



THE UNIVERSITY OF  
WESTERN AUSTRALIA

**Information Technology Strategic Directions Statement  
for  
The University of Western Australia**

**February 2007**

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## 1 Introduction

The University of Western Australia's (UWA) Strategic Plan and Strategic Directions statement outline its vision, mission and strategic priorities. This is supported by the University's Operational Priorities Plan (OPP) which translates these broad directions into more concrete objectives within the overall theme of achieving international excellence.

The OPP 2006-2008 articulates six strategic priority objectives, one in each of the following areas:

- Teaching and Learning
- Research and Research Training
- External Relations
- Resourcing
- Staffing
- Management

This IT Strategic Directions Statement relates to the objectives in all six areas of the OPP including the key strategic priority objective for Management which is:

*To improve the efficiency and effectiveness of the management of the University*

Within this Management objective, a key Information Technology (IT) operational objective is:

*To enhance the use, support and management of IT within the University (in Teaching and Learning, Research and Research Training, Administration and Support).*

With the support of the Vice Chancellor's IT Reference Group, this IT Strategic Directions statement seeks to articulate an IT vision in support of the University's vision, mission and strategic priorities in each of the six strategic priority objectives of the OPP.

### 1.1 Purpose

This statement translates the University's broad directions into firm IT strategic and operational objectives which will be used to guide all University IT operational and resource decision making. The aim is to provide IT services, support and infrastructure that are consistent and of a high standard campus wide to enable teaching and learning, research and engagement with the wider community in a way that is flexible and sustainable. This statement sets out the broad parameters within which a more detailed UWA Wide IT Management Plan will be prepared to map how the University will progress its identified strategic direction.

### 1.2 Scope

The statement sets out a broad whole-of-University strategy that will be supported by Faculty IT sections and the Information Technology Services (ITS) Division.

It proposes that IT be treated as a key strategic resource and describes how the Information Management (IM) and IT frameworks can support the University.

**Information Management** is taken to mean the entire process of defining, evaluating, protecting, distributing and managing information within an organisation.

**Information Technology** is taken to mean all computer and communications-based technologies which are used to collect, store, manipulate, access and disseminate information of all types and for all purposes.

This statement will be supported by other plans and policies offering more detailed information on the management of specific IT issues, the management of IT within particular areas and the general use of technology.

## 2 Vision

The University will be recognised for creating an innovative and flexible Information Technology environment conducive to supporting teaching, learning, research and the community it serves.

### 3 Mission

To support and enable a University wide Information Technology environment where quality systems, services and technology can be delivered and supported to meet the diverse needs of students, staff and the community.

### 4 University Values

The statement supports the University's core values by shaping the future directions for the delivery and support of IT services through a collaborative process. This will ensure that it continues to utilise IT as a strategic resource and that IT services are delivered in support of the University's pursuit of excellence.

### 5 Defining Characteristics

The following characteristics define the University IM and IT framework. The key characteristic is that whole of University information and IT needs to be governed by consistent policy and coordinated execution. This will enable the achievement of University objectives in an efficient and effective manner and ensure that information and IT is accessible, reliable, compliant and associated risks are managed.

#### 5.1 Information Management

The University's IM framework will be recognised by the following characteristics:

<b>Strategic resource</b>	University information is a strategically important resource and all staff are responsible for the accuracy and currency of information in their domain.
<b>Accessibility</b>	University information will be readily accessible to all authorised users.
<b>Responsibility</b>	Responsibility will be allocated for the management of University information including those defined in the University Record Keeping Plan.
<b>Accuracy and currency</b>	University information will be managed according to standards and controls to ensure the most current version is available.
<b>Centrally stored and managed</b>	University information will be managed and stored from a central point using a common set of rules and processes. Record keeping policies will govern how information is classified, secured, stored, retrieved, archived and disposed of. Examples of University information are student, research, staff, administrative, financial and facilities information.
<b>Compliance</b>	University information will be managed in accordance with the University Record Keeping Plan. Users will be educated in good information management and record keeping practices. The University is committed to ensuring that the necessary means are available for it to meet its statutory obligations. Where possible, these will be embedded in software and/or users reminded of good practice.

