

INFORMATION TECHNOLOGY SERVICES PLAN FOR THE THIRD PLANNING CYCLE, 2012 - 2016

Part I PROGRESS AGAINST THE PLAN AND PLANNING PARAMETERS FOR THE SECOND PLANNING CYCLE

In the free form text box below, please describe the key highlights arising from your plan for your unit since 2007/08. Identify any priorities that were not completed during the second planning cycle but are continuing and will be re-emphasized in some form in the third planning cycle.

Although not a planning unit for IP2, ITS submitted five initiatives for campus-wide consideration. Those initiatives were included as part of the ICT unit plan. Highlights arising from each initiative are outlined below.

1. Enhance the University's ICT Environment to Enrich Teaching and Learning.

- Existing services were improved and new services provided, in partnership with ULC, eMAP, colleges, and Computer Science.
- Web and videoconferencing services were enhanced to support off-campus and distributed learning program delivery. For example, ITS created an afternoon/evening shift of network staff to respond to problems that instructors may encounter while teaching evening courses that depend on these technologies.
- PAWS course tools were replaced, in collaboration with the ULC and eMAP. The new tools have additional functionality requested by instructors; students can also access the tools from mobile devices.
- Lecture capture and new podcasting services were implemented to provide students more opportunities for asynchronous learning. Lecture capture capability is now available in 17 classrooms.

2. Enhance the University's ICT Environment to Enable and Increase Research Success

- Established and operated, in collaboration with Prof. Ray Spiteri (Principal Investigator) and the OVPR, the WestGrid research data storage and backup facility. As a result of this work, the U of S is now a partner with other universities and Compute Canada in the provisioning of a national research platform for high performance computing. When completed, this project will have brought in approximately \$5 million of new funding to the U of S in addition to industry contributions.
- Consulted researchers in the development of the IT components of their research proposals (e.g., all CFI proposals) and in establishing the IT infrastructure required for new research labs (e.g., Global Institute for Water Security).
- Participated in several multi-disciplinary research initiatives (e.g., Humanities and Fine Arts Digital Research Centre, Spatial Initiative, Saskatchewan Research Data Centre).

3. Simplify Business Processes and Improve Services

- Selected and implemented, in collaboration with University Communications, several colleges, eMAP and other administrative units, a webpage content management system (Cascade Server). System usage is increasing across campus; it is currently being used for more than 180 websites, including 11 college/school websites.
- Implemented a new system for the operation of the dental clinic. The system supports the teaching, research and administrative functions within the College of Dentistry.
- Implemented an online sales system for the bookstore. While system development cost was only approximately \$50,000, sales are approaching \$1M per year.
- Upgraded, in collaboration with SESD, FSD and HRD, three major administrative systems. The SiRIUS/UniFi upgrade alone cost approximately \$1M in ITS, SESD and FSD staff effort and took approximately 12 months to complete.
- Selected and implemented, in collaboration with several colleges and administrative units, an electronic collaboration, workflow and document management system (SharePoint). This service came online in fall 2011. To cover operating costs, this service is presently provided on a fee-for-service basis but our goal is that it be provided as a centrally-funded service in the long-term.

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4. Develop Business Continuity Plans and Address ICT Security Risks

- Upgraded the university's e-payments system so that it is compliant with Payment Card Industry (PCI) standards. This system reduces the cost for 20+ campus merchants to use the university's credit card processor for online payments and facilitates compliance with university policy regarding such payments.
- Reduced some of the university's security risks related to ICT (e.g., implemented several recommendations from a network security audit, two-factor authentication, website and application scanning for security risks).
- Engaged IBM to review the university's business continuity readiness relating to student information systems. Incremental improvements have been made as part of operations and service evolution.

5. Support the University's Information Requirements for Planning, Performance Management and Institutional Reporting

- The Information Strategy and Analytics (ISA) office was established, reporting to the CIO and AVP ICT. Its outcomes are outlined in the ISA unit plan.

Two other initiatives within the ICT unit plan pertained directly to ITS.

6. Convert the University's Telephone System to VoIP Technology.

This major capital project is on schedule and on budget. It is funded through the cost savings resulting from the conversion and from service operations. The project will be completed in spring 2015.

By converting to VoIP technology, insourcing some services and negotiating lower costs from suppliers, ITS has reduced the cost of telephone service provision by approximately \$200,000 per year. These savings will be passed to colleges and administrative units in the form of reduced rates for long distant calls within North America (effective fall 2011).

7. Address ITS Space Requirements.

No progress has been made. ITS has offices in some 20 locations across campus. Consolidation to fewer locations would improve the effectiveness and efficiency of some operations. Even with a consolidation, some employees must remain located near the clients they support.

In response to emerging university needs and changing priorities, ITS also undertook the following initiatives:

- Completed a self-study and participated in an external review of ITS. The CIO and AVP ICT and ITS have begun work on two of the recommendations: 1) definition of the set of core IT services that should be provided and funded centrally for the campus, and 2) the creation of a formal IT governance structure with PCIP as the foundation of this structure.
- Developed the ICT component of the university's Infrastructure Overview and the annual capital plans.
- In collaboration with SESD, began implementation of a new program advising system for students (DegreeWorks).
- In response to college priorities, began renewal of the College of Law's student admission and registration system and, in collaboration with CGSR and SESD, began renewal of the Graduate Student Information System.
- Developing a CV information management system for the colleges of Medicine and Nursing. This system will be used for the promotion and tenure process in 2012. Additional work is required to develop a variety of reports from the system, including those required for accreditation.
- Started a major capital project to expand wireless network coverage on campus. An additional 1,000 wireless access points will be installed in colleges and other major buildings. This project is on budget and on schedule with an expected to complete in January 2012.
- Developed and began execution of the ITS Mobility Action Plan that calls for the expansion of campus wireless network access, improved support to users of mobile devices, and the delivery of more university services to students and employees on their mobile devices, and the support and evolution of the iUsask application originally developed by Computer Science.

