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## E-mail archiving: all things to all people

PLEASE CITE THE PUBLISHED VERSION

<http://www.educause.edu/annual-conference/2007/e-mail-archiving-all-things-all-people>

VERSION

VoR (Version of Record)

PUBLISHER STATEMENT

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# E-mail Archiving

## All Things to All People

Garry Booth  
Graeme Fowler  
Carys Thomas

## Where are we from...?



...and how on earth do you pronounce it?

## Loughborough and the University

- Industrial & market town in the heart of the East Midlands, pop. approx 60000
- University established 1966, colleges 1909
- Single campus, 433 acres
- Approx 15000 under & postgrad students
- Approx 5000 faculty, staff, postgrad researchers
- Research intensive
- International renown for sporting achievements
- 2006 Times Higher “Best Student Experience” award, 2007 National Student Survey top 5 for student satisfaction

## Quick show of hands

- Which country are you from?
- Does your institution use any form of email archiving?
- Does your institution have mailbox quotas?

## What does “email archiving” mean to you?

- Cultural or historical research
- Take email off central servers onto users' hard disks
- Removal of “old” material off fast storage media
- Selection of emails to be preserved in accordance with retention schedule
- Keep a copy of all email for legal compliance - tamper proof (applies more to US than UK)
- ...something else?

## Our Presentation Today

- Background
- JISC Funded Project (2003)
- Surveys of UK Universities
- Some Issues in Implementing Email Archiving
- Design of Loughborough solution
  - User consultation
  - Risk Analysis
  - Technical considerations
- Loughborough Implementation

## Background - 2003

- Much University business conducted by email
- Individuals decided which emails to dispose of and which to keep
- The University backed up email for disaster recovery but when staff left, it was deleted
- UK Data Protection & Freedom of Information legislation affecting the management of email



## JISC Project Bid - 2003

- Study of the Records Lifecycle - Specialist Electronic Studies examining Institutional Email
- Examine current working practices
- Develop policies for the retention and disposal of email
- Evaluate technical options for archiving email
- Inform University and UK HE sector of the findings

## Main Tasks

- Carry out interviews with staff
- Conduct a survey of other institutions
- Draft an email retention and disposal policy
- Research technological solutions

## Findings – Staff Interviews

- Email is an essential tool of communication
- Decisions and responsibilities agreed by email
- Job responsibilities affect email management
- Staff often kept paper copies of important emails
- Staff had different levels of skills and expertise
- Wide variety of practice
- Staff wanted control of any archive

## Retention and Disposal Policy

- Template produced by the project for use by institutions
- Emails are owned by the institution
- Individual staff responsibility to decide what emails to archive – capture these as records and retain in accordance with retention schedule
- Institution responsibility to provide the technology to do it plus guidance and training

## Project Deliverables

- <http://www.lboro.ac.uk/computing/irm/index.html>
  
- Resources include:
  - Template – institutional email disposal policy
  - Case studies – how users manage their email
  - Final project report
  
- Thanks to Michael Norris, Project Officer

## Survey of UK Universities, 2003

- 21 institutions responded
- Only general policies were evident
- Respondents were backing up their email rather than archiving it
- No institution was identified which had a well defined email archiving policy

## Survey of UK Universities, October 2004

- 26 Universities and Colleges
- 22 not archiving email
- 4 in progress
  - Two taking a copy of all email
  - Other two – focus was management of mailbox sizes

## Survey of UK Universities, March 2006

- 28 Universities and Colleges
- 1 has implemented
- 7 in progress
- 20 not archiving email
- Movement towards installing such systems
- Focus is technical management of storage, not records management



## Issues - Whose email is it?

- Does it belong to the institution or the individual?
- There are drivers for institutional ownership of email records
- But users see email as their own personal property
- There are issues of academic freedom and intellectual property rights
- When staff leave what happens to their email?

## Issues - different styles

- Some people like to organise things



- Others don't ...



