

**University of Winnipeg**  
**TSC Information Technology Strategy – 2003 - 2007**  
**Version 5.0 – January 2004**

## **INTRODUCTION**

TSC's departmental planning is very dependent on the overall University planning. As a result the overall goals and strategies are relatively diffuse. We are aware of this challenge and so have put this initial planning focus on the subjects unlikely to be dramatically changed by any overall university plan.

## **ISSUES - SWOT**

*Identifies major existing strength, weaknesses, threats and opportunities (management, facilities, core competencies, product quality, technology, financial resources). S & Ws are internal to the institution and O & Ts are external. All SWOTs are either S or W or O or T – never appearing in more than one category.*

Areas of evaluation include:

- Teaching and learning resources (CDDL, CITL, Library, TSC)
  - Smart Classrooms; Audiovisual Equipment
  - Electronic and Scientific Instrumentation Lab Equipment
  - Research Equipment
- Infrastructure (TSC)
  - Personal Computing (Desktops, Laptops), Networks, Servers (inc. LAN, WLAN and WAN)
  - Telecommunications
- Management information systems (TSC)
- Administrative / information systems (TSC)

Our stakeholders / clients include:

- Students
- Faculty – teaching
- Faculty – research
- Faculty – administrative (inc. Library)
- Staff / Administrative
- Management

### **Key Strengths**

- There is a desire on the part of IT staff across campus to provide quality service to the student body, faculty and staff. TSC is a customer-driven responsive department; objective is to meet the needs of the clients; we are accountable to a broad constituency of academics, learners, researchers and administrators.
- TSC utilizes a project management process for planning executing and controlling essential initiatives.
- Ability to record, prioritize, engage and deliver technology solutions on often competing and divergent client needs and requirements. Performance measurements are done regularly to monitor the level of service being delivered – move from a crisis-reactive to proactive problem solving and resolution discipline.

- Provide a robust technical infrastructure and solid set of groupware tools, software utilities, and other technologies.
- A sufficient array of software is available across the institution through site licenses and other significant purchasing agreements. The software licensing procurement process is congruent with technological change and academic needs.
- Good technical capabilities exist in information technology areas of the University.
- Made recent progress towards support of an evolving and reliable IT infrastructure which provides stable operation for academic and administrative applications.
- An active member of Canarie/MR\*Net.
- Cross-functional work teams within Student Services (inc. SIS Task Force) and TSC' AMSS unit are resulting in enhanced collaboration and project management coordination.
- A centralized IT HelpDesk and problem tracking system and a developing corporate knowledge base.
- Willingness and ability to work within a collaborative model to provide technical support and expertise in the audiovisual and smart classroom teaching and learning environments.
- Ability to coordinate the selection, procurement, and installation of audiovisual and/or smart classroom equipment throughout the teaching environment, and provide timely technical support, maintenance and repairs of that equipment.
- Ability to provide knowledgeable, on demand, electronic and electromechanical support in the specialized science equipment and instrumentation areas.

### **Key Weaknesses**

- Ineffective communication over what TSC does, especially in the area of web development, helpdesk and audiovisual services. The client community is confused with regards to whether the Library or TSC are the first points of contact for these services and / or products. This results in frustration for the client and a missed opportunity for technology to be more fully utilized in the classroom or office. Is TSC recognized as the primary source of expertise and leadership in information technology at the University?
- The University lacks centralized web resources; no specific Web support group is available to provide cross campus coordination of web-related initiatives.
- Publication, communication channels and processes (both human and electronic) require continuous improvement and attention (i.e. campus-wide calendaring).
- Although significant hardware and data integrity upgrades and improvements have been applied to the Student Information System (SIS), it lacks a number of major functional capabilities required by students, administrators and academics and its architecture is rapidly showing signs of age. The SIS must either be replaced within two years or a significant investment made to enhance its functional and technical state.
- Progress has recently been made in upgrading areas of the campus network infrastructure (Lockhart, Bryce, Core-Room) but that other parts of the campus are still utilizing older technology. This results in a less reliable and more difficult to support situation - creating pockets of "have" and "have-not" clients. Consequently, it is difficult for TSC to expand news services to these communities and provide a consistent cross-campus network service.
  - The campus has not completed data network connectivity to every classroom.
- Progress has occurred over the last few years in the realm of institutional analysis but not all needed institutional data is easily accessible through ad hoc inquiry (i.e.

incomplete data, data lacks historical relevance). OR A data warehouse continues to be expanded and enhanced to supply critical data for institutional decision-making.

