CITY OF CORNWALL

INFORMATION TECHNOLOGY & TELECOMMUNICATIONS MASTER PLAN (ITTMP)

FINAL REPORT

AUGUST 2021

Cornwall
ONTARIO CANADA

City of Cornwall

ITT Department

RSM Canada with the ITT department, and in collaberation with City departments, completed its first Master Plan. The ITTMP provides a 5-year implementation roadmap to guide the ITT department to adapt to and meet the future needs of the organization - specifically positioning ITT as a business partner that will help drive the organization towards a more digitally enabled future.

ITT Services

ITT staff are responsible for the architecture, programming, hardware, software, security, and networking of technical infrastructure and devices for the organization.

Systems

Providing network connectivity and remote access, enabling reliable ways to access and share information.

Security

Reducing the risk of data breaches and attacks in ITT systems. Applying security controls to prevent unauthorized access to Corporate information.

Budget

The 2021 operating budget for ITT Services is $2 million. Capital budgets range between $200-$500 thousand annually.

PEOPLE   PROCESS   TECHNOLOGY

Number of ITT staff: 7
(currently 5, 2 retirements)
ITT is a division of Financial Services

Number of desktop computers: 500
Number of laptops/tablets: 250
Number of desktop phones: 500
Number of cell phones: 160

Firewall is scanned every 30s for vulnerabilities
Web filter stops 2,000 cyber threats per day
7,000 daily attempts of spam through our servers
Daily emails: 5,000+ internal, inbound & outbound

Number of supported applications: 86
Number of servers: 138
15% of applications are on cloud servers
4,900 helpdesk tickets per year (20/day)

ITT Roadmap

Current state assessment identifies the role of ITT as Operator and Guard. The desired future state of the City for ITT Services is that of Analyst and Innovator / Transformer.

550 users

ITT staff supports 550 users, 9 departments (44 divisions), 23 facilities

47,000+ Citizens

Supports citizen-facing digital-services & online citizen interaction

Key Themes

Evolving ITT's role towards an Analyst & Innovator/Transformer
Utilizing ITT as a Stakeholder
Developing holistic ITT governance
Progressing towards a digitally enabled organization

Information Technology and Telecommunications Master Plan

August 2021

To reach the desired future state, the ITTMP provides nineteen recommendations and has prioritized these recommendations based on term, timelines, and interdependencies. These prioritized recommendations were incorporated into a visual roadmap that will guide the organization over the next 5 years.
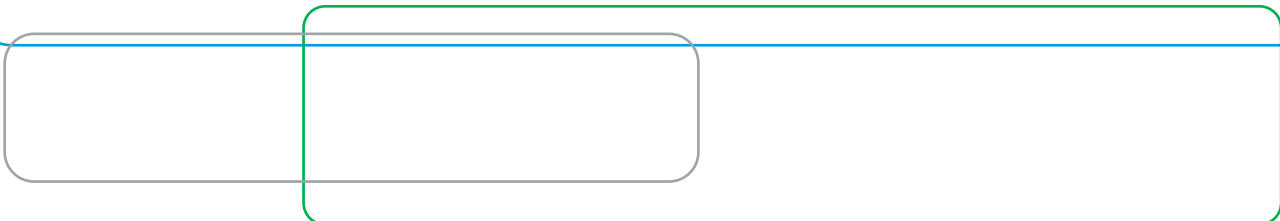
RSM

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1.0 Executive Summary

1.1 Project Overview

The City of Cornwall (City) is an Ontario municipality serving nearly 50,000 residents and businesses through their nine departments and 44 divisions including, among others, the City's Information Technology & Telecommunications (ITT) division. The services offered by the City's departments and divisions are essential to the long-term health and growth of the City. As the City continues to grow, expectations and demand for City services continue to increase, specifically for the ITT division. Consequently, RSM was engaged by the City to develop an ITT Master Plan (ITTMP) to provide the required insight, planning, and actions to ensure that the ITT division is able to adapt to and meet the future needs of the organization.

As a result, the ITTMP was developed to enable the City to achieve their desired future state – specifically positioning ITT as a business partner to the organization to help drive organization-wide planning and project execution, as well as guide the organization towards a more digitally-enable future.

The ITTMP identifies the key initiatives with supporting information for the ITT division in the coming years and prioritizes them in a 5-year implementation plan, providing a roadmap for the ITT division to optimize their information and communications systems to achieve value, maximize performance and resources, and deliver continuity for critical services, now and into the future. The ITTMP explains the processes, findings, and analysis that led to the development of the implementation plan.

1.2 Approach

The ITTMP project was delivered following a four-phased project approach. This consisted of developing a set of interim deliverables over the course of approximately six months, ultimately leading to the final ITTMP. The approach undertaken is illustrated in Figure 1.2a.
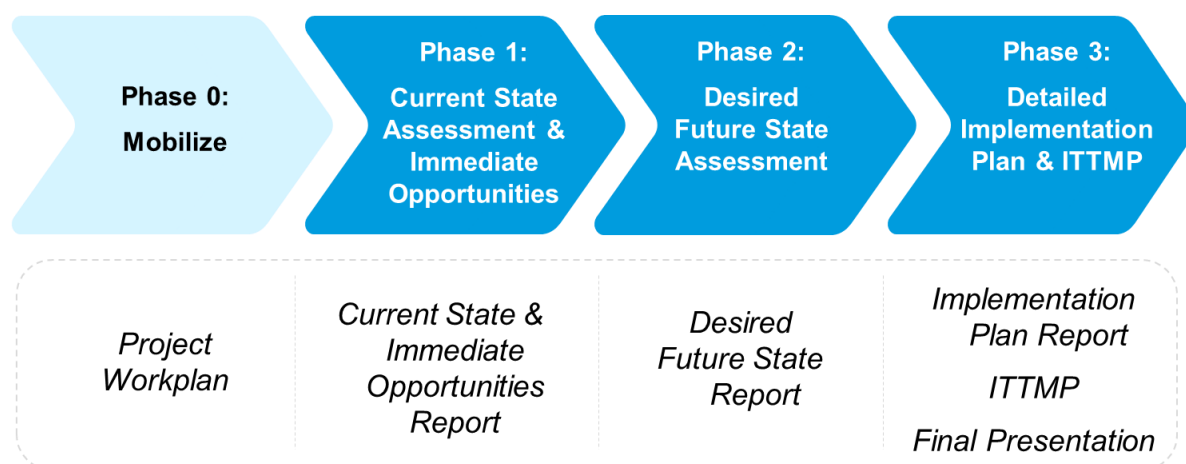
Figure 1.2a. Project Approach

The project was conducted using a set of analysis tools and techniques and included the following data points:

- **Workshops**: Workshops were conducted with relevant City departments, as well as ITT to conduct both the current state and future state assessments, gathering information regarding capacity, structure, service levels and standards, governance, the role of ITT, and overall satisfaction with the service and support provided by ITT;

- **Online Research and Existing Information:** RSM reviewed publicly available information, including policies, budgets, and high-level organizational structure through research on the City website. Additionally, a request for information was made to gather and review all available information from the City that could not be found publicly;

- **One-on-One Interviews:** In addition to workshops, one-on-one interviews were conducted with the ITT team to develop a more in-depth understanding of their current capacity, capabilities, structure, and strategic objectives; and

- **Municipal Scan:** The team conducted a scan of comparable municipalities, with similar service deliveries, identified by the City. This resulted in comparative benchmarks; such as, ITT spending, staffing, infrastructure, and online services.

1.3 Current State Findings

A Current State Assessment was undertaken including analysis of both existing and available documentation and through the completion of current state workshops with ITT, senior management, and departmental staff in order to determine the current state of service delivery of ITT at the City. The assessment enabled RSM to identify current capacities, capabilities, processes, procedures, policies, and satisfaction level with ITT services and technology. The findings were synthesized, documented, and analyzed to develop a Strengths, Weaknesses, Opportunities, & Threats (SWOT) analysis which summarizes the current state of the City's ITT environment and outlines the major opportunities for improvements. Figure 1.3a provides the results of the SWOT:

Strengths

- Leading-class, enterprise-level systems
- Engaged and passionate leaders and staff
- Strong ITT security protocols
- Skilled ITT team
- Responsive service desk focused on resolving issues in a timely manner
- Effectively responding to the pandemic

Weaknesses

- Capacity constraints within the ITT team
- Policies require updating and/or formalizing
- No formal communication protocol between departments and ITT
- Unformalized service levels
- Limited strategic planning (both in ITT and holistically)

Threats/Challenges

- Increasing technology demands
- Unclear ITT strategic direction
- Inconsistent issue response and levels of service
- Current governance does not support enforcement of best practices
- ITT capacity gaps due to recent departures with no backfilling
- Security measures may be prohibiting innovation and reducing efficiency across the organization

Opportunities

- Unlock ITT capacity through cloud-based applications, outsourcing, and other innovations
- Internal desire within ITT to be more business focused
- Service desk data can be analyzed to better respond to common issues
- O365 could be used across the organization
- Transparency and service levels can better set expectations across the organization
- ITT Manager position could be created to provide more direction and authority to ITT

Figure 1.3a. SWOT Analysis

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The findings of the Current State Assessment are summarized in the following categories:

- **Role of ITT**: ITT is currently focused primarily on supporting day-to-day operations and the security aspects of the organization – the satisfaction of which varied by department. The current state identified the role of ITT as Operator and Guard as described in Figure 1.3b.

- **ITT Structure & Capacity**: Due to recent vacancies and limited staff, the ITT team has capacity challenges which have been heightened by the demands and limitations brought on by the COVID-19 pandemic. The current staffing levels prevent ITT from meeting the desired levels of service and support to the organization. Moreover, existing job descriptions for certain ITT positions do not accurately represent their current and expected future roles and responsibilities.

- **Service & Support**: The day-to-day operations of ITT are focused on providing support to the organization. Although ITT was able to adapt to the changes brought on by the COVID-19 pandemic, there has been an increased number of low-complexity, Tier 1 requests from departments, such as password resets, Virtual Private Network (VPN) issues, and user issues. This has however caused delays for higher-complexity requests.

- **ITT Governance**: ITT does not have robust governance. Many of their policies and procedures are not formalized or are requiring update, in addition to transparent service standards and service level agreements. This reduces ITT's ability to ensure best practices are adhered to.

- **Communication**: Currently, communications out of the ITT department are not being effectively received by the organization. Several factors contribute to this including the format of ITT communication emails, unconsolidated or unstandardized channels of communication based on

the communication type, and a general lack of understanding as to how communications should be used for or by the departments.

- **ITT Security**: While the City has a strong focus on security and risk reduction, this has resulted in impacts to user functionality.

- **Enterprise Applications & Software**: As a result of the minimal ITT governance, software is generally procured in silos throughout the organization. This creates inefficiencies, functional gaps and overlaps, and a misunderstanding regarding how existing technology can and should be leveraged across the entire organization.

- **Infrastructure & Technology**: The City currently hosts their servers on-premise and has recently made significant investment in their physical infrastructure. Additionally, ITT controls the devices, including cell phones, tablets, and laptops, issued to City staff. The direction of ITT, such as a move to more digitally-enabled support and/or services, will impact how these devices will be refreshed.

- **Office 365 Rollout & Training:** Although the recent roll out of Office 365 has increased functionality across the City, there is a need for formal training related to how the organization can best utilize the suite of applications to improve operations.

Business Focus

Analyst

- ITT acts as an analyst, explaining the cost and business benefits of ITT
- Business recognizes the value of the decision support available within ITT and requests support as required
- ITT spend linked to business results
- Outward looking culture

Innovator / Transformer

- Business-focused and drives innovation across the organization successfully
- Constantly showing the business the 'art of the possible' by the latest innovations
- Intimately understands the business
- Sets the ITT direction
- Leadership role in execution of ITT initiatives

Process Delivery

Direction Setting

Operator

- Role focused on processing customer requests (help desk tickets, etc.)
- Performance measures are reported in ITT terms (e.g. tickets closed, server up-time, % delivered on time)
- ITT spend not linked to business results
- Inward looking culture
- Technical in nature

Guard

- Role focused on leading class ITT governance and security
- Works with the business to monitor and manage ITT costs effectively
- Secure custodian of ITT assets
- Conscious of the business and inherent business risk
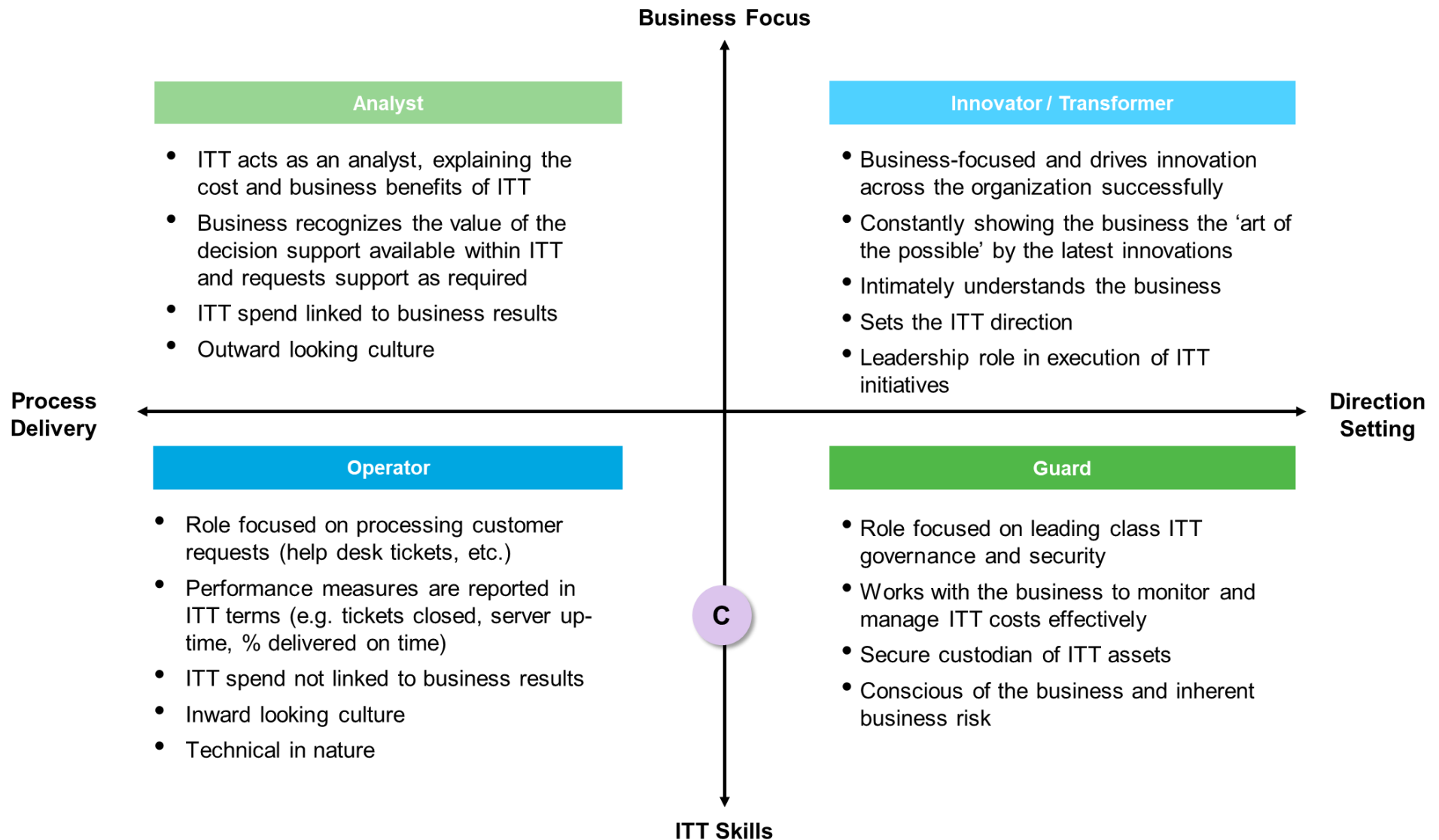
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ITT Skills

Figure 1.3b. Current State Role of ITT

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1.4 Definition of the Desired Future State

The desired future state of the City was defined through both the current state workshops and additional targeted future state input sessions with ITT and departmental leadership. Four key themes emerged from the desired future state definition findings:

1. **Evolving ITT's Role Towards an Analyst and Innovator / Transformer**

    Both ITT and City departments stated their desire for ITT to grow from an Operator and Guard focused role into an Analyst and Innovator / Transformer role. Ultimately, the desire is that ITT provide more direction for the organization around innovative solutions to address current and emerging issues and opportunities and position the City to execute on their future-looking initiatives. The future state identified role of ITT can be seen in Figure 1.4a.

2. **Utilizing ITT as a Stakeholder**

    City departments expressed that they would like ITT to continue maintaining current technical infrastructure and responding to requests and tickets, but in addition to that role, also become a partner to departments and assist them in executing their future state projects effectively becoming a stakeholder.

3. **Developing Holistic ITT Governance**

    The need for clearly articulated and communicated policies and procedures to enable a holistic approach to software and system procurement was voiced by the City's departments during workshops.

4. **Progressing Towards a Digitally-Enabled Organization**

    There is a desire from ITT and City departments to provide more digital-services, both internally and externally, to improve workflows, increase efficiency, and reduce manual, paper-based processes.
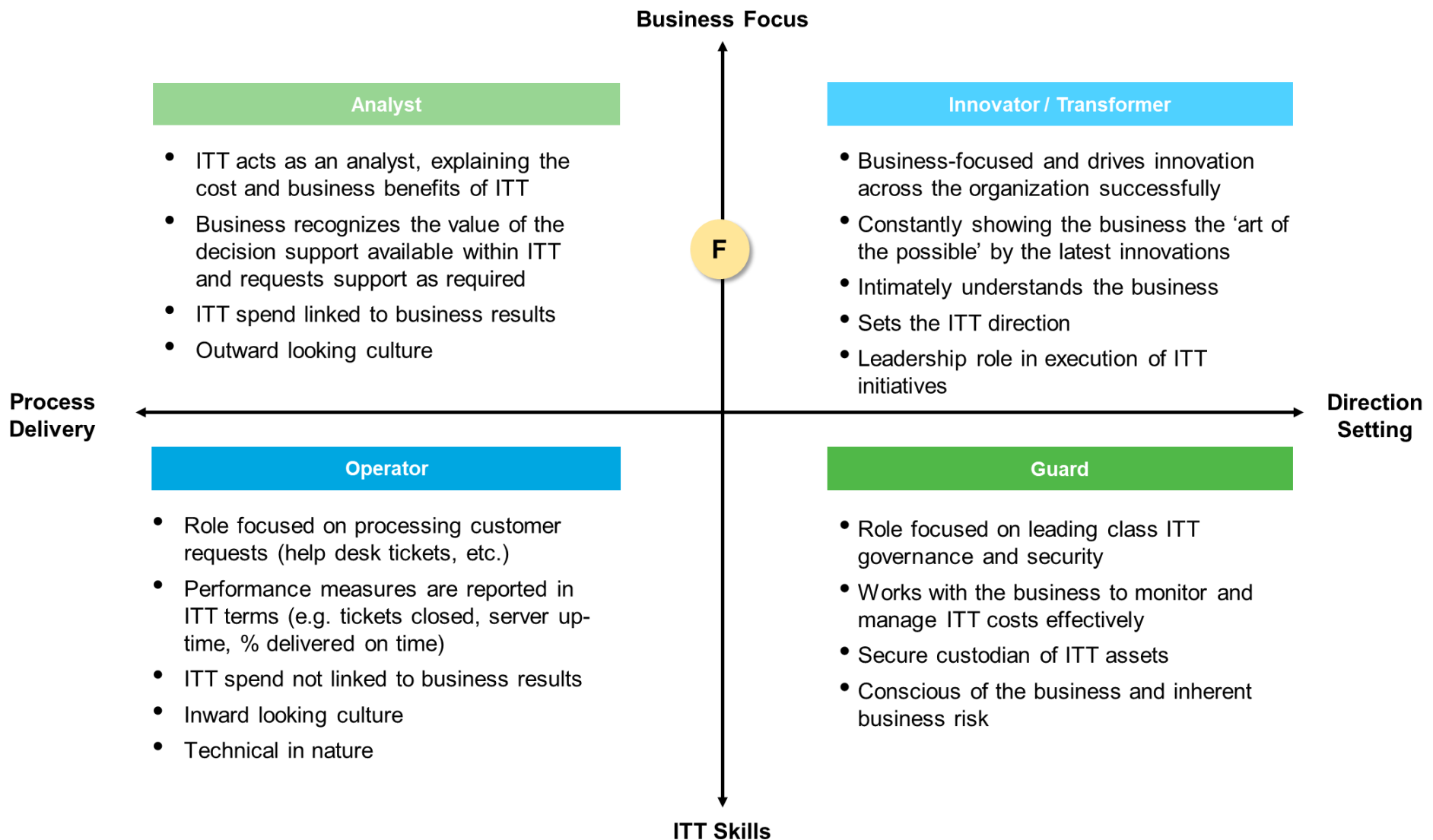
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ITT Skills

Figure 1.4a Future State Role of ITT

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1.5 Municipal Scan Findings

The definition of the desired future state was subsequently supported by a municipal scan with three comparator municipalities – the City of Kingston, the City of Peterborough, and the Municipality of Chatham-Kent – identified in collaboration with the ITT Project Team, to position the City's ITT division relative to its municipal peers. The information collected through the information requests and workshops was used as indicators and not as absolutes as not all metrics could be directly compared to one another.

- **ITT Spend**: The City's ITT spending is, on average, in-line with or below that of their municipal comparators, with the caveat that each municipality allocates budget to departments differently. Additionally, the three municipal comparators all have ITT reserves, with various associated funding models, whereas the City does not have an ITT reserve to utilize.

- **ITT Staffing**: The City's ITT staff, on average, support a higher number of users, buildings, and tickets per total ITT staff member. In other words, the City's ITT division is understaffed, reinforcing the capacity issues identified in the current state assessment.

- **Infrastructure**: All municipal peers identified a move to the cloud as a priority. Likewise, the City has recognized a migration to cloud infrastructure as an important trend to pursue. A concerted effort to cloud migration would help the City keep pace with their municipal peers and industry trends.

- **Online Services Available**: The number of online services offered by the City is on par or lower than its municipal peers. However, similar to the migration to the cloud, the peer municipalities recognize the need to increase the number of online services available, and the City has identified this as an important initiative moving forward.

1.6 Gap Analysis

A gap analysis was undertaken across the City's ITT environment to identify critical gaps between the City's current and desired future state. Gaps were categorized under People, Process, and Technology

People	Process	Technology
• ITT is understaffed leading to capacity constraints • ITT's structure does not provide the necessary support and strategic outlook • Job descriptions do not accurately reflect current or future roles and responsibilities	• The necessary ITT governance is not in place to ensure best practices are followed • Some technology projects do not involve ITT or enterprise-planning. • No formalized communication protocol between departments and ITT • Capacity prevents ITT from analyzing service desk data and resolving recurring issues through a formal process • Security decisions remedy immediate concerns but may not factor in holistic impacts to users long-term	• Both functionality gaps and overlaps exist within the City's suite of enterprise applications • ITT does not have a complete formal documented understanding of the criticality and availability needs of the current suite of enterprise applications • The City lacks digital citizen-facing services that are increasingly expected from the public • There is a gap in strategic planning around how the City provisions technology now and into the future

1.7 Prioritized Recommendations & Implementation Plan

From the gap analysis, RSM developed recommendations to address the identified gaps and immediate opportunities determined through the gap analysis. The recommendations were initially prioritized using the criteria presented in 10.3.1 Prioritization Criteria.

They were then further prioritized based on potential quick wins, dependencies between recommendations, and RSM's perception of the City's readiness to undertake the recommendations.

The final list of prioritized recommendations, found in 8.2 Prioritized Recommendations, was then developed and updated based on feedback from the City. Recommendations were categorized based on term (short, medium, and long-term), timeline (duration in months), and interdependencies.

Following the prioritization of the individual recommendations, RSM grouped complementary recommendations based on major themes into consolidated initiatives, as shown in the following table.

Initiative	Category	ID	Recommendations Included
Restructure ITT to Better Serve the City	**PEOPLE**	**PE.1**	Consider Staffing & Structure Changes
	PEOPLE	**PE.2**	Update ITT Job Descriptions
	PEOPLE	**PE.3**	Unlock Additional Capacity
	PEOPLE	**PE.4**	Execute Comprehensive ITT Resource Planning
Strengthen ITT Capabilities	**PROCESS**	**PR.1**	Develop, Update, & Document Policies & Procedures
	PROCESS	**PR.2**	Improve ITT Governance Processes
	PROCESS	**PR.3**	Develop & Enforce Service Standards & Service Level Agreements
Improve ITT Service, Support, & Operations	**PEOPLE**	**PE.5**	Provide Maintenance and/or Emerging Training to Increase Capacity & Capability on Enterprise Systems
	PROCESS	**PR.4**	Continuously Improve the Service Desk Function
	PROCESS	**PR.5**	Improve Organizational Communication
	PROCESS	**PR.6**	Improve Security Measures
	PROCESS	**PR.7**	Improve After-Hours Support from ITT

Initiative	Category	ID	Recommendations Included
Improve Critical Organization Capabilities	**TECHNOLOGY**	**TE.1**	Develop an End-User Computing Strategy
	TECHNOLOGY	**TE.2**	Support Increasing Citizen-Facing Digital-Services & Online Citizen Interaction Capabilities
	TECHNOLOGY	**TE.3**	Continue to Improve Network Connectivity & Remote Access
	TECHNOLOGY	**TE.4**	Rollout Office 365 Suite of Products Across the Organization
Support the Continuous Improvement of Departmental Operations	**TECHNOLOGY**	**TE.5**	Enhance & Establish New Departmental Capabilities
	TECHNOLOGY	**TE.6**	Review High-Priority Applications
	TECHNOLOGY	**TE.7**	Improve Information-Sharing Between Departments

RSM subsequently sequenced the consolidated initiatives based on their term, timeline, and interdependencies, to create the 5-year implementation plan, shown in Figure 1.7a which serves as a visual representation of the prioritized recommendations. The implementation plan is structured around calendar years starting in the third quarter of 2021 and finishing at the end of 2025.

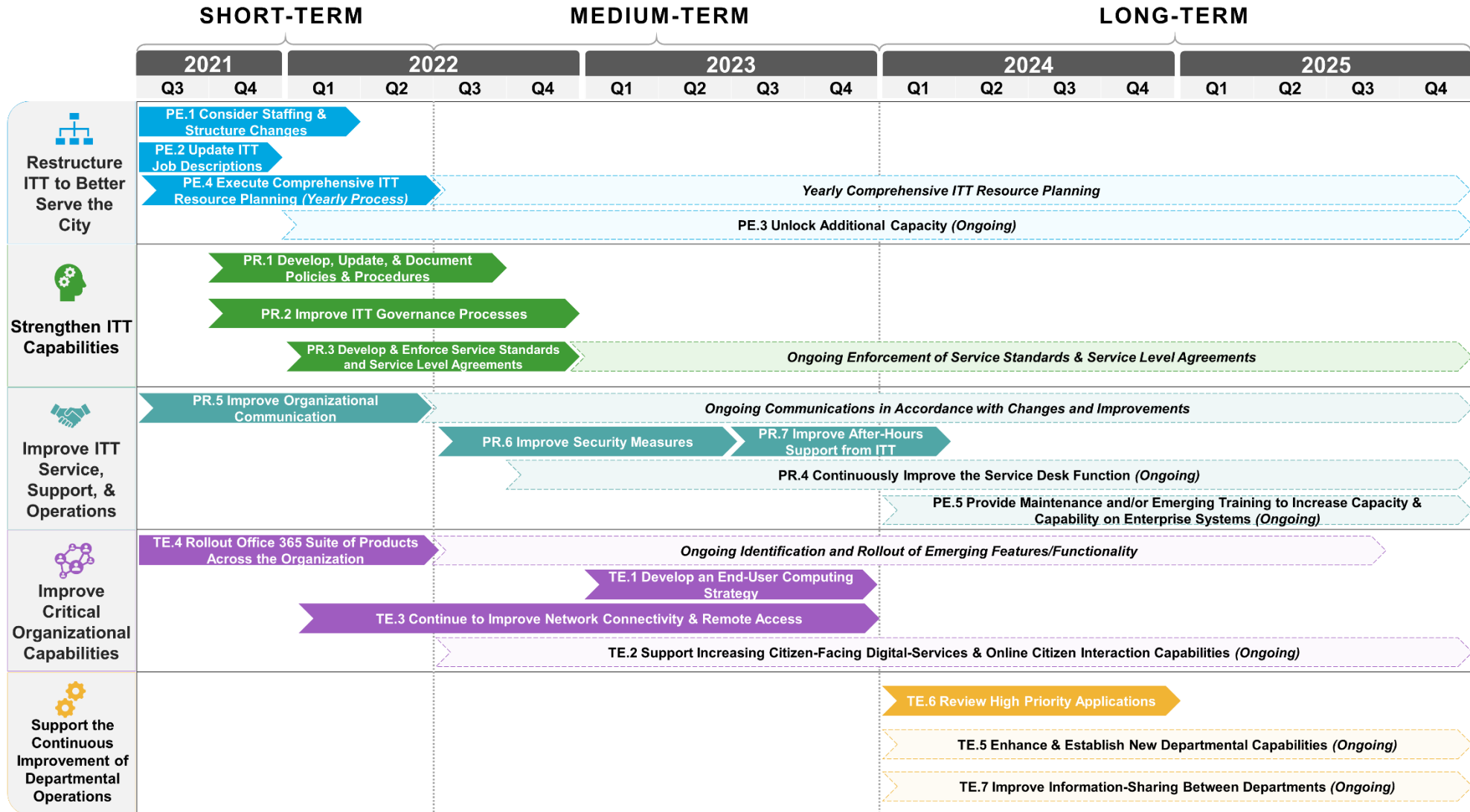| Implementation Plan Legend	
	Denotes a milestone-based (or finite timeline) recommendation which has already been initiated by the City
	Denotes a milestone-based (or finite timeline) recommendation that has not been initiated yet
	Denotes a recommendation that will be ongoing. Some milestone-based recommendations will have an ongoing component to denote the specific continued activities of that recommendation

Figure 1.7a. Implementation Plan Roadmap

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Subsequent to the development of the implementation plan, a review of the City's current funding model was performed. It was determined that it is not consistent with the desired future direction of the City. To enable the move towards the desired future state, the City should implement an ITT reserve to support and accelerate major ITT projects and deliverables. This ITT reserve should fund ITT projects that have been prioritized for the medium and long-term within the ITTMP and may require capital costs to procure and implement solutions. The ITT reserve, as proposed in recommendation 7.2.1.4 Execute Comprehensive ITT Resource Planning, should be accessed by the organization, adhering to ITT governance. In order to successfully implement this reserve, the proper funding mechanisms and initial investment needs should be identified.

