

Email 101

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TDM TLA

(Too Damn Many Three Letter Acronyms)

- **Protocols**

- **SMTP**

- Simple Message/Mail Transport Protocol

- **LMTP**

- Lightweight Message/Mail Transport Protocol

- **POP3**

- Post Office Protocol

- **IMAP**

- Internet Message Access Protocol

- **Services/Processes**

- **MTA**

- Message/Mail Transport Agent

- **MUA**

- Mail User Agent

- **MSP**

- Mail Submission Program

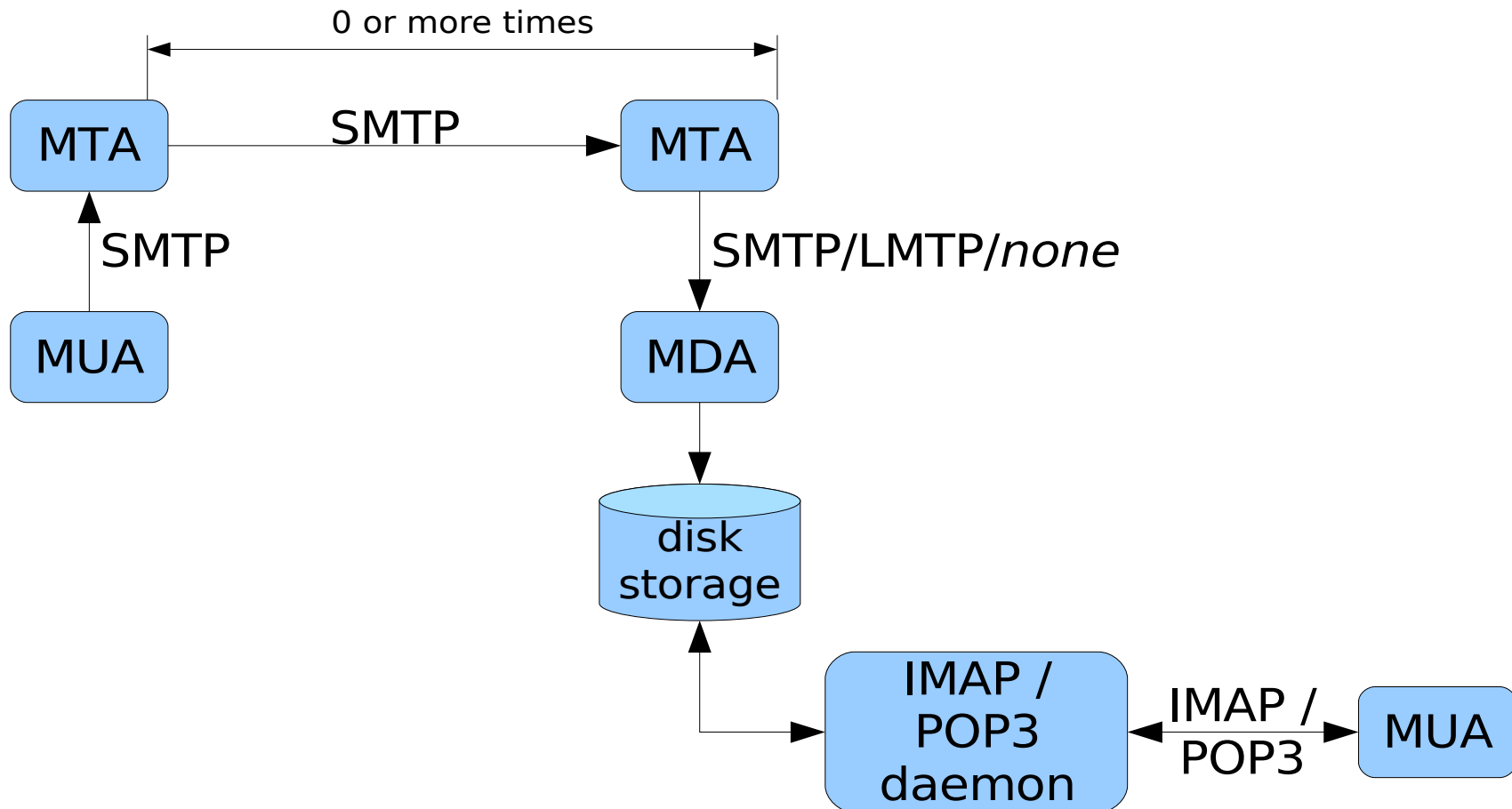
- **MDA**

- Message/Mail Delivery Agent

- **MLM**

- Mailing List Manager

Email Life Cycle



SMTP

The Protocol that Powers It All

- Simple
 - 11 core commands
 - “Plain English” syntax
 - Testable using telnet
- Extensible and Scalable
 - Extend functionality easily
 - Fairly lightweight
 - Built in redundancy

Implementations (MTA)

- Sendmail – de facto standard MTA
 - Some surveys state up to 70% market share*
 - Somewhat difficult to configure
 - Compatible with thousands of add-on packages
- Exim – sendmail replacement
 - Functions like sendmail, but has a better security record
- Postfix – drop-in replacement for sendmail
 - Designed as a suite of daemons as opposed to a monolithic binary
 - Separation of privileges makes security breaches less likely
- Many others

Implementations (MDA)

- Sendmail
 - yes it functions as a MDA as well
- Procmail
- Spam assassin
- Cyrus
- others

MDA Storage Formats

- Mail messages are stored on disk differently when using different MDAs
- MBOX – the original
 - One big flat file
- Maildir – new and improved
 - One message per file
- MDA-specific formats
 - BDB or other database or the like

Implementations (IMAP/POP3)

- UW – University of Washington
 - Reference implementation
- Courier
 - First to use maildir format
- Cyrus
 - Enterprise-Level IMAP/POP, Scales well
 - Most difficult to configure
- Dovecot
 - Easy to use

What Next?

- Webmail
- Mailing Lists
- Fetchmail
- Your own Mail server
 - Own your own domain?
 - Remember the MX records