NEW BEGINNINGS





Strategic I.T. Plan for Trent University (2013–2015)








TRENT 50
UNIVERSITY 1964–2014

New Beginnings: I.T. Strategic Plan for Trent University (2013–2015)

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Forward

This is an IT plan for the whole of Trent University.

We have opted to name our new Strategic IT Plan, “New Beginnings”. We believe that this name would signify to the university community Trent’s commitment to affect change and to interrogate and focus every aspect of its IT operations.

The right team makes all the difference and we have that in the Trent University IT team. We have the right people that are willing to step in where needed and to happily roll up their sleeves to help a student, faculty member, or another administrative staff member. The IT team has the right positive energy.

In an environment of constant technological innovation, shrinking budgets, continued increased costs, and an increasingly competitive education marketplace, the right team is simply not enough. It has become imperative that IT focus its efforts. This plan aims to focus the efforts of the Trent IT team and to align them with both the academic and administrative efforts of Trent. Additionally, this plan aims to introduce accountability and transparency to the IT organization and to position Trent for the future.

Innovation plays a focal point in this plan. Not simply in the introduction of information technology to the institution, but in the true meaning of innovation which is to introduce new methods and methodologies in approaching our practices.

This IT Strategy was produced with significant consultation with the university community. Additionally, the IT Strategic Task Force members, the IT Steering Committee, and the IT Team have played a pivotal role in producing this focused plan. I would like to thank them all for their work and contribution to this plan.

Sincerely,

Tariq Al-idrissi
Associate Vice President, Information Technology

Executive Summary

This plan presents initiatives that must be undertaken to ensure the continued success and improvement of IT at Trent.

To formulate the presented initiatives, this plan undertook an in-depth situational review. This review involved an internal SWOT analysis and a university consultation process that was comprised of thirty focus groups and 598 student survey responses. Additionally, as part of the situational review, a cross reference to both the Academic and Integrated plans was completed and an industry analysis was conducted.

The SWOT analysis identified weaknesses related to operations and procedures, aging infrastructure, and planning. These themes were also echoed in the university consultation which identified some other areas of concern, around; consistent user support and services, the need for increased support hours, infrastructure (generally around wireless availability),the need for an improved e-mail system, increased file services, better print services, lack of strong IT governance and leadership, classroom and computer lab age and renewal, up to date software and operating system versions, availability of charging stations, support for Apple devices, consistent IT communication, support for Oshawa, support for mobile devices, and mobile application availability. Finally, as part of the situational review, an industry analysis was performed that identified some keys trends, including; the changing hardware landscape, the adoption of mobile devices, the effects of social media, and the trend towards cloud computing.

The Vision of IT at Trent was outlined in this plan to be

Innovative Information Technology for a Stronger Trent

Innovative not only refers to the introduction of technologies, but additionally in the introduction of new methods and methodologies in approaching work with the aid of technology.

To address the situational review and to achieve the vision and mission as outlined in this plan, certain strategies and initiatives (tactics/objectives) are suggested as part of this plan. These initiatives were grouped as changes to base services, service expansion, renewal, information system projects, extended customer service, and operational efficiency initiatives. This plan presents a description of each initiative, the scope, the rationale, the risks, the priority, the timeline and the costs that are related to each initiative.

This plan ends with a visual timeline and a costing summary.

Introduction

The time for IT planning is now.

The current situation of Information Technology at Trent is complex, but is threaded by three common themes; limited resourcing, poor long-term planning, and disjointed/uncoordinated efforts.

With shrinking budgets, a higher need for overall transparency and accountability is needed. This plan brings to light the strengths and weaknesses of IT at Trent and makes specific recommendations that will not only sustain, but enhance the IT services and products offered by Trent.

This plan begins with a situational review, including;

- A look at the IT department,
- The current governance and committee structures,
- A S.W.O.T Analysis,
- The approach and results of the university consultations undertaken specifically for this plan,
- The implications of the integrated plan,
- The implications of the Academic plan, and
- An industry analysis

Following this detailed review, the plan outlines the Vision and Mission of IT at Trent and introduces the Strategies, Initiatives, Timelines, and Costs that are associated with achieving the Vision and Mission and in also addressing the issues identified in the situational review.

Situational Review

In assessing the situational review, one must consider the IT Department, feedback from the university community, and Industry trends.

The IT Department

The Information Technology (IT) Department is a service department that serves the needs of the whole of Trent University. In an effort to increase transparency and accountability of the IT department, the reporting structure of this department has recently changed to a dual reporting structure. The department, through the AVP, IT now reports to the Vice President Administration and the Vice President, Academic. This dual reporting has proven to be successful and has allowed the IT department to better serve the administrative and academic needs of Trent University.

The IT Department is currently comprised of three workgroups, Client Services, Information Services, and Digital Service Delivery and Administration. Each workgroup has its own manager and all workgroups report to the Associate Vice-President of Information Technology. Please refer to Appendix A for an organizational chart of the Information Technology department.

The client services workgroup provides direct support to our faculty, staff & students in all university locations, including the Oshawa and Trail campuses. The workgroup has the following areas of specialization.

- Technical support centre/service desk: This workgroup is responsible for front line incident triage, tracking and direct client support via the service desk. This includes maintain the public labs and acting as a liaison with IT backroom specialists. The service desk also handles distribution and circulation of all audio/visual equipment.
- Switchboard: This workgroup is responsible for the university wide switchboard operations.
- Training and Documentation: This workgroup is responsible for all aspects of IT related training. This includes classroom videos, end user training, workshops and online documentation.
- Classroom Technology Support: This workgroup is responsible for proactive preventative maintenance on all the classrooms and for attending all classroom emergencies.
- Instructional Technology/Distance Education: This workgroup is responsible for the university wide Learning Management System named Blackboard Learn9. In addition to the LMS support and training, this area also supports the development and implementation of all Distance Education courses.

The Information Services area is primarily focused on providing support for the core information system of Trent University, named Colleague, and for developing the school's web based portal, named MyTrent. Additionally, this area also provides system integration and reporting services, with and from the Colleague product, respectively. Numerous systems have data integration or interface with Datatel, including; Advancement, Athletics, Student Affairs, DSO, Research, Finance, and the Library. Additionally, this area also support multiple other "bought" systems. For a complete list of Trent systems that are supported or not supported by the Information Technology Team, please refer to Appendix B.

The Digital Service Delivery and Administration workgroup provides end to end delivery of computer applications and voice telephony. Many specializations characterize the Digital Service Delivery and Administration, including:

- **Network**. Trent has an extensive network spanning all buildings in Peterborough and Oshawa. The network provides service to 8600 wired ports and 145 wireless access points. Currently ResNet is operated separately and contracted out.
- **Telephony**. The university phone system which provides service to 1900 extensions and integrates the university's emergency broadcast system.
- **Data Centre**. The university data centres are located in the Bata Library (primary), DNA building, and Champlain building. The data centres house 150 servers.
- **Core Services**. This includes services such as network file storage, printing, and e mail.
- **Enterprise Desktop**. We provide services to provision desktop computers. This does include the distribution of software.
- **Student Labs and Lecterns**. We maintain student lab computers totaling 375 seats in 21 locations. Additionally, we support 100 PCs installed in classroom lecterns.

Current IT Governance, Committees and Project Structure

In recognizing the need for governance and structure around IT, the IT Steering Committee (ITSC) was approved by PVP in November, 2011 with the inaugural meeting held January 13, 2012. The function of the IT Steering Committee is to review, monitor, and prioritize major IT projects from a cross functional perspective. The two key concerns of the technology steering committee are:

- Alignment. The committee helps ensure that IT strategy is aligned with the strategic goals of the organization.
- Ownership. The business units represented on the steering committee have ultimate ownership over the larger IT decisions since those decisions will impact their processes.

A mandate of the ITSC is to oversee the development and implementation of the Strategic IT Plan. To fulfill this objective, the ITSC created the IT Strategic Planning Taskforce. Invitation to participate as member of the IT Strategic Planning Task Force resulted in a cross functional cohort of 9 representatives from academic, administrative and student areas. This group was exposed to many of the operational and strategic challenges relating to information technology at Trent. Weekly meetings included presentations and general

discussion of opportunities and threats for IT. In addition to being responsible for the development of framing questions used in data collection this group also took turns assuming the role of facilitator during the many focus sessions and interviews that followed during the university consultations leading up to this plan.

Other noteworthy groups that play an important part in IT at Trent include the Core Data Stewards Committee and Techs at Trent. The Core Data Stewards Committee is a cross-functional team mandated to identify, design, monitor, and evolve the flow of enterprise data, recommend policies and procedures, support documentation needs and advocate for training. This group makes recommendations to the IT Steering Committee for approval. The Techs at Trent group was created to allow for all the decentralized IT support at Trent to have a centralized forum to improve know how, collaborate, communicate, and increase awareness of IT issues.

In addition to the governance and the committees involved in IT, it is important to understand how IT currently receives projects, evaluates them and schedules them. Currently, IT projects are submitted electronically on a first come basis to IT through an electronic system known as the Project Board. IT management assesses the submitted projects and determines if they need further approval to be scheduled and completed. If the determination is that no further approvals are needed, then IT management schedules the project for completion. The determination is based on the magnitude of dollars and resources. Projects that will take very little time to complete, do not demand funding, and have a direct positive impact are not seen as needing further approval. If a project is determined to need further approval, it is sent to the ITSC for further approval. This process of project analysis needs further refinement to ensure that we are considering projects collectively and in a cyclical basis that matches the budget cycle.

S.W.O.T Analysis

When considering the formulation of an IT Strategy for Trent, we must consider the strengths, weaknesses, opportunities, and threats (SWOT). This section identifies the SWOT analysis that was identified through a thorough analysis by the IT team. This is a self-analysis. The next section of this plan, “University Consultation” focuses on how the broader university community views IT and the services that are offered. It is both these types of analysis that ensure that we capture a good picture of where the pain points are and where the opportunities exist.

Strengths

The Trent IT team has a lot be proud of. IT team members are credited with having good interpersonal skills and providing great service. Additionally, we can

credit this team with being friendly and student centred. The IT team works hard and strives to accomplish outlined objectives.

Trent's size is also a strength for the Trent IT team. Trent's relatively small size as compared to other universities makes Trent more nimble and as such more able to make IT changes faster.

The Trent IT team has great relationships with vendors and these relationships keep them well supported.

It is also notable to highlight that the IT team has taken some great steps toward IT Governance and project management in the last number of years. This includes the establishment of IT Steering and the creation of the Project Board, as mentioned above.

The IT team has begun a very positive cultural change in the last number of years. Cross functional teams have been created with the focus on working with other departments to complete projects, co-ordinate, and communicate, an example of which is the team created to implement the school 's Integrated Web Presence (IWP). What is important to note here is that not only was the creation of the cross functional teams successful, but the team was actually able to make positive changes to the benefit of Trent.

As a whole, the institution has a will for a change to occur within IT, this will for change has initiated the actions that have led to the first step of change, the plan.

Weaknesses

One of the biggest weaknesses of IT at Trent is the lack of long-term planning and the alignment of IT across the institution. That being said, we believe that much improvement has been made in this direction, specifically as related to efforts spawning from the service delivery plan. In a nutshell, IT investments have to provide measurable and transparent value to the organization to gain a higher level of credibility. The weaknesses of IT at Trent can be broken down as cultural, operational/Procedural, infrastructure, software and integration, and Teaching and Learning.

Cultural

The observed culture at Trent for the operation of IT related services is fragmented. Many areas within the institution have their own IT operations to support their specific IT needs. Decentralized operation of IT is seen as beneficial to those direct areas. As this may be accurate in some situations, it is necessary to ensure that when operating in a decentralized model, that duplication of effort does not occur and that the procedural aspect of IT services across the institution is well established. Additionally, clear roles of the decentralized IT services need to be established. It is also observed that the

delivery of the technology desk services to students is fragmented across a number of departments. This type of decentralization is seen as non-beneficial and confusing to students who are trying to receive IT services.

Operational/Procedural

IT operations are suffering from a lack of long-term planning and clarity. This situation of ambiguity is directly related to the funding received by IT. It is our assertion that a funded IT plan will rejuvenate IT operations and deliver much needed services.

To succeed at delivering the expected services and service levels, increasing in staffing levels in some areas are necessary. This plan will make specific recommendations in this regard and will tie these recommendations to clear deliverables.

Additionally, as related to staffing, it is important to note that the Oshawa campus is currently under serviced by the IT team due to lack of funding. Currently a part-time advisor and a 1 day a week technician visit is all that is available. This was a trend that was highlighted as part of university consultations and will be further evidenced later in this plan.

IT services at Trent are delivered in the absence of strong procedures and policies. The lack of these procedures and policies has resulted in the inconsistent delivery of IT services and a lack of understanding of what services are offered by the IT operation. Closely related to procedures and policies is the topic of training. A significant number of the IT staff at Trent suffer from the absence of formalized training; instead, they are expected to “figure it out”. While IT staff members will do just that, the lack of formalized training and exposure to technologies also hampers innovation or the complete utilization of existing or emergent technologies. It is necessary to establish a training program to strengthen IT skills. This will ensure consistent and reliable delivery of service that is to the benefit of the whole of Trent.

Infrastructure

The current IT infrastructure at Trent is beginning to age significantly. A large scale network renewal program was undertaken seven years ago and resulted in the implementation of a new network that has served the institution well. During the past number of years, certain select pieces of the infrastructure have changed, but the main components of the network, the “core”, has aged to a state by which maintenance of the vendor will end in April, 2013. This would expose Trent to a high level of risk where significant disruption to network services costing significant disruption to network operations becomes possible.

The telephone system at Trent is also aging. The current technology that supports the phone system is five years old and the desk sets are now seven years old. There is a need for a replacement of this aging infrastructure to ensure continued service. The expected renewal cycle for a telephone system is usually seven years, so we are now in the tail end.

Trent does not have a true data centre, an area that is designed to industry standards with the correct power, cooling, and hardware placement design for the housing of Trent's servers. Currently, Trent has three server rooms in the Bata Library, Champlain, and the DNA buildings. Each of these areas has its own issues that need to be resolved. Some of the issues of concern include;

- The server room in Champlain has a cooling system that is 20 years and in need of replacement
- The server room in the Bata Library has no back-up power. Additionally the batteries used to maintain services during a power outage are in need of replacement
- The server room in the DNA building needs to have the batteries replaced as well

Desktop deployment for administrative staff at Trent needs to be changed. There is currently no desktop renewal program in place. Desktops are seen as slow and non-responsive and containing software that is outdated. Establishing a renewal program will ensure that desktops are rotated on a more timely basis and software is upgraded on a timeline that meets more of the service expectations of Trent.

The current e-mail and file storage systems currently deployed by Trent are not sufficient to meet the service expectations of staff, faculty, and administrative staff. Not only is the technology seen as aging, but the storage space offered by these services is very limiting, the access to the data off campus is difficult, and the integration with mobile devices is lacking.

The storage and back-up infrastructure that supports the e-mail and file storage systems is part of the issue. Currently, Trent does not have enough storage capacity to meet service expectations. Also, the back-up system is in bad need of replacement.

Software and Integration

Software at Trent can be categorized as software that provides services for Teaching and Learning and software that is administrative in nature. Software for teaching and learning will be discussed in more detail in the following section.

Administrative systems at Trent are varied. A complete list is attached in Appendix B. The number of systems at Trent is higher than that of typical institutions that have implemented an integrated system, such as Datatel, also known as Ellucian. Although Trent has implemented the Datatel system, decisions were made to not utilize the complete functionality of this integrated system and to purchase separate software packages. These decisions have put a large strain on the IT team and their ability to integrate and share data across these systems. Additionally, since the implementation of the Datatel system, many features that can increase efficiencies and service have not been utilized. When questioned about why, the consistent reason is time and resources not only within the IT team but across the administrative departments. Additionally, system users spend much of their time completing daily tasks and dedicate little or any time to learn how to better the current system features.

Teaching and Learning

This area has seen much improvement in the last year, specifically with the introduction of the Blackboard Learning Management System. There is still more work to be done here though.

Perhaps one of the clearest threats to teaching and learning is that the classroom technologies are aging and a sustainable technology renewal plan is long overdue. While a recent improvement plan has resulted in a more focused approach, the number of classroom emergencies continues to increase as the install base ages and additional classrooms come online. Additionally, we need to further train our audio/visual technicians to allow them to support the technologies that we utilize and wish to utilize. This will allow them to respond to the classroom emergencies faster.

On a positive note, the introduction of the Blackboard Learning Management System in September, 2012 was an excellent step towards improving the teaching and learning technologies support at Trent. More has to be done though as related to Teaching and Learning. We currently have no planning mechanisms in place to support the introduction of innovative technologies for teaching and learning.

Opportunities

One of the biggest opportunities that must be recognized as part of this plan is that there a strong thirst for change within the Trent IT team and within Trent as a whole, as related to the utilization of information technology. It is this thirst and this plan that will translate into action and change.

Threats

There are three notable threats that we must recognize when formulating this plan; financial resources, available skill sets, and staff availability. It is these threats that may directly impact the execution of this plan.

The availability of the financial resources to implement this plan is perhaps one of the biggest threats. It is the intention to request funding for action items within this plan as a lump sum to be distributed over a number of years.

The availability of the correct skill sets in and out of IT to implement this plan is certainly a threat. As we recognize this threat, we will take deliberate actions to enhance and invest in our staff where needed.

Finally, the availability of staff from across the institution to implement the tactics outlined here is another threat. As staff go about their day to day operations, they do not usually have sufficient time in their schedule to make changes. This time scarcity will directly impact cross functional efforts. As we recognize this threat, we will make recommendations to mitigate the risk posed by this threat.

University Consultation

To have a strategic plan that is reflective of the needs of Trent University and one that addresses the weaknesses and strengths of IT as seen by the wider university community, the IT Strategic Planning Task Force began a series of consultations with the university community in March 2012. The data collection yielded some excellent feedback and presented a set of themes to which this plan will address.

Data Collection Methodology

To approach the data collection members of the IT Strategic Planning Task Force made the determination that there is only anecdotal evidence of how people view IT and its strengths and weaknesses. The task force produced a data collection instrument that would focus on;

- Gaining insight into how respondents view “technology” in general.
- Ascertaining how the different constituents view the role of IT within the institution.
- Identifying technologies that are being used now
- Asking the respondents about how IT can be improved
- Identifying the top three priorities as they relate to current IT services
- Identifying services currently offered by technology that maybe underutilized and why
- Gaining insight into what services are missing and not being offered

Feedback Snippets

"Planning, planning and more planning especially relating to new buildings & renovations …"

"IT needs to be a welcomed partner at the table…"

"If we are going to do I.T. then let's do I.T well"

Please see Appendix C for a copy of the instrument used.

To deliver this instrument and to ensure that it would be representative of the overall population at Trent, the task force created a list of groups that did just that. The groupings included faculty, staff, and students.

Due to the exploratory nature of this data collection, the task force also opted to use focus groups and "open" forums as the method of data collection. The focus group took the form of targeted invitations for members of the university community to attend while the "open" forums were more of an invitation for anyone to attend.

During the period of March through July 2012, the strategic planning task force completed 30 focus sessions, including 2 "open" forums for all faculty and staff and 2 "open" forum sessions for students. Please see Appendix D for a list of all the sessions and the logistics of when they were delivered. It is important to note here that the data collection for all the sessions was shared by the task force. Members of the task force assumed responsibility of each of the focus groups. It is viewed that this would decrease interviewer bias where interviewers could begin to form opinions about the feedback and where those opinions can influence future focus groups. During the focus groups, the interviewer would use the prepared instrument to ask questions directly to the group. To ensure that the interviewer was focused on the group, administrative support was provided to take notes and capture the feedback from the focus groups. The "open" forums took much of the same format as the focus sessions, but were open to all faculty and staff.

Unfortunately, participation of students at the "open" forums was low and it was determined that to reach the student population, the use of surveys for data collection might yield the best results. From May 15th to May 29th 2012, students were given the opportunity to complete an online survey. The survey was posted on the university's LMS for completion by undergraduate and graduate students. Those who completed the survey were entered in a draw to win a free iPad.

The task force received 598 completed surveys from current students (undergraduate & graduate) during the 2 week period.

In addition to the above methods of data collection, the task force also put out an open invitation to the whole university community to provide any feedback during the strategic plan development process. Members of the community were asked to email their thoughts to itstrategicplan@trentu.ca.

"Focus on sustaining the basic services.."

" priority of grad students not necessarily same as under grad.."

"access to video conferencing facilities is difficult"

" Better central support for web-site needed.."

"printing is difficult..

Themes from the Feedback

The strategic task force reviewed and interpreted each response from all focus sessions and surveys. As part of the review of the data, themes from the feedback emerged and were characterized in the following categories; (see appendix E for additional detail)

IT governance, leadership and management:
Captured within this classification is feedback relating to planning, requirements analysis and alignment with university resources. Also incorporated here is the absence of policy around issues like mobile device management, remote access and wireless strategy, AODA compliance and privacy & security. Additionally, the taskforce netted into this category the strong connotation of wide span frustration and deteriorating morale relating to poor communications and lack of timely technical resources available.

Systems administration and infrastructure:
This grouping included responses relating to general network health, speed, redundancy, reliability, account provisioning, and identity and authentication management. All data centre "backroom" service deployment relating to servers responsible for file, print, web, database and applications as well as all physical network cabling and infrastructure.

Application development, database administration and support:
This category captures all application development, integration and hosting issues. The University wide enterprise/central systems (Datatel, HRIS, BlackBoard Learn9, etc.,) management, version control, updates and compatibility testing is also included within.

Basic services:
This theme captures all basic IT services including email, anti-spam, calendaring, file, print, virus protection and data backup/recovery.

Classroom and computer lab support:
Included within this category is all classroom technology, public labs, teaching labs and overall devices available or expected to be available for use. All PC/lectern imaging, patching, operating systems, including the need for a MAC presence was very common theme.