It is important to note that many of the proposed recommendations will result in changes to policies, procedures, practices, roles and responsibilities, and overall day-to-day operations of all City staff. Accordingly, change management and communication considerations for each of the recommendations should be documented and planned for prior to carrying out a given recommendation. The major change management and communication considerations stemming from the recommendations should include both successfully adopting and enforcing policies, procedures, and services standards. This includes leveraging senior management and accurately updating job descriptions and ensuring roles and responsibilities are adhered to.

2.0 Introduction & Project Background

The City of Cornwall (City) is a thriving municipality that serves nearly 50,000 residents and businesses through nine departments and 44 divisions whose services are essential to the long-term health and growth of the City. These nine departments include the following:

Cornwall
ONTARIO CANADA

💼 **Chief Administrative Office**

⚙️ **Corporate Services**

🏛️ **Financial Services**

🔥 **Fire Services**

➕ **Glen-Stor-Dun Lodge**

🚧 **Infrastructure, Municipal Works, Transit & Environmental Services**

🚨 **Paramedics Services**

🏢 **Planning, Development, Recreation & Facilities**

🏠 **Social & Housing Services**

The City's Information Technology & Telecommunications (ITT) division is a critical component to the provision of that strategy and vision.

The City's continued growth is increasing the base of users supported by the ITT division, as well as their expectations for service around the range of ITT service offerings. The City is also expanding, with departments seeking to automate and streamline their services. As such, there is a need at the City for an optimized information and communications system that will achieve value, maximize performance and resources, and deliver continuity for critical services, now and into the future. The City therefore identified the need to develop an Information Technology & Telecommunications Master Plan (ITTMP) which would provide

the required insight, planning, and actions to ensure that ITT is able to adapt and meet the future needs of the organization.

This initiative encompassed the holistic and comprehensive reviews of the following in order to identify key gaps, challenges, and opportunities for improvement of the existing ITT service delivery model:
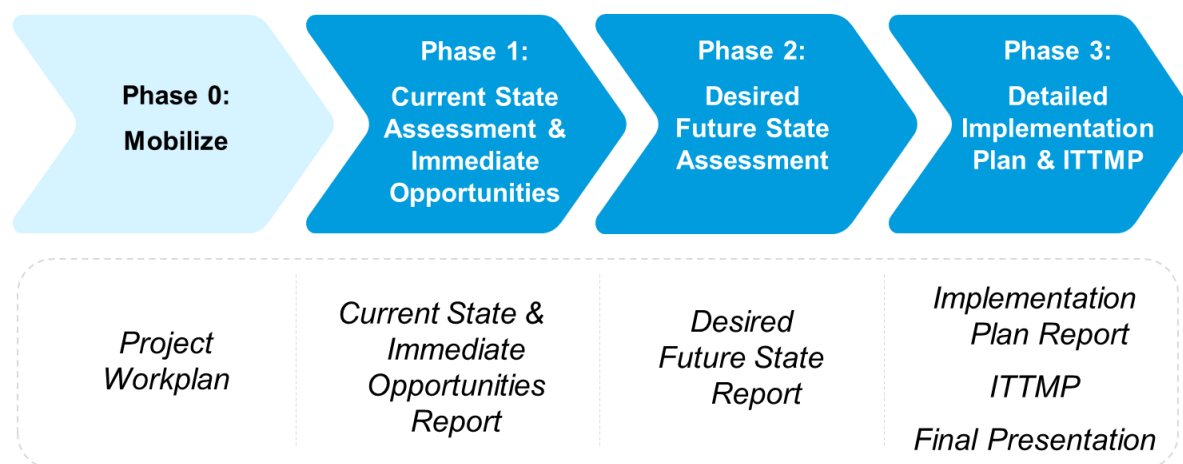
- The provision of ITT Services to the organization, to understand the current business and service delivery model, services and the ITT service catalogue, service levels, and partner departments within the City.

- ITT Services organizational structure, skills and knowledge, roles and responsibilities, and capacity (including staffing numbers and requirements).

- Technology solutions currently in place and the City's plans related to technology including, but not limited to, current applications, trends, and best practices, as well as the viability of Virtual Desktop Infrastructure (VDI) implementation.

RSM was engaged to develop the ITTMP to prioritize the City's ITT initiatives over the next five years. The ITTMP therefore identifies key initiatives to enable ITT Services to optimize their information and communications systems, maximize investments and resource performance, and deliver continuity for critical services, now and into the future.

3.0 Approach & Methodology

RSM carried out this project from January 2021 to July 2021, following a four-phased project approach. Throughout the project, RSM conducted various consultations and analyses, as described in the following "Phase" descriptions. Acknowledging that the COVID-19 pandemic drastically changed the way the City operates, RSM's consultation, facilitation, and analysis activities focused on pre-COVID operations, current operations, and the future of the City, post-COVID. At key points throughout the project, RSM developed a set of interim deliverables which were amalgamated into the final ITTMP.

Phase 0: Mobilize	Phase 1: Current State Assessment & Immediate Opportunities	Phase 2: Desired Future State Assessment	Phase 3: Detailed Implementation Plan & ITTMP
Project Workplan	Current State & Immediate Opportunities Report	Desired Future State Report	Implementation Plan Report ITTMP Final Presentation

Phase 0 – Mobilize

During this preliminary phase, RSM met with the City to develop a clear understanding and alignment on the City's strategic goals and project objectives. As part of this, RSM confirmed timelines and milestones, and finalized the project approach and methodology. Two kick-off meetings, one with the ITT division and one with the Senior Management Team, were then conducted to establish project governance, confirm the approach, and align outcomes to the wider

group of stakeholders, as well as educate key stakeholders on the importance of the project.

Subsequent to these meetings, RSM worked with the City to schedule workshops and interviews, send out information requests, and identify an initial list of comparator municipalities.

To wrap up Phase 0, RSM delivered a Project Work Plan to the City, inclusive of a Project Charter and Communications Plan, and established a bi-weekly cadence for status update meetings.

Phase 1 – Current State Assessment & Immediate Opportunities

Moving into the first phase, RSM reviewed all existing and available material assembled through the information request in order to best inform the current state workshops. The RSM team then facilitated a total of thirty-one (31) workshops with the following stakeholders to identify areas of strength as well as immediate opportunities.

- Two 1-hour meetings with ITT Supervisor & Staff;
- Nine individual 1-hour meetings with Senior Managers;
- Fourteen 1 to 2-hour meetings with Departmental Staff, depending on the department and size of stakeholder group; and
- Six 30-minute one-on-one ITT staff interviews.

These workshops enabled RSM to develop a holistic view of ITT including their current services, software applications, critical integrations, databases, policies and procedures, network architecture, as well as their current team structure, their roles and responsibilities, and their capacity and capabilities.

RSM then subsequently summarized, documented, and analyzed these findings in order to produce a SWOT analysis of the ITT environment. Preliminary recommendations were developed based on gaps and immediate opportunities to improve the ITT's capacity, capabilities, service levels, and governance processes and structure.

A Current State Assessment and Immediate Opportunities Report was created and delivered to the ITT Project Team for review and approval prior to moving onto the next phase.

Phase 2 – Desired Future State Assessment

In Phase 2 of the project, RSM continued to refine and develop new recommendations to enable the City to improve their support capacity, capability, and service levels over the next 5-years. In order to do so, RSM refined recommendations around the following:

- Structuring of ITT resources, including updating roles and responsibilities to reflect current and future organizational needs;
- Direction of technology, including ITT governance, business continuity, the current mobile device management strategy, and the City's current infrastructure; and
- Long-term planning of ITT services, including responsibilities and staffing requirements in ITT, service delivery frameworks and service level agreements (SLA), and policies and procedures.

In order to refine and develop these recommendations, RSM conducted industry-leading practice research in both the private and public sector through online research, including a municipal scan with

identified comparator municipalities. Specifically, the cities of Kingston and Peterborough and the municipality of Chatham-Kent. Additionally, three interviews with City staff were conducted to further define the City's future state and refine the recommendations, including:

- Two 1-hour meetings with ITT staff; and
- One 1.5-hour meeting with Senior Management.

As a result of this analysis, RSM also produced a Business Solutions Assessment Model and Methodology (BSAMM) as part of the ITT governance related recommendations. A Desired Future State Report was developed and delivered to the City for review and approval prior to moving onto the next phase.

Phase 3 – Detailed Implementation Plan & ITTMP

The final phase of the project was dedicated to finalizing recommendations and creating the final deliverables of the project – namely, the implementation plan and ultimately the ITTMP – and presenting it to the City.

First, RSM refined and finalized the recommendations developed throughout the project based on feedback from the City. RSM then developed a set of prioritization criteria, which were validated with the City, in order to prioritize the recommendations. The prioritized recommendations were then grouped into initiatives based on similarities and dependencies and sequenced into a 5-year detailed, visual implementation plan. The implementation plan considered associated timelines, costs, resources, requirements, impacts, and potential risks of each recommendation.

A high-level review of the current funding model was conducted to ensure the appropriate funding levels were in place to support the recommendations in the 5-year implementation plan, in alignment with the governance recommendations. Change considerations associated with major recommendations were also detailed for the City to consider as they carry out the implementation plan.

Following this, RSM developed a Detailed Implementation Plan Report to gain feedback from the ITT Project Team prior to drafting the ITTMP.

The Draft ITTMP consolidated all interim deliverables and was reviewed with the ITT Project Team prior to proceeding with the creation of the final plan. Any feedback from the City was incorporated into the Final ITTMP.

Finally, RSM developed a final presentation, validated it with the City, and provided it to Council prior to conducting a Final Presentation to City Council.

4.0 Current State Assessment

4.1 Current State Assessment Purpose & Approach

Following the project kickoff, RSM commenced *Phase 1: Current State Assessment & Immediate Opportunities* to develop a strong understanding of the current state of service delivery of ITT services at the City. The RSM team conducted the current state assessment using a set of data points including:

- **Online and Existing Document Research:** RSM developed a high-level picture of the City's current state through research on the City's website, as well as the review of documents provided by the City. This information included, but was not limited to policies and procedures, job descriptions, existing strategic plans, budgets, and infrastructure information.

- **Departmental Current State Workshops**: In total, fourteen workshops were conducted with all nine City departments. Note that some departments, such as Planning, Development, Recreation, and Facilities were split into multiple workshops based on the number of divisions within the department. These workshops were used to elicit the following information:

    o Their satisfaction with the support and services provided by ITT. In order to understand how the COVID-19 pandemic has impacted the City, information regarding satisfaction was captured considering operations both before and during the pandemic; and

    o Their view of the role ITT currently plays.

- **ITT Current State Workshops:** Several workshops were conducted with the City's ITT team to develop a holistic understanding of the current state of the City's ITT environment. Two workshops were conducted with the entire ITT team to understand the history of their department, as well as their current opportunities and challenges as it relates to performance,

operations, systems and infrastructure, and governance. Additionally, six one-on-one interviews were conducted with the individual members of ITT to probe deeper into their current team structure, their roles and responsibilities, and their capacity and capabilities.

The results of the current state assessment are presented in the following sections.

4.2 Current State Overview

Through the consultations mentioned in the approach, RSM developed an inventory of the current state of ITT, from both an ITT and the departmental point of view, focusing on the structure of their team and the services and support they provide. The following is a summary of the findings related to the strengths and successes, as well as the current issues and opportunities for improvement.

Role of ITT

The current role of ITT can be best summarized as a combination of both Operator and Guard. ITT has handled the changes brought on by the COVID-19 pandemic well, have been able to keep the City operating and have adapted security measures. The satisfaction with the level to which ITT has played the Operator and Guard role, both before and during the pandemic, varies from department to department. Further information on the current state operations of ITT are presented in the following sections.

Figure 4.2a depicts the current state perspective of the role of ITT, represented by the purple circle with the "C" signifying Current State.
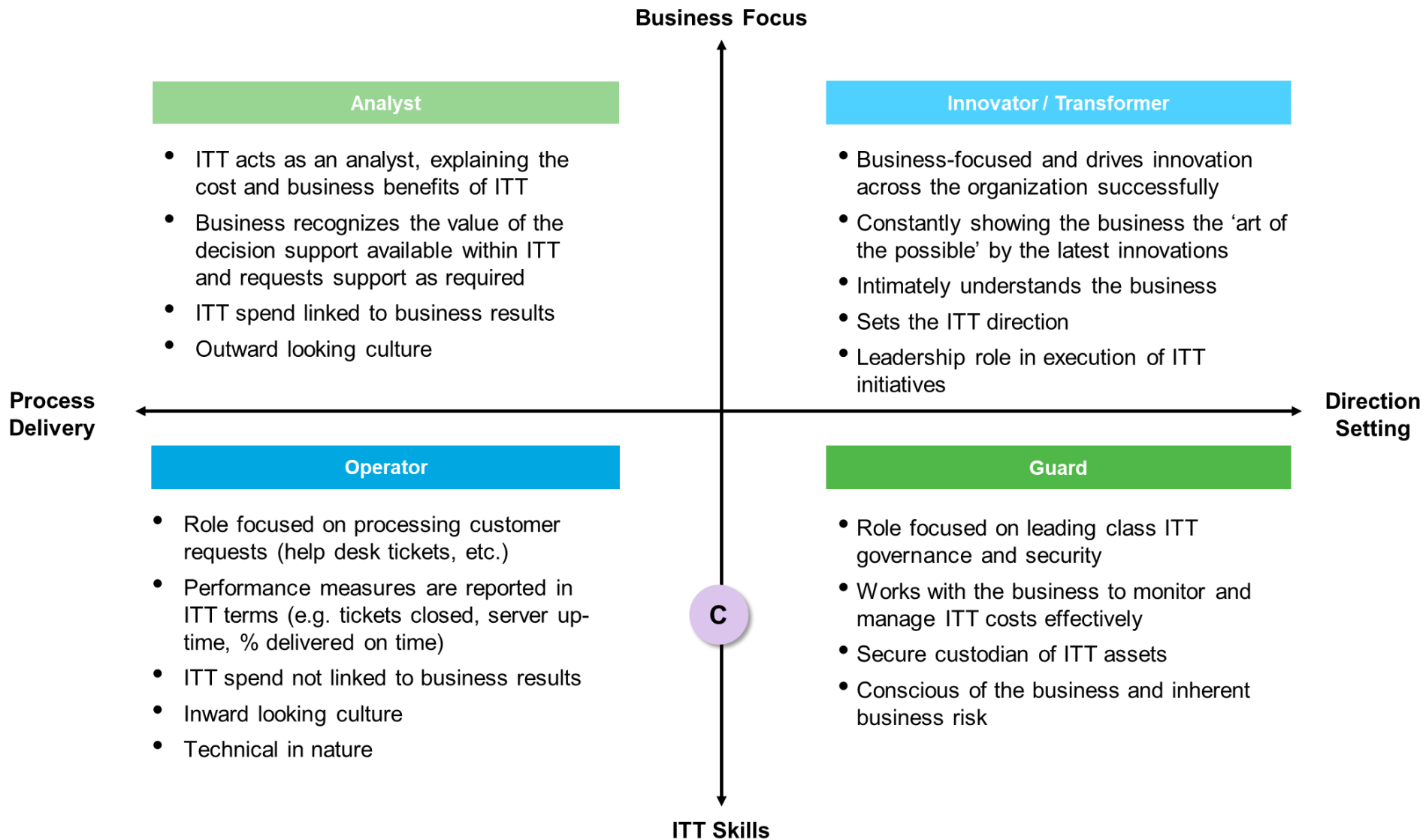
Business Focus

Analyst

- ITT acts as an analyst, explaining the cost and business benefits of ITT
- Business recognizes the value of the decision support available within ITT and requests support as required
- ITT spend linked to business results
- Outward looking culture

Innovator / Transformer

- Business-focused and drives innovation across the organization successfully
- Constantly showing the business the 'art of the possible' by the latest innovations
- Intimately understands the business
- Sets the ITT direction
- Leadership role in execution of ITT initiatives

Process Delivery ← → **Direction Setting**

Operator

- Role focused on processing customer requests (help desk tickets, etc.)
- Performance measures are reported in ITT terms (e.g. tickets closed, server up-time, % delivered on time)
- ITT spend not linked to business results
- Inward looking culture
- Technical in nature

C

Guard

- Role focused on leading class ITT governance and security
- Works with the business to monitor and manage ITT costs effectively
- Secure custodian of ITT assets
- Conscious of the business and inherent business risk

ITT Skills

Figure 4.2a. Current State Role of ITT

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ITT Structure & Capacity

The City's ITT team has undergone several changes over the last 20 years. Some of the most notable recent changes have been the restructuring of ITT staff to be non-unionized positions by transitioning positions as they become vacant. Additionally, both the ITT Supervisor and Application Support Specialist have retired, and two Operations Support Specialists have been hired within the last 4 years within the existing staff complement. Figure 4.2b shows the current state of the ITT team in May 2021.
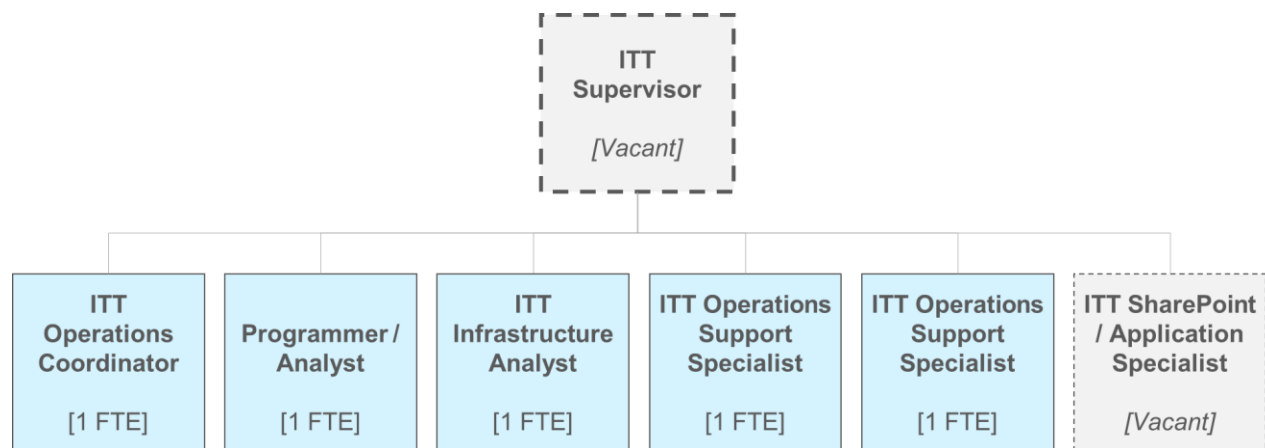

Figure 4.2b. Current State ITT Structure

The ITT team has capacity issues which have been exacerbated by the demands and limitations brought on by the COVID-19 pandemic. Although departments acknowledge the capacity constraints within ITT, they still expect a certain level of service and support which has not been possible with the current staffing levels.

In addition to the day-to-day operational requirements of ITT, RSM identified that recurring issues are adding to the capacity constraints in ITT. These include, but are not limited to the following:

- Responding to issues resulting from security measures, namely security measures on ITT provisioned devices;

- Fielding questions and issues resulting from unread communications;

- Addressing application issues as a result of inefficient or ineffective departmental implementations; (refer to 7.2.2.2. Improve ITT Governance Processes); and

- Participating in recurring conversations explaining the process and timelines around ITT.

As a result, senior resources – namely, the ITT Operations Coordinator and Programmer / Analyst – are spending their time working on operational activities, such as responding to ITT tickets, rather than focusing their efforts on strategic and future-looking initiatives.

Furthermore, the ITT one-on-one workshops highlighted the fact that the existing job descriptions for certain roles within the ITT department do not accurately reflect the current work that is being performed, nor does it accurately reflect the needs of the department and organization as a whole. For example, the current Programmer / Analyst role has been operating as an ITT Security Coordinator.

Service & Support

As mentioned, the current day-to-day operation of ITT is dominated by providing support to the organization. In addition, the pandemic has led to an ever-increasing number of ITT issues and request tickets that are submitted through the service desk. Although departments have been generally happy with the agility and responsiveness of ITT to the disruptions and needs brought on by the COVID-19 pandemic, the increasing number of tickets are cumbersome and taxing on the already understaffed ITT team. This leads to recurring conversations concerning similar issues and prevents them from focusing on activities aside from issue resolution. Additionally, ITT does not have a formal review and analysis process in place to analyze service desk tickets and address

recurring issues. The ITT staff do have informal conversations about certain recurring issues with departmental staff.

This has increased focus on issue resolution and improved the response times for low-complexity, Tier 1 requests from departments. However, it has also reduced the priority on higher-complexity, lower priority requests, resulting in inefficiencies across departments, for example in the cases where requests are being made for productivity improvement projects.

ITT Governance

ITT currently does not have many documented policies and procedures. Most of those that are documented are requiring update, and those that have been updated have yet to be approved by senior management / risk management committee. This includes policies and procedures around service desk requests, new large and small project intake, and use of ITT infrastructure and software which are critical policies to ensure efficient organizational operation. Along with a lack of policies, there is a lack of service standards and SLA which has created expectations from departments concerning the services provided by ITT that do not align with those of ITT.

From a project and planning point of view, most departments currently initiate the procurement of software independently from ITT. If ITT is engaged, there is little notice. This is a systemic issue that has led to sub-optimal investments in ITT solutions, siloed solution implementations, and data integration issues. This has led to a lack of understanding around how existing technology can be better leveraged across the entire organization and integrated into existing business processes to create efficiencies. Additionally, as ITT is not always involved in the procurement of technology, there is a lack of consideration around how newly acquired technology can be integrated in a holistic manner to provide better citizen-facing services.

Communication

In speaking with both ITT and the departments, current communications out of the ITT department are not being effectively received by the organization. There appears to be a myriad of factors that contribute to this. This includes the format of ITT communication emails, unconsolidated or unstandardized channels of communication based on the communication type, and a general lack of awareness as to how communications should be used for or by the departments.

Communications are sent out to departments detailing key information about ITT initiatives and how impending changes will affect their operations. However, these communications may not be thoroughly read, creating problems that ITT has to resolve, taking capacity away from other higher value activities. As a result, communication from the ITT department has declined over time.

ITT Security

The City's ITT has always been focused on security, and rightfully so – cyber-attacks and scams can have severe financial impacts for municipalities and expose data of their many residents. The City's approach to addressing risks, however, has led to some security measures put in place that may impact user functionality of the City's technology in favour of security. It should be noted that a number of these measures were put in place as a reaction to activity on the network that was flagged as dangerous. Overall, the City approaches security decision-making with the best interest of the corporation in mind.

Among other issues, this has resulted in ITT-provisioned devices, such as phones and laptops, to have reduced functionality. Although these efforts are eliminating security risks for the organization, they are also creating potential inefficiencies in departmental operations, requiring workarounds, and impacting the relationship between departmental staff and ITT.

Enterprise Applications & Software

The City has many different enterprise applications that fulfill unique needs within the organization. These applications may be able to provide enhanced workflow efficiencies and functionality throughout the organization, however the selection of several critical applications was generally performed by individual departments without a clear enterprise architecture or holistic service approach in mind. This has resulted in certain application functionality being duplicated across the organization, such as with ICO and Telestaff for resource scheduling. Procurement of certain software has also been historically undertaken at the City without a holistic viewpoint which has resulted in disparate systems that do not integrate, such as the PMXpert maintenance management software and other ancillary systems.

Several departments stated that new or existing enterprise applications, as well as digital processes in response to the COVID-19 pandemic such as Zoom meetings and going paperless, could be further used to offer more citizen-facing services digitally to improve the customer experience. Especially, as individuals are trying to reduce the number of physical interactions due to the pandemic. As an example, one department expressed that the public has been interested in interacting with a City department through digital channels. In this situation, the department has moved to digital interactions with their customers, although applicants still cannot fill and submit forms online.

Infrastructure & Technology

The City has invested significantly in their physical infrastructure leading to hosting servers on-premise. Additionally, the City provisions devices, including cell phones, tablets, and laptops, to their staff which are controlled by ITT. Workstations are currently between five and seven years old and some are nearing end of life, leading to stresses on these machines with the increased

technology use throughout the City. There has been consideration from the City around moving some of their infrastructure to the cloud to relieve some of the pressure on their staff and physical infrastructure, as well as to realize potential cost savings. An example of this is ITT's consideration of implementing Virtual Desktop Infrastructure (VDI). Although it has been budgeted for and approved by Council, it has not progressed to a formal project due to the need for clearer direction on the City's readiness and overall appropriateness of implementing VDI at this time – which is an outcome of the ITTMP.

Office 365 Rollout & Training

The rollout of Office 365 (O365) across the organization, including the recent rollout of Teams and the planned launch of SharePoint, has provided the City with the opportunity to increase efficiency and improve lines of communication. ITT has provided tutorial links, videos and "how to's". However, there has not been any formal training for the new or updated functionalities as a result of the implementation of the full suite of O365.

4.3 SWOT Analysis

The information collected as part of the Current State Assessment was then organized to develop a Strengths, Weaknesses, Opportunities, & Threats (SWOT) analysis which summarizes the current state of the City's ITT environment and outlines the major opportunities for improvements, as well as threats to the City.

The SWOT analysis aims to answer the questions such as the following, as they pertain to ITT and the City as a whole:

Strengths (S):

- What is the City doing well from an ITT perspective?

- What unique ITT services does the City offer (product offering, experience, etc.)?

- Does the organizational culture offer an advantage (hiring the best people, etc.)?

- Does ITT have a high level of engagement or satisfaction with stakeholders?

Weaknesses (W):

- What areas of ITT require improvement?

- Are there gaps in capacity and/or capabilities?

- Are there leadership gaps (succession, poor management, etc.)?

- Are there reputational issues?

- Are there factors contributing to satisfaction?

Opportunities (O):

- Are there innovations that could be considered?

- Are there industry or lifestyle trends, i.e. move to mobile, etc.?

- Are there geographical changes in the market?

- Are there new service delivery model opportunities?

Threats (T):

- Are there obstacles that the organization must face?

- Are there issues with respect to sourcing of staff or technologies?

- Are there changes in demand?

- Are your comparators making changes that you are not making?

- Are there economic issues that could affect your organization?

The SWOT analysis was developed based on departmental interviews and is included on the following page.
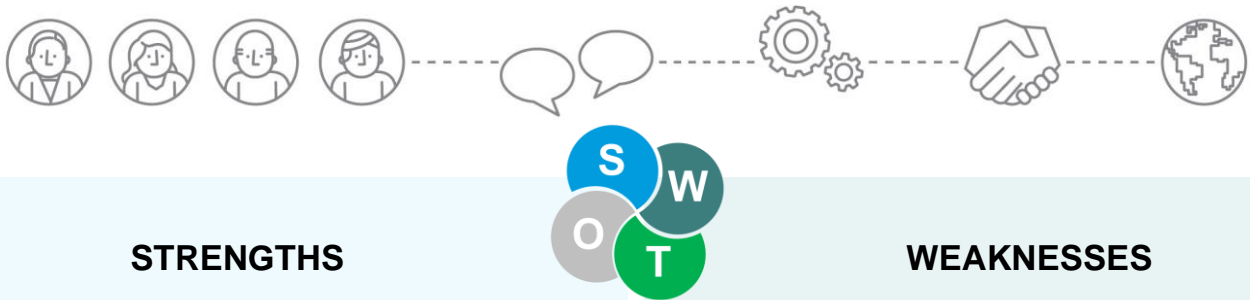
STRENGTHS

- Numerous leading-class, enterprise-level systems (O365, Diamond, CityView, PerfectMind)
- Engaged and passionate leaders and ITT staff
- Strong ITT security protocols
- Skilled ITT team
- Responsive service desk focused on resolving issues in a timely manner
- Effectively responding to the pandemic
- Many channels to provide communication to organization (Teams, SharePoint, Intranet, Email, Phones, etc.)

WEAKNESSES

- Limited functionality with devices and phones as a result of some ITT security protocols
- Policies require updating and/or formalizing
- No formalized communication protocol between ITT and departments.
- No formalized service levels or definition of criticality around applications
- Limited strategic direction and no position to direct or facilitate it
- Lack of holistic planning when procuring and rolling out new software, both from a departmental and organization-wide perspective
- Capacity issues forcing ITT to focus primarily on "putting out fires". This prevents ITT from being focused on assisting with projects or taking on more strategic roles
- Decreasing morale within ITT

OPPORTUNITIES

- Leverage cloud-based applications, outsourcing, and other innovations to relieve some capacity from ITT to focus on business analysis
- Internal desire within the department to be more business-focused, but a lack of additional capacity is preventing ITT from executing on the more forward-looking, business-focused initiatives
- Analyze service desk data to better respond to common issues
- Processes and restrictions requiring ITT approval could be relaxed to free up capacity
- As O365 is deployed across the organization this will improve internal efficiencies and resolve common issues such as file storage and sharing
- Further transparency into the service desk processes and practices could reduce frustrations and better set expectations across the organization
- ITT Manager position could be created to provide more direction and authority to the department

THREATS

- Critical positions would leave major gaps if vacancies occur
- Capacity issues exist in ITT due to recent departures and a lack of backfilling roles, which has been worsened by the demands of the pandemic and will only get worse as expectations from the departments and technology demand increases
- Without a dedicated (at least part time) projects-focused ITT member, more issues around technology will occur creating organization-wide issues.
- Unclear strategic direction of ITT
- Level of security is not only prohibiting innovation, but also reducing efficiency across the organization
- Outdated policies prevent the ITT department from enforcing best practices; no current policies for ITT staff to refer to in order to support their rationale for decisions.
- The lack of service levels creates inconsistent responses to issues and prevents proper triaging

5.0 Desired Future State

5.1 Desired Future State Assessment Purpose & Approach

Following the Current State Assessment, RSM conducted Phase 2: Desired Future State to build on the current state understanding of ITT service delivery and identify opportunities for improvement. The assessment included consideration of future state visions of ITT and the departments gathered through both the current state workshops and targeted future state input sessions. It also included a jurisdictional scan with comparator municipalities through an information request and municipal scan workshops.

