Towards a computing commonwealth

Lou Burnard
Oxford University Computing Services
`http://www.ict.ox.ac.uk`

… or, What did the Romans ever do for *us*?

- *What IS going on in Banbury Rd?*
  - email madness
  - portalism, vle, vre, osswatch…
- *SSO : why you want it and what it costs*
- *Mobilising access*
- *Developing an ICT team*
- *But first, how about some strategic thinking?*

Where does strategy come from?

- *from on high*
- *by looking over our shoulders*
- *by listening*
  - All of the above

doing without it is not an option!

Single Sign On: why you want it

- ***Reduction in complexity***
  - For service provider
  - For service user
- ***The vision***
    - A reliable university-wide authentication system which can be integrated with local authorisation needs
    - Persistent access to shared resources, from your desk in college, departmental lab, or laptop in the park...
- ***We are not there yet!***
  - SSO is not the same as sharing passwords...

SSO: current state

- ***Kerberos data store exists***
  – All Herald data (30,000 accounts) migrated without incident
- ***Over 1.5 million authentications daily***
- ***Webauth***
  – Now used by weblearn and maillist; webmail this summer
- ***Kerberised clients***
  – To be deployed in help centre shortly; under investigation for VPN concentrator
- ***Now open for business***
  – In use at Oriel and Physiology.

SSO implications

- ***Password security is (even) more important than before***
  - multiple services
  - state of siege
- ***We need your help!***

Dear Help Centre
Thank you for the attached. But I DON'T WANT to change my password. I am quite happy with it. I also think that I am old enough not to be big brothered by you; I will be responsible for my own security .... Please keep the old one in force -- at least if you don't want me in 13 Banbury Road speaking to every supervisor up the big brother line of command to demand retention of what I have chosen. (rt #808882)

Some email early warnings

- *How do people access their Herald email?*
  - 66% users do it via webmail
  - 20% do it with a secured mail client
- *14% still need educating to stop using insecure clients*
- *Standard email addressing*
  - **The 5 year plan to kill off implausibly-long-name@oxford.ac.uk starts at the end of next month!**

Warning Message: Your services near to be closed. - Inbox for lou.burnard@computing-services.oxford.ac.uk - Mozi...

File   Edit   View   Go   Message   Tools   Help

Get Mail   Write   Address Book   Reply   Reply All   Forward   Delete   Junk   Print   Stop

Subject: **Warning Message: Your services near to be closed.**
From: administrator@computing-services.oxford.ac.uk
Date: 11/06/2005 16:48
To: tei@oucs.ox.ac.uk

Dear Oucs Member,

We have temporarily suspended your email account tei@oucs.ox.ac.uk.

This might be due to either of the following reasons:

1. A recent change in your personal information (i.e. change of address).
2. Submiting invalid information during the initial sign up process.
3. An innability to accurately verify your selected option of subscription due to an internal error within our processors.
See the details to reactivate your Oucs account.

Sincerely,The Oucs Support Team

+++ Attachment: No Virus (Clean)
+++ Oucs Antivirus - www.oucs.ox.ac.uk

Attachments: document.zip

Just another incident...

Sat	0825	First known infection in Oxford
	1330	Suspect mail reported to Oxcert
		Webmail front page updated with warning
	1400	Controller machine/s identified; redirected
		blocked at firewall; new virus sig identifie
	1500	Virus specimen reported to Sophos
	1530	Start blocking of compromised machines
	2100	Clam AV sig received and deployed on Ox
Sun		Virus continues to spread via other servers
Mon	0930	IDE update received from Sophos and deployed

~150 machines compromised;
~
~220 machines compromised;
~ ils
~250 machines compromised; ~100,0000 emails detected

MyTob Morals

- *250 compromised machines takes 250 hours effort to clean up*

- *Speed of detection and rapid deployment of virus filtering at the Oxmails is essential*

- *70/80 servers do not route mail through the Oxmails...*

Mobilizing access

- *OWL service now available*
  - 6 deployments so far

- *Integrating with SSO regime is in progress*
  - We recognize need to support visitors
  - There are problems in supporting insecure or nonstandard devices

