Computing Plan 2015-2016

Faculty/Unit: University Information Technology (UIT)
Date: March 2, 2015
Prepared by: Bob Gagne, Jason Gerrity, Peter Rowley, Chris Russel

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 2015-2016 computing plan represents UIT’s annual operational plan – the implementation of its multi-year (2012-2015) integrated resource plan, finalized in June 2012 (and directly informed by the University IT Strategy).

The UIT IRP features five priorities, directly aligned with the University’s strategic priorities:

Priority #1: Support Academic Quality, Research and Teaching
Priority #2: Contribute to student success through the use of information technology in both the learning and student service domains.
Priority #3: Enhance community engagement by raising York’s profile in the I.T. community, supporting communication and reputation building efforts in general and by mitigating risks to the University’s reputation.
Priority #4: Valuing people and strengthening the workplace
Priority #5: Resource Integration and Sustainability

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.

Of 164 initiatives noted in the plan from 2014-15, 67% have been completed (by end of the fiscal year) or are in progress. Completion of initiatives fell slightly from the previous year where 31% were completed. The percentage in progress has remained relatively constant. The rise in incomplete initiatives may be due in part to competition within UIT and beyond from other organizational initiatives.

Status Summary of 2014-15 Initiatives

<table>
<thead>
<tr>
<th>Status</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete</td>
<td>43</td>
<td>26%</td>
</tr>
<tr>
<td>In progress/ongoing</td>
<td>68</td>
<td>41%</td>
</tr>
<tr>
<td>Not Complete (incl Cancelled)</td>
<td>53</td>
<td>32%</td>
</tr>
</tbody>
</table>
## Priority 1: Support Academic Quality, Research and Teaching

<table>
<thead>
<tr>
<th>Objective</th>
<th>Initiatives</th>
</tr>
</thead>
</table>
| 1. Support innovation in and enhancement of teaching and learning through the use of information technology. | ● **Not Complete** - In collaboration with the Teaching Commons develop a “community space” for web-enhanced, blended, and online resources  
- **Completed** – Mobile theme for Moodle in place – additional improvements to support mobile use of more features scheduled for 2015-6  
- **Completed** -- release version of Moodle based on version 2.7  
- **In Progress** – Upgrade of “Learn Moodle” (non-PPY) to version 2  
- **In Progress** - Test of automated camera support for classroom recording  
- **Completed** - Upgrade of Mediasite platform  
- **In Progress** – Upgrade of ”Learn Moodle” (non-PPY) to version 2  
- **In Progress** - Test of automated camera support for classroom recording  
- **Completed** - Upgrade of Mediasite platform  
- **In Progress** - Review Moodle user interface, including accessibility and make improvements, driven by surveys (e.g. make more adaptable to course needs, make more attractive)  
  - **Completed**: extensive survey and report on requested Moodle improvements  
  - **Completed**: update of e-learning plan to reflect Moodle and other improvements from survey  
- **In Progress** - Integration of bookstore content into Moodle (carry forward): foundation step of creating a QA environment for bookstore application  
- **In Progress** - Specific Moodle features, such as speed of gradebook, support for student collaboration, and assessment tools  
- **Expand adoption of lecture capture/recording** –  
  - **Complete** - Expand lecture recording capability in small classrooms plus support of home/office use.  
  - **Complete** - Investigated providing ability for instructors to edit their recordings -- use of Camtasia Studio was investigated and found to be too complicated for widespread use; will explore using enterprise video framework for this in 2015-6  
  - **In Progress** - Promote lecture recording capability and its benefits  
  - **In Progress** - Explore adding doc cam recording  
- **Complete** - Renew synchronous meeting/classroom service through the upgrade of on-premise Adobe Connect platform while continuing cloud-hosted version  
- **Complete** - Improve Online Course Evaluation (ONCE) to pilot formative evaluation, allowing instructors early feedback from students.  
- **Completed** RFI for in-class engagement tools and first draft of RFP, to be released in early 2015-6 for deployment in Fall 2015. |
**Priority 1: Support the instruction space design work related to the engineering building and associated projects.**

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work with Faculties and Registrar’s Office staff on improving instructional technology requirements and room booking alignment.</td>
<td>Not Complete</td>
</tr>
<tr>
<td>Support the instructional space design work related to the engineering building and associated ripple.</td>
<td>Complete</td>
</tr>
<tr>
<td>Pilot instructional spaces for collaboration and other pedagogical impacts</td>
<td>In progress</td>
</tr>
<tr>
<td>Increase functionality of mobile devices in classrooms – additional rooms equipped in line with eLearning strategy direction (increased wireless access)</td>
<td>In progress</td>
</tr>
<tr>
<td>Guided by community input within the eLearning strategy implementation, develop a multi-year plan for classroom upgrades based on defined “tiers” of rooms and incorporating new designs based on audio-visual equipment operating within a converged network.</td>
<td>Complete</td>
</tr>
<tr>
<td>Pilot of media application platform (e.g. Kaltura)</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>

**Priority 2: Contribute to student success through the use of information technology in both the learning and student service domains.**

