IT Strategic Plan

City of Welland

Final Report

April 2025

Appendix I

The City of Welland has developed this IT Strategic Plan to enable our modern service delivery

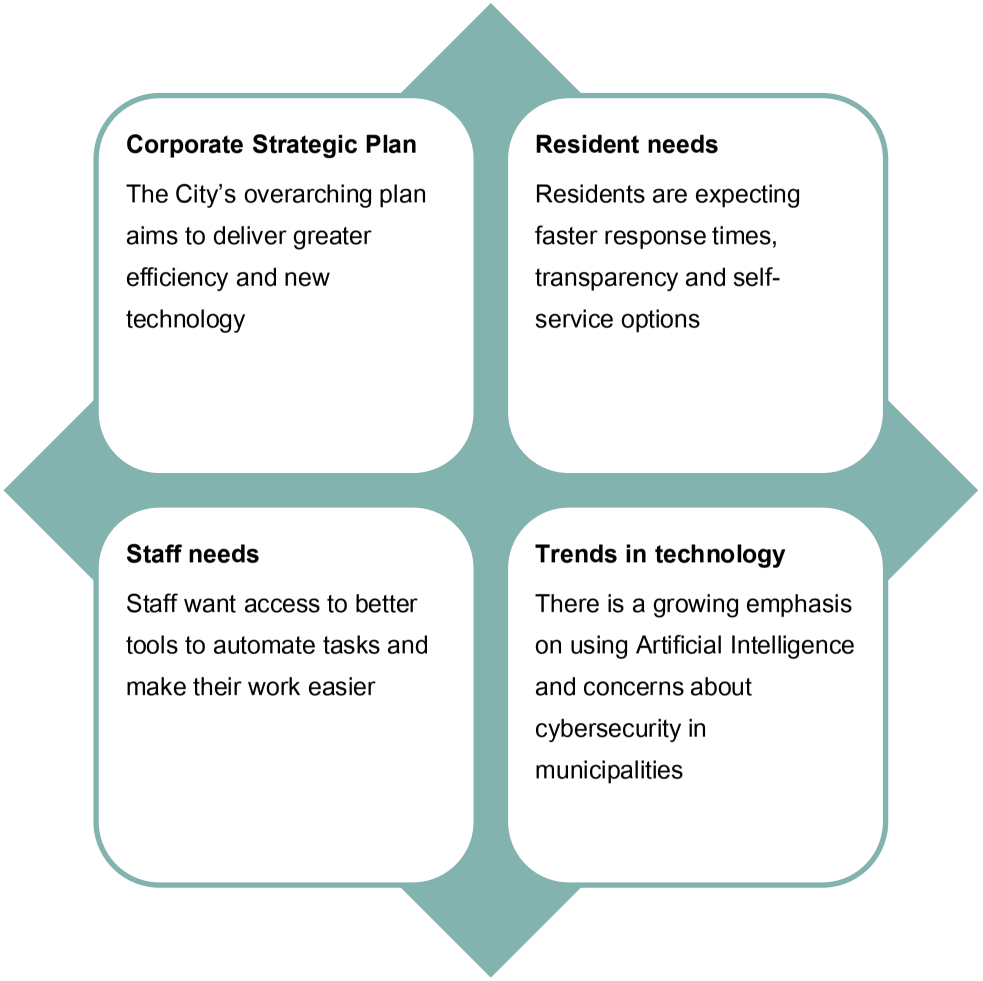
There has been steady growth and a rapid change within the City's culture in recent years

As a result, the City is, and will be, increasingly relying on technology to help deliver efficient quality programs and services to residents.

- To help us stay ahead of these demands, we have developed this Information Technology Strategic Plan. It supports the City's overarching Strategic Plan, which emphasizes the need to stay current and adapt to the evolving needs of our community.
- To achieve this Plan, we have gone through a thoughtful process of reviewing and assessing the City's technology needs. This included extensive consultation with staff and leadership, and a review of the City's IT infrastructure and assets.
- This Plan is the culmination of that work and provides an ambitious roadmap for IT for the next five years.

We considered several influencing factors to help inform the IT Strategic Plan

Below are key factors we considered to ensure the IT Strategic Plan is current and helps the City adapt to a rapidly changing technology environment



Our IT Strategic Plan flows from vision to action

A vision statement describes the long-term goal of the IT Strategic Plan

It paints a picture of the future state that the City aims to achieve through technology.

Vision

A community-centered City powered by a modern and secure technology ecosystem

A mission statement defines the practical role and purpose of the IT Strategic Plan.