## Issues - Why bother?

- The business case is not easily made
- No high profile legal cases in our sector (yet)
- Doesn't appear to move anything forward
- No staff productivity gains (on the contrary)
- Staff indifference (at best) ...
- ... or resistance
- *Zzzzzzzzz*

## Issues - Management Buy-In

- Needs senior management engagement for:
  - Formal adoption of policies
  - Championing
  - Monitoring, enforcement
  - Funding
- But it's not high on their list of priorities
- Is it clear whose responsibility it is?
- At Loughborough – agreed to promote guidelines, but not to enforce a policy

## Issues – “There is a bigger picture”

- Electronic document management systems encompass email as well as other electronic documents and scanned images of paper documents
- Undoubtedly “better” (more organised, more elegant)
- But more expense, complexity etc – the case is even harder to make
- Delays considerations for email

## User Consultation - summary

- Staff want control over their own email and how it is archived
- They want a system that is easy to use
- Range of understanding of the term “archiving”
- Considerable education would be needed on records management purposes, as distinct from personal archiving

## Design – Risk Analysis

- Volume of stored email hard to manage
- Inability to produce vital email records required:
  - Finding “the wood for the trees”
  - Searching across multiple mailboxes
  - Email lost when staff leave the University
  - Not available through staff illness/absence
  - Deleted by staff accidentally or on purpose
  - Stored off the server (e.g. POP, .PST files)

## Design – Risk Analysis (continued)

- Proving authenticity
- Inappropriate email being kept and discovered
- Confidential or personal email being disclosed inappropriately
- Email being held longer than it should be
- Risk of losing email records when systems change in the future
- Lost opportunities for future historical research



