Computing Plan 2011-2012

Faculty/Unit: University Information Technology (UIT)
Date: February 18, 2012
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Introduction

University Information Technology is York’s central information technology services organization. UIT provides common, integrated information technology services, solutions and support that enable all members of the York community in furthering the University’s and their own academic, research and administrative goals. UIT aims to be seen as York University’s trusted information and communications technology advisor and a responsive provider of great solutions and services to the entire University community.

This 2011-2012 computing plan represents UIT’s annual operational plan – the implementation of its multi-year integrated resource plan, finalized in 2010-2011 (and directly informed by the University IT strategy of January 2010). The UIT IRP features four priorities, shared by all units with the Finance and Administration division, that cover the full scope of UIT’s contribution to the University’s strategic priorities:

Priority #1: Contribute to a positive student experience and to the teaching, learning and research function of the University.
Priority #2: Provide Effective Planning and Responsible Management of University Resources
Priority #3: Establish infrastructure, systems, training, and supports to ensure the effective operation of the University.
Priority #4: Enhance the reputation of the University

The 2010-2011 computing plan was developed prior to the completion of the UIT IRP and had slightly different set of priorities. These have been maintained in PART A for clarity and connection to last year’s planning objectives.

PART A – Review of Past Year’s Accomplishments:

UIT’s accomplishments against plan are detailed below. Although not all goals have been achieved significant progress was made across all priorities.
## Priority #1 - Provide Effective Planning and Responsible Management of University Resources

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<th>Objective</th>
<th>Actions/Strategies</th>
<th>Evaluation of Progress</th>
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| 1. Ensure on-going alignment of information technology resources with University priorities and enterprise risk management considerations | a. Working with University leadership, define and establish processes and committee structures to support IT decision making in the areas of administration, academic/research and IT Infrastructure.  
  b. Develop supports for the IT governance process specifically: project portfolio reports; IT investment information. | a. Not complete: Draft structure and terms of reference have been defined however the process/structures have not been implemented.  
  b. Partially complete: UIT project portfolio process has been redefined and the portfolio will be in place by April. No progress has been made on the analysis and reporting of IT investments. |
| 2. Manage risk to the confidentiality, integrity, and availability of University data, applications, information, and communication systems. | a. Manage and monitor access to University data such as student, financial, and HR information, driven by data classification and identity management disciplines.  
  • Working with the University records management office develop guidelines for “data classification”.  
  • Advance identity management/account management objectives:  
    • Complete the Integration of Active Directory and Passport York in conjunction with the broad roll out of Active Directory;  
    • Ease access for staff and faculty through the implementation of a self serve password reset;  
    • Review the current vendor solution of choice based and based on the review develop a future roadmap for identity access management (which may include consideration of a different vendor solution).  
  b. Address application/technology changes required for support of legislative and regulatory compliance:  
    • Plan and implement system changes necessary for the validation of PCI-DSS compliance.  
    • Complete an assessment the state of accessibility of the York web site (to improve | a. Partially complete/in progress:  
  • Development of a “data classification” framework is in progress in collaboration with Records Management.  
  • Active directory account (i.e. FAS) management has been integrated with passport York.  
  • Self-serve password reset for faculty/staff is ready for implementation.  
  • Have renewed a review of options for IdM; roadmap has not been completed.  
  • The deployment of replicated LDAP was cancelled due to software licensing issues.  
  b. In progress:  
  • By end of 2010-2011 will have completed initial PCI/DSS compliance assessment and recommendations. Developed project structure to move forward with the compliance program.  
  • Numerous application changes/upgrades have begun or are planned in conjunction with recommendations emerging from the PCI/DSS review.  
  • The web site review was not completed but will be carried forward either as a separate initiative or as part of a content management or
| **3. Provide information and systems to promote planning and decision-making.** | a. Implement an enterprise data warehouse that provides access to a broad set of integrated, authoritative information.  
   • Implement a production environment for the data warehouse.  
   • Broaden information included in the data warehouse to 3 new “decision domains” and extend its use beyond pilot users.  
   b. Improve accessibility, integration, breadth and quality of broader web review.  
   • Completed definition of common security requirements for applications.  
   • Upgraded vulnerability scanning capabilities in support of PCI/DSS review.  
   c. **In progress:**  
      • In collaboration with Human Resources work is in progress on improvements to guidelines surrounding account eligibility and management. This will include updates to email and accounts guidelines targeted for end of 2010-2011.  
   d. **Not complete:** The need for a single “official” email address remains and will be carried forward.  
   e. **Partially complete:**  
      • The review and update are planned for the final quarter of 2010-2011 through use of an external consultant.  
      • The implementation of a resilient border has been delayed and is planned as part of a broader upgrade of the University’s GTAnet connection.  
      • Internet access resilience has been improved through addition of a secondary Internet provider.  
      • The implementation of recoverability for “category 1” services is ongoing – key accomplishments include implementation of redundant data storage and email service in the secondary data centre. |
|---|---|---|---|
| a. **Partially complete:**  
   • Production environment complete  
   • By May 2011 the “Admissions Domain” work will be complete including roll out of data warehouse access to over 60 community users.  
   b. **Not complete:**  
   • The development of the reporting strategy will be carried forward to 2011-2012 |
available operational information reports (e.g. eReports, SIS reports):
• Develop a “reporting strategy” to address demand for self-serve access to information and clarity on technology direction.

4. Ensure the effective and efficient operation of UIT.
   a. Have measures in place to ensure appropriate and effective controls (e.g. for asset management) and compliance with University policy and external (e.g. license) agreements.
   • Perform a needs analysis for an inventory/asset management solution for IT equipment