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Innovation Checklist	<i>In the 2008 planning parameters, administrative units were asked to provide evidence of service and program innovation. Please provide an indication of whether your unit has evidence to support innovation in any of the following and the evidence that might be used:</i>
ITS provides services that are used by all colleges and administrative units in support of teaching, learning, research and administration. There are, therefore, many examples of our support for college-based initiatives, their support for our initiatives to improve or deliver new services, and consultations regarding service needs. Some of the evidence below was also included in the section "Progress Against the Plan".	
Support for college-based initiatives within programs/services offered by the administrative unit	<ul style="list-style-type: none"> • Expanded support for off-campus and distributed learning initiatives undertaken by Medicine, Nursing, Johnson-Shoyama Graduate School, other colleges and CCDE. • Supported development and campus adoption of the Matterhorn lecture capture system, an international project that involves the Computer Science department as well as other universities in North America and Europe. • Participated in several research projects and centres (e.g., Humanities and Fine Arts Digital Research Centre, Spatial Initiative, Saskatchewan (Stats Can) Research Data Centre, WestGrid, Global Institute for Water Security, Alberta Synchrotron Institute). • Developing a CV information management system for the colleges of Medicine and Nursing. • Supported the College of Education's admissions process by using a recently implemented online exam system. • Started renewal of systems to address priorities in Law, WCVI and Graduate Studies. • Implementing, together with SESD, a program advising system. • Continued to support college and unit portal needs by enhancing the university portal (PAWS).
Support from colleges for unit-based initiatives within programs/services offered by the administrative unit including consultation	<ul style="list-style-type: none"> • The Library and 10 other units are using ITS' virtual server infrastructure instead of purchasing and operating their own servers. • Adoption of teaching and learning tools provided and supported by ITS is high. For example, more than 15,000 students in over 1,100 sections used the Blackboard learning management system in the 2010-11 winter term. • More than 50 academic and administrative units contract with ITS for desktop support and database/software development and maintenance rather than hiring their own IT staff. • Colleges and administrative units choose to purchase most of their hardware and software from the Campus Computer Store rather than other suppliers.
Cross-unit consultation and/or involvement in proposed or existing programs or services	<ul style="list-style-type: none"> • University Communications, eMAP, several colleges and other administrative units worked with ITS to select and implement a webpage content management system. • Several colleges and administrative units worked with ITS to select a workgroup collaboration, workflow and document management system (SharePoint). • At ITS' initiative, college and administrative unit IT staff meet regularly to share and promote best practices in IT security, desktop management and the use of SharePoint. • ITS, ULC, eMAP, CCDE and colleges collaborate in delivering services to support teaching and learning. Recent examples include the development of a lecture capture service and the redevelopment of the U of S course tools. • ITS consulted with Deans Council (as well as some deans individually) regarding a campus-wide CV information management system. • ITS consults regularly regarding service enhancements, new services, and the development of the annual capital plan (e.g., service-specific stakeholder groups, Academic Support Committee of Council, Campus Advisory Board for Institutional Systems, Campus IT Managers Forum, Enterprise Systems Planning Committee).
Processes for internal decision-making efficient and effective	<ul style="list-style-type: none"> • Project dashboard developed to provide regular reporting on major ICT projects. • Client satisfaction surveys have been used to inform service planning (e.g., TechQual+, help desk client surveys).

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	<ul style="list-style-type: none"> Established a project management office within ITS and project managers were hired.
Cross-unit consultation on areas of commonality	<ul style="list-style-type: none"> Worked with eMAP to simplify processes for the support of in-classroom technology (includes role clarification between the two units). This work will continue into IP3. Other examples of consultation have been outlined in earlier sections of this table and are not repeated here.
Structural changes have been introduced when appropriate to enhance innovation in programs or services	<ul style="list-style-type: none"> Associate Director position was created. Educational and Research Technology Services group within ITS was restructured to improve service delivery and support. As part of the budget adjustment process, delivery of the optical mark scanning and special forms printing was reassigned within ITS. Discussions are underway regarding changes to ITS organizational structure.
Mutually beneficial formal external partnerships	<ul style="list-style-type: none"> Saskatoon Health Region: the university's wireless service is available in health region facilities. SRnet and CANARIE: provide high-speed, cost-effective network connectivity between the U of S and other provincial research organizations, as well as to research and education networks throughout Canada and around the world. Compute Canada and WestGrid: the university has participated in building national research infrastructure. Canadian Access Federation: the eduroam service enables U of S students and employees to access selected services (e.g., wireless) at other universities using their U of S username and password. Collaborators and guests from other universities can access similar U of S services using their local usernames and passwords. Other universities: Five Canadian universities who use the Banner student information system, including the U of S, pooled resources with SunGard to develop a student financial aid module for SunGard's Canadian client base. As a participating university, the U of S did not have to purchase the resultant software and receives royalty payments (in the form of credits towards SunGard services) when SunGard sells the software to others. Industry partnerships (e.g., SunGard, BlackBoard, Cisco, Oracle, Microsoft, Apple, IBM): These partnerships reduce university IT cost, provide internship opportunities for students and research opportunities for faculty and graduate students. ITS employees participate actively in client advisory groups where they can influence product development to meet university needs.
Have barriers been identified and addressed?	<ul style="list-style-type: none"> The location of ITS staff in 20+ locations on campus remains a barrier to efficiency and effectiveness in the delivery of some services. Funding for new services remains a challenge. To meet university needs, ITS must sometimes provide services on a fee-for-service basis. If not provided centrally, colleges and administrative units would provide those services to meet their needs. Per the external review recommendations, ITS is reviewing, with stakeholders, the services it delivers on base budget (core services).
Have changes been communicated to stakeholders and adjustments made based on feedback received?	<ul style="list-style-type: none"> ITS service plans are regularly communicated via email, stakeholder meetings, committees, various forums and other means (e.g., OCN). For example, instructors were informed this summer, by email and phone, of the changes to the PAWS course tools. Information about the external review (including the report from the external reviewers, the responses from the Provost and the CIO, and ITS' management response and action plan) was communicated by IPA. ITS' website was revised to provide better service information to students, instructors, researchers and other employees.

Part II PLAN FOR THE THIRD PLANNING CYCLE

A. Changes in the Environment

The university is becoming increasingly reliant on information technology (IT) for almost everything it does – teaching, learning, research, communication, planning and administration. IT influences, enables and even transforms these and other university activities, and is integral to the university's success.

As a result, the university community requires, and expects, more IT services. Examples of the increasing demand are:

- Use of existing services continues to grow. For example, use of the wireless network and the Internet doubles every two years, or sooner.
- In order to address their “business” needs, colleges, administrative units, students, instructors, researchers and employees regularly request both enhancements to existing services (e.g., additional modules to the university's HR/Payroll system) and new services (e.g., services to support distributed learning in Medicine and Nursing).
- Students, instructors, researchers and staff require services and support at off-campus university locations similar to what is available on campus.
- Students increasingly expect that university services be accessible from their mobile devices.
- Students, faculty and staff use IT services at all times of day every day and expect that help will be available evenings and weekends.
- The university community expects that services will be available 24 x 7 and that service will be restored quickly whenever a failure occurs.