#### 5.2 Information Technology

The University's IT framework will be recognised by the following characteristics and be applicable campus wide:

<b>Reliability</b>	Technology will be reliable and in the event of a breakdown be restored quickly.
<b>Security</b>	Systems and information will be protected from unauthorised access and from accidental or malicious damage. That the CIA security model is implemented i.e. the Confidentiality, Integrity

	and Availability of data is guaranteed.
<b>Flexibility</b>	The IT framework will be standardised across campus while still allowing for innovation, creativity and flexibility.
<b>Design</b>	Information systems and services should be designed (or re-designed) in a way that is user or task centric, and that this principle should inform all aspects of IT systems design and service delivery.
<b>Usability</b>	The IT framework will provide facilities and tools for staff and students which are easy to use.
<b>Responsiveness</b>	The IT framework will be responsive to the changing needs of the University and its various communities.
<b>Interoperability</b>	The IT framework will allow information to be readily exchanged within the University and wider community.
<b>Sustainability</b>	The IT framework will consider financial, environmental and social factors in delivering scalable (i.e. to adapt to increased demand), efficient and effective solutions.
<b>Accessibility</b>	The IT framework will enable access to IT facilities, resources and services that meet the needs of staff, students and relevant external parties

## 6 Environment

### 6.1 External

The external environment (that is, external to UWA) is characterised by:

<b>Expectations</b>	Prospective students, alumni and the external community are increasingly technologically astute and expect an IT framework to provide innovative and easy access to services and support. This includes support outside of standard business hours.
<b>Competition</b>	The University will achieve international competitiveness in IT service delivery and support by means of well managed information, technology and communications services. A key goal will be to attract and retain highly skilled staff in an economy where IT talent is in high demand.  The University will manage information as a strategic resource and use technology to gain an advantage in a competitive environment.
<b>Compliance</b>	The increased regulation and reporting demands by Government is placing substantial pressure on University systems to deliver this information. The Information Management Review Project will deliver findings, associated recommendations and strategies that will provide the University with a roadmap for improvements in this area
<b>Internationalisation</b>	The trend towards education and especially research being undertaken collaboratively on a global scale through the use of technology is gaining greater acceptance. The University has an opportunity to invest in infrastructure and associated services to ensure it remains competitive and capable of engaging in this arena.

<b>Technology</b>	<p>Trends towards greater integration between IT environments across organisations is occurring so that systems can interact seamlessly and greater economies of scale can be achieved. The days of stand alone IT systems have been left behind and an integrated network that promotes efficient sharing of resources and information is an opportunity ahead for the University.</p> <p>The pace of change in technology gets faster every year and while the University may not be at the 'cutting edge' of IT adoption, it does need to ensure its infrastructure is maintained and is capable of supporting the growing number of systems and services that are becoming necessary to remain competitive.</p> <p>A key challenge will be making technology and information available in a secure manner.</p>
<b>Strategic relationships</b>	<p>The University has an opportunity to gain greater benefits from the formation of strategic relationships with IT supply organisations. It could secure supply, support, training and assistance in addition to value added services for both staff and students.</p>

## 6.2 Internal

The internal environment is characterised by:

<b>Growth</b>	<p>The University has set a growth target to exceed 20,000 students by 2010 and to move towards a 70/30 percent ratio of undergraduate to post graduate students.</p> <p>There are increased demands for the development of new systems or significant upgrades to existing IT infrastructure and systems to support growth in education, research activity and external relationships.</p>
<b>Infrastructure</b>	<p>The University operates within a devolved IT environment with funding of IT services and the associated infrastructure varying greatly from area to area. ITS (Information Technology Services) has responsibility for the core network and central administration infrastructure.</p> <p>The University is in a situation where the infrastructure maintenance life cycle has historically not followed a regular, University-wide replacement and upgrade process. This is linked to historically funding the maintenance of IT infrastructure by means of project and devolved funding. The result is variable infrastructure across the University and in certain areas it has been maintained well beyond acceptable replacement cycles. A coordinated approach to IT infrastructure management and greater transparency of funding will facilitate acceptable replacement cycles.</p> <p>There are increased demands for integration between systems and services.</p> <p>The devolved infrastructure is based on a variety of platforms. Common IT infrastructure and systems will be consolidated to a limited range of technologies in order to better maintain and support these environments and thus improve the return on IT investment.</p>
<b>Support and services</b>	<p>Support and services are currently highly decentralised and this</p>

