



Networking in a Time of Change

Networking Landscape at The University of Melbourne

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Networking in a Time of Change

Agenda

Context

- QuestNet 2005 and beyond

Growing Esteem

- the business transformation strategy

Information Services

- transformations in delivery of IT services
- major IT initiatives

Network Initiatives

- a summary of the initiatives
- progress report



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Context

- I presented a session entitled “Networking Landscape at The University of Melbourne” at Questnet 2005
 - Introduced the background at the University
 - Identified the major network related initiatives
- This session continues in a similar vein, but focuses on changes in both the business area over the past 12-18 months, and provides an update on technical arenas since 2005
- Provides a status report on a number of major IT and network level initiatives



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Growing Esteem – The Business Change Agenda

- Growing Esteem strategy is a fundamental (and monumental) change to the way in which The University of Melbourne operates as a university
- Introduces a new teaching model (the Melbourne Model) in 2008
- Institution wide approach to the delivery of services that have the student as their single focus
- Changes occurring in the manner in which the University is structured, and how it administers itself
- Changes in the manner in which underlying IT and IT support services are delivered
- Change process will run from now through and past 2010 to 2015
- Aggressive timetable to implement new administrative systems to support the Melbourne Model, and refresh and renew the voice and data networking infrastructure



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Growing Esteem

- Long term business strategy for the University
- Triple helix – an interlinking of core business streams
 - Research – in research the University will focus its resources and effort in fields where it has the potential to do work of world-wide significance.
 - Learning and Teaching – in learning and teaching, undergraduate degrees will become coherent and intellectually exciting generalist courses. Superb professional education will be offered at graduate level.
 - Knowledge Transfer – in knowledge transfer, the University will work with communities and industry to ensure a vibrant and continuous exchange of ideas and expertise.
- Melbourne Model
 - Start to deliver new range of undergraduate degrees in 2008.
 - An effective change in number of different undergraduate degrees from 96 to 6
 - Broad based degrees in Arts, Science, Music, Biomedicine, Commerce, Environments
 - 25% of any degree will be courses from other degree streams (breadth)
 - May have both a research and knowledge transfer component



Reference: <http://growingesteem.unimelb.edu.au/>

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Growing Esteem

- Complete transformation of undergraduate courses, curriculum and content
- Has also lead to a total review of, and redesign of post-graduate programs
 - research based programs
 - courseware based programs
- New undergraduate courses will be hosted by a faculty

Other Business Changes

- Stopped teaching TAFE courses, and has 'exited' from a number of regional campuses (Longerenong, Glenormiston, MacMillan)
- Integrated Victoria College of the Arts in the University as a Department
- Ceased operation of MU Private, and integrated operations into existing departments



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Undergraduate Environment

- Strategy is to have undergraduates being on campus
- Participation in, and enjoyment of, the 'Melbourne Experience'
- Focus on student facing, and student friendly environments, services
 - New student portal
 - New Learning Management System (Blackboard)
 - New student administration system
 - Development of learning hubs (centres) and student hubs

Post-graduate Environment

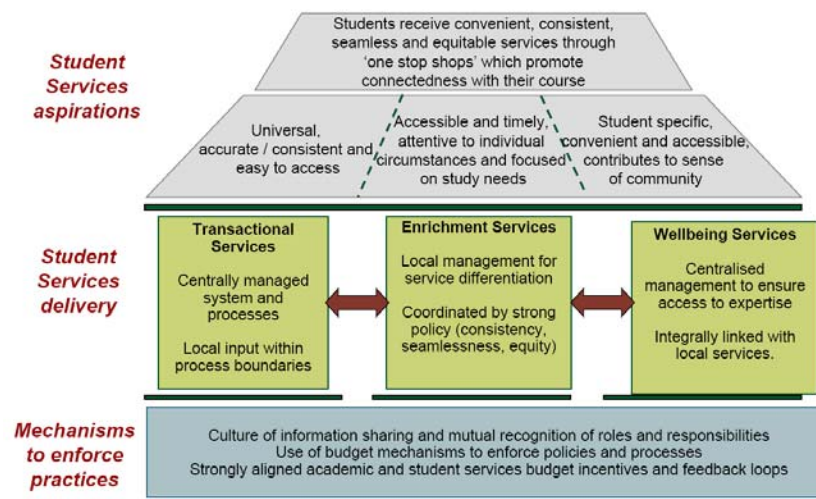
- Post graduates may, or may not, be an on campus student
- Focus on delivery of online content anytime to anywhere
- Law, Veterinary Science, Engineering, Land & Food Resources, Education faculties will become graduate schools.
- School of Graduate Studies (SGS) → School Graduate Research



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THE MODEL FOR STUDENT SERVICE DELIVERY



