IT and Digital Master Plan
Summary of Final Report

December 2022

Outline

1. Project Objectives
2. Key Positives
3. Three Areas of Focus
   - Governance, Leadership and Training
   - Infrastructure, Operations and Support
   - Service Transformation and Business Solutions
4. Collaboration Opportunities
5. Major Recommendations

1. Project Objectives

Project Objectives

- Carleton Place wants a consulting firm to conduct a review of people, process and technology and develop a Corporate IT and Digital Master Plan that will allow the Town to:

  - Ensure their IT systems are as secure and efficient as possible

  - Ensure their IT systems have capacity for future anticipated growth

  - Ensure that appropriate governance including policies are in place

  - Respond to security incidents and recover from significant IT service interruptions

  - Identify opportunities for savings and efficiencies

  - Continue to obtain insurance coverage as a result of implementing recommendations from the Final Report and to have all information available to reference easily

The consultants considered all of the above in their analysis and recommendations.

Preface

This report provides the information that the Perry Group consultants have gathered during the Project, along with a set of recommendations resulting from the consultants' analysis.

It should be noted that these reports tend to portray gaps and vulnerabilities simply because the consultants have been engaged largely to identify areas for improvement. We do also identify some key positives to try to provide some balance and point out what is being done well.

We would like to acknowledge that while there are areas that could be improved, our assessment indicates that Carleton Place is in a good place compared to other similar municipalities.

We believe that the Senior Management Team at the Town has done a very good job with the limited resources available, and we would encourage Carleton Place to move forward with the recommendations in the report to ensure that the Town continues to provide excellent levels of service to its constituents.
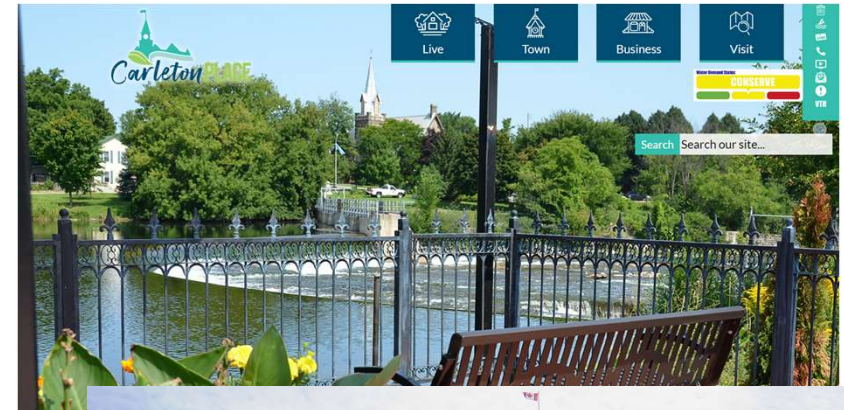
2. Key Positives

Summary – Key Positives

Leadership

- Senior Leadership is engaged and looking at areas for improvement, and some departments have implemented new technologies.

Technology/Infrastructure

- The Town has chosen a "Cloud first" strategy, and all applications are already cloud-based, limiting requirements for on-premise hardware.

Risk and Information Security

- The Town has an ongoing Information Security Awareness training program which is comprehensive and is meeting the needs of the organization.

Business Solutions

- The Town has some very good business solutions in place, many of which we see in other municipalities, and there is sufficient capacity for growth.

3. Three Areas of Focus

Three Areas of Focus

Governance, Leadership and Training

Priorities and Decision-Making

Infrastructure, Operations and Support

Carleton Place IT Operating Model

Service Transformation and Business Solutions

People, Process then Technology

3a. Governance, Leadership and Training

Governance

- Carleton Place needs dedicated technology leadership and governance (including an IT Steering Committee) to drive this Plan forward. The current model where IT is overseen by a role that is not full-time is not sustainable if the Town desires to take full advantage of technology. Staff need be aware of the tools available to them and trained on how best to use them.