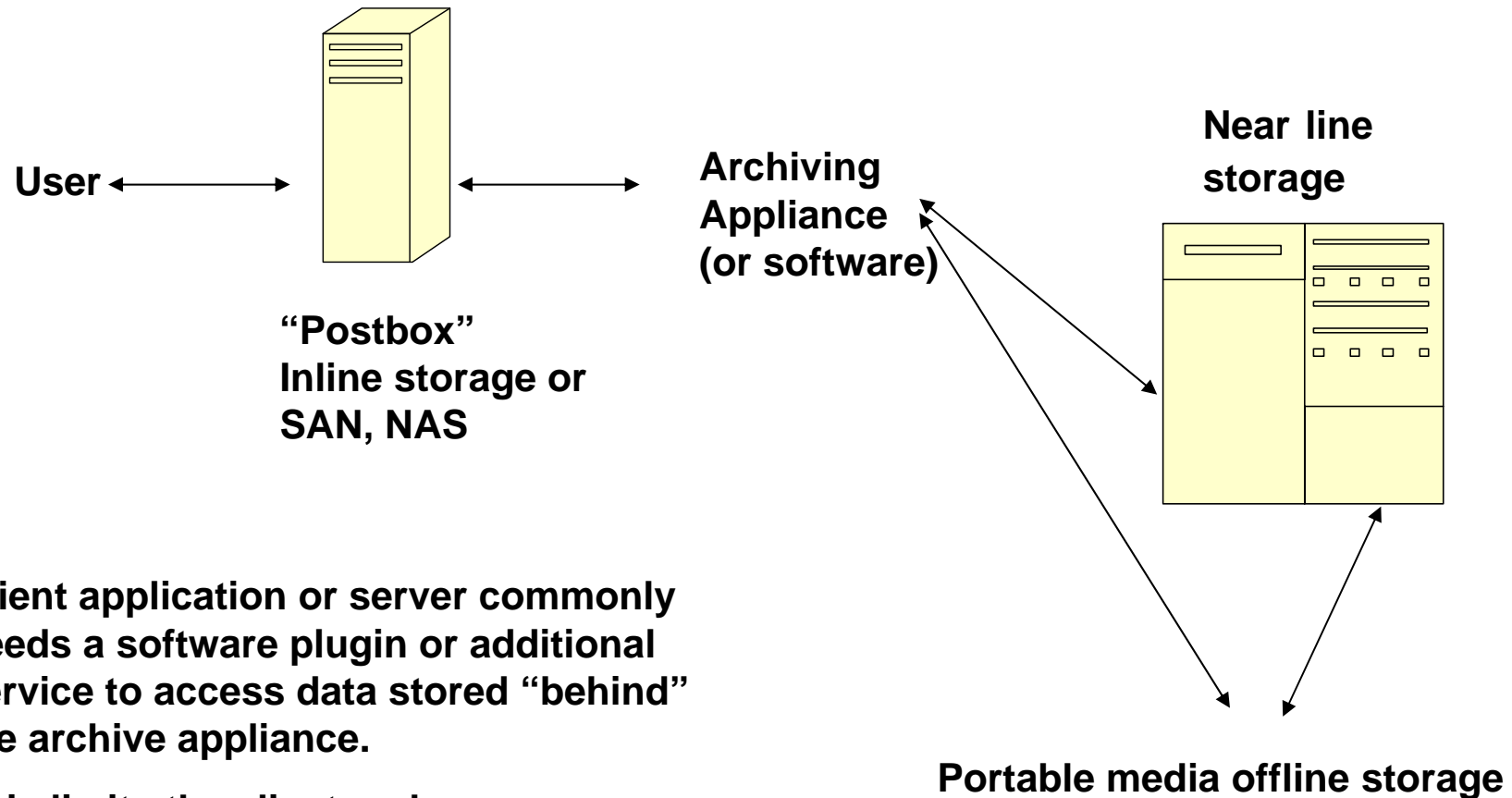
## Design Considerations - Cost

- Software licences
- Archiving appliance cost
- Near line disk storage – Loughborough currently accepts 400000 emails a week (we reject 1.2m per week!). If all of these are stored with attachments, approx 5TB of disk space needed per year at current figures
- Offline disk storage (tape/cd/WORM)

## Technical Design - Integration

- Many proprietary archiving solutions are heavily tied into specific email systems and mass storage solutions.
- Many only support Exchange, Notes, Groupwise etc. when using Outlook as client
- A (very) few are agnostic and work with RFC standards
- If you already have a mass storage device, you may be forced to use one archive system and one email system

## Design – “Common” Architecture



Client application or server commonly needs a software plugin or additional service to access data stored “behind” the archive appliance.

This limits the client and server platforms to those specified by the appliance or software vendor.

## Technical Design – Catering for diverse user base

- Many UK universities have a diverse range of clients using different operating systems.
- Mac and Linux users may find their options extremely limited as to how they can interact with an archiving system
- Many users don't want their email client prescribed, but many archive systems assume Outlook is the client.
- Non-Outlook users may have to use a separate interface to the archive rather than their preferred email client

## Loughborough Implementation

- Implementing archiving as part of a change of email server software and hardware platform
- Decision not to purchase an archiving solution.
- Archive email as “normal email”, because:
  - Aids searching
  - Uses familiar interface – normal email client
  - Works across user choice of platforms
  - No specialist application to manage ...
  - ... or buy
- Disadvantage – storing multiple copies of uncompressed email

