Timo Sirainen
Dovecot Solutions Oy
http://www.dovecot.org/
Talk Overview

• Introduction (me, Dovecot)
• Rapid prototypes, accessing mails via (GMail) IMAP:
  – MH-like email client
  – “XMLMAP” email access protocol
  – IMAP proxy decrypting mails on the fly
• Live demoing (if time allows)
  – For more interactivity, send a test email now or during demo to timo.sirainen@gmail.com
Timo Sirainen

• Coder since 1988 or so (9 years old 😊)
• Open source coding since 1997
• irssi IRC client started in 1999
• Dovecot started in summer 2002
  – 10 year anniversary soon!
• Freelance Dovecot coding since 2006
• Dovecot Solution company founded 2011
  – SLA support for companies
Dovecot?

• IMAP, POP3 mail server
• Mail delivery agent + LMTP
• Sieve mail filtering language + ManageSieve
• (No SMTP. Postfix/Exim is fine)
IMAP Adaptor

- Dovecot’s “IMAP client” mail storage backend
MH-like email client

- Implemented using only shell script and doveadm tool
  - Script 109 lines
  - Shows mails in UTF8
- dmh inc, dmh search
- dmh show
- dmh next
- dmh prev
MH-like email client

• dmh inc’s message list:
  – doveadm fetch 'seq hdr.date hdr.subject.utf8 hdr.from.address_name.utf8 hdr.from.address' mailbox $MAILBOX uid $UIDS

• dmh show
  – doveadm fetch text.utf8 mailbox $MAILBOX uid $UID
Dovecot features for email client

- IMAP, POP3 client code
- Indexed mailboxes
- Cached headers/other metadata
- Full text search indexes
- Complex search queries
- Parsing / decoding messages
XMLMAP protocol

LOGIN timo.sirainen@gmail.com secret imap.gmail.com
<mailbox><messages>3</messages></mailbox>
GETMAIL LIST 1:3
<reply><mail seq="1"><meta><uid>1334</uid><received>1328179674</received></meta>
<from address="tss@iki.fi">Timo Sirainen</from><to address="timo.sirainen@gmail.com"></to><subject>Päivää kaikille</subject></mail>
<mail seq="2"><meta><uid>1336</uid><flag>![CDATA[\Seen]]></flag><received>1328180075</received></meta><from address="tss@iki.fi">John Doe</from><to address="timo.sirainen@gmail.com"></to><subject>Hello, how are you?</subject></mail>
<mail seq="3"><meta><uid>1337</uid><received>1328180755</received></meta><from address="Pepe.Taskinen@fi.fujitsu.com">Taskinen Pepe</from><to address="timo.sirainen@gmail.com">timo.sirainen@gmail.com</to><subject>Email</subject></mail>
</reply>
GETMAIL BODY 1
<reply><mail seq="1"><meta><uid>1334</uid><received>1328179674</received></meta>
<from address="tss@iki.fi">Timo Sirainen</from><to address="timo.sirainen@gmail.com"></to><subject>Päivää kaikille</subject>
<body>""![CDATA[Notice the UTF-8 subject and body: Tälläistä tällä täänän.
]]></body></mail>
</reply>
PUSHMAILS
<mail seq="1">
  <meta>
    <uid>1334</uid>
    <received>1328179674</received>
  </meta>
  <from address="tss@iki.fi">Timo Sirainen</from>
  <to address="timo.sirainen@gmail.com"></to>
  <subject>Päivää kaikille</subject>
</mail>
IMAP proxy with de-PGPing

- Mails are read from remote IMAP server using IMAP Adaptor
- Message body is modified with mail_filter plugin, which calls a script
- The actual de-PGPing is done with a simple filter script
  - Ugly version: 25 lines of /bin/sh
Demoing!