- **Departmental Current State Workshops**: During the fourteen current state department workshops, RSM also conducted a desired future state assessment by eliciting departments' desired future state vision. This included identifying their desired future state for the role of ITT and their top ITT needs for the next five years necessary to achieve the desired future state. These ITT needs were then prioritized at a high-level by the department. The ITT needs per department are listed in 10.2.1 Departmental ITT Needs.

- **ITT Current State Workshops:** RSM gathered desired future state information from ITT as part of the ITT workshops and the ITT one-on-one interviews conducted during the current state assessment. RSM elicited ITT's future state vision for their department, including their desired future state role, team structure, roles, responsibilities, capacities, and capabilities.

- **Future State Input Sessions:** RSM also conducted two future state input sessions with ITT and one with the senior management team to present the preliminary recommendations developed as an outcome of the current state assessment. The purpose of these sessions was to gather feedback

on the preliminary recommendations and gain additional insight into the desired future state of both stakeholder groups. This feedback and additional information was then used to refine the preliminary recommendations.

- **Municipal Scan:** In order to develop a better understanding of how the City compared to their peers, RSM conducted a municipal scan with three similarly municipalities, agreed upon with the ITT Project Team. These municipalities were the City of Kingston, the City of Peterborough, and the Municipality of Chatham-Kent. RSM, with the assistance of the City, sent information requests to the three municipalities to gather relevant and applicable metrics. A 30-minute follow-up meeting was then conducted with the relevant stakeholders at each municipality to gain additional context around the metrics provided.

The results of the assessment presented in the subsequent section were analyzed along with the findings from the current state assessment and paired with industry best practices to conduct a gap analysis and develop recommendations to address critical issues, gaps, and opportunities.

5.2 Desired Future State Overview

The City's overall desired future state was compiled from the future state visions of both ITT and the departments and centered around four main themes:

1. **Evolving ITT's Role Towards an Analyst and Innovator / Transformer**

There was an overwhelming desire from both ITT and the departments for ITT to move from an Operator and Guard focused role towards an Analyst and Innovator / Transformer role in the future. As technology use increases across the City, departmental staff want a business partner to understand their issues and work together with them to provide innovative solutions that will not only resolve departmental issues but benefit the organization as a whole. ITT

understands the importance of this shift in roles and recognized that such a shift would position ITT to be more proactive, enabling them to research, explore, and propose innovative solutions for the organization.

The shift to a role as an Analyst and Innovator / Transformer will also enable ITT to continuously improve their role as an Operator and Guard by focusing on customer service, developing strong relationships with the departments, improving two-way communication, and being innovative when it comes to security and operational service delivery.

While there is understanding that there are capacity issues within ITT and that the COVID-19 pandemic has caused a dramatic shift in operations, there is a desire that, as ITT transitions into this new role, they provide more direction for the organization around innovative solutions to address current and emerging issues and opportunities, as well as position the City to execute on their future initiatives.

The desired future state of ITT is depicted in Figure 5.2a, represented by the yellow circle with the "F" signifying Future State based on the desired future state role expressed by the City.
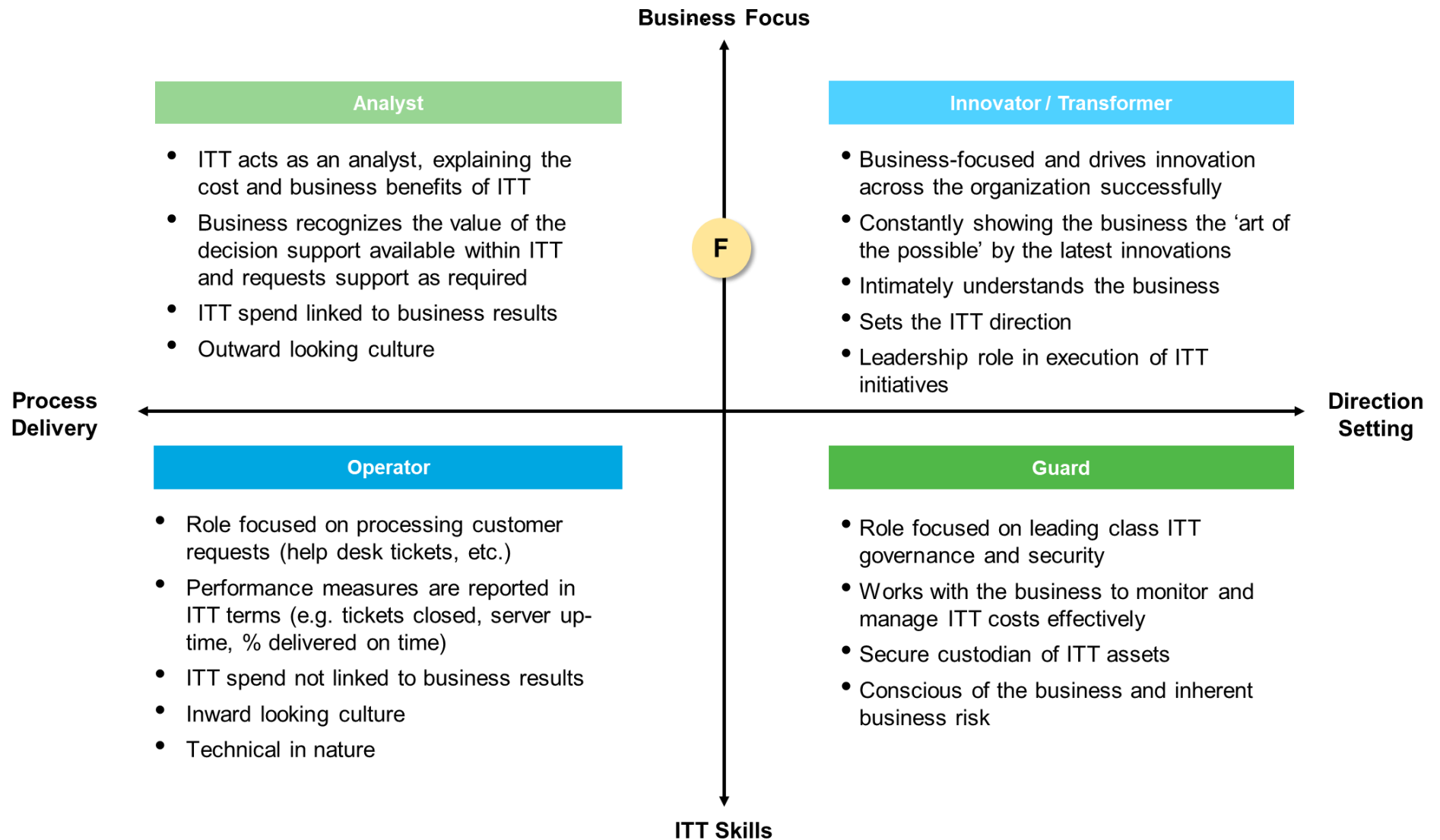
Business Focus

Analyst

- ITT acts as an analyst, explaining the cost and business benefits of ITT
- Business recognizes the value of the decision support available within ITT and requests support as required
- ITT spend linked to business results
- Outward looking culture

Innovator / Transformer

- Business-focused and drives innovation across the organization successfully
- Constantly showing the business the 'art of the possible' by the latest innovations
- Intimately understands the business
- Sets the ITT direction
- Leadership role in execution of ITT initiatives

F

Process Delivery

Direction Setting

Operator

- Role focused on processing customer requests (help desk tickets, etc.)
- Performance measures are reported in ITT terms (e.g. tickets closed, server up-time, % delivered on time)
- ITT spend not linked to business results
- Inward looking culture
- Technical in nature

Guard

- Role focused on leading class ITT governance and security
- Works with the business to monitor and manage ITT costs effectively
- Secure custodian of ITT assets
- Conscious of the business and inherent business risk

ITT Skills

Figure 5.2a. Future State Role of ITT

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2. Utilizing ITT as a Stakeholder

As a result of ITT playing a role as an Analyst and Innovator / Transformer, there is a desire that there is a shift in the way ITT is viewed and utilized throughout the organization. Although ITT still must be an organizational resource responsible for maintaining current technical infrastructure and responding to requests and tickets, the organizational future state vision sees ITT becoming more of a partner to departments to assist them with their strategic and operational priorities.

Complementary to ITT becoming a business partner, this primarily includes supporting departments in executing their future state projects, as departments move to more technology focused, digital-service based, and paperless processes. This would entail ITT being engaged as a business partner from the beginning of a project to provide insight and expertise into the due diligence and requirements gathering process, rather than having to subsequently react to remediate issues that evolve. This would shift the organizational view of ITT from a resource used by departments when they need something fixed or approved, to a stakeholder in their projects and a go-to department to suggest innovative solutions and technologies. This could benefit not only individual departments but the organization as a whole.

3. Developing Holistic ITT Governance

The third major theme of the organizational desired future state of ITT is the need for ITT governance processes, supported by clearly articulated and communicated policies and procedures, to enable a more holistic approach to software and system procurement. Software that is procured in siloes can create functional overlap and disparate data repositories across the organization, leading to inefficiencies and reduced value of investments. Developing a governance process for ITT project intake will enable the organization to close

knowledge gaps around software and systems availability and criticality needs, identify opportunities to consolidate applications, maximize the value of their investments, and better plan for the future operational and technical needs of the organization.

Additionally, as the desire to move to the cloud increases in alignment with industry trends, a mandate for cloud technology can be integrated into the governance process, enabling departments to keep up with the pace of change of technology, unlocking ITT capacity, and reducing costs associated with managing the physical infrastructure.

4. Progressing Towards a Digitally-Enabled Organization

The final major theme of the desired future state is for the City as a whole to be more digitally-enabled. This future state is driven by both the departments and ITT. From a departmental perspective, there is a desire for the City to provide more digital-services, both internally and externally, through digital channels to improve workflows, increase efficiency, and reduce manual, paper-based processes. Additionally, the disruptions to "business as normal" brought on by the COVID-19 pandemic has highlighted the need for the City to maintain services while reducing physical interactions, if necessary.

ITT also sees value in moving to a more digital environment, primarily through the migration to virtual servers and cloud hosted applications. Moving to a more virtual ITT environment would reduce the administrative and maintenance burden on their team. This would enable ITT to focus their efforts on more innovative and value accretive initiatives across the organization. Additionally, with work flexibility and remote work becoming an increasingly possible future, establishing a strong digital foundation would provide the City with the digital infrastructure to enable remote work when necessary.

5.3 Municipal Scan Findings & Comparison

In order to deepen our understanding of ITT and further inform the subsequent gap analysis, RSM conducted a municipal scan to position Cornwall's ITT division relative to its peers. RSM collected municipal peer data through information requests sent to three comparator municipalities – the City of Kingston (Kingston), the City of Peterborough (Peterborough), and the Municipality of Chatham-Kent (Chatham-Kent) – and conducted follow-up interviews with relevant stakeholders from their IT departments to gather additional context. RSM compared this information to metrics gathered through workshops with the City to determine ITT's position relative to other municipal comparators. Note that the information in this scan is comparable with the level of context and knowledge we have. Therefore, this information was used as indicators and not as absolutes as not all metrics could be directly compared to one another.

5.3.1 Key Findings

The following are the key findings from the municipal scan:

- The City's ITT spending, on average, is in-line or lower than the peer municipalities with deviations from their municipal comparators in terms of how they allocate capital for ITT, specifically around the absence of ITT reserves. There are opportunities to deliver better service through additional spending and supporting or expediting critical future ITT projects by establishing ITT reserves.
- Compared to their municipal comparators, the City's ITT division is understaffed, supporting the capacity issues uncovered in the current state analysis. There are therefore opportunities to deliver better service with additional staffing and/or through pursuing outsourcing.
- Each of the municipal comparators recognized, and are prioritizing, the need to move more towards the cloud, regardless of their virtual software

and infrastructure presence. The City currently has no servers and a modest number of applications on the cloud but has identified a migration to the cloud infrastructure as an important trend to pursue. While the City is moving in the right direction, a concerted effort to cloud migration would need to be made to align to the current and future state plans of the City's municipal peers and industry trends. There are therefore opportunities to methodically strengthen IT infrastructure and reduce burden on the ITT team by increasing the percentage of servers and applications hosted on the cloud.

- The number of online services at the City and their plans to increase their service offerings is roughly in line with its municipal comparators. Moving forward, increasing the number of online services available would be in line with industry best practices and trends, as well as peer municipalities.

5.3.2 ITT Spend

In order to identify the maturity of the City's position in relation to ITT spending, RSM made use of municipal peer data related to the ITT operating budget as a percent of the total City operating budget, ITT operating budget per City employee, and ITT operating cost per capita.

The following figures indicate that the City's ITT spending, on average, is in-line with or below that of their municipal comparators across the three metrics. Consideration should be taken that not all municipalities allocate budget to departments in the same way due to their funding models, the number of supported programs, and the volume of stakeholders supported by each program. Therefore, despite the ability to directly compare dollar-for-dollar spending, in general, the effects of lower spending may negatively impact ITT's ability to provide adequate levels of service as demand increases with the increased prevalence of technology throughout the City, as well as hindering ITT's ability to play the role as an Analyst and Innovator / Transformer.
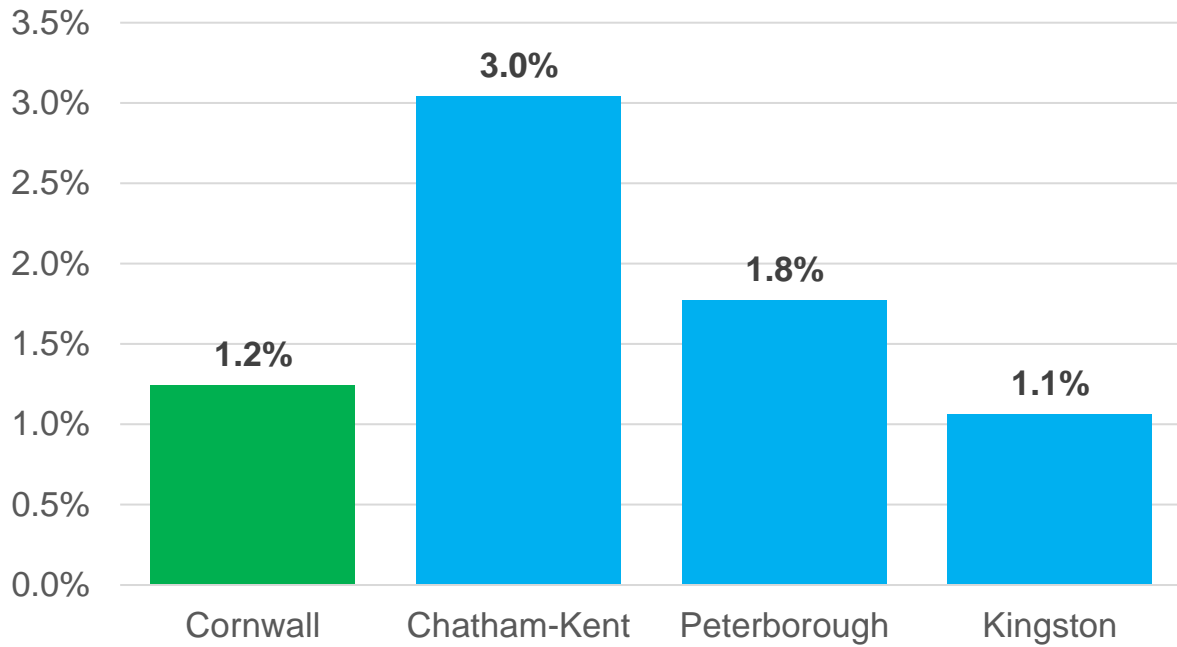
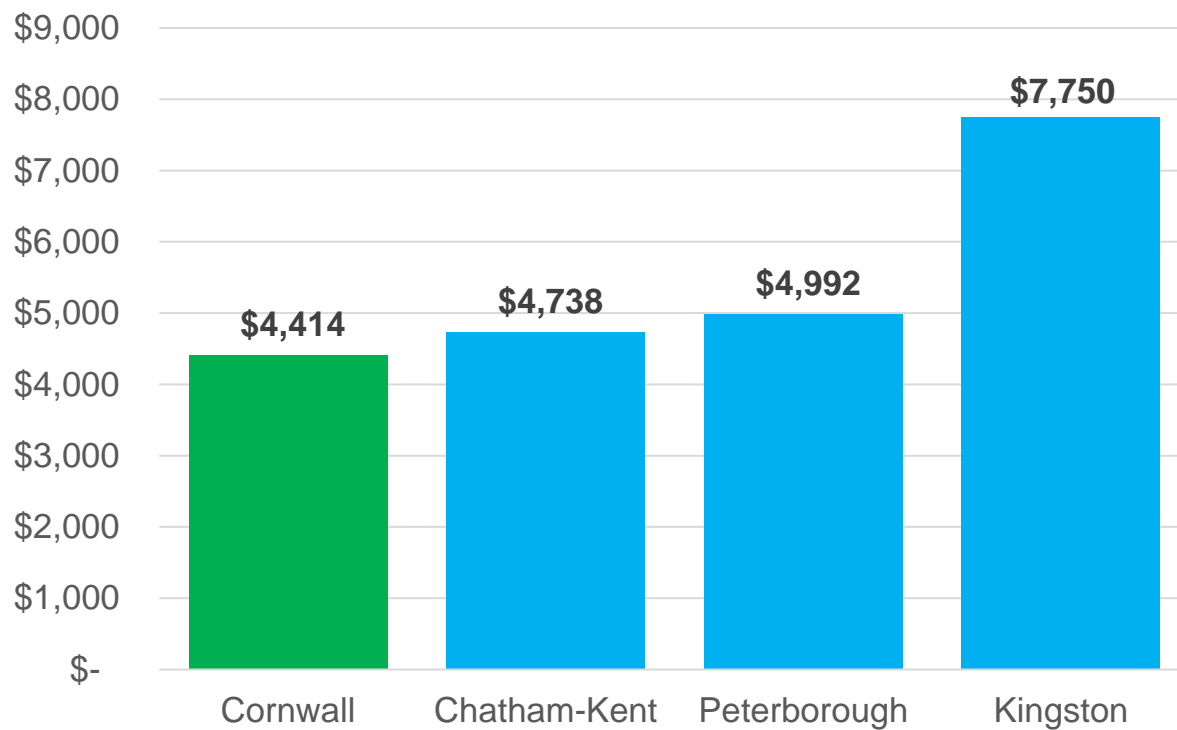**Figure 5.3.2a.** ITT Operating Budget as a Percent of Total City Operating Budget

Figure 5.3.2b. ITT Operating Budget per City Employee
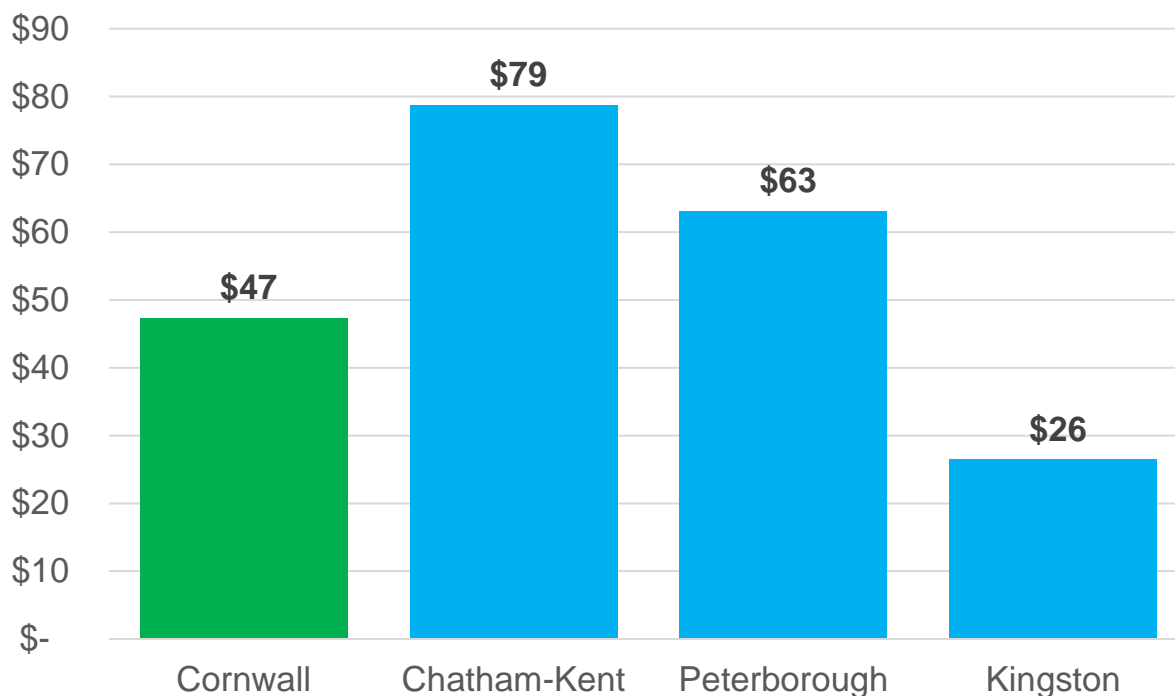
Figure 5.3.2c. ITT Operating Cost per Capita

In addition to these metrics, RSM discussed ITT reserves and the percentage of ITT budget that is allocated to reserves with municipal comparators. Currently, the City does not have any ITT reserves, whereas all three municipal comparators take a different and unique approach to the allocation of capital into their ITT reserves.

Chatham-Kent uses a lifecycle process to allocate reserves, which amounts to roughly 21% of their annual IT budget. Lifecycle budgets are approved by Council and are primarily allocated to capital and replacement hardware costs, staffing and consulting costs, and major system upgrades.

Peterborough's approach focuses on requesting their Council to approve unused capital budget from capital projects to an IT reserve. As such, the amount of capital allocated to their IT reserve varies year-to-year.

Finally, Kingston has a Technology Reserve Fund, which allocates roughly $1.35 million annually to establish specific technology programs, such as accelerating some of their major system implementations.

5.3.3 ITT Staffing

RSM evaluated the City's ITT staffing across several metrics – namely, the number of users per ITT staff, the number of buildings supported per ITT staff, the number of tickets per total ITT staff, and the number of tickets per service desk employee. By modifying staff numbers to only include those that were serving the same functions as ITT staff at the City, RSM accounted for the nuanced staff structuring models and different approaches to outsourcing at peer municipalities. This included staffing levels at municipal comparators that were reflective of unique programs serviced and additional supported programs, such as shared IT departments with municipal-owned utility companies, and contract employees or consultants that support technical operations.

RSM acknowledged that currently five ITT staff are completing the work of a seven staff member team. Therefore, it should be noted that the comparisons were done considering the current level of staffing in ITT. This is not representative, however, of the level of staff that is currently needed in ITT, which is detailed further in 7.2.1.1 Consider Staffing & Structure Changes. Additionally, RSM recognizes that currently the service desk is supported by the ITT Operations Coordinator as well as the ITT Operations Support Specialists, and therefore both the number of ITT tickets per total ITT staff and designated ITT service desk staff was calculated in the following graphs. This more accurately highlights the current number of ITT tickets per service desk staff.
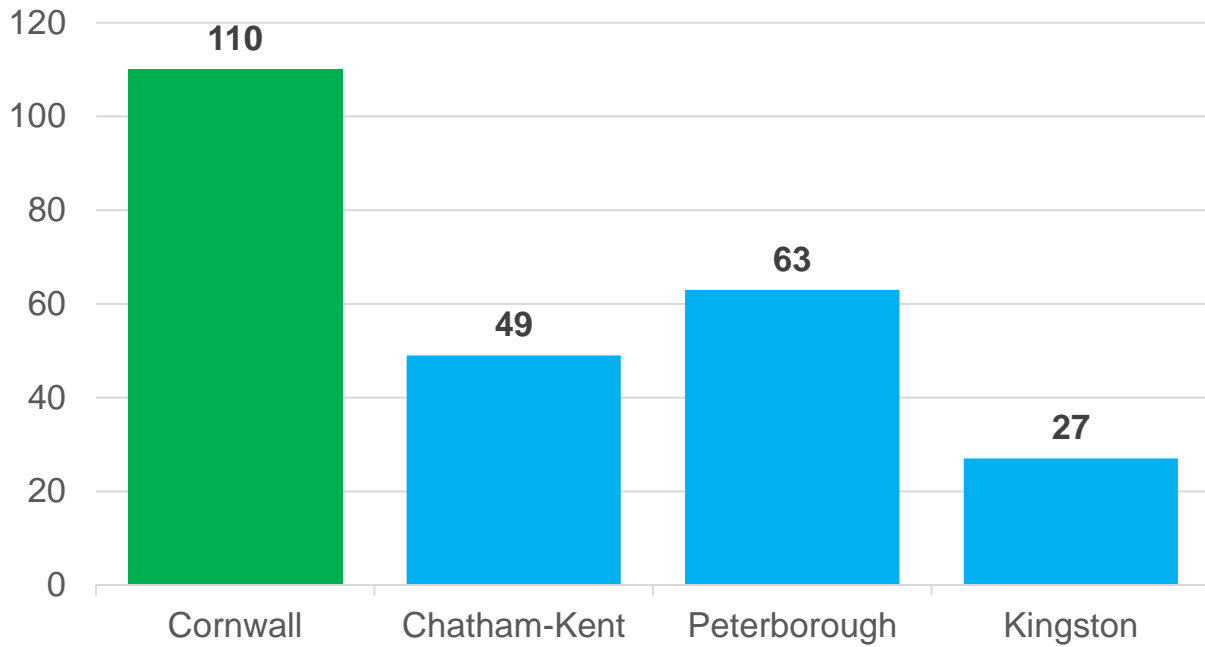
Figure 5.3.3a. Number of Supported Users per ITT Staff
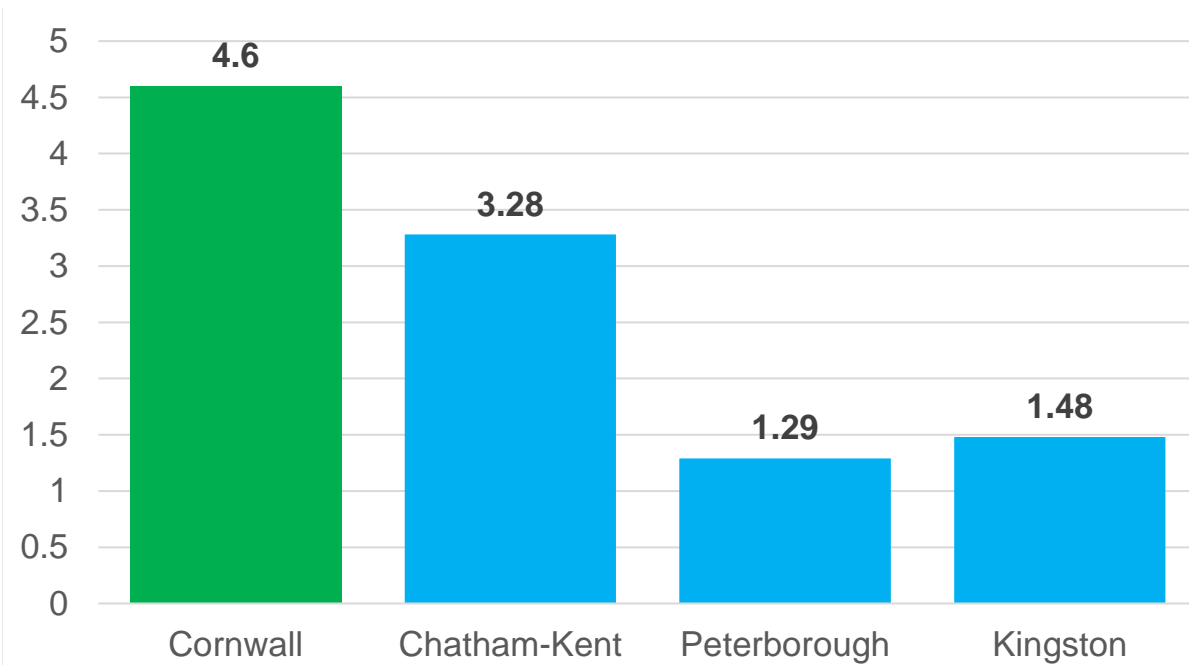

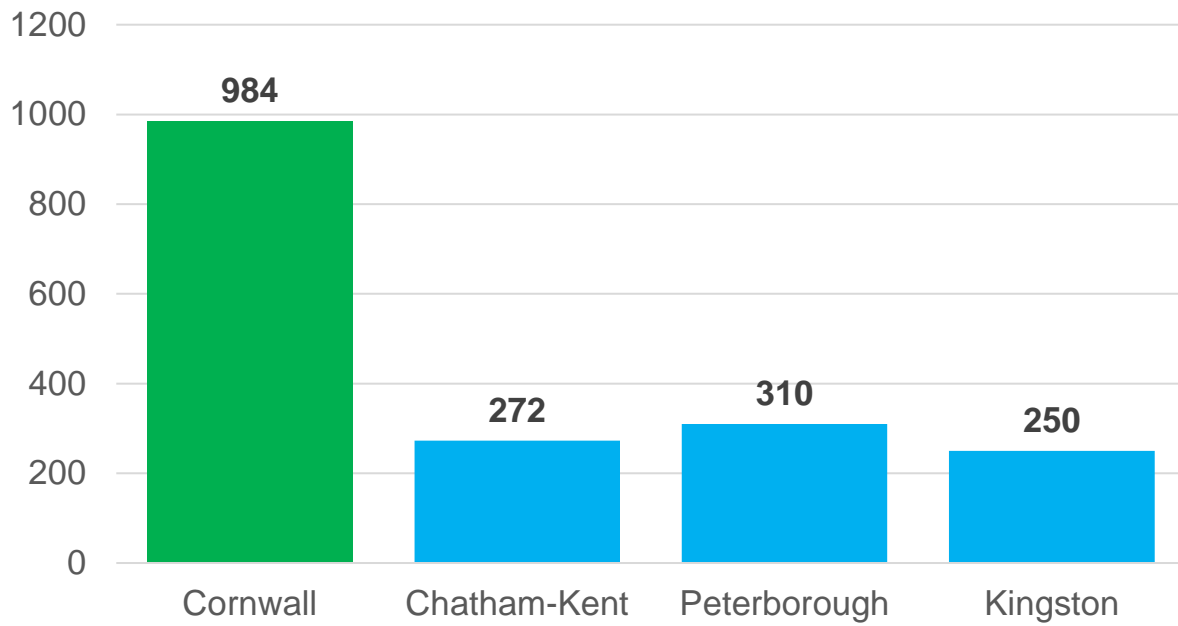**Figure 5.3.3b.** Number of Buildings Supported per ITT Staff

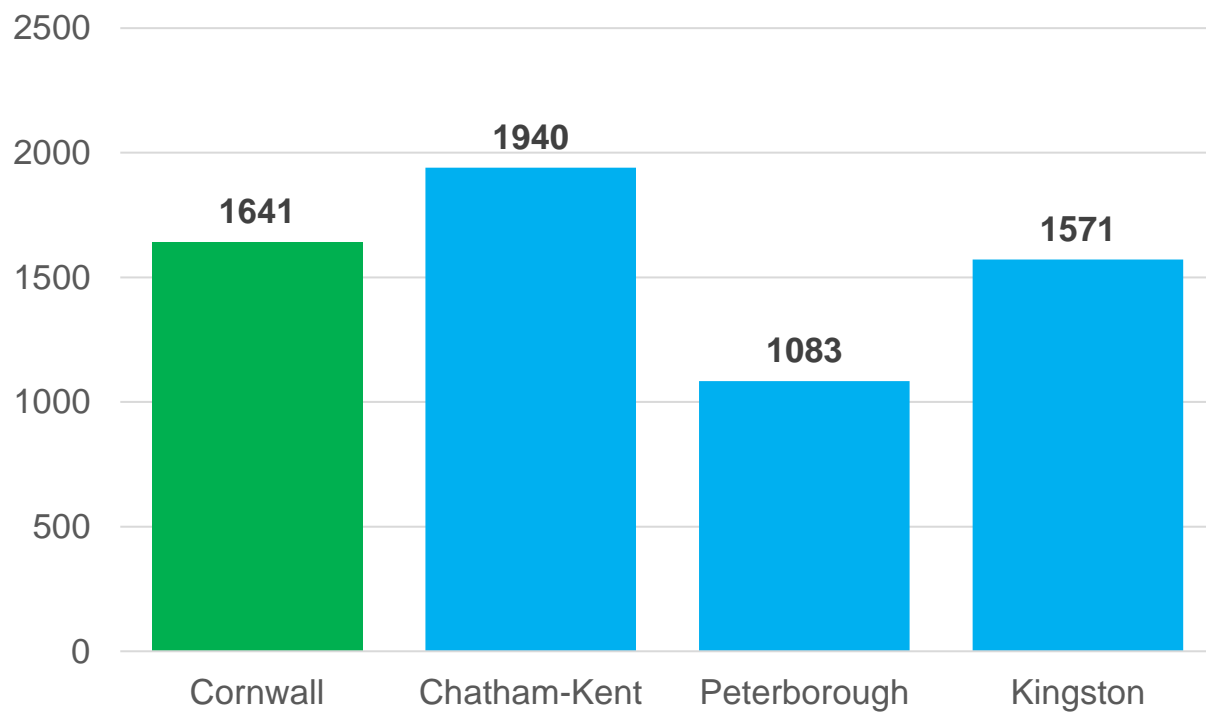**Figure 5.3.3c.** Number of Service Desk Tickets per Total ITT Staff

Figure 5.3.3d. Number of Service Desk Tickets per Service Desk Representative

As the graphs indicate, the City's ITT staff, on average, support a higher number of users, buildings, and tickets per total ITT staff member than its peer municipalities, highlighting the capacity limitations that exist within the department. The number of service desk tickets per service desk representative indicates that the City is on par with its municipal comparators and may appear that they are not understaffed. However, this includes the support of the ITT Operations Coordinator, whose official role is not to deal with service desk tickets on a day-to-day basis. Therefore, the service desk would still appear to be understaffed from a roles and responsibilities perspective.