| Priority #2 - Support the Teaching Learning and Research Priorities of the University |
|-------------------------------|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| **Objective**                 | **Actions/Strategies**                       | **Evaluation of Progress**                                                                                                                                                                                                                                                                                                                                 |
| a. Provide ICT advice and services that support research innovation and strong and effective research programs. | a. Act as researchers’ “gateway” to IT services providing consulting services to researchers to identify the IT systems/services to best suit their needs including: advising on external grant submissions, facilitate sourcing and advise on eligibility of IT costs with granting agency guidelines:  
  • Publish and promote a custom service catalogue for researchers;  
  • Provide consultation and support through external grant preparation.  
  • Support implementation of research facilities and major projects: Sherman; FMRI; Jenkins wireless research project.  
  b. Implement applications and services that further the researchers’ access to information regarding research opportunities and collaboration possibilities:  
  • Enhance the functionality of and extend the use of the faculty research profile application.  
  c. Continue to evolve our technical service “portfolio” to provide agile, cost effective information, communications and technology services to advance research capacity and success:  
  • Complete an “end-to-end” process analysis of | a. Complete:  
  • The service catalogue for researchers is available as part of the computing web site.  
  • Consultation provided for tri-council grant submissions.  
  • In August 2010, UIT facilitated a smooth transition of research labs moving into the Sherman Health Sciences Building.  
  • To support the FMRI Centre, UIT configured a secure network for the scanner that stores and processes patient information. In addition, UIT provisioned and configured a large data server in UIT’s machine room for the FMRI centre to store patient data files and MRI scans.  
  b. Complete:  
  • Faculty profile application was enhanced and in use by the Faculty of Health and Faculty of Environmental Studies.  
  c. Complete:  
  • During the summer of 2010, UIT led a detailed review of the grants management process that included the Office of Research Services, Office of Research Ethics and Research
| d. Provide faculty with effective and easy-to-use access to resources for research collaboration and communication including dissemination of research results – knowledge mobilization | a. Provide a suite of collaborative tools (online meetings, web-based collaboration) suitable for use by groups within York and beyond.  
• Increase adoption of "O3" collaboration environment.  
• Work with ORANO/partners on specification of enhancements to the platform. | a. Complete:  
• During the past year, UIT worked with ORION to enhance the collaboration features of O3 collaboration tool and continues to promote the collaboration platform to the research community. |
|---|---|---|
| e. Support innovation in and enhancement of teaching and learning through the use of information technology. | a. Support the innovative design, implementation and renovation of classrooms and instructional spaces.  
• Support classroom design and planning associated with new facilities (Osgoode, Glendon, Life Sciences).  
b. Complete plan for classroom technology equipment upgrades to ensure all teaching spaces meet a minimum but highly functional standard.  
• Review feasibility of enhanced service and reduced classroom deliveries via permanent equipment installation in up to 50 rooms in Ross, Vanier and Founders.  
c. Maintain and expand software and services that support teaching and provide training and other support to faculty members and others to allow effective use of these tools.  
• Complete requirement analysis for an instructor portal.  
• Perform an upgrade of our Moodle LMS to add functionality and do a review of future need and impact of a move to Moodle 2.0. | a. Ongoing:  
• Planning and design support have continued leading to facility implementation in 2011-2012 in the case of Life Sciences and Glendon. In January 11 high-tech classroom were installed in Osgoode.  
b. Complete:  
• The rooms in Ross, and Vanier were not upgraded due to resource constraints. The Founders classrooms received modest upgrades.  
• Numerous existing classrooms had equipment (projectors, computer, touch panels etc.) renewed.  
• UIT also planned and installed equipment in numerous Faculty and departmental classrooms and meeting rooms.  
c. Partially complete:  
• Instructor portal requirements were completed and will be brought into the broader faculty/staff portal requirements discussion. |
- Develop an interface between the Moodle gradebook and SIS to allow for the upload of grades directly from Moodle to SIS.
- Accelerate conversions of WebCT to Moodle through focused training and support.
- Complete the current eLearning pilot work with the Faculty of Health and based on findings support additional/expanded pilot work.
- Implement a “self serve” central “wiki” service.
- Complete testing of question authoring for the online course evaluation application (ONCE) and implement for Fall 2010.
- Support planning as required arising from “white paper” process (e.g. impact of experiential learning, eLearning growth, use ePortfolios).

- Moodle was upgraded to version 1.9.8 and additional patches done for scale, security and stability; the review of version 2.0 is in progress and in pilot.
- The Moodle/SIS gradebook integration has been postponed pending discussions with the registrar’s office.
- Migrations have continued and analysis done to plan to work closely with faculty to accomplish a migration over a two year period.
- The web enhanced learning pilot with the Faculty of Health was completed in spring 2010. The initiative was expanded to 40 courses and a pilot begun on blended learning.
- The wiki service is expected to be in pilot by April 2010.
- The changes to online course evaluations have been completed as planned.
- UIT has been active in planning activities arising from the white paper including support for the development of a number of proposals for the Academic Innovation Fund.

### Priority #3 - Contribute to Positive Student Experience

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<th>Objective</th>
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| 1. Provide reliable, responsive and transparent support for student learning with particular attention to the needs of mobile, | a. Support the enhanced experience of mobile, web-oriented students by making more institutional and learning resources and services available online and accessible from mobile devices.  
  - Add ad-hoc notifications (e.g. class cancellations) capability to the student portal.  
  - Complete mobile access to selected contents and tools in the student portal  
  - Develop a strategy to expand “lecture capture” capability and media distribution (dependent of “white paper” directions).  
 b. Provide students with “anytime/anywhere” access to general and specialized applications to support their academic work:  
  - Renew the computers in the William Small Centre computer lab to provide access to up-to-date equipment for students. | a. Partially complete:  
  - The notifications feature has not been implemented.  
  - Selected elements of the portal will be available for mobile platforms by April 2011.  
  - Lecture capture capabilities were expanded to support the Faculty of Health initiative.  
 b. Partially complete:  
  - Renewal of the WSC computer labs was postponed. The WSC space was renovated to provide improved collaboration space and facilities for student laptops.  
  - The remote access (WebACADLABS) service |
### 2. Use IT to make interaction with the University (tools, content, staff, services) easier for prospective students, current students, and alumni

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<tr>
<th>a.</th>
<th>Continually use web-based tools and services to ease student access to University information and services:</th>
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<td>• Implement enhancements to the current student portal including: ad-hoc notifications; YU Card balance; club support; software distribution; student awards; graduation; important dates.</td>
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<td>• Move to production use of prospective student portal and CRM for fall 2010 recruitment cycle.</td>
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<td>• Enhanced student services provided via SIS, including:</td>
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<td>o Further roll-out of degree progress report;</td>
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<td></td>
<td>o “My programs” process (change of major).</td>
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<td></td>
<td>o Student upload of documents.</td>
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<td></td>
<td>o Course space availability alert.</td>
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<td>b.</td>
<td>Improve the continuity of students’ experience in transitioning to Alumni</td>
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<td></td>
<td>• With the Alumni Office, review the continuity of students’ experience in transitioning to Alumni particularly in the area of accounts management and access to services.</td>
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#### a. Partially complete:

- Student portal enhancements: a portion of the portal features identified were implemented.
- The prospective student portal and CRM were successfully launched in support of the recruitment for fall 2011.
- SIS enhancements –
  - Competed roll-out of the degree progress report;
  - Completed the development and implementation of the “My Programs” applications;
  - Student upload of documents delayed pending process change;
  - Course space feature requirement cancelled.

