial Structure
 - MailInjector Functional Specification
 - MailInjector Design Specification Topics – Your Assignment

Using Emacs As An IDE

- Programming Language Modes – (Bash, Python, Lisp, C/C++, Html, CSS, JavaScript – TeX, Beamer)
- YASnippet <http://www.emacswiki.org/emacs-test/Yasnippet>
Useful Video: <http://www.youtube.com/watch?v=ZCGmZK4V7Sg>
- Dynamic Evaluation
- Linting and Style Enforcement
- Debugging

YASnippet

- Using Snippets
- Creating Your Own Snippet

MailInjector Development

- Requirements / Functional Specification – (Mohsen)
- Design – (Students)
- Design Review – (Joint)
- Coding / Implementation – Very Evolutionary And Layered (Students)
- Verification – (Joint)
- Iteration – (Joint)

Keeping It All Together – Inside Of Your Script

Adding An iimPanel to Our iimBash Examples

- `cd /isit442`
- `mkdir mailInjector`
- `cd mailInjector`
- `cp /opt/public/osmt/bin/mailInjector.data mailInjector.data`
- `cp your script.sh from .. to mailInjector.sh`
- `cp Your Panel.sh from .. to Panel.sh`
- Run Your Old Panel.sh here
- Develop mailInjector.sh and Panel.org – Start With Parsing Input

MailInjector Functional Specification

- Read In A File Structured As: `/opt/public/osmt/bin/mailInjector.data`
- 4 Comma Separated Fields. Example:
`mohsen.banan@bellevuecollege.edu,nn,Mohsen,Banan`
- Create A Message (Header and Body) Based On Fields (2,3,4)
- Send That Message To content of Field 1
- Produce A Report/Log Of All successful and failed injection/sends

MailInjector Design Specification – Things To Consider

- How will you read the input file? stdin? parameter? argument?
- How will you parse the file?
- How will you create the message?
- How will you submit the message? (manual-entry “qmail-inject”)
- How will you specify the From: line?
- How will you specify the Envelope Address?
- How Will you determine the message injection was successful?
- How Will you determine the message was not delivered?
- How will you produce a report?

Part IV

Assignments

Part 4: Assignments

10 Review Of Last Week's Assignments

11 Next Set Of Assignments

Review Of Last Set Of Assignments

- RFCs List Assignment
- Readings

Next Set Of Assignments

- Design Your MailInjector.sh Based On The Functional Spec
Do It However You Wish. Pseudo Code, High Level Bash, Flow Chart, English Description.
Include Error Handling and Data Analysis – How Should Input Be Delivered To It?
Consider Making It Parallel Vs Serial/Linear.
Consider Scaling
- Messaging Protocol Dialogues Preparations
Study The Simplest Complete Example For Sending An SMTP (encrypted and clear) Message. (Marcus+Marcus)
Study The Simplest Complete Example For Retrieving An IMAP (encrypted and clear) Message. (Jon+Delux)
Study The Simplest Complete Example For Retrieving A POP clear Message. (Hootan+Yuri)