



THE REGIONAL MUNICIPALITY OF YORK

***Information Technology Strategy
&
5 Year Plan***



2005

Letter of Transmittal

TO: SANDRA CARTWRIGHT AND THE SENIOR MANAGEMENT GROUP

I am pleased to submit the Report on the Regional Municipality of York Information Technology Strategy and 5 Year Plan which was developed through an extensive consultation process with CTRC and other staff. In addition, the participation of members from the e-Government Sub-Committee added significant value to this collaborative effort and resulted in a “made in York Region” information technology strategy. The CTRC members and the staff conveyed a willingness to embrace change and a strong recognition of the importance of technology to Region services.

We carefully considered the wisdom, thoughtful reflections, and wealth of ideas contributed by Information Technology Services staff, the workshops facilitator and the many external resources.

We believe that Senior Management of York Region is absolutely committed to delivering value to our residents, businesses and visitors to the Region, by optimizing existing technology, by integrating business processes and information technology solutions across departments, and by exploring new directions for information technology. The spirit of collaboration resulted in this visionary document that I believe is both achievable and realistic.

This is the first information technology strategy and 5 year plan presented formally to the SMG. We are proud that the strategy embodies the theme “Here to Serve You” reflecting the current and future aspirations of the executives, management and staff of the Region.

We invite your consideration and approval of this York Region Information Technology Strategy and 5 Year Plan.

Respectfully submitted

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Acknowledgements

We would like to thank all who contributed to the collaborative development of this Information Technology Strategy.

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Regional Councillor Bill O'Donnell
Regional Councillor Tony Van Bynen
Regional Councillor Mario Ferri
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Our Executive Sponsor & SMG Representative

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Paul Duggan	Richard Finn
Ken Hill	Denis Kelly
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Our Facilitator

Mr. Bill Cole from Cole Group International Inc.

Our Many Other Contributors

Many staff from all departments participated in the development of the Strategy. While there are too many individuals to list, their spirit of participation, enthusiasm for the process, and wealth of ideas are sincerely valued. The next page lists particularly those that participated in the workshops.

York Region Information Technology Strategy

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Preamble

This 2004 edition of the York Region Information Technology Strategy is the first publication of a comprehensive information technology strategy for the Region of York. There are many reasons that such a document is needed. Primarily, the strategy is meant to communicate to the organization, and to others, the rationale that management uses to set the priorities for the allocation of the Region's information technology resources. The main deliverable is a 5 year plan of prioritized programs that each contain multiple information technology projects to be scheduled and implemented as resources are available.

Technology is viewed as an enabler of the goals of the organization. Thus, the strategy starts by looking at the business vision and organizational goals of the Region of York as described in such documents as Vision 2026. Through a series of prioritization steps, the strategy aligns information technology programs with information technology's ability to add value to the service delivery initiatives of the departments. The process recognizes that there are never enough resources to do everything that everyone would like to do and that goals and priorities change over time. The intention is that the strategy be realigned annually to continue to ensure that information technology provides value-for-money.

How to Read This Document

For the purpose of this document, the IT Strategy refers to both the consultative process as well as the deliverables from the strategy. A strategic plan is one of the main deliverables from the process. The strategic plan and the 5 year work plan are to be read synonymously throughout this document.

This strategy is written for a wide audience with diverse views and interests. It is divided into sections so that readers can zero in on the information they need and skip the rest.

Chapter 1 – The Executive Summary is a “Must Read” as it summarizes the process and describes how the strategy will be executed. **Chapter 6 – Conclusion**; outlines the lessons learned from the strategy while **Chapter 7 – Recommendations**; describes the actions prescribed in support of the strategy and required Senior Management and Regional Council approval.

Chapter 2 – Context, describes the ‘Purpose of the Strategy’, ‘the Guiding Principles’, ‘Issues and Challenges’ and the ‘Critical Success Factors’ for the strategy.

Chapter 3 – The Strategy Development Process is an in-depth description of the process used to develop the strategy. Essentially, the process followed the steps used in a typical strategic plan methodology. It will be of interest only to readers who want an in depth understanding of the process

Chapter 4 – Programs and Projects describes the result of categorization of the Regional programs into those; Corporately Driven by IT & those departmentally driven jointly with IT or with a third party.

Chapter 5 – The Business Plan will describe how the 5 Year Plan is administered by Information Technology Services under the guidance of the Corporate Technology Review Committee and the authority of the e-Government Committee.

Finally, there are many **Attachments**. If you read Chapter 3, you should read the attachments. They are the outcomes of the strategy development process.

1. Executive Summary

Progress within York Region towards its stated goals has been strong. Continued progress is increasingly dependent on the timely availability of information and communication technologies. Although extensions to the currently installed technology base are planned and implemented with relative ease, the decision-making time-frame for acquiring some of the newer, emerging technologies, and the lead-time to acquire and install them can be months or years.

An effective IT Strategy, closely aligned with the Region's business strategies and objectives is fundamental. It can significantly improve the likelihood that the required enabling IT infrastructure, skills and systems are in place and operational as required.

The Benefits

- ▶ Enhanced service to citizens through a customer-centric service model reflecting the Regions Customer Service Strategy with emphasis on e-Government services
- ▶ Strong focus on supporting the Region's core business needs with an appropriate level of information & communication technology capability to support the Region's pace of growth
- ▶ Greater collaboration and cooperation within the Region and with external government jurisdictions
- ▶ Strategic investment in IT, aligned with the Region's strategic directions and 2026 Vision
- ▶ Increased integration of IT applications to obtain optimal value of existing IT investments
- ▶ More secure and responsible information management, in accordance with legislative requirements

What the IT Strategy Includes

In scope for this Five Year Plan are:

- ▶ A set of vision, mission and objective statements for IT, aligned with those of the Region
- ▶ A list of IT-related requirements for the Region's departments and agencies spanning the next five years
- ▶ The results of a SWOT (strengths, weaknesses, opportunities, threats) analysis and a user expectation analysis, both designed to help ensure that the Plan is realistic and achievable during the planning period
- ▶ A set of Ten Key Strategic Outcomes which represent the synthesis of the above. These Key Strategic Outcomes describe where the Region could be in five years with respect to the deployment of IT & systems to support and enhance the Region's services to its citizens, businesses and visitors. The Ten Key Strategic Outcomes pinpoint the strategic directions to follow to accomplish these outcomes.
- ▶ A 5-year schedule for the 32 Programs and roughly 200 IT-related Projects, including their categorizations into base, mandatory, growth and enhancement, and their prioritization into three categories – Corporate IT Driven, Department Driven Jointly with IT and Department Driven with 3rd Party.
- ▶ Recommendations regarding the next steps to mobilize and execute the priority Programs.

The Consultative Process

Experience developing IT Strategic Plans in other government jurisdictions in Ontario was used to draft the major components of an IT Strategic Plan for the York Region and to develop a 13-step consultative process that would facilitate the alignment of the IT Strategic Planning process with the Region's 2005 business plan and budget process.

This 13-step IT Strategic Planning process was first piloted in a dry-run workshop with the ITS Director, his direct reports and project management staff and the lessons-learned from the exercise were used to refine the process.

Subsequently, two full day workshops were held with about 25 directors and managers representing the Region's departments and including the Corporate Technology Review Committee (CTRC) and some members of the new e-Government Committee. The workshops were facilitated by an external consultant with the assistance of ITS staff.

The draft input to the consultative process was revised during and following the workshops, circulated to workshop participants and incorporated into the 2005 – 2009 Strategic Plan. A third half day workshop of the CTIRC was convened and the draft Plan was used to assign one or more CTIRC representative to each program in the plan to oversee and coordinate program funding, mobilization and execution.

The Strategy will be communicated widely too many stakeholders and other Regional staff following approvals.

The Results

A high level definition of the following Ten Key Strategic Outcomes was developed from the workshops. These represent clear strategic directions to meet the Region's IT Objectives. They are, however, very ambitious and challenging.

Key Strategic Outcomes

1. Secure & Reliable IT Infrastructure
2. IT Aligned with Business
3. Value Driven Strategic IT Investments
4. Customer-Centric Service Delivery
5. Online Government Transformation
6. Enabled Knowledge Workers
7. Region-Wide Online Employee Access
8. Streamline Processes through Data Sharing and Integration
9. Maximized External Partnerships and, (once the above outcomes are realized)
10. York Region would be 'Recognized' for best practices

Programs & Projects

An initial list of current and future projects with an IT component was created prior to the workshops by ITS. Input was requested from workshop participants before and during the workshops, and a more complete list of over 200 projects was compiled and then structured into 32 Programs. Following the priority setting process using Strategic Outcomes and Client Impacts, the 32 programs were grouped into three categories – Corporate IT Driven, Department Driven Jointly with IT and Department Driven with 3rd Party.

The 5-Year Plan

A high level schedule spanning the next five years was developed for the delivery of the each of the 32 IT Programs in the three categories above. A few major interdependencies and projects requiring special scheduling attention were identified. The Strategy was used in preparing the Initiatives Budget as part of the 2005 Budget and Business Plan development process.

Strategy Execution

Senior Management commitment to the Strategy and the five year plan is an essential pre-requisite for success. This commitment must be communicated through the management of each department and coordinated through the efforts of the CTRC members. The CTRC will play a key role in turning the strategic planning work performed in the workshops into reality. Their first challenge was to develop an effective framework for IT investment decisions. The CTRC has already refined the list of IT programs in each of the three categories and assigned a CTRC Representative to coordinate each program and to work jointly with IT Services to develop further detail plans, schedules and cost forecasts as part of the five year plan.

The ITS Branch jointly with CTRC will also develop a set of Key Performance Indicators for the meaningful tracking and reporting on the 32 Programs as they are executed. They will also recommend further consultation and communication with other Region staff before the Strategic Plan is finalized.

Following the completion of the IT Strategic Plan (2005-2009), appropriate business cases for IT investment must be prepared as part of the overall business case for these programs. This, in turn will lead to the preparation of the relevant program/project charters.

Among the significant steps that need to be undertaken for the implementation of the Strategy is the development of an overall Enterprise Architecture (EA). The EA approach takes a holistic and comprehensive view to data architecture, application architecture and technology architecture. Designing IT service delivery must include due consideration of the Region's EA as a foundation for the IT Strategy and for the five year work plan.

The IT Strategy describes a new IT Service delivery model which will be implemented over time in consultation with key stakeholders in the operating departments.

The Converged Network initiative in particular will highlight the case for integrating the data and voice networks into a single network which will, in turn, be aligned with the One York vision and the Broadband Strategy.

Finally, the IT Strategy calls for building partnerships and relationships with various levels of government and the private sector; including the identification of funding opportunities for joint initiatives. This is again in keeping with the One York vision.

Experience gained during this first annual IT strategic planning process will be used to improve the process and to better integrate it with the Region's annual business planning & budget process for next year.