It outlines how IT will contribute to the City's success in achieving its vision.

Mission

To enhance the quality of life for all residents and empower employees by delivering secure, innovative, and accessible technology solutions

Contextualizing the Plan

On completing this Plan, we imagine a resident logging onto their dedicated account, seeing their tax bills, registering for recreation and checking the status of their inquiry on a pothole on their street, all on the same platform.

The resident can trust that their information on the City's platform is secure and that staff can efficiently address their inquiry.

We will act on the IT Strategic Plan through four strategic priorities

Each of those priorities are made up of a set of initiatives that will take the City toward the vision and mission

The City's primary focus is to improve how citizens engage with it. To enable this, the City will need to modernize its internal operations. In addition to providing more efficient services, the City will need to modernize its IT infrastructure and assets.

Strategic Priorities

Enhance citizen engagement

- Explore a portal for priority services
- Continue digitizing remaining citizen-facing services

Optimize internal operations

- Investigate how staff can work more efficiently
- Improve how staff use the City's existing systems
- Acquire a new finance system
- Acquire additional systems or modules to fill gaps in functionality

Modernize IT infrastructure and assets

- Continue to replace aging Windows servers
- Redesign network architecture to set up Public Works as a true failover site

Enacting this IT Strategic Plan will benefit everyone

Although the benefits differ, each of our stakeholder groups will see improvements

Citizens

Citizens will have access to more digital services that make it easier to engage with the City, access information and complete transactions

Information Services (I.S.) department

The I.S. team will have fewer and more consistent systems to oversee and manage

Local businesses and community organizations

A more connected digital infrastructure will improve how businesses interact with the City and access resources online

City leadership and elected officials

Optimized operations will improve public trust and transparency, making it easier to demonstrate value to the public

City staff

Streamlined workflows and better use of technology will increase efficiency and make staff jobs easier

The next section of the strategic plan describes how each of the benefits will be implemented and the specific benefit it will deliver.

/ STRATEGIC INITIATIVES

1. Explore a portal for priority services

Project description

The City will establish a portal to connect its existing back-end systems under a single interface. This will allow citizens to interact with City services ,such as payments and applications, with one set of login credentials without needing to sign on to each system individually.

Implementation

- Identify and prioritize the services/systems we wish to be available through the portal based on how frequently residents interact with them. Examples include CityView and ACTIVENet.
- Define the core functionality of the portal, which could include Single Sign-On (SSO), integration between systems, user dashboard and security protocols (e.g. encryption and multi-factor authentication).
- Research portal platforms that support SSO and can integrate with the existing systems. Key will be understanding the capabilities of your existing platforms, specifically the ones that already offer an online service. Finding vendors with a track record in the municipal sector will help as the systems that Welland uses are common in other municipalities.
- Design a user interface that includes widgets for the City's services. Each widget acts as a link to the corresponding back-end system. Work with the vendors of the different systems to integrate the necessary functionality with their respective system.
- Promote the portal to citizens with clear instructions on how to use it. For users that already have multiple logins, the City may require them to select one of their existing login credentials or create a new one for the portal, which will act as their single set of credentials going forward.

Benefits

- Simplifies citizens' interactions with City services by eliminating the need to manage multiple usernames and passwords.
- Allows citizens to quickly navigate to services from one convenient location.
- Provides citizens with a consistent user experience that aligns with the City's branding.

Implementation considerations

The following estimate assumes the City uses a pre-built portal solution, vendors handle most of the technical setup and support, and there is minimal data exchange between systems.

Cost	$200,000 – 400,000
Effort for City staff	500 – 800 hours

2. Continue digitizing remaining citizen-facing services

Project description

The City has made significant strides in digitizing its services such as recreation program registration and building permit applications. The City will continue this trend to digitize all citizen-facing services to improve accessibility, efficiency and citizens' experience with the City.

Implementation

- Audit existing systems for service coverage. The City may engage with citizens to determine which services they find most difficult to interact with in the current format to inform its prioritization.
- Expand the capabilities of existing systems or acquire new ones for services that are not digitized. For example, the City does not currently have a Customer Relationship Management (CRM) system. A CRM would enhance citizens' interactions with the City by tracking them in one place, reducing repetition, personalizing communication and allowing issue tracking.
- Pilot the new systems or system functionalities before adopting them fully for all citizens. This may identify issues with implementation or integration between systems that the City could work with vendors to resolve prior to a full launch.