- Strained communications – exacerbated by TSC’s geographical separation, conflicting priorities; lack of institutional coordination / planning (departmental goals in competition with institutional goals).
- Lack of resources – financial and human – resulting in delays in development, and the postponement / deferral of ongoing maintenance and upgrades of key technologies. In many cases, only one person has an in-depth knowledge of a product or service. Annual budget uncertainties and insufficient government revenue to adequately support higher education initiatives hinder institutional progress in many areas including IT.
  - The University experiences difficulty in recruiting highly skilled IT staff; fortunately, retention rates are high.
  - The overall number of technical support positions significantly lags the national average for campuses of comparable size and complexity
  - The University cannot yet support 24x7 client access (administrative systems, Library databases, on-line learning, etc.).
- Physical space is constrained and working conditions are mediocre to poor, especially in Lockhart Hall.
- Attempts at achieving IT fluency among students, faculty and staff have not been fully realized. There is a need for on-going coordination and education for professional development of IT staff across campus.
- Further policy development is needed to address web content, content management, navigation, and university coordination of web initiatives
- There is a need for improved hardware and software equipment tracking and inventory management.
- Significant progress has been made in managing and controlling the deployment and support of audiovisual and smart classroom equipment within a collaborative environment. There remains a need to (further centralize and) streamline the overall structure and process associated to delivery of the related support services. Key improvement points might include:
  - Single source of AV and smart classroom management, training and support to provide faculty with a consistent and well-defined level of support.
  - Tighter integration with CITL with respect to faculty training and equipment usage requirements.
  - Tighter integration with CITL, the Dean’s Office and other constituents in the academic community with respect to new technology and equipment requirements, especially in light of new and emerging technology opportunities for audio and video usage in the classroom.
- There is a need to (re)define and improve the level of electronic and electromechanical support in the Science areas. Current support offerings are based on the traditional model of “fixing what ever breaks, right now”. This places the institution in a vulnerable position, as these areas have become more complex and specialized over a broader range of integrated technologies. Concurrently, TSC’s technical resources in this area have diminished from seven to one and one-half technicians over the past ten years. In order for progress to be made we must:
  - Engage the academic science community to determine and define current and future support requirements.
  - Identify the gaps and deficiencies.

- Map out a strategy to move towards satisfying the gaps and deficiencies based on those defined needs.
- The requirement for technical support in research is, for the most part, undefined. TSC provides support on an ad-hoc basis and is limited to those areas of expertise that can be provided.
- The research community within the university must be engaged to define the nature and level of technology support requirements before we can begin to develop a strategy to provide improved support.

### **Key Threats**

- Changing technology.
- Changing client expectations – heightening expectation that technology and TSC will provide a given / unlimited level of IT services; this "given level" impacts the pace that the infrastructure will (or can) continue to be upgraded. In addition, client apprehension to technology is lessening; with it a “residential / home” (non-institutional) sense for how technology should be afforded to them on campus – threat is to achieving and sustaining an integrated service and product offering for campus needs / objectives.
- Changing nature of the university.
- Unclear, unpublished mandate of the key IT consumers / producers / providers – specifically in the area of learning technologies.
- Use of computing and networking resources in all aspects of the campus continue to grow dramatically.
- IT funding levels - rising expectations and the ongoing infrastructure expansion requires examination of such issues as provincial allocations, external sources, leveraging resources, internal allocations, charge-back policies, student fees, etc. Attempts to find the best mix of strategies that will provide the highest level of IT-related service possible within the defined available resources.
- The AV and electronic support staff are within retirement age with no provision at this time for training replacements. This is especially problematic in the electronic scientific area due to the specialized nature of the technology and equipment supported.

### **Key Opportunities**

- Convergence of technologies (i.e. audio, video, text, etc.).
- Technical currency - has both equipment/software and human expertise aspects to it. Keeping academic and administrative IT systems at technical levels capable of meeting educational and administrative process demands has become an urgent and ongoing challenge. Crucial to establish and maintain given cycles of replacement of both hardware and software.
- Universal networking – identifying the true value of the Internet for higher education; that in turn begins to define the nature of the campus network infrastructure, opens questions related to access, security, fair and acceptable use, and requires a focus on campus-wide IT standards.
- IT leadership and management - recognized need for a policy level “officer” to coordinate all IT activities; an understanding that there may be IT leaders and managers at all levels in the organization which raises a variety of issues concerning the allocation and governance of IT resources. It points to the need for a participative IT planning process that is closely coupled with the university strategic plan, budgeting, defining well thought out objectives, and project implementation.