	<p>leads to a lot of duplication. While some services need to remain close to where the support is required, there is an opportunity to bring these in under central management and gain greater efficiency from pooling and sharing skilled resources.</p> <p>An increased demand for 24/7 systems, services and/or support will need to be evaluated and balanced with the increased costs that are associated with providing this expanded coverage. Centralising some or all system support services is likely to lead to greater service efficiency and cost effectiveness, which will help to make the expansion of services more achievable and assist in ensuring sustainable costs.</p>
<b>Skills</b>	<p>There are varied levels of general IT skills across the University. In addition the technical skills of IT personnel also vary across the University, including ITS. ITS is taking steps to improve the technical skill levels and capabilities of its staff. However, this needs to be addressed across all IT support areas.</p>
<b>Funding</b>	<p>Decentralised funding and the variability in available funds has an affect on the University's ability to take a holistic approach to IT. This impacts on the University's ability to get a good return on investment and limits the opportunity to enhance the use, support and management of IT within the University. While diversity allows for innovation, this needs to be balanced against getting maximum value from our limited IT resources.</p>

### 6.3 Dimensions

The University IT framework includes a number of dimensions that contribute to the efficient and effective deployment of IT assets. These key dimensions that make up the IT architecture and governance model of the University include:

- University policy and governance
- Network infrastructure
- PABX (voice)
- Internet security (firewall and spam filtering)
- Operating Systems
- Hardware infrastructure (network, server and PC hardware)
- Software infrastructure (software tools and applications like Callista, Alesco etc)
- Skills and training
- Funding and charges

A key goal is the provision of an effective IT architecture and governance model that will deliver the following outcomes:

- Integration and interoperability between faculty and central systems, modularity and scalability of institutional wide systems
- Cost effectiveness of IT services through reduced support costs, improved productivity and economies of scale
- Flexibility to meet the needs of faculties and schools where centralised systems are not appropriate
- Balance the need to encourage innovation and technical diversity with the need for standards and consistency

These dimensions will be analysed and evaluated as part of the development of the UWA Wide IT Management Plan.

### 6.4 Challenges

The challenge in managing IT in the current devolved environment is to coordinate delivery of quality infrastructure and services that address the issues and needs of the University. The key challenges in managing whole of University IT are:

- To develop an IT governance framework to effectively manage the University's key data and systems

- To identify user's and other interest groups IT issues and needs and deliver services to address them
- To provide guaranteed levels of service
- To coordinate and optimise IT services to minimise duplication and waste
- To attract, support, develop and retain IT staff of the highest calibre
- To provide an effective partnership between central and devolved IT staff
- To build an integrated IT architecture which enables secure and reliable data access for efficient decision-making, planning and operational purposes
- To achieve greater consistency in and use of standards for basic systems and services, while fostering innovation in the use of IT to support teaching, learning and research
- To provide and manage resources commensurate with a growing demand for IT services

## 7 University IT Strategic Priorities

The following priorities will ensure whole of University elements are in place to support the requirements of all areas in the University:

### 7.1 Teaching and Learning

<b>Strategic Objective:</b> To support the provision of a high quality student learning experience by means of the innovative employment of information technology.	
<b>Operational Objectives:</b>	<ul style="list-style-type: none"> <li>• To provide, maintain and develop a technological environment, fostering communications between and among teachers and learners</li> <li>• To support the development of an e-Learning strategy with appropriate IT and support in place.</li> <li>• To ensure users including those with disabilities have access to information technology resources, facilities and services that meet their needs.</li> <li>• To facilitate greater awareness of IT strategies and services available to support Teaching and Learning</li> <li>• To enable better access to centralised IT facilities and services for Teaching and Learning initiatives</li> <li>• To provide an IT environment centred on students that supports collaborative learning and enables a variety of teaching methods and preferred learning styles as well as being rich in learning resources.</li> </ul>