The cost to address the increasing use of, or enhancements to, existing services, and the development of new services to meet the evolving needs of the university, is significant. The cost to implement a major new IT system can range from several hundred thousand dollars to several million dollars; annual operating costs are approximately 15 to 20% of the implementation cost. At the same time, the university's need for other services also continues to grow. The university's annual budget increases are insufficient to meet all the demand for improved services.

Emerging service models may reduce the cost of delivering some IT services and may shorten some service deployment times. Those models include shared services, server virtualization, self-service, internal/external cloud services, crowdsourcing and open source software. ITS will increase its use of these models to reduce operating costs and thus deliver more services.

Even with savings that may be gained from using new service models and from internal efficiencies, ITS and the university will be challenged to meet all the needs of the community for more services. Priority setting, effective governance and the development of creative solutions to overcome these resource challenges will be important for success.

In addition to the challenges relating to the demand for more IT services, the university community expects ITS to:

- deliver new services more quickly (responsively);
- improve the quality of services (including reliability and support);
- reduce service delivery costs;
- provide protection against ever-increasing IT security risks (while improving ease of access to services); and
- provide strategic leadership in the effective application of IT in teaching, learning, research and administration.

The commoditization and consumerization of IT makes it easier for colleges, administrative units and employees to develop their own IT services. However, this often leads to the use of multiple solutions across campus (or even within a unit) to address marginally different needs. As highlighted by the ITS external reviewers, it also creates interoperability problems, may increase the university's total cost of IT and increases the university's risk of data loss.

The external ITS review made recommendations to improve university IT governance, leadership and service delivery. These recommendations will be addressed during the planning cycle.

SPEP and the external review identified several opportunities for the rationalization of IT services provided by colleges and administrative units. ITS is participating in the evaluation of these opportunities and will participate in the realization of selected opportunities.

Areas of Focus

The University of Saskatchewan community has identified four areas of focus for the third planning cycle. The actions taken to achieve the Areas of Focus over the third planning cycle will be defined through the planning process. Administrative units will be encouraged to respond during the planning cycle. At this time, we encourage you to take this opportunity to describe how existing and new activities undertaken by your unit will help the institution make progress in each of these four areas. For each activity, include a description of your unit's human (both in terms of time and positions), financial and infrastructure ((space/buildings, land, infrastructure, information and communications technology, equipment) resources that will be allocated toward that activity.

AREAS OF FOCUS:

- **Knowledge Creation: Innovation and Impact**
- **Aboriginal Engagement: Relationships, Scholarship, Programs**
- **Innovation in Academic Programs and Service**
- **Culture and Community: Our Global Sense of Place**

Knowledge Creation: Innovation and Impact

ITS will undertake two initiatives in support of this area of focus.

- Enhance the university's research computing infrastructure to increase research success.
- Collaborate with the OVPR to implement a research administration system.

Enhance the university's research computing infrastructure to increase research success.

Universities are recognizing that the success of their research, undergraduate and graduate student training, student and faculty recruiting, and external funding all increasingly depend on the availability of an excellent research computing infrastructure to provide them with a competitive advantage. This infrastructure (also called *digital infrastructure*, *cyberinfrastructure* or *e-research*) includes the components listed below. The U of S's research computing infrastructure consists of these components, to varying degrees.

- High-speed and reliable campus network with connections to Canadian and international research networks
- A facility (or facilities) with adequate power and air-conditioning where researchers can house specialized or high-performance servers required for their research
- High performance compute resources, large-scale data storage and a backup/retrieval system, and visualization facilities
- License agreements, including site licenses, for software commonly used in research in several disciplines
- Electronic collaboration tools to support the work of inter-institutional research teams, or teams otherwise geographically distributed
- Staff to assist researchers in development of the IT component of research grant proposals, as well as to select and procure the specific hardware, software and IT services required for their research
- Staff to provide training and technical assistance in using the research computing infrastructure

A research computing infrastructure complements other research infrastructure such as multi-disciplinary research labs. It enables researchers to focus resources and time on research instead of issues relating to acquiring and supporting IT infrastructure. While being able to leverage the infrastructure, researchers are still responsible for the hardware, software and staff resources specific to their research.

ITS will enhance and expand the university's research computing infrastructure during this planning cycle. The following initiatives are planned.

- Provide on-demand server resources, along with storage that is backed up, as an alternative to researchers purchasing and operating their own servers. Known as server virtualization or an internal cloud, this service will enable researchers to begin their research sooner, reduce the time they spend on server administration, and easily scale server capacity as required for their research. It will also reduce the server costs as well as power and cooling costs, thereby contributing towards the institution's goals relating to environmental sustainability (green computing).

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- Help researchers utilize external cloud services as an additional way to get access to the computing resources required for their research when internal cloud services do not meet their needs.
- Work with the OVPR, the CIO and AVP ICT and Compute Canada to extend the university's participation in the WestGrid project for another five-year period. This will require joining a multi-institutional application to CFI.
- Expand ITS' participation in multi-disciplinary research centres to include the Social Sciences Research Laboratory, and continue ITS participation in other research centres.
- Assist the Library, the CIO and AVP ICT and the OVPR in their efforts to participate in a project to develop a national research data repository.

ITS will consult with the associate deans of research, the Research, Scholarly and Artistic Work Committee of Council, the OVPR, CIO and AVP ICT, and individual researchers on a regular basis, to ensure that initiatives planned in this area are addressing university priorities.

Collaborate with the OVPR to implement a research administration system.

This is one of the initiatives within the OVPR's unit plan. It was identified by SPEG as one of the top three opportunities for the university.

A new system would streamline and automate the grants and contracts administration process (replacing the current paper-based system); enable researchers to track online the progress of funding applications, grants, contracts, ethics applications, clinical trials; and provide data needed for college and institutional reporting (including performance indicators). In short, it would enable researchers to spend more time on their research rather than on the administration of their research. Despite a growing research enterprise, the U of S is one of only a handful of Canadian medical-doctoral universities without a research administration system.

Innovation in Academic Programs

ITS' initiatives in support of "Innovation in Academic Programs and Services" are presented in two parts: "Innovation in Academic Programs" and "Innovation in Services".