- Knowledge Management (KM) – this widely discussed concept must become more than an abstract idea if we are to attain our goals in IT (and all other areas of excellence). This requires us to become far better at recognizing, capturing, sharing, dispersing, and reusing knowledge that is critical to the operation of the University. Technology can play a part in accomplishing this but the primary elements must be the educating people “how to do this better than in the past” and “how to quickly share individual knowledge with others”.
- Re-thinking our processes - rising expectations and competition require us to recast both administrative and academic processes. Re-thinking in the context of this framework means stepping back to re-examine our assumptions - about how we do whatever it is that we do in light of the impact (or perhaps potential impact) that IT could have in providing better service to clients

## VISION

*What will the institution look like in 3 – 5 years?*

That the University of Winnipeg, in its vigorous pursuit of outstanding teaching, learning and research, utilizing *information* technology to create a connected campus for its students, faculty and staff. That these constituents have the opportunity to use technology to develop a *connected* community that extends their intellectual reach beyond the boundaries of the physical campus – providing for discovery, investigation and interaction, freed from the bounds of time and place.

### Our Purpose

*TSC exists to improve the quality, efficiency, and effectiveness of higher education at the University of Winnipeg through the use of information technology and to facilitate the development of technology as an area of institutional distinction.*

Scholarly success is based upon the perspective and knowledge base of the person using information in their capacity as an academic and researcher. Connected technology, as a result, is also key. A sound technology infrastructure, anchored by the overall vision and strategy of the learning, teaching and research cornerstones, is essential to effectively supporting all members of the campus community.

There are five principal reasons why the future success of the University is tied to our effective use of technology:

- the obligation to prepare students for lifelong learning and for the leadership roles they will assume upon graduation;
- the power of IET in meeting the unique mission of helping students connect ideas and disciplines broadly, think critically, act responsibly, and communicate effectively;
- an increasing amount of the information staff and students need is digital and tied in through an “always on” (24 hrs/day, 7 days/week, 365 days/year) e-connected global network;
- 21st century workers must be prepared and confident in managing technology and its role in all segments of the economy;
- prospective students and parents understand the importance of IET and expect it to be tightly integrated into the curriculum.

## MISSION & SUB-MISSION STATEMENTS

*What will the institution really be doing? What activities will it perform, where, how, etc.? What will the institution offer and how will it be special / competitive?*

### **The University of Winnipeg**

Is committed to excellence in post-secondary education through undergraduate and selected graduate programs, rooted in the liberal arts and culminating in degrees such as those in Arts, Science, Education, and Theology.

In pursuit of our mission, we are guided by the knowledge that our primary responsibility is to our students, to whom we strive to offer a community which appreciates, fosters and promotes values of human dignity, equality, non-discrimination, and tolerance of diversity.

We view both accessibility and excellence as important goals, and will endeavor to make the University as accessible as we can while maintaining high standards of quality in our academic programs.

In the practice of scholarly enquiry through both teaching and research, we provide students with breadth and depth of knowledge, the skills to communicate effectively and to make informed decisions, an understanding of the ethical problems facing our society, and an appreciation of the full range of human, aesthetic and environmental values.

The University of Winnipeg values academic freedom, self-governance and community service.

*To achieve and sustain excellence in teaching and research in Winnipeg as a collegiate and university, the goals of the University in pursuing its mission are:*

- *To recruit and retain faculty, students and staff of the highest quality, potential and to facilitate their development*
- *To ensure excellence in research*
- *To ensure excellence in teaching and learning*
- *To sustain and develop the benefits of the collegial nature of the University*
- *To enhance the University's international role and reputation*
- *To strengthen the University's contribution to the region*
- *To ensure efficient and cost effective management throughout the University*
- *To secure the resources needed to achieve the above goals*

### **Technology Solutions Centre - TSC**

To provide outstanding service to all University of Winnipeg clients. To meet the academic and administrative expectations and enable our clients to optimize their productivity by providing and supporting high quality, cost effective institutional applications and technology infrastructure.

#### **Network & Desktop Services - NDS**

To provide, maintain, and support a technology infrastructure, from desktop to data centre, that sustains all institutional teaching, learning, research, and administrative solutions.

