

Email routing in the University

<http://www-uxsup.csx.cam.ac.uk/~fanf2/>

Tony Finch

`<fanf2@cam.ac.uk>` `<postmaster@cam.ac.uk>`

University of Cambridge
Computing Service
Mail Support

Wednesday 9 March 2011



UNIVERSITY OF
CAMBRIDGE

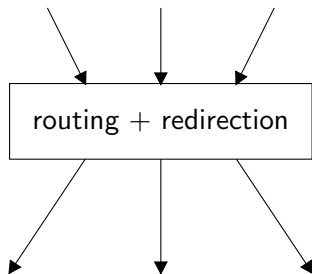


Overview

@cam.ac.uk



ppsw.cam mx.cam smtp.hermes



delivery



What mail is accepted where



- ▶ `mx.cam.ac.uk`
 - ▶ From any non-spammer
 - ▶ To local addresses
 - ▶ Anti-spam content analysis
 - ▶ Anti-virus
- ▶ `smtp.hermes.cam.ac.uk`
 - ▶ From Hermes users
 - ▶ To anywhere
 - ▶ Rate limits + anti-virus
- ▶ `ppsw.cam.ac.uk`
 - ▶ From CUDN computers
 - ▶ To anywhere
 - ▶ Rate limits + anti-virus

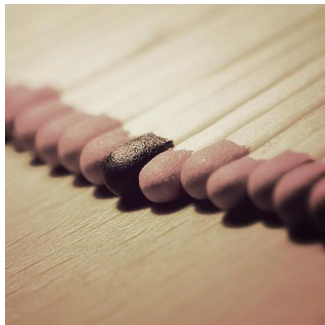
Numbers of domains

- 4 *UCS test*
- 3 *independent*
- 8 secondary MX
- 76 special routes
- 9 long-form
- 2 obsolete
- 245 managed mail domains
- 15 https domains
- 22 internal redirects
- 384 *total*
- 44 *non-cam.ac.uk*



Unusual MX records

- ▶ `ccdc.cam.ac.uk`
- ▶ `gene.cimr.cam.ac.uk`
- ▶ `cup.cam.ac.uk`
- ▶ `cambridge.org`
- ▶ `econ-1m.econ.cam.ac.uk`
- ▶ `eng.cam.ac.uk`
- ▶ `ebulletin.foundation.cam`
- ▶ `jesus.cam.ac.uk`
- ▶ `his.path.cam.ac.uk`
- ▶ `mrc-bsu.cam.ac.uk`
- ▶ `mrc-cbu.cam.ac.uk`
- ▶ `srl.cam.ac.uk`
- ▶ `lib-cat.trin.cam.ac.uk`
- ▶ `cambridge-assessment.org`



Local restrictions

- ▶ Port 25 blocked
- ▶ No mail to A or AAAA records under `cam.ac.uk`



Special Routes



@admin.cam.ac.uk	→	mailgate.admin.cam.ac.uk
@cl.cam.ac.uk	→	mta.cl.cam.ac.uk
@tex.ac.uk	→	mta.cl.cam.ac.uk
@emma.cam.ac.uk	→	mail.emma.cam.ac.uk
@lists.cam.ac.uk	→	lists.cam.ac.uk
@medschl.cam.ac.uk	→	me-mail.medlan.cam.ac.uk
@srcf.ucam.org	→	mx.srcf.societies.cam.ac.uk

Long-form domains



- ▶ darwin.cam.ac.uk
dar.cam.ac.uk
- ▶ cont-ed.cam.ac.uk
ice.cam.ac.uk
- ▶ interfaith.cam.ac.uk
cip.cam.ac.uk
- ▶ math.cam.ac.uk
maths.cam.ac.uk
- ▶ murrayedwards.cam.ac.uk
newhall.cam.ac.uk
- ▶ queens.cam.ac.uk
quns.cam.ac.uk
- ▶ varsity.co.uk
varsity.cam.ac.uk
- ▶ woolfinstitute.cam.ac.uk
woolf.cam.ac.uk

Obsolete domains

- ▶ cei.group.cam.ac.uk
- ▶ sps.cam.ac.uk



Managed mail domains

- ▶ Unix-style aliases file
- ▶ Edited using ssh to Hermes menu system
- ▶ Uses RCS for locking
- ▶ Converted to cdb for mail routing on ppswitch
- ▶ Live copy updated hourly
- ▶ Managers can get an audit of broken addresses



Managed mail domains

f.a.n.finch:fanf2@ucs.cam.ac.uk

tony.finch:fanf2@ucs.cam.ac.uk

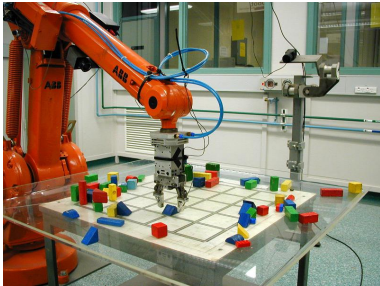
fanf2:fanf2@cam.ac.uk

mail-support:m-support@hermes.cam.ac.uk

m-support:fanf2@hermes,dpc22@hermes



HTTPS Managed mail domains



- ▶ Automated management
- ▶ Our update job fetches aliases file from manager's web server instead of from Hermes menu system
- ▶ Live copy updated hourly
- ▶ Managers get monthly broken address audit

Addresses at cam.ac.uk

- ▶ 40376 aliases
- ▶ 38918 go to Hermes
- ▶ 12 special cases



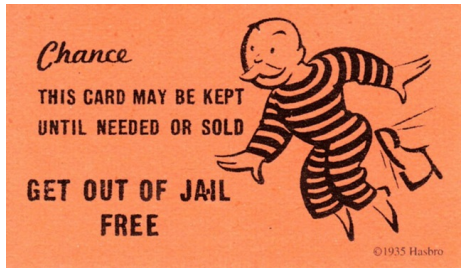
Addresses at hermes.cam.ac.uk



- ▶ 40355 accounts
- ▶ 33 special case aliases
- ▶ 8 live servers
- ▶ 8 hot spares
- ▶ 6TB storage each

Internal redirects

- ▶ For all the awkward cases
- ▶ Extend managed mail domain
- ▶ RT servers are common
- ▶ Also used for migrations



Internal redirects

- ▶ `atj20:atj20@ucs-exchange.internal-redirect`
- ▶ `atj20@ucs.cam.ac.uk` → `atj20@ucs.cam.ac.uk`
- ▶ But delivered to an alternate destination



Migration

- ▶ “disabled” managed mail domains



This talk has been terminated