User Support and Services:
This section includes all services provisioned or expected to be provisioned from the IT service desk including technical triage, Help desk, trouble ticket response and 1 to 1 assistance. Frequent responses around the need for IT consulting and training on IT skills,

"Lack of boots on the ground in Oshawa for technical support"

"I think that the computer systems in the library and OC can be updated. A newer version of Word maybe and a shorter wait period for loading time. The tech support is fantastic! "

"more round the clock support.."

" more electrical outlets .."

" increase storage space for research.."

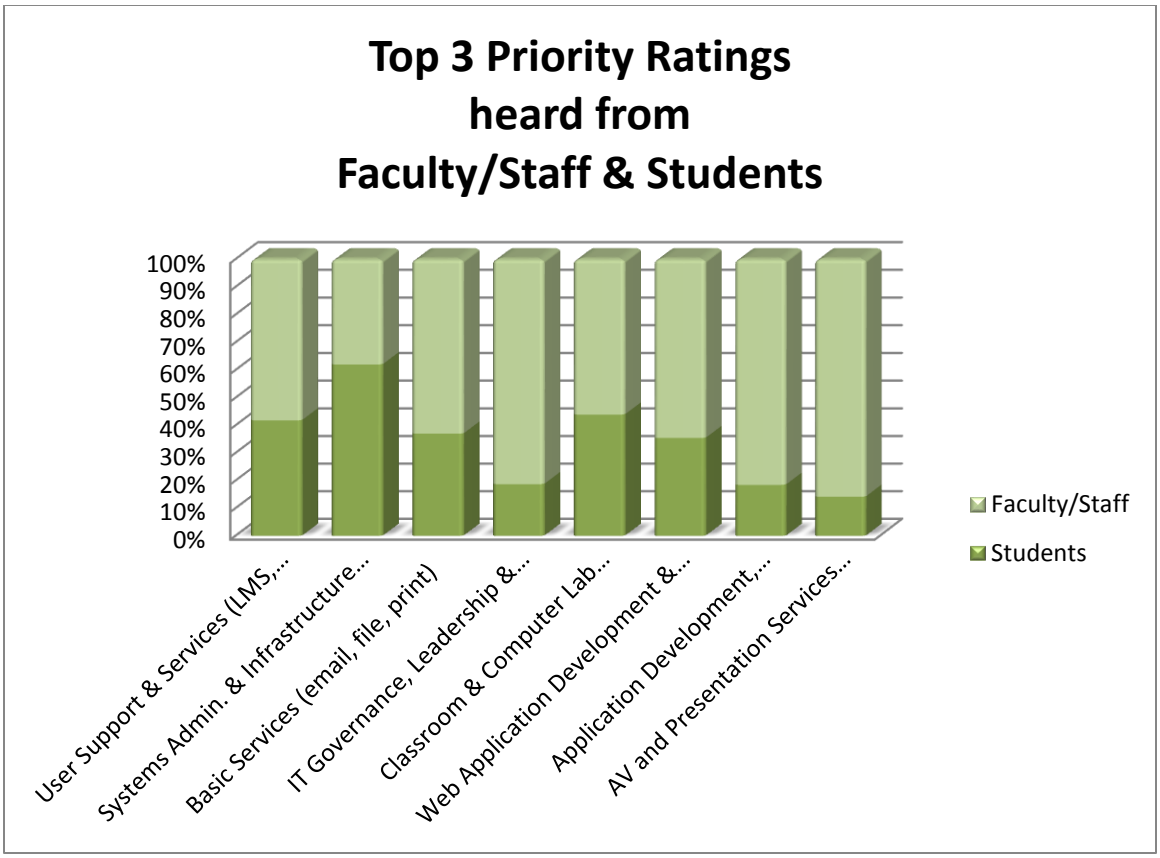
"don't let the technological tail wag the pedagogical dog"

services, and policies as well as communications and documentation of same are captured within this area.
Additionally, E-Learning support including Learning management services, Faculty web sites, Multimedia development, Instructional development and support are classified within this category.

Web application/On-line services development and support:
Web site and web application development including all portal and online services was a hot topic and very important to our user base. Content development and support for departmental web sites frequented the top 3 priorities and subsequently captured within this category.

Audio Visual and presentation services:
Selecting, deploying and managing presentation equipment (AV equipment) in teaching and administrative meeting spaces continued across the focus sessions. From faculty and graduate students we heard very clear feedback relating to the need to increase video conferencing facilities. Also captured within this category is the need for video streaming equipment, services, and support.

The strategic task force reviewed and interpreted each response from all focus sessions and surveys. Respondents were asked to identify their top 3 priorities with regard to present services provided, or not provided, through I.T. at Trent.
Faculty and Staff identified their top 3 priorities ranging from a very urgent need for video conferencing (AV & Presentation services) to the extreme need for additional support and training. There was a common theme to clarify and focus on improving basic services before stretching the existing support across additional or new services. All things "web" and the need to keep up with the student demand for access to services online from anywhere/anytime and the lack of evergreen policy for classroom and computer lab renewal presented at almost all focus sessions. While many categorized the overall need for improved planning, policy and resource management (IT Governance, Leadership and Management).



When reviewed in detail, consistent responses relating to priority included the following:

- Faster access to the internet and TrentNet services via classroom & public lab equipment.
- Secure, reliable, stable connectivity to services over wired & wireless infrastructure.
- Increase in number and upgrade lab computers and faster logins
- Up to date software and operating system versions
- Expanded wireless coverage and stable connections
- Readily available power outlets to re-charge devices
- Printers – reliable access, better maintained and supplies, pro-actively monitored
- Wireless printing
- Better support for personal devices including Mac's
- Improved communications of services available; details of interruptions including time to resolution
- Extended support via online chat and 24/7 availability
- Support for personally owned devices
- Improved email system

- Mobile apps
- More reliable classroom technology and support

When respondents were asked “What does the term “technology” mean to you, within the university environment”, many respondents repeatedly identified computing devices such as desktops, laptops, tablets, cell phones, printers, webcams, digital cameras, TV, radio, DVD, general appliances, e-reader, MP3, IPods, gaming devices, Smartboards, GPS, classroom projectors and recording devices. Several responses focused more on the transport of and access to services by listing wireless and access to the internet while other replies included, Social media, Skype, Facebook, Twitter, university web services, access to the Learning management system, library system, email and internet. Certain respondents included adaptive software including Kurzwell, Dragon Naturally Speaking, Guide, Open Book and JAWs. While others replied with a more comprehensive answer such as:

> *“All electronic tools that facilitate academic study and research;*
> *“interconnectiveness”*
> *“knowledge sharing; data access and decision support”*
> *“technology is anything made by humans – IT is the integration of it”*

With regard to the perception of what role the IT department should be providing. Faculty and staff stated they wanted IT to assume the role of consultant for projects and provide advice on technology. IT is expected to liaise with technology vendors as well as to provide support to new technology and integration of existing services.

It was identified that there is a need to bring clarity around what services are provided by the information technology department and to clearly document the level of those services.

Many respondents identified a lack of resources available in areas of support and training. Also, specific reference for a physical presence in Oshawa was repeated through both the focus sessions and the online survey tool. Coupled with complimentary reviews of the tech support received there was an overwhelming acknowledgement that there needs to be more support with extended hours, including, evenings and weekends. Numerous respondents stated that ideally they would like to see a 24x7 support line available to answer questions in a timelier manner.

Areas identified for improvement spawned a lot of dialogue ranging from the renewal of classroom technology to the automation of the academic calendar. A recurring theme associated with the speed and availability of technology on campus was predominant. This was expressed as slow PC’s, lengthy login times, slow printing system, and unreliable wireless access.

The main Trent website, Library online services and the myTrent portal were popular points of discussion and observed as very important to our respondents. Recommended improvements included dependable availability to all online services, ease of navigation, targeted and relevant content, better search, more e-journals and all services available via mobile devices. The need for centralized support relating to maintaining departmental web pages was repeated at many focus sessions. Many departments felt that it was “not” their job to update departmental web pages.

Respondents are expecting to access all services from their mobile devices including the learning management system, viewing docs and locating classrooms.

The current email system for students (Novell Netmail) along with the Groupwise calendar/email system was a regular complaint. Respondents want support for larger attachments and larger mailbox storage. The interface for both systems was cited as unfriendly and not compatible with other systems.

Classroom technology was noted multiple times as unreliable. The technology alluded to as old and in need of updates. Students want to see more lectures captured and available online. There is also a sense that more training and documentation is required around the use of Smartboards and other classroom technology.

A lot of feedback was directed at the WebCT version of the Learning Management system. Students are expecting a mobile version to be available and are not accepting of any interruption to the service.

Wireless coverage is expected everywhere including all classrooms. The speed and reliability of AirTrent was a common grumble.

Many respondents, mutually Students, Faculty and Staff stressed the need for Mac support. They wanted to see a Mac presence in the public labs and Mac compatibility within the services delivered.

The feedback also included observations like better access to knowing what they (students) actually owe, compatible document format for submission of papers, available antivirus scan for personal devices and remote access support from home. The ability to share large files in a “dropbox” like way; regulated “quiet” areas with computers; one card system; fillable and saveable forms, better processes and support around September start-up, the need for an institutional repository for Grad Thesis, a secure server for research and available training for Datatel and administrative software programs.

When asked if there are any technology resources that are available that you avoid/do not use the respondents replied:

- printing is difficult - too slow, unreliable and print poorly
- Never use H: drive and off site access to documents - netstorage is “clunky”
- Lab computers are really slow
- Calendar system is not user friendly and iPhone issues with it
- Office 2010 or Datatel as result of lack of training
- Portal need a single sign-on not to time out in 5 minutes
- Not clear what is available and how to access ie SPSS
- Circulating equipment is too restrictive
- Email
- Some of the library services, online resources, Topcat – difficult
- Website
- Campus desktops too slow – very common response
- Classroom technology – often problematic

Some suggestions the respondents included relating to technology resources they would like to use included:

- MyBeat – can we have a Trent-Oshawa version
- Panopto for recorded lectures & video conference with professors
- Better communication re: service outages “follow me on twitter.”
- OneCard system
- Logmein – remote support
- Datatel integration with Learning Management System
- Move apps to the “cloud”
- Make tuition process more transparent
- Better understanding around software licensing and availability
- Automation of processes, online forms to reduce paper and increase efficiencies, example electronic paystubs
- Digital signage
- Better sound equipment and video cameras available as circulating equipment
- Webcast lectures; podcasts
- Centralized license presentation software like Prezi
- Textbook material available for download, e-readers, e-textbooks
- Mobile technology – class twitter feeds, use mobile phone for in-class polls, virtual lectures, Skype for on-line course
- Faxing if available
- Online support agents to answer student questions

Impacts of the Integrated Plan

The integrated plan plays an important role in the formulation of the IT Strategic Plan. We have reviewed the integrated plan in detail and have made note of the following that should be considered when formulating the IT Strategic Plan;

Summary of Area Having Impact	Description of the impact	Delivery Timeline
Page 2. Right Data For Decision Making (P1)	There is a reference in the Integrated Plan about ready access to data and ensuring that the right data is available for decision making, specifically as related to Strategic Enrollment Management. This is an important reference with significant data availability implications	Not Available
Page 6. Commitment to achieving financial stability (P2)	Certainly, Trent's plan to achieve financial stability has some very important implications for IT, including; • Support of financial changes across the organization from an administrative system perspective • Achieving financial stability and predictability within IT	Ongoing
Page 8. Development of the IT Strategic Plan (P3)	This document should satisfy the need for the development of an IT Strategic Plan. What is important to note here is that although the strategic plan identifies the direction, course corrections during the strategic plan implementation are necessary.	December 2012
Page 10. Review of Administrative Systems and Organizational Processes (P4)	A review of administrative systems and organizational processes will have an impact on the systems that are being used and on the phase out and introduction of new systems.	Sept 2014
Page 10. Engagement and	Engagement and Outreach at times takes the necessary technology in place to implement.	Sept 2014

Outreach to Aboriginal Communities (P5)	For example, Lakehead University in Thunder Bay, ON is looking at utilizing real presence video technologies to engage Aboriginal Communities	

Impacts of the Academic Plan

The academic plan plays an important role in the formulation of the IT Strategic Plan. To really appreciate this impact, we have reviewed the academic plan in much detail and highlighted the areas in the plan that we feel will directly impact the formulations of the IT strategic plan;

Summary of Area Having Impact	Description of the impact	Delivery Timeline
Recommendation 4. Establish a Centre for Teaching, Technology, and Learning (A1)	The fourth recommendation in the Academic Plan goes into much detail about the development of the Centre for Teaching, Technology, and Learning. IT certainly has a role to play there. Although, this role is unclear until further development of this recommendation is made	Sept 2013
Recommendation 6. Affirm and ensure a culture of inclusivity (A2)	This recommendation make mention of exploring the use of technology in teaching.	Immediate
Recommendation 25. Capital Project Recommendations consider the academic impact of decisions (A3)	This recommendation calls for the creation of larger lecture halls that seat 100, 150, 200, and 500. There are obvious impacts here as related to the technologies that must be infused in these classrooms	Ongoing
Recommendation 32. Establish Virtual Classroom Capacity (A4)	This recommendation has a direct impact on the IT strategic plan. Upon further clarification with the VP Academic and Provost, it was determined that this recommendation speaks to the established of Distributed Teaching capacity. This is the use of technology to deliver courses from one of two remote locations while adding full	Sept 2012

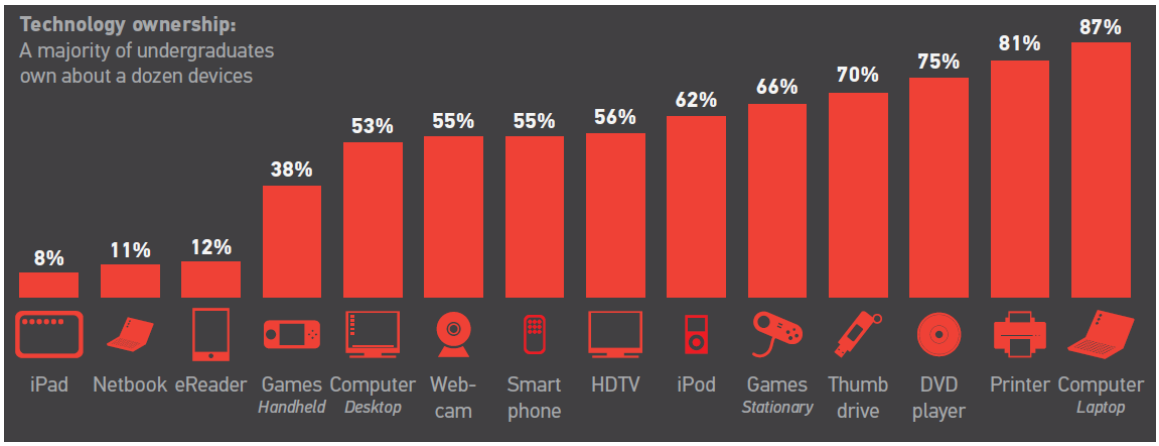
	interactivity between the lecturer and the learners at both locations.	
Recommendation 41. Development of a clear, transparent, and accurate set of data (A5)	This recommendation actually makes two sets of recommendations that are important to the IT Strategic Plan 1) The first recommendation is the improvement of the academic reporting, of which IT has a large role to play 2) The second recommendation is about taking deliberate actions to improve IT and the function of IT at Trent	Sept 2012
Recommendation 42. Integrate the IT strategic plan with the academic plan (A6)	This recommendation is more about infusing the actions of the IT Strategic Plan with the Academic Plan. The IT Strategic Plan will connect to the Academic Plan and make tactical recommendations that address the needs of the Academic Plan	Sept 2012
Recommendation 45. Establish an Evergreen Program (A7)	This recommendation makes reference to establishing an Evergreen Program. This certainly has an impact on IT. The establishment of an Evergreen Program will ensure that the IT services remain current and reliable	Sept 2014
Recommendation 58. Improve Research Budget Systems (A8)	This recommendation makes reference to launching an online service to deliver timely online service for faculty with research accounts through My Trent	Sept 2013

Industry Trends

The IT Landscape in education and the needs of the different constituencies served by IT is constantly changing. For Trent University to be successful, we must interrogate the technological and specific educational trends in technology that directly correlate to student retention/satisfaction, increased enrollment, faculty/staff satisfaction, and overall organizational efficiency. Some of the noteworthy trends that will have a direct impact;

The Hardware Landscape is changing (I1)

One of the most notable changes to the IT environment is the number and complexity of devices that students are bringing into educational environments. According to Dahlstrom, et al. (2011), when asked, a majority of undergraduate students professed to having as many as twelve technology devices. The frequency of device ownership per technology is seen in the diagram below;



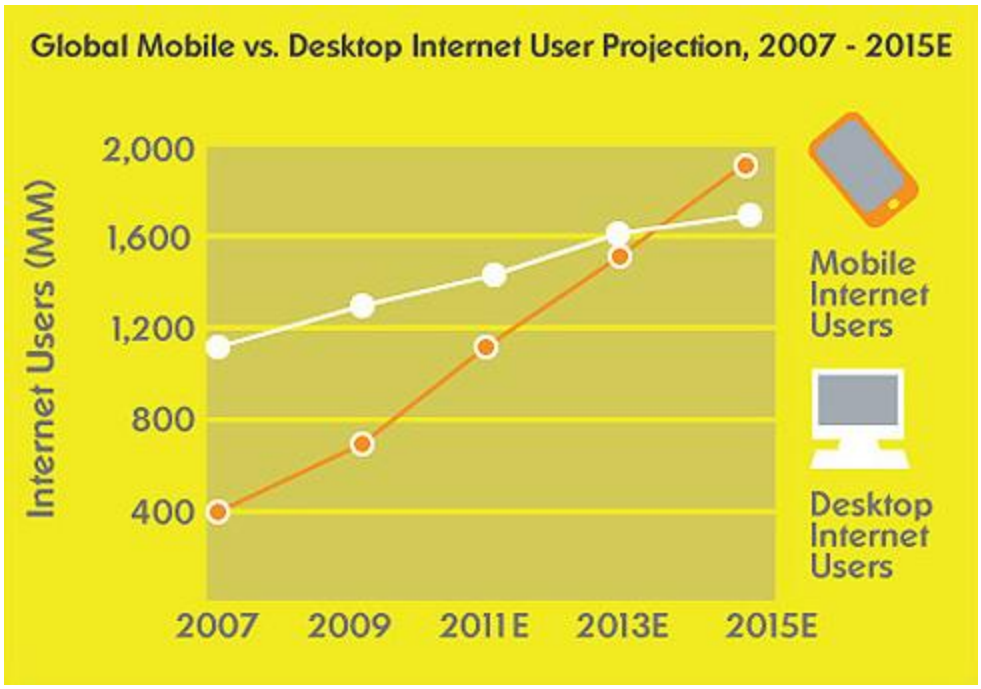
Source: Dahlstrom, et al. (2011): Technology Ownership

Certainly this trend does bring forth a set of questions that IT strategy will consider and act upon. Industry analysts, including Walt Mossberg of the Wall Street Journal, have declared that we are now in the "Post-PC-Era". Some of the implications include;

- How prepared are we, in terms of capacity, to allow the connection of all these devices to our WIFI networks?
- Where should WIFI coverage be available? According to Dahlstrom, et al.(2011), 78% of students find WIFI availability "extremely valuable"
- What is our "Bring Your Own Device" policy?

Adoption and Growth in Use of Mobile Devices (I2)

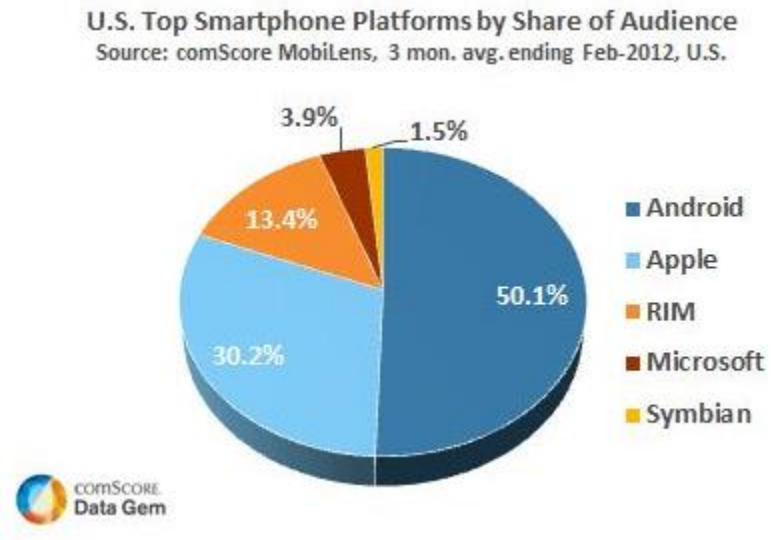
The growth in the adoption of smartphones has exploded over the last number of years. Smartphones can be defined as mobile devices that allow for internet access through a web browser, e-mail access, calendar access, address book access, texting, phone features, and access to specialized apps. According to Hepburn (2011) a recent statistic estimates issued by Microsoft, put the number of phones in use around the world at 4 billion. Over a billion of those devices are considered smartphones. This is up from the 400 million shown for 2007. Additionally, it is projected that by 2014, mobile internet should take over desktop internet usage and we are predicted to reach close to 2 billion mobile devices connected to the web by the end of 2015 versus an estimated 1.6 billion desktops for that same time period. The mobile trends are shown below;



Source: Hepburn (2011): How fast is mobile internet growing?

Hepburn (2011) also tells us that, on average, American spend 2.7 hours a day on their mobile device of which 91% is spent on socializing.

The make-up of the mobile market changes quickly. According to Flossi (2012), the market share as of February is showing a dominance of Android based devices. This market share is followed by Apple, RIM, Microsoft and finally Symbian based devices. This market share is depicted below.



Source: Flossi (2012): U.S. Top Smartphone Platforms by Share of Audience

To declare that the mobile market changes quickly is an understatement. Palm, Windows Mobile, and RIM once dominated the market. Now, Android has the clear lead. To have a mobile strategy that works long term, Trent must create a mobile strategy that is device independent and that is able to go beyond the market volatility.