2. Context of the Information Technology Strategy

Background

In the past, information technology (IT) was acquired in response to current requirements related to corporate or departmental initiatives. At times these initiatives were carried out independent of each other, sometimes resulting in the duplication of data, systems and IT infrastructure.

Planning for IT did not comprehensively look beyond the next business planning cycle and was usually performed within the perspective of an individual departmental organization. Synergistic opportunities for sharing costs, systems, data and technology were not considered, and there was not an effective forum to identify and pursue such opportunities.

The Corporate Technology Review Committee (CTRC) decided to review previous work done on a draft IT Strategy and a project was initiated in May 2004 to develop an IT Strategic Plan for the York Region to guide IT service delivery and IT investment decisions over the next five years.

The Purpose of the IT Strategy

The purpose of the Information Technology Strategy and five year plan is to chart a roadmap for the effective deployment of Information Technology in York Region. In charting this roadmap, the strategy must take into consideration the goals of the Region as manifested in Vision 2026 and must establish strategic directions to assist in accomplishing these goals. The strategy should also delineates these directions through a set of programs, projects and activities which, when executed, will help the Regional departments in meeting their broader business goals and objectives.

The IT Strategy is about making choices. Associated with these choices are corresponding costs and benefits. The IT Strategy is about making strategic investment decisions in IT within the constraints of the fiscal realities of the Region. The IT Strategy is also a consensus building exercise. This is the reason why the IT Strategy described in this document was developed using a facilitated workshop format. The workshops involved interactive discussions of IT goals, vision and objectives. The workshops also highlighted the strengths and weaknesses in the Region and identified the key needs of departments in the information technology area. The workshops went further and explored the realistic expectations of the departments in terms of adoption of technology and where the Region could be in the years to come.

The IT Strategy is also about leveraging the resources of the organization to accomplish the programs and projects identified in the five year work plan resulting from the Strategy. The Strategy involves the adoption of an effective IT service delivery model that ensures that the resources of the ITS Branch together with the talents of the

functional people in the various departments are optimized through the delineation of roles and responsibilities, project ownership and effective decision making. Finally, the IT Strategy is about looking over the horizon and anticipating the technological changes that can be used and harnessed for keeping the Region competitive.

The Guiding Principles

An effective IT Strategy must begin with a set of Guiding Principles which tend to be over arching, consistent and which extend beyond the horizon of the strategic plan. The following seven principles were established to guide the IT service delivery and IT investment decisions.

1. Service to Citizens/Customer Service

This principle is about designing and providing services that are customer-centric. Providing services to citizens and business is the primary reason for York Region to exist.

2. Support the Region's Core Business Needs

The primary purpose of IT support staff and of the underlying IT infrastructure is to enable service delivery and the business needs of the operating departments. Planning, development, implementation, and application support must be done in close co-operation with the business units.

3. Integration of IT Applications at Every Opportunity (including Open Standards)

This principle is about integrated technology, information and data sharing to enable business-driven initiatives, reduction in long term costs and to provide improvements in the quality of services and the accuracy of information provided by Regional staff.

4. Strategic Investment in IT

Investing strategically means supporting investment decisions with sound business cases, supporting and participating in the optimization of cross-department interests, and facilitating, promoting, and encouraging reuse of existing systems and applications.

5. Collaboration and Co-operation

Collaboration amongst the Region's departments and the ITS Branch is one of the most effective ways to align corporate IT perspective and the departmental perspectives. Collaboration and cooperation take full advantage of the multiple skills, talents and capabilities throughout York Region organization.

6. Alignment with the 2026 Vision & Integration with other Government Jurisdictions

The Region must ensure that IT projects are aligned with the corporate vision, mission and goals. Vision 2026 is a strategic plan that provides an overall blueprint for York. This principle ensures that the IT strategy is an integral component of Vision 2026.

7. Secure & Responsible Information Management in Accordance with Legislative Requirements

Security of data, systems, and information is a paramount principle. Controls must be in place to ensure data, information, and systems are not compromised. Data/information management must comply with legislative requirements including The Municipal Freedom of Information and Protection of Privacy Act (MFIPPA).

Trends



As the Region develops its Information Technology Strategy, the Region is well aware of a number of trends and changes that are happening in the IT and telecommunication industry. Some of these trends are briefly described below.

- ▶ De-regulation in the telecommunications industry has resulted in significant changes to the marketplace. New technologies and new players have entered the market offering alternatives to the traditional telecommunications solutions. New options available include cable, Fibre, microwave and satellite networks.
- ▶ Changes are also occurring with the telecommunications technology that transports the voice and data signals. Data and voice signals have historically required separate networks because of their different characteristics. New technologies and network standards are allowing for the integration of voice, data, video and audio on one network. While this requires significantly increased bandwidth on the network there is potential for generating great efficiencies and functionality advantages. The potential exists for one “connection” jack in each office providing voice, data, video and audio.
- ▶ One of the major shortcomings of data networks has been the requirement to be physically connected to the network to access data and applications. New technologies that provide TCP/IP services over radio waves (RF), cellular signals, and satellite technologies are removing this limitation. Wireless technologies are making it possible to connect to corporate network resources from automobiles, temporary site locations, and client locations. York Region Police are utilizing this technology to provide officers computer access from their vehicles.

- ▶ Other technology advancements that facilitate the use of mobile technology include the evolution of “mini” devices. The mini devices vary in size and functionality from the personal digital assistant (PDA) to the tablet PC to the notebook (lap top). These devices significantly improve the portability of technology. There is also convergence of the voice and data devices. The functionality of the traditional cell phone and PDA are merging and only one device will be required to satisfy both voice and data mobile requirements.
- ▶ The Internet has become a popular forum for providing general interest information. A growing trend is to use the web for business e-commerce transactions.
- ▶ The major challenge in implementing business transactions on the Internet has been security. Technologies exist to address security but they are very complex and lead to many logistical issues. As a result, various organizations now offer authentication services for web commerce.
- ▶ The trends in many municipalities is to offer a variety of channels of customer service – including online services, kiosks, fax, over the counter, and regular mail. Associated with this is the desire to extend hours of service and often providing 7/24 availability for mission critical applications.
- ▶ The ability to attract and retain technology skills has been a serious issue particularly in the public sector. There is still some significant demand for skill in particular areas such as security and disaster recovery.

“Trends: The Longer Horizon...”

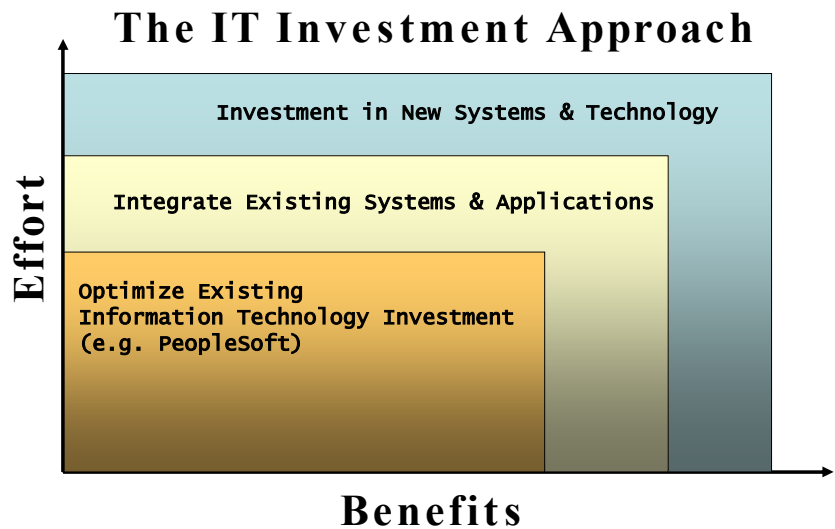
Looking beyond the current trends and further into the future, world renowned IT industry think tanks like IDC forecast that society has only seen the tip of the iceberg in technology innovation. They pinpoint a number of interesting projections including:

- ▶ Increased use of sensors and embedded systems such as radio frequency ID tags that emit electronic signals when probed.
- ▶ Development of ever smaller chip technology and growing demand for miniaturization and personalization particularly in the health industry
- ▶ Growing demand for more storage, and content management
- ▶ Rapid replacement of currencies in transaction payments and replacement with wireless payments
- ▶ Ever expanding communication platform which will bring more information and ideas to underdeveloped regions.

Issues & Challenges

York Region is also facing some significant **issues and challenges**. As described later in the strategy development process, a number of key issues and challenges are readily apparent:

1. The Region needs a comprehensive asset management framework and the associated information management tools for both IT and physical infrastructure assets.
2. The Region needs to consider alternative service delivery with a particular emphasis on potential outsourcing of some of the IT functions. Considerations for outsourcing include the data and voice network, the data center and the single point of contact (help desk). The Region already uses numerous contractors and third party vendors to support many of its business operations and the associated technology investment.
3. The Region needs to continue to pay attention to the issue of attracting and retaining technology skills. York Region has been proactive in adopting market salary premiums for staff with key technology skills. The skills attraction and retention strategy addresses more than just salary issues. Studies have shown that this is only one of many factors that are important to employees including: training, development opportunities, career growth opportunities, recognition and organizational support.
4. The Region needs to think of the 'e-York Strategy' and particularly how portal technology can be used to develop a horizontality of services that York Region and its local municipalities provide to citizens and business of York as well as looking vertically at technology that can help integrate some of the e-services across a particular service such as solid waste or social services etc.
5. The Region needs to develop key performance indicators to be able to assess what IT services should be provided in-house as well as to benchmark the Region's IT service delivery against other regions and municipalities.
6. The Region needs to ensure that the IT Strategy is a results based strategy. This implies fast execution and leveraging the low hanging fruit.
7. The Region needs to continue to consider "off the shelf" applications in preference over custom built and internally developed applications. The philosophy guiding IT investment in and deployment of applications is a three step process: firstly, optimizing the use of application which the Region already has, secondly, integrating wherever possible different applications which the Region has to develop needed capabilities and finally investing in new off the shelf applications. Only in exceptional situations should the region entertain developing applications in-house or through professional services from scratch as outlined in the three Step IT Investment Approach outlined below.



8. The Region needs to reduce its dependence on the use of external contractors to deliver IT services particularly since the knowledge base stays with these vendors as opposed to the knowledge transfer that is essential for retaining the knowledge within the Region.
9. The IT Strategy invariably calls for close alignment and engagement of IT with the business planning process. This challenge requires constant involvement and participation of IT Services with the departments as they pursue their business planning processes.
10. The Region needs to carefully assess its Total Cost of Ownership for IT. One of the greatest threats to any technology investment is premature obsolescence. The Region has been successful in protecting its technology investment by:
 - Establishing refresh programs based on realistic product lifecycles.
 - Investing in technologies that are tried and proven.
 - Looking forward to identify and respond to trends in the marketplace.
 - Minimizing costs and complexity in managing the technology infrastructure by establishing corporate technology standards.
 - Establishing and managing technology standards centrally for the Region by the ITS Branch. This has resulted in a reasonably homogeneous technology environment, which is supportable and maintainable at minimal costs.