#### **Administrative and Management Systems Services - AMSS**

To provide, either through development or purchase, business administrative and information management applications that are used to manage and operate the institution. This includes all related maintenance, on-going enhancement and client support for these applications.

**Academic Technology Services - ATS**

To provide, maintain, and support an audiovisual/multi-media, electronic and electro-mechanical technology infrastructure that sustains the institutional teaching and learning and research requirement.

**Client Support Services - CSS**

To serve as a first point-of-contact helpdesk resource on technology-related problem solving and inquiry for all campus community clients. It also provides hands-on help to students in open labs 2L13 and Uplink.

**Our Mandate**

- Provide a technology environment that is a seamless complement to our physical environment.
- Facilitate connecting to learning resources and to each other in new and unique ways.
- Extend the U of Winnipeg campus to ensure it is connected to other institutions and the broader community.
- That U of Winnipeg connected to its students through the entire experience, from prospect to alumnus.
- That processes and systems connected to the delivery of individualized services - integrating the best attributes of our physical campus with the greatest strengths of information technology to enhance
  - the way students learn,
  - the way faculty teach, advise and conduct research,
  - the way administrators and staff provide services,
  - the way the University itself is managed.
- Connections that are dynamic, allowing people to come together to communicate and collaborate in new ways.



## DEPARTMENTAL VALUES

*Describe the values and standards governing the operation of the institution and its relationship with society, campus and local clients / communities, suppliers, and other stakeholders.*

The Technology Solutions Centre at the University of Winnipeg strives to help improve learning and the entire educational and research experience of our students, faculty, and staff. In fulfilling this mission we encourage creativity, curiosity, critical thinking, ethical behavior, leadership, and sensitivity to the diverse cultures within our own community and in our interactions with global communities.

### **We Believe**

- a) our first priority is support of the University's mission,
- b) our clients are our partners in success,
- c) effective teamwork is a key to success in all endeavors,
- d) in accepting responsibility for our work,
- e) in securing trust through openness and integrity,
- f) in listening with an open mind, speaking from a sincere heart, and educating in the spirit of cooperation,
- g) in respecting people, their ideas, and their accomplishments,
- h) in reflectively learning from both successes and mistakes,
- i) the actions of our organization and each of its individuals are reflections of one another,
- j) in providing a working environment that fosters creativity and professional development,
- k) in recognizing and rewarding self-improvement, innovation, and individual achievement,
- l) in understanding and adjusting processes to meet the changing needs of the University,
- m) and, in working with the University community to provide a progressive information technology environment.

## DEPARTMENTAL OBJECTIVES

*Highlight the achievements and broad progress to be realized over the next 3 – 5 years. These can relate to stakeholders, management, and the institution itself.*

Information based systems are of major significance to all the functions of the University: they enable students and staff to carry out their research, teaching, learning, management and administration more effectively, more efficiently and in more innovative ways.

### What Our Stakeholders / Clients Want

- **information** they need when they need it
- seamless **service** from multiple systems
- real time service **anywhere, anytime**
- no reduction of services at the expense of **new services**
- **self-service**
- **intuitive**, easy-to-use systems and services

Information based systems are provided by the Technology Solutions Centre (TSC) at the campus-wide and department level. Likewise the University Library, Departments, and its affiliates also develop and purchase systems. To optimize the effectiveness of the University's use of Information Technology based systems, the activities of all these Sections should accord with the University's Information Technology Strategy. The Technology Solutions Centre is responsible for Information Systems within the University. As major partners in the provision of Information Systems there is already close collaboration between them and it is essential that they continue to co-operate fully, whenever appropriate.

### Guiding Principles / Assumptions

The desire for change on campus is clear. In developing the IT Strategy, the views of its constituents may be divergent, but there are consistencies in many areas:

- That information technology is essential in many ways – “can't live without it”
- Students, faculty and staff want better and increased service delivery via the web.
- There is a wide level of frustration and confusion over the provision of technology services and a desire for enhanced integration.
- The application of technology in teaching and learning must be founded in sound pedagogy.
- Concern over inequities of services and facilities – a growing gap between the early adopter “haves” and the rest “have nots”.

The IT infrastructure is based on a set of guiding principles that underlie the objectives formulated as part of the IT Strategic Plan:

1. The institution's competitiveness will be advanced through a robust, sustainable IT infrastructure that meets the diverse needs of stakeholders in a fair and equitable manner.
2. Our approach to IT will be balanced between managing risks and controlling costs, and supporting established and emerging technologies in a hybrid environment.