<table>
<thead>
<tr>
<th>Objective</th>
<th>Initiatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 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.</td>
<td>Complete - Based on eLearning survey feedback and focus groups improve Moodle usability for students in particular improving mobile device access using the responsive web template (primarily for students)</td>
</tr>
<tr>
<td></td>
<td>In Progress - Improve student print management solution by adding support for multi-function devices, and also printing from mobile clients such as iOS and Android.</td>
</tr>
<tr>
<td></td>
<td>Not Completed - Student portal enhancements to aid navigation to course websites/resources including an improved portlet for Moodle (carry forward)</td>
</tr>
<tr>
<td></td>
<td>Not Started (part of VDI) Investigate feasibility and potentially deploy accessibility software via virtual desktop infrastructure.</td>
</tr>
<tr>
<td></td>
<td>In Progress - Complete wireless service upgrades (continued from 2013-14) and introduce support for 802.11ac wireless technology</td>
</tr>
</tbody>
</table>

- **Not Complete**
- **Complete**
- **In progress**
- **Ongoing**
- **Not Started**
### Complete
- Complete service improvements in undergraduate residences to introduce wireless and increase network speed. (continued from 2013-14)
- Complete (by end of fiscal) - Complete migration of student email to third party platform (carried forward)
- Not Complete - Work with Faculties, the Library and Division of Students on feasibility of providing wider access to accessibility software

2. **Use IT to make interaction with the University (tools, content, staff, services) easier for prospective students, current students, and alumni**

- **Completed** - Provide support for the launch of the expanded YUStart for Fall 2014 intake
  - In Progress -- support for Fall 2015 intake, with new version to be available in May 2015
- **Completed** - Enhance the student portal to take advantage of the new portal infrastructure (beta launched in early 2015, in preparation for full launch in summer 2015) and
- **In Progress**: Address needs identified by stakeholders (requirements gathering completed) and students, including:
  - In Progress - Continuing support for students who went through YU Start (deferred by clients)
  - Not Completed - Integration with YU Connect
  - Not Completed - Assignment due dates from Moodle (carry forward to 2015-6)
- And subject to capacity:
  - In Progress - Support for more effective student time management
  - Not Completed - Reminders from the Registrar and SFS (e.g. fees due)
  - Not Completed - Improvements to new student checklist
  - Not Completed - Relevant portions of MyFile
- **Complete** - Develop a mobile strategy based on use of responsive web template for key student applications mainly in the areas of student recruitment and admissions.
  - Additional accomplishment: Assisted implementation of mobile strategy by VPS on futurestudents.yorku.ca
- With Division of Advancement, implement changes to processes and communications through student to alumni transition.
  - In Progress - Pilot "social media authentication" for alumni services (by May 2015)

3. **Engage students in the process of identifying needs and implementing solutions.**

- **Not Complete** - Put standing student advisory committee in place (Carried Forward)

---

**Priority 3: Enhance community engagement by raising York’s profile in the I.T. community, supporting communication and reputation building efforts in general and by mitigating risks to the University’s reputation.**

<table>
<thead>
<tr>
<th>Objective</th>
<th>Initiatives</th>
</tr>
</thead>
</table>
| 1. Safeguard University assets | **In Progress** - Review of University IT-related policies and guidelines in conjunction with privacy office and University secretariat including:  
  - Standards and solution for mobile security and pilot  
  - Guidelines and procedures for University information on personal devices. |
2. Help improve York’s reputation through leadership in best practice

- **Completed** – Promote York through participation in CANHEIT, OUCC, CAUBO and other sector conferences.

3. Support and enhance the University’s reputation through external communication and broad community engagement.

- **In Progress** – Enhance reliability of central web service through an upgrade Central Web hardware and software; strategy based on use of Google or other cloud services developed
- **Ongoing** - Reduce reliance on unsupported web content applications through migration and broader adoption of web content management through Wordpress
- Support for emergency communications initiatives:
  - **Complete** - Continued roll out of Public address system
- **Complete** - Improve the experience and accessibility of the University web site through deployment the responsive web template for Wordpress
- **Complete** - Support managed email communication and compliance with CASL through completion of selection and implementation of a new "bulk email" tool for broad University use. (carried forward)

<table>
<thead>
<tr>
<th>Priority 4: Valuing people and strengthening the workplace.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective</strong></td>
</tr>
<tr>
<td>-----------------------------------------------------------</td>
</tr>
<tr>
<td>1. Provide IT services and support to students, faculty</td>
</tr>
<tr>
<td>and staff in a manner that is seamless, effective,</td>
</tr>
<tr>
<td>transparent and responsive</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Objective</td>
</tr>
<tr>
<td>-----------</td>
</tr>
</tbody>
</table>
| 1. Ensure on-going alignment of information technology resources with the University’s strategic and academic priorities | **Not Complete** - Continue to work to establish formal priority review and decision processes and structures including and advisory group on classroom/teaching spaces.  
**In Progress** - Publish annual service metrics on the UIT web site. |
| 2. Improve operational effectiveness and make York easy to work with and within | **In Progress** - Provide support to PRASE initiatives and other priorities for upgrades/enhancements to administrative systems (subject to further priority setting):  
  - Human Resource Management processes – |
by taking an organizational-wide, process oriented approach to the way work is done supported by innovative and effective IT solutions