The Strategy Development: A Consultative Process

The planning approach for the strategy development in York Region was based on a disciplined consultative process and the direct and active involvement of senior representatives from across multiple departmental business functions, decision makers, and some municipalities. The participation of these representatives was designed to bring a wide variety of backgrounds and a business perspective to the planning process and to help ensure that the resulting IT strategies and plans were closely aligned with the Region's vision, strategies and direction.

Towards the end of October 2004, the Region's first annual IT strategic planning process was completed and the results are described in this document.

The planning process employed was a prototype based on similar planning processes utilized in a number of other government jurisdictions. Feedback provided by participants indicated that it was effective and that it can serve as the planning model for future years given the lessons-learned and experience gained during the last few months.

The strategic outcomes and program priorities outlined in this Plan are ambitious and far-reaching. A number of them are designed to lay the foundation for some of York Region's major objectives for improving services to citizens and for enabling a more direct and frequent interaction of citizens with the operation of regional government.

IT Alignment with York Region Vision and Objectives



“...York Region will be renowned for its advanced technology, innovative businesses, supportive business infrastructure...”

This IT Strategic Plan is well-aligned with the Region's priorities and should help ensure that IT budgets are spent in areas that reflect the greatest value for York's citizens, businesses and visitors.

One of the major objectives of developing an IT Strategic Plan was to better align the activities and investments related to information technology to the business of the Region.

Considering the millions of dollars spent on IT annually and the long list of potential IT related projects, it was clear that not everything could be accomplished within the planning horizon that the departments and ITS Branch had identified. Some form of prioritization and shared responsibility would be required to help ensure that the most appropriate projects are funded and resourced.

The effort to align business and IT focused on three aspects:

- ▶ **Vision and objectives** whereby a clear vision for IT and its objectives were articulated.
- ▶ **Business and IT staff**; specifically the effective engagement of both departmental leadership and ITS in the IT planning and prioritization process.
- ▶ **Business and IT work priorities**; specifically a process to match potential IT related projects to the overall business priorities throughout the York Region.

“...York Region will be known for its citizen involvement and will set high standards for transparent policy making and decision making, effective communication, strong partnerships...”

“...York Region will have effective, efficient and environmentally sensitive transportation, waste management and water systems”



“Creating Strong, Caring and Safe Communities”

IT Vision – Information Technology will enable Regional departments to deliver customer-centered, cost-effective, quality programs to the Region’s growing population and businesses.

Business & IT Staff Alignment - Over twenty department directors, managers and key support staff, two regional councilors and six senior ITS staff attended two full-day planning workshops during September. They also invested considerable time in pre-workshop assignments, and post-workshop follow-up support.

The result is an IT Strategic Plan that reflects Region-wide participation and a better joint understanding between business and IT management regarding the IT projects and investments that match overall business priorities for the next five years.

IT Work Priorities across the Region – A significant part of the strategic planning process was to understand the list of potential IT-related programs and projects (over 200) and to rank them against a number of factors to establish an overall, relative priority list as well as the shared responsibility for delivering on these projects. This step in the planning process was completed successfully, the 200+ projects were grouped into 32 programs and these programs were aligned with the business priorities and placed appropriately on a timeline spanning the next five years.

A Strategic View of IT

IT: cost was the old view...

IT has traditionally been viewed as an unavoidable cost in modern business.

More progressive organizations have embraced the realization that much of the company’s IT investments are strategic assets, and should be associated with the change and business transformation that result from changes in business strategic direction or strategic emphasis.

IT: Value is how IT investments should be seen...

A major element of the improved alignment between business and IT is a stronger focus on those IT expenditures that support key business strategies and the related business investment in change.

...the enablers of the business vision & strategies

The IT strategic planning process, in determining the relative priorities of the potential IT-related projects, helps ensure that future IT investments are made strategically.

The Benefits...

The benefits of an approach that places higher importance on potential IT investments that directly support the Region's vision and strategic direction are clear.

The 2005 – 2009 IT Strategic Plan that resulted from this approach is expected to produce the following major benefits:

- ▶ Enhanced service to citizens through a customer-centric service model reflecting the Region's Customer Service Strategy with emphasis on e-Government services.
- ▶ Strong focus on supporting the Region's core business needs with an appropriate level of information & communication technology capability to support the Region's pace of growth.
- ▶ Strategic investment in IT, aligned with the Region's strategic directions and Vision 2026.
- ▶ Increased integration of IT applications to obtain optimal value of existing IT investments.
- ▶ More secure and responsible information management, in accordance with legislative requirements.
- ▶ Greater collaboration and cooperation within the Region and with external government jurisdictions.

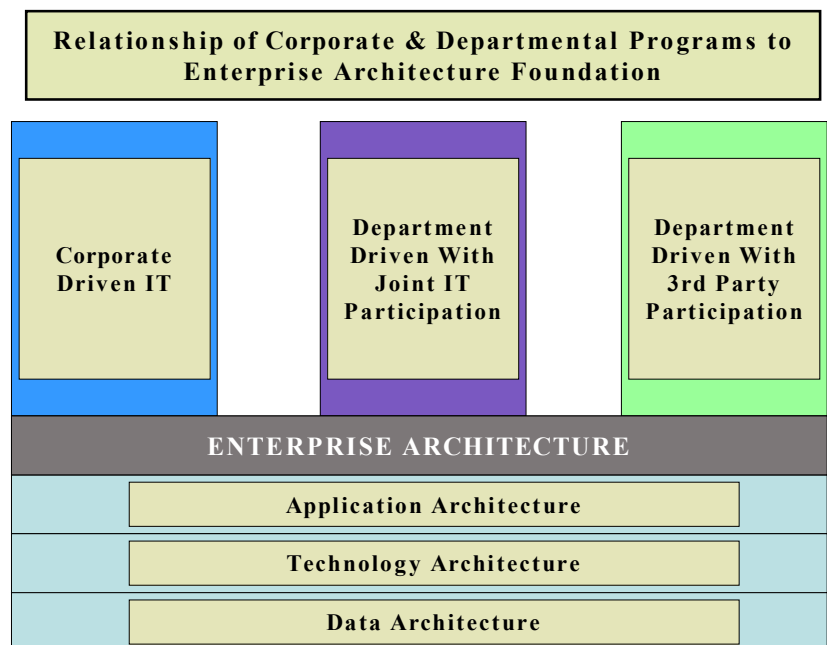


Critical Success Factors

What are the critical success factors for the IT Strategy?

1. **Change Leadership.** This requires that the ITS Branch in partnership with CTIRC team would play a coordinating role in the IT Strategy execution.
2. **Senior Management commitment.** This must come from the business part of the organization. The department's senior management must realize the inter-dependence of their operations with IT Services and the deployment of technology for their 7/24/365 functioning and survivability.
3. **Communication.** For the strategy to succeed, it is essential to consult widely and communicate with all levels of the organization. The CTIRC plays an important role in facilitating this communication. However, this has to be supplemented with more efforts further up and down the organization's administrative structure. All appropriate channels for communicating the strategy should be explored including the web, the intranet, one to one meetings and through presentations to the various business units of the organization.
4. **Vendor Relations.** The Region needs to work closely with current and future vendors for effective deployment of technology. This includes negotiating and getting volume discounts for software licensing, capping on software maintenance charges and preferential reduced per diem rates for consulting and professional services in implementing the software solutions.

5. **Policies, Standards and Best Practices.** The Region needs to deploy best practices in project delivery and execution and enshrine them as part of the approved IT policies, procedures and standards.
6. **“Shadow” IT Resources.** The Region must extend the reach of the organization through deployment of the skills and talents throughout the organization. This can be accomplished by using the concept of a centralized IT function and a decentralized service delivery approach.
7. **GIS integration.** Wherever possible and appropriate, GIS input to meet departmental needs should be pursued as a supplemental strategic service and one of the building blocks for comprehensive IT service delivery. Furthermore, the IT Strategy should build on and leverage the success of the YorkInfo Partnership for better relations with other municipalities and agencies in the Region.
8. **Enterprise Architecture (EA) as a Foundation.** The Region must implement an EA approach to strategy implementation which takes a holistic and comprehensive approach to data architecture, application architecture and technology architecture. Designing IT service delivery must include due consideration of the Region’s EA. It is essential that EA be viewed as a foundation for the IT Strategy and for the 5 year work plan. This is illustrated in the diagram below:

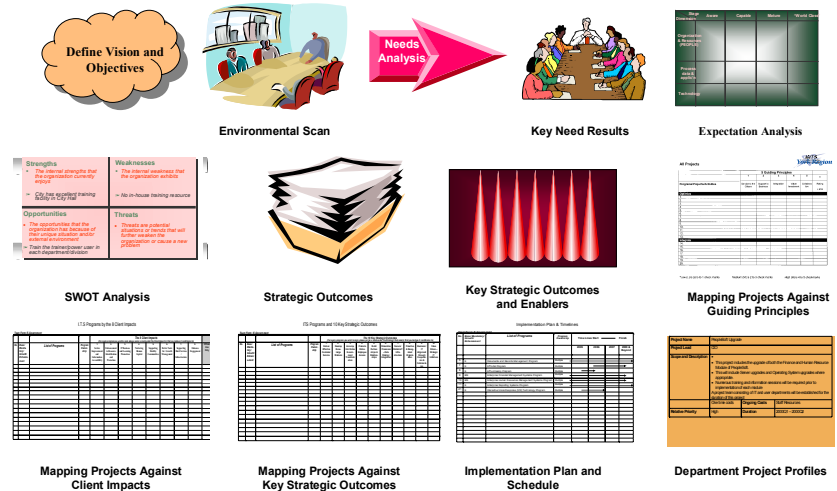


The Strategy Development Process

3. The Strategy Development Process

The 13 Step IT Strategic Planning Process

The 13 Steps to Building our 3 Year Strategy



Experience developing IT Strategic Plans in many other government jurisdictions in Ontario was used to draft the major components of an IT Strategic Plan for York Region and to develop a 13-step process that would facilitate the alignment of the IT Strategic Planning process with the Region's 2005 business plan and budget process.

Highlights of the deliverables from each of the steps in this planning process are described below.

Step 1 Vision & Objectives

With the Region's vision, goals and objectives in mind, a preliminary IT vision and a set of objectives were reviewed in a workshop setting, and revised to reflect the participants' input.

IT Vision – Information Technology will enable Regional departments to deliver customer-centered, cost-effective, quality programs to the Region's growing population and businesses.