3. Resources will be provided to enable faculty, staff and students to become highly proficient in using computers. IT training programs must be developed that enable all stakeholders to acquire and upgrade their skills.
4. Selected faculty and staff should be designated as IT Leaders in units across campus and they should serve as local resources and liaison persons.
5. The University must pursue opportunities afforded by the World Wide Web's ability to support institutional aims and objectives.
6. Appropriate levels of security will be provided for all IT functions.
7. IT Providers should be consulted on the selection and implementation of particular technologies to competitively position the institution, its divisions, units, students, faculty and staff. Academic managers should liaise with IT Providers to ensure that IT is considered in establishing direction within individual entities on the campus.
8. Administrative end users should be encouraged to assume more responsibility for the management of their IT systems; IT Services will continue to offer technical support for the systems.
9. Third-party application packages should be used whenever possible. The packages selected must support a common database, operating system and, when possible, a common set of tools. In-house development should be considered only when a suitable application package is not available.
10. The success of the IT strategic plan requires the cooperation and commitment of the stakeholders.

## KEY GOALS & STRATEGIES

*Build on strengths, resolve threats, exploit opportunities and avoid threats. Consider any new dimensions revealed by Vision and Mission. List up to ten major strategies. They can cover the institution as a whole or they can relate to primary matters in key functional areas. Separate the MUST DO from SHOULD DO strategies.*

The overriding aim of the Information Technology Strategy must be to align our effort and investments with the overall strategy of the University of Winnipeg by setting key directions and broad objectives for the use and management of technology rather than defining detailed action plans and responses that anticipate particular technology scenarios.

### ***The IT Strategy will:***

- Enable University IT organizations, faculties and departments to gain a shared understanding of how technology can and should assist the University to achieve its mission and goals.
- Reveal the fundamental directions for the application and management of IT at U of Winnipeg.
- Identify key actions for energizing this movement.
- Determine the appropriate roles for IT in support of teaching, learning, research, administration, outreach, service delivery and management.
- Articulate what leadership and services the campus can expect from its IT organizations.

### ***The IT Strategy will not:***

- Define requirements for specific solutions or specify particular suppliers / vendors.
- Specify particular application solutions.
- Recommend specific funding allocation amounts.
- Create a detailed project list.

Campus Strategic Plan Theme: Academic Programs

- 1. We will enhance and maintain a working and current technical infrastructure for teaching and research in the areas of scientific technologies (i.e. electronic, and electro-mechanical equipment) and audio/visual technologies (i.e. smart classrooms, AV equipment, and sound system services).**

### ***Strategies:***

#### ***Smart Classroom and Audiovisual Equipment technologies:***

To formalize the formation of a group within TSC (named Academic Technologies Support - ATS), whose responsibilities will be to provide technical support specifically to the teaching and research areas of the University. This includes audio/visual and smart classroom support, scientific lab equipment support, and support for research.

To set and establish, in conjunction with senior administration and all other AV support stakeholders, clearly defined lines of responsibility for the delivery and support of AV technologies throughout the University.

To use more intensive customer-focus assessment techniques to identify needs and develop intermediate-term maintenance and replacement plans for technology in the classrooms. To match, in cooperation with the Dean's Office and the Centre for Innovative Teaching and Learning, standardized AV equipment configuration(s) in the classrooms with the needs and usage requirements of the faculty.

To ensure clients have technician support during the regular daytime classroom hours (8:30 AM to 4:30 PM, Monday to Friday) and TSC HelpDesk call logging after hours (4:30

PM to 10:00 PM). As well, to ensure that the TSC HelpDesk will track all calls for smart classroom support. This will provide a needs identification and allow us to plan how much and how quickly support should be provided.

To formalize a classroom AV equipment performance inspection program on a frequent and regularly scheduled basis as the first step in developing a preventative maintenance schedule.

To continue to work with Security Services to enhance protection and loss prevention systems aimed at technology assets and facilities.

***Scientific Equipment technologies:***

To ensure that the technical equipment support needs of the Science areas are being met, we will move away from a complaint-driven approach to a needs-based approach to establish intermediate plans and budgets.

To increase equipment reliability and accuracy, we will, in cooperation with the Dean of Science and Science Department Chairs, determine what equipment requires formalized, scheduled maintenance and/or calibration based on academic teaching requirements and TSC HelpDesk call statistics. We will then develop intermediate plans and budgets to meet these requirements.