It is worth noting that both Chatham-Kent and Peterborough expressed that they make use of departmental technical experts or "shadow IT" to support department specific IT needs and employ only one or two staff within the IT department to support the business. Moreover, Chatham-Kent is currently piloting a service desk program where they are rotating their service desk technicians in a coordinator role to field phone calls and answer questions from the departments. This has led to increased collaboration and enabled additional schedule flexibility. Both Kingston and Peterborough support their city-owned utility companies, leading to additional staff who are designated to servicing their utilities. As a result, their reported number of service desk tickets did not delineate between utility-based versus City department-based tickets. RSM therefore did not make a distinction between the staff or number of tickets allocated between utility-based versus City department-based tickets.

In addition, the comparator municipalities have identified varying numbers of community facing programs that their IT departments are responsible for, such as supporting convention centres, libraries, and police services. These are programs that the City's ITT department does not currently support – which both increase the need for capacity and also utilizes capacity, increasing the number of IT staff employed.

Concerning outsourcing, much like the City, Peterborough and Kingston have not outsourced many of their IT functions. On the other hand, Chatham-Kent regularly engages consultants to provide capacity and expertise on IT projects and prioritizes the need for knowledge transfer. Furthermore, Chatham-Kent has identified in their strategic plan the objective to outsource certain delivery models and networks moving forward.

5.3.4 Infrastructure

The following figures compare the City's ITT infrastructure to the identified municipal comparators across three metrics. Overall, the City is on par with their comparators with respect to their infrastructure.

The City has none of its servers in the cloud, similar to Peterborough and Chatham-Kent, but less than Kingston. The City is also in line with Kingston and ahead of Chatham-Kent and Peterborough in terms of the percentage of their business applications in the cloud, however, support a higher number of servers (physical and virtual) per system administrator than most of their municipal comparators.
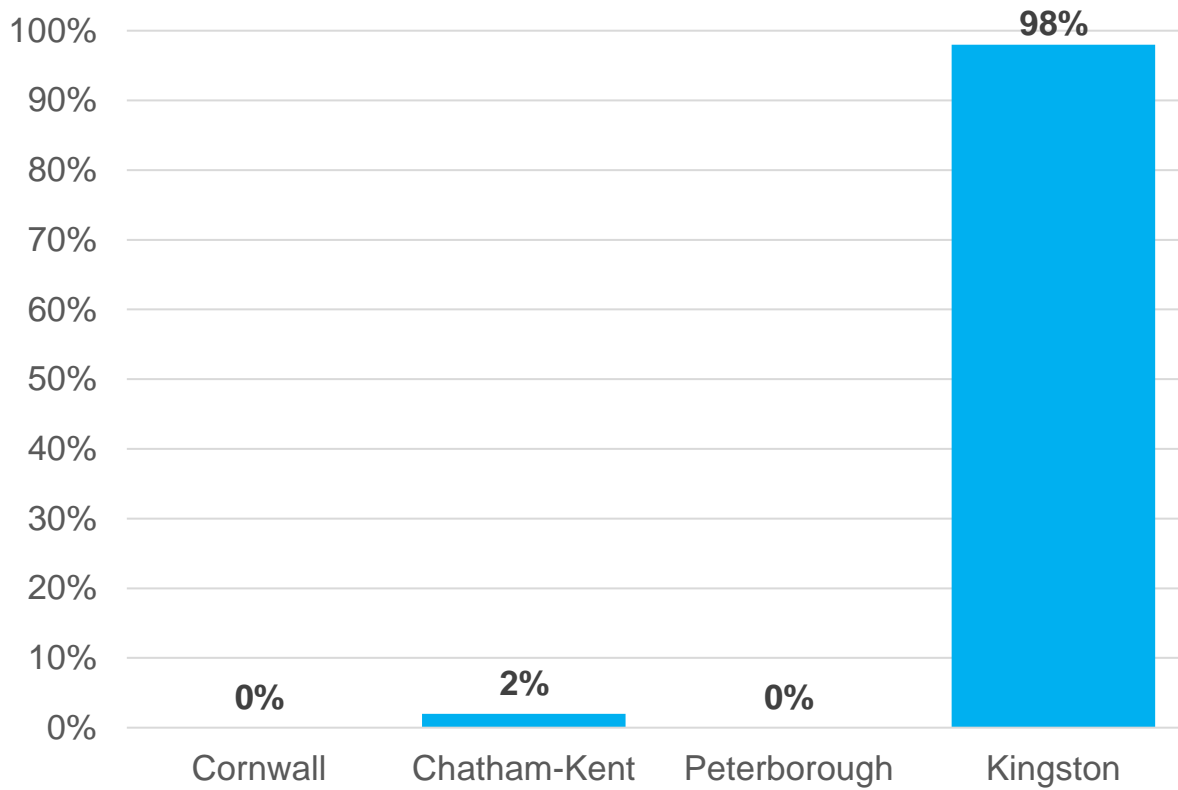
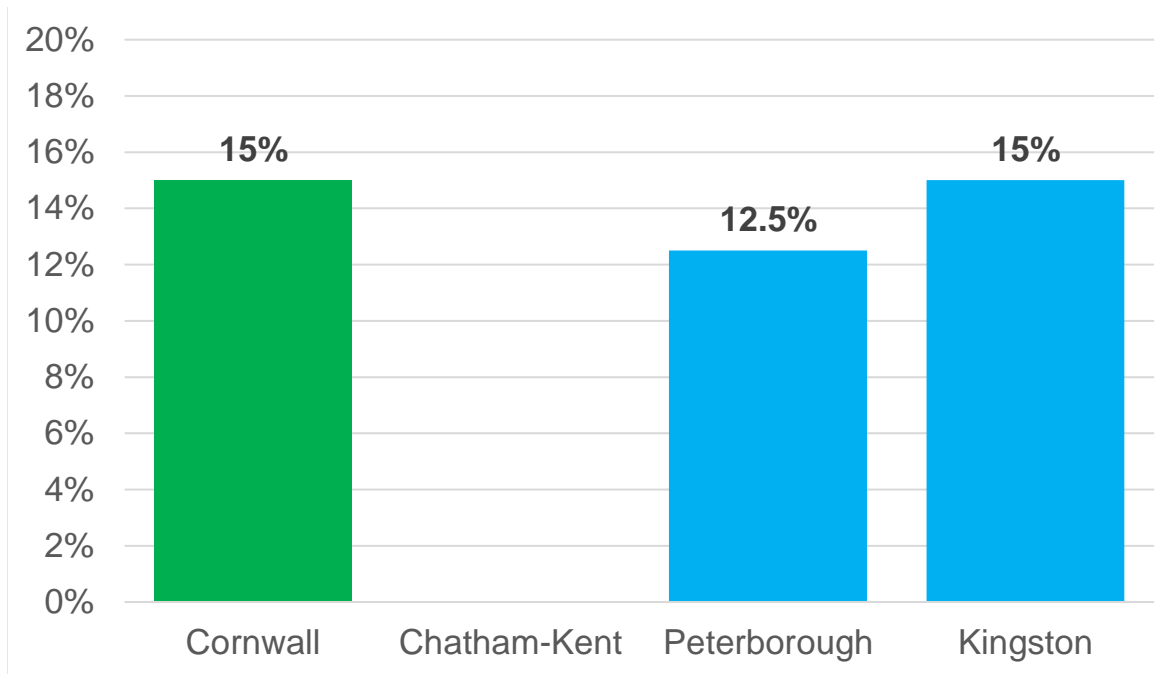**Figure 5.3.4a.** Percentage of Servers Hosted in the Cloud

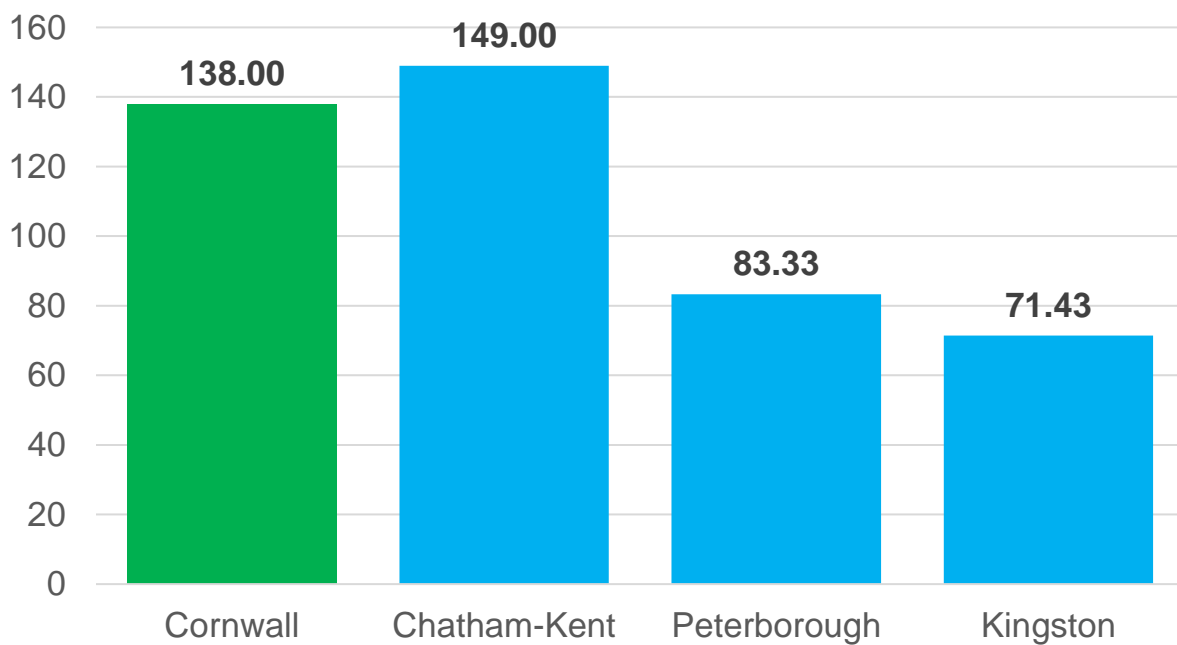**Figure 5.3.4b.** Percentage of Business Applications Hosted in the Cloud

Figure 5.3.4c. Number of Servers (Physical + Virtual) per System Administrator

Despite having no servers and 15% of its business applications hosted in the cloud, the City has identified moving towards the cloud as a priority for the City moving forward. Although Chatham-Kent and Peterborough have not made significant strides towards moving towards the cloud, all municipal comparators identified moving to the cloud as a priority.

Kingston was identified as being more mature in terms of infrastructure than the other comparators. Kingston currently has 98% of servers on the cloud and has recently developed their cloud strategy with the intent of increasing the number of business applications on the cloud to reduce the administrative burden on their IT department.

5.3.5 Online Service Available

The following table shows the online services available both from the City and their municipal peers. It can be seen that the City is comparable to Chatham-Kent and Peterborough, but less mature than Kingston in terms of number of services available online.

However, the City, much like its comparators, recognizes that there is a need to increase the number of services available online and has identified this as an important initiative for the City. Several departments are implementing online services over the next year that are currently not available (marked as "No"), making use of existing enterprise applications such as CityView.

Online Service	Cornwall	Chatham-Kent	Peterborough	Kingston
Basic Property & Assessment Information	Yes	Yes	Yes	Yes
Garbage or Snow Removal	Yes	Yes	No	Yes
Sign Up Recreation Programs	Yes	Yes	Yes	Yes
Payment for Recreation Programs	Yes	Yes	Yes	Yes
Application for Licenses	No*	No	Some	Yes
Payment for Licenses	No*	No	Some	Yes
Application for Permits	No*	No	No	Yes
Payment for Permits	No*	No	No	Yes
Report a Problem	Yes	Yes	Yes	Yes

* The City has identified these as priority services to offer online and several departments are in the process of developing the capability to offer these services, which should be available in 2021.

6.0 Gap Analysis

6.1 Gap Analysis Purpose & Approach

Following the current state workshops and the development of the SWOT analysis and desired future state assessments, RSM conducted a gap analysis across the City's ITT environment. This analysis was completed to identify critical gaps between the City's current and desired future state, as well as immediate opportunities for improvement. The gap analysis was conducted across People, Process, and Technology based on information from the departmental and ITT workshops.

6.2 Gaps & Immediate Opportunities

The gap analysis was conducted to understand the gaps and immediate opportunities that exist within the City across People, Process, and Technology, that will be necessary to address in order to achieve the City's desired digital future state. As a result, the following gaps and immediate opportunities were documented and formed the basis for our recommendations in the following section. The following table shows which elements were considered as part of the gap analysis.

People	Process	Technology
- ITT Resource Capacity - ITT Structure - Staff Roles & Responsibilities	- Policies & Procedures - Service Standards - Project Management - Enterprise-Planning - ITT Communication - Service Desk - ITT Security	- Enterprise Applications - Application Criticality - Citizen-Facing Digital-Services - Technology Provisioning

6.2.1 People

Critical to any planning initiative is the assessment of the people impacts and needs. Ultimately, for a planning initiative, and the subsequent changes, to be successful, the necessary change components need to be in place. The readiness of people within an organization for change is a critical component in driving sustainable change and adoption and achieving the targeted benefits of strategic planning.

As ITT strives to become a business partner to City departments, there are critical gaps and immediate opportunities that need to be addressed to ensure the right people are fulfilling the necessary roles and responsibilities to shift the role of ITT from an Operator and Guard to an Analyst and Innovator / Transformer.

The people-related gaps and immediate opportunities, highlighted in the following table and detailed in the subsequent sections, were identified as part of the gap analysis.

People-Related Gaps
• ITT is understaffed leading to capacity constraints • Structure of ITT does not provide the necessary support and strategic outlook • Job descriptions do not accurately reflect current or future roles and responsibilities

ITT Resource Capacity

The most significant people-related gap in ITT is the capacity constraints that the department currently faces. With the current level of demand from the departments and the existing staff, ITT does not have the necessary capacity to provide services and support to the organization above and beyond issue resolution and request fulfillment.

Furthermore, even if unfilled positions in ITT were staffed – namely, the ITT Supervisor and ITT SharePoint / Application Specialist – the department would still face capacity restrictions with the increasing demands from departments and incoming capital projects.

This is both a gap in current staffing capacity as well as a gap in ITT resource planning, which can lead to further capacity issues in the future as technology becomes even more critical to the operation of the organization.

ITT Structure

With the supervisory position currently being vacant, there is a lack of managerial or supervisory leadership, as well as the low number of operational support resources creates a major gap in the structure of ITT. The lack of resources creates gaps in not only their strategic planning and business analysis functions, but their day-to-day operational functions. Both of these functions are important in enabling ITT to move towards the Analyst and Innovator / Transformer role, becoming a business partner focused on serving the City as a whole.

This gap creates an opportunity for the ITT team to be reorganized to provide a higher standard of service to the organization, as well as foster a tighter, more synergistic relationship between the departments and ITT.

Staff Roles & Responsibilities

ITT desires to become more of a business partner, contribute to the strategic direction of the organization, and ensure best practices, policies, and procedures are adhered to. In order to do this, they must address the gap in their current job descriptions. Job descriptions do not accurately represent the current roles and responsibilities and have not been updated to support the future state goals of ITT and the departments; this creates two gaps. Firstly, ITT staff do not have a clear understanding of their day-to-day operational and strategic responsibilities as they relate to ITT's objectives and mandates. Secondly, this makes it difficult for departments to understand what to expect from ITT in terms of service and support delivery.

This creates an opportunity to update job descriptions to ensure expectations for ITT staff responsibilities are well communicated and documented for future ITT resource planning.

6.2.2 Process

When looking at processes, it is imperative to ask the question, "are the proper processes in place and properly documented to support or achieve the strategic goals of the organization?". The City's goal in this case is to strategically position the ITT department to support the organization over the next five years through the ITTMP. In order to support this goal, the necessary foundational practices, processes, and procedures need to be in place in order to support the continual improvement of ITT services.

The maturity of critical process elements was evaluated throughout the current state workshops. The process-related gaps and immediate opportunities, highlighted in the following table and detailed in the subsequent sections, were identified as part of the gap analysis.

Process-Related Gaps
• ITT does not have the necessary policies, procedures, and / or service standards to efficiently ensure best practices are followed.
• Projects are initiated without ITT involvement leading to downstream issues. Additionally, this prevents holistic enterprise-planning from being performed.
• The organization does not have a formalized communication protocol to set best practices for communications between ITT and departments. This reduces the overall efficiency of corporate communications.
• Data quality and capacity prevent ITT from analyzing service desk data and resolving recurring issues through a formal process.
• Although made in the best interest of the organization, some security decisions that remedy immediate concerns and issues may not factor in holistic impacts to users long-term.

Policies, Procedures, & Service Standards

The lack of transparent and / or updated policies and procedures creates a gap in ITT's ability to resolve issues and enforce ITT standards and best practices. Without policies to back up their actions and reasoning, ITT is unable to act as a business partner. City Administration has recently implemented a policy review-and-approval process for all City departments. Once established, these policies and procedures will provide consistency in practices and a guide for meeting organizational and service delivery objectives.

Similar to the gap in policies and procedures, without SLA and service standards, ITT lacks the ability to justify and back up their resolution times and level of support. Additionally, the lack of a formal escalation process, aligned to policies, service standards, and SLA creates a process gap in how departmental staff should voice their concerns.

Without formally documented policies, procedures, SLA, service standards, and the accompanying processes, ITT will be unable to develop holistic ITT governance and therefore will be hindered in their ability to operate as an Analyst and Innovator / Transformer.

Project Management

The lack of policies and procedures around ITT planning creates a gap in ITT's involvement in technology-related projects, such as procurement and implementation initiatives, which creates a disconnect between City departments and ITT. This leads to ITT being brought into projects late, or not involved at all, resulting in the execution of projects that may not meet the needs of the organization. However, despite the level of involvement of ITT, the consequences fall to ITT, as it creates technical and operational issues that affect the efficiency of departmental, or in some cases, organizational operations.

This further prevents ITT from moving from operationally focused to strategically focused.

Enterprise-Planning

ITT's lack of involvement in technology-related projects creates a systemic gap in considerations around data management, integrations between applications, and how enterprise applications can be used across the organization. This gap creates an opportunity to employ a 'start where you are' approach in enterprise-planning to have a more holistic view of enterprise applications and their applicability to multiple departments, which will enable ITT to determine which existing enterprise applications have capabilities which could be leveraged better by the organization to achieve departmental needs, rather than procuring new software. Both Telestaff and CityView are examples of these types of software.

ITT Communication

There is a gap in communication between City departments and ITT. This prevents departments and ITT from working synergistically to develop and implement solutions that benefit the organization. The gap in clear communication channels and processes would need to be addressed in order for ITT to effectively assume the role of a business partner, as effective and efficient communication is an essential component of this role.

As mentioned, the current day-to-day operations of the City's ITT department is dominated by providing support to the organization. Additionally, the pandemic has led to an ever-increasing number of ITT issues and request tickets that are submitted through the service desk. The increasing number of tickets are cumbersome and taxing on the already understaffed ITT team, leading to conversations concerning recurring issues and preventing them from focusing on activities aside from issue resolution. This has increased focus on issue resolution and improved the response times for low-complexity, Tier 1 requests

from departments. However, it has also reduced the priority on higher-complexity, lower priority requests, resulting in inefficiencies across departments, for example in the cases where requests are being made for productivity improvement projects.

Service Desk

Notwithstanding the capacity issues, there is a gap in functionality from the service desk. The limited analysis of service desk ticket data is preventing ITT from resolving common and/or recurring issues. This issue is further hampered by the lack of detail and additional information which can be assigned to an ITT ticket, creating unstructured and non-useful data.

As a result, although the departments see ITT as successful in the Operator role, there is an opportunity to improve how ITT tickets are responded to and improve the level of customer service.

ITT Security

Much like the gap in policies, procedures, and service levels, a gap in security governance and holistic security decision-making is preventing ITT from being seen as a business partner and is instead positioning them as gatekeepers. This may be leading to restrictive security decisions, despite their necessity and potential benefits to the organization. As ITT strives to provide better service to the organization, they cannot lose sight of the Guard role. In fact, once ITT develops the necessary security governance, there is an opportunity to improve the Guard role through innovation and transformation to better serve the whole organization.

6.2.3 Technology

The final component of the gap analysis was the technology assessment. This portion of the gap analysis focused on the technology that the City has and the readiness of the organization to procure and implement new technology, as part of the ITTMP. As such, RSM analyzed how the current technical landscape of the City can enable reaching the desired future state.

The technology-related gaps and immediate opportunities, highlighted in the following table and detailed in the subsequent sections, were identified as part of the gap analysis.

Technology-Related Gaps
- There are both functionality gaps and overlaps within the City's suite of enterprise applications.   - ITT does not have a complete formal documented understanding of the criticality and availability needs of the current suite of enterprise applications.   - The City lacks digital citizen-facing services that are increasingly expected from the public.   - There is a gap in strategic planning around how the City provisions technology now and into the future.

Enterprise Applications

Limited ITT governance has led to applications and software being procured not only outside of the purview of ITT, but independently of other departments as well. This has not only created functionality gaps throughout the organization, but has also created overlaps in certain application functionalities. Although it is common to see municipal departments operate in siloes based on urgent,

emerging and/or recurring issues and needs, this has created both disparate and overlapping systems, diminishing the value of the City's technology investments.

Application Criticality

With ITT not being involved in the initial stages of software procurement and onboarding within departments, a significant gap has developed in their understanding of the importance and criticality of each enterprise application and asset. Although the ITT team has an informal understanding, there is not a documented holistic, organization-wide list of technologies and applications that are used by the departments. This gap, if left unaddressed, would prevent the City in developing SLA, and in turn, a robust ITT governance approach.

Citizen-Facing Digital-Services

There is a clear gap in citizen-facing digital-services provided by the City, including online forms, online proposal acceptance, online payments, and a consolidated citizen portal. The root of this gap stems from a multitude of aforementioned gaps. Specifically, gaps in ITT capacity, preventing ITT from acting as an Innovator / Transformer, and gaps in ITT governance and enterprise-planning, leading to a limited understanding of the organization-wide suite of applications and their potential digital-service capabilities. As these other gaps are addressed, and ITT moves towards an Analyst and Innovator / Transformer role, there is an opportunity to address the gap in citizen-facing digital-services in partnership with departments.

Technology Provisioning

The transition to more remote based work during the COVID-19 pandemic, paired with the City's desire to become more digitally-enabled, highlighted a gap in the strategy taken by the organization to provision technology. The City's current ITT workstations are nearing end of life, yet the City has a gap in its

strategic planning to guide whether the organization should continue to provide physical devices or move to implementing virtual or digital infrastructure, such as remote desktop/VPN or VDI. Without policies and procedures related to the technology provisioning and use, as well as an overarching strategy that considers how technology should be provisioned to end-users, the costs, and benefits, the City will not be able to confidently move towards a digital future.

7.0 Recommendations

7.1 Recommendation Development Approach

Following gap analysis, RSM analyzed the information gathered as part of the current state and desired future state assessment to develop a set of recommendations that would address the identified gaps and immediate opportunities. Recommendations were then grouped into People, Process, and Technology focused recommendations.

7.2 Detailed Recommendations

7.2.1 People

The recommendations presented under People have been developed by RSM to enable the City to address the gaps and immediate opportunities in ITT's structure, resource capacity, and staff roles and responsibilities, including the role of ITT as a whole, identified through the gap analysis. The people-based recommendations will facilitate and complement the process-based recommendations in the following section.

Moving forward, in order to consider further resources as it pertains to staffing, section 10.2.4 Detailed Organizational Recommendations & Guidance provides more detailed organizational recommendations. As such, section 10.2.4 should be read in conjunction with this section.

7.2.1.1 Consider Staffing & Structure Changes

In order to provide the necessary key supports for the ITT department to respond to the future state needs of the organization, RSM recommends that the staffing and structure of the ITT department be adjusted. These changes should address the capacity issues within the department, as well as gaps in both the strategic planning and business analysis functions that exist due to the structural gap between the ITT Supervisor function and the General Manager of Financial

Services function. As a result, the following staffing and structure changes are proposed:

i. **Consider Creating and Hiring for an ITT Manager Position**

There exists a limited strategic direction and governance within the ITT department, due to finite long-term planning and policies, respectively. Further to this issue is the gap between the ITT Supervisor position and the General Manager of Financial Services in terms of a decision-making role. The absence of a specific "manager" role is inhibiting ITT from executing on specific strategic initiatives, such as the development and approval of policies. RSM therefore identified the need for an ITT Manager position. This role would hold a higher level of authority than the ITT Supervisor position, focused on facilitating better ITT Governance and would be responsible for the long-term strategic planning of the ITT department, including how ITT is being used organization-wide. As such, they would play a key role in both the large and small ITT software and project intake process, sitting on the ITT Steering Committee. This role would coordinate with the ITT Supervisor position to ensure the day-to-day operations and strategic initiatives of the ITT department are in alignment with and support the long-term strategic planning.

ii. **Fill the Vacant ITT Supervisor Position**

Additionally, due to the recent retirement of the ITT Supervisor, RSM recognizes that there is a need for additional supervisory capacity to be introduced. Based on conversations with both the ITT team and departments, there is an overall desire for ITT to better understand the needs of the organization and provide support to departments to execute on their ITT-related initiatives. Specifically, this includes project management, such as participating in the due diligence and requirements

gathering processes, implementation advisory, and the ongoing sustainability of solutions, as well as strategic direction, namely, working with the departments to understand their needs and help to identify market solutions and innovations that could be applicable. Therefore, RSM recommends the ITT Supervisor role be staffed with the necessary experience and expertise to advise on operations, security, and infrastructure. The Supervisor would be responsible for providing strategic, innovative, and forward-thinking recommendations to the ITT department and be accountable for the operational activities of the ITT division, as well as the relationship between ITT and the departments. As such, this role would collaborate with decision-makers and lend their expertise to ITT strategic planning under the guidance of the aforementioned manager position.

iii. **Reevaluate the Need for an ITT SharePoint/Application Specialist**

This position, formerly the Application Support Specialist, was recently vacated due to a retirement. Instead of filling this role, RSM recommends that consideration should instead be made to prioritize hiring a third ITT Operations Support Specialist to address immediate capacity concerns in the department.

Currently, this position is responsible for training on certain enterprise applications, namely Telestaff, for the support, upgrading, and troubleshooting. ITT capacity can be freed up if roles and responsibilities are clearly defined.

This role was recently changed to SharePoint/Application Specialist based on the departmental need for a role who is specialized in SharePoint and O365 to continue the rollout of office productivity tools – specifically SharePoint and MS Teams. Should the City want to fill this role in the

future, consideration can be made as to whether this is a role that could be hired for or temporarily outsourced, with the ability to provide knowledge transfer to the ITT team.

iv. Consider Hiring an Additional ITT Operations Support Specialist

This role is an additional resource to support the two existing ITT Operations Support Specialist roles. Per conversations with the City, there is a need to provide additional capacity in the ITT department to enable more strategic operations, therefore, RSM recommends externally hiring a third ITT Operation Support Specialist to address the immediate capacity needs in the department.