There is one inescapable fact though. Mobile is now playing a more dominant part of the Technology market than ever before.

The above trend has some very important implications for Trent, including;

- How are we responding to the advent of Smart Phones as a choice platform for internet connectivity?
- Do we provide good basic services that are available to these different mobile platforms?
- Does our IT staff have the right skills to deal with the advent of mobile development or to make available our services on mobile devices?

The Apple is Back (I3)

For a company that was nearly in trouble ten years ago, hitting a low of 1.43% market share in September, 2002 according to OneStat.com, Apple Computers has certainly made a strong come back in the PC market. According to Gartner's Q2 2012 PC sales estimate, Apple now has 12% of the worldwide PC market share (Pettey, 2012). According to Pettey (2012), while most PC companies were reporting a double digit negative growth rate, Apple has continued to show strong growth.

One only has to stop at a university IT service desk to appreciate the comeback of Apple computers.

The trend in the growth of Apple computers is an important one and has some very serious implications.

- How are we as a service desk prepared to support Apple Computers?
- Do we have the skill set needed to support Apple Computers?
- Have we licensed our applications to run on Windows and Apple Computers?
- Do all our current services run on the Apple Platform?
- Should we consider the introduction of Apple Computer Labs?

Tablet Adoption and Impact on Education (I4)

According to Online Publishers Association and Frank N. Magid Associates, Inc. (2012), the use of tablet computers is skyrocketing. In 2012, thirty one percent

(74.1 Million) of the U.S. internet population, ages 8 to 64, regularly use a tablet. This is up from 12% just a year prior. Additionally, it is predicted that this statistic will jump to 47% by early 2013. The same study goes on to make the following conclusions;

- Tablets have become embedded in people's lives. People use their tablets a number of times daily for a total of 14 hours a week
- The most often reported use for tablets is content consumption. Ninety four percent of users report accessing content regularly.

Another study by Dahlstrom et al. (2011) suggested that tablet owners at higher educational institutions come from more affluent households with a median income of more than 100K. This should certainly be considered when looking at the demographics of Trent.

There are some implications that we should consider here;

- Considering that the data tells us that the vast majority of tablet users tend to use their tablets to consume content. One must consider how Trent delivers content to its students and faculty.
    - How accessible and what is the usability of our website through tablets?
    - How accessible and what is the usability of our portal through tablets?
    - How accessible through tablets are the electronic resources available to students and faculty?
    - How accessible is our LMS to mobile devices?
- Do we have the right IT skills sets to develop and produce content for tablet devices?

The Website, It's in the Top 10! (I5)

In their book, Strategic Enrollment Intelligence, Black et al, (2010) state that in a recent national survey of those applicants that have declined offers to an institution, it was revealed that a university website is one of the top ten factors influencing an applicant's decision to decline an acceptance offer.

Currently, Marketing & Communications is charged with the development of our website strategy and have collaborated closely with IT.

Armed with this information, we must ask ourselves;

- Just how effective is our website?
- Are we will resourced to maintain our website?

- Is our current Web Policy sufficient ?
- Can our website work well with mobile technologies?
- Are we and should we be leveraging social media technologies in our website?

Additionally, one must consider that the integration of the web and portal technologies is a trend that is seeing a lot more traction. Universities are realizing economies of scale, and adding much needed interactivity to their current website.

Social Media (I6)

Perhaps one of the most complex trends in technology and one that has been received with such mixed success in the academic world is the use of social media. Social media turns communication into interactive dialogue among individuals, organizations, communities, and individuals. It is software that mediates human communication.

When we think of social media, we think of public social media domains, like Facebook, Twitter, MySpace, and etc. The important distinction to make here is that social media can define not only the public social media domains, but also defines the social media tool sets. These include; blogs, picture-sharing, vlogs, wall-postings, email, instant messaging, music-sharing, crowdsourcing and voice over IP, to name a few.

In relation to social media, research has told us a few things. According to Black et al. (2010), encouraging engagement is a success factor in the drive for student retention. Additionally, Lenhart, et al., (2010) also informs us that 72% of 18 to 29 years use social networking sites. Other studies, namely Dahlstrom et al. (2011), point to Facebook usage by undergraduate students being at 90% with 58% checking their Facebook account several times a day. So, this should be a no brainer, we use social media to engage students. Unfortunately, the relationship between social media and engagement with an academic institution is not that simple. Thirty percent of students “strongly agree” that they should keep their social and academic lives separate with a further 39% saying it would be inappropriate for a teacher or professor to “friend” them on Facebook (Dahlstrom et al. (2011).

So, it seems that public social media sites may be inappropriate for use. Students are likely to want their teachers or institutions on their Facebook page as much as they are likely to invite them to their birthday party.

The social media trend certainly leaves us with a lot of implications for Trent;

- What social media strategy for engagement should be employed by Trent? There certainly is an argument to apply different social media strategies towards different aspects of academic life
- What social media tools are needed for differing methods of engaging the students?
- What should our mobile strategy be around social media?

Faculty Utilization of Technology is strongly correlated to the Characterization of Institutions that Make Effective Use of Technology (I7)

We can certainly observe from the research that there is no shortage of technologies that are currently owned by students, but it is the utilization of technologies by the faculty at an institution that characterizes the institution that makes good use of technology (Dahlstrom et al. (2010)).

Obviously, this trend has significant implications for Trent.

- Are we providing technologically innovative solutions to our faculty that would allow them to better engage and teach their students?
- Are we providing sufficient training to our faculty on innovations that are introduced?
- How are we encouraging our faculty to be innovative themselves? And to bring that innovation to the class?

Cloud Computing (I8)

There has been a lot of talk about cloud computing in the last number of years with a lack of true understanding of what it really is. Simply put, cloud computing is a way to provide applications to users without the need for those users, or their IT Departments, to purchase, install, or support software (Harrison, 2009). Not only is the service hosted online, but the data is also usually hosted with the service provider.

Although the concept of Cloud computing presents great opportunities, it also presents some challenges as relating to adoption. On one hand, it is more economical; the services provided in the “cloud” are usually run by experts who provide better security, service, and availability than can be afforded by most IT departments. Additionally, educational institutions don’t buy software, invest in technologies that become quickly outdated or spend a large amount of resources on technical support.

On the other hand, although we can sometimes be certain that organizational data can be secured by a service provider, the issue of privacy and jurisdiction of data usually becomes a point of discussion. Additionally, issues of how data will

be provided to host institutions upon the termination of service are also a point for discussion.

Carefully executed and negotiated, cloud computing services can offer advantages to institutions adopting them. Trent adopted “Google Apps for Education” as a cloud service in September, 2012. This brought e-mail, calendaring, and many other services to students.

Spending Comparison

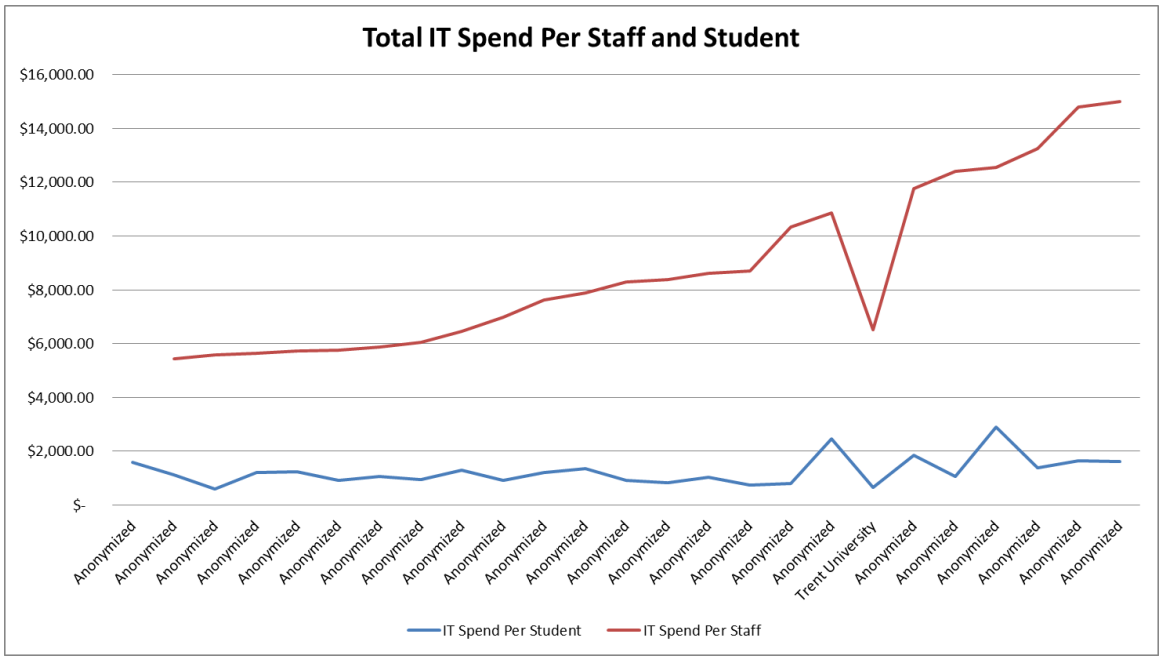
Part of this situational review is a spending comparison between Trent University and other educational institutions across the country. So, how do our IT expenditures and structure compare to other Canadian Universities? We have attempted to answer this question by presenting some of the following metrics:

- IT Spend per Student
- IT Spend per Staff
- Central IT Staff Counts
- Central IT dollars spent
- IT expenditures as a percentage of Total Revenue
- Degree of IT Centralization

We have chosen to use the data provided to us by CUCCIO (Canadian University Consortium of Chief Information Officers). Additionally, with some of the metrics i.e., Central IT Staff Counts, Central IT dollars spent, and Degree of IT Centralization, we have opted to only compare ourselves to universities of similar size i.e. having FTE counts between 5,000 and 10,000 students.

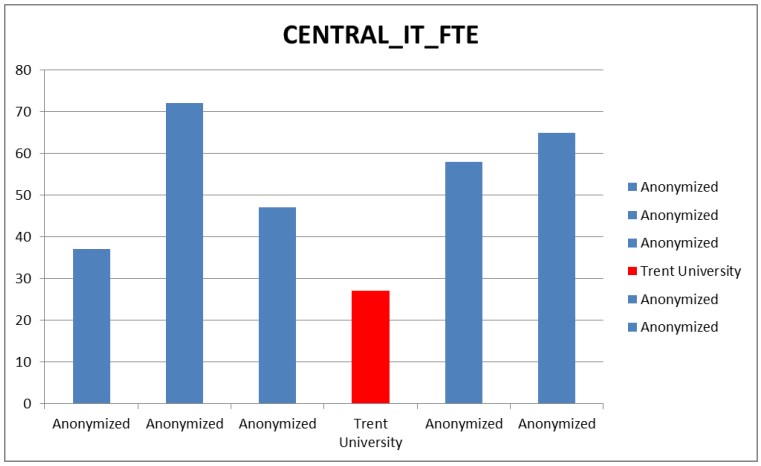
IT Spend Per Student & Staff

Institution	IT Spend Per Student	IT Spend Per Staff
Anonymized	$ 1,577.00	
Anonymized	$ 1,107.00	$ 5,427.00
Anonymized	$ 580.00	$ 5,585.00
Anonymized	$ 1,220.00	$ 5,649.00
Anonymized	$ 1,248.00	$ 5,729.00
Anonymized	$ 912.00	$ 5,755.00
Anonymized	$ 1,052.00	$ 5,867.00
Anonymized	$ 949.00	$ 6,057.00
Anonymized	$ 1,281.00	$ 6,447.00
Anonymized	$ 917.00	$ 6,969.00
Anonymized	$ 1,195.00	$ 7,628.00
Anonymized	$ 1,341.00	$ 7,887.00
Anonymized	$ 927.00	$ 8,295.00
Anonymized	$ 839.00	$ 8,381.00
Anonymized	$ 1,020.00	$ 8,622.00
Anonymized	$ 730.00	$ 8,706.00
Anonymized	$ 807.00	$ 10,345.00
Anonymized	$ 2,472.00	$ 10,857.00
Trent University	**$ 666.00**	**$ 6,506.00**
Anonymized	$ 1,842.00	$ 11,758.00
Anonymized	$ 1,063.00	$ 12,395.00
Anonymized	$ 2,901.00	$ 12,539.00
Anonymized	$ 1,383.00	$ 13,254.00
Anonymized	$ 1,634.00	$ 14,801.00
Anonymized	$ 1,608.00	$ 14,993.00
MIN	**580**	**5427**
MAX	**2901**	**14993**
AVERAGE	**$ 1,250.84**	**$ 8,768.83**



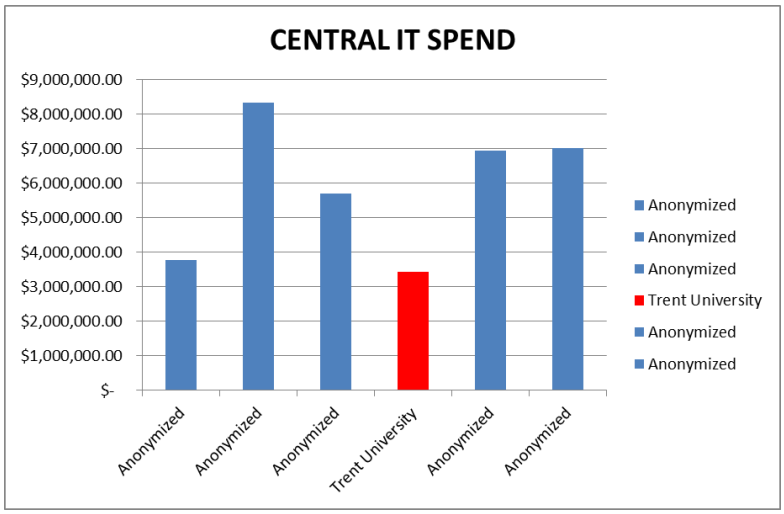
Central IT Staff Counts

UNIVERSITY NAME	CENTRAL_IT_FTE	TOTAL_STUD_EFTSL
Anonymized	37	6633
Anonymized	72	9200
Anonymized	47	6947
Trent University	27	7233
Anonymized	58	7537
Anonymized	65	9730
MIN	**27**	
MAX	**72**	
AVERAGE	**51**	



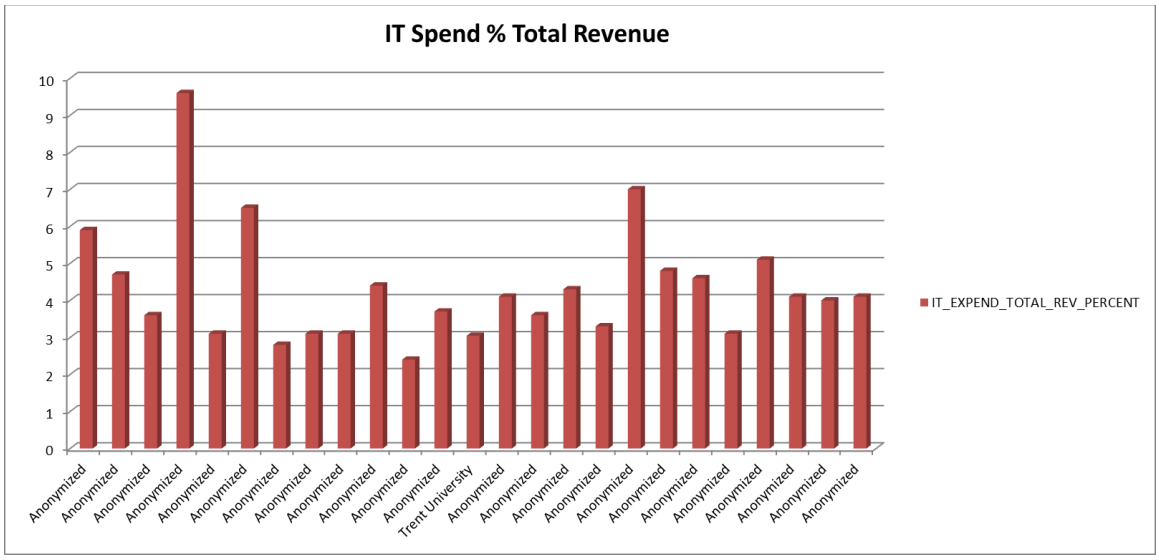
Central IT Dollars Spent

UNIVERSITY NAME	CENTRAL IT SPEND	TOTAL_STUD_EFTSL
Anonymized	$ 3,769,000.00	6633
Anonymized	$ 8,325,426.00	9200
Anonymized	$ 5,691,244.00	6947
Trent University	$ 3,426,722.00	7233
Anonymized	$ 6,950,000.00	7537
Anonymized	$ 7,012,620.00	9730
MIN	**$ 3,426,722.00**	
MAX	**$ 8,325,426.00**	
AVERAGE	**$ 5,862,502.00**	



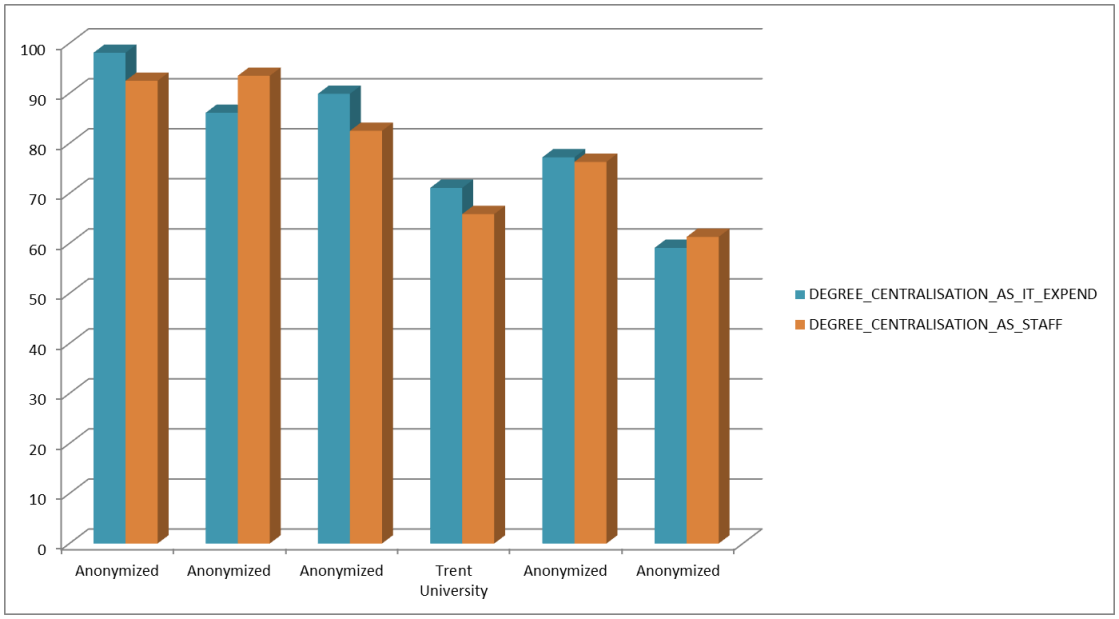
IT expenditures as a Percentage of Total Revenue

UNIVERSITY_NAME	IT_EXPEND_TOTAL_REV_PERCENT	TOTAL_IT_SPEND	CENTRAL_IT_SPEND
Anonymized	5.9	$ 3,454,170.00	$ 1,421,243.00
Anonymized	4.7	$ 25,000,000.00	$ 11,138,348.00
Anonymized	3.6	$ 43,764,336.00	$ 36,661,680.00
Anonymized	9.6	$ 5,802,154.00	$ 3,541,463.00
Anonymized	3.1	$ 24,494,363.00	$ 14,696,618.00
Anonymized	6.5	$ 3,765,529.00	$ 3,765,529.00
Anonymized	2.8	$ 3,842,000.00	$ 3,769,000.00
Anonymized	3.1	$ 19,800,000.00	$ 17,400,000.00
Anonymized	3.1	$ 73,549,080.00	$ 18,375,784.00
Anonymized	4.4	$ 9,673,612.00	$ 8,325,426.00
Anonymized	2.4	$ 26,250,000.00	$ 15,162,000.00
Anonymized	3.7	$ 6,330,000.00	$ 5,691,244.00
Trent University	**3.0**	**$ 4,820,747.91**	**$ 3,426,722.00**
Anonymized	4.1	$ 55,200,000.00	$ 29,121,124.00
Anonymized	3.6	$ 25,736,429.00	$ 13,778,028.00
Anonymized	4.3	$ 9,000,000.00	$ 6,950,000.00
Anonymized	3.3	$ 11,861,844.00	$ 7,012,620.00
Anonymized	7	$ 8,200,000.00	$ 7,500,000.00
Anonymized	4.8	$ 50,045,622.00	$ 24,172,696.00
Anonymized	4.6	$ 42,700,000.00	$ 22,300,000.00
Anonymized	3.1	$ 92,316,542.00	$ 224,568,300.00
Anonymized	5.1	$ 44,046,029.00	$ 18,638,594.00
Anonymized	4.1	$ 13,500,000.00	$ 8,500,000.00
Anonymized	4	$ 12,100,000.00	$ 7,310,000.00
Anonymized	4.1	$ 41,063,651.00	$ 29,929,651.00
MIN	**2.4**		
MAX	**9.6**		
AVERAGRE	**4.3**		



Degree of IT Centralization

UNIVERSITY_NAME	DEGREE_CENTRALISATION_AS_IT_EXPEND	DEGREE_CENTRALISATION_AS_STAFF
Anonymized	98.1	92.5
Anonymized	86.1	93.5
Anonymized	89.9	82.5
Trent University	**71.1**	**65.9**
Anonymized	77.2	76.3
Anonymized	59.1	61.3
MIN	**59.1**	**61.3**
MAX	**98.1**	**93.5**
AVERAGE	**80.2**	**78.7**



IT Vision

Simply put, the IT Vision is.