To identify and investigate the technical support requirements for research in cooperation with the VP Research and Graduate Studies and then develop intermediate plans and budgets to meet them.

Campus Strategic Plan Theme: Operations & Governance

**2. We will implement and maintain the information systems and management information systems needed to advance the work of the University.**

***Strategies:***

To provide Management Information Systems to underpin efficient and effective management and administration across the whole of the University.

To either acquire or secondarily, build the University's administrative information systems using technologies selected from components that are in wide use and conform to appropriate standards. To prefer acquisition over building for the major administrative systems and to use the time saved to provide development and support for more specialized applications.

**Objective:**

Information will be web-based with appropriate authentication and authorization.

To implement applications in manner that strategically positions the U of W with other competing universities.

To integrate acquired systems in a modular fashion and enhance these systems, where required, so that the unique University of Winnipeg services and competitive offerings may be provided without compromising the acquired systems.

Campus Strategic Plan Theme: Finances & Infrastructure

**3. We will ensure that students, faculty and administration have access to increasingly reliable, secure, current, vendor-supported hardware and software technologies.**

***Strategies:***

To implement, maintain, and evolve the infrastructure with predictable costs over time.

To standardize computing equipment and to better manage and monitor hardware resources.

***Desktop technologies:***

- To provide, through the ongoing support of the UWin Edge Program, consistent workstations of an appropriate make and model within the University to support the academic and administrative activities of its members.
- To decrease the need for in-house resources who are responsible for hardware maintenance from a reactive “break-fix” role to a more proactive support role for our campus clients.  
This may involve the redefinition of staff roles within the Desktop Technology team or the re-assigning of staff to other TSC divisions.
- To increase support for an expanded software offering to the clients within the current staffing model.

***Server technologies:***

- To rationalize, consolidate, and improve the integration of campus server-based technologies – - both in the realm of campus-wide and departmental specific services.
- To further expand on a single centralized definition of an open client repository and multi-platform environment that will allow for better information sharing, improved technical management, increased security, and expanded access to an integrated service offering.
- To increase the scope of secure service offerings.

***Network technologies:***

- To continue the implementation of a secure, reliable, responsive homogenous network across and into the campus and from the Internet that will facilitate both the current and future network requirements of our clients.
- To implement and maintain a secure telecommunications infrastructure.
- To provide a campus-wide wireless system that will augment the campus wired network infrastructure and enhance the laptop computer loan / purchase program. This will allow our campus clients who own mobile technologies the ability to have network connectivity where they might require it (i.e. library, cafeterias, seminar rooms, class rooms, open areas, etc.)..

***IT Privacy / Security:***

- To adopt a strategic security plan that ensures the highest standards for all clients and ensures that appropriate levels of security will, in conformance with such regulatory acts such as FIPPA and PHIA, be provided for all IT functions.
- To provide appropriate levels of security for all IT functions (e.g. the network, dial-up access, the systems, the physical facility, LANs and software systems / applications).  
The underlying secure network infrastructure will be enhanced and maintained within the institution. This network infrastructure will be connected to relevant local, regional, national and international external networks to allow such access to external resources from within the University and to University Information Systems from external networks as is appropriate to achieving the University’s goals.
- To perform an annual internal audit of both the strategic security plan and related technologies and to execute a formal external risk assessment audit on the above every three years.

Campus Strategic Plan Theme: Operations & Governance

**4. We will enhance client service and expand technical support within the University’s agreed upon support guidelines to all campus constituents - students,**

**faculty, and staff - in all their teaching, learning, research, and administrative endeavors.**

**Strategies:**

To establish and maintain an accessible and effective organizational structure for the delivery of IT support services.

To be connected and tied to the *ongoing institutional strategic planning* process.

To facilitate *collaboration* through formal computing committee structures to ensure technology development plans reflect client needs & priorities.

To co-operatively engage with external parties (i.e. vendors and suppliers) that can evaluate the campus technology offering - especially in the area of its people/process/technology strengths, weaknesses, opportunities and threats.

To develop a plan for access to appropriate technologies for every employee to fulfill their work and a recognition that the division between academic and administrative computing is no longer a valid one – that everyone should be enabled to use a range of technologies and software for purposes required by their work.