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New Academic Structure

Provost Role – direct report to V-C

Deans report to Provost

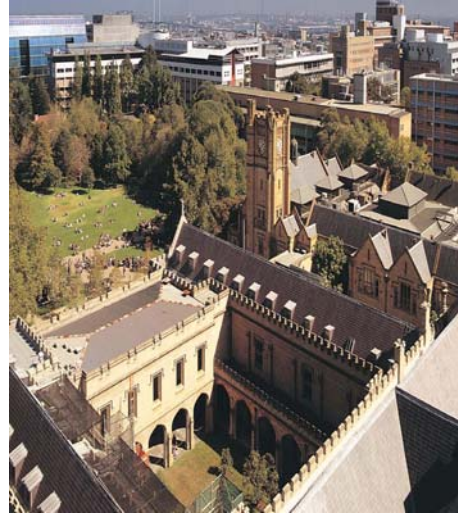
Senior Vice-Principal (University Services)
reports to Provost

Head of University Services – reports to
SVP

University Services include:

P&CS, IS, HR, Finance, Marketing

Provost controls the money ...requires
changes to the University budget model



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University Context (2005)

- Devolved IT to Faculties and Departments
- Lack of uniformity of strategy, standards, processes



Information Services (2005)

- Centralised IS / IT services
- Library and Information Management services
- Collection Management services

University Strategy (2007)

- Shared Services approach – happening at two levels
 - Within a faculty – rationalising IT services and support within the faculty
 - IS providing a shared service capability for faculties

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Shared Services - Initiatives

- Network Connectivity Service
 - Ownership and Management of the network to the edge (Endpoint)
- Desktop Support
 - Desktop support for all non-Faculty groups (all of administration)
- Service Desk
 - Centralised service desk for IT related matters
 - Hosted Service Desk software for Faculty related service desks
- Datacentre Hosting
 - Provision of datacentre space for Faculty & Department use
- Server Hosting
 - Provision of server & storage for communal use (including Faculty & Department)

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Network Services - Initiatives

- IT Environment Management
 - Physical spaces for network equipment (Telecommunications rooms / Wiring Closets)
 - Power, Air-conditioning, UPS, Security, EMS, Sound
 - Parkville
 - ~ 90 buildings - > 300 wiring closets
 - 30/6/07. First 20 building switch sites ready.
- Core Network Renewal
 - Renewal of core, distribution layers, border routers, building distribution layers
 - Some 78 Cisco 6500 chassis based switches routers
 - 10Gig Core,
 - Buildings dual connected at 1G or 10G
 - MPLS based core
 - Go live on in July 2007 (core & distribution & border)

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Network Services - Initiatives

- LAN Remediation
 - Remediation of building level LANs
 - Renewal of edge switches (currently ~2000 devices)
 - Renewal based on 3750 devices, or 6500 chassis (~ 1000 devices / blades)
 - Fibre and copper cabling – as required
 - PoE, QOS capable
 - Tender for equipment supply and services completed.
- Endpoint Management
 - Centralised management of all Faculty & Departmental LANs
 - Process of discovery & documentation
 - Reconfiguration of devices to centralised management systems
 - 30/6/07. 700 devices, 29,000 ports under central IS management

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Network Services - Initiatives

- Wireless Renewal
 - Renewal and expansion of current MUWireless services
 - Enhancement from ~200 AP's to ~600 AP's
 - Refresh of the security, authentication/authorisation and management backend
 - Focus on spaces used by students (with opportunity for Faculties & Departments to provide additional funding to extend to staff areas)
 - WiFi 11a/b/g – and looking for a migration path to 11n
 - Tender process nearing completion
- VERN
 - Connecting university sites via VERN network
 - ~ 12 sites to be connected in 2007
 - Additional sites in 2008
 - Resilient 1G connections to regional and remote sites ..

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Network Services - Initiatives

- **Telephony Services Renewal**
 - Replacement of TDM PABX based telephone services with pure IP
 - PABX's range from 2 to more than 14 years old
 - In ground copper cabling – some is more than 60 years old
 - Involves replacing approx 13 PABX's across the University
 - 12,000 to 15,000 telephone endpoints
 - IP PBX / Call Centre capability, Operator Consoles, Voicemail/Unified Messaging, Billing engine and Collaboration capability are core requirements for functionality
- **Unified Telecommunications**
 - Call carriage rates
 - Physical interconnect services (PABX trunks, copper based services, WAN, DSL)
 - Mobile services – voice and data

Both in tender phase

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Datacentre Services - Initiatives

- **258 Queensberry St Datacentre**
 - Commissioned in February 2007
 - Approx 350 m² of usable datacentre space
- **Thomas Cherry DC Refurbishment**
 - Empty and refurbish current datacentre
 - Will provide ~500m² of floor space
 - Construction planned to start in 2008

System Based Initiatives

- **Themis – Financial systems hardware refresh (Oracle Financials)**
- **Enterprise Exchange back-end infrastructure deployment, and migration of users**
- **New Student System (Technology One)**
- **Learning Management System (Blackboard) – Capacity Upgrade**
- **IP Address Registration System – replace in-house system**
- **Content Management System – System capacity upgrade**

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System Based Initiatives

- RQF Framework compliance
- Atlas Project – infrastructure deployment
- Versi Project – infrastructure deployment

Physical Infrastructure Initiatives

- New building for Economics & Commerce
- Grainger Museum refurbishment
- Learning Hub / Student Hub developments
- Melbourne Theatre Company – Relocation into new HQ
- Building Refurbishments (several)

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