Innovative Information Technology for a Stronger Trent

Innovate in our vision not only refers to the introduction of new technologies, but also refers to the true meaning of innovation which is to introduce new methods and methodologies in approaching our ingrained practices.

IT Mission

The Trent IT Organization is accountable to students, Faculty, Trent Staff, IT Staff, and the community in which we operate. The IT Organization will operate based on the following overarching principles;

a) To our students, we will strive to enhance their experience.
b) To our faculty, we will strive to provide them with the necessary tools and services to enhance their teaching and research.
c) To our Trent Staff, we will strive to support their plans for efficiency and enhanced service.
d) To our IT Staff, we will strive to provide them with a healthy work environment that is engaging, fulfilling, and that will provide them with appropriate learning opportunities.
e) To the Community in which we operate, we will act as citizens of high moral and ethical values.

We will deliver our services in a friendly, financially responsible and efficient fashion as we aspire to be innovative in the delivery and support of Information Technology at the university as a whole.

Strategies

To fulfill our mission, we will be employing the following strategies;

a) We will introduce new technologies and innovations while retiring aging technologies. These actions will consider; university consultations, industry trends and the current state of our infrastructure.
b) We will take deliberate and collaborative actions to weave technology in teaching and learning efforts.
c) We will increase our commitment to service making it predictable, measurable and easier to access.

d) We will pursue improved methods of communication to encourage a welcoming and approachable environment.
e) We will maintain and introduce transparency in all project and operational activities to demonstrate accountability for everything we do.
f) We will seek out operational efficiencies and approaches to leverage technology by way of intentional collaboration.
g) We will increase our commitment to training internally and externally to the department.
h) We will take deliberate actions to interrogate our budgets and to diligently align our resources to the IT strategic objectives
i) We will take actions to make IT at Trent a whole university effort that is more aligned and co-ordinated.

We will take some intentional tactics as related to these strategies the will ensure that we fulfill our mission and vision as outlined in this plan.

Initiatives (Tactics/Objectives)

Based on the situational review of IT at Trent, Industry Trends, and the Vision, Mission, and Strategies established in this plan, certain initiatives will be presented in this section. Each initiative in this section will be presented in a consistent manner with the following sections;

- Initiative Name: The short name being given to the initiative.
- Initiative Description: A description of the project will be presented here. This will provide you, the reader, with enough information to fully comprehend the initiative being proposed.
- Initiative Scope: Some initiatives can begin as small undertakings, but can quickly mushroom to being much larger than initially expected. The scope section intends to limit this phenomenon of “Scope Creep” by explicitly discussing any inclusions, exclusions and assumptions.
- Rationale for Initiative: The reason we are undertaking this initiative as related to the Situational Review and Industry Trends.
- Initiative Risk: This is the risk associated with NOT undertaking such an initiative with an associated likelihood of that risk occurring.
- Initiative Priority: Initiative priority was completed based on a project evaluation tool that took into consideration; Breadth, Audience, Value, IT Efficiency and Finance indexes. Please refer to Appendix F for a copy of the tool, including Criteria and Weightings. The initiatives in this report only contain the final score and initiative priority. For a detailed view of the evaluations, please refer to the analysis spreadsheet.

- Executive Sponsor: This is a member of the PVP team that is ultimately responsible as the champion for this project.
- Department(s)/Team Responsible: The department(s) involved in the project OR the cross functional team to be formed to undertake this initiative.

Furthermore, the initiatives will be categorized into the following logical sections;

- Base Services: This section includes any initiatives taken to improve our base services.
- Service Expansion: This section includes any initiatives related to the expansion of our services.
- Renewal: This section deals with any initiative related to renewal efforts of our current infrastructure or systems.
- Information Systems: This section deals with any initiatives specific to the renewal or growth of our information systems.
- Expanded Customer Service: This section deals with any initiatives aimed at enhancing our customer service.
- Operational Efficiency & Compliance: This section deals with any initiatives aimed at improving operational efficiencies or dealing with compliance and security related initiatives.

It is important to note here that during the development of this plan, certain initiatives have been taken to ensure that some of the feedback has been addresses. Please refer to Appendix G for a list of these initiatives.

Base Services

Initiative Name	Storage Enhancements Project
Initiative Description	The storage enhancements project is aimed at changing the personal and shared storage model currently employed by Trent in both the capacity and the way in which both faculty and staff can access both their personal drives and the shared drive space. The project intends to; - Increase personal and shared drive space capacity to 25GB of storage. This is over 30 times larger than the currently available storage space. - Make personal and shared drive space easily available from any device i.e. A windows machine,

	Apple Computer, or any mobile device, including; Apple, Android, and Blackberry - Make personal drive space available even when the user is not connected to the internet.
Initiative Scope	The scope of the project is to provide a new and improved personal and shared storage space for both faculty and staff.
Rationale for Initiative	This project deals with a number of items identified in the situational review, including; - Feedback from the Trent community about storage and access to storage. This feedback referred to both the amount of storage and the access to storage from multiple devices and from off campus - References in the industry trends about changes in the hardware landscape, adoption and growth of mobile devices, return of Apple computing, and the adoption of tablets.
Initiative Risk	**Risk: HIGH** **Likelihood: HIGH** Without this initiative, we run the risk of not providing sufficient space for our staff and faculty to store their electronic documents and other files. We are currently in the situation by which insufficient space is offered. This situation forces staff and faculty to find alternative methods of storage. . These alternatives introduce risk of intellectual property loss and continuity loss through loss of data. Additionally, it is difficult for staff and faculty to gain access to organizational documents when not on the university property
Initiative Priority	**HIGH: SCORE 64**
Executive Sponsor	Steven Pillar/Gary Boire
Department(s)/Team Responsible	Information Technology

Initiative Name	E-mail/Calendaring/Contacts Enhancements Project
Initiative Description	The aim of this project is three fold; - Increase capacity that is available for e-mail

	storage for all staff and faculty - Make e-mail available to any device and from any location - Enhance the e-mail interface for staff and faculty and make it available from any location.
Initiative Scope	The scope of this initiative is to enhance the e-mail experience of both staff and faculty through a higher level of storage
Rationale for Initiative	This project deals with a number of items identified in the situational review, including; - Feedback from the Trent community about e-mail. This feedback referred to both the amount of storage and the access to e-mail from multiple devices - References in the industry trends about changes in the hardware landscape, adoption and growth of mobile devices, return of Apple computing, and the adoption of tablets. All these trends point to having a platform that is device agnostic.
Initiative Risk	**Risk: HIGH** **Likelihood: HIGH** Our current risks of not undertaking this initiative are; - Loss of e-mail due to insufficient storage on mail server. - Inability to send or receive large attachments. - Inability to use all mobile devices to effectively connect to the e-mail service. Currently, Blackberry devices have good integration
Initiative Priority	**HIGH: SCORE 59**
Executive Sponsor	Steven Pillar/Gary Boire
Department(s)/Team Responsible	Information Technology

Initiative Name	Imaging System and Computer Support Policy
Initiative Description	The purpose of this initiative is to establish a policy about the imaging of staff and faculty computers at Trent. Additionally, this initiative aims to establish the support levels offered by IT for imaged and non-imaged computers.

Initiative Scope	The scope of this initiative is the development of said policy and the communication and implementation associated with the policy.
Rationale for Initiative	This project deals with a number of items identified in the situational review, including; - Feedback from the Trent community about the imaging of machines, support for non-imaged machines and feedback regarding support for Mac Computers - Industry trends indicating the move to Apple and other devices. Our current support model addresses the needs for Windows users only
Initiative Risk	**Risk: HIGH** **Likelihood: HIGH** Our current risks of not undertaking this initiative are; - Having a poor service offering as related to computer support. This poor service would be perceived because of the following; o We would continue to offer imaged computers that do not meet the expectations of our staff and faculty. o We would continue to have vague and unclear support policies as related to non-imaged hardware o We would continue to have no support policies as related to Mac computers.
Initiative Priority	**HIGH: SCORE 56**
Executive Sponsor	Steven Pillar/Gary Boire
Department(s)/Team Responsible	Information Technology

Service Expansion

Initiative Name	WIFI Project
Initiative Description	As was described in the situational review from both the feedback from the Trent community and the industry analysis. The availability of WIFI across the institution remains an issue of high priority. The coverage and

	location of WIFI services remains a question that needs further consultation. It is the recommendation that any deployment of WIFI take two phases. The first phase analyzes further the need for WIFI while the second implements WIFI across the institution based on such recommendations.
Initiative Scope	As mentioned, this project is divided into two phases. • The scope of Phase I is a further analysis of the utilization of WIFI across Trent. Consultation with various committees, such as the Technology for Teaching and Learning Subcommittee will be the focus. • The Scope of Phase II is the implementation of enhancements to both WIFI coverage and capacity.
Rationale for Initiative	This project deals with a number of items identified in the situational review, including; - Feedback from the Trent community about WIFI coverage, capacity and availability. - Industry trends indicating that the availability of WIFI is one of the top technological priorities of learners.
Initiative Risk	**Risk: HIGH** **Likelihood: HIGH** Our current risks of not undertaking this initiative are; - Continually not meeting student expectations when it comes to WIFI coverage. - Poor perception of technology support from Trent University, generally as defined from a student perspective. Students generally form their technology perspectives based on the base services being offered by the institution. High on the base services is WIFI.
Initiative Priority	**HIGH: SCORE 50**
Executive Sponsor	Steven Pillar/Gary Boire
Department(s)/Team Responsible	Information Technology

Initiative Name	ResNet Renewal Project
Initiative Description	The Trent University residences currently have both telephone and internet service delivered to them through an outside vendor. Unfortunately, the service provided by the outside vendor and the costs associated with this outsourcing model has been high. A business case and technical analysis is being performed within IT and could indicate that there are synergies to be had by Trent IT assuming responsibility for providing this service. These synergies come in the form of shared network equipment and a higher redundancy against failure. Additionally, the Trent IT team believes that we can provide a better service to students, including free LD to Canada and the U.S. and WIFI service, which is currently not available in the residences.
Initiative Scope	The scope of this project is the replacement of the current ResNet service provided to students with that of a service provided by the Trent IT team. The cost of the service will remain stable at the same cost, but service itself will be enhanced with better support, access to WIFI, and better LD.
Rationale for Initiative	The current offering of ResNet, including both phone and internet, is expiring in April of 2013 and it may make sense financially and from a synergy perspective to offer this service through the Trent IT department at a similar cost with enhanced service.
Initiative Risk	**Risk: HIGH** **Likelihood: HIGH** This initiative must be undertaken to ensure continued availability of internet and phone service in residence. The current service ends in April 2013.
Initiative Priority	**LOW: SCORE 39**
Executive Sponsor	Steven Pillar/Gary Boire
Department(s)/Team Responsible	Information Technology

Initiative Name	Increase Support for Macs and New Mac Lab Introduction
Initiative Description	The aim of this initiative is to increase Trent's commitment to the Apple platform and to make available an Apple Lab

	for use by faculty and students.
Initiative Scope	The scope of this project is twofold; - An introduction of an Apple Lab for use by both faculty and students - An official policy about the support of Apple devices by Trent's IT team.
Rationale for Initiative	In both the Feedback from the Trent Community and the Industry Trends sections, it is clear that the hardware used by both faculty and staff can no longer be treated as homogeneous to the Windows platform. Our faculty and students are demanding for both support of and introduction of Apple computers to the Trent IT offering.
Initiative Risk	**Risk: HIGH** **Likelihood: HIGH** Our current risks of not undertaking this initiative, include; - Having a poor service offering as related to Apple computer availability and support. We would continue to have no support policies as related to Mac computers and we would make no Mac computers available to our learners.
Initiative Priority	**HIGH: SCORE 51**
Executive Sponsor	Steven Pillar/Gary Boire
Department(s)/Team Responsible	Information Technology

Initiative Name	Distributed Teaching and Video Conferencing Project
Initiative Description	This initiative has two major goals. 1) Introduce video conferencing technologies into the classrooms to support a distributed teaching model. Initially, a pilot is planned for January, 2013, with a larger roll-out following in the summer. 2) Introduce a number of video conferencing meeting rooms in both the Oshawa and Peterborough campuses

	3) Introduce personal video conference. This This initiative will allow Trent to maintain classes that would have ordinarily been cancelled due to low enrollment and would decrease travel between Peterborough and Oshawa for the purposes of conducting business.
Initiative Scope	The scope of this initiative will be to equip six classrooms with video conference facilities and to make four meeting rooms available in both Peterborough and Oshawa.
Rationale for Initiative	There are a number of reasons that we are undertaking this project. These include; - Increase our ability to maintain classes in Peterborough or Oshawa that would otherwise have been cancelled due to low enrolment. This initiative would see one faculty member in either Peterborough or Oshawa teaching a class in both Peterborough and Ottawa while having full interactivity with students on both sides. - Decrease staff travel between Peterborough and Oshawa and increasing collaboration and availability to both campuses Video conferencing was a key feedback point from the Trent community.
Initiative Risk	**Risk: HIGH** **Likelihood: HIGH** Our current risks of not undertaking this initiative, include; - Continuing to cancel low enrollment classes that would otherwise have been salvageable. - Continued travel costs as related to staff travelling between the Peterborough campus and the Oshawa campus. - Unavailability of video conferencing facilities for programs that depend on it. This includes the Masters of Material Sciences. - Inability for faculty and researchers to connect

	through video conferencing to other colleagues at other institutions that utilize video conferencing.
Initiative Priority	**MEDIUM: SCORE 43**
Executive Sponsor	Steven Pillar/Gary Boire
Department(s)/Team Responsible	Information Technology

Initiative Name	Introduction of a Survey Tool
Initiative Description	This initiative is focused on the delivery of a survey tool that is freely available to all researchers, staff, and faculty. The survey tool will allow researchers to standardize on one tool where they can be assured that their data collection results are backed-up and secured. Faculty and staff would be able to harness a tool that would allow them to collect data from students, other faculty/staff members, and the community as a whole.
Initiative Scope	The introduction of a new survey tool for researchers, staff, and faculty.
Rationale for Initiative	The introduction of this tool will enhance and make easier the research experience for both our researchers and their respondents. Additionally, the introduction of such a tool would aid
Initiative Risk	**Risk: HIGH** **Likelihood: LOW** There is much risk associated with the use of primary methods of data collection that rely on researchers collecting their own data using differing methods of electronic data collection. These include; - Loss of research data - Unauthorized access to research data - Inadequate security related to the collection and storage of data Although the risk would have a significant impact on the researcher and their data, the likelihood of such a risk occurring is low.
Initiative Priority	**HIGH: SCORE 55**
Executive Sponsor	Neil Emery/Steven Pillar/Gary Boire
Department(s)/Team Responsible	Information Technology

Initiative Name	Research Sever Service
Initiative Description	An introduction of a research server service, for both Linux and Windows, that is available to all researchers. This service will allow researchers to lease, on a monthly basis, a standard server configuration for research purposes. IT will ensure that the server and data is secure.
Initiative Scope	The introduction and support of the researcher server service
Rationale for Initiative	The introduction of this service will enhance and make easier the research experience for our researchers. Additionally, this will ensure that research data remains secure and backed-up.
Initiative Risk	**Risk: LOW** **Likelihood: LOW** There is risk associated with researchers using their own servers which may lack proper back-up and security. These include; - Loss of research data - Unauthorized access to research data - Inadequate security related to the collection and storage of data Although the risk would have a significant impact on the researcher and their data, the likelihood of such a risk occurring is low.
Initiative Priority	**LOW: SCORE 31**
Executive Sponsor	Steven Pillar/Gary Boire
Department(s)/Team Responsible	Information Technology

Initiative Name	Emergency Communications System and Digital Signage Project
Initiative Description	Currently, the Emergency Communications System at Trent University consists of an audible system that utilizes both the phones and public speakers to announce an

	Emergency Situation that must be immediately reacted to. As part of AODA compliance, we are held accountable to ensure that the hearing impaired have a methodology by which they can be alerted to an emergency situation. One methodology is to utilize LCD screens and place them across our campus to communicate an emergency situation. Directly related to ECS is the concept of digital signage. Multiple departments within the university have requested the use of this technology to communicate information. There are synergies to be accomplished by creating one initiative to address the needs for both Emergency Communication and Digital Signage.
Initiative Scope	The introduction of the technologies to ensure the implementation of an emergency communications system and a Digital Signage system.
Rationale for Initiative	The introduction of this technology will allow us to meet regulatory compliance and to meet the requirements of the various departments seeking to implement digital signage.
Initiative Risk	**Risk: HIGH** **Likelihood: HIGH** Although the risk of a real emergency in which a hearing impaired person is not notified of an emergency is low to medium, the risk of non-compliance with AODA is certainly considered to be HIGH. Non-compliance can lead to fines amounting to $100,000 dollars.
Initiative Priority	**MEDIUM: SCORE 45**
Executive Sponsor	Steven Pillar/Gary Boire
Department(s)/Team Responsible	Risk Management, Information Technology & Marketing and communications.

Renewal

Initiative Name	Network Infrastructure Renewal Project
Initiative Description	As mentioned in the situation review, a large part of Trent's network has significantly aged. Additionally, the main part of the network, the network core, will no longer

	be supported by our vendor beginning in April, 2013. Funding for the network core and a partial switch replacement will be asked for in 2013. The remainder of the network switching equipment can be replaced in 2014 and 2015.
Initiative Scope	The scope of this project is the replacement of Trent's aging network infrastructure over a three year period.
Rationale for Initiative	Trent's aging network infrastructure poses risk to the uninterrupted network services currently enjoyed by Trent faculty, staff, and students. A failure of the network core can take days to recover from with loss of essential services to staff, faculty, and students.
Initiative Risk	**Risk: HIGH Likelihood: HIGH** The current network infrastructure is aging. Some parts of the network are older than others. What is clear from the situational review is that the main components of the infrastructure, the CORE, is aging. The CORE will no longer be supported by the vendor by April, 2013. This represents a HIGH risk in terms of network availability and assurance
Initiative Priority	**HIGH: SCORE 50**
Executive Sponsor	Steven Pillar/Gary Boire
Department(s)/Team Responsible	Information Technology

Initiative Name	Server Room Repairs and Maintenance
Initiative Description	The purpose of this project is to complete maintenance and repairs in the three server rooms, as identified in the situational review. The maintenance and repairs include; - Cooling system for server room in Champlain College - Back-up power for the server room in the Bata Library - Replacement of batteries in the DNA building server room

Initiative Scope	The scope is as outlined in the initiative description above.
Rationale for Initiative	As discussed in the SWOT analysis, the server rooms are in need of some specific repairs to ensure sustainability and fault tolerance during a power outage.
Initiative Risk	**Risk: HIGH Likelihood: MEDIUM** When server rooms are not maintained correctly they present risks related to: - Early failure of equipment due to inadequate cooling. - Disruption of service or loss of data due to power failures and inadequate power conditioning. To ensure sustainability and high tolerance, the repairs and maintenance mentioned above must be completed on the current server rooms.
Initiative Priority	**MEDIUM: SCORE 47**
Executive Sponsor	Steven Pillar/Gary Boire
Department(s)/Team Responsible	Information Technology

Initiative Name	Asset Management System
Initiative Description	The purpose of this initiative is to create an asset management system for all Trent owned technology assets across the organization. This includes; - Classrooms and Labs - Offices - Data Centre The purpose of such an exercise is not to simply have better controls, but also to be able to provide some better predictability for hardware renewals and associated costs.
Initiative Scope	The scope of this system is to track all Trent owned and supplied technologies for the purposes of control and timely renewal. A one-time asset sweep is in scope, as well as documentation regarding asset management maintenance and upkeep.
Rationale for Initiative	The current controls of computing assets at Trent can simply be described as weak. There are currently no

	readily available platforms for reporting on assets, assignments, age, etc. This system would allow us to ensure that we have the correct controls of assets and would address the need to replace hardware and software in a timelier manner.
Initiative Risk	**Risk: HIGH Likelihood: HIGH** We are currently in a situation in which we have failed to account for all the IT assets in labs, lecterns and across staff desks in the organization. This failure has introduced the following current risks; - Assets can easily disappear without proper accounting - We are unable to accurately predict the financial burden of computer renewal year to year. - Our assets age significantly before they are recognized for renewal. This leads to a bad experience with technology for both our students and staff.
Initiative Priority	**MEDIUM: SCORE 46**
Executive Sponsor	Steven Pillar/Gary Boire
Department(s)/Team Responsible	Information Technology

Initiative Name	Information Technology Assets Renewal Program (Evergreen Fund)
Initiative Description	The purpose of this initiative is to ensure that we establish a computing assets renewal program for the purposes of ensuring that our Information Technology remains both viable and sustainable. The elements of the evergreen program, include; - Office computers - Labs, classrooms, and all associated technologies - Data centre - Servers - Network and associated devices (Including WIFI) - Phone system This program will clearly outline the annual costs of the evergreen program. To establish a baseline, many

	renewals of the above will be established as a separate initiative in this plan. The evergreen funds allocated to each area above will begin the year after renewal.
Initiative Scope	The scope for the project is to establish the program and to outline the funding needed to run said program. This initiative does not include any of the projects necessary to implement the evergreen initiatives. These initiatives will be discussed in this plan, separately.
Rationale for Initiative	The SWOT analysis, presented in this plan, includes weaknesses that can be directly attributed to not having a technology renewal program. This includes all feedback related to classroom technologies, labs, and desktop technologies.
Initiative Risk	**Risk: HIGH Likelihood: HIGH** Without an Evergreen fund, we run a number of risks associated with aging infrastructure. These risks include; - Unplanned for downtime leading to disruption of administrative and educational functions. - Unplanned for major expenses leading to financial hardship and higher costs of repair. - Loss of data or services. - Increased negative perception of technology due to aging equipment.
Initiative Priority	**HIGH: SCORE 53**
Executive Sponsor	Steven Pillar/Gary Boire
Department(s)/Team Responsible	Information Technology

Initiative Name	Lab/Classroom Renewals Project
Initiative Description	The purpose of this project to is to renew the lab/classroom technologies. This will include replacement of old equipment and improvement on the current designs within classrooms. The initiative will see the renewal of equipment in the summer of 2013, 2014, and 2015 respectively. Additionally, as part of this initiative, we will develop a

	policy for the introduction of lab computers at Trent. This policy will see approval and commitment through the IT Steering Group.
Initiative Scope	The focus of this project is the renewal of labs/classrooms.
Rationale for Initiative	Our labs/classrooms need to be on a set schedule.of renewal to ensure a continually sustainable teaching and learning environment that is free from disruption and failure.
Initiative Risk	**Risk: HIGH Likelihood: HIGH** Without lab/classroom renewal, we run a number of risks associated with aging infrastructure. These risks include; - Unplanned for downtime leading to disruption of educational functions. - Unplanned for major expenses leading to financial hardship and higher costs of repair. - Loss of data or services. - Increased negative perception of technology due to aging equipment.
Initiative Priority	**HIGH: SCORE 55**
Executive Sponsor	Steven Pillar/Gary Boire
Department(s)/Team Responsible	Information Technology

Initiative Name	Office Computers Renewals Project
Initiative Description	The purpose of this project to is to renew the standard office computing equipment for all staff. The initiative will see the renewal of computing equipment actively planned and executed on an annual basis.
Initiative Scope	The focus of this project is the renewal of office computers. This project will exclude peripheral device renewal i.e. Printers, scanners, web cameras, faxes, specialty mice and keyboard, and etc. Additionally, tablet computers are excluded from standard equipment at this time.