- *Funding issues*

I have just signed up to the OWL wireless service and think it is an excellent idea provided you can maintain security and restrict access to staff and visitors… I am glad to see the OUCS adapting so well and so quickly to the technology (rt #807007)

P2P systems

- *Skype gives us two headaches*
  - Bandwidth concerns
  - IPR concerns
- *The latter are very real*
  - We received and served 44 "*Cease and Desist*" notice over the last 30 weeks
  - almost all due to individuals serving software, movies or music illegally
- *A major education effort is needed*

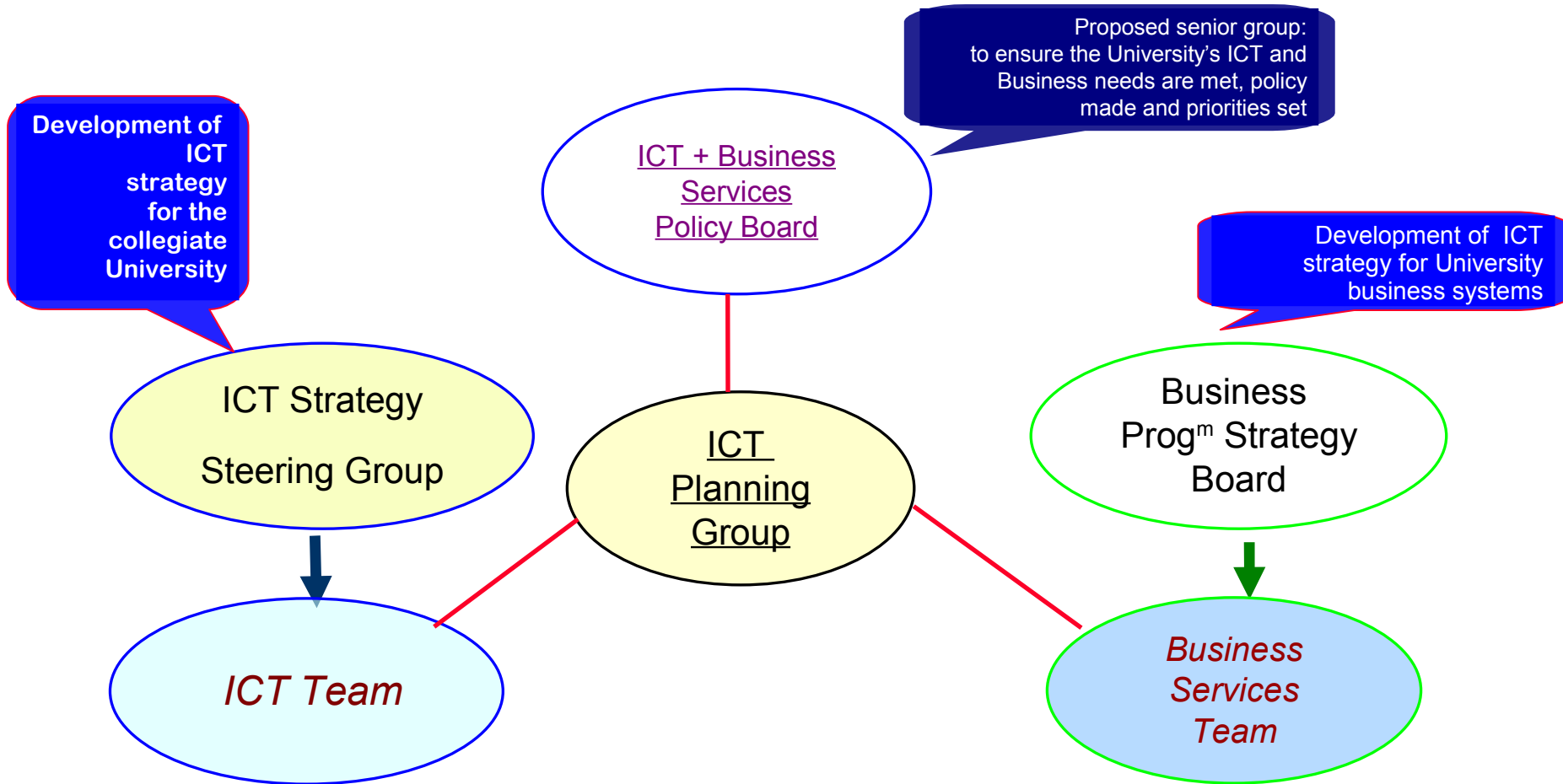# Why develop a Common Computing Environment?