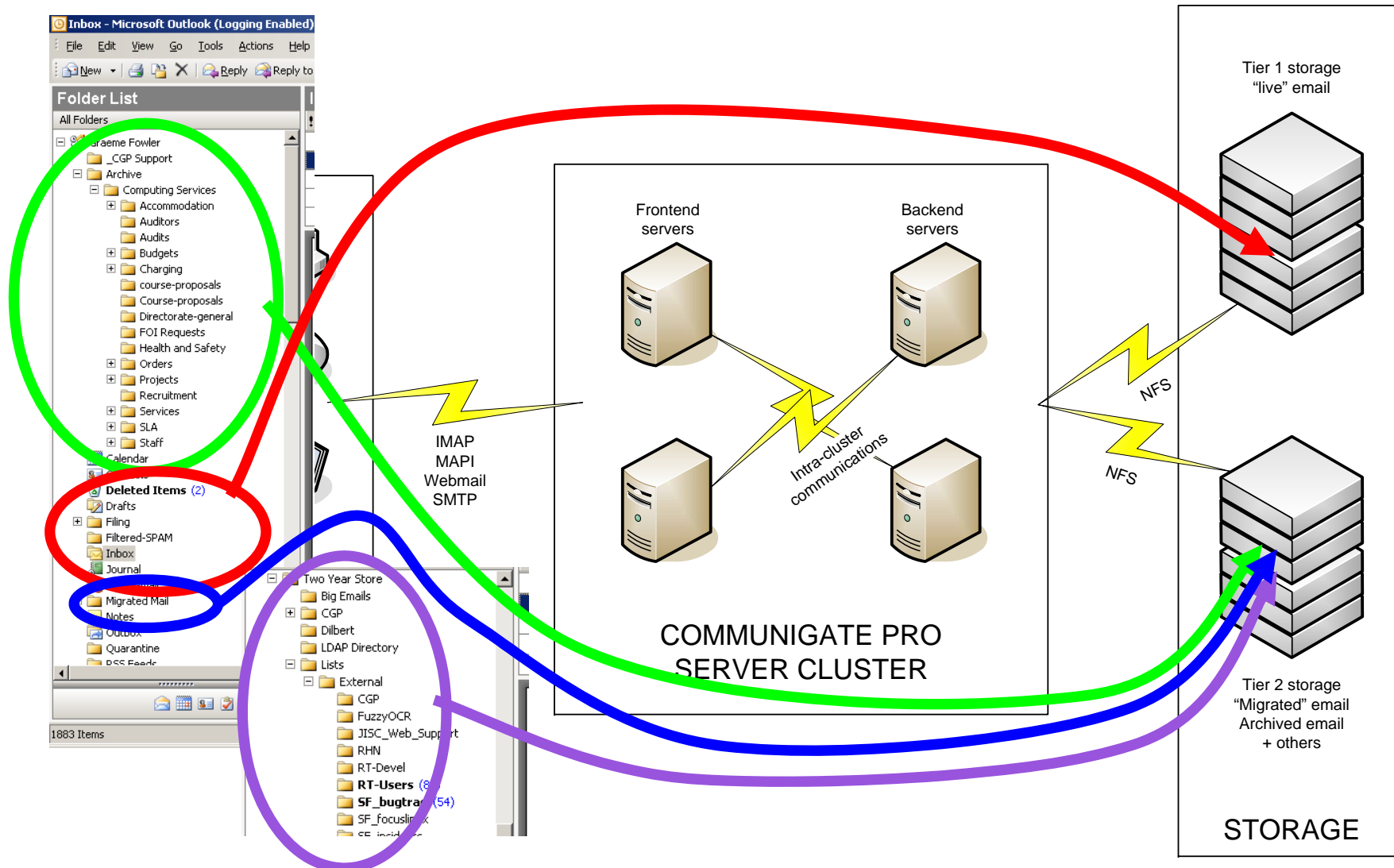
## Loughborough Implementation – Technical 1

- Accessible via all available client methods
- No additional client application required
  - No training other than user familiarisation
  - Consistent interface
  - Users need no knowledge of storage, just use folders
- Web interface for administrators to control access, retention periods
  - Consistent with folder views in clients
  - Well received by end users due to simplicity
- Easily developed with server platform (CommuniGate Pro) via vendor's published API (Perl module), IMAP protocol, CGI with Apache

## Loughborough Implementation – Technical 2

- 2 tier storage – “live”, archive (and others)
- Quota applied to primary email storage (limited by volume) on tier 1
- 250Mb initial allowance
- Users can increase to 350Mb via Web page
- Further increases on request where needed – e.g. regular exchange of large files
- Plus “Two Year Store” (limited by time) on tier 2 – more generous quota
- Migrated mail on tier 2 – retained for 2 years

# Loughborough Implementation – Technical 3





## Loughborough Implementation – Policy

- Each department defines its own hierarchical folder structure
- Stored on Tier 2 storage – no quota applied
- Method for selective archiving - “proper records management” – simple drag and drop into folders in predefined structure.
- End user training as part of new email rollout

## So how is it going?

- Structure, shared archives are really taking off in some areas
  - 96000 items in 3700 folders so far
  - 22 depts
- Difficulties where archive structure hasn't been put in place before rollout, because...
- Having a quota is a surprise (or a shock!)
- “Filers” like to be involved in structural definition
- “Non-filers” have a learning curve.

## Questions



**(Garry could, or would, answer them  
but he's not here)**

Questions?

???