#### b. Improving communication with graduating students regarding email account inactivation. Working on a cohesive, consistent communication plan for UIT and Alumni. Working on simplifying the process of reactivating Passport York password.

### commuter students.

- Identify opportunities for easier access to student files/data resulting from migration to active directory.
- Enhance the capability of the software distribution service to handle downloadable software and clickers purchase.
- Remove barriers to on-line access by extending and enhancing wireless network access on campus
  - Enhance access via wireless expansion/upgrades – Scott Library; Student Centre feasibility; Bennett Centre improvements;
  - Study the feasibility of implementing wireless service undergraduate residences and depending upon the findings do initial implementations.

was migrated to WebFAS in line with the deployment of active directory. This migration also provided improved capacity, usability and feature set for students.

- Clicker (used) purchase was added to the online site; downloadable software feature not yet available.

#### c. Partially complete:

- Wireless upgrades/expansions were completed in Scott Library in conjunction with the development of the Learning Commons. Additional upgrades were done in Curtis and Central Square. The other noted areas were not completed.
- Initial planning discussions have been held with Housing and alternative directions explored. Final plan development will be carried forward.

#### a. Partially complete:

- Student portal enhancements: a portion of the portal features identified were implemented.
- The prospective student portal and CRM were successfully launched in support of the recruitment for fall 2011.
- SIS enhancements –
  - Competed roll-out of the degree progress report;
  - Completed the development and implementation of the “My Programs” applications;
  - Student upload of documents delayed pending process change;
  - Course space feature requirement cancelled.

#### b. Improving communication with graduating students regarding email account inactivation. Working on a cohesive, consistent communication plan for UIT and Alumni. Working on simplifying the process of reactivating Passport York password.
**Priority #4 - Establish infrastructure, systems, training, and supports to ensure the effective operation of the University.**

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| 1. Provide seamless, effective, transparent and responsive IT services and support to students, faculty and staff. | a. Implement a common service desk system based on ITIL framework that supports common processes, service measurement, and integration of service delivery.  
   • Complete implementation of incident and change process in the service desk.  
   b. Communicate on a regular basis to the York Community on how to access UIT services and notify of emergencies, outages and planned changes, all in non-technical language to ensure their understanding.  
   • Improve processes to provide better notification to the community of system changes and associated service impact.  
   c. Work to continually improve technical management practices for greater efficiency and effectiveness:  
   • Deploy remote desktop management tools to improve service responsiveness. | a. Complete:  
• The Remedy service desk has been implemented in support of the incident and change management process.  
b. Complete:  
• Improved processes have been introduced for the creation and dissemination of notices.  
c. Not Complete:  
• The implementation of tools to enable remote support will continue into 2010-2011 in conjunction with the FAS deployment. |
| 2. Improve operational effectiveness and make York easy to work with and within by taking an organization wide, process oriented approach to the way work is done supported by innovative and effective IT solutions. | a. Enhance business process through business process review and identification of opportunities for improvement and the potential to leverage the University's existing ERP systems beyond central functional units.  
   • Define requirements for and implement the next phase of development for the Academic Resource Management System (ARMS): further the integration or ARMS with enterprise systems and data.  
   • Implementation of Time and Labour/Attendance Management throughout the University.  
   • Implementation and integration of York eMarketplace hosted by OEMC.  
   b. Maintain and enhance enterprise applications across the whole range of activity of the university including eReports and all business, academic and unit-specific systems (NOTE: final priorities for 2010-2011 will be finalized through engagement, through the beginning of 2010-2011, with relevant stakeholder groups). Among the potential initiatives.  
   • Develop requirements and plans for migration | a. Complete/In progress:  
• Next stage requirements for ARM have been developed, including completion of an RFP to continue development; creation of institutional governance for the initiative.  
• The time and labour project has successfully met multiple milestones for the year and continues to move towards the target of November 2011 for launch.  
• A chance in the scope of OEMC has changed the direction of the University's efforts in IT enablement of procurement, which are now in the investigation stage.  
b. Partially complete:  
The wide array of contemplated initiatives was narrowed through dialogue with stakeholders and priorities for action identified, and noted below.  
• Planning for SIS migration has been completed. Investigations are underway for alternatives to STAC (to
Client/server functionality of SIS (PES the priority) and STAC (EAS the priority) to web versions.

- Application and supporting infrastructure upgrades: SIS (web objects, Oracle); eReports (to Actuate 10).
- Redevelopment of an application to support IRP process enablement.
- Enhanced support to facilities management and ancillary services:
  - Application upgrades: parking management system (T2 Flex); bookstore (WinPrism); YUCard (Blackboard).
  - New functionality proposed: parking license plate recognition; bookstore accounts payable process review and integration with PeopleSoft; Avanti eAccess for printing services; course kit (ADP) system integration with bookstore system; procurement of a solution for fleet management; procurement of a solution for space management; “self serve” purchase of furniture via the web; solution for security alarm monitoring;
  - Redesign and implementation of new websites for CSBO.
  - Possible expansion of “emergency messaging” screens.

- Support for improvements in finance:
  - Implementation of HST (legislative requirement).
  - Discovery on alternative approaches to expense reimbursement process improvement (eExpense).
  - Specify and implement changes in eReports to support a multi-year budgeting approach.

- Support for HR processes and management:
  - Upgrade of HR system to v9.1 (in progress).
  - Employee access to their information via relaunch of employee “self serve”.
  - Automation of record of employment (ROE) process.
  - Implement bi-weekly pay frequency for CPM.

Multiple upgrades conclude including a key upgrade to Actuate 11.

An application was developed, in collaboration with the IRP office to support plan development in the next round of planning.