- ***Three central units with similar desktop support needs***
  - Admin (900); OULS (1200); OUCS (250)
- ***University choices***
  - Do nothing (i.e. let services degrade)
  - Outsource the whole shooting match
  - Invest in (separate) departmental support teams
  - Invest in a joint team

Committees...

- ***ICT Planning Group***
  - An interface between
    - ICT team for the collegiate university
    - Business services team
  - Directors OUCS and MIS
  - NOT just OUCS!
- ***ICT Strategy Steering Group***
  - To report late spring 2006
  - First met last week

Illustration from Carl Christian Schramm's 'Historischer Schauplatz,' the first general history of bridge building (1735)

The (slightly) bigger picture

Development of ICT strategy for the collegiate University

Proposed senior group: to ensure the University's ICT and Business needs are met, policy made and priorities set

Development of ICT strategy for University business systems

ICT + Business Services Policy Board

ICT Strategy Steering Group

ICT Planning Group

Business Prog^m Strategy Board

ICT Team

Business Services Team

ICT and Business Organisational Structure (June 2005)

CCE overview -1

- *Objective*
  - Define, deploy, and maintain a common computing environment across OUCS, OULS, and Central Admin

- *Specifically*
  - One or more high quality desktop configurations with defined levels of service and support

- *Specifically not*
  - Unit-specific services or infrastructure

The Common Desktop

(From John Price-Wilkin "The Google Desktop")

CCE Overview -2

- *Who?*
  - An initial nucleus of about a dozen existing staff
  - Enterprise Manager (being recruited)
  - Further staff to be recruited next year
- *How?*
  - ITTWG workgroups with representatives from all three units
  - Co-ordinating committee

ITTWG Project Planning Group

See http://www.ict.ox.ac.uk/team/cce-brief.xml

- ***Stability***
  - Maintain existing services

- ***Scope***
  - Identify which services need to be developed and integrated

- ***Consolidation***
  - Document current service provision as first step to rationalization

AL DVS

festina lente

CCE scope

- ***User community***
  - All university staff employed in Admin, OUCS, OULS
  - Additionally, open access desktops in lecture rooms, help centres, reading rooms
- ***"Commodity" Services***
  - industrial strength
  - meeting user needs and expectations