- **Not Complete** - Explore replacement of York Atlas information with data from H.R. system
  - University Advancement processes -
    - **In Progress** - Review of potential replacement of “single-user” access databases.
    - **In Progress** - Improvements to data interfaces/integration and data cleansing solutions.
  - **In Progress** - Business process review of potential of increased integration of building/classroom/scheduling systems.
  - **In Progress** - Continue incremental roll out of VOIP service (Continued) and pilot of “soft client” voice service
  - **Not Completed** - Voice mail system (call pilot) upgrade
  - **In Progress** - Upgrade remaining Windows XP (out of support April 2014) to Windows 7
  - **In Progress** - Articulate approach for Windows 8 Testing/adoption plan
  - **Not Complete** - Improve Mac and iOS support infrastructure.
  - **Not Complete** - Introduce improve delegated access management for active directory using Forefront Identity Manager (FIM) and pilot additional features of FIM (carried forward)
  - **In Progress** - Deepen use of SCCM for desktop imaging and remote service delivery (Continued)
  - **In Progress** - Improved support for mobile work/file access: remote access to FAS (e.g. MS RAS for domain-joined laptops); explore internally supported “DropBox” type service.

- **Finance/Procurement** -
  - **Complete** - Complete implementation of Travel and Expense (T&E) solution (pilot in April 2014 and broader implementation in summer 2014)
  - **Not Complete** - Extend the T&E solution scope through implementation of travel provider in fall 2014.
  - **In Progress** - Support for migration to the new budget model/process (i.e. financial system changes, data exchange; report changes) (carried forward)
  - **Not Complete** - Complete implementation of changes to Endowment fund – phase 1 – conversion to a “unitized” system.
  - **In Progress** - Introduce EFT payments for Student Refunds

- **HR Management**
  - **Not Complete** - Implementation of additional Manager Self Service features - Roll-out of Employee Transfers and Reports To changes (carried forward)
  - **In Progress** - Time Reporting Tool Phase 2 - Implement time reporting for Casual Employees (carried forward)
  - **In Progress** - Support implementation of an application to support improvements to the non-academic employee recruitment process RFP recommendation.
  - **In Progress** - Improvements to processes for managing post-retirement benefits, sabbatical pension top-ups (carried forward)

- **Not Complete** - Complete upgrade of Human Resources system to HCM version 9.2
- **In progress** - Initiate upgrade/migration of the Advance system to new web based version (AWA). Expected completion by summer 2015.
- **With Campus Services and Business Operations** –
- Complete - Redesign & Upgrade York University Bookstore’s Point-of-sale and Inventory control system (Nebraska WinPrism)
- Complete - Migration of Space Management System to new application (Archibus)
- In Progress - With CSBO develop a plan and begin execution of the unification of the YUcard and access cards. (carried forward)
- Not Complete - Complete implementation of redundant support for building control systems (Metasys) (Carried forward)
- In Progress - Complete upgrade and standardization of door access system (Prowatch) (Continued from 2013-14)
- Complete - upgrade of T2Flex – parking permits and payments (Continued from 2013-14)
- In Progress - Begin upgrade/migration to IP based system for CCTV (carried forward)
- Not Complete - Dispatch & Incident Reporting Application upgrade (Perspective PPM2000) (Carried forward)
- Not Complete - Upgrade Security Audio Communication Monitoring System (Dictaphone) (carried forward)
- Complete - upgrade of T2Flex – parking permits and payments (Continued from 2013-14)
- In Progress - Begin upgrade/migration to IP based system for CCTV (carried forward)
- Not Complete - Dispatch & Incident Reporting Application upgrade (Perspective PPM2000) (Carried forward)
- Not Complete - Upgrade Security Audio Communication Monitoring System (Dictaphone) (carried forward)
- Support for emergency communications initiatives:
  - Not Complete - Improvements to emergency messaging – possible system to support integration of emergency messaging channels (carried forward)
  - Completed - Infrastructure support for roll out of Public address system (continued from 2013-14)
- Support current and emerging priorities related to delivery of student services:
  - In Progress - With VPS leadership perform a strategic review of the Student Information System.
  - Complete - Review the applications supporting classroom scheduling (R25). (Carried forward)
  - Not Complete - Develop a case for changing the CLASS system to the new cloud based version ActiveNet.
- In Progress - Continue enhancements to the Student Information System, particularly in the areas of student transfer credit and elimination of shadow databases.
- Support goals of strategic enrolment management (SEM) program:
  - In Progress - Opportunity for broader use of CRM -- introduced MS Dynamics CRM 2013 for use with new bulk e-mail service and for recruitment activities by Faculties
  - Not Complete - Provide support for the first phase of the Early Alert system for students.
- Complete - Develop and support applications to enable the AAPR process.
- VP Academic & Provost:
  - Complete - Identify Curriculum Mapping solution for YUQAP and release initial version for experimentation; define requirements for pilot.
- Research management –
  - Complete - Complete the first phase implementation and deployment of the Research Management System (Sophia). (carried forward)
- Not Complete - Implement Maximo-Sm@rtBuy integration
- Ongoing - Document application data exchange interfaces and identify opportunities for simplification.
  - Complete: defined standard HR data exchange interface and implement
3. Provide integrated systems, data, and records necessary to support proactive communication, collaboration, and evidence-based planning and decision-making

- **In Progress** - Complete “course enrolment” phase of EDW enrollment domain.
- **In Progress** - As directed by steering, extend EDW application through addition of FFTE or development of operational reports or additional student demographics.
- **In Progress and On-going** - Expand reports for TRT – for vacation reports and as required by new TRT functionality
- **Complete** - Assess and make recommendation around extended use of OBIEE for H.R. reporting.
- **Not Complete (Pending AWA)** - Initiate Advancement BI Implementation project. Start dependent on AWA Migration Design sign-off. Expected completion to be determined at that time.