ITS will undertake seven initiatives to improve IT services that support innovation in academic programs. ITS will also work with colleges to identify and provide experiential learning opportunities for students. With the growing activity in academic program innovation, ITS may not completely address all the initiatives outlined here but will make measured progress in each.

Innovation in academic programs is shared responsibility. In undertaking these initiatives, ITS will collaborate with the Vice Provost Teaching and Learning, the CIO and AVP ICT, ULC/GMCTE, eMAP, CCDE, FMD, SESD, and colleges. Opportunities to provide services in collaboration with colleges (shared services model) will be pursued.

Provide experiential learning opportunities for students

ITS will work with colleges and departments (such as the Edwards School of Business and the department of Computer Science) to identify and provide experiential learning opportunities for students. Potential opportunities include the areas of mobile and web-based application development, business analysis, IT project management, communications, marketing and IT management.

Improve existing services that support teaching and learning (including distributed learning)

ITS will improve the suite of tools (e.g., online course tools, clickers, wikis) that instructors want to use in teaching, that students expect, and that keep U of S course delivery competitive. Key service improvements planned are:

- Provide or facilitate the provision of tools that support online learning communities;
- Expand the lecture recording/playback service (Matterhorn) to meet the needs of departments, instructors and students;
- Increase the services, related to teaching and learning, that are available to students on mobile devices; and
- Provide, in collaboration with publishers, an easy-to-use method for instructors to integrate supplemental online learning resources (e.g., online textbooks, quizzes and other materials from publishers) within U of S course tools.

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IT, particularly videoconferencing and web conferencing, is an increasingly critical element of distributed program delivery in Medicine, Nursing, the Johnson-Shoyama Graduate School, the masters program in Northern Governance and Development and others. IT is also vital to the effective delivery of courses to U of S students taking classes from home or through regional college partners. ITS will:

- Establish partnerships and collaboration between health facilities, regional colleges, government ministries, SRnet and SIAST to ensure that computer networks within the province meet the university's needs.
- Work in collaboration with ULC, eMAP, FMD, colleges and other stakeholders to ensure that network and other IT services are provided appropriately at all U of S facilities, regardless of location. ITS may provide these services directly or facilitate their provision. The cost of these services must be considered as part of program planning.
- Enhance services and improve support for videoconferencing and web conferencing.

Provide and support analytics to help instructors identify students at risk

In collaboration with ULC, IPA, and ISA, provide information to instructors and departments regarding student access to online content and services, progress through online materials, and participation in online collaborative efforts. Such information can alert instructors to students who may be at risk of not succeeding in the class, and create the opportunity for follow-up and remediation to improve student success and retention.

Such information is available now for U of S course tools and is expected to be available soon in the Matterhorn lecture capture system.

Pilot, in collaboration with colleges, emerging technologies that support program innovation

In collaboration with colleges, ULC, and eMAP, ITS will pilot emerging technologies that support program innovation or innovative teaching and learning. If proven successful, these technologies may be adopted university-wide. This approach was recommended in the external review of ITS as a means for recognizing innovative solutions that solve problems at a local level and systematically promoting them to university-level shared services.

Examples of some emerging program innovations include:

- Potential use of e-portfolios in the College of Education (currently in use in Physical Therapy).
- Expanding the use of online exams for distributed learning or blended courses. The Education entrance exams were administered in spring 2011 using recently implemented online exam software.
- Engineering is working towards outcomes-based assessment for their next accreditation review. ITS will partner with them to select and implement an outcomes-based assessment system that meets their needs.

Improve support for faculty in use of IT for teaching and learning

Work with FMD to relocate the ITS help-desk, training and e-learning support functions to a location proximal to the Learning Commons and the ULC/GMCTE. This is being considered within the Core Area Revitalization project and is supported by ULC/GMCTE.

Develop, in collaboration with eMAP, ULC, college IT groups and the AVP Teaching and Learning, an integrated model for classroom technology support that is seamless (does not require instructors to know who to call for support) and cost-effective. This model would rationalize the services provided by, and clarify the roles, of ITS, eMAP and ULC thereby eliminating overlaps (or perceived overlaps) in service provision, filling in service gaps, and making clear who has the institutional responsibility for which services. Some progress was made in this area during IP2; however, more is required.

Provide, in collaboration with ULC/GMCTE, eMAP and colleges, increased training opportunities for instructors in using classroom and other e-learning technologies so they can readily use them to enhance their classes. Online training and help resources will be developed so instructors can access those resources at times convenient for them.

Provide, in partnership with ULC/GMCTE, improved online search tools for instructors seeking teaching and learning resources.

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Improve the support available to students in the use of IT

Evolve, in partnership with the ULC and Library, the student computing facility in the Learning Commons and the IT help desks in the Murray and Health Sciences libraries so that they continue to meet students' evolving needs.

Provide students access, from their laptop or desktop computers, to software that is now only available in campus computer labs. While important for on-campus students, this is essential for those taking courses off-campus.

Continue and improve the IT support program for students within the Learning Commons. This program complements other programs offered by the ULC (e.g., math and writing support). It uses direct interactions with students to assess IT skills and gaps, to develop targeted training sessions and materials to specific problem areas, and to report to instructors and departments where student IT skills gaps hamper their ability to complete assignments.

Continue to collaborate with Disability Student Services to explore and adopt new technologies to support the success of students with disabilities. Recent collaborations have included electronic pens to collect notes from class volunteers for students that need them. Lecture recordings are also very valuable to students with certain disabilities.

Develop online training and help resources so students can access the training they need at times convenient for them.

Renew university learning spaces, in collaboration with eMAP, ULC and others

Improve, in collaboration with eMAP, the reliability and ease of use of in-classroom technologies (identified by faculty as an important issue in the recent TechQual+ survey).

Participate in the Classroom Development Committee to develop a plan to renew university learning spaces so that they meet the evolving needs of teachers and learners.

Work in collaboration with eMAP and ULC to provide and support the technologies required in those spaces.

Promote and Support Use of Open Content

In collaboration with the ULC and others, help instructors and students access and use content from open content collections. This can replace content previously used under the Access Copyright agreement. We will also assist instructors in sharing their original content in open content collections.

Support faculty and academic units to make more copyright free content from U of S courses publically available, as a tool to recruit students (in collaboration with the ULC and SESD).