Rationale for Initiative	Our office computers need to be on a set schedule of renewal to ensure a continually sustainable work environment that is free from disruption and failure.
Initiative Risk	**Risk: MEDIUM** **Likelihood: MEDIUM** The risks associated with not renewing office computers include; - Unplanned for downtime leading to disruption of administrative functions. - Unplanned for expenses relating to unexpected computer renewal. - Loss of data. - Increased negative perception of technology due to aging equipment.
Initiative Priority	**MEDIUM: SCORE 46**
Executive Sponsor	Steven Pillar/Gary Boire
Department(s)/Team Responsible	Information Technology

Initiative Name	Upgrade our Phone System (Unified Communications)
Initiative Description	The current phone sets within the institution are approximately seven years old. Additionally, the actual phone system is currently more than five years old. This system has reached the state by which replacement is necessary. It is important to note here that synergies will be realized from the upgrade of the phone system being achieved at the same time as the move to ResNet.
Initiative Scope	The scope of this initiative is to renew our current phone system and to replace the sets currently being utilized by our end users. In making this change, a review of the current way in which the phone system handles incoming calls to Trent University will be undertaken. The current process of incoming calls has been flagged as problematic in the feedback received from the consultations accomplished with the Trent Community.
Rationale for Initiative	Aging infrastructure. Higher likelihood of service disruption becomes likely.

Initiative Risk	**Risk: HIGH** **Likelihood: MEDIUM** The risks associated with not upgrading our telephone system include; - Unplanned for downtime leading to disruption of administrative and academic functions - Unplanned for expenses relating to unexpected equipment failure - Loss of voicemail data - Increased negative perception of technology due to aging equipment.
Initiative Priority	**MEDIUM: SCORE 40**
Executive Sponsor	Steven Pillar/Gary Boire
Department(s)/Team Responsible	Information Technology

Information Systems

Initiative Name	Website Renewal
Initiative Description	The purpose of this project is to renewal the underlying infrastructure, the layout and the design of the existing Trent website. This would be a collaborative project between Marketing & Communications and IT with involvement by the rest of the organization. The Oshawa website renewal is currently underway and will form the basis for the website renewal.
Initiative Scope	The focus of this project is the renewal of the whole website. To accomplish this successfully, Marketing & Communications and IT will devise a cross-functional team and create a clear Terms of Reference and project charter for the project.
Rationale for Initiative	The feedback from the university community places the website high on most people's list. Additionally, we can see from the Industry Trends that the website plays an important role in enrollment and the university brand.
Initiative Risk	**Risk: HIGH** **Likelihood: MEDIUM** The risks associated with not redoing our current website

	include; - Having a site that does not address the needs of our audiences. - The age of the site projecting a perception about our institution in a negative fashion - Not easily finding the resources that we seek - Not being available to devices in what has now been termed the post PC era.
Initiative Priority	**HIGH: SCORE 64**
Executive Sponsor	Julie Davis/Steven Pillar/Gary Boire
Department(s)/Team Responsible	Cross-functional team created by Marketing & Communications and IT

Initiative Name	Trent Portal integration with Website redevelopment
Initiative Description	Ensure that portal integrates with website as it is redeveloped. Review new technology and implement changes to portal.
Initiative Scope	The scope of this project includes; - Training IT staff on platform - Reviewing the new website platform - Implementing changes to current portal
Rationale for Initiative	Single web framework. This will decrease maintenance and introduce a single web platform across the institution, as such, increasing efficiency
Initiative Risk	**Risk: MEDIUM** **Likelihood: HIGH** We run into a risk of confusing our audience about where to retrieve web information if both the portal and the new website are not integrated.
Initiative Priority	**HIGH: SCORE 53**
Executive Sponsor	Steven Pillar/Gary Boire
Department(s)/Team Responsible	Marketing & Communications and IT

Initiative Name	Mobile Access for Student Services
Initiative Description	This initiative will make available certain student services directly to student mobile devices
Initiative Scope	Allow access to basic student services directly on mobile devices. Some services include; • Academic Record and Grades • Student Timetable and Schedule • Course Calendar • Financial Statement • Course Registration
Rationale for Initiative	Allow students access to core student information using cellphones and mobile devices. As was demonstrated in the Industry Trends section, mobile access of information has increased significantly. This initiative moves us in line with the hardware trends.
Initiative Risk	**Risk: HIGH** **Likelihood: HIGH** As more and more students employ mobile devices and tablets to access the internet. We run the risk of not meeting student expectations if we do not begin to offer our services in a format that would easily run on those devices.
Initiative Priority	**HIGH: SCORE 50**
Executive Sponsor	Steven Pillar/Gary Boire
Department(s)/Team Responsible	RO/Information Technology

Initiative Name	Recruitment and Prospects
Initiative Description	Record, track and manage contact information for prospective students.
Initiative Scope	• Review of current recruitment processes and systems.

	• Review systems in use at other institutions. • Purchase of developed solutions • Single Prospect Database • Target web site and email communications • Ability to better track Communication with Prospects • Event Management (NSO. Open House, Tour Bookings) • Import of Prospect Data (e.g. Ontario Universities' Fair Data) • Schedule and track recruiting visits, including post/viewable on the web
Rationale for Initiative	Current processes and mechanisms for prospect data collection and storage are not linked resulting in inefficiencies and difficulties in effectively managing prospects and prospect communications. Consistency and improved efficiencies in data collection, sorting and manipulation are needed for more frequent, effective and timely communication, resulting in better tracking of prospects for Trent and enhanced customer service for prospects. A more consistent and user friendly system will also allow for better filtering of prospects against applicants to avoid duplicate work and communications.
Initiative Risk	**Risk: MEDIUM Likelihood: MEDIUM** As the enrollment environment becomes more competitive, an information system to track and assess recruitment efforts will ensure that we expend our resources on the efforts that give us the biggest returns in terms of enrollment. Without a system, we run the risk of expending resources inefficiently and in not maximizing the efficiency of our recruitment efforts.
Initiative Priority	**MEDIUM: SCORE 47**
Executive Sponsor	Gary Boire
Department(s)/Team Responsible	Recruitment

Initiative Name	Institutional Reporting
Initiative Description	Development of analytic reporting of key institutional performance areas.
Initiative Scope	Support IR in their development of Institutional Reports. Create and maintain data extracts and database for use in creating reports.
Rationale for Initiative	IR will be developing management and analytical reporting. IT will need to ensure that they have the ability to access any information that has been identified as critical for that reporting. The need for strong IR metrics/reporting was identified in both the Academic and Integrated Plans.
Initiative Risk	**Risk: MEDIUM** **Likelihood: MEDIUM** We run the risk of making decisions based on inaccurate information or no information.
Initiative Priority	**HIGH: SCORE 58**
Executive Sponsor	Gary Boire
Department(s)/Team Responsible	Institutional Reporting. Recommend the formation of an IT and IR working group in charge of identifying metrics/reports that will be slated for development

Initiative Name	Course Equivalency Database
Initiative Description	Ontario Initiative to provide a common database of University and College courses with course equivalency.
Initiative Scope	Currently providing course and course equivalency data as part of a review. Next steps to be determined.
Rationale for Initiative	Allow students to compare courses and review transfer equivalencies across universities and colleges.
Initiative Risk	No risks associated with this initiative.
Initiative Priority	**LOW: SCORE 38**
Executive Sponsor	Gary Boire

Department(s)/Team Responsible	SEM

Initiative Name	Document Management (Pilot)
Initiative Description	This initiative would be System to store, manage and retrieve documents in students' records and finance.
Initiative Scope	• Current scope is to develop requirements and project plan. Solutions have been reviewed in the past without a plan or requirements. Need to complete this phase by summer 2012. • Review systems and recommend solution. Look into available systems. • Current plan would be to then phase in a solution into Student Records and Finance.
Rationale for Initiative	• Large amount of paper documents stored in files. Causes space problems. • Difficult to manage. Time spent filing and retrieving documents. • Electronic documents can be easily searched for and retrieved from any location. • Electronic data can also be indexed and saved.
Initiative Risk	**Risk: LOW** **Likelihood: MEDIUM** This project is about increasing efficiency and ability to retrieve needed information. We run the risk of not having easy access to needed documents and to be inefficient in terms of document processing.
Initiative Priority	**LOW: SCORE 36** Based on the risks presented above and the likelihood of this risk occurring, this initiative has been allocated a medium priority.
Executive Sponsor	Steven Pillar/Gary Boire

Department(s)/Team Responsible	RO/Finance

Initiative Name	HR/Payroll Reporting Enhancements
Initiative Description	The purpose of this project is to develop required HR reporting using MSSQL and SSRS reporting tools.
Initiative Scope	The scope of this project is as follows; • Review reporting requirements with HR and Payroll. • Create extract and import of required data from HRIS to IRIS SQL database. • Develop reporting based on requirements. • Train HR on use and creation of reporting.
Rationale for Initiative	The rationale for this initiative is as follows; • Improved reporting. • Current reports have been developed using older technology and require conversion back to older database before reports can be run. • Use of a standard MSSQL reporting tools that can be supported by Trent IT staff. • Reports can be developed by IT and by HR/Payroll Power users. • Reporting will be more sustainable and not as dependant on a single person.
Initiative Risk	**Risk: MEDIUM** **Likelihood: MEDIUM** We run the risk of making decisions based on inaccurate information or no information.
Initiative Priority	**HIGH:SCORE 51**
Executive Sponsor	Steven Pillar
Department(s)/Team Responsible	Human Resources

Initiative Name	Finance Reporting Enhancements

Initiative Description	Improved standard and ad-hoc Finance Reporting
Initiative Scope	Scope of this initiative; • Use of IRIS MSSQL reporting to develop Financial Reports. • Review and identify reports for development with IRIS MSSQL. • Develop reports for Finance to use. • Train power users in Finance in use of SSRS Report Builder. Develop Data Models for Finance to use when building their own reports.
Rationale for Initiative	• More flexible financial reporting. • Improved ability to develop reports that can be deployed for end user use.
Initiative Risk	**Risk: MEDIUM** **Likelihood: MEDIUM** We run the risk of making decisions based on inaccurate information or no information.
Initiative Priority	**HIGH: SCORE 51**
Executive Sponsor	Steven Pillar
Department(s)/Team Responsible	Finance

Initiative Name	Research Reporting Enhancements
Initiative Description	This initiative will provide financial reporting budget and project tracking) to researchers using the Process Pathways “eFin” and Romeo Systems.
Initiative Scope	The scope for this project includes; • Provide data from Colleague Financial System for import into” eFin”. • Provide Single Sign access to system for researchers and faculty.
Rationale for	Better financial reporting for researchers. This was identified as one of the recommendations in the Academic

Initiative	Plan.
Initiative Risk	**Risk: MEDIUM** **Likelihood: MEDIUM** We run the risk of making decisions based on inaccurate information or no information.
Initiative Priority	**HIGH: SCORE 50**
Executive Sponsor	Neil Emery/Gary Boire
Department(s)/Team Responsible	Research Office/Finance

Initiative Name	Web Forms
Initiative Description	Ability to create, deploy and maintain electronic forms in Trent Portal without the need for IT intervention.
Initiative Scope	Train and support department experts on newly created forms tool.
Rationale for Initiative	The web forms project will allow many departments at Trent to walk away from their paper forms. There are many advantages to this, including; • Form submissions are tracked in a database. • Allows users to easily and quickly create and implement electronic forms. • Built in reporting and tracking of submissions. • Built in confirmation of submissions. • Login information automatically tracked, so submitter not required to enter demographic information (name, email, etc.) • Central support possible if forms created using tool. • Easier to support when admin staff turnover occurs.
Initiative Risk	**Risk: LOW** **Likelihood: LOW** We run the risk of using inefficient methods to receive forms based information from staff, faculty, and students.

Initiative Priority	**LOW: SCORE 35**
Executive Sponsor	Steven Pillar/Gary Boire
Department(s)/Team Responsible	Information Technology

Initiative Name	Financial Integration with Athletics System
Initiative Description	The Athletics Centre uses recreation management software, Class, to support its business operations. This includes all membership sales, program registrations, and facility rentals. Other modules to be implemented are campus recreation and camps. The goal of this project is to integrate the financial component of Class with Trent Financial System (Colleague from Ellucian)
Initiative Scope	The scope of this project is to fully integrate all receivables of the Athletics Centre that are processed through the Class system with the University's financial system.
Rationale for Initiative	Currently, all payments processed through the Class system are keyed in manually again to Trent's financial system. Efficiencies can be gained in staffing time and costs across the department. Additionally, greater financial controls can be implemented by integrating Class with the school's system.
Initiative Risk	**Risk: MEDIUM** **Likelihood: MEDIUM** We run a number of risks associated with not integrating our Athletics System with our Financial System. These include; - The risk of being inefficient with continued double entry - The risk of errors due to manual entry - The risk of lag associated with batch entry
Initiative Priority	**LOW; SCORE 34**
Executive Sponsor	Steven Pillar
Department(s)/Team Responsible	Information Technology, Athletics, Finance

Expanded Customer Service

Initiative Name	Service Catalogue
Initiative Description	The purpose of this initiative is to make available a catalogue of services to staff, faculty, and students that are offered by the Trent IT Department. This catalogue of services will be made available on the Trent University website for ready access and will include information about details of services, availability, hours of operation, etc.
Initiative Scope	The scope of this project is to author the catalogue and to make the catalogue available on the Trent University website.
Rationale for Initiative	This initiative is undertaken to increase accountability and clarity about the services and service levels currently available from the Trent IT Department. This clarity should increase user satisfaction levels and manage expectations.
Initiative Risk	**Risk: HIGH** **Likelihood: HIGH** The risks of not having a Service Catalogue, includes; - Confusion about the services that the Information Technology department offers and the expectations around service delivery - Dissatisfaction with the Information Technology department related to confusion about expectations - Delivery of services without correct accounting of costs and related resources.
Initiative Priority	**HIGH: SCORE 54**
Executive Sponsor	Steven Pillar/Gary Boire
Department(s)/Team Responsible	Information Technology

Initiative Name	Establishment of a Technology Training Program
Initiative Description	The purpose of this initiative is the establishment of an IT Training Program. This training program will have the

	following deliverables; - A survey of all faculty and staff on the IT training skills that they see as necessary with the results guiding the program formulation - A training calendar to outline IT Training topics and the schedule by which these training topics will be delivered. - Training materials for classes to be delivered - A training website with access to training materials and videos. - The purchase of training materials where necessary and cost effective - A link from the service catalogue to the training materials
Initiative Scope	The scope of this project is to develop and ongoing IT training program for Trent University. This program will focus on ensuring that the Trent university staff, faculty, and students have the skills necessary to do their jobs well and in an efficient fashion.
Rationale for Initiative	The feedback from the Trent Community identified training and the lack of it as related to IT as the highest priorities for IT at Trent.
Initiative Risk	**Risk: HIGH** **Likelihood: HIGH** A poorly trained staff in the use of our existing Information Technology resources. The lack of training can lead to inefficiencies in Information Technology/Systems utilization, system and information technology decisions based on little understanding about the current infrastructure, frustration by users and a general dissatisfaction with IT. Training was one of the most consistent feedback themes from staff and faculty. Staff and faculty felt that they were ill trained to be efficient in the use of our current Information Technology.
Initiative Priority	**HIGH: SCORE 56**
Executive Sponsor	Steven Pillar/Gary Boire
Department(s)/Team Responsible	Information Technology

Initiative Name	Enhancing IT Support Delivery
Initiative Description	This initiative is aimed at improving service delivery by IT. This includes the following; - Ensuring that we have the right support time schedules. - Ensuring that we have the right remote support tools. - Introducing other avenues for receiving support, including live chat and always on point to point video support - Establishing a support model for Oshawa to ensure enhanced availability of support
Initiative Scope	As noted above
Rationale for Initiative	Support and delivery is a reoccurring theme from the consultations. Additionally, support for Oshawa is a flagged as an area of concern.
Initiative Risk	**Risk: HIGH Likelihood: HIGH** We run the risk of failing to meet support expectations of staff, faculty, and students. A consistent feedback theme from the university consultation was directly related to increasing our support hours.
Initiative Priority	**MEDIUM: SCORE 45**
Executive Sponsor	Steven Pillar/Gary Boire
Department(s)/Team Responsible	Information Technology

Initiative Name	Development and Implementation of an IT Communications Plan
Initiative Description	This initiative is focused on the development of an IT Communications Plan. This plan will outline the following; - What communication mediums will IT use to reach each of its constituents? - Under what circumstances will IT communicate with its constituents? - What regular update communication will become

	part of the IT communications strategy?
Initiative Scope	The development and implementation of the IT Communications Strategy
Rationale for Initiative	The feedback from the University Community lists communications as one of the weaknesses of IT. The development of this plan will address this weakness.
Initiative Risk	**Risk: HIGH Likelihood: HIGH** Without a communications plan, IT runs the risk of not meeting the communications needs of staff, faculty, and students. Poor communications can also lead to poor perceptions and lack of clarity about IT.
Initiative Priority	**MEDIUM: SCORE 45**
Executive Sponsor	Steven Pillar/Gary Boire
Department(s)/Team Responsible	Information Technology

Operational Efficiency and Compliance

Initiative Name	Review all decentralized IT services and produce agreements with decentralized IT Services at Trent regarding roles and responsibilities.
Initiative Description	The goal of this initiative to review the decentralized IT services at Trent and to make recommendations regarding the centralization of some currently decentralized IT functions. Also, this initiative aims to establish agreements with all remaining decentralized IT services at Trent. These agreements will; - Improve operational clarity - Ensure that IT at Trent is run in an efficient and cohesive fashion - Improve customer service of IT to our end users
Initiative Scope	The scope is to review all decentralized IT operations, make recommendations about positions that are to be centralized and to produce agreements with all decentralized IT groups on campus

Rationale for Initiative	There are a number of reasons to create these agreements, including; - Improve service to our end users - Respond to some of the feedback gained from the campus consultation about some of the confusion associated with having decentralized IT operations - Improve overall operational efficiencies
Initiative Risk	**Risk: HIGH** **Likelihood: MEDIUM** We have a number of risks related to the current model of decentralized IT operations, these include; - Inconsistent IT service delivery by the different IT groups - Ineffective supervision of decentralized IT staff by supervisors who have no IT knowledge - Inefficiencies due to the specialization of IT staff who may not be fully utilized to serve the whole institution when possible - Departmental IT decisions without consideration of the overall effects on the whole institution
Initiative Priority	**HIGH: SCORE 51**
Executive Sponsor	Steven Pillar/Gary Boire
Department(s)/Team Responsible	Review is to be undertaken by the AVP, IT. The process will involve consultation and the drafted recommendation is to be discussed and approved by IT Steering.

Initiative Name	Establishment of Policies and Procedures around IT

Initiative Description	The goal of this initiative is to establish some key policies around IT at Trent. Absence of current policies has the following effects;
	- Introduces Legal Risk Around the use of IT at Trent
	- Obscures or make non-existent the position of Trent around issues of;
	  o Acceptable use of Trent's IT resources; including e-mail, storage, network, and etc.
	  o The advent and use of personal devices at

	Trent ○ Computing lab commissioning and deployment ○ Enterprise Software Acquisition ○ Hardware acquisition
Initiative Scope	The scope of this initiative is to produce a list of needed policies and procedures.
Rationale for Initiative	There are a number of reasons to create these policies and procedures, including; - The mitigation of legal risk - Making clear Trent's position on key IT issues and the associated consequences of breaching such policies and procedures
Initiative Risk	**Risk: HIGH Likelihood: HIGH** Without sufficient policies and procedures, we have the following significant risks; - Legal risk related information technology usage and information system utilization - Having inconsistent service delivery due to lack of procedures
Initiative Priority	**HIGH: SCORE 54**
Executive Sponsor	Steven Pillar/Gary Boire
Department(s)/Team Responsible	The policies and procedures are to be authored by the AVP, IT. The process will involve consultation and the drafted policies are to be discussed and approved by IT Steering.