Related to this vision is a set of IT Strategic Objectives:

- ▶ *Enhanced customer-centred access channels to Region information and services.*
- ▶ *Secure & responsible information management in accordance with legislative requirements.*
- ▶ *Greater integration of information and services within the Region and other jurisdictions.*
- ▶ *Capturing and reporting on key performance indicators.*
- ▶ *Reduction and/or containment of unit cost increases.*
- ▶ *Maximizing the effectiveness of resources through the use of technology.*
- ▶ *Managing growth and maintaining flexibility.*
- ▶ *Delivering secure timely, efficient and reliable technology services.*
- ▶ *Improving Region services in a fiscally prudent way.*

Step 2 Environmental Scan

The current situation with the Region's systems and technology, as reviewed and assessed by ITS management, was determined in the months ahead of the planning workshops and was the result of discussions with numerous senior staff across the organization including a number who are members of the CTRC. The workshop participants validated the environmental scan and associated observations.

Step 3 User Needs

It was recognized from the outset that IT York Region has been experiencing significant growth to meet the ever increasing needs of the users. This is illustrated in the following table that compares 1998 to 2003 IT attributes.

Statistics	1998	2003
No of PC's	632	1827
No. of Telephones	850	2086
No. of Help Calls	n/a	22272
No. of Region staff per ITS FTE	45.2	44
No. of application/data servers	11	90
No. of applications	20	160
No. of network devices	29	122
No. of telephone switches	3	13
No. of voice mail servers	3	9

Based on empirical studies conducted in other municipalities, an initial comprehensive draft set of user needs was compiled. Workshop participants were assigned to four break-out teams, structured around the four IT Service dimensions of Human Services, Hard Services, e-Government Services and IT Infrastructure Services. Each of the four teams reviewed the draft list of user needs from a number of perspectives – organization, data, technology and applications.

Step 4 Key Need Results

The four sets of user needs were then consolidated into key need results, which established the requirements context for the subsequent steps.

Step 5 Expectation Analysis

Another context-setting step in the process is the Expectation Analysis exercise which is intended to manage expectations and define the gap between the users and providers of IT. This analysis causes the strategic planning participants to think clearly through a realistic assessment of how far the Region could move during the planning period, to close the gap between the as-is situation and the to-be target for five years hence. In carrying out this assessment, participants are required to give due consideration to the fiscal and other realities that represent constraints or obstacles to progress.

In break-out sessions, each of the four teams discussed and came to agreement on how far along a maturity scale (**aware – capable – mature – world class**) their organizations are today, and could be in five years, taking into consideration a number of factors (people and organization, business processes, technology, data and applications).

A typical sample result is illustrated below. The results of a similar exercise with just ITS Branch staff are also indicated in this sample.

Guiding Principle – Service to the Citizens/Customer Service

		Aware	Capable	Mature	World Class
People	Today				
	Future				
Process	Today				
	Future				
Technology	Today				
	Future				
Data	Today				
	Future				
Applications	Today				
	Future				

*** ITS Branch Workshop

***September 1st Workshop

Step 6 *SWOT Analysis*

The teams once again considered a preliminary set of **Strengths, Weaknesses, Opportunities and Threats** related to the ability of the Region to achieve the kinds of IT related objectives defined during the strategic planning process.

Among the strengths of York Region to leverage are such elements as; richness of data and applications, strong GIS technology, advanced disaster recovery program and Image of York Region as a growth region. On the other hand, weaknesses were noted in duplication of data, voice and data networks reliability, lack of key performance indicators, lack of enterprise architecture and the limited financial resources. Major opportunities were noted in adopting e-government to improve customer service and also in pooling the resources of the organization to accomplish more in the technology area. Among the main threats noted was keeping pace with technology changes and the costs and resources associated with technology upgrades.

Step 7 *Strategic Outcomes*

This step required participants in the four teams to respond to the question:

It is September, 2009! What has changed in the use of IT in York Region?

The results of this step represent a significant point in the strategic planning process since these strategic outcome statements provide the necessary focus on what matters most to workshop attendees in their respective business areas.

The resulting strategic outcomes are ambitious and challenging.

Step 8 *Key Strategic Outcomes*

The detailed strategic outcomes produced in the last step were consolidated into Ten Key Strategic Outcomes.

1. Secure & Reliable IT Infrastructure
2. IT Aligned with Business
3. Value Driven Strategic IT Investments
4. Customer-Centric Service Delivery
5. Online Government Transformation
6. Enabled Knowledge Workers
7. Region-Wide Online Employee Access
8. Streamline Processes through Data Sharing and Integration
9. Maximized External Partnerships and, (once the above outcomes are realized)
10. York Region would be 'Recognized' for best practices

Because these key strategic outcomes have such significant relevance to the business priorities, they became one of the main factors for the prioritization of the 32 programs and the corresponding 200+ current and potential IT related projects.

Attachment 1 is a brief summary delineating the relationship between the Ten Key Strategic Outcomes & some of the Programs and Projects identified.

The **Framework for Business Planning** as illustrated in the following graphic was used to guide the subsequent steps in the IT Strategy development Process.

This step was the first one that contributes directly to the primary planning deliverable which is illustrated in the following graphic:

Step 9 Mapping Programs & Projects to Key Strategic Outcomes

Strategic Outcome # 3 (Why)									
Strategic Outcome # 2 (Why)									
Strategic Outcome # 1 (Why)									
The Projects/ Programs (What)	BP & BP ----- Base Mandatory Growth Enhancement	Client Impact/ Benefit (Who)	Priority Schedule (When)					008	8
			2005	2006	2007	2008	2009		
•									
•									
•									
•									
•									
•									

A list of known projects, both those currently under way and those that have been identified as potential future projects was compiled. The project list was structured into 32 programs, grouping the specific projects by common characteristics of organization, nature of application, data, etc. This step is described more fully in Chapter 4.

In this step, the 32 programs were mapped to the key strategic outcomes in a way that a ranking of the programs associated with each team was possible.

Step 10 Mapping Programs & Projects to Client Impacts

Using the goals defined in the Vision 2026, a set of eight client impacts was defined. The list included:

- ▶ Service improvement and information accessibility
- ▶ Enhancement to resource identification and protection
- ▶ E-Business and learning promotion

- ▶ Nurturing human capital
- ▶ Supporting healthy communities
- ▶ Better tools for growth management
- ▶ Supporting delivery of hard services/infrastructure
- ▶ Enhance engagement of citizens and business

Attachment 2 shows how the eight Client Impacts were derived and related to Vision 2026 goals.

Step 11 Mapping Programs & Projects to 3 Categories

The four teams were asked to review the 32 programs and allocate them into three categories defined as follows:

1. Corporate ITS Driven Programs
2. Department Driven Programs & Projects jointly with ITS
3. Department Driven Programs & Projects with 3rd Party

Attachment 3 provides a complete definition of the criteria which was used to map the programs into the three Categories and to identify the corresponding roles and responsibilities. The resulting overall Program priority list is shown in **Attachment 4**. Once this was accomplished, it was possible to produce a new IT Service Delivery Model based on the criteria noted above. This is graphically illustrated in **Attachment 5**.

Step 12 Implementation Plan & Schedule

A high level five year schedule was then developed with each team developing the timelines in accordance with their understanding of the specifics of each program. It was understood that the actual detailed schedule for each program would only be possible when detailed project charters were developed for each major project in the respective program. It was also understood that the timing for implementing the work plan would vary significantly depending on many factors including budget availability, staffing, risks and uncertainties. Nevertheless, an initial five year schedule was developed as shown in **Attachment 6**.

Step 13 Project Profiles/Project Charters

Workshop attendees and particularly the CTRC members completed project templates. The templates containing 'tombstone' information for each project were used to group the 200+ projects into the 32 programs. Clearly much more work will be done to complete a project charter for each of these projects prior to implementation.

4. Programs & Projects

As noted earlier, departments were requested to submit a complete project profile for each existing project in their respective departments. Once compiled, the list of projects (approx 200), were sorted into relevant grouping and 32 programs were developed.

The CTIRC in Step 11 above took considerable time to define where each of the 32 programs belongs in terms of whether it would be driven by ITS Branch or driven by the department initiating the program. It was also clear that the ITS Branch must provide a common set of services regardless of who drives the delivery of a given program. The common services include the following:

- ▶ IT Policies and Standards
- ▶ Network Access (both data and voice)
- ▶ Infrastructure Installation
- ▶ Service desk support
- ▶ Computer devices refresh
- ▶ IT Advisory role

The CTIRC deliberations resulted with the following program allocation into the three categories:

Corporate ITS Driven Programs & Projects

- ▶ Documents & Records Management Program
- ▶ Information Technology Services – User Devices Program
- ▶ Enterprise Reporting Systems Program
- ▶ Information Technology Services – Networks Program
- ▶ E-Portal Program
- ▶ Information Technology Services – Service Delivery Program
- ▶ Enterprise Human Resources Management Systems Program
- ▶ Customer Relationship Management (CRM) Program
- ▶ Enterprise Financial Management Systems Program
- ▶ Broadband Networks Program
- ▶ Interactive Voice Response (IVR) Program

*Department Driven
Programs & Projects
jointly with ITS Branch*

- ▶ Health – Integrated Health Information Databases Program
- ▶ Information Technology Services – Data Centres Program
- ▶ Department Technology Master Plans Program
- ▶ E-Purchasing Program
- ▶ Mobile Computing Program
- ▶ Court Services Program
- ▶ Workgroup Collaboration Systems Program
- ▶ Police Services Program
- ▶ Growth Management Program

*Department Driven
Programs & Projects
with 3rd Party*

- ▶ Transit Program
- ▶ Ontario Child Care Management System
- ▶ GIS Program
- ▶ Water & Waste Water Program
- ▶ Health – Public Health Program
- ▶ Ontario Social Housing Program
- ▶ Health – Emergency Medical Services Program
- ▶ Site & Facilities Management Program
- ▶ Ontario Works Program
- ▶ Health – Long Term Care Program
- ▶ Emergency Measures Program
- ▶ Economic Development Program

It must be emphasized that ITS will be thoroughly consulted for all departmentally driven programs and projects.

With the above allocation of programs and the assignment of a CTRC Representative to coordinate the delivery of these programs, it is possible for the Region to develop a Business Plan that addresses the resources required to deliver on each program in the three categories.

5. Business Plan

The five year Business Plan described in this Strategy paves the way to the accomplishment of the Key Strategic Outcomes fundamental to the development of the five year plan and the individual departmental IT needs as reflected in the departmental business plans.

It is essential that the Key strategic Outcomes turn on the organization to the challenge of meeting these outcomes. To do that will require a cultural shift by both the business and the ITS Branch. What will facilitate this culture shift is the accomplishment of the low-hanging fruit (projects) that demonstrate the accomplishment of some of the strategic outcomes through the implementation and execution of these projects.