Innovation in Services

ITS will undertake the following initiatives to help improve university services and/or the efficiency of university operations. [Note, innovations in services related to teaching, learning and research have been included in the sections "Knowledge Creation: Innovation and Impact" and "Innovation in Academic Services", above.]

- Expand, in collaboration with other units, the services available on mobile devices, to students, employees and other members of the university community.
- Complete, in collaboration with SESD and colleges, implementation of a student program advising system.
- Complete, in collaboration with SESD and CGSR, the capital renewal of the Graduate Studies Information System.
- Upgrade, in collaboration with SESD, FSD, HRD and UA, the university's major administrative support systems (SiRIUS, UniFi, About-US and U-Friend) on a regular basis. Upgrades are required approximately every two years to keep pace with technology changes and to provide new features and functionality.
- In collaboration with colleges and administrative units, investigate new opportunities for improving university services and/or the efficiency of university operations.

Many of these opportunities may require enhancements to existing systems or new systems. ITS will work with units to identify the university's business requirements, evaluate options and develop solutions along with costs and benefits. Needs in this area that have been articulated by colleges and administrative units include: additional functionality in the university's HR system, a campus-wide CV information management system, a stores and hazardous materials tracking system, development of emergency mass notification services and a system that improves classroom space utilization for academic timetabling.

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- In collaboration with colleges and administrative units, develop workflow and document management solutions to meet their needs.
- Develop an online sales presence for the Campus Computer Store.

Per the federated IT governance model, ITS provides software development and support services to meet unit-specific needs on a fee-for-service basis. The service improvements that will be undertaken will depend upon each unit's business needs and priorities.

Aboriginal Engagement: Relationships, Scholarship, Programs

Develop plans, in collaboration with HRD, to increase awareness and understanding within ITS of aboriginal history, culture, ways of knowing. We will leverage the work currently being done by ULC/GMCTE and HRD.

Work with HRD to increase the number of self-identified aboriginal employees in ITS (summer students, interns and other employees). This includes reviewing ITS' recruitment processes to ensure that there are no barriers to aboriginal participation, and identifying venues for posting job vacancies to solicit more applications from aboriginal people.

Partner with the Aboriginal Student Centre, ULC/GMCTE and other stakeholders to identify and deliver IT services beneficial to aboriginal students.

Culture and Community: Our Global Sense of Place

Several initiatives have been identified to improve our cultural diversity regarding aboriginal representation (see above). In addition to those, we will explore a potential relationship with the Saskatchewan Indian Institute of Technology (SIIT) to develop opportunities to increase the pool of aboriginal candidates with IT expertise.

In addition to the relationships with colleges and administrative units (outlined in previous sections of this plan), ITS also maintains important relationships with many external organizations, including federated and affiliated colleges, the Saskatoon Health Region, SRnet, CommunityNet, CANARIE, Compute Canada, government ministries, and the Canadian University Council of CIOs. This wide array of relationships is important, for example, to address the provincial government's direction regarding distributed health sciences education. As the university expands its distributed learning programs, additional partnerships will be required with regional colleges, other health regions and SIAST.

Partnerships with industry are also important. These partnerships reduce university IT costs and provide valuable internship opportunities for students, and research opportunities for graduate students and faculty members.

ITS' industry partnerships include SaskTel, Cisco, IBM, Microsoft, SunGard, Blackboard, Oracle, Apple and others. The financial benefit to the university of these partnerships has been significant. For example, IBM contributed \$1.8M in-kind towards the WestGrid project and a number of other research projects at the U of S. In addition to standard educational discounts, Cisco and SaskTel together have provided further discounts to the university of over \$500,000 per year for network and phone equipment purchases and maintenance; these additional discounts have helped address the capital renewal of the campus network service and the major capital project to convert the university phone system to VoIP technology.

ITS also helps build communities of professional practice through its participation in local, provincial and federal IT organizations (e.g., Canadian Information Processing Society, Project Management Institute, Canadian University Council of CIOs).

ITS is organizing the 10th annual Canadian Higher Education Information Technology Conference (CANHEIT) to held at the U of S in June 2012. This national conference will bring together up to 500 IT leaders, managers and practitioners responsible for providing IT services at Canadian universities. Hosting the annual conference provides an opportunity to showcase the U of S. It also provides our local IT professionals a low-cost opportunity to share ideas and best practices, and to work collectively with others on issues of common interest. The conference is sponsored by the Canadian University Council of CIOs.

B. Unit-Specific Priorities

PCIP recognizes that, along with institutional priorities identified for the third planning cycle, each unit will identify unit-specific priorities for the third planning cycle. In the text box below, we invite you to describe the activities, both existing and new, which will address your unit's priorities outside of the four areas of focus. For each priority, describe the human (both in terms of time and positions), financial and infrastructure (space/buildings, land, infrastructure, information and communications technology, equipment) resources that you will be allocating toward that priority. Please also describe initiatives, programs, services or other activities which your unit will disinvest in or restructure to address process improvements over this planning cycle, if any.

What are the principles that will guide the allocation of human, financial, and infrastructure resources in the unit over the next planning cycle?

ITS' mission is to:

“provide leadership in the delivery of innovative IT services and solutions that support and enhance teaching and learning, that support and enable research success, and, that improve services and the efficiency of university operations. These services will be delivered in a responsive and efficient manner in collaboration with colleges, administrative units and other stakeholders.”

Principles for the allocation of ITS' resources during the planning cycle

1. Align ITS Resources

ITS will allocate resources to support the university's strategic directions, goals and areas of focus.

2. Collaboration

ITS will collaborate with colleges and administrative units to leverage resources and build common IT solutions (approximately 50% of the university's IT expenditures are made from budgets outside of ITS).

3. Federated IT Governance Model

Within the federated IT governance model, ITS is responsible for the provision of services that:

- are aligned with the university's strategic directions, priorities and integrated plan;
- are used widely by students, instructors, students, researchers or staff in multiple colleges or units;
- are most cost-effectively provided centrally (economies of scale); and
- must interoperate across the campus, in all colleges and units.

The specific set of services provided by ITS is determined in consultation with the CIO and AVP ICT, the Academic Support Committee of Council, Campus Advisory Board on Institutional Systems, deans, AVPs and other stakeholders. These services will be delivered as shared services, where appropriate.

Within the federated IT governance model, colleges and administrative units are responsible for services that address the unit-specific or discipline-specific needs of their students, faculty and staff. ITS may provide those services on a fee-for-service basis in order to enable the university to benefit from economies of scale. Alternately, colleges and administrative units can provide those services in-house or contract an external service provider.