**Objectives:**

- Create an *Information Resources Centre* – to provide technical expertise, resources and training to allow faculty, students and staff to take advantage of technology for their teaching, research, learning and administrative needs. The facility will also be provided as needed to meet emerging needs.
  - Staffed by a significant student intern complement.
  - Facility wired for electric and data; individual computer stations for hands-on instruction, others will have instructor stations with data projection and multimedia capability for presentations and demonstrations.
  - Scope of services – clearly defined parameters, better utilization of resources / more effective use of support personnel. Include support for emerging technologies used in education-at-a-distance delivery.
  - Ensure every staff member has a technology-training component in the job description with annual performance indicators reflecting the expectation for use of technology in the person's position.

To support increased use of IT in research and scholarship.

To compare U of W TSC performance results with similar education institutions using benchmarking methodologies.

To improve project management and technology solutions implementations within TSC.

To provide TSC clients with service levels that will meet their needs.

To review and evaluate TSC service levels on an ongoing basis.

To improve the quality and level of service offered.

Campus Strategic Plan Theme: Finances & Infrastructure

**5. We will meet the heightening demands and changing needs of teachers, learners, researchers and administrators through the provision of a more sophisticated and efficient technological infrastructure.**

**Strategies:**

To use standardization, maintenance agreements and consolidation of hardware and network systems to reduce maintenance efforts and apply that time instead to ongoing new development needs.

To increase access and expand the overall availability of advanced computing technology resources from an anytime and anywhere perspective.

To integrate and extend the infrastructure in support of emerging initiatives such as remote learning.

To expand the availability of information technology to allow flexibility in the scheduling and instruction of courses and to increase student access.

To encourage and enable the innovative use of technology in their academic research processes so that the University may perform effectively within the Higher Education sector and achieve its goals.

To ensure that the University supports researchers in the acquisition, deployment and maintenance of and assistance with research computing, networking and other technologies at a competitive level to enable research opportunities.

Campus Strategic Plan Theme: Identity & Community

**6. We will identify and pursue appropriate opportunities afforded by global networking technologies (i.e. Internet, Portal / Intranets, World Wide Web, mobile computing) in a cost-effective manner.**

***Strategies:***

To make the web the center of efforts to dramatically improve services to students, faculty, staff and alumni.

To accelerate efforts towards integrated service delivery via the web by taking a customer-centered, process-oriented approach and by aggressively leveraging information technology.

**Objectives:**

- To overhaul relevant administrative systems by increasing use of the web for routine administrative transactions made possible by portal technologies.
- The University will develop its use of Information Technology to provide a variety of appropriate information about the University, its members and its activities. These systems will be used to disseminate such information both within and outside the University.
- Categorized by the following general institutional needs:
  - Teaching & Learning (i.e. WebCT)
    - Courseware development and delivery
    - Student portfolios (by degree, by academic year, by course)
  - Transaction / business administrative based processes
  - General communications

To become fully web-centric – a state in which the web is the primary tool for conducting most transactions, both on and off campus, where the capabilities of the web as a tool for teaching and learning is fully exploited.

**Objectives:**

- Integrate web technology into the teaching and learning process. To develop options for course delivery using technology.
- Re-architect the current traditional website.
  - Undergo a transition from a web site that broadcasts the same information to all users, to a new environment of individually targeted and tailored interactive communications.
  - The University will develop its use of Information Technology to provide a variety of appropriate information about the University, its members and its



activities. These systems will be used to disseminate such information both within and outside the University.

- Responsibility will rest with appropriate campus constituents to ensure consistent and correct information is on the website. Create a University-wide policy for the dissemination of information over the web and for regular maintenance of the website.

To develop a shared infrastructure that serves both academic and administrative computing requirements. The University must pursue opportunities afforded by the World Wide Web's ability to support institutional aims and objectives.

**Objectives:**

The underlying secure network infrastructure will be enhanced and maintained within the institution. This network infrastructure will be connected to relevant local, regional, national and international external networks to allow such access to external resources from within the University and to University Information Systems from external networks as is appropriate to achieving the University's goals.

- Use of the Internet (inc. email) has increased exponentially and is seen as the network by which students and staff alike will communicate between jurisdictions. Work will continue to enhance the capabilities of the node with respect to access, security, responsiveness and content. The University will establish a web-engineered private network environment (myUWinnipeg) for the dissemination of information to staff and for the delivery of courseware to students.
  - MyUW Phase 1 (completed Sept. 8, 2003), Phases 2+
- Connectivity to services as it applies to
  - UW wide area network (WAN)
  - Global – anywhere, anything, ~~anytime~~
- Supporting tools and utilities for technical administrators and clients / end users

To formalize the process of development and deployment for new institutional technologies.