4. Identify strategic opportunities for use of alternative sourcing opportunities to maximize resources

- **Not Complete** - Engage in a planning process associated with opportunities for cloud services.
- **In progress** - Communication of policies/guidelines for external IT services.

5. Establish and maintain a reliable, secure and sustainable technology infrastructure to support the operation of University information systems.

- **Provide support for PRASE IT initiatives (to be determined)** –
  - **In Progress** - Printer rationalization

  **Server, storage and database infrastructure:**
  - **In Progress** - Continue to move server infrastructure to virtualization
  - **Not Complete** - Renew large scale storage (“archive”) service (carried forward)

  **Network services:**
  - **In Progress** - Continue roll out of expanded and enhanced wireless service
  - **In Progress** - Replacement of captive portal for AirYork and Yorknet
  - **In Progress** - Retirement/replacement of ResNet authentication system.
  - **Not Complete** - Upgrade/replacement of network management systems (netdisco, netinfo, RANCID).
  - **Not Complete** - IP address management delegation capability (contingent upon vendor feature availability). (carried forward)
  - **Not Complete** - Introduction of first phase of IPV6 support (carried forward)

- **In Progress** - Complete migration of “YorkAdmin” services to FAS.

  **Data centres and network**
  - **Complete** - Upgrades to network core routing and switching capability
  - **In Progress** - Continue network infrastructure upgrades and improvements to support expanded mobile use and readiness for VOIP (continued from 2013-14)
  - **Complete** - Increase availability of 10GbE data centre network access
  - **Complete** - Deploy higher capacity NAT translation to handle increased mobile use in particular.

- **Not Complete** - Obtain solution for Glendon WAN redundancy (carry forward)

  **Server, storage and backup infrastructure:**
  - **In Progress** - Continue migration to Intel/Linux as standard server platform. (continued from 2013-14)
  - **In Progress** - Complete the database upgrade program with a focus on SIS, Passport York, ARMS, Advance and YDX. (continued from 2013-14)
- Databases:
  - In Progress - Complete the database upgrade program with a focus on SIS, Passport York, ARMS, Advance and YDX (continued from 2013-14).
  - In Progress - Provide infrastructure planning support for new facilities and moves associated with campus expansion and renovation (e.g. PanAm Stadium, Engineering building, International sites, etc.) (continued from 2013-14)
  - In Progress – Support “green IT” goals through improved workstation power management
  - In-Progress - Adopt multi-function printer management best practices – possible pilot of use of print management system in admin areas.
  - Not complete - Improve network monitoring through upgrade or replacement of existing tool (Netdisco).
  - Not complete - Obtain and implement improved service/application monitoring tools.

6. Manage risk to the confidentiality, integrity, and availability of University data, applications, information, and communication systems.

- Complete (by end of fiscal)- Perform annual update of disaster recovery plan
- Not Complete - Establish common best practices for “green IT”
- Not Complete - Implement improved workstation power management
- Not complete - Extend security education and awareness campaign to staff and faculty

Other Initiatives Completed:

A number of other significant initiatives that were not anticipated in the development of the 2014-15 plan were completed:

In support of student service delivery and teaching and learning

- Completed an upgrade of the R25 scheduling system
- Completed and upgrade of the Qmatic queuing system
- Implemented upgrades and enhancements to the WebFAS service
- Completed several version upgrades to the Moodle LMS platform

In support of University operations and infrastructure –

- Deployed Google Universal Analytics deployment for tracking web site traffic
- Developed an Intranet site to support the implementation and communication of the SEM program
- Completed and deployed an application to support the Centre for Human Rights
- Supported the deployment of a “crowd funding” service for Division of Advancement
- Developed and implemented an application to support Homecoming events
- Implemented enhancements to the University’s VMWare infrastructure
- Implemented first installation of new IP-based video monitoring system
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 subject to one or both of further prioritization work/consultation and final review within the budget process.

The computing plan continues to draw on directions and implementation priorities articulated in the 2009 IT Strategy as well as some important institutional initiatives including:

- The strategy for eLearning integration is driving improvements in our capability for eLearning support including the Moodle LMS, classroom technology and course development and transformation.
- Student recruitment and retention remains the major priority for the University - by extension contributing to a positive student experience in and outside the classroom is important for UIT. Strategic Enrollment Management is also expected to emerge as an important driver for change and I.T. supported initiatives.
- Continuing support for initiatives that support improved administrative processes in Finance, Human Resources and University Advancement.
- For I.T. infrastructure and services there continue to a number of significant initiatives related to meeting growing demand (e.g. wireless networking) and renewal (e.g. server virtualization and migration; database upgrades)
- Continuing our efforts to be clear about the value we provide via our services and look for opportunities to improve both clarity and quality of service.