Ancillary services applications:
- Application upgrades: T2 Parking System - Proposed to begin April 2011, was deferred due to PCI Compliance; Bookstore WinPrism - was deferred due to PCI, but is underway and will be completed by March 31, 2011; YUCard Blackboard upgrade - Underway with completion target of July 2011.
- New functionality completed: Procurement of Fleet Management Solution - Procurement complete and installation of initial phase complete, with further deployment planned; Procurement of Space Management Solution - Procurement complete, implementation completed January 2011; Self-service Furniture procurement website - development completed and in pilot stage. Other applications were reprioritized or did not move beyond the investigation stage.
- Expansion of Emergency LCDs – discussion are in progress around systems and process for content management and additional screens (continued to 2011-2012)
- Redesign of web sites is in progress and will continue into 2011-2012.
- Improvements in Finance:
  - Completed required changes for HST
  - Automation of the expense reimbursement process is still in the investigation/discussion phase.
  - Planning and requirements developments for eReports changes for multi-year budget is in progress. The work will be carried forward to 2011-2012.
  - TravelEx - online incoming international student payments – complete
  - US Bank Purchasing Card Program - re-
| 3. Identify strategic opportunities for use of "cloud"/external services. | a. Define policies and guidelines framework to guide the appropriate sourcing and use of external services. | a. **Complete:**
- A set of guidelines and procedures to assist with the procurement and use of external services will be completed in 2010-2011 for implementation in 2011-2012. |
| 4. Provide a... | a. Provide formal framework for ongoing professional... | a. **In Progress** – An initial management development... |
| 5. Establish and maintain a reliable, secure and sustainable technology infrastructure to support the operation of University information systems. | a. Develop a long-range infrastructure sustainability and management roadmap that will define future investments, decision points and alternatives for funding support.  
   b. Design, implement and support the University’s core IT infrastructure and adapt it to changing and emergent needs:  
      • Renew data backup services and supporting infrastructure – review, design, procure and implement.  
      • Review network security current state to ensure that it supports requirements for PCI compliance.  
      • Complete renewal of wireless authentication infrastructure; support for 802.1x and Eduroam.  
      • Investigation of alternatives to WAN resiliency for Glendon (VOIP preparation).  
      • Provide network/telephony planning support for campus building projects: Sherman Life Sciences; Osgoode reconstruction; Life Sciences building; Glendon expansion.  
      • Identify alternative approaches to support and respond to pressures on power consumption in the Steacie data centre.  
      • Transition to new file/print and directory service infrastructure.  
      • Planning for and begin roll out of Windows 7 and Office 2010.  
   c. Adopt a fault-tolerant and resilient operational environment for the ICT infrastructure.  
      • Procure and implement an integrated system monitoring (servers and network). Replace current mixed vendor environment. | a. In progress:  
   • The development of the sustainability plan/roadmap for infrastructure has begun and is expected to be complete by May 2011.  
   b. Partially complete:  
      • Review of backup services is in progress to lead to an RFP in mid-2011. To be continued into 2011-2012.  
      • The network review was completed as part of the broader work related to PCI/DSS.  
      • The wireless authentication infrastructure renewal is in progress and support for Eduroam is planned to be complete by May 2011.  
      • No progress has been made on planning for resilient connectivity to the Glendon campus – to be carried forward.  
      • Planning and support for building projects is in progress leading to move in through 2011 and 2012.  
      • Power consumption in the data centre is actively monitored and managed. The primary activity to manage down power consumption is the aggressive virtualization of UIT managed server environments.  
      • The migration to active directory has been progressing with targeted completion by summer 2011.  
      • Planning for the windows/office upgrades is in progress with staged roll out planned to begin in summer 2011.  
   c. Partially Complete:  
      • A decision was made to improve monitoring through upgrade and extended use of the existing Nagios program “curriculum” has been prepared in collaboration with HR Learning and Development. It will be implemented as part of the UIT PMP process in 2011-2012 |
6. Enable a collaborative, integrated workplace through the implementation of a platform for organizational communications, collaboration and information sharing.

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<td></td>
<td>• Define requirements and costs of a resilient database architecture.</td>
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<td>tool. This upgrade is in progress.</td>
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</table>

|   | a. Develop a roadmap for convergence from our current multi-vendor, multiple technology environments toward an integrated, unified communication/collaboration model. |
|   | b. Adopt an integrated enterprise shared workspace platform. |
|   |   • Investigate options for implementing a web-based collaboration environment/shared drive replacement (e.g. production SharePoint service). |
|   |   • Complete upgrade to Lotus Notes V8.5; Sametime upgrade. |
|   | c. Implement and support enhanced telecommunications services, including deployment of voice-over-IP technology to extend capacity and flexibility of core communication and collaboration services. |
|   |   • Initial VOIP implementation. |

|   | a. In progress: |
|   |   • The development of the unified communication business case and roadmap are in progress to be complete by mid-2011. |
|   | b. Complete: |
|   |   • The institutional implementation of active directory services will lead to the complementary implementation of SharePoint in 2011-2012. |
|   |   • The upgrade to Notes V8.5 has been completed. |
|   | c. Complete: |
|   |   • The Markham convergence centre was provided with a pilot implementation of a VOIP solution. |
PART B – Action Plan

Introduction

The initiatives described in the plan below draw on consultations with UIT’s stakeholders across the University. The plan represents a set of proposed initiatives that remain, in many cases, subject to one or both of further prioritization work/consultation and to final review within the budget process. In addition a number of significant University initiatives/planning exercises (PRASE, AIF, UAP) are currently underway that will have a significant impact on which initiatives are actually pursued.

The computing plan continues to draw heavily on directions and implementation priorities articulated in the 2009 IT Strategy. Initiatives are planned across all of the areas of IT support and enablement within the University driven by the themes of the IT Strategy:

- Continued support for research primarily through ensuring alignment of large projects with appropriate University IT and the clear definition and delivery of common services;
- Continuing to build the “platforms” to support the expansion of eLearning;
- Moving more student service and access to learning materials online, particularly to suit the mobile nature of our students;
- Priority support for initiatives that can contribute to operational efficiency;
- Addressing evident “gaps” in or I.T. capability including service delivery improvement and a robust, secure and sustainable I.T. infrastructure.

Through the year the plan outlined below will be adjusted to consider the impact of further priority setting discussions with a number of groups and most significantly by changes following on completion of the planning processes noted above.

Finally, the computing plan for 2011-2012 represents the operationalization of UIT’s three year IRP and as such initiatives have been set out in association with the IRP Priorities, Objectives and Actions.