Initiative Name	Establishment of the IT Staff Training Fund
Initiative Description	Skill development within the IT organization is an important factor in the success of IT within any organization. The purpose of this initiative is to improve and retool the skills of our existing IT staff. Currently,

	there are no funds specifically set aside for this purpose.
Initiative Scope	The scope of this initiative is to make funds available to IT staff for professional development. These funds will go hand in hand with any realignment initiatives that are necessary to retool the staff.
Rationale for Initiative	IT Skill development is necessary to; - Ensure that our IT staff have the necessary skills to run our systems. - To ensure that our IT staff keep their skills up to date. This will aid staff in; o Working more efficiently o Updating their skills and roles to accommodate emerging technologies and changing IT models o Introducing innovations in both process and tools to the organization o Feeling more job satisfaction and progression. This will, in turn, reduce turnover. The IT team will fail to meet the needs of Trent without skills development.
Initiative Risk	**Risk: HIGH Likelihood: HIGH** A poorly trained staff in the delivery of Information Technology resources. The lack of training can lead to inefficiencies in Information Technology/Systems delivery, system and information technology decisions based on little understanding about the current industry and outlook, frustration by users and a general dissatisfaction with IT. Training was one of the most consistent feedback themes from staff and faculty. IT staff felt that they were ill trained to be efficient in the delivery of Information Technology. Their skills have stagnated.
Initiative Priority	**HIGH: SCORE 65**
Executive Sponsor	Steven Pillar/Gary Boire
Department(s)/Team Responsible	Information Technology

Initiative Name	Administrative Systems and Operational Review
Initiative Description	This initiative was identified in the Integrated Plan as necessary to ensure that our current administrative systems and processes are achieving operational efficiencies. To achieve this objective, it is recommended that the Vice President of Administration form a cross functional team with representation from across the administrative departments. The aim of this team is to select an external partner to review Trent's systems and processes and to make recommendations regarding operational and administrative system changes that need to be executed to improve operational and system efficiency.
Initiative Scope	The selection of an outside vendor that is charged with making recommendations regarding operational efficiencies and systems changes.
Rationale for Initiative	Improving operational efficiencies
Initiative Risk	**Risk: HIGH** **Likelihood: HIGH** Without a thorough Administrative Systems and Operational Overview, we run the risk of; - Having operationally inefficient systems and processes - Duplicating processes and efforts - Having processes in place that are no longer needed.
Initiative Priority	**HIGH: SCORE 74**
Executive Sponsor	Steven Pillar/Gary Boire
Department(s)/Team Responsible	Cross functional team formulated by the Vice President of Administration.

Initiative Name	IT Operating Funds – Financial Review
Initiative Description	The purpose of this project is to establish a new detailed IT operating budget. This budget would make transparent every dollar that IT spends and for what purpose. Additionally, this initiative will attempt to cover inefficiencies and eliminate them.

Initiative Scope	The scope of this project is to do bottom up budgeting for all IT operations.
Rationale for Initiative	Improving operational efficiencies and improving transparency.
Initiative Risk	**Risk: MEDIUM** **Likelihood: MEDIUM** Without a thorough review of IT operating expenditures, we run the risks of not utilizing our operational funds in an efficient fashion.
Initiative Priority	**HIGH: SCORE 57**
Executive Sponsor	Steven Pillar/Gary Boire
Department(s)/Team Responsible	AVP, IT

Initiative Name	AODA Compliance
Initiative Description	The purpose of this project is to ensure that we are within AODA compliance across our technology systems and services. The project will be accomplished in two phases. In Phase I, we will accomplish an identification of AODA guidelines that directly affect technology and we will cross reference our technologies and services against these requirements to identify any compliance issues that now exist. In Phase II, we will commission actions to bring our systems and services to compliance.
Initiative Scope	The scope of this project is to identify and bring into AODA compliance our technologies and systems.
Rationale for Initiative	Regulatory compliance
Initiative Risk	**Risk: HIGH** **Likelihood: HIGH** AODA outlines some very stringent requirements that we must be in compliance with by 2014. Failing to be in compliance may present fines, up to $100,000.
Initiative Priority	**HIGH: SCORE 56**
Executive Sponsor	Steven Pillar/Gary Boire

Department(s)/Team Responsible	Information Technology & Office of Human Rights, Equity, & Accessibility

Initiative Name	Infrastructure and Data Security
Initiative Description	The purpose of this project is to ensure that, we, as an institution are undertaking the necessary steps to protect the security and integrity of our data and infrastructure. That being said, I would like to point out that there are many aspect of security that are already weaved right through this document. These include; - An administrative system and operational review that will include recommendations about our current data and process security models - Storage enhancements to increase our storage capabilities and our back-up capacity to deal any future disasters. - The completion of the fibre ring to ensure redundant paths and no single point of failure. - The enhancement of our network to ensure that the latest technologies are employed in firewall and intrusion detection. Beyond these efforts, certain actions still need to be taken to ensure infrastructure and data security. Of paramount to these is; - A security sweep of our servers and access levels - Policies that govern our users utilization of our technologies - Policies that govern the handling of sensitive data and the storage and handling of such data. This initiative was formally requested by the Finance and Property Committee of the Board.
Initiative Scope	Performing a security sweep across our servers and authoring the necessary policies to mitigate the risks currently encountered
Rationale for Initiative	Protecting the safety and security of our infrastructure and data.
Initiative Risk	**Risk: HIGH** **Likelihood: MEDIUM** Our current security safe guards across the institution are generally good. Our aging infrastructure and security

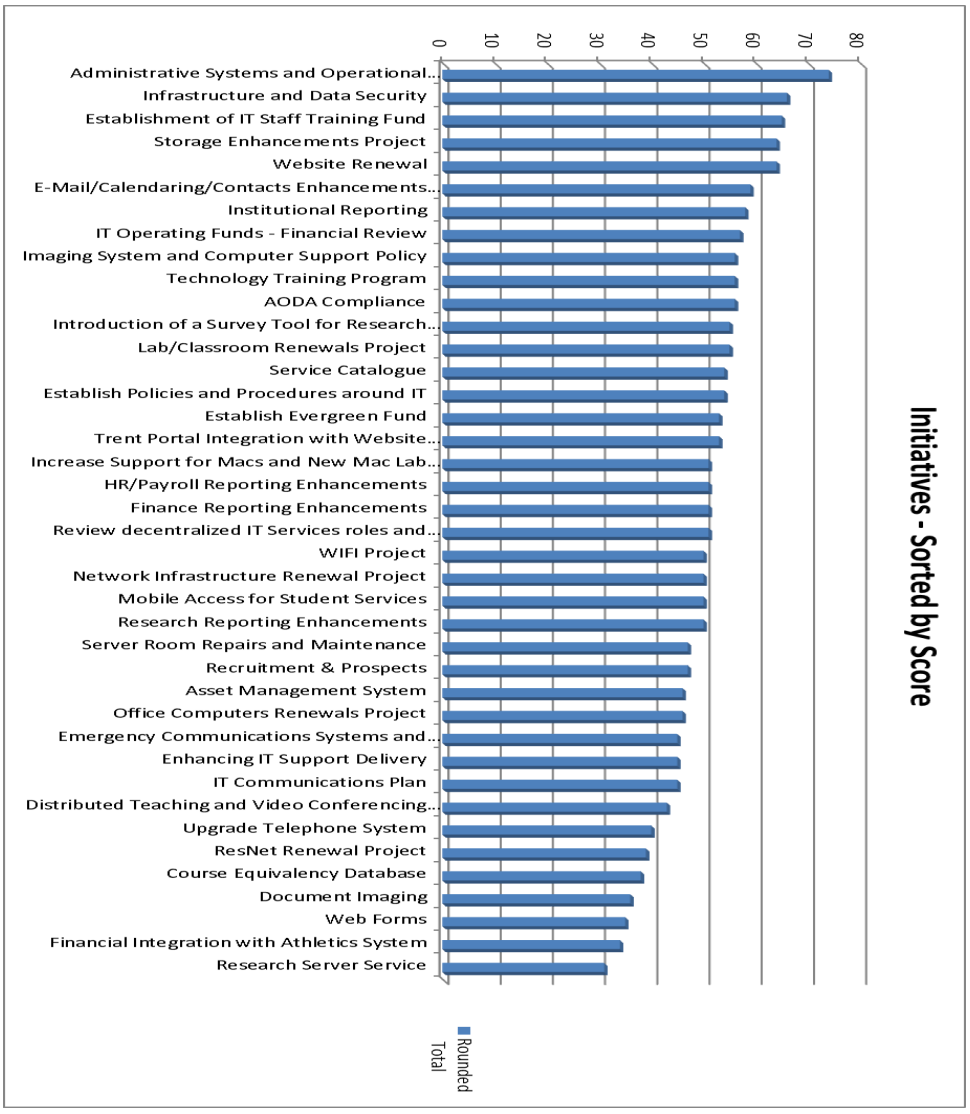
	design does pose some risks though. Additionally, our lack of policies around some key issues also need to be addressed.
Initiative Priority	**HIGH: SCORE 66**
Executive Sponsor	Steven Pillar/Gary Boire
Department(s)/Team Responsible	Information Technology

Initiatives (Tactics/Objectives) Summary

Below is a summary of all the initiatives presented above, sorted by Initiative Priority. Please refer to the Excel sheet for more details on how the scores were derived.

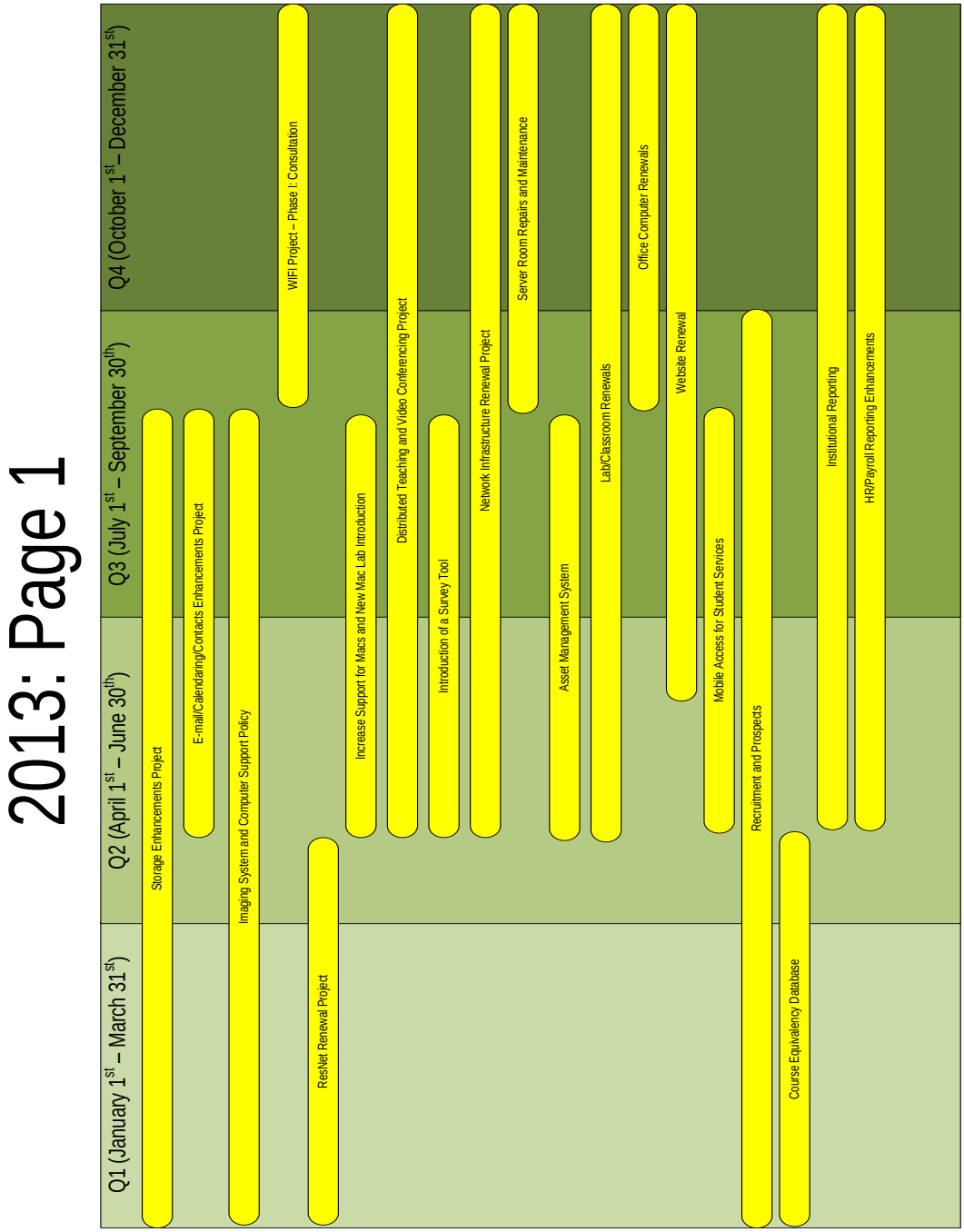
Project Name	Rounded Total	Ranking
Administrative Systems and Operational Review	74	HIGH
Infrastructure and Data Security	66	HIGH
Establishment of IT Staff Training Fund	65	HIGH
Storage Enhancements Project	64	HIGH
Website Renewal	64	HIGH
E-Mail/Calendaring/Contacts Enhancements Project	59	HIGH
Institutional Reporting	58	HIGH
IT Operating Funds - Financial Review	57	HIGH
Imaging System and Computer Support Policy	56	HIGH
Technology Training Program	56	HIGH
AODA Compliance	56	HIGH
Introduction of a Survey Tool for Research Usage	55	HIGH
Lab/Classroom Renewals Project	55	HIGH
Service Catalogue	54	HIGH
Establish Policies and Procedures around IT	54	HIGH
Establish Evergreen Fund	53	HIGH
Trent Portal Integration with Website Redevelopment	53	HIGH
Increase Support for Macs and New Mac Lab Introduction	51	HIGH
HR/Payroll Reporting Enhancements	51	HIGH
Finance Reporting Enhancements	51	HIGH
Review decentralized IT Services roles and responsibilities	51	HIGH
WIFI Project	50	HIGH
Network Infrastructure Renewal Project	50	HIGH
Mobile Access for Student Services	50	HIGH
Research Reporting Enhancements	50	HIGH
Server Room Repairs and Maintenance	47	MEDIUM
Recruitment & Prospects	47	MEDIUM
Asset Management System	46	MEDIUM
Office Computers Renewals Project	46	MEDIUM
Emergency Communications Systems and Digital Signage	45	MEDIUM
Enhancing IT Support Delivery	45	MEDIUM
IT Communications Plan	45	MEDIUM

Distributed Teaching and Video Conferencing Project	43	MEDIUM
Upgrade Telephone System	40	MEDIUM
ResNet Renewal Project	39	LOW
Course Equivalency Database	38	LOW
Document Imaging	36	LOW
Web Forms	35	LOW
Financial Integration with Athletics System	34	LOW
Research Server Service	31	LOW

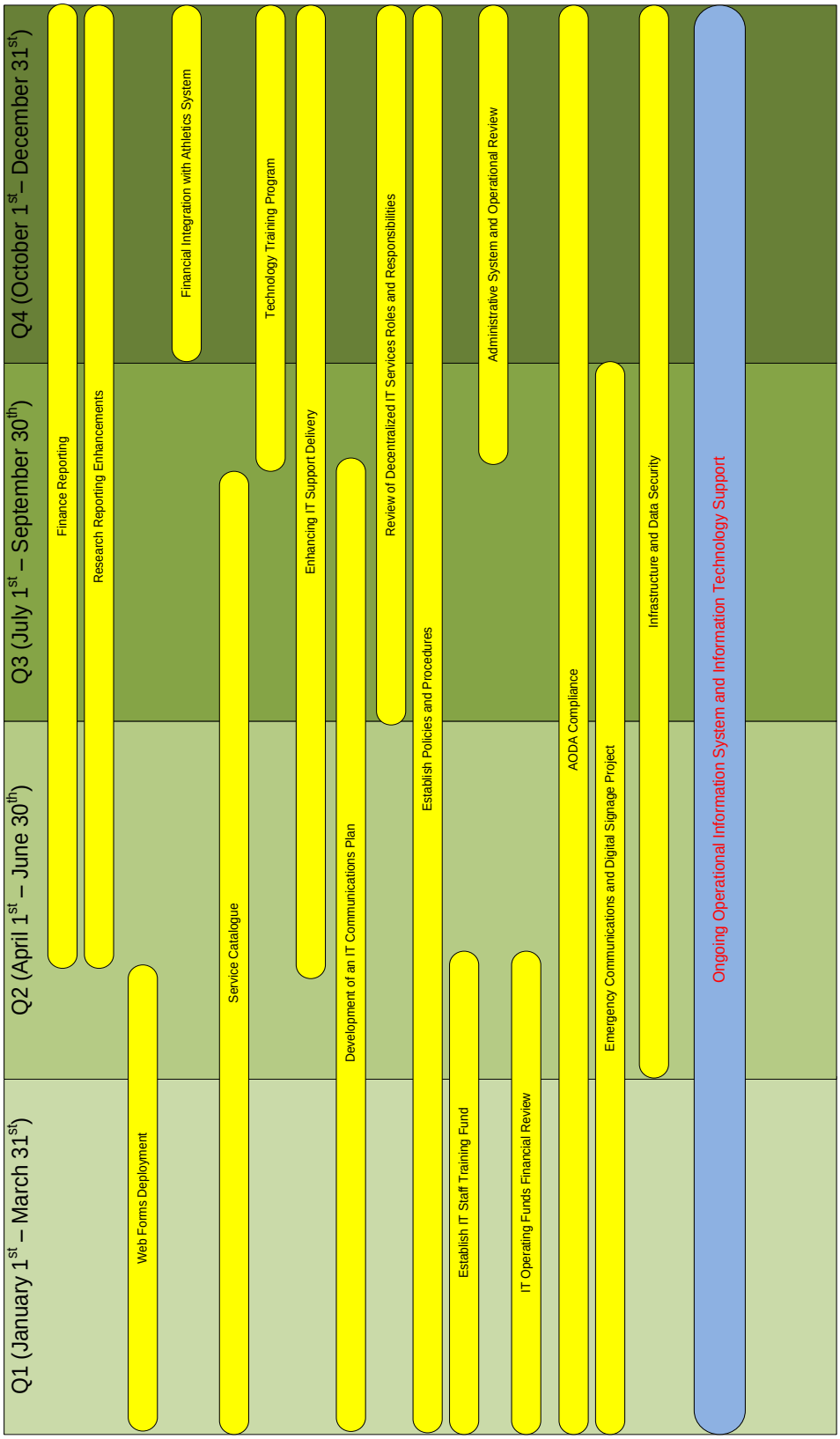


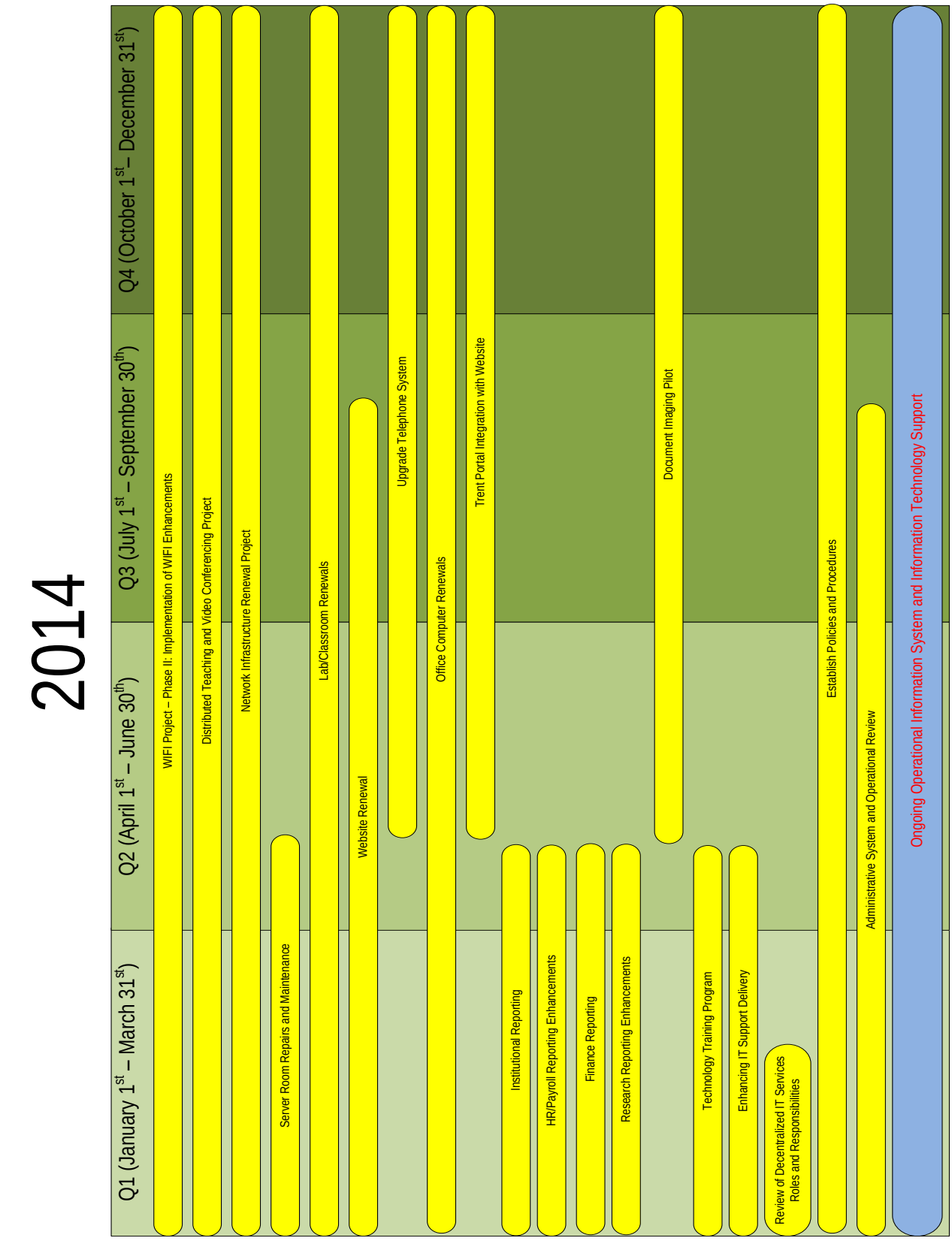
Timelines

The timelines depicted below address the timeline for implementing the initiatives listed above. Please note that some initiatives are ongoing throughout the plan while others are discrete. Also, the timelines begin on January, 2013 and end on June 30th, 2015. This coincides with the timelines of the Integrated and Academic plans.