To maintain a repository of evaluated products as well as inventory of the existing areas of expertise within TSC and campus IT representatives.

To develop business plans for the purpose of obtaining funding for new initiatives.

Campus Strategic Plan Theme: Finances & Infrastructure

**7. We will address the issue of what level of financial support technology should receive and will pursue all of our endeavors in the most cost-effective manner.**

***Strategies:***

To implement a multi-stage process for renewing the University's approach to planning for and managing information technology. In order to capitalize on the potential benefits of computing within the broader University framework, we must review and modify organizational structures, funding mechanisms, policies and planning processes.

To endorse & apply a *technology standards* model in an effort to reduce costs and increase usage.

To promote *technology lifecycle management* as the method of achieving a reliable technology offering.

To evaluate *total cost of ownership*, not just initial asset acquisition & implementation investments, when developing financial feasibility proposals.

To implement a plan to *fund* technology replacement and new additions.

To implement a plan that values efficiency (i.e. reduces overlap and competing jurisdictions and recognizes the role of both local autonomy and centralized functions). TSC/IT providers should be consulted on the selection and implementation of particular technologies to competitively position the institution, its divisions, units, students, faculty and staff. Academic managers should liaise with IT Providers to ensure that IT is considered in establishing direction within individual entities on the campus.

That the University will support its Technology Solutions Centre as its main provider of the core technology based system services used throughout the institution. The Technology Solutions Centre (TSC) and other sections of the University will, within available budgets, acquire/maintain or establish/develop/maintain technology systems that are appropriate to achieving the goals of the University.

To institute a means of assessing and measuring the effectiveness of technology and the efficiency of the support it requires.

To provide Information and Teaching and Classroom Technology based systems.

To engage in planning towards the building of an appropriate infrastructure and helping in fundraising activities, where appropriate, towards initiatives outlined in the (revised) Campus Development Plan.

To pursue and ensure all reasonable efforts are sought at achieving maximum compatibility and integration of Administrative / Information Systems.

Campus Strategic Plan Theme: Operations & Governance

**8. We will improve the University's productivity through the effective implementation of reliable and accessible yet secure software and hardware technologies.**

***Strategies:***

To foster greater collaboration between TSC and its clients, improve communications, identify products and services gaps and address issues in a timely manner.

To develop a plan for communication within the University that focuses on its clients: on students, both incoming and advanced; on faculty, new and established; on staff and their training opportunities; and on vital and peripheral systems.

To incorporate client issues and concerns in TSC plans and daily operations.

To assist the University in its efforts to attract and retain students.

To inform clients of TSC products and services and to keep abreast of new IT-related technologies.

To recognise that cost-effective disaster recovery and business continuity solutions are required in order to prevent disruption to the operation of the University. Measures need to be taken beyond the entry level / data back up methods that exist today within the academic and administrative technology environments.

To evaluate, select and implement strategic IT tools and to develop and implement desktop standards in consultation with the clients.

To maintain and replace assets on an ongoing basis so that the best possible tools are available.

To ensure optimal pricing and support arrangements.

To provide the entire campus with a "standard" desktop environment, academic applications packages and standard performance criteria, while respecting the unique needs of certain areas ("islands of technology").

- Our approach to IT will be balanced between managing risks and controlling costs, and supporting established and emerging technologies in a hybrid environment.

To ensure corrective measures are applied in the technical architectures, designs & plans of all IT-related development programs and projects.

- That third-party application packages should be used whenever possible and where suitable. The packages selected must support a common database, operating system and, when possible, a common set of tools.
- In-house development should be considered only when a suitable application package is not available. A suitable application should meet both functional and technical requirements of the University.

To develop and expand TSC's skill sets.

To provide an environment that is conducive to staff retention.

To provide TSC staff with access to the best possible tools.

To improve internal communications among TSC staff.

To increase IT fluency across the institution by teaching fundamental concepts, cultivating intellectual capabilities, and acquiring necessary IT skills for faculty, students, and staff.

To provide training in the use of Information Technology based systems – ensuring it addresses the diverse needs of members of the University and takes into account the existing I/T skills of those seeking training. This training will be focused to meet those needs appropriate to achieving the University's goals. The Technology Solutions Centre will provide a program of training for the main services it provides.

To achieve a campus-wide level of computer literacy and information access skills sufficient to foster efficient, widespread use of IT.