

INFORMATION AND COMMUNICATIONS TECHNOLOGY PLAN 2009 – 2011

CONTEXT

The University of Queensland is committed to providing innovative, reliable and cost-effective information and communications technology (ICT) infrastructure and services to enhance learning, discovery and engagement.

Changes in the nature of IT services available to consumers have substantially increased expectations of students and potential students who now expect ubiquitous connectivity on campus, substantial access to the internet and seamless access to applications, data, computer facilities, lecture recordings and learning content at any time. At the same time, researchers need increasing access to computing resources, massive data stores and substantial network capacity in order to progress their research both within UQ and in collaboration with other universities, research organisations and industry. All this must be done without compromising the security of university networks and systems.

To provide the appropriate infrastructure in an affordable way will require an approach which is both effective in delivering relevant services and infrastructure and efficient in doing so cost effectively. Changes in technology such as the virtualisation of systems, storage and networking, together with new business approaches such as cloud computing will help substantially but new approaches to IT deployment and support are also needed.

To enable these changes, an approach which mirrors and supports the innovation cycle will be adopted in order to take advantage of the efficiencies to be gained through co-ordinated deployment of infrastructure and applications, whilst retaining sufficient flexibility to support innovation. This approach recognises that different stages of the cycle require different approaches to support. The stages include

- a set of advanced research environments, the “*sandpit*”, which offer considerable flexibility whilst being protected from other environments and the university’s production services;
- a set of intermediate environments, the “*hothouse*”, with less flexibility, more connectivity and less need for protection; and
- a production environment, the “*engine room*”, characterised by standards supporting interoperability.

The framework requires a sophisticated, flexible and robust underlying infrastructure, common standards, and processes to facilitate transition from one stage to the next where appropriate and the effective use of services supplied by external vendors. At one end of the spectrum, the *sandpit* will provide an open environment for innovation while the *engine room* will provide a more controlled environment and support for production systems such as the core applications, including email and common file storage, as well as the university wide applications that provide support for the administrative processes of the university. To achieve affordability through efficiency, core infrastructure and production applications will not be duplicated, university wide standards will be developed and existing initiatives in strategic IT procurement will be strengthened.

1. EFFECTIVE PLANNING AND GOVERNANCE

The University will:

- 1.1. Develop a shared vision of information technology that contributes to the teaching, research and management goals of the University.
- 1.2. Establish a governance mechanism for identifying strategic information technology priorities and overseeing the delivery of core IT services.
- 1.3. Align the University’s IT management structure to implement the strategic goals and operational priorities identified through the governance mechanism.
- 1.4. Ensure that the major organisational units produce their own ICT management plans in collaboration with ITS ensuring an overall approach to IT at UQ. Progress is to be reported through ITSPP.
- 1.5. Establish University wide policies and guidelines which encourage innovation, interoperability and mobility and which meet the changing IT requirements for Research, Teaching and Learning and University Administration.
- 1.6. Ensure IT staff from all University organisational units engage through collaboration and the development of project and service delivery partnerships.

- 1.7. Ensure that each business case that is developed for a new IT initiative has appropriate project management; is considered to be within the University's overall project portfolio; has appropriate Business Continuity Planning; and has clearly defined funding arrangements for development and ongoing operations.

2. PROVIDE AN EXCELLENT BASE ICT INFRASTRUCTURE AND SERVICE

The University will:

- 2.1. Identify core information technology systems and infrastructure that will be available to all members of the University community. This will include standards, networks, storage, security, data centres, identity management, telephony and core business applications.
- 2.2. Identify the total cost of provisioning and sustaining those core services, fund ITS centrally to provide those services, and hold ITS accountable for effective delivery.
- 2.3. Implement a major upgrade to the university's wireless and wired networks.
- 2.4. Attract, retain and develop ICT staff with the requisite innovation support cycle skills.
- 2.5. Improve the customer experience by providing quality services, systems and infrastructure which meet client's needs: developing client-focused staff skills in all IT staff; developing a broader set of simple self-serve tools; and providing formal and informal mechanisms for obtaining regular client feedback.
- 2.6. Maximise the availability of core infrastructure and applications through appropriate design, development, operation and change management.
- 2.7. Establish and maintain well defined service catalogues.
- 2.8. Improve staff mobility and interoperability.
- 2.9. Give high priority to the re-housing of the major University data centres.
- 2.10. Encourage common provisioning of goods and services.

3. SUPPORT TEACHING AND LEARNING

The University will support the Teaching and Learning Enhancement Plan and eLearning Strategy by:

- 3.1 Providing a ubiquitous high speed wireless and wired university network.
- 3.2 Providing systems infrastructure and support as required to support the changing environment of eLearning and associated online teaching resources.
- 3.3 Providing high quality Audio-Visual and ICT facilities in teaching spaces and student collaboration environments to meet the changing requirements of Teaching and Learning and Student Engagement including the expanded implementation of Lecture Recording systems and videoconferencing capabilities.

4 FACILITATE WORLD-CLASS RESEARCH ACROSS ALL CAMPUSES AND WITH THE GLOBAL RESEARCH COMMUNITY

The University will:

- 4.1 Ensure that identification of areas of research priority includes recognition of implications for information and communications technology infrastructure.
- 4.2 Ensure the network backbone supports high quality research communications and information exchange across campuses as well as across the globe.
- 4.3 Establish High Performance Computing facilities to support research requirements.
- 4.4 Ensure that ICT needs are considered in the preparation of Grant applications.
- 4.5 Support engagement with other major research institutions and industry by providing appropriate access to facilities and resources.
- 4.6 Support developments in research data and information access across the university.

5 ACTIVELY CONTRIBUTE TO ENGAGEMENT WITH THE EXTERNAL COMMUNITY USING INFORMATION AND COMMUNICATIONS TECHNOLOGY

The University will:

- 5.1 Maintain AusCERT's pre-eminent national and international position in internet security.
- 5.2 Further develop and deploy the UQSchoolsNet initiative.
- 5.3 Engage alumni, other universities, prospective students and the community at large through the provision of UQconnect internet services.
- 5.4 Leverage use of the Constituent Relationship Management (CRM) system.
- 5.5 Proactively work with OMC, Advancement Office, Library, Schools and Faculties to meet goals of enhancing community engagement through implementation of systems such as CRM, eMail+ for Life, iTunesU and UQL Cyberschool.
- 5.6 Support the university community throughout Queensland, Australia and New Zealand by providing facilities management services to QRNO, Questnet and CAUDIT.
- 5.7 Develop a national education Public Key Infrastructure (PKI) to support collaborative research, teaching and learning throughout Australia and New Zealand.