Priority 1: Contribute to a Positive Student Experience and to the Teaching, Learning, and Research Function of the University

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<td>1. Provide ICT advice and services that support research innovation and strong and</td>
<td>1. Act as researchers’ “gateway” to IT services providing consulting services to researchers to identify the IT systems/services to best suit their needs including: advising on external grant submissions, facilitate sourcing and advise on eligibility of IT costs with granting agency guidelines.</td>
<td>#2 – In order to improve ongoing support of ORUs UIT will work with other IT units to clarify support services, processes and roles.</td>
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<td>2. Continue to evolve our technical service “portfolio” to</td>
<td>#3 – The work that has done to date on a faculty portal will be incorporated into a proposed broader initiative around the development of a portal/intranet for faculty and staff (related to PRASE discussions).</td>
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1. Provide a suite of collaborative tools (online meetings, web-based collaboration) suitable for use by groups within York and beyond.
2. Work with faculty and researchers to create web sites and applications that support communications and collaboration initiatives in the VPRI, Faculties, research units, and specific research projects.

#1 – In support of research collaboration:
- Continue to work with VPRI to extend use of O3 collaboration service from ORION

# 2 – In support of overall process and communications improvements:
- Build on the process analysis work that has been completed, to support the VPRI and research services in evaluation of options for a system to enable research processes (dependent on PRASE recommendations/priorities).
- Implement video conferencing and VOIP service in the Markham Convergence Centre.

3. Support the innovative design, implementation and renovation of classrooms and instructional spaces. Complete plan for classroom technology equipment upgrades to ensure all teaching spaces meet a minimum but highly functional standard. Support the use of classroom technology with training and

#1 - UIT will continue to support the design of instructional spaces and the subsequent equipping and move-in for the renovated Osgoode, Glendon and new Life Sciences buildings.

#2 - Classroom technology –
UIT’s goals for the support of technology in classrooms are twofold: to
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<th>measures to ensure reliability of the technology</th>
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<td>3.</td>
<td>Maintain and expand software that supports teaching and collaboration including Moodle, blogs, and wikis and provide training and other support to faculty members and others to allow effective use of these tools</td>
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<td>4.</td>
<td>Improve the effectiveness of instruction and research dissemination through the production of multi-media content and easily accessible training and personal consultation on how to do this.</td>
</tr>
<tr>
<td>5.</td>
<td>Enhance networks and computing infrastructure to keep pace with changing learning technologies to ensure excellence in on-line and distance learning experiences.</td>
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<tr>
<td></td>
<td>continue to expand the number of rooms that include common technology; and to enhance the ongoing support of existing rooms through upgrades and improved management.</td>
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<tr>
<td></td>
<td>- Expand technology into additional classrooms, depending upon available resources. Potential rooms include –</td>
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<tr>
<td></td>
<td>o Vari Hall (10 rooms)</td>
</tr>
<tr>
<td></td>
<td>o Founders (16 rooms)</td>
</tr>
<tr>
<td></td>
<td>o Vanier (10 rooms)</td>
</tr>
<tr>
<td></td>
<td>o Ross (34 rooms)</td>
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<tr>
<td></td>
<td>o HNES (9 rooms)</td>
</tr>
<tr>
<td></td>
<td>o Petrie (2 rooms)</td>
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<tr>
<td></td>
<td>- Renewal/upgrade of equipment in approximately 100 rooms</td>
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<tr>
<td></td>
<td>- Implement capability to provide remote assistance into equipped rooms - at minimum on a pilot basis.</td>
</tr>
</tbody>
</table>

#3 - Support teaching and collaboration –

UIT’s focus for the coming year will be to further the adoption of Moodle as the University’s standard learning management system. This will be done through:

- Evaluate potential benefits of Moodle 2.0 upgrade.
- Support the next phase of eLearning development within the Faculty of Health – the expanded use of Moodle and extending support to blended and online learning.
- Continue to support faculty in the migration from WebCT to Moodle with an aim of substantially completing the migration within the next 2 years.

UIT also expects to provide support for a number of initiatives arising from the Academic Innovation Fund (AIF) process.

#4, #5 – In order to enhance the support for the use of multi-media in teaching UIT will:

- Engage in an upgrade of the University’s “Mediasite” application.
- Further support of synchronous online engagement through a review of the Adobe Connect service and upgrade software and hardware as appropriate.
- In concert with classroom upgrades enable all large classroom to
| 4. Provide services and supports that are broadly accessible by students in support of their learning needs with particular attention to the needs of mobile, commuter students. | 1. Support the enhanced experience of mobile, web-oriented students by making more institutional and learning resources and services available online and accessible from mobile devices.  
2. Enrich the student experience by promoting the availability and accessibility to classroom technologies.  
3. Deliver access to computing lab applications and other specialized applications “anytime/anywhere” from computing labs using University owned equipment and also utilize virtualization technology to allow similar access from student-owned computers and mobile devices.  
4. Remove barriers to on-line access by extending and enhancing wireless network access on campus.  
5. Provide students with a broad set of up to date tools to support their learning (e.g. access to specialized software, discounted software, training supports). | #1 – Online and mobile services for students –  
- Integration of new services into the student portal (YU Connect; SIS functionality; 1st year experience initiatives, awards portlet).  
- Extend the functionality of the version of the student portal for mobile devices in line with the strategy for mobile device support.  
#3 - UIT will renew hardware in common teaching and drop-in computers labs including:  
- William Small Centre  
- Accolade labs  
- Alternate exam centres (with support from the division of students)  
Alternatives to improve lab services will also be investigated including: the use of “thin clients”, adapting more space to laptop use and demand for online testing.  
#4 – The AirYork wireless service will continue to be enhanced through equipment renewal and upgrades to manage demand –  
- Upgrade of wireless infrastructure in TEL and SSB (carried forward).  
- Collaborate with building management on enhancement of wireless service in the student centre.  
- Finalize the approach for wireless service in undergraduate residences and depending upon the findings do initial implementations. (carried forward)  
#5 - As part of the computing site redesign improves availability and ease of access to software for students. |
| 5. Use IT to make | 1. Maintain and enhance (a) usability and | #1 – In addition to the enhancements planned for the current student |
interaction with the University (tools, content, staff, services) easier for prospective students, current students, and alumni

- Responsiveness across all high-impact and high-usage applications and (b) functionality in these particular application areas:
  - a. The prospective and current student portals, including integration of the vast majority of tools/services
  - b. Applications and content accessible from mobile devices, including portals
  - c. YU card and other e-commerce options
  - d. Online student services generally, including the Student Information System

2. Improve the continuity of students’ experience in transitioning to Alumni, including both an alumni portal and with respect to identity management.

