eResearch Collaboration:
Solved problem or eResearch’s greatest challenge?

Peter Elford
Business Development Manager, Higher Education and Research
pelford@cisco.com
# eResearch

1. Compute
2. Data
3. Collaboration

## Why?

<table>
<thead>
<tr>
<th></th>
<th>Compute</th>
<th>Data</th>
<th>Collaboration</th>
</tr>
</thead>
<tbody>
<tr>
<td># Users that benefit</td>
<td>Few</td>
<td>Many</td>
<td>Everyone</td>
</tr>
<tr>
<td>Solution</td>
<td>Hard, but in hand</td>
<td>Hard</td>
<td>Easy</td>
</tr>
<tr>
<td>Uniqueness</td>
<td>Not much ... scale</td>
<td>High</td>
<td>Not at all</td>
</tr>
<tr>
<td>Applicability to disciplines</td>
<td>Narrow</td>
<td>Broad</td>
<td>Everyone</td>
</tr>
<tr>
<td>Needs across disciplines</td>
<td>Very variable</td>
<td>Pretty variable</td>
<td>Pretty even</td>
</tr>
<tr>
<td>Cost</td>
<td>Very High</td>
<td>High</td>
<td>Not much ?</td>
</tr>
</tbody>
</table>
Collaboration

• Expected and required

• Many dimensions to collaboration
  Media sharing – text, images, data, audio, video – multi-model
  Synchronous/Asynchronous
  Adhoc/scheduled
  Mobility/convenience
  Reach and Locations
  Level of formalism
  Duration
  Accountability

• Within eResearch context, need to (obviously) do all these AND leverage technology to do things that could not otherwise be done
  Create new experiences (Vislab)
“Raising the productivity of employees whose jobs can't be automated is the next great performance challenge — and the stakes are high.”

Example

Corporate Directory

IM
Phone
Desktop
eMail
Web/Video Meeting

Telephony: Hard phone or Soft phone
Microsoft Calendar and Contacts
Jabber based IM Federation
Presence
Australian Federal Government Case Study

- "Since its launch in October 2009, the TelePresence system...is estimated to have already reduced travel and staff costs by $12 million, reduced carbon emissions by 2,330 tonnes and greatly increased productivity because of the time-savings involved."

- According to Special Minister of State, Gary Gray, federal, state and territory governments have held 1031 official meetings over a total of 1660 hours. "The greatest savings from a single meeting to date has been the Budget Review Committee Working Group meeting on August 30 held over 12 different locations which lasted 3.75 hours with calculated savings of $100,600 and 17.7 tonnes of carbon dioxide avoidance,"

Adoption, Integration and Ease of Use

- Obviously these examples are “easy”
  Big organisations with “lots of money”
  Strong top-down hierarchy and leadership
  Well defined community
  Well defined problems (?)
  Could build it and force stakeholders to come

- Adoption still depends on the collaboration offering being easy to use and being relevant
  Cost matters ... But perhaps that’s a consumption model problem

- Relevance is enhanced by integration with similar tools and data sources, particularly identity which is crucial to
  Single Sign On, Directories

- These are all changes to the way people work, so are therefore hard
The Complexity of Research Institutions

Researchers, each with his/her own research agenda and funding, are the heart of the institution.
The Complexity of Research Institutions

Problems don’t come broken down by discipline, yet research institutions do
The Complexity of Research Institutions

Structurally, faculties often work like independent business units.
Institutions are run by discrete administrative units – Centres, Office of the VC, Technology Transfer, Teaching and Learning, Research, etc.
The Complexity of Research Institutions

But innovation requires crossing barriers – between institutions, into industry, into government…
Challenging Rate of Change

Technology Emerging from the Old World – well (better) defined ICT boundaries

Users Taking Matters into Their Own Hands – consumerisation of ICT, cloud services

Institution

Students & Staff

© 2011 Cisco and/or its affiliates. All rights reserved.
Corporate/Institutional IT Caught in the Middle

- Between operating infrastructure at scale that delivers a base set of services to all stakeholders …
- And eResearch demands

Institution Demands
- Compliance
- DR Strategies
- Security
- HA
- QoS
- Backup and Recovery
- HR Integration

Student & Staff Demands
- “I want Facebook for the University …”
- “I’m going to do it whether you support it or not…”
- “Why can’t I …”
- “My needs are special”
The Broader Landscape

• Efficiency expectations
  Doing more with less

• Green obligations

• National Broadband Network (NBN)
  Campus extension – change in work/life balance
  Make international collaboration easier/richer – timezones
  Broader/richer citizen engagement

• Political agendas and associated investment
  Increased participation
  Addressing skills shortages
eResearch Collaboration: Solved problem or eResearch’s greatest challenge?

• Unlike Compute and Data, most of the “problem” has a known solution
  It’s just implementation

• “Challenge” is how to transition more of collaboration into “standard IT”
  Getting the institutional collaboration “right” is a major step towards improving
  user awareness and expectation of what’s possible with ICT
  Integration, ease of use, and consumption models are all key

• eResearch collaboration should be focussed on federated services to
  meet cross-boundary needs and the creation of new experiences

• The sector is uniquely placed to be a collaboration exemplar
  AARNet and the NRENs (National Research and Education Networks)
Thank you.