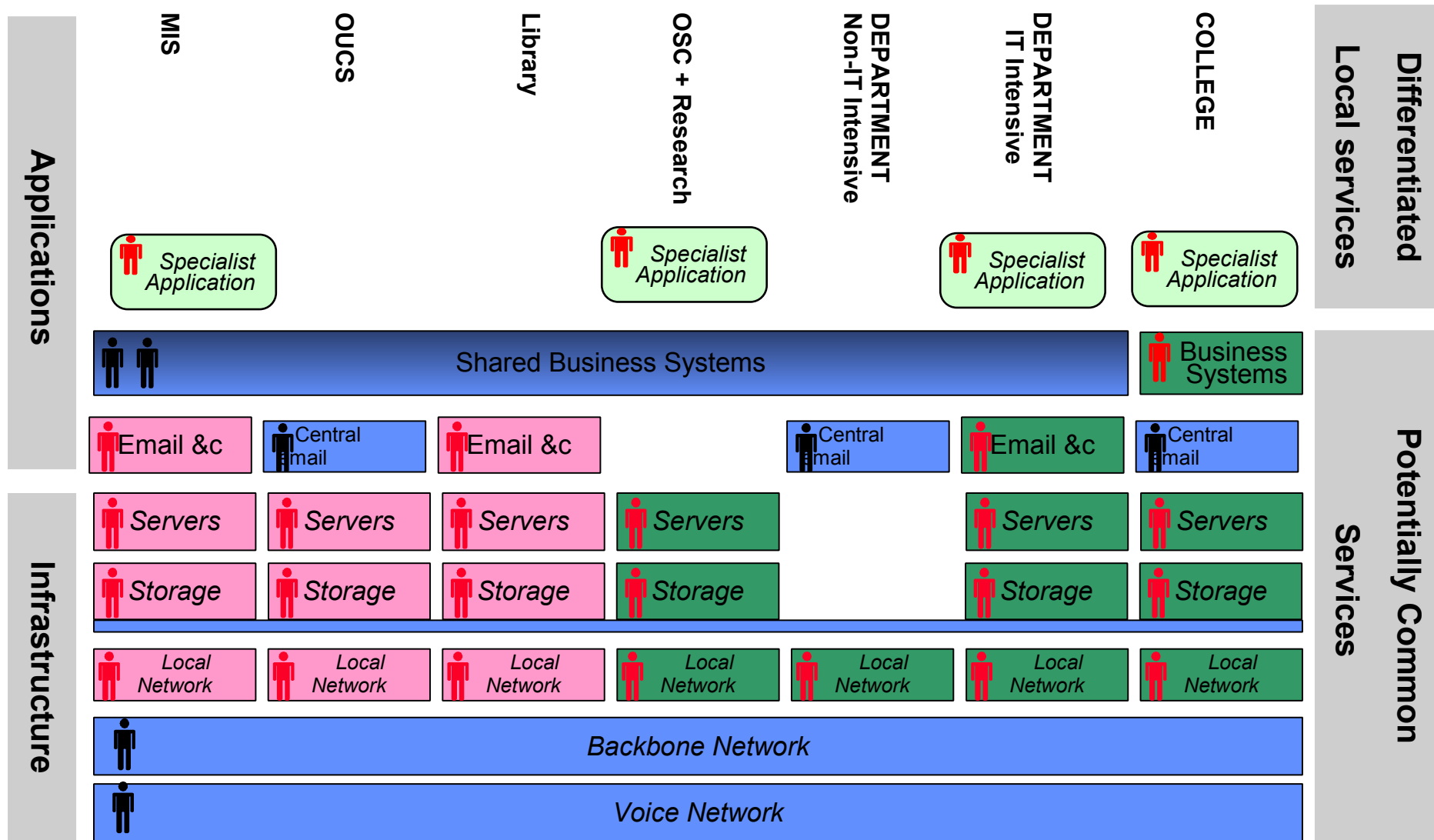***We don't imagine we're alone in this***

CCE Services

- *An initial list...*
    - email, web, calendaring, office applications
    - document management, printing, media services
    - persistent high reliability data storage
    - automated software deployment, maintenance, development
    - secure local and remote network access
    - unified user support and help desk
    - standardized administrative support (inventory, health and safety, accessibility...)
    - ongoing monitoring and assessment of user requirements
    - etc etc