### 7.2 Research and Research Training

<b>Strategic Objective:</b> To facilitate research activity and collaboration by high speed networks, appropriate applications and an e-research strategy which enhances the University's national and international research capabilities.	
<b>Operational Objectives:</b>	<ul style="list-style-type: none"> <li>• To support the development of an e-Research strategy with appropriate IT and support in place</li> <li>• To develop the research IT infrastructure, including centralised digital repositories to enable UWA researchers access to high-capacity facilities and the ability to participate in national and international initiatives</li> <li>• To facilitate greater awareness of IT strategies and services available to support researchers</li> </ul>

### 7.3 External Relations

<p><b>Strategic Objective:</b> To improve the University's positioning, reputation and strategic relationships through effective use of technology.</p>	
<p><b>Operational Objectives:</b></p>	<ul style="list-style-type: none"> <li>To develop and/or integrate applications that support the external relations activities at the University, such as client relationship management software.</li> <li>To develop strategic IT relationships between the University and industry and business; government (local, state and federal) and the community</li> </ul>

### 7.4 Resourcing

<p><b>Strategic Objective:</b> To improve processes and IT to allow the University to achieve efficient and seamless management of the University's income</p>	
<p><b>Operational Objectives:</b></p>	<ul style="list-style-type: none"> <li>To develop and/or integrate applications that support the resourcing activities at the University</li> <li>To ensure economies of scale and improved efficiencies are gained by exploring procurement arrangements for IT hardware, software and services.</li> </ul>

### 7.5 Staffing

<ul style="list-style-type: none"> <li><b>Strategic Objective:</b> To ensure a base line of technical skills, capabilities, resources and facilities are in place to support the university.</li> </ul>	
<p><b>Operational Objectives:</b></p>	<ul style="list-style-type: none"> <li>To position a strong connection between central, faculty and school IT technical staff and to foster an environment of peer support for all UWA IT staff.</li> <li>To enable the greatest flexibility over location and work practices that will allow staff to work from remote locations and where appropriate, manage their work/life balance through the use of secure links to University systems from off-campus locations.</li> <li>To refresh and improve IT knowledge, skills and training programmes for target groups of staff (eg. researchers) and embed these in their professional development reviews.</li> </ul>

## 7.6 Management

<b>Strategic Objective:</b> To enhance the use, support and management of IT within the University.	
<b>Operational Objectives:</b>	<ul style="list-style-type: none"> <li>• To develop the University’s IT governance across the University to ensure structures, roles and responsibilities are clearly defined</li> <li>• To revise and/or build and communicate whole of University IT strategy, policies and standards for core services, ensuring that appropriate local innovation is encouraged</li> <li>• To develop an IT organisation structure, approval and funding processes which best align policy development with implementation capability</li> <li>• To establish a University-wide IT Service Desk which operates as the single point of contact for all major IT enquiries, that coordinates responses (central and local), and is integrated seamlessly with any continuing local Help Desks and local IT support.</li> <li>• To establish an effective, secure and integrated network and systems architecture</li> <li>• To develop a web environment which is user friendly with consistent high level University branding for all web sites.</li> <li>• To provide a portal for staff, students and the external community for personalised access to information and resources across the University.</li> <li>• To provide effective application and data integration for core administrative applications and databases to enable the University to access data and reports in real time.</li> <li>• To ensure University-wide information systems and data are owned, developed, managed and operated for the benefit of the whole University</li> </ul>

## 8 Next Steps

The IT Strategic Directions Statement will be the basis for the development of a UWA Wide IT Management Plan which will outline and evaluate all IT services across the University and describe how they will be delivered in the most efficient, effective and coordinated manner. The UWA Wide IT Management Plan will describe key performance indicators, implementation strategies and responsibilities for achieving excellence in IT service delivery and will inform all IT related implementation and support activities within the Operational Priority Plans of Faculties and Administrative Units.