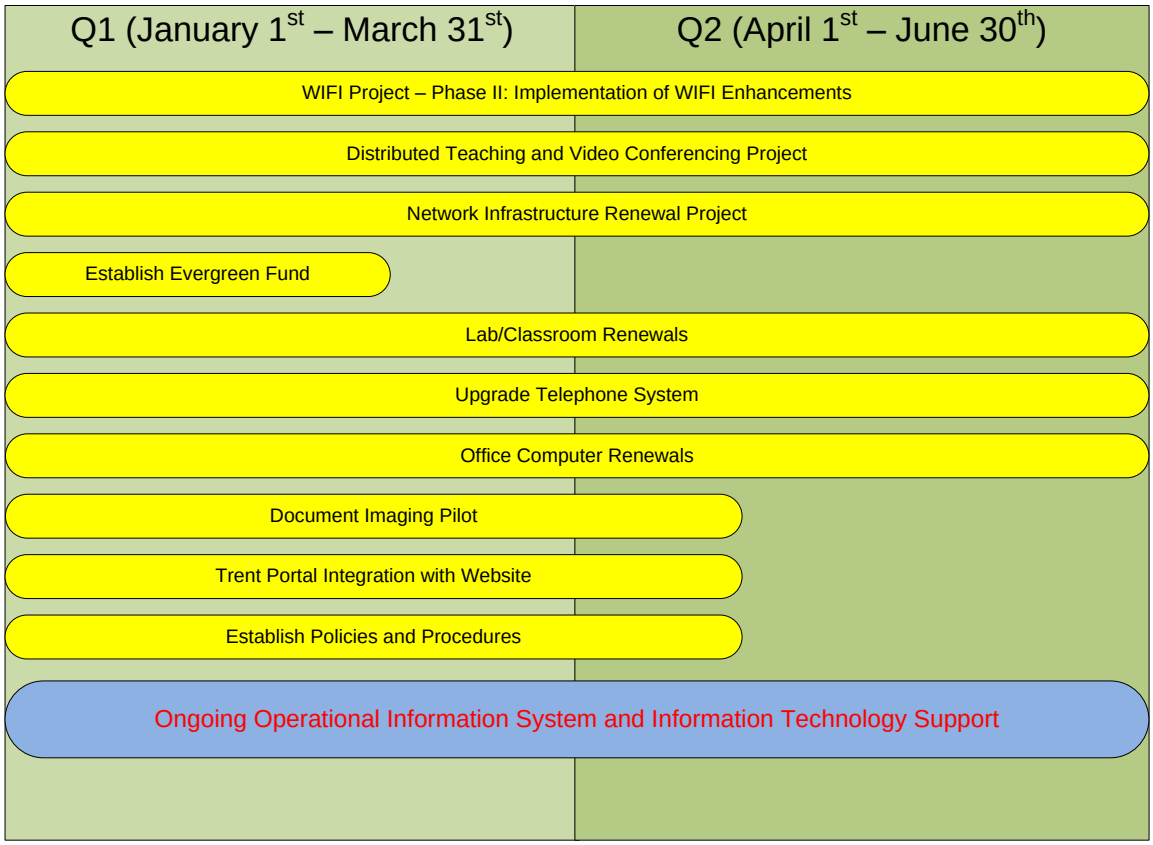


2013: Page 2


Q1 (January 1st – March 31st)
Q2 (April 1st – June 30th)
Q3 (July 1st – September 30th)
Q4 (October 1st – December 31st)
Finance Reporting
Research Reporting Enhancements
Financial Integration with Athletics System
Technology Training Program
Enhancing IT Support Delivery
Review of Decentralized IT Services Roles and Responsibilities
Administrative System and Operational Review
Web Forms Deployment
Service Catalogue
Development of an IT Communications Plan
Establish Policies and Procedures
Establish IT Staff Training Fund
IT Operating Funds Financial Review
AODA Compliance
Emergency Communications and Digital Signage Project
Infrastructure and Data Security
Ongoing Operational Information System and Information Technology Support


2014
Q1 (January 1st – March 31st)
Q2 (April 1st – June 30th)
Q3 (July 1st – September 30th)
Q4 (October 1st – December 31st)
WIFI Project – Phase II: Implementation of WIFI Enhancements
Distributed Teaching and Video Conferencing Project
Network Infrastructure Renewal Project
Server Room Repairs and Maintenance
Lab/Classroom Renewals
Website Renewal
Upgrade Telephone System
Office Computer Renewals
Trent Portal Integration with Website
Institutional Reporting
HR/Payroll Reporting Enhancements
Finance Reporting
Research Reporting Enhancements
Document Imaging Pilot
Technology Training Program
Enhancing IT Support Delivery
Review of Decentralized IT Services Roles and Responsibilities
Establish Policies and Procedures
Administrative System and Operational Review
Ongoing Operational Information System and Information Technology Support

2015

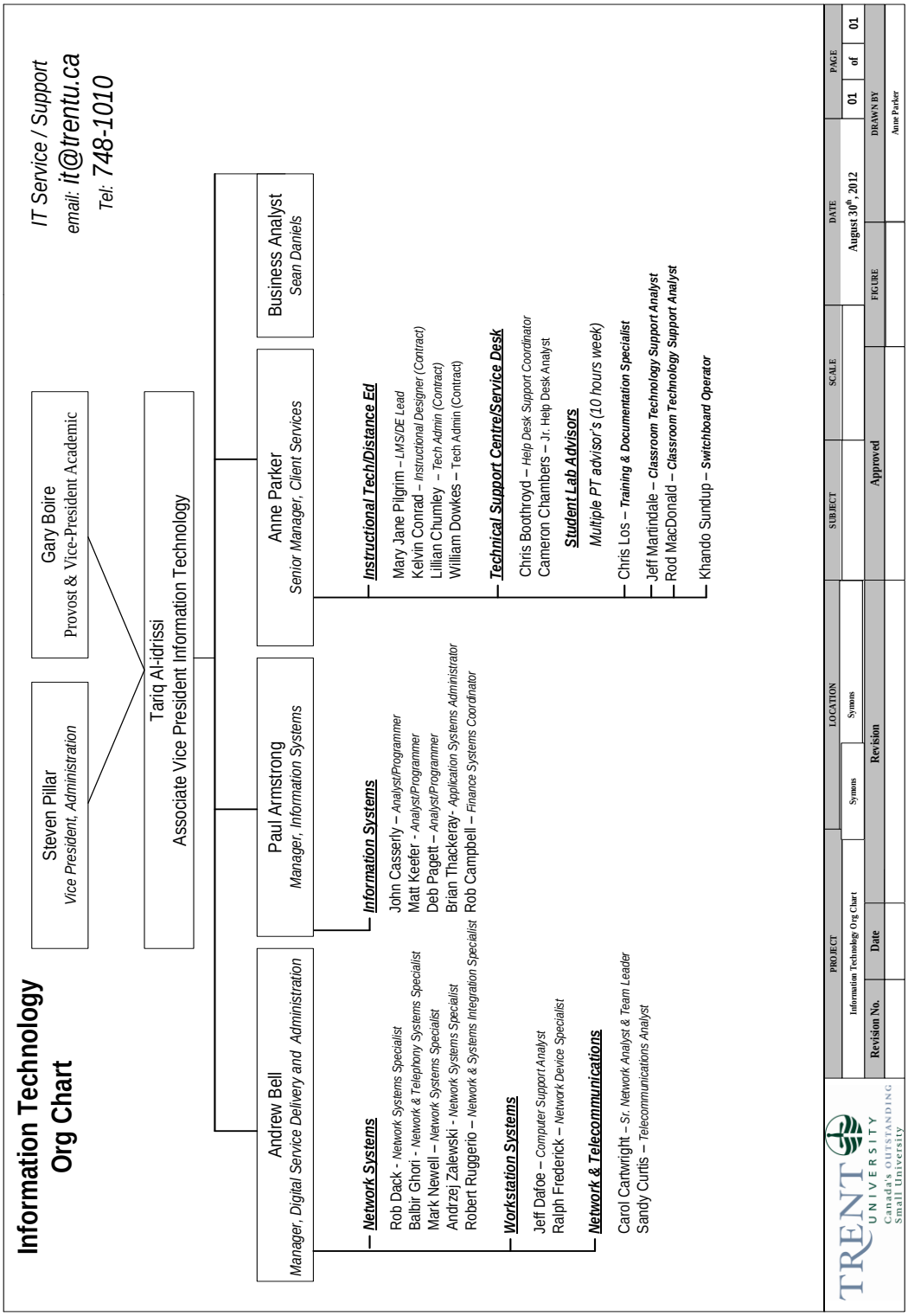

Q1 (January 1st – March 31st)
Q2 (April 1st – June 30th)
WIFI Project – Phase II: Implementation of WIFI Enhancements
Distributed Teaching and Video Conferencing Project
Network Infrastructure Renewal Project
Establish Evergreen Fund
Lab/Classroom Renewals
Upgrade Telephone System
Office Computer Renewals
Document Imaging Pilot
Trent Portal Integration with Website
Establish Policies and Procedures
Ongoing Operational Information System and Information Technology Support

Costing Summary

The summary of the costing for this strategic plan is shown below. Please refer to Appendix H for more details on the below shown costs.

	Capex			Opex				
	2013	2014	2015	2013	2014	2015		
Plan Initiative								
Base Services								**Total Expenditures**
Storage Enhancements Project	$ 300,000.00			$ 40,000.00	$ 40,000.00	$ 40,000.00	$ 420,000.00	
E-Mail/Calendaring/Contacts Enhancements Project	$ 437,000.00			$ 10,000.00	$ 10,000.00	$ 10,000.00	$ 467,000.00	
Imaging System and Computer Support Policy	$ 39,000.00			$ 7,800.00	$ 7,800.00	$ 7,800.00	$ 62,400.00	
Total							$ 949,400.00	**$ 949,400.00**
Service Expansion								
WIFI Project	$ 50,000.00	$ 160,000.00	$ 30,000.00	$ 5,000.00	$ 5,000.00	$ 5,000.00	$ 255,000.00	
ResNet Renewal Project*	$ 567,750.00			$ 198,150.00	$ 198,150.00	$ 33,025.00	$ 997,075.00	
Increase Support for Macs and New Mac Lab Introduction	$ 30,000.00						$ 30,000.00	
Distributed Teaching and Video Conferencing Project	$ 400,000.00	$ 550,000.00					$ 950,000.00	
Introduction of a Survey Tool for Research Usage				$ 15,000.00	$ 15,000.00	$ 15,000.00	$ 45,000.00	
Research Server Service		$ 127,250.00					$ 127,250.00	
Emergency Communications Systems and Digital Signage	$ 75,000.00			$ 10,000.00	$ 10,000.00	$ 10,000.00	$ 105,000.00	
Total							$ 2,509,325.00	**$ 2,509,325.00**
Renewal								
Network Infrastructure Renewal Project	$ 791,000.00	$ 500,000.00	$ 81,500.00				$ 1,372,500.00	
Server Room Repairs and Maintenance	$ 250,000.00	$ 381,750.00					$ 631,750.00	
Asset Management System	$ 40,000.00						$ 40,000.00	
Establish Evergreen Fund	No Additional Costs						$ -	
Lab/Classroom Renewals Project	$ 300,000.00	$ 300,000.00	$ 50,000.00				$ 650,000.00	
Office Computers Renewals Project	$ 250,000.00	$ 370,000.00	$ 60,000.00				$ 680,000.00	
Upgrade Telephone System		$ 174,000.00					$ 174,000.00	
Total							$ 3,548,250.00	**$ 3,548,250.00**
Information Systems								
Website Renewal	Costs will be submitted via Marketing and Communications						$ -	
Trent Portal Integration with Website Redevelopment		$ 100,000.00					$ 100,000.00	
Mobile Access for Student Services				$ 21,000.00	$ 21,000.00	$ 21,000.00	$ 63,000.00	
Recruitment & Prospects	$ 50,000.00						$ 50,000.00	
Course Equivalency Database	No Additional Costs						$ -	
Document Imaging		$ 100,000.00			$ 25,000.00	$ 25,000.00	$ 150,000.00	
HR/Payroll Reporting Enhancements								
Finance Reporting Enhancements								
Research Reporting Enhancements								
Institutional Reporting	$ 75,000.00						$ 75,000.00	
Web Forms	No Additional Costs						$ -	
Financial Integration with Athletics System	No Additional Costs						$ -	
Total							$ 438,000.00	**$ 438,000.00**
Expanded Customer Service								
Service Catalogue	No Additional Costs						$ -	
Technology Training Program	$ 100,000.00						$ 100,000.00	
Enhancing IT Support Delivery	$ 25,000.00			$ 110,000.00	$ 110,000.00	$ 110,000.00	$ 355,000.00	
IT Communications Plan							$ -	
Total							$ 455,000.00	**$ 455,000.00**
Operational Efficiency & Compliance								
Review decentralized IT Services roles and responsibilities	$ 20,000.00						$ 20,000.00	
Establish Policies and Procedures around IT	No Additional Costs						$ -	
Establishment of IT Staff Training Fund				$ 25,000.00	$ 25,000.00	$ 25,000.00	$ 75,000.00	
Administrative Systems and Operational Review	$ 50,000.00						$ 50,000.00	
IT Operating Funds - Financial Review	No Additional Costs						$ -	
AODA Compliance	$ 35,000.00						$ 35,000.00	
Infrastructure and Data Security	$ 35,000.00						$ 35,000.00	
Total							$ 215,000.00	**$ 215,000.00**
Total Expenditures	**$ 3,919,750.00**	**$ 2,763,000.00**	**$ 221,500.00**	**$ 441,950.00**	**$ 466,950.00**	**$ 301,825.00**		**$ 8,114,975.00**
*ResNet expenditures are recouped through student fees. Not a direct expense								

Appendix A: IT Organizational Chart



Appendix B: Application Systems

System Name	System Description
Centrally Supported Application Systems	
Colleague (Elliucian)	This is the university's primary enterprise system. This system plays a pivotal role in supporting the student and financial functions of the university.
MyTrent Portal (Trent)	This is an in-house developed web portal product which allows current access for students, applicants, staff and faculty. The services offered by the portal are contextual in nature allowing different constituents to view different information. The portal allows for access to multiple services with one login.
Prospect System PQS	This system stores and tracks prospect information and supports the new student orientation bookings. This is an in-house developed system.
Residence Housing System	This is a web based system that allows students to apply for residence, pay application fee and track residence application status. This was developed in-house and interfaces with Colleague to update residence assignments.
External Housing System	This is a web based system that allows external landlords to post rental units for students. This includes a web payment feature for landlords to pay for posting.
MSSQL Data Reporting Server (called IRIS)	This is the school's data reporting server. The data is updated four times daily from the Colleague system and is used to produce reports by both IT and the institutional reporting office. Department users are given access to run reports as needed.

Blackboard Learn 9	This is the school's learning management system. This systems interfaces with Colleague for student, faculty, and course enrollment information.
Conference Programmer	This system is used by conference services and is house and supported by IT.
Third Party Departmental Systems (Not directly supported by IT)	
Clockwork	This system is used by the disability office for counseling tracking and scheduling. This system receives data from Colleague about student and enrollment information.
Raisers Edge	This system is the primary repository of current contact information for 40,000 Trent graduates. It is used by all departments within the External Relations & Advancement portfolio to track and manage contact with donors, alumni, honorary degree recipients, government officials, media, key influencers and other constituents. This system receives data from Colleague and other campus sources for graduating students and interfaces with Colleague to post GL transactions, track key data for the university's Annual Charity Information Return (for Canada Revenue Agency) and manage more than 1200 endowed and expendable funds, including hundreds of student scholarship, award, bursary and prize funds.
Class	This system is used by athletics and handles all scheduling and billing efforts. This system interfaces with Colleague for current student information and access to the athletics facility.
Foodservice	This system is used by Aramark as the point of sale system for foodservice. This system interfaces with Colleague for current students with meal plans.

Infosilem	This system is used by the Registrar's Office for Course Scheduling and Room Bookings. This system interfaces into colleague for course and faculty scheduling information.
Process Pathways (efin)	This system is primarily used by the research office and finance for research project tracking and budgeting. This system interfaces with Colleague for research related GL information.
ORBIS	This software supports Trent's job board and our event management (career fairs, new student orientation, etc.
ORBIS Co-curricular record	Administered by student affairs and allows students to track non-academic activities (clubs, development, athletics and volunteer activity)
Ceridian Payroll and HRIS	This system is the primary system used by the Human Resources office. This system provides information for pension reporting and interfaces with Colleague for staff and constituent information.
Library System SRISI	This is the library's information system for loan management and financial tracking.
One Card	This system will coordinate service and access to multiple other systems using a single student card. This includes access to athletics, Aramark, library, bus pass, residence access, printing, photocopying, and etc.
IPCelerate	This systems ties into our phone system and allows us to accomplish Emergency Communications
Axiom	Part of our card access system
Parkadmin	This is our parking administration system.

Appendix C: Data Collection Instrument

From a technology focus we are very interested in:

1. What does the term “technology” mean to you, within the university environment?

2. What role do you see the I.T. (Information Technology) unit providing in terms of resources for technology, or for the support of technology?

3. What forms of technology are you using now?

4. In your opinion, what present resources (technology, or support of technology) could be improved?

5. What would you identify as your top 3 priorities with regard to present services provided, or not provided, through I.T. at Trent?

6. Are there any technology resources that are available that you avoid/do not use, why?

7. Are there any technology resources you would like to use, and what might you need to incorporate those resources?

Feel free to send your input to itstrategicplan@trentu.ca

Thank you.

Appendix D: Data Collection Focus Groups

Strategic IT Planning Focus Schedule	
March 29/2012	Students/undergrad PT/FT Oshawa
March 29/2012	Students /undergrad PT/FT Peterborough
Mar 7/2012	Techs @ Trent
April 4/2012	Techs @ Trent (2nd)
April 10th	Distance Ed/Online learning
April 11/2012	Library
April 13/2012	Students Grad
April 17/2012	Graduate Studies Directors, Administrators
April 24/2012	Frost Centre Board
April 25/2012	Graduate Studies Office, Dean
April 26/2012	Education
May 1/2012	Deans, Department Chairs, Faculty incl. CUPE
May 2/2012	Oshawa Staff & Faculty
May 3/2012	Deans, Department Chairs, Faculty incl. CUPE
May 8/2012	Nursing dept faculty/staff
May 24/2012	Human Resources&payroll
May 24/2012	CORE
May 25/2012	Office of President/Provost/Secretariat
May 29/2012	Student Affairs (Housing, DSO, Health)
May 31/2012	Aramark
June 11/2012	Academic & Admin Staff "open" session #1
June 12/2012	TIP
June 12/2012	Physcial Resources
June 13/2012	Academic & Admin Staff "open" session #2
CANCELLED BY THEM	Research Office
June 19/2012	Graduate students
June 21/2012	Finance/print shop/mail room
July 5/2012	Risk Management
July 11/2012	SEM/Recruitment/Office of Registrar/Scheduling/Fin Aid
document provided	ER &A re-focussed
26-Sep-12	IT internal SWOT

Appendix E: IT Service Categories

IT governance, leadership and management

- IT planning, requirements analysis, and alignment with university resources and collegiate needs and plans
- Consulting with administrators and faculty members on IT issues
- Supervision of IT activities and personnel
- Asset management and reporting
- Purchasing, license management, accounting, chargeback
- IT Policy development
- Participation in campus wide IT committees and groups and planning

Systems administration and infrastructure

- Servers
    - Server deployment, management and operation
    - Security patching and monitoring, antivirus consoles for servers and workstations
    - Monitoring, tuning, problem resolution for server / workstation environment
    - File servers
    - Print facilities
    - Web servers
    - Data base servers
    - Application servers
    - Authentication and authorization servers
    - License servers

- Directory services (LDAP, DS, AD, metadirectories)

    - Identity and authorization management,
    - Authentication, LDAP, Kerberos, Active Directory
    - Authorization for services, based on roles and needs
    - Account creation, maintenance, management
    - Resource provisioning

- Machine rooms, communications closets

    - Physical security
    - Heating/Cooling
    - Electrical Power (including UPS and motor generator backup)
    - Fire Protection/Monitoring

    - Water Protection/Monitoring

- Networking
    - Conduit, fiber and copper cabling systems
    - Switches and routers
    - Wireless access points
    - Dial-in facilities
    - DHCP, DNS servers
    - Domain controllers
    - Virtual private networks
    - Documentation maintenance

- Building security management
    - Card access services

Application development, database administration and support

- Application development
- Application integration
- Application hosting
- Application support and troubleshooting for local applications
- Database administration and tuning

Basic services

- File and print service
- Mail services, mail lists, anti-spam
- Calendaring
- Resource scheduling (rooms, equipment)
- Backup / recovery for servers
- Anonymous or authenticated ftp

Classroom and computer lab support

- Labs and cluster design, maintenance, management and operation
- Classroom design, deployment, support
- Kiosks and e-mail stations design and deployment
- Related PC imaging, patching, maintenance

User Support and Services

- Help desk, trouble ticket response
- Desktop support, problem resolution, 1 to 1 assistance

- Desktop and laptop imaging and patching
- Consulting on IT questions and needs of faculty and staff
- Training on IT skills, services, and policies
- Communications about IT services, policies, and issues
- Policy and practices documentation
- Application support and troubleshooting for common software, and local applications (specific to the college or unit)
- E-Learning support
    - Course management services
    - Faculty web sites
    - Multimedia development
    - Instructional development and support

Web application\On-line services development and support

- Web site and web application development
- Portal and integration of online services support
- Content development and departmental website support (currently responsibility of M&C not IT

AV and presentation services

- Selecting, deploying and managing presentation equipment(AV equipment)
- Video streaming equipment, services, and support
- Video conferencing equipment and support
- AV / video facilities
- Video recording and editing
- Digital media development (video, photography, graphics)

Appendix F: Criteria and Weightings for Initiative Evaluation

Breadth & Audience

Criteria	Explanation	Weight	0	1	2	3	Example (include your justification here)
Breadth	Home many people, in and out of the institution, will this project affect?	4	None/ Unknown	Affecting Less than 50 people	Affecting Between 200 and 2000 people	Affecting more than 2000 people	An e-mail change is an example of a project that would have a far reaching effect and be scored at a 3. A small report affecting 5 people would be scored at a 1.
Audience	Students	4	Negative Affect	None/ Unknown	Affects a small portion	Affects All	A learning management system change would be an example of somehting that affects the whole group
	Faculty	4	Negative Affect	None/ Unknown	Affects a small portion	Affects All	A learning management system change would be an example of somehting that affects the whole group
	Staff	4	Negative Affect	None/ Unknown	Affects a small portion	Affects All	A change to e-mail would affect all staff
	Community Partners and Donors	4	Negative Affect	None/ Unknown	Affects a small portion	Affects All	
Breadth & Audience		20					

Value

Criteria	Explanation	Weight	0	1	2	3	Example (include your justification here)

Alignment with Integrated Plan: Directly related to strategic priorities and objectives	Strategic Priority A: Commitment to Academic Excellence	3	None/ unknown	Indirect Link	Direct Link	Significant Contribution	A project to enhance classroom technologies
	Strategic Priority B: Commitment to Strategic Enrollment Management	3	None/ unknown	Indirect Link	Direct Link	Significant Contribution	A project to enhance reporting to directly affect strategic enrollment reporting
	Strategic Priority C: Commitment to Achieving Financial Stability	3	None/ unknown	Indirect Link	Direct Link	Significant Contribution	An initiative to reduce costs and increase efficiency
	Strategic Priority D: Commitment to Strengthening Community Engagement	3	None/ unknown	Indirect Link	Direct Link	Significant Contribution	An interactive social enviroment to engage community members
Alignment with the Academic Plan	Degree to which the initiative aligns and addresses one of the recommendations of the Academic Plan.	8	None/ unknown	Indirect Link	Direct Link	Significant Contribution	A change to Virtual Classroom Technologies does not only have a direct link, but makes a significant contriubution to the fullfillment of the academic plan.
Alignment with Emerging Trends and Technologies	Degree to which the initiative aligns and addresses industry trends and emerging technologies	5	None/ unknown	Indirect Link	Direct Link	Significant Contribution	An introduction of a Mac Lab would align us with existing industry trends and emerging technologies
Request origination	The origination of the project directly impacts its value. Projects originating from the Board or PVP carry more weight than those requested from a single employee	4	Low IT initiated project	Medium Workgroup manager of a department	High Director or AVP of a Department	Very High Company Board or PVP	A VP is requesting that certain work be completed.