4. Develop Additional Resource Capacity to Further Support the University's Strategic Directions and Goals

ITS will develop additional resource capacity to enhance existing services and deliver new services that support the university's strategic directions and goals. ITS will accomplish this by:

- improving the efficiency (continuous improvement) of our service delivery through the use of lean processes, best practices and assessment;
- partnering with external organizations and agencies for mutual benefit (e.g., Saskatoon Health Region, SRnet);
- reducing university IT costs through industry partnerships and procurement agreements (e.g., influencing the evolution of a vendor's product or service to better meet university needs, in-kind contributions, educational discounts, volume discounts);
- seeking opportunities to attract external funding (e.g., donors, granting agencies); and
- disinvesting from services that contribute the least value towards the university's goals.

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What are the unit-specific priorities that will guide the allocation of human, financial and infrastructure resources in the unit over the next planning cycle? (section 1 of 4)

Unit-Specific Priorities

ITS has identified six unit-specific priorities:

- Leadership in the effective application of IT in teaching, learning, research and administration;
- Increase the value of ITS' services to the university (improve responsiveness, customer service, service quality; reduce costs);
- Enhance communication with the university community;
- Enhance ITS' services that support all university activities including teaching, learning, research and administration (e.g., network, phone, email, PAWS).
- Identify, in collaboration with other campus IT service providers, the opportunities for IT service rationalization across campus and develop the opportunities that hold promise; and
- Complete the execution of ITS' Action Plan developed in response to the external review recommendations.

Actions to advance each of the unit-specific priorities are outlined below. These and other actions outlined in this plan will help ITS become a more innovative, responsive, service oriented, collaborative and high performing organization.

1. Leadership in the effective application of IT in teaching, learning, research and administration

Proactively identify and communicate to the community, in collaboration with the CIO and AVP ICT, opportunities for the effective application of IT in teaching, learning, research and administration.

Provide solutions that are developed to address the specific teaching, research and administrative needs of colleges and administrative units. While individual IT services (e.g., email) will still be necessary, clients increasingly want solutions rather than only a set of services that by themselves may or may not completely address their business needs.

Improve mechanisms to increase and sustain involvement, communication, coordination and collaboration among campus IT service units to foster shared service planning/delivery and to leverage distributed expertise.

Strengthen and develop the leadership and other non-technical competencies (e.g., strategic service/technology planning, consulting, communications, project management, change management, relationship building, customer service, business analysis, problem solving, and analytical thinking) of ITS employees. These competencies are increasingly important for the success of all IT organizations and are required for the successful execution of this unit plan.

Review and restructure, in consultation with the CIO and AVP ICT, the ITS leadership team to improve its effectiveness in providing campus-wide leadership in the application of IT in teaching, learning, research and administration, and to implement this unit plan.

2. Increase the value of ITS' services to the university

ITS will increase the value of services it provides to the university by undertaking actions to improve customer service, be more responsive to new service requests, improve service quality and reduce service delivery costs. Some actions that will be undertaken to make these improvements follow below.

Improve customer service (care)

While often complimented for its customer service, we are also aware of occasions where further improvement is needed. ITS will:

- Deliver IT support and services in a manner such that customers (students instructors, researchers, employees, colleges and administrative units) feel ITS employees, and ITS as a whole, sincerely care about finding solutions to their IT/business problems and about making them successful.
- Be aware of, and sensitive to, special needs or circumstances of each client (rather than just following defined procedures), helping clients define the issue they are trying to resolve, and providing answers that fully address client issues.

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Improve our responsiveness to requests for new services

- Software as a Service will be used, when it is available and cost-effective, to deploy new services more quickly.
- More self-service opportunities will be provided so students and employees can fulfill some service requests on their own without having to contact ITS to do so (e.g., password reset, on-demand server resources).
- External consultants will be contracted to supplement internal staffing levels for projects that are highly time-sensitive or that require competencies that are not available in-house.

Improve service quality

- Performance indicators will be used to assess service reliability (e.g., availability metrics) and student, instructor, researcher and employee satisfaction (e.g., TechQual+, service-specific user satisfaction surveys) and to guide the development of service improvement initiatives.
- IT service management best practices will be utilized. ITIL is the most commonly used IT service management framework. Due the large cost of a complete implementation, the recommended approach for implementing ITIL is to adopt the practices that provide the largest benefit to an organization. As such, ITS will implement selected parts of the ITIL model that provide the greatest benefit.
- Make services easier to use by developing intuitive user interfaces, introducing more self-service options, providing online and in person training, and publishing a service catalog.

Improve the efficiency of service delivery

- Metrics and external benchmarks will be used to assess service delivery cost.
- Costs will be reduced through the use of emerging service delivery models, self-service, process improvements, and selective in-sourcing and out-sourcing.

3. Enhance communication with the university community

While ITS must continue to deliver high quality and reliable services in a cost-effective and responsive manner, it must also enhance communication with the campus community. The enhanced communications will help increase the transparency of ITS' plans and operations. During this planning cycle, ITS will:

- Improve consultation with the university community regarding service enhancements and new services.
- Develop communications about ITS' services, service plans, projects, performance indicators and successes.
- Improve the communications skills of its employees

4. Enhance ITS' services that support all university activities (teaching, learning, research and administration).

Some of ITS' services primarily support teaching, learning, research or administration. Actions to improve those services have been described in the Areas of Focus section above.

Other ITS services contribute broadly to all areas of university activity (teaching, learning, research and administration). These services include network, phone, email, identity and access management, PAWS, end-user help (help desk) and IT training. Some actions to enhance these services during this planning cycle are outlined in Table 1, below.

5. Identify, in collaboration with other campus IT service providers, the opportunities for campus IT service rationalization and develop the opportunities that hold promise.

The external reviewers and the SPEP consultants identified a number of opportunities for the rationalization of IT services provided by ITS, colleges and administrative units. These opportunities may improve services and/or reduce costs. ITS is participating in evaluation of these opportunities and will participate in the realization of selected opportunities.

6. Complete the execution of ITS' Action Plan developed in response to the external review recommendations.

These recommendations affect the delivery of services by ITS as well as by college and administrative unit IT groups. ITS' action plan includes the definition of core services, the provision of a campus-wide e-calendaring service, development of performance indicators, enhancing communications and development of a relationship management role.