Benefits

- Improves citizens' interaction with City services by eliminating inconsistent formats (e.g. fillable PDFs and printed forms) and allowing them to track the progress of their requests.
- Improves efficiency behind the scenes as electronic records minimize data entry and can be more readily tracked and analyzed.

Implementation considerations

The following estimate assumes the City expands the use of existing systems and vendors handle most of the technical setup and support. Costs and effort may vary greatly based on the City's audit of its service coverage.

Cost	$40,000 – 120,000 (Per service)
Effort for City staff	500 – 1500 hours

3. Investigate how staff can work more efficiently

Project description

The City will conduct a comprehensive audit of current internal processes and workflows to identify inefficient practices and areas for greater use of automation. The outcome of this audit will inform the City of changes to processes and technology that would allow staff to operate more efficiently.

Implementation

- Identify and prioritize areas for review by determining which processes, workflows and departments could benefit the most from efficiency improvements. Prioritize these based on which processes generate the most complaints from staff or residents, or clearly have the most manual steps.
- Establish a clear approach for the audit, including the methodology we will use, how we will gather data and who the stakeholders will be. This could include a mix of methodologies such as process shadowing, focus groups with staff and performance reports from existing systems.
- Analyze the information gathered from different systems to identify inefficient practices. The City could leverage standard practices to evaluate processes, such as Lean principles of waste.
- Based on the data collected, evaluate whether current processes can be improved through staff better understanding how to use the existing systems, extending those systems to support new processes or acquiring new systems. These outcomes are expanded on in the following initiatives.

Benefits

- Identifies bottlenecks, redundancies and inefficient activities that the City can address through better use of existing systems to streamline operations.
- Highlights areas where new or enhanced digital tools can replace manual tasks and improve service delivery.

Implementation considerations

The City may wish to implement this initiative internally or retain a third party to conduct the audit. The former would cost less but demand more time from internal resources; the latter would cost more but save on staff time.

Cost	$0 – $100,000
Effort for City staff	50 – 800 hours

4. Improve how staff use the City's existing systems

Project description

This City will improve how staff interact with the existing systems by re-engineering processes and providing additional training where needed. By maximizing the potential of existing tools, the City will ensure staff are equipped to make the most of the technology already in place.

Implementation

- Use the findings from the process audit to highlight areas where current systems can be better utilized. Specifically, identify the process activities that can be redesigned to eliminate redundant steps.
- Adjust workflows and processes to better leverage the capabilities of current systems. This may include standardizing steps to align more closely with the intended design of the systems the City currently uses, which would allow the City to use existing automation functionalities.
- Design targeted training programs that allow staff to use existing systems to their full potential. This could include a mix of training modalities, such as hands-on training with vendors, virtual workshops, and developing standard operating procedures on more advanced features.
- Establish a culture of continuous improvement by gathering feedback from staff to identify areas for further improvement and periodically encouraging additional training.

Benefits

- Staff will be able to complete tasks more efficiently, reducing the time spent on manual steps and minimizing errors.
- The City will receive the most value from their current technology investments without the immediate need for new systems.

Implementation considerations

The City may wish to implement this initiative internally or retain third parties to re-engineer processes and deliver training. The former would cost less but demand more time from internal resources; the latter would cost more but save on staff time.

Cost	$10,000 – $100,000
Effort for City staff	100 – 1,000 hours

5. Acquire a new finance system

Project description

The City will need to replace its existing finance system as the vendor has announced it will phase out support for the system by 2029.

Implementation

- Define the key objectives of the new system and its scope. One objective might include that the new system has modules that can be used to streamline HR processes alongside finance.
- Review and analyze the current finance workflows and processes to identify inefficient activities. Replacing the finance system is an opportunity for the City to revise its processes to ensure the new system enables more efficient operations rather than perpetuating existing challenges. This will include extensive consultation with multiple departments to map out the finance processes end-to-end.
- Issue RFP and select a vendor. The City may wish to use its understanding of the current workflows and desired future state as technical components of the RFP to evaluate vendors against.
- Work with the successful vendor to implement the new system, migrate data over from the current system and train staff. Once the new system is implemented, decommission the current system.

Benefits

- While this initiative is driven primarily by necessity, the new system could introduce new functionalities that allow the City to operate more efficiently.
- The City could use this opportunity to introduce more efficient workflows in its finance processes.

Implementation considerations

The following estimate assumes the City will use external services to assist in identifying and implementing a new platform.

