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
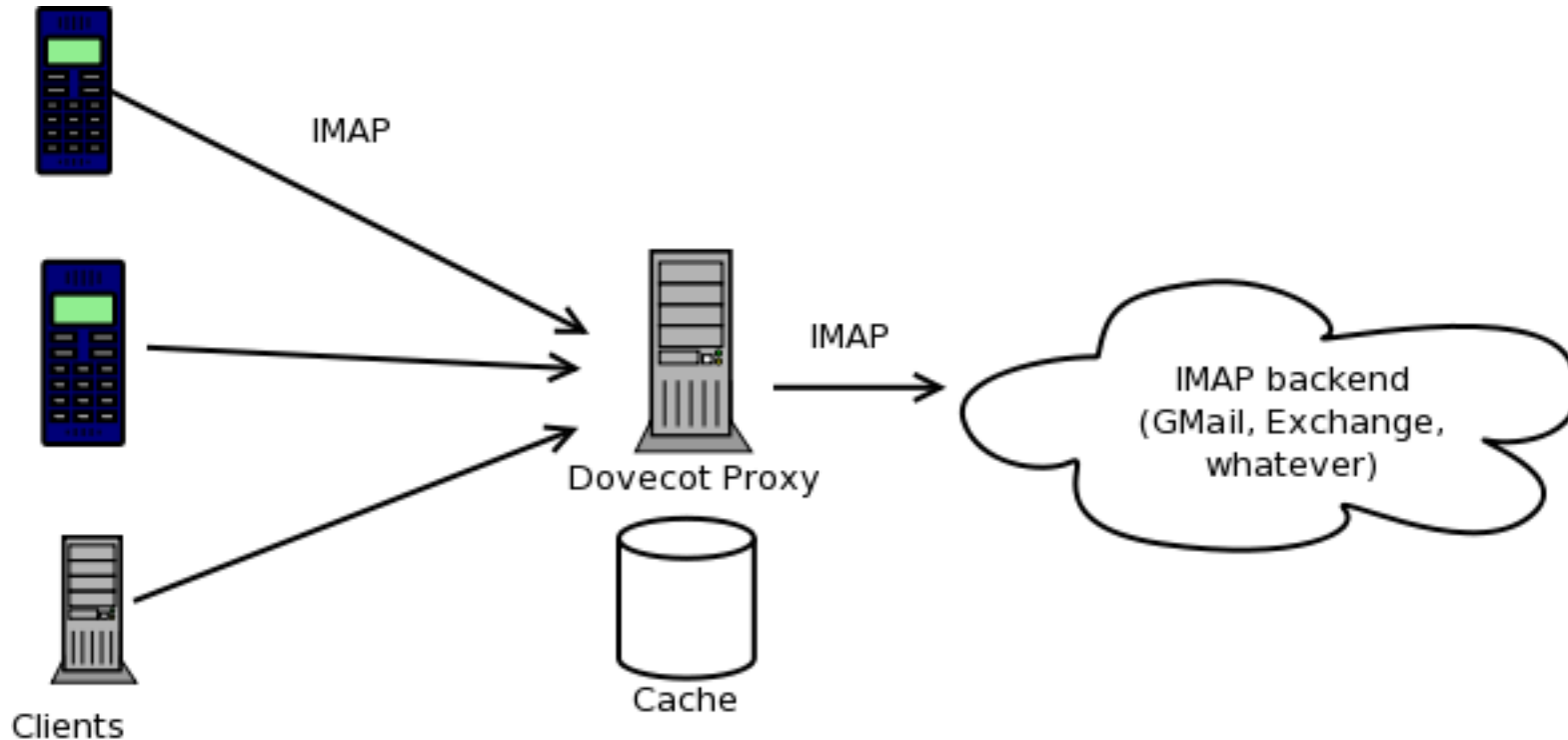
Timo Sirainen

- 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

```
[tss@omppu-3] ~% ./dmh inc
1 02/Feb Timo Sirainen    Päivää kaikille
2 02/Feb John Doe         Hello, how are you?
3 02/Feb Taskinen Pepe    Email
[tss@omppu-3] ~% 
```

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>13281
80075</received></meta><from address="tss@iki.fi">John Doe</from><to address="ti
mo.sirainen@gmail.com"></to><subject>Hello, how are you?</subject></mail>
<mail seq="3"><meta><uid>1337</uid><received>1328180755</received></meta><from a
ddress="Pepe.Taskinen@fi.fujitsu.com">Taskinen Pepe</from><to address="timo.sira
inen@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 täällä tänään.

]]></body></mail>
</reply>
PUSHMAILS
```

XMLMAP protocol

```
<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!