Through the year the plan outlined below will be adjusted to consider the impact of further priority setting discussions as plans and priorities emerge and are clarified. It is further expected that actions arising from the emerging University strategic directions planning process will have an impact on UIT initiatives through 2015-16.

Priority 1: Support Academic Quality, Research and Teaching

<table>
<thead>
<tr>
<th>Objective</th>
<th>Actions/Strategies</th>
<th>Initiatives</th>
</tr>
</thead>
</table>
| 1. Support innovation in and enhancement of teaching and learning through the use of information technology. | 1. In collaboration with the Faculties of Health and LA&PS, develop and implement effective, sustainable, and scalable models for blended and online learning.  
2. 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  
3. Support the innovative design, implementation and renovation of classrooms and instructional spaces. | 1.1.2  
- Launch chat-based service for support of e-learning, with access from Moodle and elsewhere  
- Pilot use of screen-sharing to support e-learning technologies  
- Implement a service to send service suggestions and issue reports directly from Moodle and possibly other tools  
- Augment existing documentation to include examples of the use of tools for particular purposes  
- Streamline course creation via automation of granting access to courses and restoration of previous courses  
- Explore opportunities to use Google Apps in support of eLearning.  
- Additional possible initiatives - |
4. 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 measures to ensure reliability of the technology.

5. 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.

- Create first release of improved reporting and gather feedback
- Create a showcase of examples highlighting effective use of e-learning technology
- Create an e-learning roadmap web site, updated semi-annually, to inform the community about technology directions, additions, and retirements and solicit input

1.1.3
- Gain approval for multi-year classroom renewal
- Working with the Office of the VPFA and the Office of the Provost, establish a classroom oversight committee
- Identify standard for video conferencing and complete initial implementations
- Additional possible initiatives -
  - Implement an “experimental classroom” in collaboration with the Teaching Commons - dependent upon access to appropriate space.

1.1.4
- Upgrades to classrooms at Keele and Glendon (estimate Keele 78 rooms; Glendon 17 rooms depending upon resources)
- Deliver new support materials for effective use of classroom technology; Include creation of “one-stop-shop” classroom support portlet in yu link that includes instructor schedule, links to classroom images, training videos, CEO requests, etc.
- Expanded support for classroom recording, including via roll-in carts

1.1.5
- Provide self-serve access to video editing for instructors that record their own video shorts
- Create and document strategy for enterprise video recording, hosting, and integration, primarily for e-learning but also beyond

2. Provide ICT advice and services that support research innovation and strong and effective

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.

2. Continue to evolve our technical service “portfolio” to provide agile, cost effective information,

1.2.2
- In collaboration with University Libraries launch and integrated research computing services site
- Introduction of low-cost, high-security archive data storage for research use
- Provide large-scale network connectivity to ODLRC initiative
research programs.

communications and technology services (e.g. desktop/laptop support; system hosting and/or management; large scale computing, networking, storage and backup, web-site support and application development.).

3. As part of a broader faculty/staff portal, address the needs of researchers: highlighting research opportunities, active research, potential collaboration opportunities, a view into administering research.

4. Increase access for faculty and graduate students to specialized software packages through advantageous pricing and administration of licensed for broad and easy distribution

Priority 2: Contribute to student success through the use of information technology in both the learning and student service domains.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Actions/Strategies</th>
<th>Initiatives</th>
</tr>
</thead>
</table>
| 1. 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 | 2.1.1  
- Design and implement a responsive web template for Moodle, to improve mobile use  
- Support LA&PS migration from Quickr to Moodle  
- Improve speed of gradebook  
- Integrate my.yorku.ca and Moodle so that students can (a) see core information outside Moodle and (b) navigate from a course to the corresponding Moodle course  
- Integrate video collaboration into Moodle, building on 1.1.5  
- Provide support to course transformation projects supported by Ontario Online and the Academic Innovation Fund  
- Additional possible initiatives  
  - Design new course formats to Moodle to support a wider range of pedagogical approaches (with Teaching Commons)  
  - Integration of bookstore content into Moodle  
  - Implement support for timed content release  
2.1.2  
- Identify a solution for “classroom engagement” that supports |
| 2. Use IT to make interaction with the University (tools, content, staff, services) easier for prospective students, current students, and alumni | 1. Provide support for initiatives arising from the “Academic Innovation Fund” process and programs that target improved service delivery for students.  
2. Maintain and enhance usability and responsiveness across all high-impact and high-usage applications and 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  
3. Improve the continuity of students’ experience in transitioning to Alumni, including both an alumni portal and with respect to identity management. | 2.2.2 | - In collaboration with the Division of Students -  
   - Expand the capabilities and use of the CRM and bulk e-mail tools to support the 2016 admissions cycle. 
   - Investigate solutions to support management of information for non-degree students 
   - Identify and Implement an improved Degree Audit capability (informed by February 2015 RFI) 
   - Complete expansion of YU START functionality as required for fall 2015 intake and in preparation for fall 2016 intake 
   - Implement Visual Schedule Builder to make timetabling easier for students 
   - Improve student portal to take advantage of new base software, integrate with YU Connect and YU START, support for time management | 2.1.3 | - Refresh VPS sponsored student labs  
2.1.4 | - Complete WiFi upgrades in remaining buildings as part of multi-year upgrade program 
   - Complete WiFi technology refresh of 1st gen 802.11n access points 
   - Phase out AirYork and improve WiFi service by migrating all users to AirYorkPLUS | 2.1.5 | - Complete roll out of Google Apps at York to undergraduate students 
   - In collaboration with FGS investigate use of the Google Apps at York service by Graduate students |
3. Engage students in the process of identifying needs and implementing solutions.