Impact to Company's Business Risk	Impact to Company's business continuity/security/stability/disaster recovery. (Total Risk = Severity of occurrence X Frequency of occurrence).	4	Increase	No change	Risk decrease <10%	Risk decrease >10%	Data backups that provide Company business recovery systems in case of unexpected outage/disaster. Audit related projects will fall into this category. Projects required to comply with regulatory/legal requirements. AODA requirements may neccesitate a project to be initiated.
Requirement to comply with Legal or Regulatory obligation	Mandatory investments that are required to comply with an external regulatory obligation. These regulations are government, legal, tax and regulatory practices.	4	Not required from a Legal or Regulatory Standpoint	Required - Must be done within 2-5 years	Required - Must be done within 1-2 years	Required - Must be done within 1 year	Example, requirements of AODA, FIPPA, and etc.
Performance Improvement. Increase in operational Efficiency or Reduction is Costs	Increases user productivity, process efficiency, and reduction in turn over.	3	None	<5%	>5%	>10%	For example, faster application or large file transfer performance that increases user productivity; reduction in non-IT headcount thru automation
Innovation or Enhanced Capability that solves a problem or creates competitive advantage	Completely new, innovative solution to solve a business problem that creates competitive advantage or an enhancement/ incremental improvement	3	Degrade	No change	Enhance-ment to existing tool/ technology	New innovation	A new innovation can be a new technology solution that was not available in education before.

Confidence of Successful Execution	Confidence that the solution will be executed with high quality, flawlessly from a planning and implementation standpoint	2	Low	Medium	High	Very High	Scores higher when less foreseable unresolved items in planning and implementation.
Confidence in timeliness of solution delivery	Confidence in ability to deliver solution in a timeframe that's most beneficial	2	Low	Medium	High	Very High	Scores higher when similar project implemented before with high level of success; scores low if there are many unknown/uncontrolable factors, etc.
Confidence that the solution will address the need	Confidence that the benefit would be delivered and the solution will meet the business objective	2	Low	Medium	High	Very High	Scores higher when understanding of problem or root cause is high, or when there is a high level of user involvement in the definition of solution.
Intangible Benefits (benefits not captured above and not included in Business Value Dials)	Please list the benefits	1	Low	Medium	High	Very High	For example, a project, not being its primarily objective, enables us to collect valuable IT data to support users more effectively and improve service
Value Index:		50					

IT efficiency (optimal utilization of IT's infrastructure and resource capabilities)

Criteria	Explanation	Weight	0	1	2	3	Example (include your justification here)

Pull/need from within IT	Extent to which internal to IT customers are asking for this deliverable (volume and strength/influence of request/demand)	4	Low	Medium IT Employee Request	High IT Manager Request	Very High AVP, IT request	AVP, IT Request
Impact to IT Employee Performance Improvement	Measure of impact to IT employee productivity, I.e. efficiency, faster throughput, higher quality	2	None	<5%	>5%	>10%	Describe the types of impact with examples, e.g. knowledge base for improvement of work orders improved
Level of Innovation and Learning for IT	New technology approach/tool for IT internal usage	2	Low	Medium	High	Very High IT industry impact	For example:High - adopting new wireless technology.
Impact on future investments	Investments that provide a foundation or are necessary for future technologies, capabilities or have a direct impact on strategic roadmaps	3	No impact	Potential Impact or optional building block	Necessary but replace-able building block	Necessary irreplace-able building block	User authentication capability is a necessary component for wireless networks; SAN is a necessary but replaceable component for connected client backup (could be done via large hard drives in small sites).
Maintain Quality and Reliability of IT products and services delivery	Investments in maintaining required levels of quality of IT infrastructure, service delivery, operational efficiency, capacity, response rates, problem resolution	3	Degradation	No impact	Necessary to maintain current service levels	Necessary to restore required service levels	Redundant network connections for business continuity purposes; migration to the next generation of computing platform (client or server) due to vendor support availability; improvement in data quality and reliability

Opportunity of reusing existing components or creating of reusable components	Opportunities to reuse existing standard applicable capabilities and assets or/and opportunities to create new ones for future reuse.	2	No opportunities to create or consume assets	Some/ minor opportunities to create or consume assets	Significant opportunities to create OR consume assets	Significant opportunities to both create AND consume assets	Creation of reusable assets is defined as creation of horizontal capabilities (code, data, architecture, process, etc.) that can be used in other programs/projects. Consu mption of reusable assets is defined as the use of existing horizontal capabilities in order to save development time/cost, reduce complexity, improve quality, reduce time to market, increase process consistency, etc.
Fit with existing architecture and roadmaps	Level of fit with existing architecture and integration required in order to introduce into the environment. Thus, solutions requiring new architecture, will not score high on this criteria, while they may be innovative in nature and the right thing to do. The level of innovation is evaluated in a separate critieron above.	2	Doesn't integrate, requires complete architecture redesign	Requires significant integration effort	Mostly compatible, requires min integration effort	Fully integrates/ complies with existing architecture	This criterion focuses on managing TCO by ensuring new projects that are introduced into the environment fit into existing architectures. For example, Deployment of mobile solutions based on non-supported handheld devices will score low in this criteria because it does not fit into existing roadmap and require significant effort to integrate the applications, clients and middleware into the existing environment. Deployment of solutions based on a common/standard technology will score high

							on this criteria as it fits into the eWorkforce roadmap and existing architecture.
IT Employee Satisfaction Impact	Level of improvement on IT employee well-being, development, growth.	2	Low	Medium	High	Very High	Training or development-related, e.g. rotational program to increase cross-training, e-Learning for software Certificaiton

IT Efficiency Value Index: 20

Finance Index

Criteria	Explanation	Weight	0	1	2	3	Example (include your justification here)
Revenue Generation	The project has a defined value of revenue generation.	3	None/ Unknown	<50K annually	Between 50K and 100K annually	> 100K	A new printing system that generates student revenue and anticipated at generating between 50K and 100K

Cost Reduction	The project is intended on producing cost reduction to operations	3	None/ Unknown	Low < 50K annually/ Unmeasurable	Between 50K and 100K annually	> 100K	An effort to automate report generation and streamline processes may have a measurable cost reduction of $50K
Level of Initial Investment	The amount of initial investment needed	2	> 100K	Between 50K and 100K	< 50K	None	Investing in a survey tool that only requires an annual subscription would score a 3
Increase in level of operating dollars needed	This is the continued cost needed in operating dollars to support the newly intrduced initiative	2	> 100K	Between 50K and 100K	< 50K	None	An annual licence of 15k would score a 2
Finance Index:		10					

Appendix G: Initiatives Completed During Planning

Initiative Name	Description	Release date
Faculty/Staff email improvements	Storage Area Network (SAN) upgrade. Increase space and improved performance	Aug-12
WebCT improvements	Upgrade current version of WebCT to BlackBoard Learn9 Priority identified (via LMS task force) to migrate current course content	Sep-12
WebCT mobile application	Roll out of the BlackBoard 9.0 Mobile Application	Oct-12
Datatel integration with Learning Management system (LMS)	Datatel integration achieved with migration to Blackboard Learn9	Sep-12
Student Email Improvements	Implemented Google Apps for Education including 100 times more email space; personal drive space increase of 20 times and better integration with mobile devices	Sep-12
Mobile device support/data integration	DataSync Pilot rolled out. This pilot allowed for the syncing of e-mail, calendars, and contacts with non-Blackberry devices.	Aug-12
Training & Documentation	Increase number of room orientation videos Training sessions: Learn9; Groupwise; Smartboard	Aug-12
Applicant portal (portal improvements)	Implemented MyTrent portal features for applicants.	Aug-12
Longer service hours	Extended IT support hours and implemented collaborative service desk with Library	Sep-12
Upgrade to MS Office 2010	Upgraded all public labs\lecterns with Office 2010	Oct-12
One Card	Implementation of the one card service, allowing one card to be used for door access, printing, Aramark food services, identification, and library services.	Jan-13

Appendix H: Costing Details

Infrastructure Costing

Initiatives	**Approach**	**Man/people hours**	**CapEx**	**OpEx (3 year)**	**Prof. Services**	**Training**	**Total 3 year**	**Grand Total**
Storage Enhancements Project	Provide 25GB of "object storage" each for 1600 users (54TB usable, replicated)	Initial implementation included with purchase. 100 hours for data migration and integration into current desktop model.	$ 235,000	$ 94,000			$ 329,000	**$ 420,000**
	Provide middleware to make storage available securely to all locations and devices		$ 65,000	$ 26,000			$ 91,000	
Email/Calendaring/Contacts Enhancements Project (AKA 25GB email quota)	Dedicated storage array + backup		$ 325,000				$ 325,000	**$ 467,000**
	Sysadmin training	70				$15,000	$ 15,000	
	Licenses			$ 30,000			$ 30,000	

	Additional server capacity		$ 25,000				$ 25,000	
	Installation support	35			$ 6,000		$ 6,000	
	Alternate option - outsource to Canadian service provider			$ 480,000			$ 480,000	
Common costs for mail migration	Helpdesk training					$10,000	$ 10,000	
	Staff training - $100/user @ 400 users					$40,000	$ 40,000	
	Migration services				$ 16,000		$16,000	
Imaging System and Computer Support Policy	Patch management software	70	$ 39,000	$ 23,400			$ 62,400	**$ 62,400**
WIFI - full coverage in classrooms. Includes 120 teaching spaces and 30 for backfill of non-teaching space	Perform site survey to locate AP's	Outsource		$15,000			$15,000	**$255,000**
	AP's, controllers, licenses	15	$ 135,000				$135,000	
	Cabling and installation (including switchport allowance)		$105,000				$105,000	
ResNet Renewal	See previous costing							
Research Server Service	Additional capacity included in server							included in server renewal

	renewal							
Network Infrastructure Renewal Project (assumes edge routers and firewalls are replaced in ResNet project, and no incremental costs for Smartnet)	Replace core switches	80	$ 192,500				$192,500	**$1,372,500**
	Replace data center switches	80	$100,000				$100,000	
	Replace access/distribution layer switches > 5 years	160	$1,080,000				$1,080,000	
	Replace access/distribution layer switches > 7 years	100	$ 684,000				$684,000	
Server Room Repairs and Maintenance	Replace UPS units in DNA closet		$ 10,000				$ 10,000	**$ 250,000**
	CC2T - install new racks with proper hot aisle containment and in row cooling		$100,000		$ 30,000		$ 130,000	
	Replace AC in BLDC		$ 100,000				$ 100,000	
	Replace UPS batteries in CC2T at EOL (2015)		$ 10,000				$ 10,000	
	Replace UPS batteries in BLDC at EOL (2013)		$ 12,000				$ 12,000	

Server hardware renewal (assumes storage and email projects proceed separately, and includes 25% additional capacity to support research server project)	Replace existing Vmware farm servers with blade server system. Includes iSCSI network upgrade to 10 Gbe	20	$ 190,000		$ 10,000		$ 200,000	**$ 509,000**
	Replace iSCSI SAN at EOL (2015)	10	$ 250,000				$ 250,000	
	VM mini cluster for DR in DNA	20	$ 30,000	$ 4,000			$ 34,000	
	Replace standalone servers		$ 25,000				$ 25,000	
	Replace backup system with integrated VMWare aware software. Includes partial tape offload for critical data archiving.	20	$ 42,800	$ 4,000			$ 46,800	
Office Computer Renewals	Replace all office PC's over 3 years. Assume 500 desktops and 300 laptops at current Dell OECM prices.		$ 680,000					**$ 680,000**
Call Manager Upgrade (assumes no incremental costs for Smartnet) Cisco licensing has	Bring current software licensing to current version with feature parity (NOTE: UCSS is an annual	100		$ 70,000			$ 70,000	**$ 174,000**

changed significantly in the current version. These numbers should be taken as very tentative.	uplift to Smartnet for major upgrades.)							
	Replace server hardware		$ 25,000				$ 25,000	
	Add 100 8945 sets		$ 69,000				$ 69,000	
	Presence server license		$ 10,000				$ 10,000	
								4,189,900

ResNet Costs				
	Capex	**Opex**	**Total 5 Year Cost**	
Wireless, wired, switches	$ 330,000	$ 198,000	$ 528,000	
Traffic manager	$ 30,000	$ 18,000	$ 48,000	
Contingency for access control	$ 50,000		$ 50,000	
300M bandwidth increasing to 500M in year 5	$ -	$ 120,000	$ 120,000	
Routers	$ 82,500	$ 49,500	$ 132,000	
Firewalls	$ 71,250	$ 42,750	$ 114,000	
200 phones	$ 4,000	$ -	$ 4,000	
Support/helpdesk	$ -	$ 550,000	$ 550,000	
Installation and professional services	$ -	$ 12,500	$ 12,500	
Total 5 year cost			**$ 1,558,500**	

Service Delivery

Initiatives	Approach	Man/people hours	CapEx	OpEx (3 year)	Prof. Service	Training	Total 3 year	Grand Total
Increase Support for Macs and Mac Lab Introduction - The scope of this project is twofold; - An introduction of an Apple Lab for use by both faculty and students	Invest internal staff mac certification. Per seat $1000 + $150 ext warranty if new lab space i**ncrease quote for furniture/chair + data/electrical make ready estimate $1000. seat (Mac $1150 + 1000)* number seat**	**100 hours**		**Existing staff**		**$ 5,000**		**$ 30,000**
Distributed Teaching and Video Conferencing Project. The scope of this initiative will be to equip six classrooms with video conference facilities and to make four meeting rooms available in both Peterborough and Oshawa.	Extended hours support – techs both sites required 6 classrooms ($100k each)+ 4 meeting rooms ($25k each)+ video bridge ($250k) = $950k Investigate: Blue Jeans /video bridge options				**Incl total**	**$ 5,000**		**$950,000**

Initiatives	Approach	Man/people hours	CapEx	OpEx (3 year)	Prof. Service	Training	Total 3 year	Grand Total
Asset Management System -The purpose of this initiative is to create an asset management system for all Trent owned technology assets across the organization. This includes; - Classrooms and Labs - Offices - Data Centre The purpose of such an exercise is not to simply have better controls, but also to be able to provide some better predictability for hardware renewals and associated costs	The scope of this system is to track all Trent owned and supplied technologies for the purposes of control and timely renewal. A one-time asset sweep is in scope, as well as documentation regarding asset management maintenance and upkeep.	**500 hours**	**$40,000**	**Existing staff**				**$ 40,000**
Lab/Classrooms Renewal Project (all rooms within 3 year period)	renewal of equipment in the summer of 2013, 2014, and 2015 respectively. Additionally, develop a policy for the introduction of lab computers at Trent.	280 hours 40 rooms per year (will need to be done outside of teaching semesters)		**Existing staff + design contract**				**$650,000**

Initiatives	Approach	Man/people hours	CapEx	OpEx (3 year)	Prof. Service	Training	Total 3 year	Grand Total
Service Catalogue - to make available a catalogue of services to staff, faculty, and students that are offered by the Trent IT Department. This initiative is undertaken to increase accountability and clarity about the services and service levels currently available from the Trent IT Department. This clarity should increase user satisfaction levels and manage expectations.	Continue in-house Invest internal staff ITIL/ITSM training. Make available on the Trent University website for ready access and will include information about details of services, availability, hours of operation, etc.	875 hours Continue in-house		**Existing staff**		**$ 5,000**		**$ 15,000**
Establishment of a Technology Training Program - deliverables; - A survey of all faculty and staff on the IT training skills that they see as necessary with the results guiding the program formulation - A training calendar - Training materials - A training website with access to training materials and videos. - A link from the service catalogue to the training materials	Training lab (10-20 seat multipurpose - furniture/drops/electrical/pc's/presentation system = 20 * 1K + (20*500) + 2500 electrical + smartboard/lectern total 20 seat $30k Training & Documentation specialist support IT/DHR partnership	500 hours	$ 40,000 Create 20 seat lab + purchase training materials where cost effective	$ 60,000 Relief for existing staff to provide training				**$100,000**

Initiatives	Approach	Man/people hours	CapEx	OpEx (3 year)	Prof. Service	Training	Total 3 year	Grand Total
Enhancing Support Delivery Improving service delivery by IT. This includes the following; - Ensuring that we have the right support time schedules. - Ensuring that we have the right remote support tools. - Introducing other avenues for receiving support, including live chat and always on point to point video support - Establishing a support model for Oshawa to ensure enhanced availability of support	Oshawa; live agent; remote support; extended hours; high volume-peak support regularize contract $60k + add oshawa 8 month recurring $50k $25k setup annual global Global room view (extron/crestron remote support)			$110,000 per year (regularize FTE + 8 month recurring contract)				**$335,000**
Review all decentralized IT services and produce agreements with decentralized IT Services at Trent regarding roles and responsibilities. - Improve operational clarity - Ensure that IT at Trent is run in an efficient and cohesive fashion - Improve customer service of IT to our end users	In-house review University wide IT Services Develop SLA (service level agreements) Furniture & space reno's may be required if physically repositioning techs - $10k + $10k Training /relief support Partnership with CUPE/OPSEU/DHR	150 hours plus unknown negotiation time	**In house**					**$ 20,000**

Information Systems

Initiatives	Approach	Man/people hours	CapEx	OpEx (3 year)	Prof. Service	Training	Total 3 year	Grand Total
Introduction of Survey Tool for Research Usage	$15,000 annual fee External service Training costs			$ 45,000				**$45,000**
Website Renewal	Website development and costs in Marketing Contributor Training					Contributor Training		**To be included in M&C submission**
Trent Portal Integration with Website Redevelopment	Invest internal staff Training + Portal Development (contract) Implementation and integration	500 hours	$ 75,000			*$25,000 Drupal Training*		**$100,000**
Mobile Access for Student Services	*Ellucian:* *$14,000 annual or $21,000 annual for developers' version*			$ 63,000 (21,000/per year x 3)				**$ 63,000**
Recruitment and Prospects Internal customization 300 integration and report development hours	*Internal customization 300 integration and report development hours*	*300 integration and report development hours* *Will require additional FTE*						**$ 50,000**

Initiatives	Approach	Man/people hours	CapEx	OpEx (3 year)	Prof. Service	Training	Total 3 year	Grand Total
Institutional Reporting (Analytics) Dependent on development of measure and performance indicators by IR.	*Use existing systems – MSSQL and SSRS. May require additional server resources (faster servers). Also may require integration with portal and or development of dashboard web pages. All this is unknown until IR defines what is needed.*	*300 integration and report development hours*						**$ 75,000**
Course Equivalency Database	Unknown time requirement and no known start date	40 hours integration						
Document Management (Pilot) $100,000+ implementation $25,000 annual	$100,000+ implementation $25,000 annual		$100,000	$50,000				**$150,000**
HR/Payroll Reporting Enhancements	Will be supported using existing staff to work with HR/Payroll to define requirements and develop reports as needed. Create reporting using existing systems (MSSQL and Powerbuilder)			In-house existing staff				

Initiatives	Approach	Man/people hours	CapEx	OpEx (3 year)	Prof. Service	Training	Total 3 year	Grand Total
Research Reporting Enhancements Process Pathways system	Existing system developed for research. Support import of data to Process Pathways "efin" system. No additional costs.	In-house staff						
Web Forms Internal developed system Continue support – no additional costs 20-40 hours support	Internal developed system Continue support – no additional costs	20-40 hours support						
Administrative Systems and Operational Review	1 FTE review 1 FTE 6 months development							**$ 50,000**

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