Alignment with CIO and AVP ICT Priorities

The CIO and AVP ICT defines the university's ICT strategy and priorities. The initiatives proposed in this unit plan – both those in Areas of Focus and those in Internal Priorities – align with the three priorities for strategic investment articulated by the CIO and AVP ICT in a June 2011 memo to PCIP.

- ITS' initiatives in support of the CIO's priority relating to supporting research (e.g., digital research infrastructure, institutional repository for research data, research administration system) are outlined in the Knowledge Creation: Innovation and Impact section.
- ITS' initiatives in support of the CIO's priority relating to development and renewal of the university's major administrative systems (e.g., complete implementation of DegreeWorks, develop a campus CV information management system) are outlined in the Innovation in Services section.
- ITS' initiatives in support of the CIO's priority relating to innovation in teaching and learning (e.g., enhance support for distributed learning, improved coordination and rationalization of services that support teaching and learning) are outlined in the Innovation in Academic Programs section.

In addition to the three areas for strategic investment, the CIO has stated it is also important for the university to reduce its risk relating to ICT security, deliver more services that can be accessed from mobile devices, define core services and improve the university's IT governance structure.

- In support of the CIO's direction relating to ICT security, ITS incorporates security planning in its service planning and operations (table 1 provides some specific examples of actions that will be undertaken during this planning period to reduce the university's ICT security risk). In addition, ITS works with Audit Services and will work with the newly created ICT Security Office on specific IT security improvements.
- ITS' support for the CIO's direction to deliver more services to students and employees on mobile devices is outlined in the Innovation in Services section and ITS' recently published Action Plan for Mobile Service Delivery.
- ITS' support for the CIO's other areas of importance are outlined in our Action Plan in response to the external review

Disinvestments

ITS continually assesses service usage and value, and looks to disinvest from services with low usage and/or value. The following services are presently under consideration for disinvestment.

- Sun One email and calendar (users of the Sun One system will be migrated to Exchange email and calendar services);
- cheque printing, special forms and print sealing;
- campus phone book in paper form (to be replaced with online version); and
- local hosting of services that are readily and cost-effectively available externally (e.g., outsource email).

When considering disinvestment, ITS considers the impact on colleges and administrative units that are using those services. Disinvestment decisions will be made in consultation with the CIO and AVP ICT.

TABLE 1. This following actions are planned, for this planning cycle, to enhance ITS' services that support all areas of university activity including teaching, learning, research and administration (unit-specific priority #4, page 13).

Note, ITS also provides services that primarily support one of these activities: teaching, learning, research or administration. Enhancements to those services have been outlined in the Areas of Focus section.

Network Services

- Expand wired and wireless network service to meet evolving university needs. As the university grows, both on campus (e.g., Academic Health Sciences) and at off-campus locations (e.g., Station 20 West, English River First Nation), additional network service is required to support faculty, students and staff in those areas. Further expansion of wireless service will also be required to increase capacity in locations that have many wireless users and to provide service to campus locations not yet covered (i.e. green spaces and some buildings).
- Work with external partners (Saskatoon Health Region, SRnet, CANARIE, CommunityNet and others) to continue to improve the network services required to support distributed learning.
- Implement a new network access control system to reduce the university's risk from infected and vulnerable computers connecting to the network, and to simplify the steps required to connect to the wireless network.

Phone Services

- As with network services, new buildings and off-campus locations will require additional phone services.
- Complete the major capital project to convert the university phone systems to VoIP technology.
- Leverage the features of VoIP technology to meet evolving university needs. This includes investigation of integrating mobile phones with traditional office phone services.
- In partnership with the Operational Risk Management Committee, develop emergency mass notification services that are built upon the existing IT infrastructure. This may include expansion of SMS messaging services, VoIP broadcast to all phones, automated voice calling and other notification methods.

E-communications and Collaboration Services

- Consolidate university email and e-calendaring systems on a single platform (Microsoft Exchange).
- Outsource the provision of some or all email and e-calendaring services to cloud service providers.
- Expand the services available through the portal (PAWS) and upgrade to new versions provided by the vendor.
- Support colleges, administrative units, workgroups and committees in their use of the recently established SharePoint service to meet their needs with respect to collaboration.
- In collaboration with University Communications and other stakeholders, expand the tools and services available to colleges, administrative units, and others to enhance the university's web presence. This includes mobile-friendly website templates, mobile applications and an expanded use of web analytics.
- Support, together with University Communications, ULC, SESD and others, the use of social networking tools (e.g. YouTube, Twitter, Facebook) and their integration into university services, where appropriate.
- Expand file-sharing services so that they are easier to use, especially by users of mobile devices, and provide user-defined shared workspaces for collaboration.

Identity and Access Management Services

- Enhance the university's identity and access management system to support integration with external services (e.g., Office365, social networking tools).

End User IT Support and Training

- Expand the use of ITS' problem management system to college and unit IT help desks and work towards an integrated IT help service for the university.
- Simplify ITS services so the university community will require less help using them.
- Provide online training (e.g., short videos), additional "how-to" information and self-service help (e.g., user-initiated password resets).

Application and Database Hosting

- Build and offer internal cloud services that provide on-demand virtualized server and storage capacity for colleges, researchers and administrative units, who will then not need to build and maintain their own infrastructure (including purchasing physical hardware, maintaining server rooms, etc.).
- Continue offering and expanding application and database hosting to meet college and unit needs.

IT Service Resiliency and Continuity

IT service resiliency and continuity is planned and developed within every ITS service.

- ITS incrementally improves IT service resiliency and continuity as part of ongoing service evolution (e.g., the use of multiple servers for one service).
- Within the planning period, ITS will open a computer centre in Academic Health Sciences to house additional servers required by the university. In the event of damage to another computer centre, this facility will be used to facilitate recovery.
- Documentation and processes will also be improved to enhance recovery capabilities and reduce the likelihood of human error impacting service delivery.

IT Security

IT security, like IT service resiliency and continuity, is planned and developed within every ITS service.

- ITS will continue to make incremental improvements in IT security on a per service basis. Some examples of planned IT security are outlined in this table, above.
- ITS will also work closely with the newly created ICT Security Office within the office of the CIO & AVP ICT to reduce university-wide ICT security risks.

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How do you propose to use existing human, financial and infrastructure resources to support your priorities? If applicable, indicate any resources from other units that you will leverage, any barriers that may exist due to resource issues and any implications for the university's operating budget, capital budgets or fundraising activities.)