Strategic Outcomes are Important

Also central to the accomplishment of the strategic outcomes is the adoption of a service delivery model which builds on the resources of the organization both in the ITS Branch and in the operating departments. **Attachment 5** shows the service delivery model recommended in the Strategy.

Furthermore, the organization as a whole must recognize that some of these strategic outcomes can only be accomplished by exploring and leveraging the available opportunities for accessing and sharing of data. Data sharing will enable executive and management reporting as well as day to day routine reporting through the concept of **Enterprise Reporting**. The Region must be able to reuse much of the tools, the software and the assets in order to develop a common view of the information and to develop the appropriate reporting required at different administrative levels of the organization.

How Do We Accomplish the Strategic Outcomes?

Some of the ways to accomplish these strategic outcomes include:

1. The development of IT work plans for each department.
2. Development of an application optimization, migration and acquisition roadmap in accordance with the application architecture.
3. Wide use, publishing, adoption and compliance with architectural standards for data, application and technology.
4. Commitment to the ongoing consultation and decision making process commencing at the CTTC and WIG (Web Improvement Group) with effective coordination at SMG and at the individual staff level.

Governance Framework

A governance framework to execute the IT Strategy is essential and must build on the existing CTIRC framework.

The CTIRC role and responsibilities** are currently defined as:

- ▶ Develop processes to guide and assist in the development and management of technology initiatives
- ▶ Review corporate and departmental initiatives, preferably at the formative stage before they are submitted to the business planning and budget process, for technology implications and make recommendations on corporate impacts, synergies and priorities to SMG and the Director ITS based on its findings
- ▶ Monitor the progress of technology projects and make recommendations for adjustments to SMG
- ▶ Ensure that changes to technology priorities, plans and/or projects are properly communicated to staff
- ▶ Recommend to SMG performance metrics and service levels for technology services including resource "programming" to support the given levels of service
- ▶ Recommend to SMG development or modification of technology policies, procedures and standards
- ▶ Investigate and report back on any technology issue referred to the committee by SMG or the Director of ITS. (Technology training issues are referred to the Corporate Training Advisory Group.)
- ▶ Review policies, procedures, standards and corporate initiatives developed by the ITS Division
- ▶ Ensure the alignment of technologies role within the business plans of the Region and its departments
- ▶ Assist ITS in delivering a target technology architecture in the context of the Region's business plan through the disciplined implementation of common initiatives

***This information extracted from "Technology Governance Framework" **Attachment 10** outlines all ITS Policies & Guidelines*

Attachment 7 shows a schematic of the suggested governance structure. This exhibit clearly outlines the need for intra-departmental priority setting through a departmental IT Work Plan. The ITS Branch would and should participate as a stakeholder in the development of these work plans.

2005 Initiatives Budget – Integration with the IT Strategy

The IT Services Branch is already deploying the corporate programs and projects as a framework for the overall 2005 Initiatives Budget. Each corporate program/project is identified and the associated 2005 costs are identified. It is essential that IT resources which will be dedicated to each corporate initiative be part of the 2005 work plan. In addition, departmental collaboration resources should also be identified to ensure that the corporate initiatives meet the requirements of the various departments participating. Similarly, departments are requested to provide their 2005 initiatives budgets for their programs and projects in the other two categories using the same format so that a composite of all IT Strategy initiatives are depicted in one Initiatives Plan even though the source of the funding for these initiatives and the ownership of these initiatives is distributed between the corporate ITS Branch and the departments.

2005 Program Priorities

Using the five year schedule produced during the IT Strategy development process, it is possible to develop the first year priorities of the programs and projects to be initiated by the ITS Branch and the Departments as part of the five year plan. A comprehensive list of these first year priorities will begin the process on solid grounds and will insure the direct integration of these priorities with the annual operating and capital budget process.



As noted above, the ITS Branch has already commenced the integration of the Corporate (IT Driven) Programs and Projects into the 2005 Initiative Budget.

2005 corporate IT Driven Priorities

In 2005, the IT Services branch will drive these Priority Corporate Programs and will focus on the following :

- ▶ Converged Networks
- ▶ Enterprise Architecture
- ▶ E-Portal Strategy
- ▶ Broadband Strategy (Including Inventory)
- ▶ CRM Strategy
- ▶ Data Centre / Reframing
- ▶ Web Accessibility to meet ODA Requirements
- ▶ PeopleSoft HR & Financials 8.8 upgrade
- ▶ ERP Performance Management Development
- ▶ Further rollout of E-Docs
- ▶ Information Management Strategy
- ▶ Completion of business impact assessment for disaster recovery
- ▶ Server based computing (Citrix) rollout & implementation
- ▶ Develop mobile computing strategy
- ▶ Initiate development of a comprehensive knowledge base as input to the E-Service channels

Outsourcing opportunities and alternative service delivery will be considered as IT services work on this 2005 priority program. Specifically, the converged network, single point of contact and the data centre reframing projects are candidates for these opportunities. The Request For Qualification for converged network is already issued.

Clearly, a business case must be developed for each corporate and departmental program. The business case must identify the costs, benefits and the expected Return on Investment from the implementation of the program. Furthermore, to ensure success of the program, best practices in program governance and delivery must be applied. [Attachment 8](#) shows the Program Delivery Template agreed to by the CTRC for use with each of the programs.

2005 Departmental priorities

In 2005, The Priority Departmentally driven programs will focus on some of the following programs and projects:

- ▶ T&W – Handheld Data Collection Pilot
- ▶ T&W – Transit Program
- ▶ T&W – Arch – Middleware Development – Integration for SCADA & CWMS
- ▶ T&W – 95 Bales Dr. & 380 Bayview Ave. Networking
- ▶ Police – Symposium solutions
- ▶ T&W – Partial recovery Integration development for SCADA & CWMS
- ▶ T&W – Corporate Network Integration – SCADA
- ▶ T&W – CWMS computerized work & asset management system
- ▶ Emergency Measures Program, 7M CFD Interim Facility
- ▶ T&W – RSA Security for Remote Access
- ▶ Planning & Development – Growth Management

Furthermore, to get an indication of the type of investment that will be required over the next five years to meet Regional IT needs in support of departmental service delivery, [Attachment 9](#) was developed. The investment in IT could amount to over \$ 50 million dollars. This is in line with the current annual initiative budget which is approximately \$10 M.

It is necessary to assess how the 2005 initiatives and projects contribute to adding value to the organization. In the context of the budget and planning process, each initiative or program should be assessed in terms of customer service, efficiency and service level.

6. Conclusions

The IT Strategy has demonstrated the need to have a closer look at the role of the IT function in the regional organization. The Information Technology Services (ITS) Branch provides and supports a wide variety of technology services and solutions for the Region. Services include the provision of telephones and voice mail systems, service desk (help desk) support, project management for technology solutions, computer networks for local and remote clients, desk top PC refresh, software application development and management of enterprise resource programs such as PeopleSoft and document management systems. Information technology has become fully integrated into the Region's day-to-day business processes. This is manifested in three specific ways;

Importance of IT function

1. The total cost of IT relative to the overall regional budget. The current operating budget plus the initiatives budget in ITS amounts to about \$20M. It is estimated that departments throughout York Region also expend about \$5M on the various departmental IT programs and initiatives. This does not include any operating costs associated with these initiatives. Therefore, York Region's budgeted expenditures amount to approximately \$25M, which is roughly 2% of the overall regional operating and capital budget.
2. The senior staff assignments involved in participating on technology governance structure including the CTRC, the WIG (Web Improvement Group), a dozen directors in the organization and a number of managers participated on these teams. The coordination and cooperation of these resources together with the significant initiatives that have to be executed demonstrate a best practice approach to decision-making for IT investment and service delivery. This technology governance structure will be essential for executing the IT Strategy and to accommodate the growing technology needs of the Region.
3. The 7/24/365 dependency of the organization on IT and the degree of user satisfaction with the services provided by IT.

The relative cost of IT to total regional budget above should also be viewed in the context of Total Cost of Ownership (TCO) which would drive the relative ratio significantly upward.

Clearly, there is a lot of room for improvement. The three attributes above are important pre-requisites for charting, implementing and executing the roadmap provided by the IT Strategy for the accomplishment of Regional goals.

Furthermore, as information technology and Region business operations become more interdependent, there is a growing need to optimize IT investment across the organization to avoid redundancies and waste. The key to aligning IT with departmental and corporate goals is to include IT in the business planning process early and at

***Objectives,
Guiding Principles
& Strategic Outcomes Overlap”***

the highest levels and to encourage joint IT – business governance to measure trade offs, to spot redundancies, to identify opportunities and to set priorities using an IT and business capabilities road map. The IT Strategy provides such a road map and the existing CTRC (Corporate Technology Review Committee) is the appropriate group to foster this alignment and to demonstrate that IT can add value and be a catalyst for positive strategic change.

Of necessity, the strategy produced a number of overlapping and complementary concepts that mirror each other. For example, many of the guiding principles are restated as desired IT objectives. Similarly, the key strategic outcomes mirror many of the guiding principles and IT objectives.

Clearly, IT objectives are the long term IT aspirations for the Region while guiding principles are the ‘givens’ that are overarching, consistent and that extend beyond the horizon of the strategic plan. Strategic directions are those areas of focus that will assist the Region in accomplishing the IT objectives using the guiding principles. Strategic Outcomes are, in fact, the deliverables from the successful implementation of the Strategy. They are the reason why various programs & projects are put in place.

Lessons Learned

A reflection on the way that this Strategic Plan was developed and considering the input provided by workshop participants on the evaluation forms indicate the following:

- ▶ The IT strategic planning process worked rather well considering the preparatory effort and time requirement of participants.
- ▶ The process should start earlier in the business planning/budget cycle next year to relieve some of the timing pressures experienced this year.
- ▶ An up-to-date inventory of existing and emerging IT related projects is worth maintaining on an ongoing basis, not just at business planning time.
- ▶ The next cycle should allow some time for even broader stakeholder review and input.
- ▶ The decision making framework should be further developed and endorsed, and should include a post-planning mechanism for tracking and reporting progress and emerging issues.
- ▶ The IT strategy implementation process should be extended to include a discrete step wherein champions and project management accountabilities are established for all of the programs and projects.

Leadership is essential

The Director, ITS will assume responsibility for initiating the majority of actions required to guide the projects and programs as they get started and to report on progress.

Senior Managements commitment to the Strategy and the Plan is an essential pre-requisite for its success. This commitment must be communicated through the management of each department and coordinated through the efforts of the CTRC members.

The IT Services Branch in concert with the CTRC and Departmental Line Managers will continue to:

- ▶ Lead the business in technology deployment.
- ▶ Champion the impact of “e”.
- ▶ Ensure adherence of all staff to Service Level Agreements, corporate IT policies and standards and more specifically in coordinating departmental IT initiatives in accordance with this IT Strategy.
- ▶ Create an environment of opportunity & learning for staff.