1. Implement a student advisory group to assist in identification of priorities and advise on direction of the use of IT in the student experience.

2.3.1
- Establish a standing student advisory group (carried forward)

Priority 3: Enhance community engagement by raising York's profile in the I.T. community, supporting communication and reputation building efforts in general and by mitigating risks to the University's reputation.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Actions/Strategies</th>
<th>Initiatives</th>
</tr>
</thead>
</table>
| 1. Safeguard University assets | 1. Establish and maintain systems, processes and procedures to protect the University’s data and IT assets. | 3.1.1
- Introduction of new Information Security policy framework and related procedures and standards, including those for information classification, mobile security, and third-party services
- To improve compliance with policies, implement a convenient interface to data storage systems suitable for data that has high-security requirements
- Continuation of PCI DSS compliance program to address new version 3 requirements and gaps
- Pursue renewal of central web infrastructure based on a “hybrid” approach (on site and “cloud”) |

1. Support and enhance the University’s reputation through external communication and broad community engagement. | 1. In partnership with University communications/marketing and other groups, seek out and implement innovative ways to reach external audiences. | 3.3.1
- Complete implementation of new bulk email solution (Click Dimensions)
- Support adoption of York’s responsive web template by Faculty and unit sites; expand use to include UIT applications such as ARM and ONCE |

Priority 4: Valuing people and strengthening the workplace.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Actions/Strategies</th>
<th>Initiatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Provide IT</td>
<td>1. Enhance the user experience by providing</td>
<td>4.1.2</td>
</tr>
</tbody>
</table>
services and support to students, faculty and staff in a manner that is seamless, effective, transparent and responsive

2. Implement a common service desk system based on ITIL framework that supports common processes, service measurement, and integration of service delivery.

3. Develop and maintain an IT service catalogue, to provide clear definition and eligibility of services to students, faculty and staff.

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.

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.

7. Develop policies, standards, and processes to enable the achievement of enhanced service delivery.

- Implement a replacement for current service desk system

4.1.3
- Refresh of the UIT service catalogue supported by a review of services through a "start/stop/continue" exercise.

4.1.4
- Improve effectiveness of UIT communications through establishment of UIT Communications role and strategy including:
  - Standardization of UIT communication via email, web, phone, digital signage and social media
  - Re-design of UIT support pages introducing critical service dashboards,

4.1.5
- In support of move to SHARP review services and develop service delivery agreement through definition of mandated central service bundles.

4.1.6
- Establish end user computing virtualization strategy, including the completion of pilot projects for lab and office computing.
  - Target UIT managed labs for transition to virtualized environment
  - Creation of virtual application delivery to new environment
  - Increase help desk first point of resolution through greater capacity and capability to resolve incidents or provide services (e.g. remote desktop, remote classroom support, scheduling of classroom equipment shutdown, computer registration (moves/adds/changes), etc.
  - Establish Pan-University desktop software group , creating awareness of application usage, improved access to software from request, to testing to delivery, reducing costs through economies of scale or potential volume acquisitions.
  - Creation of new software service to provide for request, virtualization, distribution and tracking
  - Improvement of monitoring tools and processes to better detect and respond to availability impacts and detect system changes for security and change management compliance, and to assist troubleshooting
  - Replacement/upgrade of network and telecom management systems (ie. netdisco, Bitek, etc.) to improve quality of information available and support simplified processes
### 4.1.7 - Development of improved processes for support of VOIP devices
- Revise communications infrastructure standards for use with construction projects
- Development of mobile device configuration standards for security and improved integration with York systems for use with device management tools

### 4.2.2 - Build skills and capacity in the area of process analysis and redesign
- Engage in institution-wide staff development program to enhance client service particularly as it impacts student experience

### 4.2.3 - Explore potential to extend use of selective elements of Google Apps to faculty and staff
- Replacement/Update of mymail web interface
- Upgrade of central Lotus Notes servers to version 9 for improved supportability
- Deployment of VOIP to Glendon and remote sites
- Additional potential initiatives -
  - Initial deployment of SIP clients for integration of campus telecom system with PCs and mobile devices

### 4.2.4 - Continue expansion of yu link functionality including graphical refresh, single sign-on into HR Self-serve, and movement of core employee content from www.yorku.ca into yu link