Cost	$400,000 – $800,000
Effort for City staff	1,000 – 2,500 hours

6. Acquire additional systems or modules to fill gaps in functionality

Project description

There are functional gaps that the City might be able to fill with new systems or additional modules of existing systems. While these are less immediate than the finance system described in the previous initiative, they would help City staff work more efficiently and effectively by streamlining and automating processes.

Implementation

- The steps for these systems will largely follow the same logic as that of replacing the finance system as described in the previous initiative.
- Based on our analysis of the current system architecture, the City could consider acquiring the following systems:
  - Customer Relationship Management (CRM) to help the City manage its interactions with citizens more effectively.
  - HRIS, which could be its own dedicated system or could be a module within the finance system, as described in the previous initiative.
  - Document Management System (DMS) for staff to better store, organize and manage digital files in a single repository.
  - AI solutions that can integrate with existing platforms, introducing analytic capabilities and helping streamline processes.
  - Ticketing system to help track IT requests by creating and prioritizing support tickets and communicating resolution and progress to staff.

Benefits

- Implementing new systems can streamline the City's operations by automating manual tasks and allowing staff to focus on higher-value activities.
- The new systems would allow the City to make more informed decisions based on up-to-date data that is more readily accessible.

Implementation considerations

The City may benefit from staggering its implementation of these systems to avoid change fatigue from implementing multiple systems simultaneously.

The following estimate has a large variance because cost and effort would vary drastically depending on how many and which systems the City chooses to implement.

Cost	$50,000 – $1,500,000
Effort for City staff	100 – 3,000 hours

7. Continue to replace aging Windows servers

Project descriptions

The City will continue upgrading its aging servers. The new servers will receive security patches and will be compatible with vendor applications, which will reduce the City's vulnerability to data loss, breaches and operational issues.

Implementation

- Prioritize the servers that need to be replaced based on end-dates of extended and mainstream support. This can be a first layer of prioritization – the former should be replaced first. However, an additional layer could include the importance and exposure of the systems that are on the servers.
- Some upgrades will depend on when the vendors of the software running on that server certify new versions of Windows.
- Plan for downtime and disruptions during the replacement process and schedule them with the relevant departments to minimize the impact on their operations. Thoroughly test the replacement servers in a staging environment before decommissioning the older servers to ensure the relevant applications are functioning as expected.

Benefits

- Replacing aging servers mitigates the risk of data loss, breaches and cybersecurity attacks.
- The City would be future-proofing its infrastructure and making sure they are compatible with vendor applications.

Implementation considerations

The following estimate assumes the City will replace 14 servers and will use internal staff to replace the servers.

Cost	$10,000 – $50,000
Effort for City staff	50 – 300 hours

8. Redesign network architecture to set up Public Works as a true failover site

Project description

The City will take steps to set up Public Works as a true failover site to help ensure facilities have a secure connection to the City's servers in the event of an issue with the network at City Hall.

Implementation

- Install a separate direct connection between Public Works and the City's internet provider, bypassing City Hall entirely. This ensures that Public Works can remain operational and accessible even if the fibre connection to City Hall and Public Works is damaged.
- Establish alternate connections for other City facilities to Public Works instead of routing them solely through City Hall.
- Confirm that routing protocols and configurations in both City Hall and Public Works allow for automatic traffic failover, meaning that if one path fails, the other can seamlessly take over. Perform controlled failure tests simulate outages in City Hall to ensure this is the case.

Benefits

- Setting up Public Works as a true failover site would minimize disruptions to City operations if there are any issues with the network at City Hall.

Implementation considerations

The following estimate assumes the City will only install connections between Public Works and the City's network provider, and not additional connections to facilities. Additionally, the installation would be handled by an external party.