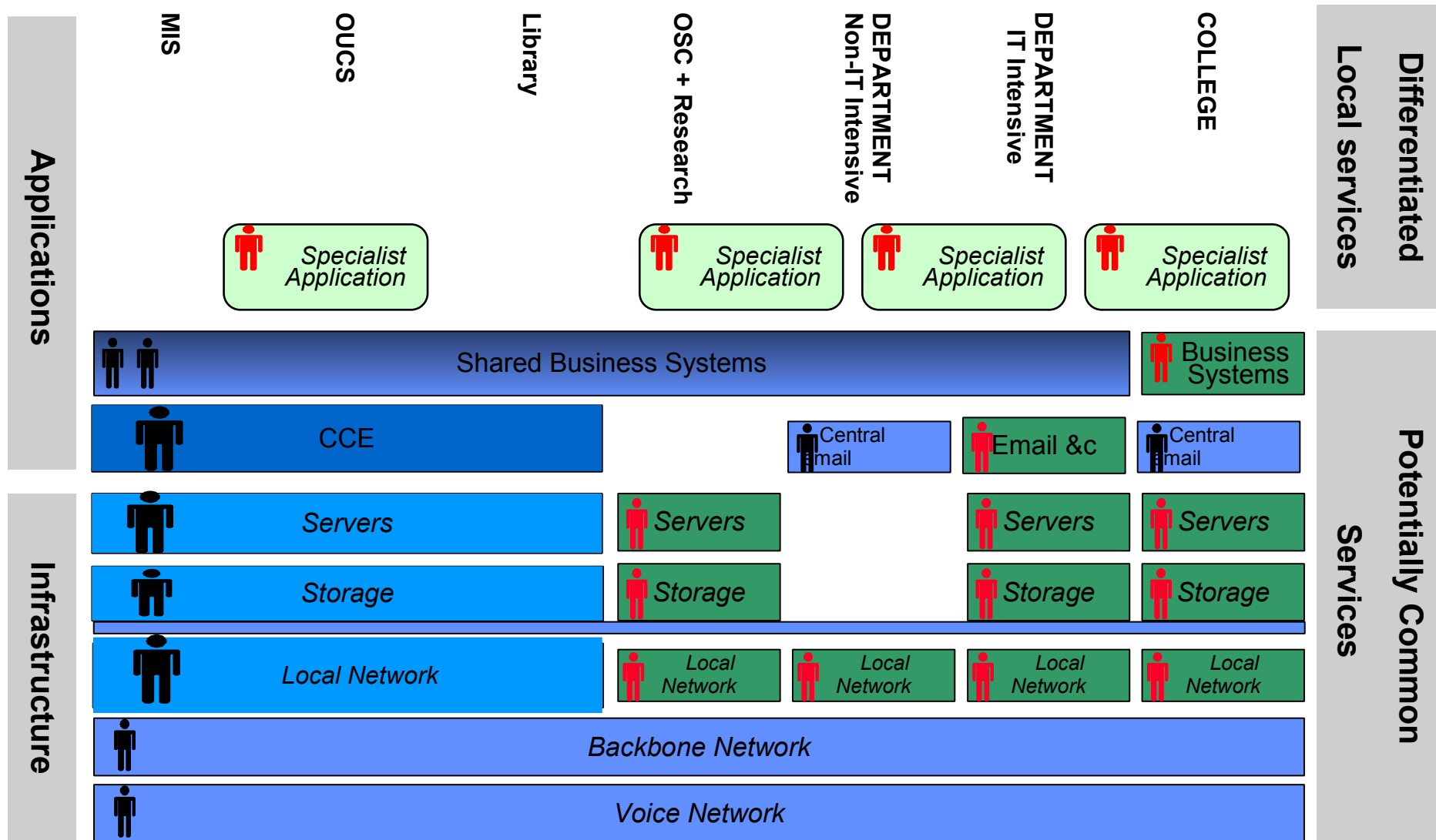- *NB dependencies on other service providers*

CCE: the next 6 months

- *Detailed service audit*
  - How are these services currently provided, by whom, using what resources, and how successfully?

- *Team building*
  - Re-evaluate existing development plans in wider context
  - Develop new support community
  - Learn from each other and ITSS more widely

Service Provision Now

Paul Jeffreys, 14 June 2005

Service Provision with CCE

MIS · OUCS · Library · OSC + Research · DEPARTMENT Non-IT Intensive · DEPARTMENT IT Intensive · COLLEGE

Local services — Differentiated

Applications

- Specialist Application (OUCS)
- Specialist Application (OSC + Research)
- Specialist Application (DEPARTMENT IT Intensive)
- Specialist Application (COLLEGE)

Potentially Common — Services

| | Shared Business Systems | | | | | Business Systems |

- CCE
- Central Email (Non-IT Intensive)
- Email &c (IT Intensive)
- Central Email (COLLEGE)

Infrastructure

MIS/OUCS	OSC + Research		DEPARTMENT IT Intensive	COLLEGE
Servers	Servers		Servers	Servers
Storage	Storage		Storage	Storage
Local Network	Local Network	Local Network	Local Network	Local Network

Backbone Network

Voice Network

Paul Jeffreys, 14 June 2005

Watch this space...