### Priority 5: Resource Integration and Sustainability

<table>
<thead>
<tr>
<th>Objective</th>
<th>Actions/Strategies</th>
<th>Initiatives</th>
</tr>
</thead>
</table>
| 1. Ensure ongoing alignment of information technology resources with the University’s | 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 | 5.1.2 - Establish executive level IT steering/investment group and supporting project prioritization framework.  
5.1.3 - Build on metrics development done for AAPR and identify metrics for major services (also in support of SHARP service agreement development) |
| strategic and academic priorities | 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 IT service utilization and performance.  
| 4. Build on current planning processes to establish University-wide IT operational planning that provides for client/IT exchange and discussion of cross-functional initiatives or impacts.  
| 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.  
| 5.2.1 - Finance/Procurement  
| - Extend the T&E solution scope through implementation of travel provider - summer 2015.  
| - Extend the T&E solution scope through implementation of expense claims for Students, Senior Scholars and Visiting faculty  
| - Support for migration to the new budget model/process  
| - Extend EFT payments to undergraduate and graduate students  
| - HR Management  
| - Time Reporting Tool Phase 2 - Implement time reporting for Casual Employees  
| - Enhancements to Employee Self Service (e.g. Automated T4s)  
| - Support implementation of Talent Management System (TMS) to facilitate improvements to the non-academic employee recruitment process.  
| - Additional possible initiatives -  
| - Adoption of PeopleSoft automated testing framework  
| - Campus Services  
| - Support Housing and Hospitality in process improvement and automation around managing York Apartments  
| 5.2.2 - Finance/Procurement  
|
7. Improve return from existing and future IT investments through attention to usability and provision of accessible training for end users of systems.

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>5.2.3</th>
<th>Sport and Recreation</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Complete Finance system upgrade to FSCM 9.2/8.53 - winter 2015</td>
<td></td>
</tr>
<tr>
<td>- Implementation of a new Account Receivable software – summer 2015</td>
<td></td>
</tr>
<tr>
<td>- HR Management</td>
<td></td>
</tr>
<tr>
<td>- Application of Maintenance Packs (MP9, GP) – summer 2015</td>
<td></td>
</tr>
<tr>
<td>- Identify priority requirements for Attendance Management Program Reports</td>
<td></td>
</tr>
<tr>
<td>- Division of Advancement:</td>
<td></td>
</tr>
<tr>
<td>- AWA Migration: Complete planning and initiate implementation project (target completion mid-2016)</td>
<td></td>
</tr>
<tr>
<td>- Initiate analysis for replacement or upgrade of SmartCall application.</td>
<td></td>
</tr>
<tr>
<td>- Identify solutions and develop implementation plan for Registration and Events Management system.</td>
<td></td>
</tr>
<tr>
<td>- VP Academic and Provost</td>
<td></td>
</tr>
<tr>
<td>- Develop and execute implementation plan for YUQAP Curriculum Mapping solution.</td>
<td></td>
</tr>
<tr>
<td>- Identify solutions and develop implementation plan for Experiential Learning communication tools (website, YUlink site and EE database to track EE Courses and related EE Partners).</td>
<td></td>
</tr>
<tr>
<td>- Initial discovery to Identify Cyclical Program Review solution for YUQAP and define implementation plan.</td>
<td></td>
</tr>
<tr>
<td>- Complete requirements gathering for Central Community Engagement website.</td>
<td></td>
</tr>
<tr>
<td>- ONCE Formative – Provide faculty members ability to conduct Course Evaluations using their questions and time of choosing. Complete pilot with LAPS, followed by implementation planning.</td>
<td></td>
</tr>
<tr>
<td>- VP Students</td>
<td></td>
</tr>
<tr>
<td>- Complete Implementation of the new tuition billing framework for Fall 2015</td>
<td></td>
</tr>
<tr>
<td>- Continue to implement transfer credit improvements prioritized by the Registrar’s Office</td>
<td></td>
</tr>
</tbody>
</table>
- Investigate and prepare for the migration of the CLASS System to ActiveNet cloud solution

- VP Academic & Provost
  - Continue enhancement of ARM functionality to support FGS activities, including FGS appointments and management of graduate student funding

- Campus Services
  - Enable mobile app eAccounts functionality for students & staff. This enables the ability for YorkU community members to add and manage yucard funds through web portal and mobile app..
  - Complete upgrade of Parking and citations environment, T2Flex (carried forward)
  - Pilot use of mobile devices to support housing maintenance activities.
  - Develop custom reports for Bookstore inventory and point of sale system (WinPrism)
  - Implement a locally hosted version of Archibus for Space Management.

- Campus Safety
  - Complete door access upgrade (YUcard use) in complex 2.
  - Upgrade of the Perspective PPM security application to the latest supported version (carried forward)
  - Go to market to replace existing LCD infrastructure for Emergency Messaging & Digital Signage (EMDS) at York. (Carry forward from 2013-2014)

5.2.4
- Finance/Procurement
  - Implement Sm@rtBuy cheque requisitions

- HR Management
  - Advance the streamlining of support for the “full time faculty file”
  - Standardization of data exports Phase II and implement to replace existing custom interfaces (e.g. to Advance)

5.2.5
- Division of Students
3. Provide integrated systems, data and records necessary to support proactive communication, and evidence-based planning and decision making.

| 1. | Implement the enterprise data warehouse and continue to expand access to a broad set of integrated, authoritative information. |
| 2. | Continue to improve and integrate operational reporting (e.g. eReports, SIS reports). |

5.3.1 - Based on direction of the EDW steering group extend capability and scope of EDW admissions and enrolment applications.
- In conjunction with work on Advancement AWA migration move elements of the pilot Advancement BI application to production and extend application as needed.