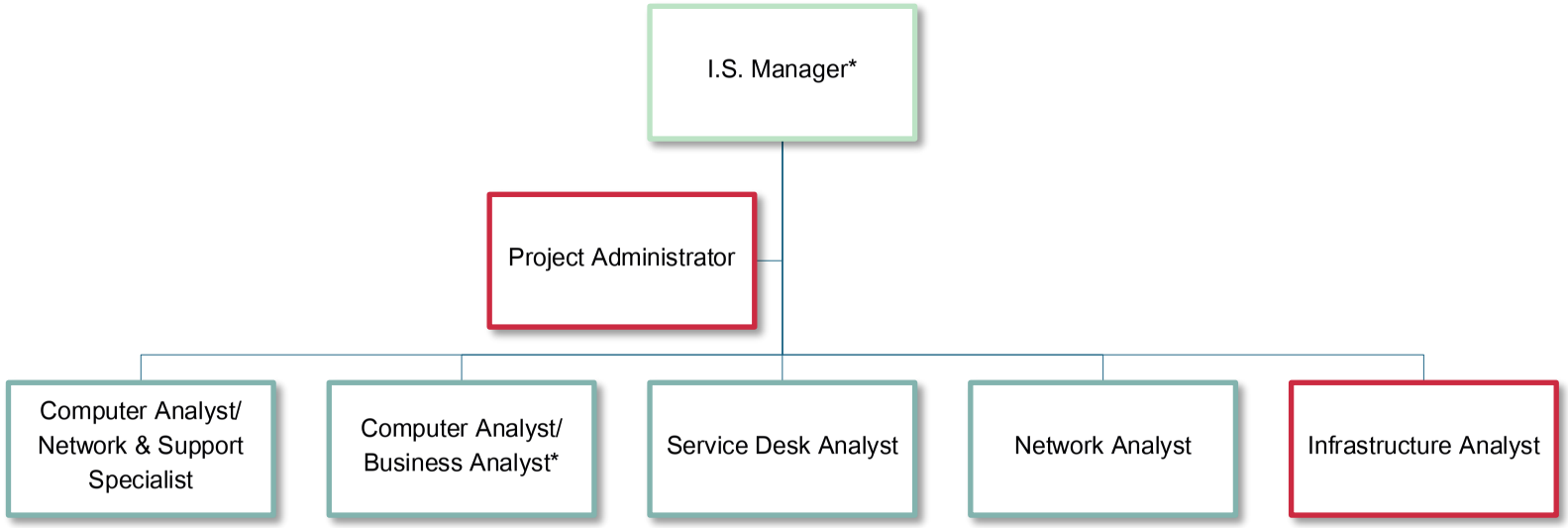
Cost	$50,000 – $80,000
Effort for City staff	100 – 200 hours

/ IMPLEMENTATION

The City will make some adjustments to the Information Services team to execute the strategy

The Information Services team will add an additional resource and adjust the responsibilities of its team to better align with the strategy

Below is the future state organizational structure. New positions are indicated in red. Adjustments to existing roles are denoted with an asterisk (*)



- The I.S. Manager will no longer be responsible for network administration and will focus on more strategic activities.
- The Computer Analyst/Business Analyst will have a new responsibility to oversee modernization initiatives by acting as the bridge between the City and software vendors.
- The Infrastructure Analyst is a new role. This position will take over the Manager's responsibilities as they pertain to administering servers allowing the Manager to take a more strategic role in Information Services.
- The Project Administrator is a new role. This position will be responsible for driving and coordinating the initiatives of this strategy, including the audit of internal processes and acquiring vendors.

The City will establish an IT Steering Committee to oversee decisions on future technology investments

Members will include representatives from all departments to ensure decisions made on core systems align with the City's overarching goals

This will promote a collaborative approach to acquiring and replacing systems.

- This approach would reduce redundancy between systems and maximize the value of technology investments.
- To the right, we outline some key decisions that the Committee should make. The City may wish to adopt this framework or adjust it as it sees fit.

Strategic alignment

- How can IT support and investments enable the City's overarching strategy?

Investments and budgeting

- What resources and investments will the City allocate to IT?
- How will the City manage these expenditures?

Performance management

- How will the City measure and monitor the performance of IT?

Risk management

- What risks should the City be aware of and manage?

Compliance and regulations

- What regulatory requirements apply to the City?
- How will the City handle compliance with legal and regulatory standards?

IT service delivery

- Should the City handle IT services internally or outsource them?

The initiatives will span over a 5-year timeframe

The following timeline provides an overview of the sequencing of the eight initiatives in this plan

- To avoid overloading the City's resources, the initiatives are staggered to focus on high priority areas first, such as replacing the servers.
- Some initiatives depend on the completion of activities in other initiatives. This is denoted below with an indentation and arrows in the timeline.
- Initiative 3 is split to allow the City to focus on the finance system first and then return to investigating workflows with other systems in 2028.

Recommendation	2025		2026		2027		2028		2029	
	H1	H2	H1	H2	H1	H2	H1	H2	H1	H2
1. Explore a portal for priority services										
2. Continue digitizing remaining citizen-facing services										
3. Investigate how staff can work more efficiently										
4. Improve how staff use the City's existing systems										
5. Acquire a new finance system										
6. Acquire additional systems or modules to fill gaps in functionality										
7. Continue to replace aging Windows servers										
8. Redesign network architecture to set up Public Works as a true failover site										

Blackline Consulting