- portal, there will be a number of initiatives continuing to migrate more services online:
  - Refine MyFile portlets for prospective students portal
  - Addition of graduate student information and service into the prospective student portal.
  - Extending the “My Program” application.
  - Migrate exiting admissions forms online.

Priority 2: Provide Effective Planning and Responsible Management of University Resources

<table>
<thead>
<tr>
<th>Objective</th>
<th>Actions/Strategies</th>
<th>Initiatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ensure ongoing alignment of information technology resources with the University’s strategic and academic priorities</td>
<td>1. Maintain an IT Strategic Plan 2. Work with University leadership to establish clear, well-functioning IT Governance processes and structures. 3. Support IT Governance through: a. Developing and implementing processes and structures governing formal review, approval, and prioritization of IT projects and providing on-going oversight of approved IT initiatives. b. Development of information on IT investments including services and projects University-wide. c. Implementation of a metrics program to track</td>
<td>#1 - The IT Strategy, finalized in January 2009, will be reviewed and “refreshed” as necessary to reflect the impact of Provostial white paper priorities, the coming University Academic Plan and recommendations from the PRASE initiative. #2 - Further the function/maturity of IT Governance - • Review IT council role/mandate (formalize its place and accountability); • Continue to evolve the advisory/decision-making structures and processes for academic technology and administrative systems. #3 – Additional supports that will be implemented to support</td>
</tr>
</tbody>
</table>
| 2. Improve operational effectiveness and make York easy to work with and within by taking an organizational-wide, process-oriented approach to the way work is done supported by innovative and effective IT solutions | 1. Enhance business process through business process review and identification of opportunities for improvement and the potential to leverage the University's existing ERP systems beyond central functional units.  
2. Maintain enterprise computing software applications [administrative, academic, student] across the whole range of activity of the university including eReports and all business, academic and unit-specific systems.  
3. Develop and support client-specific computing software applications across academic and business units.  
4. Improve operational efficiency (both technical and business process) and improve data quality by extending integration between key systems and data.  
5. Relieve the administrative burden of manual, paper-based processes by pursuing a broad-based, enterprise approach to the use of document management and workflow technologies.  
6. Increase ease of access to diverse applications and web-based services through the implementation of unified login/authentication capability for staff and faculty.  
7. Improve return from existing and future IT investments through attention to usability and communications and decision-making will include:  
   - Development of an analysis for executives of institutional spend on IT and IT service delivery.  
   - Further the use and reporting of IT performance indicators, beginning with measures arising from the implementation of incident and change processes.  
   - Complete the implementation of the UIT project portfolio with appropriate visibility to York community and where possible extend the portfolio view to include other IT unit initiatives. | #1, #2, #3 The objectives related to the enablement of administrative processes will be significantly influenced by recommendations arising from the PRASE initiative and by the need to achieve compliance requirements (particularly for PCI/DSS). The initiatives outlined below do not fully reflect these influences.  

**Administrative General**  
- Work in partnership with other groups within the University to understand potential and requirements of a secure web “intranet” or “portal” for faculty and staff.  
- If appropriate pursue the development of a central “eCommerce Payment Gateway”.  
- Extend the functionality of the application to support the IRP process.  
- Working with other IT units execute on a widespread upgrade to Windows 7 and Office 2010 (carried forward).  
- Collaborate with other units (communications, IT groups) on potential benefit and requirements for a web content management platform.  
- Improve support for web sites through improved service/support for web analytics.  
- Further development for the Academic Resource Management System (ARM); further the integration or ARM with enterprise systems and data.  
- Upgrade of the Sports and Recreation “Class” system (compliance support) |
8. Improve agility and efficiency through the simplification of our IT environment, increasing standardization and integration via the definition of architectures for data and applications.

<table>
<thead>
<tr>
<th>Human Resource Management -</th>
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<tbody>
<tr>
<td>UIT will be working with Human Resources to support improvements in H.R. service delivery and processes, including:</td>
</tr>
<tr>
<td>• Complete the implementation of the Time and Labour/Absence Management system.</td>
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<tr>
<td>• Implementation of an application for online ETFs.</td>
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<tr>
<td>• Implementation of the UPK (User Productivity Kit) On-line training tool for PeopleSoft Time and Labour.</td>
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<tr>
<td>• Implementation of a Moodle environment for use in staff training.</td>
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<tr>
<td>• Complete the implementation of “Disability Claims Management” to enable online submission of claims – with PeopleSoft HR integration</td>
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<tr>
<td>• PeopleSoft Manager Self-Service to enable on-line updates to employee data – Implementation</td>
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<tr>
<td>• PeopleSoft eProfile - Employee Self-Service – Relaunch with additional functionality</td>
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<tr>
<td>• Improve or replace the CUPE hiring application.</td>
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</tbody>
</table>

Additional potential H.R. initiatives:
• PeopleSoft eRecruit – functionality enables distributed hiring process including job posting, interview scheduling to job offer – Discovery
• PeopleSoft eDevelopment – facilitates professional development of employees including employee training management and delivery, skills and competency management, and career and succession planning – Discovery
• Enable on-line submission of YUSA2 employment information

<table>
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<tr>
<th>Finance and Procurement –</th>
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<tr>
<td>Among the opportunities identified for support of Finance related services (priorities again highly dependent on PRASE recommendations):</td>
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<tr>
<td>• PeopleSoft eExpense - end to end travel expense solution that streamlines, automates travel spend management and establishes policy-driven controls for expense reimbursement - Implementation</td>
</tr>
<tr>
<td>• PeopleSoft Distribution of GL/PO functionality – enable end user to use functionality directly</td>
</tr>
<tr>
<td>• Self-Service Signing Authority – Enable Cost Centre owners to maintain signing authority for their cost centres - Implementation</td>
</tr>
<tr>
<td>University Advancement</td>
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<td>------------------------</td>
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<tr>
<td>A primary area of focus will be providing IT support for the creation of the new Advancement Division creation/transition – multiple system impacts (eReports, Finance, HR, Advance) resulting from creation of new Division.</td>
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<tr>
<td>A number of additional initiatives are also expected to be carried forward from 2010-2011:</td>
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<td>• Upgrades to SmartCall new version.</td>
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<tr>
<td>• Upgrade of the Sungard Advance System (new version and to meet compliance requirements).</td>
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<tr>
<td>• Implementation of a system to support online donations and e-receipts</td>
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<tr>
<th>Campus Services and Business Operations</th>
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<tr>
<td>UIT supports a wide range of applications that support the various activities of Campus Services and Business Operations. Many of these applications have an e-Commerce element and will be affected by the</td>
</tr>
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</table>
compliance requirements. Among the priority areas that have been identified for 2011-2012:

- Maximo Phase II - Maximo/Pcard integration – automation of transfer of PCard data to Maximo system to facilitation reconciliation and Maximo Self-Service – enables end-user submission of service/maintenance requests
- Upgrades to several systems:
  - Metasys Environment System – enables remote temperature controls to buildings
  - YUCard System Upgrade – (PCI Compliance)
  - Avanti new version for Printing Services – enables on-line submission of print requests
  - T2 Parking Administration System – (PCI Compliance)
  - Energy Management Ion System – Upgrade – Discovery and Business Case Development
- Enhance emergency notifications through the implementation of Alertus Software.
- TrafPark (Parking Gate) system replacement – PCI Compliance and existing system unsupported by vendor
- Bookstore Digital Display – addition of an emergency LCD panel with local content management capability to promote Bookstore products and services – Procurement and implementation
- Distribute web access to the VisionFM space management system.

#5 - Document management:
- Complete business case justification; define requirements; selection process for a document management platform for use in business process enablement across multiple functions.

#6 – Ease of access –
- Leverage AD investments to simplify authentication environment.
- Identification of a commercial alternative to support IdM services.
- Ease password management through implementation of self-serve.

| 3. Identify strategic opportunities for use of | 1. Monitor the solutions marketplace on an ongoing basis to identify emerging opportunities for alternative sourcing. | #1 - Alternate sourcing –
| | | Complete review of alternatives for provision of student email and web collaboration. Act on recommendation for September 2011. |
| Alternative sourcing opportunities to maximize resources | 2. Define policies and guidelines to guide the appropriate sourcing and use of external services. | #2 - Alternate sourcing –
• Gain approval for and communication of new guidelines on contracting for external services. |

| 4. Manage risk to the confidentiality, integrity, and availability of University data, applications, information, and communication systems. | 1. Manage the health and sustainability of the University's software applications and making recommendations for improvement and retirement, facilitated by establishing an application portfolio management discipline. | #1 – Application portfolio –
• Update the current UIT application portfolio and extend the portfolio and analysis to include other University IT groups. |

| 4. Manage risk to the confidentiality, integrity, and availability of University data, applications, information, and communication systems. | 2. Manage and monitor access to University data such as student, financial, and HR information, driven by comprehensive data classification and identity management disciplines. | #3 – Transition PCI DSS compliance efforts from start-up phase to ongoing program, including revision of e-commerce policy, governance framework, and distribution of duties to ensure ongoing compliance. |

| 4. Manage risk to the confidentiality, integrity, and availability of University data, applications, information, and communication systems. | 3. Implement systems with capabilities required for support of legislative and regulatory compliance, including privacy protection, security and industry information regulation. | #4 – Review approach and market for endpoint security and anti-virus, investigate potential new solutions. |

| 4. Manage risk to the confidentiality, integrity, and availability of University data, applications, information, and communication systems. | 4. Continually improve the security of York’s information and communication systems through an information security program that includes monitoring, detection, and timely response for security incidents, regular testing for security vulnerabilities, consultation for secure system design and operation, promotion and awareness of security best practices within the University community. | Creation of new system and network zones to enhance security, in conjunction with data classification effort, and PCI DSS compliance program. |

| 4. Manage risk to the confidentiality, integrity, and availability of University data, applications, information, and communication systems. | 5. Manage availability risk by evolving ICT capacity plans and disaster recovery plans to the changing requirements and priorities of the University. | Upgrade and enhance the capabilities of the internal security systems such as log analysis, intrusion prevention & detection, in conjunction with upgrades to the network border and creation of internal network security zones, including those used for PCI DSS compliance. |

Priority 3: Establish infrastructure, systems, training, and supports to ensure the effective operation of the University.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Actions/Strategies</th>
<th>Initiatives</th>
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22
| 1. Provide IT services and support to students, faculty and staff in a manner that is seamless, effective, transparent and responsive | 1. Enhance the user experience by providing an enterprise wide single central IT point of contact for services and support to the York Community including a self-service tool that will enable users to request, track and review the progress of their IT issues. | #2 - Extend the adoption of ITSM and implementation of Remedy –
- Broader use of change management process
- Implement service request process and supporting Remedy module
- Enable enhanced reporting
- Plan for implementation of CMDB to support change
#3 – Complete a redevelopment of the computing web site for both students and faculty/staff.
- Include extension of service catalogue
- Improved integration with non-UIT services.
#5 – Service agreements –
- Improve clarity on technical services and associated pricing through creation of a technical service catalogue.
#6 – Improved technical management practices –
- Introduce remote desktop management to improve service responsiveness.
- Work with other IT units and Finance on an integrated approach to asset management.
- Pursue a University wide approach to improvements in desktop/laptop management across the lifecycle. |
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<tbody>
<tr>
<td>2. Provide integrated systems, data, and records</td>
<td>2. Implement a common service desk system based on ITIL framework that supports common processes, service measurement, and integration of service delivery.</td>
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</table>

| #1 and #3 – 2011-2012 will bring the implementation of IP based telephone service on an incremental basis |
| 3. Develop and maintain an IT service catalogue, to provide clear definition and eligibility of services to students, faculty and staff. | 3. Communicate on a regular basis to the York Community on how to access UIT services and notify of emergencies, outages and planned changes, all in non-technical language to ensure their understanding. | 

| #2 - Extend the adoption of ITSM and implementation of Remedy –
- Broader use of change management process
- Implement service request process and supporting Remedy module
- Enable enhanced reporting
- Plan for implementation of CMDB to support change |
| 4. Communicate on a regular basis to the York Community on how to access UIT services and notify of emergencies, outages and planned changes, all in non-technical language to ensure their understanding. | 5. Administer service agreements to all clients across campus ensuring that they are in place, up to date, and that the level of service agreed to is being provided. | 

| #2 - Extend the adoption of ITSM and implementation of Remedy –
- Broader use of change management process
- Implement service request process and supporting Remedy module
- Enable enhanced reporting
- Plan for implementation of CMDB to support change |
| 6. Provide continued improvement of technical management practices including system monitoring, desktop maintenance, application licensing, product or service acquisition process, consultation, installation, replenishment of hardware, software and system configuration. | 6. Develop policies, standards, and processes to enable the achievement of enhanced service delivery. | 

| #2 - Extend the adoption of ITSM and implementation of Remedy –
- Broader use of change management process
- Implement service request process and supporting Remedy module
- Enable enhanced reporting
- Plan for implementation of CMDB to support change |
| 7. Develop policies, standards, and processes to enable the achievement of enhanced service delivery. | #5 – Service agreements –
- Improve clarity on technical services and associated pricing through creation of a technical service catalogue. |

| #2 - Extend the adoption of ITSM and implementation of Remedy –
- Broader use of change management process
- Implement service request process and supporting Remedy module
- Enable enhanced reporting
- Plan for implementation of CMDB to support change |