5.3.2 - Expand reports for TRT – as required by new functionality for casuals.
- Engage in requirements gathering to inform a new direction for integrated management reporting.
- Review of SIS reports and enhancing self-serve capability such as a self-serve catalogue of SIS reports that users can subscribe to and remove old SIS reports that have are seldom used.
- Additional potential initiatives -
  - Gather requirements and identify solutions to support SEM Early Alert requirements and processes.

4. Identify strategic opportunities for use of alternative sourcing opportunities to maximize resources.

| 1. | Monitor the solutions marketplace on an ongoing basis to identify emerging opportunities for alternative sourcing. |
| 2. | Define policies and guidelines to guide the appropriate sourcing and use of external services. |

5.4.1 - As an outcome of the application portfolio analysis identify 2-3 candidate applications or services to migrate to a “cloud” hosting/service delivery option.

5.4.2 - In collaboration with the Information Privacy Office and others put in place and communicate policies and procedures related to use of external services. (carried forward)

5. Establish and maintain a reliable, secure and sustainable technology infrastructure to support the operation of University information.

| 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 cost effective. |

5.5.2 - Campus Services and Safety -
  - Review, document and update supporting infrastructure designs for utilities monitoring and security services.
  - Develop business case for design and replacement of analog security camera infrastructure with IP based system.
  - Review and revision of data centre network, storage, compute, virtualization technology and architecture to enable improved service levels, flexibility and cost effectiveness. Including
3. Design, implement and support the University’s core IT infrastructure and adapt it to changing and emergent needs:
   a. Data centres, cable and fibre plant for telecom and network connectivity on campus.
   b. Systems and connectivity for satellite campuses, connectivity with other educational and research networks and institutions, and other external linkage.
   c. Data storage and backup systems, servers and other computational resources used by University applications.
   d. Databases used by university applications to enable higher-performing applications and higher availability and resiliency.
   e. Campus expansion and renovation


5. Adopt a fault-tolerant and resilient operational environment for the ICT infrastructure.

6. Adopt leading University practices for financial and HR planning and management, fostering greater line manager accountability in these areas.

7. Put effective measures in place to ensure appropriate controls (e.g. for asset management) and compliance with University policy and external (e.g. license) agreements.

5.5.3 Renewal/replacement and growth of central data storage systems
- Complete upgrade of legacy databases to supported versions and from SPARC to lower-cost Intel platform
- Move select elements of the “classic” SIS applications to the web to improve ease of use and sustainability.
- Decommission the University modem pool service as the technology is no longer supportable, it contains uncorrectable security vulnerabilities and costs to operate it cannot be justified; ubiquitous residential and mobile broadband Internet access has long ago eliminated any practical utility it once had.
- Redesign and Migration of Access Network VLANs to improve supportability, security and easier adaptability to emergent needs.
- Renewal/Replacement of firewall technology and architecture.
- Upgrade of IPNS (DNS/DHCP) Systems.
- Complete upgrade program for Windows 2003 Server, which reaches end of support in July 2015.
- Complete upgrade program for Linux systems reaching end of support.
- Upgrade backup system to support continued growth, supportability.
- Upgrade of virtualization software to support enhanced capabilities required for new data centre technology architecture.
- ICT Infrastructure and AV planning, design and deployment in support of campus development, including:
  - Pan Am stadium commissioning, games operation and York occupancy.
  - New Engineering building completion and occupancy.
  - Atkinson major renovation move ripple and occupancy.
  - New Student Centre building planning and design.
  - Schulich expansion planning and design.
  - Support for a number of anticipated academic space conversions and renovations.
- Additional potential initiatives
  - Automation of SIS testing tools to improve the testing cycle when deploying new software. The goal of this initiative is to reduce the time for testing during the
| 6. 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.  
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. Unify and extend University “directory services” to enable enhanced collaboration, flexibility and agility for the I.T. environment.  
4. Implement systems with capabilities required for support of legislative and regulatory compliance, including privacy protection, security and industry software development cycle.  
   - Expand on shared backup service by introduction of additional partner institutions, potentially in a consortium model  
   5.5.4  
   - Printer rationalization - Transition remaining University printing to sustainable cost-per-page model on consolidated Multi-Functional-Printers (MFP's). Includes integration of YU Card and card readers to facilitate “off the glass” secure print release and “follow-me printing”  
   5.5.5  
   - Increase resiliency of WiFi network infrastructure by introduction of additional aggregation switch  
   - Increase stability of the WiFi network by upgrading packetfence servers  
   - Replace/renew wide-area-network services  
   - Additional potential initiatives -  
     - Investigate feasibility and potentially implement alternate path/provider for data connectivity to Glendon campus in order to support increasing reliance on the network for critical communications (dependent upon funding and external service capabilities)  
5.6.1  
- Complete a new application portfolio analysis, extending to all UIT and distributed IT units  
5.6.5  
- Introduction of information security awareness program for staff and faculty  
- Improvement of content and communications push for student information security awareness program  
- Upgrade of vulnerability management tools and processes  
5.6.6  
- Update of UIT Disaster Recovery Plan and put forward proposals for addressing current gaps  
- Support the implementation of a backup generator for the Steacie data centres |
information regulation.

5. 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.

6. Manage availability risk by evolving ICT capacity plans and disaster recovery plans to the changing requirements and priorities of the University.

### 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.