It should be noted that the proposed structure changes, namely the addition of an ITT Manager and the filling of the ITT Supervisor position, may not resolve all capacity and strategic gaps; additional managerial, supervisorial, and/or support staff may be needed as the City grows and requirements evolve. When looking at municipal comparators, it was found that their IT structures were not flat, but rather included several manager or supervisor positions that were responsible for specific IT functions and a dedicated support team. This should be considered as the City continues to review its staffing requirements in the future.

7.2.1.2 Update ITT Job Descriptions

The structural changes proposed in the previous section go hand-in-hand with updating ITT staff job descriptions. This includes defining, and in some cases redefining, ITT roles and responsibilities to ensure expectations can be set both within the ITT department and throughout the organization. This recommendation will enable the City to set expectations for any new or changed positions, as well as existing positions whose roles and responsibilities have changed.

ITT should work together with the HR department to update these job descriptions and ensure that the new roles and responsibilities are properly adhered to and updated on a regular basis as the demands from ITT change.

The following considerations for job description, role, and responsibility changes are based on additional or updated roles detailed in the previous section.

i. **ITT Manager**

The responsibilities of the ITT Manager should reflect the needs of the ITT department to have a manager that can provide authority to execute on strategic and governance related initiatives. Their responsibilities should include, but should not be limited to, the following:

- o Developing and facilitating ITT governance, including policies, procedures, service standards, and SLA.
- o Sitting on the ITT Steering Committee. More information can be found in sections 7.2.2.2 Improve ITT Governance Processes and 10.2.2 Business Solutions Assessment Model & Methodology.
- o Developing and supporting the execution of long-term ITT strategic planning, including how technology is being used organization-wide.
- o Coordinate and plan with the ITT Supervisor to ensure the day-to-day operations and strategic initiatives of the ITT department align with and support the long-term strategic planning.

ii. **ITT Supervisor**

The roles and responsibilities of the ITT Supervisor should be updated from the current job description to be focused on operations and security within ITT, in addition to supporting the strategic initiatives of ITT alongside the ITT Manager. This may require some realignment of duties between the ITT Supervisor, the Operations Coordinator, and the

Programmer/Analyst to ensure responsibilities support these functions, rather than overlap.

- o Executing, monitoring, and reporting on the strategic direction of the ITT department in coordination with the ITT Manager.

- o Sitting on the ITT Steering Committee and ensuring ITT governance is adhered to.

- o Reporting any issues or necessary changes to the ITT Manager, including facilitating and monitoring the yearly intake process for project planning, as well as the in-year small project intake process, as part of the Business Solutions Assessment Model & Methodology. More information can be found in sections 7.2.2.2 Improve ITT Governance Processes and 10.2.2 Business Solutions Assessment Model & Methodology.

- o Executing and monitoring ITT project management in coordination with the ITT Manager.

- o Developing an inventory of ITT solutions and holistically considering their applicability to the corporation as a whole.

- o Developing an application criticality ranking solutions for ITT inventory that will drive the creation of service levels based on the organizational and departmental criticality of applications.

- o Analysis of service desk information and data to create solutions to common issues and improve service delivery to the organization.

- o ITT Project Management, including due diligence in coordination with ITT Manager

- o Monitoring and lending a hand to the operational side of ITT (service desk) to ensure service meets service standards.

- Understanding service satisfaction and opportunities for improvement through data analysis and interaction/engagement with departments.

- Identification of customization and improvement of security applications and technology to provide better security to the organization.

iii. Existing Positions

RSM discovered that there are some current positions within ITT whose roles and responsibilities do not align with their job descriptions, either because of a change in operations in ITT or due to shifting priorities over time. Therefore, the following positions should be analyzed by ITT to update job descriptions to reflect current and desired roles and responsibilities.

- o **ITT Operations Coordinator:** This role is currently providing Operations Support Specialist focused services due to the lack of capacity. Their job description should be reviewed and updated to ensure the documented responsibilities are in line with the purpose of this position, and that they support the responsibilities of the ITT Supervisor.

- o **Programmer / Analyst:** This role is currently acting as a security coordinator, although their job description has not been updated since being hired to reflect this. In addition, their roles and responsibilities should support the responsibilities of the ITT Supervisor.

- o **ITT Operations Support Specialist:** There will be additional responsibilities and needs from these resources moving forward and this should be reflected in updated job descriptions.

- o **ITT SharePoint/Application Specialist:** This role was updated from the recently vacated Application Support Specialist position. Although the City is not actively recruiting for this position, the job description should be reviewed prior to filling the position.

7.2.1.3 Unlock Additional Capacity

Capacity issues in ITT stemming from recurring issues continue to increase. Therefore, ITT should continue to identify opportunities to unlock capacity wherever possible to address the existing capacity issues and enable ITT resources to work on higher value activities. RSM recommends that the City consider the following initiatives:

i. **Consider Implementing a Move-to-Cloud Mandate:** Moving more applications into the cloud reduces the amount of physical infrastructure needed on-premise, as well as reduces the security, administration, and support burden that comes with on-premise applications. Additionally, trends show that most municipalities will be primarily cloud based in the next five years. Therefore, RSM recommends that the City consider prioritizing the procurement of cloud solutions. This mandate could be embedded into ITT governance processes for both small and large project planning and prioritization to ensure projects are prioritized to provide both significant value to the organization, as well as reduce the dependency on ITT support. However, RSM also appreciated that the City has made significant investment into on-premise hardware and recommend that the City assess the return on investment of these investments when considering moving to the cloud; this would most likely entail the City methodically transitioning while ensuring the value of investments already made into physical infrastructure are maximized. This consideration is incorporated into 7.2.2.2 Improve ITT Governance Processes and 10.2.2 Business Solutions Assessment Model & Methodology.

ii. **Consider Outsourcing Certain ITT Functions:** Although ITT has expressed that they are on board with outsourcing, completely outsourcing roles and responsibilities is not desirable from an internal ITT skills and knowledge development standpoint. RSM therefore recommends the City

consider temporarily outsourcing certain aspects of ITT such as SharePoint Electronic Document and Records Management System (EDRMS) customization, with a focus put on prioritizing knowledge transfer from the consultant or contractor to the ITT team. This can enable the City to unlock capacity while maintaining, or even improving, the level of service provided through the outsourced service, while also increasing the baseline level of knowledge within ITT.

7.2.1.4 Execute Comprehensive ITT Resource Planning

Acknowledging both the current capacity issues and the future dependency the organization will have on the ITT department, RSM recommends the City undertake ITT resource planning. This ITT resource planning should consider the increasing demand from the organization for ITT support, as technology becomes more intrinsically integrated into day-to-day operations, as well as for the rollout of large technology driven capital projects. Additionally, this plan should account for the changing capability needs of the ITT department from the organization in order to stay on top of current best practices and innovations – in other words, the evolving needs of the organization will become ITT's services. The following describes the recommended ITT resource planning in more detail.

i. **Ongoing Departmental Needs and Increase in Technology Use:**
    Throughout this project, RSM gathered ITT-related needs from the business units which will enable them to achieve their desired future state over the next five years. These needs, along with the demand for technical support and services related to increased technology use will put additional pressure on the ITT team. The ITT team should therefore evaluate the capacity requirements to successfully carry out these initiatives over the next five years, in alignment with ITT governance.

ii. **Planning for ITT Capital Projects:** Similar to the ongoing capacity needs from departments, there are ITT-related capital projects that are planned for the next five years, spanning various departments within the organization. While the departments have identified most of these projects as requiring ITT capacity to successfully execute, there is an overall uncertainty from departments when asked to state the amount of ITT capacity that will be required.

There are several reasons why the departments are hesitant to declare their ITT needs for the next five years, namely: projects moving forward are dependent on decisions external to the department, such as approval from Council or decisions from the Ministries. The department is waiting on receiving grant funding for the project which will determine whether the project proceeds. Alternatively, the department is considering outsourcing options for future projects and is uncertain how that would impact the demand on ITT. Therefore, ITT planning should take this uncertainty into account when budgeting for resources over the next five years to ensure that ITT has enough flexibility to handle fluctuations in demand.

Regardless, ITT should be involved in the planning process for technology-related projects as early as possible. Therefore, ITT should also be involved in the budgeting process to be aware of technology-related projects from inception and enable proper resource management, including understanding resource requirements.

iii. **ITT Reserves:** The City does not currently have ITT reserves, although they have identified the need for them. Their municipal peers have seen success using ITT reserves and there is a clear trend among municipalities to establish ITT reserves, including developing governance around allocating capital to these reserves. Given the structure of ITT as part of Financial Services, there is an opportunity to budget reserves to provide a

funding method for capital intensive projects, such as major system upgrades. Similar to the City's municipal building reserve which charges departments based on the square footage they occupy, the process for budgeting ITT reserves could be funded by departments through a levy based on technology use. This fund could then be drawn upon by departments when needed and subsequently paid back through their budgeting process over the service life of the technology. Therefore, the City should identify an initial investment into this fund, develop the appropriate funding mechanisms, and then determine the necessary increases to the fund year-over-year. More information around ITT reserves can be found in 8.3 Funding Model Review.

iv.   **ITT Training & Knowledge Transfer:** In order to properly plan for the necessary resources to achieve the initiatives and projects set out in the ITTMP, the City needs to consider how ITT staff are being upskilled to remain knowledgeable and able to continuously support new project requests. Per ITT department staff, this should be done primarily through training, whether self-directed, through knowledge transfer, or through courses. In order to facilitate this, resource planning needs to be done to ensure the following:

   o   There is sufficient knowledge transfer within the department that if an ITT staff member left the organization temporarily or permanently, that there would be a baseline of knowledge in the department to continue operations until that staff member returned, or a replacement was found.

   o   There is sufficient capacity to backfill ITT staff who are undergoing training. Currently, capacity issues are limiting training opportunities. The ITT department should have the necessary support to enable their staff to participate in training on an ongoing basis.

7.2.1.5 Provide Maintenance and/or Emerging Training to Increase Capacity & Capability on Enterprise Systems

Training is an organization-wide initiative that needs to be facilitated by all relevant and applicable stakeholders. While the onus does not need to be on a department to provide training, the relevant skills, opportunities, and materials should be made available.

From an ITT perspective, as updates or new systems are rolled out, it is important to provide the necessary training to departmental staff. This can be done through Frequently Asked Questions (FAQs), knowledge bases, user guides, videos, suggested training courses, and online articles, hosted through well communicated channels. These channels could include The Insider or could also be part of an Enterprise Service Management system. Regardless of the channel, there should be multiple training options provided to staff to be cognizant of the different levels of technical literacy and learning preferences of staff.

RSM also recommends that the City designate a go-to technical resource within each department who would be responsible for identifying training needs, coordinating and communicating these needs with ITT, and ensuring materials are provided to their respective departments. While it is understood that some departments may not have the necessary resources with a sufficient level of technical literacy to become this resource, the City should prioritize appointing these technical resources in each department as the organization evolves with changing technology landscapes and requirements.

7.2.2 Process

The recommendations presented under Process have been developed by RSM to enable the City to address the gaps and immediate opportunities in policies and procedures, service standards, project management, enterprise-planning, communication, service and support, and security, identified through the gap analysis. The process-based recommendations will be facilitated and complemented by the people-based recommendations in the previous section, as improving ITT processes will require the proper leadership, capacity, and capabilities.

7.2.2.1 Develop, Update, & Document Policies & Procedures

As stated in the gap analysis, there is a need to update or document policies and procedures within ITT. The absence of completely updated or documented policies and procedures impacts ITT's ability to enforce best practices and control the way ITT assets are utilized and maintained throughout the organization. It also necessitates recurring conversations which detract ITT's attention and capacity from higher value activities. Therefore, RSM recommends that the ITT department, in conjunction with any necessary and relevant departments (i.e. HR), update and/or develop and document the policies and procedures that will enable the proper enforcement of ITT standards and best practices. These policies should include, but are not limited to, those presented in the following table and detailed thereafter. It should be noted that under the "Current Status / Format" column, a designation of "Current Practice" signifies areas where either a formal policy has not yet been established or where RSM was not provided with a documented policy.

Policy	Current Status / Format	Recommended Action
ITT Request Policy	Current Practice	Develop
ITT Long-Term Project Planning & Prioritization Policy	Current Practice	Develop
In-Year Small Project & Enhancement Intake Policy	Current Practice	Develop
Bring Your Own Device Policy	N/A	Develop
Acceptable Use Policy	Approved Policy	Update
Information Security Policy	Current Practice	Update
Privacy Policy	Current Practice	Update

The development and implementation of policies will only be successful if there is widespread adoption. Therefore, it is important that policies are managed from the top-down by empowering departmental managers to ensure policies are followed and raise any concerns with ITT on behalf of their staff. More information on the escalation process for existing and net new policies is provided in 7.2.2.3 Develop & Enforce Service Standards & Service Level Agreements.

The City should therefore develop the following Policies and accompanying Procedures.

i. ITT Request Policy

Through RSM's departmental and ITT workshops, it was determined that there is no standardized process directing how to input ITT tickets. This includes when tickets should be submitted, what types of requests should be sent to ITT, and what operational processes should be followed to

ensure the ticket is properly submitted. When departments are submitting tickets to ITT, the first considerations that should be made are "when is it appropriate to submit a ticket?" and "what types of issues or requests should be submitted?". The ITT Request Policy should therefore address the following:

- **Recurring & Common Issues:** Tickets stemming from common issues or troubleshooting requests take up time and resource effort to resolve. As the ITT department develops FAQs and knowledge bases (more information in 7.2.2.5 Improve Organizational Communication), the ITT Request Policy should dictate the process an individual should take to resolve an issue. This could include directing them to a FAQ page or common issues page to attempt to resolve an issue prior to submitting an ITT ticket. This can relieve some of the capacity for common issues that can be self-addressed by departmental staff.

- **Communication:** The ITT Request Policy should also detail how different solution types will be communicated back to the individual user or to the entire organization, depending on the issue. Changing the current culture around contacting the service desk will need to be communicated and enforced through this policy to ensure that this change management effort is sustainable.

ii. **ITT Long-Term Project Planning & Prioritization Policy**

The City does not have a robust governance process around long-term planning for ITT projects and solutions across the organization. This has led to solutions being procured by departments in siloes, inefficient and ineffective implementation of software, and difficulties with software support. In early 2021, departments were asked to provide a list of all of their anticipated ITT-related projects over the next five years, however, this

was not a formal process and does not have standards around level of detail or types of projects. Therefore, RSM proposes that the City develop a policy that details the processes and procedures concerning how organizational ITT projects are planned and prioritized for the upcoming 3 – 5 years. This includes the following.

1. When and how planned departmental projects should be communicated to ITT;
2. How projects should be categorized;
3. What the process is for prioritization and planning; and
4. How projects that do not fit within the current budget and capacity will be addressed.

The development of this policy will provide ITT with the ability to carry out more holistic planning, due diligence, and requirements gathering to ensure projects consider how they may be applicable to multiple departmental needs. This will also enable ITT to communicate back to the departments not only how the software will benefit them internally but understanding the intangibles that will make the software successful.

This policy should include a clear prioritization for cloud-based solutions which would not only enable the City to save money from a physical infrastructure point of view, but also would reduce the necessary capacity needed to support the hosting and functionality of these applications from an ITT staff perspective.

iii. **In-Year Small Project & Enhancement Intake Policy**

For unplanned or in-year small projects and enhancements that are not captured in the ITT Long-Term Project Planning & Prioritization Policy, this will be a key policy and accompanying procedures.

   o Similar to the ITT Long-Term Project Planning & Prioritization Policy, this will empower the organization to carry out more holistic due

diligence and requirements gathering processes to ensure procured/implemented solutions can benefit other departments without replicating existing solutions or neglecting similar departmental needs.

o This policy should also include a level of autonomy for the departments to carry out an assessment around the level of capacity they require from ITT to conduct due diligence/requirements gathering. This could be done through a questionnaire that would determine the level of involvement ITT would need in the project.

iv. **Bring Your Own Device Policy**

In accordance with 7.2.2.6 Improve Security Measures and in alignment with improving certain security elements throughout the organization, ITT should consider developing a Bring Your Own Device (BYOD) policy. This policy should enable staff members to use their own personal devices, namely mobile phones, as a work device. This policy should be predicated on ITT reviewing the security software currently in place and considering any licensing, phone contract, and other procedural benefits, costs, impacts, and risks. A resulting BYOD policy would be integrated into ITT and Security Governance and should align with the security technology in place.

Moving to a BYOD model is in line with current trends in the municipal sector, however, there are considerations that need to be made to ensure the BYOD policy is properly set up and that there is a clear understanding among users as to how the BYOD policy affects their ownership of their device and the data therein.

Therefore, while developing the BYOD policy, ITT should consider security controls necessary for making the BYOD a secure platform. These controls

include but are not limited to password requirements, integration with security monitoring and detection capabilities, troubleshooting, device Operating System updates, incident response procedures, lost or stolen device procedures, and which applications are blocked.

7.2.2.2 Improve ITT Governance Processes

The development of ITT Long-Term Project Planning & Prioritization Policy and In-Year Small Project & Enhancement Intake Policy will provide ITT with the necessary policies to manage ITT projects through the organization. However, the City does not currently have an overarching methodology to carry out ITT governance. Therefore, the City should establish a Business Solutions Assessment Model & Methodology (BSAMM) to encompass the critical governance processes around ITT planning, budgeting, procurement, and project management. 10.2.2 Business Solutions Assessment Model & Methodology provides additional detail around the BSAMM.

The benefits of an overarching governance process include, but are not limited to:

- Eliminating the procurement of ITT solutions in a silo
- Comprehensive requirements gathering and due diligence
- Incorporation of enterprise architecture considerations
- Procurement of applications with an organization-wide consideration
- Maximization of the value of technology spend

It is important to understand that in order to avoid duplication of effort, functionality, and cost, departments should not be allowed to procure ITT solutions outside the established BSAMM.

In order to facilitate this governance, project prioritization, planning, and management should be overseen by an ITT Steering Committee comprised of organizational leadership. RSM recommends that the ITT Steering Committee be

comprised of the CAO, the General Manager of Financial Services, the new ITT Manager and ITT Supervisor, and two other General Managers to be determined by the City through the development of the terms of reference.

The governance processes should be executed at different times of the year to ensure planning and priorities are clearly established and validated. This includes the yearly project intake process for planning and budgeting, as referenced in the ITT Long-Term Project Planning & Prioritization Policy, and ongoing project intake governance, as referenced in the In-Year Small Project & Enhancement Intake Policy.

It should be noted that the annual planning process for projects should be business case driven and explicitly plan for internal and external resource requirements, while prioritization for smaller projects and enhancements to corporate applications should be handled in-year, likely quarterly.

7.2.2.3 Develop & Enforce Service Standards & Service Level Agreements

In addition to the development of policies and procedures, the City should undertake the development of service standards and SLA in order to set expectations around the services and support provided by ITT and supported through their policies, as well as the processes for escalation of issues.

i. **Development**

To inform the development of the service standards and SLA, the City should create a Technology and Application Criticality Inventory. This should be a holistic, organization-wide list of technology and applications that are used by the organization, including the level of criticality for each piece of technology or software. As discovered through the gap analysis, this will enable ITT to understand the availability- and reliability-need levels of applications across the organization. These requirements can subsequently be incorporated into service standards and SLA. This list will

also enable ITT to develop a holistic understanding as to which departments could benefit from existing enterprise applications – a key component in addressing the gap in enterprise-planning. This can inform planning as part of the ITT Governance Processes.

ii. Escalation Process

As mentioned in the Gap Analysis, due to limited policies, procedures, and applicable escalation processes, department staff are directly engaging with ITT to resolve issues that arise. With the new and updated policies that have been recommended in 7.2.2.1 Develop, Update, & Document Policies & Procedures, the City should also develop an escalation process that is aligned to the service standards and SLA so that departmental staff know the process to address issues that arise.

The process for issue escalation could include the following:

- Problem identification

- Consultation of policies, knowledge bases, FAQs, and any other knowledge repositories

- If no resolution, initiation of contact by staff with their departmental manager and/or technical designate

- Consultation of policies with departmental leadership

- If no resolution, formal documentation of issue by departmental manager and submission to service desk

- Based on SLA, response is provided and resolution process continues between the department and ITT

iii. Enabling Continuous Improvement

Additionally, this recommendation will enable the continuous improvement of the service desk. By developing SLA in conjunction with better ticketing mechanisms, ITT will set expectations for resolution times based on different requests and needs and be better equipped to triage tickets and provide support within timeframes supported by service standards. More information can be found in 7.2.2.4 Continuously Improve the Service Desk Function.

7.2.2.4 Continuously Improve the Service Desk Function

Both the departments and ITT expressed their desire for ITT to fill the role as an Analyst and Innovator / Transformer. In order for ITT to take on this role, they must first improve their role as an Operator to foster a tighter relationship between ITT and the departments. These efforts should be led by the ITT Supervisor. By improving their role as an Operator, the ITT department can actively relieve some of the capacity constraints on their staff and address the opportunity to provide a higher level of customer service to the organization. This can primarily be achieved by continuously improving the service desk function through the following:

i. Set Clear Standards Around ITT Ticket Submission

In order to better track and monitor what types of requests are sent to ITT through the service desk, the City should create a standard around how tickets should be submitted. This should also provide the organization with the operational processes that should be followed to ensure the ticket is properly submitted. These standards should be set in alignment with the ITT Request Policy detailed in 7.2.2.1 Develop, Update, & Document Policies & Procedures.

ii. Consider Enterprise Service Desk

Given the confusion around who to contact for ITT-related issues – whether they are owned by ITT or not – a possible solution could be to implement an enterprise service desk or Enterprise Service Management (ESM) tool which could better manage inquiries, not just in ITT, but across the organization. This system could provide a first point of resolution or triage for staff and could auto-route to the relevant department.

iii. Track & Analyze Service Desk Data

The current service desk software, Spiceworks, has the functionality to track and export data related to tickets that are submitted. However, ITT has expressed that the data that is currently tracked may not be structured in a way that would provide helpful insights.

Therefore, RSM recommends that ITT should first identify which data is necessary to track for decision-making purposes and identify if the current Spiceworks system is capable of tracking the necessary data. This data should align with the ticket submission process developed as part of the ITT Request Policy

Next, the ITT team should analyze the incoming ticket data and determine common issues that can be solved organization-wide, either through a list of common solutions, a change on the network, or a mass communication.

It is acknowledged that currently there may not be capacity to analyze service desk data and implement these common issue resolutions right now, however, this service could be, in-part, outsourced to provide an initial list of common issues to then create a knowledge base of troubleshooting which can be communicated to the organization to relieve the number of tickets related to these issues. As the ITT department grows

in capacity, the analysis of service desk information and the resolution of common and recurring issues can then be managed internally.

iv. **Enable More Detailed ITT Ticket Categorization and Urgency Prioritization**

As part of the identification of relevant data for ticket submission, ITT should configure the service desk ticketing software to have all of the necessary and relevant fields to provide enough information around each ticket. This should align to the aforementioned ITT Request and should include, but is not limited to, the following:

- o <u>Request Type:</u> This should delineate whether the ticket concerns a technical issue, a question, or a request for ITT support on a project.

- o <u>Urgency:</u> Better levels of urgency should be available to departments (in addition to clear definitions around the levels of urgency) to better help ITT triage and prioritize work.

v. **Increase Transparency**

Through the service desk portal, ITT should provide transparency into the capacity of ITT to resolve issues. This should include resolution times based on SLA and service standards and provide a queue to give departments an idea of where their request is in relation to other departmental requests. This, along with ITT Governance, should provide enough information to set expectations among departments.

7.2.2.5 Improve Organizational Communication

As mentioned in the gap analysis, several factors have contributed to the aforementioned issues with current ITT communications. In order to address these gaps, and improve their effectiveness at sharing information across the organization, the City should consider the following:

i. **Electronic Document and Records Management**

Throughout RSM's workshops with departments and ITT, there was a clear lack of electronic document and records management (EDRM) policies and procedures, as well as the necessary software. This has been recognized by the City and has led to the EDRM System (EDRMS) project, facilitated by RSM, which is currently underway.

ii. **Communicate Through Departmental Manager & Technical Leads**

Building off of 7.2.1.5 Provide Maintenance and/or Emerging Training to Increase Capacity & Capability on Enterprise Systems, ITT should communicate changes, rollouts, policies, procedures, and all other relevant information not only through the departmental manager, but through an identified technical lead that will be able to internalize and operationalize the information that is presented. This should enable the department manager to disseminate and enforce any changes, process, and policies, while the technical lead can ensure department operations initiate the changes, policies, and procedures, and integrate them into their daily operations.

iii. **Standardize Communication Channels**

In order to facilitate improved communications across the organization, and a sustainable uptake of change, there should be a concerted effort to engage senior managers to understand which methods and presentation of communications are the most effective and develop the standards based on this. Following this, senior managers in each department should be tasked with ensuring the standard is communicated and understood among their staff.

This standard should consider how the following will be communicated out:

- o Policies, processes, standards, and service level information;

- o   Application updates & software rollouts;
- o   System outages and resolution times, as well as emergencies;
- o   New and/or emerging training resources; and
- o   Knowledge bases, troubleshooting resources, & FAQs.

With over 550 users, as well as employees without access to a City email, the lack of standardization around communication channels, who to contact depending on issue type, and where to find specific information is creating confusion and frustration from both ITT and departments. To remedy this, ITT should create a standard for where certain types of communications and information will be hosted and which resources should be contacted for specific technology-related issues.

There are certain technology assets that are not within the purview of ITT's support. However, due to their technical nature, issues regarding these assets are directed to ITT. Therefore, this standard should be developed in conjunction with the Technology and Application Criticality Inventory, recommended as part of 7.2.2.3 Develop & Enforce Service Standards & Service Level Agreements, to understand who is responsible for which pieces of technology to develop and communicate a directory of who to contact regarding issue resolution. As an example, the Council Chambers, and clock in the Civic Complex is not supported by ITT, however, due to its "technical nature", there are inherent expectations that ITT can provide support.

iv.   **Further Develop the Intranet**

The City currently hosts a SharePoint site called The Insider which is intended to be a central page for staff to find information, training and knowledge bases, submit ITT tickets, and communicate for internal processes, such as the yearly budgeting process. Although this page

exists, it is still not completely operational, and the purpose and expectations of use have not been communicated across the organization. Additionally, through the departmental workshops, it was found that not all departmental managers and staff were aware this page existed.

The Insider is a corporate platform, therefore, ITT in conjunction with other relevant departments, should continue to fully develop this page and issue communications to educate its purpose and promote and expand its use.

Further development of The Insider may require capacity that may not exist within ITT currently. There is an opportunity for the City to outsource SharePoint support to not only develop the City's SharePoint, but also provide knowledge transfer within the department.

7.2.2.6 Improve Security Measures

From an overall security perspective, RSM recommends that the City should undertake a separate security focused assessment, subsequent to the ITTMP.

As ITT strives to be more business-focused, taking on the role of Analyst and Innovator/Transformer, they cannot lose sight of the Guard role. In fact, this role should be improved through analysis, innovation, and transformation to better serve both the organization and ITT, as well as address certain capacity issues. Improving this will be a key role of the ITT Supervisor.

It should be noted that the following recommendations concerning ITT security are based upon specific findings as a result of the ITT and department workshops and are not a result of a security focused assessment. There may be additional security considerations, such as security testing, incident response capabilities, security monitoring and detection capabilities, and vulnerability management, that should be reviewed.

The following sub-recommendations are the result of RSM's consultations.

i. **Review the Current Mobile Device Management Application**

There is an opportunity for ITT to take a role as an analyst and innovator from a security perspective and implement security technologies that will automate and simplify security processes, in order to improve security posture, while also unlocking functionality.

Mobile Device Management (MDM) solutions are used to split the "business" and "personal" data sides – or "containers" – of mobile devices, enabling a single device to act as both a work and personal phone.

RSM therefore recommends that the City review their current MDM application to determine if the security it provides ITT and the functionality it provides the organization are in line with the City's policies and best practices, as well as future direction with respect to technology use. A Privacy Impact Assessment is one assessment that can be done as part of this review to assess whether the MDM enables personal data to remain personal, and vice-versa.

ii. **Implement Data Usage Limits & Acceptable Use Agreements**

ITT has had to implement data usage limits on these devices to prevent overages on data.

RSM therefore recommends that ITT review their smartphone provisioning process and consider implementing an acceptable use agreement. This should include a high degree of user education and communication to ensure this process is understood both at the time of device provisioning / onboarding and on an ongoing basis, including the consequences of not following the Acceptable Use Policy.

Additionally, ITT should ensure that the acceptable use agreement and expectations around device use and management are incorporated into the BYOD Policy. This may require additional capacity to achieve, but

would also resolve some capacity issues related to fielding complaints and other issues as a result of the current security measures.

iii. Security Governance

Moving forward, the ITT department should ensure that security decisions are made considering the holistic needs of the organization, in addition to industry-leading practices. This will require communication both from ITT to the departments around the proposed security decisions (as possible given the immediate nature of some security issues), as well as from the departments to ITT around how the proposed security decisions will impact operations.

Although security decisions should be made to create the least organizational impact, RSM acknowledges and recommends that ITT continue to make security decisions that are in the best interest of the organization and that are aligned with industry-leading practices.

Therefore, RSM recommends that a Security Governance Committee positioned within ITT and with defined roles, responsibilities, and decision-making authority, be developed to oversee decisions that impact the security posture of the organization. This committee should be put in place in order to successfully plan, implement, and roll out future security initiatives. Their core responsibilities would include, but would not be limited to, developing a roadmap of security initiatives, considering the holistic impacts of a security initiative, facilitating due diligence, and developing and approving communications around the impacts of the decision, including how to deal with those changes.

Additionally, this committee should be responsible for documenting and communicating current security controls, such as password policies,

mobile application download restrictions, and device update requirements, to name a few.

7.2.2.7 Improve After-Hours Support from ITT

There are several departments within the City that operate 24/7, namely the Glen-Stor-Dun Lodge, Paramedic Services, and Fire Services, who require support after-hours. ITT currently provides emergency 24/7 services for departments; however, this does not provide service for issues such as being locked out of an account or forgetting passwords. Acknowledging that it would not be possible to provide a dedicated ITT staff to these departments, the City should work with relevant departments to develop an understanding of their after-hours ITT needs and develop solutions. These solutions could look like, but are not limited to, the following:

- Consider expanding or staggering the hours of operation of service desk staff to provide additional support to departments who have 24/7 operations.
- Consider enabling departments to self-resolve issues that occur after-hours, including enabling department managers to reset forgotten passwords. These decisions should be made in the best interest of the City, considerate of security concerns and governance.
- Develop comprehensive and continuously updated knowledge bases and FAQs around common issues.
- Upskilling of departmental staff to reduce the need for after-hours support.