Conclusions

The result of the IT Strategy development process is an IT Strategic Plan that reflects Region-wide participation and a better joint understanding between business and IT management of the IT projects and investments that match overall business priorities for the next five years.

Prioritization of information technology initiatives links IT to the mission critical applications of the Region. This will optimize Regional departments' ability to deliver customer-centered, cost-effective, quality programs to the Region's growing population and businesses. This will in turn, enable sustainable improved performance of the organization as a whole.

The recommendations in this report, together with the wealth of supporting materials define a clear and realistic path for the Region to follow. The Strategy reflects collaboration and consultation with all departments to position the Region for the future. The CTRC is confident that the York Region Information Technology Strategy will serve the Region's residents and business well over the next five years. The recommendations, though ambitious, are reasonable, achievable and visionary.

7. Recommendations

The following are recommendations arising from the implementation of the Strategy:

1. Support implementing the strategic directions as set out in this document including a requirement for the achievement of the strategic outcomes anticipated from this strategy.
2. Approve the IT Service delivery model described in this strategy and direct that it be implemented, in consultation with key stakeholders in the operating departments. The service delivery model calls for IT as a centralized function with a decentralized service delivery.
3. Support enhancing network reliability through more effective hardware and software deployment, proactive network monitoring, increased redundancies and improved disaster recovery planning.
4. Direct that the CTRC lead the annual refresh of the strategy to accommodate changes in organizational priorities and condition and that the IT Services branch in concert with the CTRC report annually on the strategy as part of the business plan and budget process including reporting on key performance indicators and accomplishments.
5. Direct that the decision making framework recommended in this strategy be supported and followed.
6. Approve that specialized skills in enterprise architecture be acquired and integrated into the IT Services branch staff complement. Enterprise architecture skills will provide effective integration of data architecture, application architecture and technology architecture. These skills should be acquired as soon as possible to guide strategy execution.
7. Direct that current and future technology investments be optimized by aligning technology “budgets” to deliver on corporate and departmental IT priorities as laid out in this strategy.
8. Approve that the staff training program be expanded to achieve the knowledge worker objectives outlined in this Strategy.
9. Support a resolution that the IT strategy be communicated as widely as possible to Region staff.
10. Support efforts by key IT stakeholders to build partnerships and relationships with various levels of government and private sector, including funding opportunities, for joint initiatives.

Next Steps

The IT Strategy is a framework for assessing IT investments and allocating the limited IT resources. The Strategy will evolve over time as the Region undertakes significant projects to realize the Key Strategic Outcomes. Among the significant steps that need to be undertaken for the implementation of the Strategy is the development of an overall Enterprise Architecture (EA). The EA approach takes a holistic and comprehensive view to data architecture, application architecture and technology architecture. Designing IT service delivery must include due consideration of the Region's EA as a foundation for the IT Strategy and for the five year work plan.

The IT Strategy describes a new IT Service delivery model which will be implemented over time in consultation with key stakeholders in the operating departments.

Another significant next step is deploying the IT Strategy framework for the development of the annual IT Initiatives Budget. Already the ITS Branch has used the Strategy framework for the 2005 Initiatives Budget. Each corporate program/project is identified and the associated 2005 costs are compiled.

Furthermore, a business case must be developed for each corporate and departmental IT initiative. The business case must identify the costs, benefits and the expected return on investment from the implementation of the program or initiative.

The Converged Network initiative in particular will highlight the case for integrating the data and voice networks into a single network which will, in turn, be aligned with the One York vision and the Broadband Strategy.

Finally, the IT Strategy calls for building partnerships and relationships with various levels of government and the private sector; including the identification of funding opportunities for joint initiatives. This is again in keeping with the One York vision.

Attachments:

Attachment 1 – Key Strategic Outcomes with Programs & Initiatives

Attachment 2 – Client Impact relationship to vision 2026

Attachment 3 – Delivery of IT Programs/Projects, ownership, roles & responsibilities

Attachment 4 – Programs, Priorities, Budget Categories & Ownership

Attachment 5 – IT Service Delivery Model

Attachment 6 – 5 Year Business Plan & Schedule by Program

Attachment 7 – IT Decision Making Framework

Attachment 8 – IT Program/Project Delivery Template

Attachment 9 – 5 Year Cost Estimates by Program

Attachment 10 – ITS Policies & Guidelines

Attachment 1

Key Strategic Outcomes

Key Strategic Outcomes	Programs/Initiatives
1. Secure & Reliable Infrastructure	• Data centre reframing • Server consolidation • AVL • Broadband Networks
2. IT Aligned with Business	• CTRC • WIG • IT Strategy • Business Plans • Collaboration Tools
3. Value Driven Strategic IT Investments	• Business Case/Program Charter • IT Strategy Review • Satisfaction Surveys • ERP System • Mobile Computing • Customer Surveys
4. Customer-Centric Service Delivery	• All Departmental Programs • Community Portal for Residents, Business & Visitors • CRM Program • Interactive Voice Response (IVR)
5. Online Government Transformation	• E-Government • Smart Card Technology • GeoSmart
6. Enabled Knowledge Workers	• Online training through employee portal • PC refresh program • Mobile computing
7. Region-Wide Online Employee Access	• Full implementation of E-Docs • Employee self serve for HR • Integrated Call Centre • Mobile computing
8. Streamlined Processes through Data Sharing & Integration	• Enterprise Architecture • CRM • Enterprise reports • Collaboration tools
9. Maximized External Partnerships and, (once the above outcomes are realized)	• E-Government • Converged Network • Broadband Networks • GIS Program • Vendor relations
10. York Region would be 'Recognized' for best practices	• Awards & Recognition • Reputation • Representation on Provincial & National bodies

Attachment 2

Client Impacts of IT Programs, Projects & Services

IT Related Programs, Projects & Services	Vision 2026 Goals	No.	Client Impacts of IT Programs and Services
	→ Goal Quality Communities for a Diverse Population	1	Service Improvement and Information Accessibility Implementing enabling technologies will improve services that provide greater information access and exchange for our residents and businesses.
	→ Goal Enhanced Environment, Heritage and Culture	2	Enhancement to Resource Identification and Protection Developing technologies and programs will identify, protect, enhance, and communicate the value of our environment and communities.
	→ Goal A Vibrant Economy	3	E*Business and Learning Promotion Leveraging new and existing technologies will promote learning opportunities and provide 24/7 availability to do business with the Region in a secure, reliable and private manner.
	→ Goal Responsive Human Services	4	Nurturing Human Capital Optimizing technology solutions will enhance our ability to interact and communicate more effectively with our internal and external clients.
	→ Goal Housing Choices for Our Residents	5	Supporting Healthy Communities Maximizing technology to support timely, relevant and accurate information and recommendations will support and improve our growing communities.
	→ Goal Managed and Balanced Growth	6	Better Tools for Growth Management Implementing technology solutions that will forecast and identify future development patterns to allow for active growth management solutions.
	→ Goal Infrastructure for a Growing Region	7	Supporting Hard Services / Infrastructure Technology solutions being leveraged for effective delivery of hard services and infrastructures and contributing to substantial savings in costs as well as speedier delivery of infrastructure services to the residents and businesses.
	→ Goal Engaged Communities and a Responsive Region	8	Enhance Engagement Implement and support technology that enhances engagement of citizen and businesses and give them an opportunity to have a say in how we may more effectively deliver our services.

Roles & Responsibilities for Delivery of IT Programs & Projects

Common IT Services		IT Policies & Standards Network Access both Data & Voice Infrastructure Installation: Server/Server OS Service Desk Support: Desktop Applications & Hardware Computing Devices Refresh IT Advisory Role		
IT Programs & Projects Category		Corporate IT Driven Programs & Projects	Department Driven Programs & Projects with Joint IT Participation	Department Driven Programs & Projects with 3rd Party Participation
ITS Branch Role		From Conception to Operation Intranet (employee portal) Region Web Site (york.ca) IT Business Case /Needs Analysis IT Business applications support Application Development Knowledge Management Software Licensing/Software Audit Data Security/Privacy Telecommunication Contracting/Support Database Creation/Administration Database Support Project Funding Project Management Project Resourcing Staff Training on Application/Operation	Security IT Business Case /Needs Analysis IT Business applications support (Where Applicable) Telecommunication Contracting/Support Database Creation/Administration Database Support	Policies & Standards IT Advisory Role (For Emphasis Only)
Department Role		From Conception to Operation Collaboration in Business Case Development (where applicable) Rollout Support & Coordination Delivery and leveraging of Knowledge Management in departments	From Conception to Operation IT Business Case /Needs Analysis Privacy Project Management Project Funding Staff Training on Application/Operation Web applications/Online services	From Conception to Operation Project Funding Project Resourcing Telecommunication Contracting/Support IT Business Case /Needs Analysis Privacy
Third Party Role			Application Development	Project Planning Application Development Application Support Staff Training on Application/Operation Web applications/Online services Database Creation/Administration Database Support Security