ITS will undertake the service improvement initiatives outlined in the Areas of Focus and Internal Priority sections of this plan with existing resources, including operating and capital. With the university's growing demand for IT services, ITS may not completely address all the initiatives but will make measured progress in each.

As described in our resource principles, ITS will identify opportunities to build additional resource capacity. Any resources gained will be reallocated to further the initiatives in this unit plan and in alignment with university directions and priorities.

ITS is aware of several initiatives for major system enhancement and new system implementation being considered by colleges and administrative units for this planning cycle. Depending on the stage of the initiative, ITS will work with the units to identify business requirements and develop solutions along with costs and benefits. We will also collaborate with colleges and administrative units to implement the selected solutions.

Barriers

No Central Office Location

Having offices in some 20 locations across campus reduces the effectiveness and efficiency of the delivery of some services. Consolidation to fewer locations would provide opportunities for improving effectiveness and efficiency.

The need for ITS' help, training and e-learning support services to be located centrally, preferably near the ULC/GMCTE, was identified by the Core Area Revitalization project. Moving to this location is supported by the ULC/GMCTE. The Core Area Revitalization project also identified the need for another on-campus location for the majority of the other ITS staff. Regardless, some staff must remain located near the clients they support and cannot be moved to a central location.

Funding Services

Given the university's financial pressures and the growing demand for IT services, ITS and the university will continue to be challenged to fund the increasing use of, or enhancements to, existing services, and the development of new services to meet the evolving needs of the university community. This is particularly challenging for new services.

- The cost to purchase/develop and implement a new IT service (system) can range from several hundred thousand dollars to several million dollars. Experience at this and other universities place system operating, support and renewal costs at approximately 15- 20% of the implementation cost.
- The primary purpose of many investments in new IT services is to improve university services, not reduce costs (e.g., provision of ubiquitous wireless network coverage on campus). No cost savings are available to offset service development costs.
- When a new service does yield efficiency savings, those savings accrue in colleges and other units rather than in ITS. Furthermore, efficiency savings are often small amounts of many people's time. These savings cannot be captured to cover the implementation and operating cost of the new service.
- Most (80-90%) of ITS' base operating budget is allocated to the operation, support and renewal of existing services. Additional resources are sometimes required to support the increasing usage of these services. Even with gains in efficiencies and disinvestments within ITS, ITS will continue to have limited capacity to deliver new services.

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C. Performance Indicators

Describe a peer group for your unit and relevant best practices currently in practice by that peer group.

For IP3 comparative purposes, the peer group is Dalhousie, Queens, Ottawa, McMaster, Western, Manitoba and Calgary.

The relevant best practices are:

- Use of an IT service management framework;
- Use of emerging service models, such as server virtualization, cloud computing, Software as a Service, shared services, crowdsourcing, and open source software;
- IT governance structure and processes that are effective in establishing university-wide strategies and priorities;
- Use of agile software development methodologies; and
- Use of formal desktop management processes.

Identify the indicators you will use to demonstrate the quality of service provided by the unit, the presence of a high-performing culture within the unit and, if applicable, the effective and efficient stewardship of university resources by the unit.

Indicator	Baseline Measure	Benchmark or Target
Service Quality as measured by TechQual+, Globe & Mail Rankings of student satisfaction, and service-specific surveys	2011 Figures (or prior data where available)	Improvement over time
Availability of Key Services (e.g. email, network, phone, PAWS, Blackboard, ID & access management)	2011 Figures	Target – 99.9% (8 hours of unplanned downtime per year)
Number of help calls per service for key services	2011 Figures	Decreases over time
Service adoption rates of key services (e.g. percentage of courses using Blackboard, number of students/employees using wireless services, number of daily PAWS logins)	2011 Figures (or prior data where available)	Increases over time
Cost of providing services (e.g. key services including network and ERP systems)	2011 Figures	Comparison to costs at other universities (surveys of peer group or EDUCAUSE or CUCCIO core data surveys) and/or external rates
Total institutional spending on ICT, central and non-central, as a percentage of total institutional spending	2011 Figures	Comparison to other universities (EDUCAUSE, CUCCIO or peer group)
Total institutional ICT spending per student, central and non-central	2011 EDUCAUSE submission	Comparison to other universities (EDUCAUSE, CUCCIO or peer group)
Total institutional ICT spending per employee, central and non-central	2011 EDUCAUSE submission	Comparison to other universities (EDUCAUSE, CUCCIO or peer group)
Central ICT expenditures as a percentage of total IT spending	2011 EDUCAUSE submission	Comparison to other universities (EDUCAUSE or peer group)
Employee engagement (per University Employee Opinion Survey)	2009 and 2010 Figures	Improvement over time

D. Complement Planning

Complement or people planning is more than a financial exercise of allocating financial resources to positions within the budget, or proposing modifications to the budget. It is part of a comprehensive and strategic overview of the people resources required by the unit to fulfill its mission. The success of the university and of your unit is highly dependent on whether faculty and staff are engaged, aligned and working to their full potential. To enable that success, your plan should include:

- *The principles which will govern people planning for all staff within your unit*
- *Your approach to ensuring a positive, productive and diverse work and learning environment*
- *Specific actions you intend to take to support staff engagement and the evidence upon which these will be based*
- *Specific strategies you use or plan to develop to support learning and development and reward success*
- *Priorities for staff recruitment, including the number and types of positions required within the structure of the unit's overall complement*

Principles

- An engaged staff is required for ITS success.
- Development of leadership and other non-technical competencies is as important to ITS' success as is development of technical skills.
- Recruitment will be used as opportunity to increase the representation of aboriginal employees within ITS.
- ITS will align resources to support the university's strategic directions, goals and areas of focus.

Actions

- Increase the number of aboriginal employees within ITS (see Aboriginal Engagement: Relationship, Scholarship, Programs section).
- Increase understanding of aboriginal culture and issues within ITS (see Aboriginal Engagement: Relationship, Scholarship, Programs section).
- Enhance ITS' culture of shared accountability for ITS outcomes, innovation, responsiveness, customer service, collaboration, continuous assessment and improvement, and high performance as well as one that celebrates success and learns from failure.
- Develop the appropriate leadership, non-technical and technical competencies and skills in ITS.
- Provide and support opportunities for ITS employees to work in a range of client and service areas to broaden their experience and skills, subject to business needs.
- Improve employee engagement based on data from the annual Employee Opinion Survey. Based on previous surveys, two areas identified for improvement are the celebration of ITS achievements and improved communications.