7.2.3 Technology

Finally, the recommendations presented under Technology have been developed to enable the City to address the gaps and immediate opportunities related to enterprise applications, including availability and criticality needs, progressing towards increased citizen-facing digital-services, and enhancing organizational digital capabilities. The technology-based recommendations will be facilitated and complemented by both the people-based and process-based recommendations in the previous sections.

7.2.3.1 Develop an End-User Computing Strategy

Based on RSM's analysis of current technology provisioning and the strategic gaps in how technology will be procured in the future, it is recommended that the City not proceed with the implementation of VDI at this time.

RSM recommends that the City, specifically ITT and other applicable departments such as Financial Services, develop an end-user computing strategy to guide the organization's plans for providing technology to employees now and into the future. The end-user computing strategy should leverage the proposed ITT governance policies and processes in order to form the foundation for how ITT will provision, monitor, and maintain technology across the City. It would also act as a preceding step to determine if and how VDI fits into the future state of the City. This strategy should consider, but should not be limited to, the following:

- Current and proposed investments in physical and/or virtual infrastructure
- How the City intends on provisioning technology and devices to staff
- Plans to increase remote desktop and/or VPN use
- The applicability of VDI to the City's current and planned future state, including costs and benefits, infrastructure requirements, staff needs
- Future plans for cloud versus on-premise technology and infrastructure

- Staff experiences with on-premise versus cloud infrastructure and applications
- How departments interact with ITT now and how they intend to interact with ITT in the future
- Types of access needed across the organization
- Consideration for BYOD policies and plans

7.2.3.2 Support Increasing Citizen-Facing Digital-Services & Online Citizen Interaction Capabilities

Expectations for digital interaction from citizens are increasing, especially with the COVID-19 pandemic. It is increasingly important that municipalities consider how to increase their citizen-facing digital-services and online citizen interaction capabilities. This trend is also being recognized by municipalities, including the City's comparators, as evidenced in the municipal scan.

The objective of moving towards more digital citizen-facing services is not to eliminate existing channels, but rather to drive the volume of interactions to more accessible, lower-cost online channels and to manage the digital divide among residents – where appropriate to do so. Digitizing services allows citizens with the desire to use that channel more effectively and efficiently, thereby reducing demand on more traditionally expensive channels such as phone and in-person, allowing those in need of those more traditional channels to access them more readily. ITT should therefore support the City in considering the following services, but should not be limited by this list:

- Online Applications for Permits and Licenses
    - Fillable PDFs
    - Digital External Stakeholder Signatures
- Online Payments & eCommerce Platforms
    - Payment for Applications and Licenses

   o Purchasing of City Services and Programs

   o Community Donations

- Online Proposal Acceptance

   o Further Expanding the Functionality of Bids and Tenders to Enable Proposal Submission Online

- Consolidated Citizen Portal (e.g. "MyCornwall")

   o Cornwall City Mobile App

   o Report a Problem

   o Single Sign-On for Citizens

   o "One-Stop-Shop" for all City Services

This work should be identified by both ITT and by departments and prioritized and managed through the BSAMM. This will be facilitated both by departmental needs and projects coming through the BSAMM's project intake process, as well as by ITT as they transition to becoming an Analyst and Innovator / Transformer and push the organization to be more digitally-enabled.

7.2.3.3 Continue to Improve Network Connectivity & Remote Access

Technology is prevalent in every department and this technology relies on consistent, reliable internet connectivity to function properly. Through our departmental workshops, several issues were brought up with respect to network connectivity and remote access including dead spots, slow Wi-Fi speeds, difficulty and connecting to the network from remote locations, to name a few. While the City has recently upgraded their network, RSM recommends ITT work with specific departments to identify their specific connectivity and remote access issues and determine the most effective solution.

7.2.3.4 Rollout Office 365 Suite of Products Across the Organization

The rollout of Office 365 (O365) products across the organization has been slowed down due to staffing levels and the COVID-19 pandemic. Most recently,

ITT has rolled out Microsoft Teams to all departments. Moving forward, there should be a focus on rolling out SharePoint to all departments to facilitate better file sharing, document management, and collaboration. The rollout of SharePoint will coincide with the aforementioned EDRMS project.

On a continuous basis, there should be considerations of how existing O365 applications can be further improved and integrated with Teams and SharePoint to enable more efficient, effective, and collaborative work.

Additionally, as expressed in 7.2.1.5 Provide Maintenance and/or Emerging Training to Increase Capacity & Capability on Enterprise Systems, as O365 is rolled out across the organization, the City should provide training resources, not only for SharePoint and Teams, but for new features in Outlook, Excel, Word, and PowerPoint. Specifically, since O365 is a critical enterprise application, ITT should undertake the change management effort by providing multiple channels for self-directed and/or guided learning and training. This could include videos, articles, "how to's", training manuals, and training seminars hosted by external sources. It may be most efficient for ITT to communicate with department managers, and their designated technical leads, to identify training opportunities.

7.2.3.5 Enhance & Establish New Departmental Capabilities

Throughout our workshops, departments expressed the need to improve or introduce new services to keep up with the pace of change and provide innovative services to citizens and their customers. RSM collected various ITT needs, some of which were new projects, which should be captured through the project intake process as part of the BSAMM. As governance improves and ITT moves towards the Analyst and Innovator / Transformer role, there should be considerations as to how ITT can play a more active role in suggesting and supporting innovative projects within departments.

7.2.3.6 Review High-Priority Applications

The existing applications in citizen-facing departments are essential to provide the services they offer. However, the departments expressed that certain applications need to be improved to provide additional functionality in order to better serve their customers. Additionally, some of the departments expressed that the current essential applications are not meeting their needs.

Therefore, RSM recommends, as part of the application inventory developed through 7.2.2.3 Develop & Enforce Service Standards & Service Level Agreements, that ITT develop a list of critical enterprise applications that should be reviewed. These reviews should be focused on determining if these applications are still fit for purpose in order to decide whether to continue using the software or procure a new solution, in addition to understanding which existing applications in one department could solve gaps and issues in other departments.

As a result of the departmental workshops, RSM identified a short list of applications that should be reviewed initially, however, this list should be updated and further developed by ITT. The following applications were identified by RSM:

- CityView
- PMXpert
- Telestaff
- ICO Software

7.2.3.7 Improve Information-Sharing Between Departments

Although many of the issues with document sharing and records management will be addressed through the EDRMS project, certain departments had specific needs related to sharing information within the organization, such as moving more content online and developing central data repositories. As the organization moves to sharing more enterprise applications across departments, there will be

less integration needs and data-sharing will become less complicated. Therefore, RSM recommends that ITT be cognizant of how to reduce integrations and improve data-sharing on an ongoing basis.

8.0 Recommendation Prioritization

8.1 Recommendation Prioritization Purpose & Approach

In order to develop the implementation plan that sequentially maps out the presented recommendations, RSM utilized a framework with scoring criteria and weighting which were developed and validated with the City to prioritize the recommendations. A score of 1 to 5 was given to each criterion for each recommendation, with 1 being the lowest possible score and 5 being the highest possible score. These scores were weighed based on the criteria weights. The following scoring criteria were used and are provided in more detail in 10.3.1 Prioritization Criteria, along with the description, scoring scale, and criteria weighting.

Used in Prioritization of Initiatives   Informational Only

Holistic Benefits	Strategic Alignment	Increased Accessibility of Services	Estimated CapEx & OpEx Costs
Frequency of Impacted Service	Risk Mitigation	Risk of Completing	Timelines
Deadline (Urgency)	Capacity / Effort Required	Integration	Potential Quick Wins
Process Transformation Effort Required	Overall Costs vs Benefits		

RSM performed an initial prioritization scoring of the recommendations based on these criteria and updated the prioritized list of initiatives based on potential quick wins, dependencies between certain recommendations, and RSM's perception of the City's readiness to undertake the recommendations.

8.2 Prioritized Recommendations

Following the previously-described approach, RSM prioritized the recommendations. Term (short, medium, and long), durations, and estimated costs were also calculated. These prioritized recommendations were later incorporated into the visual roadmap, presented in 9.2 Prioritized Implementation Plan.

Estimated Cost and Effort:

RSM developed a high-level estimate of external cost versus internal effort required to carry out each recommendation. In order to develop cost and effort requirement estimates, the following assumptions were made:

- Required effort was based on staff being available full time for these initiatives
- If resources are not available full time, the effort would remain the same, but the duration would increase
- Duration and effort required could be reduced if external resources (i.e. consultants and contractors) were brought in
- Licensing costs for potential software were not included due to variability in software chosen and the licensing structure

These requirements are presented as High, Medium, or Low, where descriptions of High and Low are presented in the following. The table on the following page details the criteria of a High and Low cost and effort rank, with medium ranking in between the two.

High	Low
• Complex and will engage stakeholders from most or all departments • Will require significant effort and resources to execute • Will result in new processes, and therefore will have a significant change component • May require customized software and/or integrations	• Low-complexity and will engage stakeholders from three or fewer departments • Will require a limited amount of effort and number of resources to execute • Can integrate easily into existing processes • May require software with simple, out-of-the-box integrations to existing systems

The recommendations were also classified using the following convention, based on whether the recommendation was categorized under People, Process, or Technology.

This number is an assigned sequential digit. This number has no meaning beyond being a unique identifier

PE.1

These letters signify whether an organizational gap falls under People "**PE**", Process "**PR**", or Technology "**TE**"

As a result, the following table contains the ranked list of recommendations.

Rank		Recommendation	Term	Estimated Duration [Months]	Estimated External Costs / Internal Effort
1	PE.1	**Consider Staffing & Structure Changes**	Short-Term	9	H
2	PE.2	**Update ITT Job Descriptions**	Short-Term	6	H
3	PR.5	**Improve Organizational Communication**	Short-Term	12	H
4	TE.4	**Rollout Office 365 Suite of Products Across the Organization**	Short-Term	12 (Then Ongoing)	H
5	PR.1	**Develop, Update, & Document Policies & Procedures**	Short-Term	12	H
6	PR.2	**Improve ITT Governance Processes**	Short-Term	15	H
7	PE.4	**Execute Comprehensive ITT Resource Planning**	Short-Term	Yearly	M
8	PE.3	**Unlock Additional Capacity**	Short-Term	Ongoing	M
9	PR.3	**Develop & Enforce Service Standards & Service Level Agreements**	Short-Term	12 (Then Ongoing)	L
10	TE.3	**Continue to Improve Network Connectivity & Remote Access**	Short-Term	24	M

Rank		Recommendation	Term	Estimated Duration [Months]	Estimated External Costs / Internal Effort
11	PR.6	**Improve Security Measures**	Medium-Term	12	M
12	TE.2	**Support Increasing Citizen-Facing Digital-Services & Online Citizen Interaction Capabilities**	Medium-Term	Ongoing	H
13	PR.4	**Continuously Improve the Service Desk Function**	Medium-Term	Ongoing	L
14	TE.1	**Develop an End-User Computing Strategy**	Medium-Term	12	M
15	PR.7	**Improve After-Hours Support from ITT**	Medium-Term	9	M
16	PE.5	**Provide Maintenance and/or Emerging Training to Increase Capacity & Capability on Enterprise Systems**	Long-Term	Ongoing	L
17	TE.6	**Review High-Priority Applications**	Long-Term	12	H
18	TE.7	**Improve Information-Sharing Between Departments**	Long-Term	Ongoing	L
19	TE.5	**Enhance & Establish New Departmental Capabilities**	Long-Term	Ongoing	M

9.0 Implementation Plan

The implementation plan provides a visual representation of the prioritized recommendations, as well as additional detail around how they were ordered.

9.1 Implementation Plan Purpose & Approach

Following the prioritization of the individual recommendations, RSM conducted a consolidation activity to group complementary recommendations based on major themes into the consolidated initiatives. These initiatives became the unique streams as part of our implementation plan.

In order to develop the implementation plan, RSM sequenced the prioritized recommendations based on their term, their timeline, and their interdependencies. The implementation plan is structured around calendar years starting in the third quarter of 2021 and finishing at the end of 2025.

The grouped and classified initiatives are presented in the following table and are detailed later in 9.2 Prioritized Implementation Plan.

Initiative	Category	ID	Recommendations Included
Restructure ITT to Better Serve the City	**PEOPLE**	**PE.1**	Consider Staffing & Structure Changes
	PEOPLE	**PE.2**	Update ITT Job Descriptions
	PEOPLE	**PE.3**	Unlock Additional Capacity
	PEOPLE	**PE.4**	Execute Comprehensive ITT Resource Planning
Strengthen ITT Capabilities	**PROCESS**	**PR.1**	Develop, Update, & Document Policies & Procedures
	PROCESS	**PR.2**	Improve ITT Governance Processes
	PROCESS	**PR.3**	Develop & Enforce Service Standards & Service Level Agreements
Improve ITT Service, Support, & Operations	**PEOPLE**	**PE.5**	Provide Maintenance and/or Emerging Training to Increase Capacity & Capability on Enterprise Systems
	PROCESS	**PR.4**	Continuously Improve the Service Desk Function
	PROCESS	**PR.5**	Improve Organizational Communication
	PROCESS	**PR.6**	Improve Security Measures
	PROCESS	**PR.7**	Improve After-Hours Support from ITT

Initiative	Category	ID	Recommendations Included
Improve Critical Organization Capabilities	**TECHNOLOGY**	**TE.1**	Develop an End-User Computing Strategy
	TECHNOLOGY	**TE.2**	Support Increasing Citizen-Facing Digital-Services & Online Citizen Interaction Capabilities
	TECHNOLOGY	**TE.3**	Continue to Improve Network Connectivity & Remote Access
	TECHNOLOGY	**TE.4**	Rollout Office 365 Suite of Products Across the Organization
Support the Continuous Improvement of Departmental Operations	**TECHNOLOGY**	**TE.5**	Enhance & Establish New Departmental Capabilities
	TECHNOLOGY	**TE.6**	Review High-Priority Applications
	TECHNOLOGY	**TE.7**	Improve Information-Sharing Between Departments

9.2 Prioritized Implementation Plan

The implementation plan is shown in Figure 9.2a. An accessible version can be found in 10.3.2 Accessible Implementation Plan. The following table contains a legend to follow while reading the implementation plan.

Details pertaining to each consolidated initiative, as well as commentary around the organization of their encompassed recommendations as part of the implementation plan, is included following the section.

Implementation Plan Legend	
	Denotes a milestone-based (or finite timeline) recommendation which has already been initiated by the City
	Denotes a milestone-based (or finite timeline) recommendation that has not been initiated yet
	Denotes a recommendation that will be ongoing. Some milestone-based recommendations will have an ongoing component to denote the specific continued activities of that recommendation

Figure 9.2a Implementation Plan Roadmap

9.2.1 Restructure ITT to Better Serve the City

The 'Restructure ITT to Better Serve the City' initiative primarily focuses on addressing the aforementioned gaps and immediate opportunities identified around the People aspect of the City. The encompassed recommendations will position the organization and the ITT department to not only address capacity and capability issues through additional staff and updated roles and responsibilities, but will enable the ITT department to facilitate better strategic and operational planning through additional leadership. These structural and people-focused changes will provide the department with the necessary roles to plan, implement, and monitor strategic initiatives that will enable ITT to both improve their role as Guard and Operator and move towards playing the role of Analyst and Innovator/Transformer, as well as become an organizational stakeholder.

Recommendations

The two short-term recommendations as part of this initiative – namely PE.1 Consider Staffing & Structure Changes and PE.2 Update ITT Job Descriptions – are foundational recommendations that will provide the City with the necessary capacity and capabilities to continue to execute on the remainder of the implementation plan.

Recommendation PE.4 Execute Comprehensive ITT Resource Planning is represented as occurring annually to align with ongoing ITT governance and yearly budgeting, planning, and prioritization processes. Therefore, ITT's strategy and planning will be refreshed annually based on this recommendation.

9.2.2 Strengthen ITT Capabilities

This initiative and included recommendations relate to both the Process and Technology aspects of the gaps and immediate opportunities analysis. These recommendations will primarily address the lack of policies, procedures, and standards around ITT processes, such as project intake, project management, enterprise-planning, and service levels. The intention is for these recommendations to be primarily carried out by internal ITT staff to develop and strengthen ITT governance before working in tandem with departmental senior management to disseminate the information.

Recommendations

The three recommendations that form this initiative have all been designated as 'short-term' recommendations as they will be critical in setting the proper foundations for the City to not only execute the remaining recommendations, but efficiently and effectively operate past the 5-year timeline of the ITTMP.

These recommendations will all start between Q4 of 2021 and Q1 of 2022 to coincide with the changes to ITT's structure, enabling new leadership to contribute in shaping the new ITT governance.

9.2.3 Improve ITT Service, Support, & Operations

The recommendations under this initiative primarily address how ITT service, support, and operations can be improved to address recurring ITT needs as expressed by the departments. These needs include improving the service desk, communications, training, and security to provide better service to the organization and identify efficiencies for the ITT department. This will be a key component of ITT becoming an organizational stakeholder and will be driven by ITT governance.

Recommendations

In order to support the changes to ITT's structure and their governance, recommendation PR.5 Improve Organizational Communication has been slated to commence at the beginning of the implementation plan. As this will be an organization-wide effort, the capacity demands from ITT should be small, while the benefits will be large, enabling better communication of best practices, policies, processes, and procedures.

9.2.4 Improve Critical Organizational Capabilities

This initiative was created to address key functions including network connectivity, the rollout of O365, and increasing digital-services in order to address the needed improvements to critical organization-wide capabilities. The recommendations that form this initiative have implications on the services and operations of all departments within the City.

Recommendations

Recommendation TE.4 Rollout Office 365 Suite of Products Across the Organization was placed at the beginning of the implementation plan because the City has already made considerable progress with this recommendation and are in the process of rolling out SharePoint across the organization as part of the EDRMS project. The remaining medium-term recommendations will depend on the City unlocking additional capacity in ITT and developing robust governance in order to successfully execute.

9.2.5 Support the Continuous Improvement of Departmental Operations

Throughout the assessment, RSM captured department-specific ITT needs. These can be found in 10.2.1 Departmental ITT Needs. These needs related to department operations and the need to keep up with the pace of change, ensure their current systems were fit for purpose, sustainable, and improve their coordination with other departments.

Recommendations

In order to successfully carry out the recommendations that fall under this initiative, RSM identified that the City needs to address their ITT capacity issues, update roles and responsibilities to reflect current and future state operations, and develop robust governance to guide how the City operates from people, process, and technology point of view. Therefore, these recommendations were identified as long-term and sequenced in the implementation plan as such.

9.3 Funding Model Review

As a result of the assessment, RSM determined that the City's current funding model is not consistent with several of the proposed recommendations and the future direction of the City. Specifically, the City's current funding model would impede the City from reaching their desired future state. The current funding model is limited in terms of how it plans for future state projects which can be less formalized projects or simply unknown in terms of financial needs.

The City has identified ITT reserves as a funding method to enable them to execute on ITT-related projects throughout the organization. This aligns with the overall strategic plans of the City; one of the objectives of the City's Long-Term Financial Plan (LTFP) is to maintain reserve and reserve funds at appropriate levels. However, the City does not currently have an ITT reserve fund.

The municipal scan also showed that the City's comparator municipalities all utilize some form of reserve to fund ITT initiatives that require large amounts of capital, allocating funds to a reserve well before the initiative has been slated to commence or even formally identified. This has enabled them to carry out and expedite critical projects.

Assuming the City has the necessary internal capacity and capability, the majority of the short-term, foundational recommendations can be completed internally and supplemented with external resources. However, the City could make use of ITT reserves to support and accelerate major ITT projects and deliverables, including those that have been prioritized for the medium and long-term which may require capital costs to procure and implement solutions.

Per recommendation PE.4 Execute Comprehensive ITT Resource Planning, the City should determine an initial investment amount into the ITT reserve as well as determine the necessary year-over-year financial requirements to plan for future software and infrastructure procurement or replacement needs. This will enable

the City to identify the proper funding mechanisms. Considerations should be made to account for the City's move to the cloud which will progressively transition capital costs into operational costs.

As the City continues to evaluate their funding model alongside the recommendations proposed in the ITTMP, there is an opportunity to evaluate funding opportunities from the province of Ontario, such as the Ontario Municipal Modernization Fund, to bolster their internal funding efforts.

9.4 Change Management & Communication Considerations

Many of the recommendations proposed by RSM will result in changes to policies, procedures, practices, roles and responsibilities, and the overall day-to-day operations of City staff. The change management and communication considerations of each of these recommendations should be well documented and planned for prior to carrying out the recommendations and executed during and following the completion of the recommendations.

The following are the major change management and communication considers stemming from the recommendations:

i. **Successfully Adopting and Enforcing Policies, Procedures, and Service Standards**

One of the major changes proposed as part of the recommendations are the changes to the City's ITT governance. In order to ensure sustainable adherence to these policies across the organization, ITT, in partnership with relevant stakeholders, should do the following

- Ensure transparency with Senior Management to secure buy-in into policies and procedures
- Align with Senior Management to develop a top-down enforcement approach

- Create a communication plan to ensure City staff understand the change impact of the new governance policies and procedures, including escalation processes for issues
- Make relevant documents accessible to all staff

ii. **Accurately Update Job Descriptions & Adhere to Roles and Responsibilities**

With the assistance from the HR department in updating job descriptions, the proposed changes to ITT staff job descriptions will result in new roles and responsibilities based on current and future organizational needs. These job descriptions should faithfully represent the expected day-to-day responsibilities of the ITT staff in question, as well as guide and set expectations for that role across the organization. Therefore, the City should consider the following:

- Changes to job descriptions should be communicated to the organization, where relevant
- Job descriptions should be accessible to staff
- Expectations for how roles and responsibilities are expected to change should be communicated to staff by leadership
- A feedback process should be set up to enable ITT staff to communicate their adherence, or lack of adherence, to new job descriptions, roles, and responsibilities
- A process, including reporting and communication lines, for continuously updating job descriptions based on current and future needs of the organization

10.0 Appendices

10.1 Current State Appendix

10.1.1 Current State Assessment Meeting Agendas

The following are the meeting agendas, including the questions that were used to facilitate the current state assessment workshops with the departments and the ITT team, including the one-on-one ITT meetings.

10.1.1.1 Department Workshops Agenda

Note that additional questions were asked based on the specific functions of the department

INTRODUCTION & CONTEXT

1. Please provide us with an overview and brief history of your role(s) and responsibilities.

2. What are the key initiatives you currently lead or support?

3. How is your team currently structured?

4. How have the structure and responsibilities of your team evolved over the last year?

5. Are there any gaps in capacity or capability within the team?

CURRENT STATE

Overall Satisfaction

6. How satisfied are you with the services provided by ITT to your department? Please elaborate on what services are essential and which are "nice-to-have".

7. Do you feel supported by ITT in the following ways?

a. ITT's ability to adapt to your changing needs?

b. ITT's ability to provide the necessary technology needed to operate your department effectively and efficiently?

c. ITT's level of support for your current technology?

d. ITT's level of communication with your department?

e. ITT's hours of operations?

f. ITT's agility and response to your needs/issues/problems? (If possible can you distinguish between projects and service requests/needs/issues? In other words, how good or effective is ITT at delivering projects compared to their ability to address needs/issues/incidents?

8. Do you feel satisfied with the following:

a. The service desk's ability to resolve your issues?

b. The timeliness of the service desk?

c. The availability and speed of your network?

d. Your remote access abilities?

e. The performance and capabilities of your devices?

Support & Services

9. Can you please elaborate on essential applications to your department?

10. Do you believe the ITT department was able to effectively and quickly respond to the technical challenges brought on by the COVID-19 pandemic?

a. What did they do well?

b. What was not done well?

c. What still needs to be done?

d. What could be improved upon to plan better for another unforeseen major change?

ITT

11. How do you see the Role of ITT currently vs where you would like the role of ITT to be?

12. Do ITT constraints prevent you from meeting your departmental objectives?

13. Do you feel the need to bypass ITT to get your own technology or solutions?

14. What areas is ITT doing well and is meeting your department's needs and expectations?

15. What areas is ITT not doing well and not meeting your department's needs and expectations?

16. What are some key concerns and challenges regarding the City's CURRENT use of IT?

FUTURE STATE

17. Key expectations and hopes regarding the City's FUTURE use of IT?

18. Discuss your department's vision for the next 3 – 5 years and define your top 3 – 5 IT needs.

10.1.1.2 ITT Department Workshops Agenda

INTRODUCTION & CONTEXT

1. Please provide us with an overview and brief history of your role(s) and responsibilities.

2. What are the key initiatives you currently lead or support?

3. How is your team currently structured?

4. How have the structure and responsibilities of your team evolved over the last year?

5. Are there any gaps in capacity or capability within the team?

CURRENT STATE

Performance

6. In your opinion, which areas is ITT doing well and exceeding the Department and staff's needs and expectations?

7. Conversely, from your perspective, what are some potential areas for improvement within ITT?

8. What do you think would be the feedback from the perspective of the various Departments regarding potential challenges or areas for improvement related to technology?

9. What metrics and/or key performance indicators do you track? Do you produce performance related reports?

Operations

10. Is your ITT methodology request-driven (proactive) or reactive?

11. What were the biggest challenges posed by the COVID-19 pandemic to your current ITT environment/operations?

12. What would you say are currently the top three risks, and how do you mitigate against those risks?

Systems & Infrastructure

13. What are the key systems used to support major and day-to-day functions? (including email, calendaring, finance systems, practice management systems, collaboration tools, instant messaging, accounting software, etc.)

14. Does your ITT philosophy primarily favour off-the-shelf solutions or are they typically heavily-customized and/or developed in-house?

15. How many systems are maintained in-house?

16. Are systems predominantly on-premise or in the cloud? Do you have a mandate to move towards being primarily in the cloud?

17. How old is current physical infrastructure, and how often is hardware/software updated?

18. Do you believe any of your systems are or are near end of life or obsolete?

19. Do you have defined architecture roadmaps and standards that guide technology decisions? Do you have any current state architecture maps?

20. Do you have redundancies in your network/servers/power supply/data storage in order to mitigate the risks of any disasters/security incidents?

21. Do you have any security standards & processes in place? Do you follow ISO 27001, NIST, CMMC, etc.?

22. How sophisticated would you say automation is at the City?

23. Do you plan to extend your contract for O365 past the 3 years set out in the O365 Agreement Bylaw?

Governance

24. Please briefly walk through the shared documents – what do you believe to be the key points to note from each document?

25. What is your governance structure?

26. How are their initiatives prioritized? How is their budget determined?

27. Do you have a Disaster Recovery Plan in place, and when is the last time there was an event that triggered a recovery scenario?

28. Do you have a Business Continuity Plan in place?

29. Have you conducted any Disaster Recovery Plan, Business Continuity Plan, and/or Security Incident Response Plan exercise?

30. What documentation is maintained related to processes and infrastructure, and where/how is that stored?

31. How are policies enforced across the organization?

32. Do you believe these policies are followed? Why or Why Not?

33. Does ITT have formalized Service Level Agreements around your policies and operations?

34. Does ITT have a formalized and documented policy and process for project and request intake from the business departments?

FUTURE STATE

35. What are the main projects in ITT that are planned for the next 5-years?

36. Do you have business cases and/or detailed budgets/documentation around these projects?

37. What are the main goals for ITT now and over the next five years?

38. Has there been any work done on building a technology roadmap or target state architecture for the future?

10.1.1.3 ITT One-on-One Interviews Agenda

Structure

1. How is your team currently structured?

2. How has the structure of your team evolved over the last year?

Roles & Responsibilities

3. What are your key role(s) and responsibilities?

4. How have your roles and responsibilities changed over the last year?

5. What are the key initiatives you currently lead or support?

6. What are the future state goals/roles & responsibilities/initiatives you plan to or want to execute?

Capacity & Capabilities

7. Which activities currently take up the most of your capacity?

8. Are there any gaps in capacity or capability within the team?

9. Do you have the appropriate capacity to carry out your day-to-day activities?

10. Do you have the appropriate capacity and/or capability to execute on your future state goals/initiatives? What additional capacity and/or capability would you need to execute your future state goals?

11. Are there any constraints or process bottlenecks within the department or organization that needs to be addressed?

12. What is your view of the ITT/Business engagement and alignment? How strong do you think ITT's relationship with the business is?

10.2 Desired Future State Appendix

10.2.1 Departmental ITT Needs

The following tables show the raw ITT Needs as listed by departments. These ITT needs were analyzed to develop a select number of preliminary recommendations.

