Transformational Projects to Remain Globally Competitive

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Overview

• Global challenge
• Changing HE context and developments
• UWA’s current profile & strategic aspirations
• IS’ Business Investment Programme
• Components of the Programme of Work
• Challenges
• Next steps
Global Challenge

- HE sector is increasing in importance globally
- Countries recognise more highly educated population is essential part of their response to econ. & fin. challenges
- Moreover, HE sector performs much of the research to respond to global issues
- Universities are major drivers of innovation & innovation is becoming essential across all areas of activity
- Each nation – improve productivity & excellence of HEIs – change agenda at national level via programmes, structures & policies
Changing HE Context & Developments

• HE sector itself is under pressure – demands & change

• Increasing student nos; costs rising more than revenue; diversity of student population; constrained public funding

• Increasing demands for accountability – short-termism

• Call for greater return on public expenditure in research – interaction between business & HEIs

• Moreover, global problems require collaborative research – scale as well as excellence – HEIs specialise & focus

• Highly competitive HE environment – change & tension
UWA’s Current Profile

- WA’s oldest university – established 1911 (opened 1913)
- 23,000 students, 9 faculties, breadth of coverage
- Member of Go8 research intensive universities, Worldwide Universities Network & Matariki
- 2011, ranked 110th in Jiao Tong Shanghai league table
- Local university of choice – in 2010 enrolled over 77% of state’s top 5% of school leavers
- New course structure from 2012
- Information Services – integrated IT & Library
UWA’s Strategic Aspirations

- To achieve international excellence by:
  - Improving quality of student learning experience – new course structure from 2012
  - Improve quality, impact and productivity of research & research training
  - Improve UWA’s global positioning & reputation, developing strategic relationships & community engagement
  - Develop people & resources – technologically innovative

- Become a top-50 ranked university by 2050
IS’ Business Investment Programme

• Business Investment Case built on feedback from:
  – Executive members
  – Deans / Heads of Schools
  – Faculty Managers
  – Faculty IT Managers
  – Key Central Administration staff
  – Guild Reps

• External & Internal Audit Reports

• ITS Review – evidence & 23 recommendations

• Student Information Technology Needs Study 2010 (Teaching & Learning Committee’s E-Learning & Learning Spaces Sub-Committee)
Programme of Work

• 3 year, $45 million technical infrastructure programme

• Start of raising IT to be a strategic enabler in support of UWA’s strategic goal of top-50 ranked university by 2050

• Addresses changes required to support new courses structure 2012

• Benefits / Outcomes
  – enhancing student experience
  – facilitating research & teaching collaborative activities
  – increasing throughput of research data & its security
  – releasing staff capacity for value-added activities
  – reduction of risks
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<td><strong>Network</strong></td>
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<td>Faculty Network <em>(Access Layer)</em></td>
<td><em>(Integration with Enterprise Applications)</em></td>
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<td>Traffic Management</td>
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<td>Central Directory Infrastructure</td>
<td><em>(Additional DC Capacity)</em></td>
<td><em>(Develop strategic Data Centre solution)</em></td>
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<td>Migrate Faculty Directories</td>
<td><em>(Migrate High-Risk DC Services)</em></td>
<td><em>(Develop strategic Data Centre solution)</em></td>
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<td><strong>DC, Storage, Printing</strong></td>
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Network Project

• Age

• Speed / bandwidth, especially for high volume research data

• Resiliency – 1 Internet link

• Security risks

• No capability to introduce, for example, VOIP services

• Lack of 24/7 support for networks & services
Directories Consolidation

- Number of ADs – 30+
- Multiple usernames & passwords for login & access
- Significant duplication of systems & management costs for authentication & authorisation infrastructure
- Data on network drives cannot be easily shared across disciplines
- Difficult to provision university-wide IT services
- Inconsistent logging & audit capability for access to resources
Identity & Access Management

- Independent silos of identity data
- Identity information incomplete, inaccurate or contradictory
- Provisioning of services often manual, slow & inefficient
- Integration between systems is difficult, prone to faults & resistant to upgrades
- Security of systems is compromised because of lack of consistent standards
Data Centre Consolidation + Printing

• Number of DCs – 46 across campuses

• Diverse management
  – varying adherence to university endorsed DC standards
  – all duplicating power, cooling, security provision

• Unable to respond to new courses 2012 requirements of central provision of student storage & printing

• Printing
  – 6 separate print management packages
  – inconsistent charges & free quotas

• Benefits of DC solution – consolidate data management, standardise access & curation, & reduce risks
Before
Before
After – Amcom Data Centre
After – Comms
After - Storage
Managed Operating Environment

- Desktop management effort duplicated in each faculty
- Students’ dissatisfaction with inconsistency of PC environments across labs & inability to store & print
- Variation in tools & processes for desktop management – different lead times to deploy new or rebuild desktops
- No standard architecture for security or data storage & retrieval – often no backup

Benefits
- consistent student experience
- reduce support costs & increase efficiency
- reduce risks of data loss & security
Assets

• 3 projects
  – Hardware procurement (including replacement & disposal)
    • PCs across campus purchased in ad hoc manner
    • varying levels of age & capacity
    • not leveraging UWA purchasing power
  – Software procurement including licence management
    • Devolved purchasing & management of software
    • Over/under licensed?
    • Risk of litigation & reputational damage for non-compliance
  – Asset management
    • Multiple small scale systems but no lifecycle management
• Little visibility of total IT spend
Policies & Standards

• Few UWA-wide policies for IT, especially security
• Standards & guidelines are inconsistent across campus
• Security, disaster recovery & business continuity capability are the focus of audit reports from OAG and internal auditors
• Benefits
  – Clear policies will assist re roles & responsibilities
  – Standards will help in provision of consistent IT services
  – Security policies will assist in prevention of security related incidents in relation to spam, viruses & DOS attacks
Challenges

• Mixture of cultural & political

• Devolved nature of faculties - various modes of IT centralisation tried before & failed – governance model?

• Tension between faculties & central administration – central IT perceived as supporting “admin” computing

• Change management - move to concentration on value added services (deeper support for core business i.e. research & teaching) by creating capacity - resistance

• Organisational development – linking departmental objectives to UWA’s strategic objectives – skills, gaps, competencies (tech/behav), workforce planning
Next Steps

• Continue technical implementation schedule – foundation of transformational change

• Organisational development – skills mapping, competencies (tech/behav), career paths

• Metrics – collaboration with peer institutions
  – Costing of IT services
  – ROI
  – Benchmarking with peer institutions
  – Business process re-engineering & info management

• Service development – especially research support

• Work in progress – report more later!