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2. Provide integrated systems, data, and records

1. Develop a roadmap for convergence from our current multi-vendor, multiple technology environment toward an integrated, unified
<p>| 1. Provide formal framework for ongoing professional development and training for all staff; monitor effectiveness, identify trends and adjust to meet needs of the organization |
| 2. Create customer centric culture to improve client experience with IT by developing skills beyond the IT functional area by providing training in customer service, process analysis and project management. |
| 3. Continue to build a safe, positive, healthy, collegial, campus environment |
| 4. Establish and maintain a reliable, secure and sustainable technology infrastructure to support the operation of |
| necessary to support proactive communication, collaboration, and evidence-based planning and decision-making |
| communication/collaboration model. |
| 2. Adopt an integrated enterprise shared workspace platform. |
| 3. Implement and support enhanced telecommunications services, including deployment of voice-over-IP technology to extend capacity and flexibility of core communication and collaboration services. |
| 4. Unify and extend university directory services to enable enhanced collaboration, flexibility and agility for the IT environment. |
| 5. Implement the enterprise data warehouse and continue to expand access to a broad set of integrated, authoritative information. |
| 6. Continue to improve and integrate operational reporting (e.g. eReports, SIS reports). |
| #2 - Shared workspace platform – Implement a production Sharepoint service and develop associated development capacity. |
| #4 – Complete the migration to the enterprise implementation of Active Directory (known as File Access Service/FAS) |
| #5 and #6 |
| • Complete implementation of the Admissions domain in the data warehouse |
| • Completion of two new domains in the DW |
| • Upgrade of our EDW reporting platform to the most current version. |
| • Define an approach from improved ad-hoc reporting into more enterprise systems. |
| • Data management plan to aid integration and data sharing. |
| • Develop a “reporting strategy” to address demand for self-serve access to information and clarity on technology direction (carried forward) |
| 1. Develop and maintain long-range plans and sustainability framework for key infrastructure elements, including the network, communication systems, servers, data storage, backup, and data centre resources. |
| 2. Develop integrated technical architectures and technology planning to ensure that infrastructure standards are well supported, integrated, flexible and |
| #1 – Implementation of the management development program and actions based on MAP process. |
| #2 – Infrastructure Planning: |
| • Further planning to adopt IPV6 including potential trials. |
| • Revision of infrastructure facilities standards to meet new demands of VOIP. |
| #3 - Design, implement and support the University’s core IT infrastructure: |</p>
<table>
<thead>
<tr>
<th>University information systems.</th>
<th>Design, implement and support the University’s core IT infrastructure and adapt it to changing and emergent needs:</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.</td>
<td>a. Data centres, cable and fibre plant for telecom and network connectivity on campus.</td>
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<td></td>
<td>b. Systems and connectivity for satellite campuses, connectivity with other educational and research networks and institutions, and other external linkage.</td>
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<tr>
<td></td>
<td>c. Data storage and backup systems, servers and other computational resources used by University applications.</td>
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<tr>
<td></td>
<td>d. Databases used by university applications to enable higher-performing applications and higher availability and resiliency.</td>
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<tr>
<td></td>
<td>e. Campus expansion and renovation</td>
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<tr>
<td>5.</td>
<td>Adopt a fault-tolerant and resilient operational environment for the ICT infrastructure.</td>
</tr>
<tr>
<td>6.</td>
<td>Adopt leading University practices for financial and HR planning and management, fostering greater line manager accountability in these areas.</td>
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<tr>
<td>7.</td>
<td>Effective measures in place to ensure appropriate controls (e.g. for asset management) and compliance with University policy and external (e.g. license) agreements.</td>
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<table>
<thead>
<tr>
<th>Servers/storage</th>
<th>Complete the redesign of the backup service and required applications/hardware acquisition;</th>
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<tr>
<td></td>
<td>Continue server consolidation/virtualization initiative – gain flexibility and mitigate platform risks.</td>
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<td></td>
<td>Simplify system environments through increased migrations to Linux, retirement of outdated hardware/operating systems.</td>
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<tr>
<td></td>
<td>Further leverage TEL data centre to provision applications for disaster recovery.</td>
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</tbody>
</table>

**Database management:**
- Lower TCO through consolidation of SQL server environment. 
- Improve database management and efficiency through greater use of tools integrated with central storage environment.

**Network operations** –
- (redundant and/or overly speculative) 
- Improvement of network management tools 
- Expand use of 10GbE at the network distribution layer 
- Plan for WAN resiliency for Glendon campus (carried forward)

**Telecommunications** -
- Upgrade of the core telecom switch and management systems to integrate and support IP-based technology (VOIP). 
- Pilot deployment of Unified communications technology, i.e. integration with software clients, applications, and mobile devices. 
- Approve, finalize and begin multi-year migration/deployment plan to replace legacy telecom infrastructure. 

**Infrastructure operations** –
- Select fibre upgrades to add capacity; 
- Upgrade of select facilities to provide readiness for VOIP. 
- Upgrade of data centre network elements. 
- Upgrade of Glendon data centre to support VOIP and growth.
General –

- Support the “move-in” process for Osgoode and the new Life Sciences building.
- Support planning and appropriate implementation of facilities/services for the proposed SSB India campus.
- Create a more robust MySQL implementation.
- Upgrade PY provisioning system (performance and capability).
- Improve web application hosting infrastructure
- Upgrade supporting infrastructure for the central web service.

#4 – Work with IT council on principles and standards related to IT and environmental sustainability. Identify key opportunities (e.g. local printers).

PART C – Summary of Planned IT Initiatives and Expenditures

Financial support for the initiatives described in this plan will come in the main from the UIT budget (some initiatives are also supported by one time project-based funds). As has been the past practice there is no requirement for support from the Academic Equipment Fund.