CAO & Mayor's Office

Rank	ITT Need
1	Increased Citizen-Facing Digital-Services
2	Platform for Internal Communications
3	Holistic Software Procurement & Rollout Policy
4	Better File Storage Processes, Policies, System
5	Better File Transfer Capabilities

Corporate Services

Clerks Division

Rank	ITT Need
1	ITT Ownership & Involvement in Projects
2	Increased Citizen-Facing Digital-Services
3	Effective ITT Security without Limiting Functionality
4	Improved Service Desk
5	Enterprise-Wide Training to Increase Capacity & Capability

Human Resources

Rank	ITT Need
1	Improve Payroll Processing
2	ITT as an Analyst & Innovator / Transformer
3	Enhanced Enterprise-Wide Training
4	ITT Ownership & Involvement in Projects
5	More Effective Management of Work Phones
6	More Effective ITT Communication

Financial Services

Rank	ITT Need
1	Defined Structure and Better Transparency into ITT Triaging & Priorities
2	Better ITT Governance
3	ITT as an Analyst & Innovator / Transformer
4	Further Rollout of Office 365
5	Holistic Software Procurement & Rollout Policy
6	Expanded Finance Application Functionality & Capabilities
7	Internal & External Electronic Document Signing
8	Easier / Less Restrictive Department-Led Technology Purchasing of Smaller Total Items

Fire Services

Rank	ITT Need
1	ITT as an Analyst & Innovator / Transformer
2	Implement Additional Functionality & Integrations with ICO Software (Scheduling & Staffing & RMS)
3	Central Data Repository
4	Further Rollout & Training of O365 Suite (Team + SharePoint)
5	After-Hours Support (High Availability / High Reliability)
6	Optimizing "Who's Responding" Software Functionality
7	Remote Access from Outside Station

Glen-Stor-Dun Lodge

Rank	ITT Need
1	Improved Network Connectivity
2	Integrated Nurse Call & Point-of-Care Phone System
3	Dedicated Onsite ITT Representative
4	More Functional & User-Friendly Devices
5	Less Restrictive Security Measures
6	Better Communication from ITT
7	Better Education / Training from ITT
8	ITT as an Analyst & Innovator / Transformer

Infrastructure & Municipal Works

Engineering

Rank	ITT Need
1	Improved Service Desk
2	ITT as a Business Partner
3	Better Communication from ITT
4	Improved External File Sharing
5	Further Integration of Office 365 Suite into Operations

Municipal Works

Rank	ITT Need
1	Better Customer Service from ITT
2	Better Communication from ITT
3	More Authority to Departmental Leadership to Make ITT-related Decisions
4	ITT as an Analyst & Innovator / Transformer

Transit

Rank	ITT Need
1	Touchless Fare Boxes in Buses
2	Dedicated ITT Staff for Transit
3	ITT as an Innovator & Transformer
4	Contact Tracing System for Transit Buildings
5	Better Staff Access to Communications
6	Tablet Based System / Going Paperless or Touchless
7	Further Rollout and Improvement of Use of O365 Suite
8	More Departmental Control over ITT Decisions
9	Better Communication with ITT
10	Integrations Between PMXpert & Fuel Management System

Water & Wastewater

Rank	ITT Need
1	Better Transferability of Data / File Sharing
2	Faster ITT Request Response
3	Provisioning of Devices / Components to Enable Better Audio / Video Communication
4	Data & Integrations Implications Related to Water Conservation & Servicing Master Plan

Paramedic Services

Rank	ITT Need
1	Better Mobile Network Connection & Remote Access
2	Better Document Management
3	ITT as an Analyst & Innovator / Transformer
4	Less Restrictive Security Measures
5	File and Information-Sharing with External Stakeholders
6	Human Resource Inventory
7	Review of Resource Staffing Software
8	Better Customer Service / Service Desk Feedback Mechanisms
9	Expanded Hours of Operation
10	More Built-for-Purpose Maintenance & Asset Management Software
11	Formalized Training on Technology / ITT Superusers
12	Move Disaster Management Content Online
13	Innovative Mapping Software

Planning, Development, & Recreation

Building & Bylaw

Rank	ITT Need
1	Better Customer Service from ITT
2	Increased Mobile Data for Staff
3	Moving Paperless
4	ITT as an Analyst & Innovator / Transformer
5	Reassessment of Provisioned Devices

Planning & Economic Development

Rank	ITT Need
1	Increased Functionality of Smart Phones / Mobile Devices
2	File Management including Better File Sharing
3	Increased Online Citizen Interaction Capabilities
4	ITT as an Analyst & Innovator / Transformer
5	More Technology Training
6	Efficient Submission / Tracking of ITT Service Desk Requests

Recreation & Facilities

Rank	ITT Need
1	ITT as an Analyst & Innovator / Transformer
2	Providing Additional Training on New Software / Technology
3	Clarity around ITT Requests / Escalation of Ticket or Issue Priority
4	Access to Full ITT Functionality without Having to Call ITT

Social & Housing Services

Rank	ITT Need
1	Transparency into ITT Business Continuity Model
2	ITT as an Analyst & Innovator / Transformer
3	Better Customer Service from ITT
4	Robust & Secure File Sharing
5	More Inclusive Training Options for Corporate Wide Applications

10.2.2 Business Solutions Assessment Model & Methodology

In order to provide the City with a framework and overarching methodology to carry out critical governance processes around ITT planning, budgeting, procurement, and project management, RSM developed a proposed Business Solutions Assessment Model & Methodology (BSAMM) which should be built upon and embedded within the City's ITT governance.

The proposed BSAMM is a mechanism by which projects can be prioritized and initiated and ensures that the City is able to maximize the value creation of its resources and spending.

Components	Function(s)
Long-Term Project Planning & Prioritization	Annual process designed to elicit organizational ITT needs for the next 3-5 years and prioritize those needs using agreed upon criteria. This should be done in alignment with the ITT Long-Term Project Planning & Prioritization Policy
Project Initiation & Gating	Annual process designed to further filter the highest priority needs through high-level analysis, business case development, and project planning. Needs will be filtered through gates that ensure effort is expended only on high-value items
Project Governance	Monthly reporting process to ensure project updates are communicated,

Components	Function(s)
	project demand and resource capacity are well understood, resource allocation is planned appropriately, and risks are understood and mitigated
In-Year Small Project & Enhancement Intake	Quarterly process that prioritizes enhancements, less rigorously than the long-term planning process, and is managed through release management. This should be done in alignment with the In-Year Small Project & Enhancement Intake Policy
Annual Governance Process Review	Process used to review the entire ITT Project Prioritization and Governance project to ensure continual improvement

BSAMM Governance Structure

It is recommended that the BSAMM and accompanying governance be directed, facilitated, and monitored by an ITT Steering Committee comprised of organizational leadership. RSM recommends that the ITT Steering Committee be comprised of the CAO, the General Manager of Financial Services, an ITT Manager and ITT Supervisor, and two other General Managers to be determined by the City through the development of the terms of reference. The structure is

designed to ensure there is top-down buy in across the organization and ensures that there is common messaging being disseminated.

The responsibilities of the ITT Steering Committee include:

- Facilitating the long-term planning and prioritization of ITT projects in accordance with the ITT Long-Term Project Planning & Prioritization Policy
- Facilitating in-year project planning and prioritization of small ITT projects, software requests, and enhancements in accordance with the In-Year Small Project & Enhancement Intake Policy
- Executing project initiation and gating
- Conducting the annual governance process review
- Monitoring ITT projects through quarterly project updates

Long-Term Project Planning

The long-term planning process is used to plan ITT projects 3 – 5 years into the future and determine which organizational needs are of highest priority for the current year. It should be noted that the ITTMP being developed as an output of this project will make use of the same process to provide the City with the first iteration of long-term project planning.

The long-term process planning consists of the following steps:

1. **Elicitation and Categorization of Organizational Needs & Projects**

   The first step in the long-term planning process is to elicit organizational needs and ITT projects. This can be accomplished through conducting targeted workshops with departments, such as those conducted by RSM. However, RSM recommends that this process be streamlined through a standardized intake process as defined through the development of the ITT Long-Term Project Planning & Prioritization Policy. This will ensure the

information is aligned to the budgeting process and is received well in advance of yearly budgeting.

The organizational needs that are gathered should not include any projects or initiatives that are currently underway, and focus should be placed on their needs for the next 3 to 5 years. Once needs are gathered from across the City, they should be categorized and consolidated based on similar needs, and the prioritization process can then be initiated.

2. **Development of Prioritization Criteria**

Once organizational needs have been identified, categorized, and consolidated, they should be prioritized using a defined prioritization approach. RSM recommends using the Scoring Model, which is a simple yet effective method for prioritizing needs. The Scoring Model scores each business driver for the organization against a set of weighted criteria according to relative importance.

Before scoring can begin, the ITT Steering Committee must agree on the following three components:

Criteria Development	**Criteria Weighting**	**Criteria Scoring**
What are the key business drivers for the organization?	What are the most important business drivers?	How do we objectively score each business driver?

i. Criteria Development

The ITT Steering Committee must agree upon a set of criteria that will be used to rank organizational needs. In general, the criteria selected should represent key organizational drivers. The following listed criteria are examples and can be modified based on the City's priorities.

- **How does it benefit the organization?**
  - Will this project create value for the organization and staff?
  - Will other departments benefit?
- **How does it benefit our citizens?**
  - Will this project create value for citizens and society?
- **Does it reduce corporate risk?**
  - Will this project eliminate or mitigate corporate risks?
  - Risk may include, but is not limited to, legal, compliance, health safety, and/or financial
- **How does it leverage existing investments?**
  - Are other existing achievements or technological investments getting leveraged to maximize the value of existing investments?
- **How will it integrate with existing programs and platforms?**
  - Does the project integrate with existing programs and/or platforms?
- **How does it align with the organization's goals?**
  - Does the project align to the strategic objectives of the organization?

- o For example, if the City has a mandate to move to cloud-based software, does this project support that mandate?
  - o Is the alignment demonstrable?
- **What efficiencies will it create for the organization?**
  - o Will the project drive efficiency and operational effectiveness across our program and services?
- **What is innovative about the project?**
  - o Does the project enable the organization to demonstrate true innovation and create better, smarter, communities for citizens?
- **Is there an external/urgent deadline?**
  - o Is the project driven by an external and/or urgent deadline such as a contract, regulatory requirement, or software end of life?

ii. **Criteria Weighting**

Criteria should then be discussed at length within the ITT Steering Committee and refined to only include criteria that accurately represent the strategic priorities of the organization. Once criteria are confirmed as being important to the prioritization of projects, weighting should be attributed to them based on their relative importance to the outcomes of the project.

iii. **Criteria Scoring**

Once a weighting has been assigned to each criterion, the ITT Steering Committee should create an objective measurement scale

to further define each criterion. This scale will be used to assign a scoring to each organizational need. Typically these are developed using a 1 to 5 scale, where scoring criteria are given to scores of one, three, and five.

The following example shows how the City could create a scale for whether a project creates cost efficiencies.

Example: Will this project produce cost savings?

1. This initiative will not produce tangible savings

2. (Intentionally Left Blank)

3. This initiative will result in tangible savings, but they are hard to measure and may not offset the full investment

4. (Intentionally Left Blank)

5. This initiative will ultimately pay for itself in tangible cost savings

3. Prioritization of Projects

The final step in the project prioritization process is for the ITT Steering Committee to score each organizational need or project against each criterion, based on the objective measurement scales. This score is then multiplied by the assigned weighting factor resulting in the criteria weighted score.

Then, each criteria weighted score, per organizational need, is summed across all criteria to get an 'Overall Weighted Score' for project prioritization. A higher 'Overall Weighted Score' signifies a higher priority need/project. A general example is shown in the table on the following page.
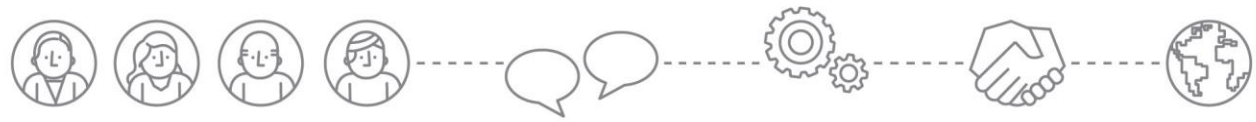
Organizational Need/Project	Criteria A			...	Criteria X			Overall Weighted Score
	Score	Weight	Criteria Weighted Score		Score	Weight	Criteria Weighted Score	
Project A	1 to 5	0 to 100	Score x Weight		1 to 5	0 to 100	Score x Weight	Sum of Criteria Weighted Scores
Project B	1 to 5	0 to 100	Score x Weight		1 to 5	0 to 100	Score x Weight	Sum of Criteria Weighted Scores
Project C	1 to 5	0 to 100	Score x Weight		1 to 5	0 to 100	Score x Weight	Sum of Criteria Weighted Scores

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4. Roadmap Development

Once project prioritization has been completed, projects should be further categorized and prioritized by the ITT Steering Committee. This is a subjective process that provides an additional layer of expertise to ensure projects are appropriately sequenced. Besides the priority of the project, factors affecting sequencing may include project dependencies, availability of scarce resources, availability of budget, and the need to smooth demand. The roadmap being developed by RSM will act as an appropriate reference for this process.

Project Initiation & Gating

The project initiation and gating process starts by taking the top priority needs and projects identified through the Long-Term Project Planning & Prioritization and passing them through a stage-gating process to move them from planning through to the execution cycle.

There are many stage-gating processes that can be used, but the formula for them is generally the same. Project initiation is divided into distinct stages (or phases), each separated by gates, which act as decision points. The ITT Steering Committee will make a decision at each gate, based on a set of criteria, to determine whether project initiation should continue. RSM proposes that the City employ a three-gate process.

These gates, along with relevant criteria are presented in the following table. It should be noted that for more complex projects, detailed information is required for each gate. For less complex and emergency projects, high-level information can be used to expedite the process.

Gate 1: Detailed Project Plan	Gate 2: Implementation Ready	Gate 3: Post-Mortem

Occurs at end of detailed project planning
 	
Deliverables/Outputs:
 	
• Project Plan including:
  o Scope and cost of project
  o Realistic plan for completion
  o Resource requirements
    ▪ Resources identified and available
    ▪ All project costs well understood
  o Sponsorship in place
  o Risks evaluated
  o Benefit realization in place
 	
Outcomes:
 	
• Project is authorized to begin design/build phase
	Occurs prior to implementation
	
	Deliverables/Outputs:
	
	• Change management focus present throughout project
	  o Department is ready for the change
	  o ITT is ready for the change
	• Testing completed
	• Risk mitigation in place
	
	Outcomes:
	
	• Project is authorized for implementation
		Occurs at the completion of the project
		
		Deliverables/Outputs:
		
		• Completion of project outcomes
		• Validation of business outcomes
		• Lessons learnt
		• Project close-out report

Project Governance

Project governance occurs before, during, and after a project is completed. Regular project reports should be created to communicate project updates with the project team and the stakeholders in the project. These project reports should also include resource management reporting and risk management assessments to identify and mitigate project risks.

a. **Project Updates**

Project updates are important for communication with both the project team and the stakeholders involved in the project. It ensures they are kept informed on the progress of the project and will help to mitigate risks due to last minute changes. Project updates should include, but are not limited to the following information:

- Current and past month activities
- Upcoming deadlines
- Updates to deliverables
- Project completion to date

b. **Resource Management**

As projects move through the gating process, resource management must be considered. Resource management is an iterative process that occurs before and during project execution. This process is closely tied to demand management and will help with understanding the current and future resource needs and capacity of all projects. In addition, resource management will enable conflict resolution for resource use for current and future projects. It is recommended that resource management and reporting be completed monthly.

Resource management can be done iteratively and in real time using enterprise resource management processes. It will enable the City to understand resource demand, capacity and available resources, and conflicts and constraints related to the usage of resources.

The resource management lifecycle explains the process by which resource management should be carried out:

i. **Estimate:** Understanding the high-level scope, key milestones, availability of required roles for current and future month projects. Understanding the resource allocation needed based on previous month projections.

v. Optimize i. Estimate
iv. Analyze ii. Plan
iii. Execute
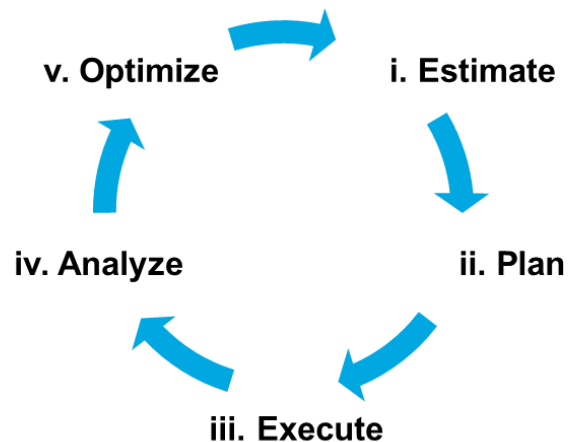
ii. **Plan:** Allocate the resources needed for the current and future month projects. This is based on the previous month data.

iii. **Execute:** Scheduled resources start their assignments for current month projects and understand their need for future month projects. Track the resource use during this time. Understand that projects might need more resources overtime, and this could affect future allocation.

iv. **Analyze:** Collect data constantly to understand where resources are being improperly allocated or where additional resources are needed. Use data to understand challenges in resource allocation (over resourced or under resourced, conflicts with resource demand)

v. **Optimize:** Optimize as you go, relocate resources as needed. Understand what needs to be changed for the future month. This will formulate the future month estimation for resource allocation.

Each monthly resource management cycle should include reporting as well, including, but not limited to reporting on:

- **Resource Availability, Utilization, & Allocation:** Including a breakdown of all resource allocation requests, committed allocations, availability, and capacity hours. It should also include committed and forecasted resource utilization

- **Recommendations & Conflict Resolution:** Including recommendations for resource allocation and for resource conflict resolution to inform future decisions

- **Current and Future Project Breakdown:** Including current and future project breakdown to understand where resources are currently allocated and where they will need to be allocated for upcoming projects which will complement the resource availability, utilization, and allocation

c. Risk Management

Risk management is used to understand and evaluate the risks in the project. It is important that all stakeholders are aware of risks and the proper measures to take in order to avoid them.

Risk management reporting should include the risk, the likelihood of that risk happening, the impact of that risk, the mitigating factor for the risk, and a designated responsibility for the risk. Risk levels can be determined from a risk matrix, such as the following.

		Impact				
		Negligible	Minor	Moderate	Significant	Severe
Likelihood	Almost Certain	Low Med	Medium	Med Hi	High	High
	Likely	Low	Low Med	Medium	Med Hi	High
	Possible	Low	Low Med	Medium	Med Hi	Med Hi
	Unlikely	Low	Low Med	Low Med	Medium	Med Hi
	Rare	Low	Low	Low Med	Medium	Medium

In-Year Small Project & Enhancement Intake

Small, unplanned, or ad hoc projects or enhancements, such as those for enterprise applications, should adhere to a less rigorous prioritization approach than Long-Term Project Planning & Prioritization. They should occur at a time that aligns to the current needs and capacity of the City and in alignment with budget.

While small projects should follow a lean version of the Long-Term Project Planning & Prioritization stage gating process, enhancements should be managed through a release management process, similar to the following.

Release Management Process

Identify Potential Changes	Group and Prioritize Changes	Establish Upcoming Release	Deliver the Release
Departments address their individual enterprise application needs	Group of affected users, chaired by the application owner, groups and prioritizes changes based on departmental needs.	ITT receives, internally prioritizes, plans, and develops relevant upcoming releases for delivery	Happens over the course of the determined time frame and can be concurrent with next release planning

Annual Overall Process Review

The overall BSAMM should be reviewed on an annual basis to ensure continual improvement and ascertain whether the process is still effective and still aligns with organizational needs.

This review requires the ITT Steering Committee to review the following:

Components	Review
ITT Steering Committee Structure, Roles, & Responsibilities	Ensure the members of the IT Investment Committee are performing their duties and add, remove, or replace members as needed
Long-term Project Planning & Prioritization Process	Ensure the prioritization approach (criteria, weighting, scales) are still representative of the priorities of the organization
Project Initiation & Gating	Determine whether the gating process is allowing the right projects through and is doing so in an effective manner
Resource Management	Understand how resources were being managed and ensure that they are being managed in a way that facilitates ongoing and future project development
Small Projects & Enhancements Process	Ensure enhancements are properly prioritized and released based on departmental and organizational needs

10.2.3 Municipal Scan Data

	Cornwall	Chatham-Kent	Peterborough	Kingston
Capacity & Staffing Metrics				
Number of IT Staff	5* (currently active)	36.6	21	44
Number of Users Supported by IT Staff	550	1,796	1,325	1,200
Number of Departments	9 (44 divisions)	7	Four departments, Fire Services, Corporate and Legislative Services, Infrastructure and Planning, Community Services	25
Number of Citizens	47,100	108,117	82,094	159,000
Number of Facilities (Buildings)	23	120	27	65
Number of Desktops	500	411 Desktops/785 Laptops/140 Tablets/148 chrome devices/>2500 Network Devices	1,100 (includes laptops)	1,562

	Cornwall	Chatham-Kent	Peterborough	Kingston
Number of Phones	500	500	Cell phones or Office Desk phones?	546 Cell / 700 Desk
Number of Supported Applications	86	59	94 Corporate Applications. This does not include desktop software like the MS Office Suite etc.	184
Percentage of IT Outsourced	0%	Print Management Services - approximately 3%	None	10% (very rough estimate)
Service Metrics				
Average Number of IT Tickets Per Year	4,922	9,700	6,500	11,000
Average Resolution Time per Ticket	Not available	N/A	Average resolution time for critical/high priority tickets is 4.5 hours	SLA attainment is at 83%. (Average close time not available as yet)
Percentage of Total IT Tickets Received Afterhours	Before 8:30 = 9.25% After 4:30 = 4.41% 13.66% total after hours	N/A	Metric not currently tracked. IT staff are not officially on-call however there is a	6 or less per week on average. There has been rise since the increase in remote work

	Cornwall	Chatham-Kent	Peterborough	Kingston
			Call-Out procedure that users can utilize	
Online Services				
Basic Property & Assessment Information	Yes	Property Tax Information Service (basic property information for realtors; self-service tax certificate generation for lawyers)	Some basic property information is available online through our GIS (ESRI)	Yes
Garbage or Snow Removal	Yes	Snow Plow Tracker Application; MyWaste App for Garbage and Recycling; GIS Mapping Service for garbage and recycling zones	Not applicable	Collection calendar and email or text reminders / Slow plow Tracker
Sign Up Recreation Programs	Yes	PerfectMind Online Registration	Yes, application is called Perfect Mind	Yes - Perfect Mind
Payment for Recreation Programs	Yes	PerfectMind Online Registration	Yes, application is called Perfect Mind	Yes - Perfect Mind

	Cornwall	Chatham-Kent	Peterborough	Kingston
Application for Licenses	No. CityView used internally	N/A. CityView used internally only	Not applicable (some available online, Marriage)	Yes - Pet, Marriage. Business planned for in next 12-24 months
Payment for Licenses	No. CityView used internally	N/A. CityView used internally only	Not applicable (some available online, Marriage)	Yes -Pet.
Application for Permits	No. CityView used internally	N/A. CityView used internally only	Not applicable (RFP in process)	Yes. Accella - Development applications and building permits.
Payment for Permits	No. CityView used internally	N/A. CityView used internally only	Not applicable (RFP in process)	Yes - Parking.
Report a Problem (Pothole, Graffiti, etc.)	Yes	Microsoft Dynamics CRM being implemented in 2021. Active Citizen Response (internal only) being replaced.	Yes, this is done through our website (eSolutions)	Yes - Oracle Service Cloud CRM
Support & Infrastructure Metrics				
Number of Servers	138	298	250	500 (490 virtual + 10 physical)
Percent of Cloud Servers	0%	2%	Have a number of third party hosted or SaaS applications such as Website,	98% (private cloud)

	Cornwall	Chatham-Kent	Peterborough	Kingston
			Recreation and Facility Booking, Office 365, SAP Success Factors, Office 365 Backup) Currently exploring what IT Infrastructure or workloads/apps could be candidates to move to the Cloud	
Number of System Admins	1	2	3 (with temporary funding for a 4th due to one planned retirement in next year)	2 (sys admin) + 2(net admin) + 3(DBA) + 1(security admin)
Percent of Business Facing Applications in the Cloud	15	?	Between 10 and 15%	15%
Do they have O365?	Yes	Implementation Project in Progress 2021. Some features such as OneDrive in production.	Yes, currently using Exchange Online, Teams, SharePoint Online and piloting OneDrive and Power	Yes

	Cornwall	Chatham-Kent	Peterborough	Kingston
			BI. Also piloting Teams Telephony	
Have they rolled out Teams and SharePoint organization-wide?	Have rolled out Teams. SharePoint Implementation and roll out to begin in 2021	Microsoft 365 Implementation Project in Progress 2021. Replaces Corporate Intranet based on SharePoint 2010. Public Website also based on SharePoint hosted on Azure.	All Office staff have Teams as well as Outside workers that require it. SharePoint is currently used by the majority of Office staff with further deployments planned.	In progress - all staff have access but have not converted all shared drives as yet
Program Metrics				
Number of Community Facing Programs They are Responsible For	3	5		6
What Community Programs are They Responsible	Fire Services, Home for the Aged, Infrastructure, Transit, Municipal Works, Paramedic Services,	Police, Fire & Emergency Services, Housing Services, Public Health, Public Utilities Commission,	Social Housing, Social Services, Arenas, Recreation, Library, Economic Development, Public	Fire and Rescue; Housing; Social Services; Residential Long-term Care; Recreation Programs;

	Cornwall	Chatham-Kent	Peterborough	Kingston
For? (Paramedic, Social Services, Housing Services, etc.)	Planning, Economic Development, Recreation Services, Social and Housing Services, Building and Bylaw	Employment and Social Services, Provincial Offences Court, Child & Early Years Services, Long-term Care Facility, Public Library, Planning Services, Building and Enforcement Services, Economic Development, Resident Attraction & Retention, Customer Service, Clerk's Office, Licensing, Recreation Programs, Recreation Facilities, Cemeteries, Drainage Management, Waste Management	Works, Transit, Waste Water, Provincial Offences, Art Gallery, Waste Management, Building and Planning, Clerks Office)	Municipal Fee Assistance Program
Does their IT support 911?	No	Partially - Senior Network Administration, Security and 911 Data	Yes, we provide IT support to the Peterborough Fire and Police Service	No

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	Cornwall	Chatham-Kent	Peterborough	Kingston
		Management. Police have local systems support IT staff for line of business applications and vendor support for CAD System.		
Spending Metrics				
Total City Capital Budget (2021)	$37,129,200	$6,340,000 (the $6.34M is the capital reserve annual amount. Total lifecycle budget is $62.09M, this includes the capital reserve amount)	$70,700,000	$76,800,000
Total City Operating Budget (2021)	$179,258,389	$279,900,000	$292,240,613	$395,000,000
IT Capital Budget (2021)	$200,000	$0	$1,434,000	$5,100,000

	Cornwall	Chatham-Kent	Peterborough	Kingston
IT Operating Budget (2021)	$2,227,882	$8,510,000	$5,179,931	$42,000,000
Do they have IT reserves?	No	Yes, lifecycle reserves of $1,740,000	Yes	Yes - Technology Reserve Fund
If Yes, What Percentage of their IT Budget are Reserves?	N/A	20.48%	This varies year to year.	60% of Capital Budget

10.2.4 Detailed Organizational Recommendations & Guidance

The organizational recommendations in this appendix disclose further details regarding potential restructuring of ITT in addition to the recommendations presented in 7.2 Detailed Recommendations. As such, this section should be read in conjunction with section 7.2.1 People.

Due to recent vacancies and limited staff, as well as the increased demand for technology, ITT is experiencing capacity constraints which have been heightened by the challenges brought on by the COVID-19 pandemic. The current staffing levels prevent ITT from meeting the desired levels of service and support from the City. Gaps in ITT's structure also impede ITT from efficiently and effectively executing strategic planning both for ITT and for the organization as a whole, with respect to technology. Moreover, existing job descriptions for certain ITT positions do not accurately represent their current and expected future responsibilities. These capacity and capability gaps need to be addressed as ITT continues to improve its role as a strategic partner to the City.

The following details recommendations which were developed following the current state workshops, including the in-depth insights gathered through the ITT one-on-one meetings and reviewing current job descriptions. They are targeted at positioning the City and ITT to address capacity and capability gaps through additional staff and updated roles and responsibilities, as well as enabling ITT to facilitate better strategic and operational planning through structural changes.

These organizational changes will assist the City to address People related gaps. Specifically, they will provide the department with the necessary roles to plan, implement, and monitor strategic initiatives, enforce governance, and improve their role as Guard and Operator and move towards playing the role of Analyst and Innovator / Transformer.