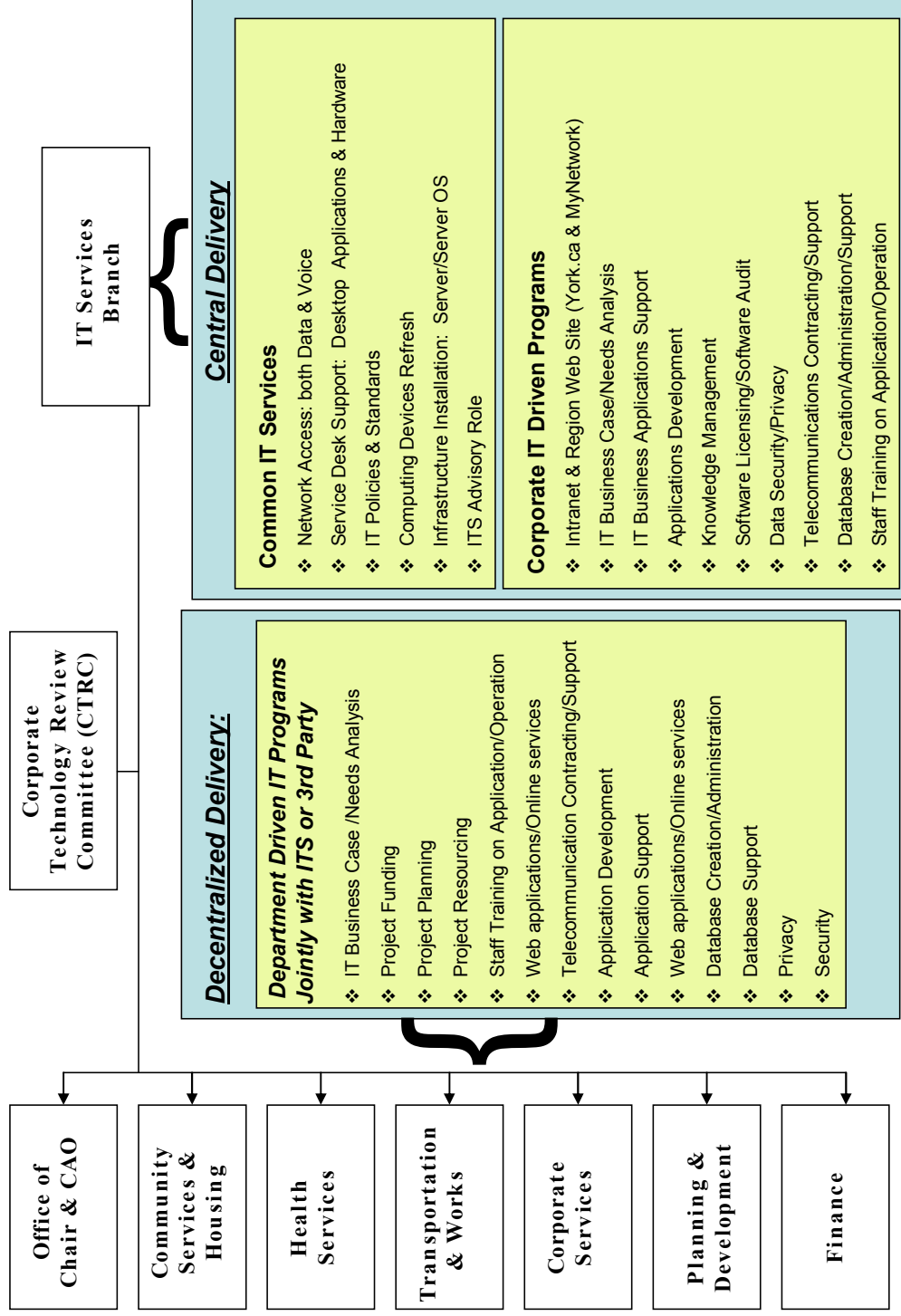
Programs, Priority, Budget Categories & Ownership

YRITS Strategy Programs/Priority/Budget/Ownership/Categories/Timelines/- Results							CTRC Representatives & IT Resources	
Dimension	Priority	Base/ Mandatory/ Growth/ Enhancement	List of Programs	Program Ownership	Categories Corporate Driven Department Driven 3rd Party	CTRC Representatives	IT Resources	
1	E-gov	1	E	Documents and Records Management Program	Multiple	CD	Denis Kelly & Louis Shallal	
2	Hard	1	E	Transit Program	T&W	DD3P	Bob McClelland	
3	Human	1	B/E	Health - Integrated Health Information Databases Program	Health	DDIT	Marilyn Woolhead	
4	IT	1	B/E	Information Technology Services - User Devices Program (including PC refresh)	ITS	CD	Louis Shallal	
5	E-gov	2	E	Enterprise Reporting Systems Program	Multiple	CD	Ken Hill & Karen Close	
6	Hard	2	E	GIS Program	Planning / GIS	DD3P	Nancy Prout	
7	Human	2	B	Ontario Child Care Management Program	CS&H	DD3P	Dennis Norton	
8	IT	2	B/M/G/E	Information Technology Services - Networks Program (Voice & Data)	ITS	CD	Louis Shallal	
9	E-gov	3	E	E*Portal Program	Multiple	CD w/3P	Louis Shallal	
10	Hard	3	E	Water & Waste Water Program	T&W	DD3P	Bob McClelland	
11	Human	3	M	Health - Public Health Program	Health	DD3P	Marilyn Woolhead	
12	IT	3	E	Information Technology Services - Service Delivery Program (Service Desk & Application Support)	ITS	CD	Louis Shallal	
13	E-gov	4	B/E	Enterprise Human Resources Management Systems Program	Multiple	CD	Karen Close & Ken Hill	
14	Hard	4	E	Customer Relationship Management Program (CRM)	Multiple	CD	Denis Kelly & Louis Shallal	
15	Human	4	B	Ontario Social Housing Program	CS&H	DD3P	Dennis Norton	
16	IT	4	B/M/E	Information Technology Services - Data Centres Program	ITS	DDIT	Louis Shallal	

Programs, Priority, Budget Categories & Ownership (cont'd)

	YRITS Strategy Programs/Priority/Budget/Ownership/Categories/Timelines/- Results						CTRC Representatives & IT Resources	
	Dimension	Priority	Base/ Mandatory/ Growth/ Enhancement	List of Programs	Program Ownership	Categories Corporate Driven Department Driven IT Department Driven 3rd Party	CTRC Representatives	IT Resources
17	E-gov	5	B/E	Enterprise Financial Management Systems Program	Multiple	CD	Ken Hill	
18	Human	5	G/E	Health - Emergency Medical Services (EMS) Program	Health	DD3P	Marilyn Woolhead	
19	IT	5	E	Department Technology Master Plans Program	Multiple	DDIT	CTRC Representatives Joint with IT	
20	Hard	6	E	Site & Facilities Management Program	Corp. Services	DD3P	Denis Kelly	
21	Human	6	B	Ontario Works Program	CS&H	DD3P	Dennis Norton	
22	IT	6	E	Broadband Networks Program	ITS	CD w/3P	Louis Shallal	
23	E-gov	6	E	E-Purchasing Program	Multiple	DDIT	Ken Hill	
24	Human	7	B/M/E	Health - Long Term Care Services Program	Health	DD3P	Marilyn Woolhead	
25	IT	7	E	Mobile Computing Program	Multiple	DDIT	CTRC Reps (T&W, Health, CS&H, Police & IT)	
26	E-gov	7	E	Interactive Voice Response (IVR) Technology Program	Multiple	CD	Louis Shallal, Marilyn Woolhead & Dennis Norton	
27	Human	8	M/E	Court Services Program	Corp. Services	DDIT	Norman Scarratt	
28	IT	8	E	Work Group Collaboration Systems Program	Multiple	DDIT	Bob McClelland & Louis Shallal	
29	Human	N/A	M/G/E	Police Services Programs	Police	DDIT	Rick Finn	
30	Human	N/A	N/A	Emergency Measures Program	Police	DD3P	Rick Finn	
31	Human	N/A	N/A	Economic Development Program	GIS	DD3P	Nancy Prout	
32	Human	N/A	N/A	Growth Management Program	GIS	DDIT	Nancy Prout	

IT Service Delivery Model



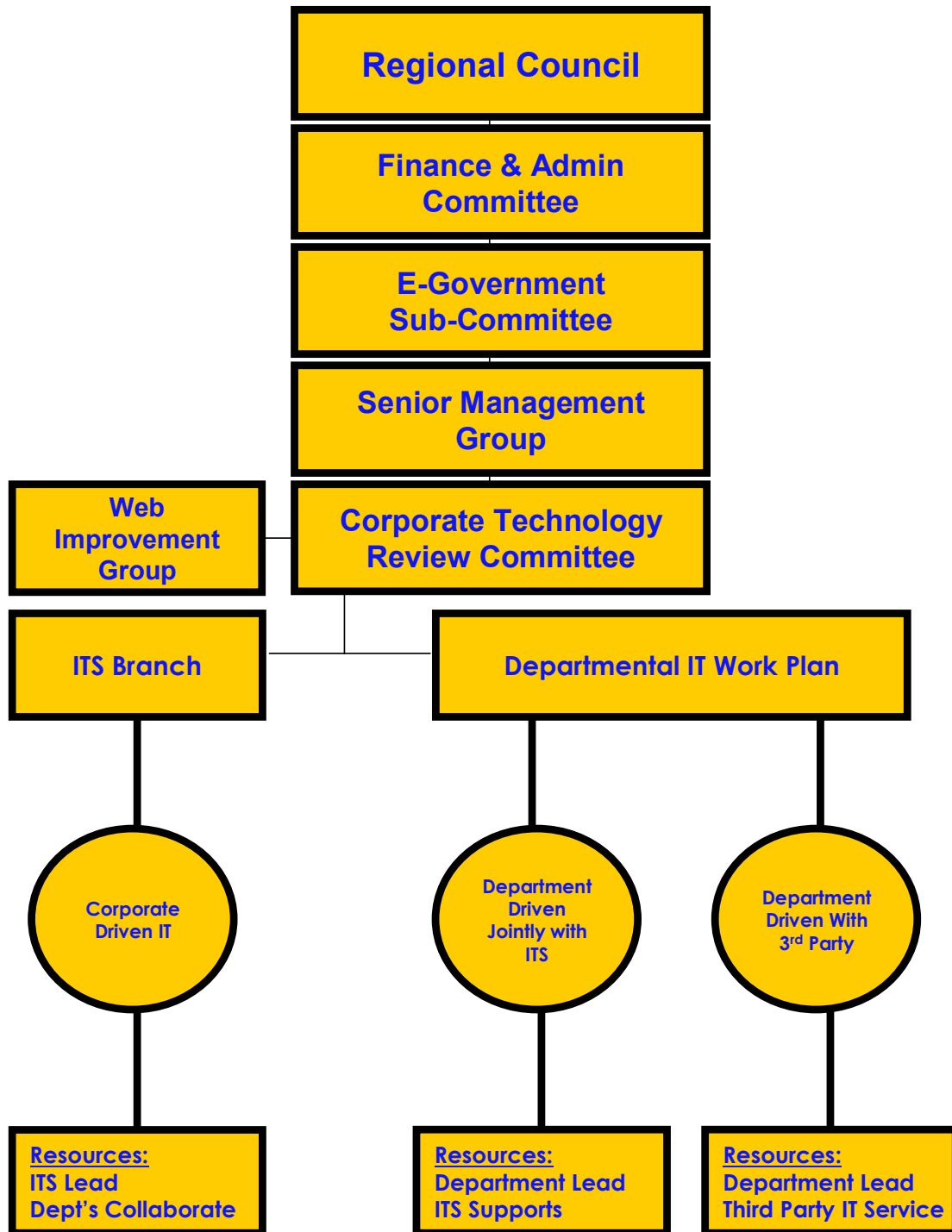
Attachment 6

5 Year Business Plan & Schedule by Program

5 Year Business Plan						
Category	Program/Initiative	2005	2006	2007	2008	2009
Corporate Driven		↓	↓	↓	↓	↓
	Documents & Records Management	→	→	→	→	→
	ITS - User Devices (including Refresh)	→	→	→	→	→
	Enterprise Reporting Systems	→	→	→	→	→
	ITS - Networks (Data & Voice)	→	→	→	→	→
	E-Portal	→	→	→	→	→
	ITS - Service Delivery (Service Desk & App Support)	→	→	→	→	→
	Enterprise Human Resource Management	→	→	→	→	→
	Customer Relationship Management (CRM)	→	→	→	→	→
	Enterprise Financial Management Systems	→	→	→	→	→
	Broadband Networks	→	→	→	→	→
Interactive Voice Response (IVR)	→	→	→	→	→	
Departmental Driven Jointly with IT	Integrated Health Information Databases	→	→	→	→	→
	ITS - Data Centres	→	→	→	→	→
	Department Technology Master Plans	→	→	→	→	→
	E-Purchasing	→	→	→	→	→
	Mobile Computing	→	→	→	→	→
	Court Services	→	→	→	→	→
	Workgroup Collaboration Systems	→	→	→	→	→
	Police Services	→	→	→	→	→
	Growth Management	→	→	→	→	→
Departmental Driven with 3rd Party	GIS	→	→	→	→	→
	Transit	→	→	→	→	→
	Ontario Child Care Management (OCCMS)	→	→	→	→	→
	Water & Waste Water	→	→	→	→	→
	Public Health	→	→	→	→	→
	Ontario Social Housing	→	→	→	→	→
	Site & Facilities Management	→	→	→	→	→
	Emergency Medical Services (EMS)	→	→	→	→	→
	Ontario Works	→	→	→	→	→
	Long Term Care Services	→	→	→	→	→
	Economic Development	→	→	→	→	→
	Emergency Measures	→	→	→	→	→

Attachment 7

IT Decision Making Framework



Attachment 8

IT Project Delivery Template

The project will be delivered within a framework of approved IT policies, procedures, methodologies and project management processes.