10.2.4.1 Implement Structure Changes

The City's ITT team has undergone several changes over the last 20 years.
Some of the most notable recent changes have been the restructuring of all ITT
staff to be non-unionized positions, except for the Infrastructure Analyst position
which will occur either through retirement, a departure, or a renegotiation of their
contract between HR and the union. Additionally, both their ITT Supervisor and
Application Support Specialist have retired, and two new Operations Support
Specialists have been hired within the last 4 years. Figure 10.2.4.1a shows the
current state of the ITT team.
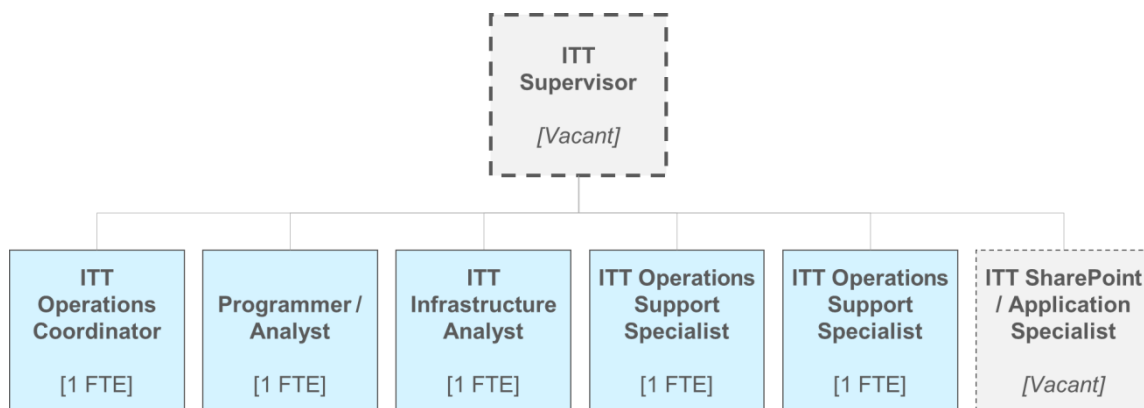
Figure 10.2.4.1a. Current State ITT Structure

In order to set the foundation for the ITT department to execute on both the near-
and long-term needs of the organization, RSM recommends that the structure of
the ITT department be adjusted. These adjustments should address the
capacities issues within the department, as well as gaps in both the strategic
planning and business analysis functions that exist due to the lack of a Manager
position between the ITT Supervisor function and the General Manager of
Finance function. As a result, the following structure changes are recommended.
Figure 10.2.4.1b, on the following page shows the proposed future state of the
ITT team resulting from the proposed structure changes.

```
                            ┌ ─ ─ ─ ─ ─ ─ ─ ┐
                                ITT Manager
                            └ ─ ─ ─ ─ ─ ─ ─ ┘
                    ┌──────────────┴──────────────┐
        ┌ ─ ─ ─ ─ ─ ─ ─ ┐              ┌ ─ ─ ─ ─ ─ ─ ─ ┐
          ITT Security &                  ITT Operations
           Infrastructure                   Supervisor
            Supervisor
        └ ─ ─ ─ ─ ─ ─ ─ ┘              └ ─ ─ ─ ─ ─ ─ ─ ┘
```

ITT Manager

ITT Security & Infrastructure Supervisor

ITT Operations Supervisor

ITT Infrastructure Analyst

[1 FTE]

ITT Operations Support Specialist

[2 FTE]

ITT Programmer / Security Analyst

[1 FTE]

ITT Operations Support Specialist

To Be Hired Externally

ITT SharePoint / Application Specialist

To Be Hired Externally or Possibly Outsourced

Figure 10.2.4.1b. Proposed Future State ITT Structure

The organizational charts presented in 10.2.4.3 Municipal Comparator IT Organizational Charts were referenced to develop the recommended structure changes. There is a clear direction that has been taken by both organizational comparators; specifically, both municipalities have supervisors or managers for each specialized function of IT that report into a CIO or d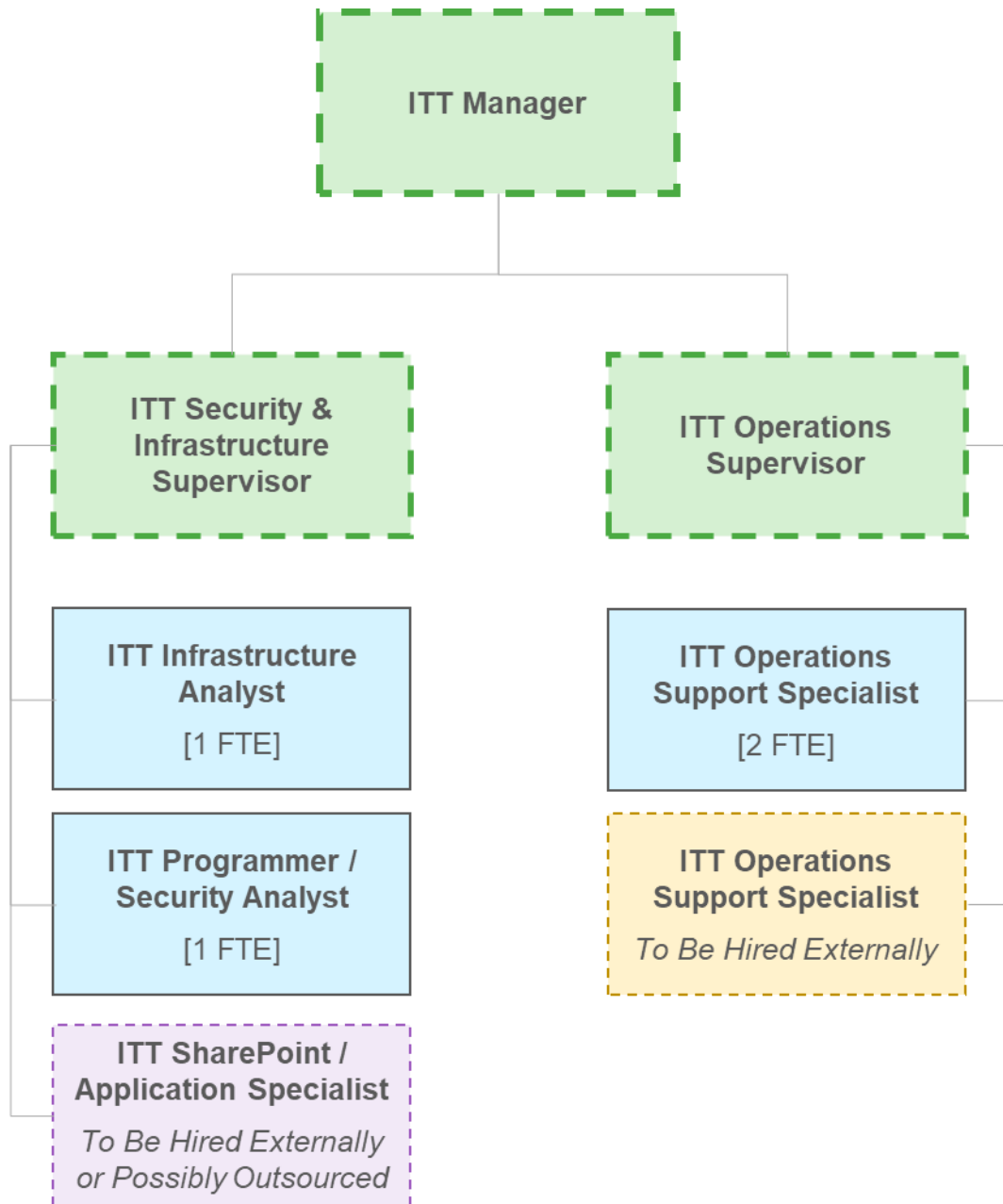irector. While there are contextual differences between the organizations, as the City grows and with an increasing need for ITT support this type of realigned structure may more adequately fit with organizational needs and the perceived role of ITT into the future. This, along with our analysis and assessment of the structure has been factored into the suggested structure change considerations.

These structure changes will introduce new functional roles within ITT and repurpose roles that currently exist, whether they are filled or vacant. These roles are detailed further below:

i. **Create and Hire for an ITT Manager Position**

There exists a lack of strategic direction and governance within the ITT department, from a limited long-term planning and policies perspective. Further to this issue is the gap between the ITT Supervisor position and the General Manager of Financial Services in terms of a decision-making role. The absence of a specific "manager" role is inhibiting ITT from executing on specific strategic initiatives, such as the development and approval of policies. RSM therefore identified the need for an ITT Manager position. This role would hold a higher level of authority than the ITT Supervisor position to facilitate better ITT Governance and be responsible for the long-term strategic planning of the ITT department, including how ITT is being used organization-wide. As such, they would play a key role in both the large and small ITT software and project intake process, and sitting on the ITT Steering Committee.

This role would coordinate with the ITT Operations Supervisor and ITT Security & Infrastructure Supervisor, as detailed in the following sections, to ensure the day-to-day operations and strategic initiatives of the ITT department are in alignment with and support the long-term strategic planning.

ii. **ITT Supervisor**

This existing role is currently vacant. RSM recommends that this position be duplicated to accommodate Supervisor positions for both ITT Operations and ITT Security & Infrastructure, described as follows.

ITT Operations Supervisor

Based on conversations with both ITT and the departments, there is an overall desire for ITT to better understand the needs of the business and provide support to them to execute on their ITT related initiatives. Specifically, this includes:

- Project Management (i.e. participating in the due diligence and requirements gathering processes);

- Solution Implementation Advisory;

- Monitoring of Ongoing Sustainability of Technology Solutions; and

- Strategic Analysis and Direction (i.e. working with the business to understand their needs and help to identify market solutions and innovations that could be applicable).

RSM therefore recommends that the City consider the current ITT Operations Coordinator position be repurposed as an ITT Operations Supervisor to partially replace, as well as enhance, the function of the ITT Supervisor role.

The purpose of the role would be to provide strategic, innovative, and forward-thinking expertise to the ITT department and be accountable for the operational activities of the ITT division, as well as the relationship between ITT and the business. As such, this role would collaborate with decision-makers and lend their expertise to ITT strategic planning under the guidance of the ITT Manager.

Additionally, this role would work closely with the ITT Manager and ITT Security & Infrastructure Supervisor to execute on the strategic direction of the ITT department through operations, as well as to ensure adherence to ITT governance and facilitate long-term planning initiatives.

ITT Security & Infrastructure Supervisor

Similarly to the ITT Operations Supervisor, RSM recommends that the City consider an ITT Security & Infrastructure Supervisor to partially replace as well as enhance the function of the ITT Supervisor role. The purpose of this role would be to provide strategic direction, expertise, and oversight to IT security and information risk management, network infrastructure, hardware and software management, system integration, enterprise application development, and telecommunications. Although the current ITT Operations Coordinator manages some of these functions presently, it would be a better fit under this new supervisor role. Regardless, the distribution of responsibilities should be discussed the ITT Manager and the two ITT Supervisors to ensure the best and highest value distribution of responsibilities.

This role would collaborate with decision-makers and lend their expertise to ITT strategic planning under the guidance of the ITT Manager. Additionally, this role would work closely with the ITT Manager and ITT Operations Supervisor to execute on the strategic direction of the ITT

department through security and infrastructure, as well as to ensure adherence to ITT governance and facilitate long-term planning initiatives.

iii. ITT SharePoint/Application Specialist

This position, formerly the Application Support Specialist, was recently vacated due to a retirement. This position is responsible for training on certain enterprise applications, namely Telestaff, for support, upgrading, and troubleshooting.

This role was recently changed to SharePoint/Application Specialist based on the departmental need for a role who is specialized in SharePoint and O365 to continue the rollout of office productivity tools – specifically SharePoint and MS Teams.

RSM recommends that consideration should be made to prioritize hiring a third ITT Operations Support Specialist to address immediate capacity concerns in the department. Consideration can be made by the City as to whether this is a role that could be hired for or temporarily outsourced, with the ability to provide knowledge transfer to the ITT team.

iv. ITT Operations Support Specialist

There are currently two existing ITT Operations Support Specialists and RSM recommends the consideration for hiring a third to address the immediate capacity needs in the department. Per conversations with the City, there is a need to provide additional capacity in the ITT department to enable more strategic operations.

10.2.4.2 Update the Definition of ITT Roles & Responsibilities

The structural changes proposed in the previous section go hand-in-hand with updating ITT staff job descriptions. This includes defining, and in some cases redefining, ITT roles and responsibilities to ensure expectations can be set both within the ITT department and throughout the organization. This recommendation

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will enable the City to set expectations for any new or changed positions, as well as existing positions whose roles and responsibilities have changed.

ITT should work together with the HR department to update these job descriptions and ensure that the new roles and responsibilities are properly adhered to and updated on a regular basis as the demands from ITT change.

The following considerations for job description and role and responsibility changes are based on additional or updated roles detailed in the previous section.

i. **ITT Manager**

The responsibilities of the ITT Manager should reflect the needs of the ITT department to have a manager that can provide authority to execute on strategic and governance related initiatives. Their responsibilities should include, but should not be limited to, the following:

- o Developing and facilitating ITT governance, including policies, procedures, service standards, and SLA.
- o Sitting on the ITT Steering Committee as part of the Business Solutions Assessment Model & Methodology.
- o Developing and supporting the execution of long-term ITT strategic planning, including how technology is being used organization-wide.
- o Coordinate and plan with the ITT Operations Supervisor and ITT Security & Infrastructure Supervisor to ensure the day-to-day operations and strategic initiatives of the ITT department align with and support the long-term strategic planning.

ii. ITT Operations Supervisor

The responsibilities of the ITT Operations Supervisor role should be updated based on the ITT Supervisor and ITT Operations Coordinator job posting to include the following:

- o Executing, monitoring, and reporting on the strategic direction of the ITT department in coordination with the ITT Manager.

- o Sitting on the ITT Steering Committee and ensuring ITT governance is adhered to and reporting any issues or necessary changes to the ITT Manager, including monitoring the yearly intake process for project planning, as well as monitoring the in-year small project intake process, as part of the Business Solutions Assessment Model & Methodology.

- o Executing and monitoring ITT project management in coordination with the ITT Manager and ITT Security & Infrastructure Supervisor.

- o Developing an inventory of ITT solutions and holistically considering their applicability to the Corporation as a whole.

- o On the back of the ITT solution inventory, develop an application criticality ranking that will drive the creation of service levels based on the organizational and departmental criticality of applications.

- o Facilitating the yearly project intake and planning information gathering in conjunction with the ITT Manager.

- o Analysis of service desk information and data to create solutions to common issues and improve service delivery to business.

- o Monitoring and lending a hand to the operational side of ITT (service desk) to ensure the service meets identified service standards.

o Understanding service satisfaction and opportunities for improvement through data analysis and interaction/engagement with business.

iii. ITT Security & Infrastructure Supervisor

The ITT Security & Infrastructure Supervisor and their roles and responsibilities should include, but are not limited to:

o Executing on, monitoring, and reporting on the strategic direction of the ITT department in coordination with the ITT Manager.

o Sitting on the ITT Steering Committee and ensuring ITT governance is adhered to and reporting any issues or necessary changes to the ITT Manager, including monitoring the yearly intake process for project planning, as well as monitoring the in-year small project intake process, as part of the Business Solutions Assessment Model & Methodology.

o Executing and monitoring ITT project management in coordination with the ITT Manager and ITT Operations Supervisor.

o Customization of SharePoint to provide better services to the organization[1].

o Focused customization and improvement of security applications and technology to provide better security, while reducing limitations. This includes better using applications such as Darktrace to improve and automate security functions.

The Responsibility Assessment Matrix (RASCI - Responsible, Accountable, Support, Consulted, Informed) presented in Figure 10.2.4.2a and the subsequent

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[1] A SharePoint expert could be brought in to help with certain initiatives and provide knowledge transfer to ITT.

table presents the major responsibilities of the ITT team at a high-level per position and the definitions of each RASCI role, respectively.

The following legend accompanies Figure 10.2.4.2a

R	**Responsible**	Assigned to complete the task or deliverable.
A	**Accountable**	Has final decision-making authority and accountability for completion.
S	**Support**	Provides support to the responsible party.
C	**Consulted**	An adviser, stakeholder, or subject matter expert who is consulted before a decision or action.
I	**Informed**	Must be informed after a decision or action.

Responsibility Description	Finance General Manager	ITT Manager	ITT Operations Supervisor	ITT Security & Infrastructure Supervisor	ITT Operations Support Specialist	ITT Infrastructure Analyst	ITT Programmer / Security Analyst	ITT SharePoint / Applications Specialist
				Information Technology & Telecommunications ("ITT") Division				
ITT Governance (Policies, Procedures, SLAs)	C	A	R	R	I	I	I	I
ITT Steering Committee	A	R	S	S	I	I	I	I
ITT Strategic Planning	C	A	R	R	I	S	I	S
ITT Project Management	I	A	R	R	C	C	C	C
Coordination with Departments on ITT Needs (Analyst)	I	A	R	C	S	S	S	S
Analysis of Service Desk Information	I	I	A	C	R	C	C	C
Tier 1 Support (Resolution of Service Desk Tickets)	I	I	A	C	R *	R *	R *	R *
Tier 2 Support	I	I	A *	A *	C	C	C	C
ITT Server Maintenance	I	I	I	A	C	R	C	C
Customization of ITT Applications	I	I	I	A	C	C	S	R
Developing & Disseminating ITT Communications	C	A	R	R	I	I	I	I

* Responsible role is dependent on type of support *

Figure 10.2.4.2a. RASCI Matrix

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In order for the City to achieve their desired future state, provide the necessary levels of service and support, and maximize the value of their investments, the fundamental structure of ITT should be repositioned. Addressing capacity and capability gaps and updating job descriptions to reflect current and future roles and responsibility needs will enable ITT to provide more efficient and effective service.

The proposed ITT organizational recommendations should be considered, in addition to the recommendations outlined in 7.2.1 People, to address the current and near-term gaps in ITT. Together these recommendations will enable ITT to play a role as an innovative, organizationally-focused stakeholder to the City pertaining to technology decisions and operations.

10.2.4.3 Municipal Comparator IT Organizational Charts

Pursuant to the municipal scan meetings conducted as part of the Future State Assessment, RSM requested the organizational charts from the municipal comparators. We were able to obtain organizational charts from the City of Kingston and the Municipality of Chatham-Kent. These can be found in Figures 10.2.4.3a and 10.2.4.3b, respectively.

Information Systems & Technology

Chief Information Officer (CIO)

Admin Assistant

Distributed Computing & Service Desk
- Tech Assoc (4)
- Tech Assoc – Telecom (3)

Technology Infrastructure
- System/Database Admin (3)
- System/Network Admin (2)
- System/Security Administrator(1)
- Cyber Security Administrator (1)
- Tech Assoc (1)

Systems Development
- I.S. Project Manager (2)
- System Analyst (5)
- Systems Analyst (ERP) (3)

Digital Transformation, Architecture & Planning
- IS Project Manager (1)
- Info. Mgmt. Analyst (1)
- Digital Content Analyst (2)
- Web Developer (2)
- Data Architect (1)
- System Analyst (3)

Geographic Information Systems
- Systems Analyst (3)
- GIS Analyst (3)
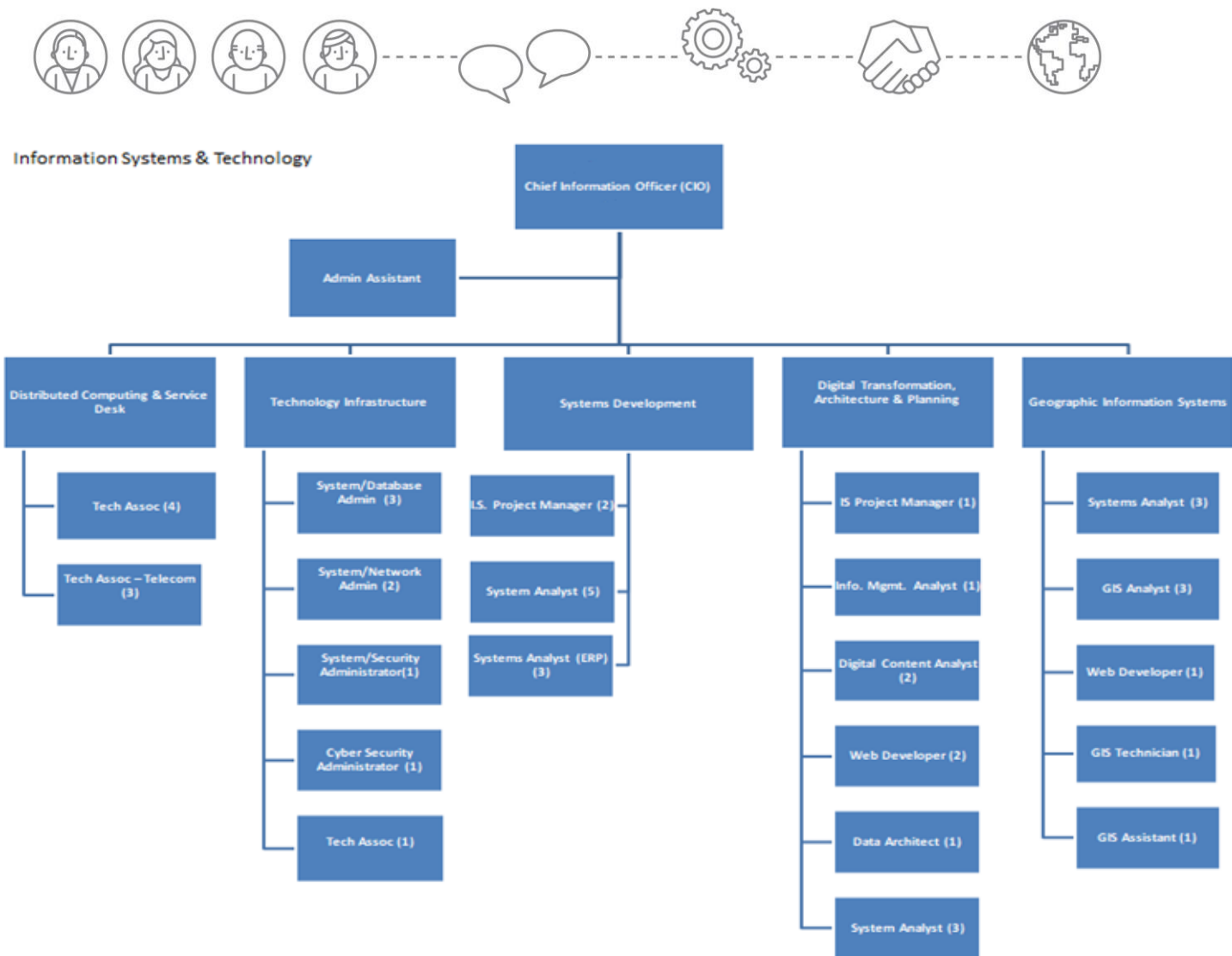- Web Developer (1)
- GIS Technician (1)
- GIS Assistant (1)

Figure 10.2.4.3a. City of Kingston IS & IT Organizational Chart

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Figure 10.2.4.3b. Municipality of Chatham-Kent ITT Organizational Chart

10.3 Implementation Plan Appendix

10.3.1 Prioritization Criteria

The prioritization criteria outlined on the following pages were used to initially prioritize the recommendations presented in 7.0 Recommendations. The initial prioritized list of initiatives was then updated to reflect potential quick wins, City capacity and capabilities, dependencies between certain recommendations, and RSM's perception of the City's readiness to undertake the recommendations. These criteria were therefore used as an initial guide to organize recommendations by priority, however, did not dictate the final sequencing of recommendations.

Criteria	Description	Scoring Levels	Weight
Organizational Value			
Holistic Benefits	Does this initiative benefit the City as a whole, such as creating efficiencies or improved service?	**1 =** Benefits to only one department **3 =** Benefits to a few departments **5 =** Benefits to all departments	12.5%
Strategic Alignment	Is this project linked with a defined council strategy/priority or strategic priority?	**1 =** No, there is no linkage **3 =** There is an indirect linkage **5 =** Yes, it directly aligns	12.5%
Increased Accessibility of Services	Does this initiative contribute to improving the accessibility of City Services?	**1 =** This initiative does not contribute to improving service accessibility **3 =** This initiative indirectly contributes to improving service accessibility **5 =** This initiative directly contributes to improving service accessibility	5%
Frequency of Impacted Service	How frequent is the service that is impacted by this initiative?	**1 =** This initiative impacts a service that is rarely requested **3 =** This initiative impacts a service that is requested no more than one a week **5 =** This initiative impacts a service that is requested multiple times every week	10%

Criteria	Description	Scoring Levels	Weight
Associated Risk			
Risk Mitigation	Will this initiative mitigate or reduce corporate risk? Risk could include legal, health and safety, financial, environment, cyber security, privacy, reputation, service failure, etc.	**1 =** This project will not mitigate any identified risk(s) **3 =** This project will reduce, but not eliminate associated risk(s) **5 =** This project will significantly reduce or eliminate associated risk(s)	10%
Risk of Completing	If the project is undertaken, what are the risks to the City during its implementation? This could include unforeseen costs, reputational impacts, security or privacy issues, business continuity, etc.	**1 =** High Risk to the City if undertaken **3 =** Medium Risk to the City if undertaken **5 =** Low Risk to the City if undertaken	5%
Deadline (Urgency)	Is the project driven by an internal deadline/priority or external deadline such as a contract, corporate business plan, regulatory or Ministry requirement, or software end of life?	**1 =** No deadline/urgency **3 =** Has deadline, but no immediate urgency **5 =** Has deadline and immediate urgency	5%

Criteria	Description	Scoring Levels	Weight
Complexity			
Capacity / Effort Required	Does the initiative require a significant amount of technical effort, including ITT and technical readiness?	**1 =** This initiative is significantly complex and requires significant capacity to complete **3 =** This initiative is complex and requires some capacity to complete **5 =** This initiative is relatively simple and minimal capacity is required	12.5%
Integration	Does this initiative integrate well with or use an existing City system / service / solution / capability?	**1 =** New initiative with no integration to current operations/systems or requires significant effort to integrate **3 =** Integrates with existing operations/systems with some effort **5 =** Part of an existing solution/capability already in place at the City or seamlessly integrates with existing operations/systems	5%
Process Transformation Effort Required	Does the initiative require a significant amount of process transformation before it is ready?	**1 =** This initiative is significantly complex and requires significant process transformation effort **3 =** This initiative is complex and requires some process transformation effort **5 =** This initiative is relatively simple and minimal process transformation effort is required	10%

Criteria	Description	Scoring Levels	Weight
Cost Considerations			
Overall Costs vs Benefits	Does this initiative result in tangible cost savings for the City? (i.e. Do the benefits outweigh the costs and enable a Return on Investment [ROI] ?)	**1 =** This initiative will not produce tangible cost savings and therefore will not have an ROI **3 =** This initiative will result in some tangible savings, but they are either hard to measure and/or do not offset the full investment (leading to an unknown ROI) **5 =** This initiative will result in tangible cost savings that will enable an ROI	12.5%

10.3.2 Accessible Implementation Plan

The following table can be used as a reference point when interpreting the Accessible Implementation Plan that is presented following the table. Start and end dates are by organized by calendar year.

Rank	Recommendation		Initiative	Term	Start	End	Estimated Duration [Months]
1	PE.1	Consider Staffing & Structure Changes	Restructure ITT to Better Service the City	Short	Already Started	2022 Q2	9
2	PE.2	Update ITT Job Descriptions	Restructure ITT to Better Service the City	Short	2021 Q3	2022 Q1	6
3	PR.5	Improve Organizational Communication	Improve ITT Service, Support, & Operations	Short	Already Started	2022 Q3	12
4	TE.4	Rollout Office 365 Suite of Products Across the Organization	Improve Critical Organization Capabilities	Short	Already Started	2022 Q3	12 (Then Ongoing)
5	PR.1	Develop, Update, & Document Policies & Procedures	Strengthen ITT Capabilities	Short	2021 Q4	2022 Q4	12

Rank		Recommendation	Initiative	Term	Start	End	Estimated Duration [Months]
6	PR.2	**Improve ITT Governance Processes**	Strengthen ITT Capabilities	Short	2021 Q4	2023 Q1	15
7	PE.4	**Execute Comprehensive ITT Resource Planning**	Restructure ITT to Better Service the City	Short	2021 Q3	N/A	Yearly
8	PE.3	**Unlock Additional Capacity**	Restructure ITT to Better Service the City	Short	2022 Q1	N/A	Ongoing
9	PR.3	**Develop & Enforce Service Standards & Service Level Agreements**	Strengthen ITT Capabilities	Short	2022 Q1	2022 Q4	12 (Then Ongoing)
10	TE.3	**Continue to Improve Network Connectivity & Remote Access**	Improve Critical Organization Capabilities	Short	2022 Q1	2024 Q1	24
11	PR.6	**Improve Security Measures**	Improve ITT Service, Support, & Operations	Medium	2022 Q3	2023 Q3	12

Rank		Recommendation	Initiative	Term	Start	End	Estimated Duration [Months]
12	TE.2	Support Increasing Citizen-Facing Digital-Services & Online Citizen Interaction Capabilities	Improve Critical Organization Capabilities	Medium	2022 Q3	N/A	Ongoing
13	PR.4	Continuously Improve the Service Desk Function	Improve ITT Service, Support, & Operations	Medium	2022 Q4	N/A	Ongoing
14	TE.1	Develop an End-User Computing Strategy	Improve Critical Organization Capabilities	Medium	2023 Q1	2024 Q1	12
15	PR.7	Improve After-Hours Support from ITT	Improve ITT Service, Support, & Operations	Long	2023 Q3	2024 Q2	9
16	PE.5	Provide Maintenance and/or Emerging Training to Increase Capacity & Capability on Enterprise Systems	Improve ITT Service, Support, & Operations	Long	2024 Q1	N/A	Ongoing
17	TE.6	Review High-Priority Applications	Support the Continuous Improvement of	Long	2024 Q1	2025 Q1	12

| Rank	Recommendation		Initiative	Term	Start	End	Estimated Duration [Months]
			Departmental Operations				
18	TE.7	Improve Information-Sharing Between Departments	Support the Continuous Improvement of Departmental Operations	Long	2024 Q1	N/A	Ongoing
19	TE.5	Enhance & Establish New Departmental Capabilities	Support the Continuous Improvement of Departmental Operations	Long	2024 Q1	N/A	Ongoing
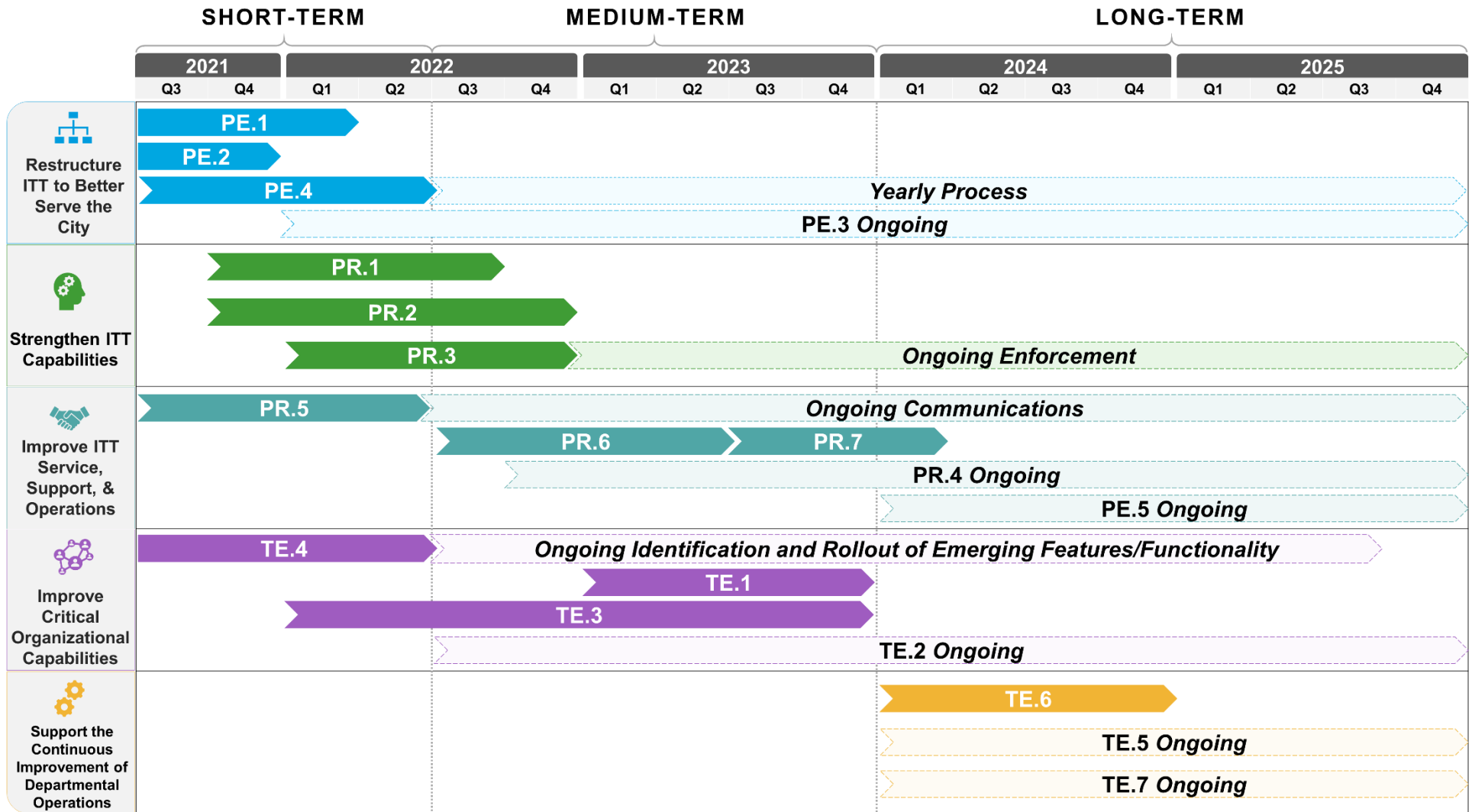
Figure 10.3.2a. Accessible Implementation Plan

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