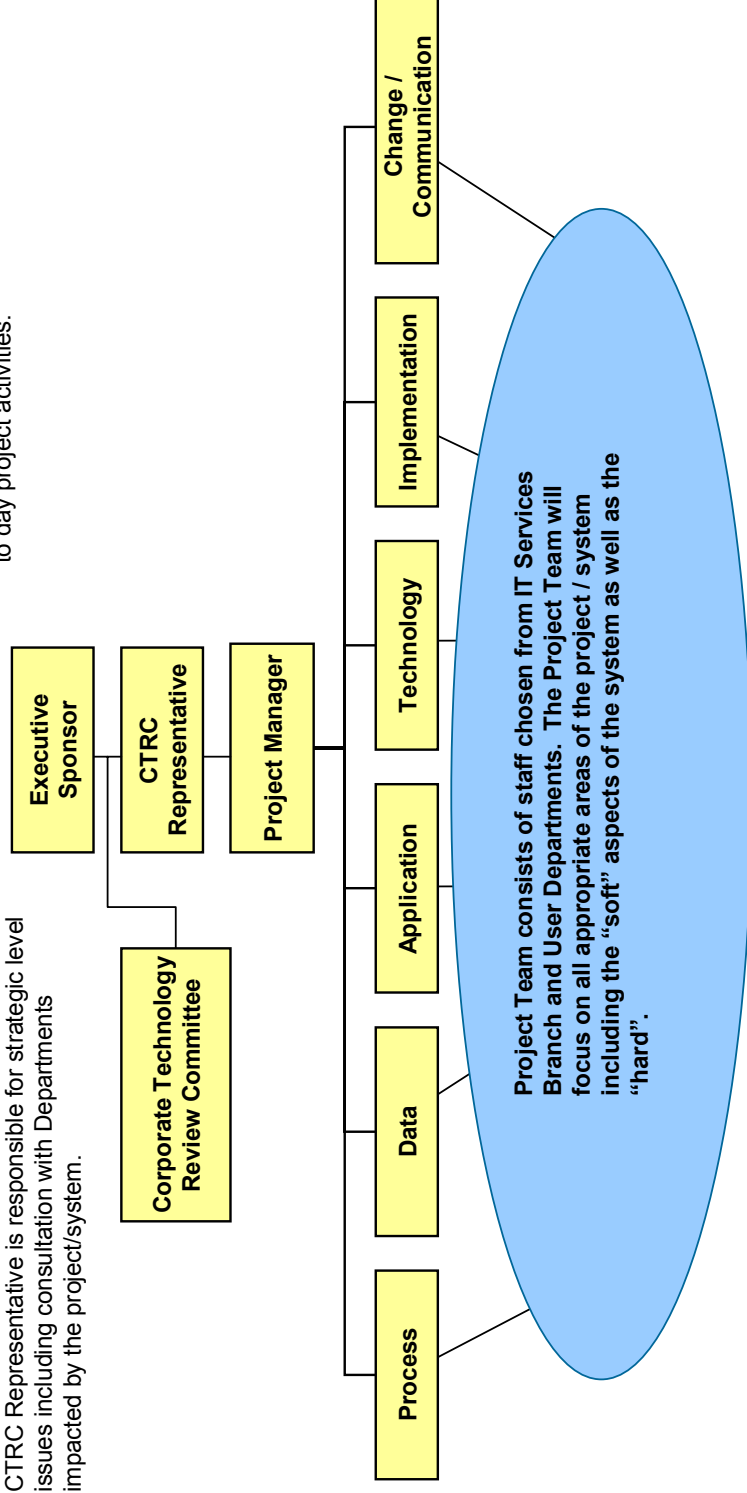
Impacted Departments provide input and control over the project through the Corporate Technology Review Committee. Alignment with overall corporate goals is the responsibility of the Executive Sponsor.

Corporate Technology Review Committee provides input to the project under the direction of the Executive Sponsor. The Information Technology Director chairs the Corporate Technology Review Committee.

Executive Sponsor is a member of SMG; the SMG is overseeing the success of the project.

The Project Manager is responsible for the day to day project activities.

CTRC Representative is responsible for strategic level issues including consultation with Departments impacted by the project/system.



Attachment 9

5 Year Cost Estimates by Program

5 Year Cost Estimates							
Category	Program	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Corporate Driven		↓	↓	↓	↓	↓	↓
	Documents & Records Management	550,000					4,300,000
	ITS - User Devices (including Refresh)	655,000					1,155,000
	Enterprise Reporting Systems	1,800,000					1,675,000
	ITS - Networks (Data & Voice)	675,000					5,810,000
	E-Portal	50,000					5,375,000
	ITS - Service Delivery (Service Desk & App Support)	180,000					2,500,000
	Enterprise Human Resource Management	410,000					3,800,000
	Customer Relationship Management (CRM)	100,000					2,400,000
	Enterprise Financial Management Systems	980,000					2,900,000
Departmental Driven Jointly with IT	Broadband Networks	50,000					5,000,000
	Interactive Voice Response (IVR)						
	Integrated Health Information Databases						540,000
	ITS - Data Centres	2,800,000					13,000,000
	Department Technology Master Plans	200,000					675,000
	E-Purchasing						500,000
	Mobile Computing	98,000					1,500,000
	Court Services						300,000
	Workgroup Collaboration Systems						500,000
	Police Services						250,000
Departmental Driven with 3rd Party	Growth Management						
	GIS	20,000					2,500,000
	Transit						1,700,000
	Ontario Child Care Management (OCCMS)						0
	Water & Waste Water	75,000					860,000
	Public Health						340,000
	Ontario Social Housing						65,000
	Site & Facilities Management						250,000
	Emergency Medical Services (EMS)						3,400,000
	Ontario Works						150,000
	Long Term Care Services						785,000
	Economic Development						300,000
	Emergency Measures						300,000

Attachment 10

IT Policies & Guidelines

<u>Policy Name</u>	<u>Policy Statement/Description</u>
<u>Acceptable Use of Regional Technology</u> (Last Rev. Date : May 1, 2002)	The purpose of this policy is to ensure that Regional technology is used appropriately for business purposes. This Policy defines what is considered acceptable, and outlines the consequences for unacceptable use of Regional technology.
<u>Acceptable Use of the Internet</u> (Last Rev. Date : Jun 1, 2002)	This policy details acceptable use practices when retrieving information from the Internet.
<u>Acceptable Use of Virtual Private Network</u> (VPN) (Last Rev. Date : Mar 24, 2003)	The purpose of this policy is to specify detailed acceptable use practices related to the use of the VPN.
<u>E-mail</u> (Last Rev. Date : Apr 1, 2002)	Electronic mail (e-mail) messaging is an alternative to regular mail. It can be a very effective business tool if used properly and efficiently. However, there is a need for consistent, reasonable and appropriate controls on the use of e-mail to prevent misuse, abuse and any potential liability arising from misuse. This policy covers: Acceptable uses of e-mail (includes internal and Internet e-mail); Protocols for sending effective e-mail messages (including best practices); and Retention requirements for e-mail messages.
<u>Information and Technology Security</u> (Last Rev. Date : Mar 24, 2003)	Information and technology are critical and vitally important Regional assets. Without reliable and properly secured information and technology, the Region could not deliver many of its services. Likewise, the preservation and enhancement of the Region's reputation is directly linked to the way in which both information and technology are

Attachment 10

<u>Policy Name</u>	<u>Policy Statement/Description</u>
	managed. Maintaining an adequate level of security is one of several important aspects of both information and technology management. It also assists in making sure that the Region complies with the confidentiality provisions of the Code of Conduct and the <i>Municipal Freedom of Information and Protection of Privacy Act</i> (MFIPPA).
<u>Records and Information Retention and Disposition</u> (Last Rev. Date : May 1, 2002)	A records retention schedule and by-law is an important corporate document which defines the specific period of time a record(s) must be retained before its final disposition. The specific time period is based on the record(s) administrative, financial, regulatory, historical and legal use. The schedule stipulates the specific department responsible for retaining the original record which promotes good housekeeping practices by permitting duplicates to be destroyed according to records management policies and procedures thereby freeing up valuable office space. The schedule also defines when records should be stored as inactive. The Records Retention schedule provides an effective administrative tool toward maintaining good record keeping procedures within the corporation.
<u>Technology Acquisition</u> (Last Rev. Date : Mar 24, 2003)	The purpose of this policy is: ▶ To provide Regional employees with information on the acquisition of technology ▶ To ensure that technology is acquired in a cost efficient manner ▶ To ensure that all technology acquired by the Region is compatible with the network and other

Attachment 10

<u>Policy Name</u>	<u>Policy Statement/Description</u>
	technology currently in use ► To ensure that all technology acquired can be and is supported and maintained
<u>Technology Governance Framework</u> (Last Rev. Date : May 1, 2002)	The purpose of this policy is to identify the governance model and framework that will be used for decision making with respect to technology within the York Region.
<u>Voice Mail</u> (Last Rev. Date : Apr 1, 2002)	The purpose of this policy is to provide guidance to Regional employees and voice mail subscribers on effectively using the voice mail technology provided to them by the Region. Voice mail can be an effective business and customer service tool if used appropriately. Consistent, reasonable and appropriate standards on the use of voice mail will help employees use this technology effectively.