- **IT Governance** is the set of processes, policies and rules that ensure that all IT activities are aligned with Carleton Place's corporate objectives. Studies have shown that organizations with effective IT Governance are far more productive than those without. The IT Steering Committee (ITSC) will oversee all major IT initiatives, providing a holistic view of IT, rather than each department going out on its own.

- **The Information Technology Steering Committee (ITSC)** body is responsible for ensuring the alignment of IT activities with corporate goals and objectives. The ITSC shall provide oversight of information technology investments and is responsible for setting strategic directions for technology and technology services based on corporate and Council priorities. Specific responsibilities include:

  - Approving the IT Strategy

  - Setting priorities and directions of IT

  - Approving major IT initiatives

  - Approving IT annual work plan and significant changes to the work plan throughout the year

Leadership

- Carleton Place IT activities are under the jurisdiction of the Treasury. However, while an admirable job has been performed by this role, IT is so important to the Town that more focus should be placed on it. This requires a dedicated, full-time resource to coordinate IT activities, understand business requirements and facilitate a holistic view of technology needs across the organization.

- **IT Coordinator Role** - Under the direction of the Treasurer this role will focus on the coordination of IT activities between the business units, vendors and service providers. Through collaboration with municipal management and staff, the position will be responsible for understanding business requirements and coordinating business solutions improvements and integration to meet these requirements. The role will also develop and manage projects to implement business solutions improvements, integrations, infrastructure and information security. This role will also be responsible for IT vendor management and first line Service Desk functions.

Training

- Training is a multi-faceted discipline and is not only required for facilitating the use of a technology, but also understanding the capabilities of technologies, both those in use and those that are being considered.

- **Understanding Capabilities** - Currently, new technologies are being implemented at the Town, although in general they are being implemented in single departments. Many technology solutions have multiple functions that could possibly be used in other departments, and not just the department it was intended for. It is critical that when considering a new technology solution, the Town, and the ITSC in particular, must understand not only the capabilities of the potential solution, but also the capabilities of existing solutions. Many organizations have procured a new technology solution at great expense while they already had a solution in place that could provide the required functionality.

- **Technology Training** - In addition to understanding the capabilities of a solution, Town personnel must be able to make the best use of it by knowing how to use it effectively. In some cases, projects have stalled due to personnel not knowing how to use the solution.

  The Town should contact its major business solutions vendors to arrange for training in functional capabilities and, where appropriate, specific training for users.

3b. Infrastructure, Operations & Support

Infrastructure

- Carleton Place needs a sustainable operating model with a reliance on partnerships and managed technology providers to deliver services and mitigate risk. Connectivity is key to facilitating efficient work processes across the network as the organization continues to procure cloud-based services.

- **General Infrastructure** - The Town made a good decision to put business solutions in the cloud (hosted outside of the Town's networks). This reduces the general requirements for internal infrastructure.

  Some of the infrastructure is relatively modern and stable, although improving areas such as fiber connectivity to remote locations would enhance performance and reliability.

- **Connectivity** - The Town has connectivity issues with some remote locations and also with cellular coverage. While the Town has a backup Internet connection in case the primary goes down, it is largely ineffective as the speed of the connection inhibits the ability to work at close to normal performance levels.

  These connectivity issues prevent the extended use of technologies in the field, as staff cannot rely on the technology to do the work while working remotely.

- **Information Security** - The Town has taken some positive actions in regard to information security, including having an ongoing information security awareness training program.

  However, there are areas for improvement across the board, including a vulnerability management program and mandatory training for all Town personnel and Elected Officials.

  A detailed Security Report with action items has been provided to the Administration but is not included in this report for security reasons.

Operations

- Carleton Place has limited Information Technology Service Management (ITSM) practices in place and needs to invest in a proper system to support the growing demands of the Town. The solution should be cloud-based to support the strategy to reduce on-premise IT infrastructure and the associated support costs. ITSM includes:

  - **Incident/Problem Management** - Helps the Town track and manage unplanned events or service interruptions. The purpose is to restore the service to its normal state at the earliest opportunity.

  - **Change Management** - Is a process that helps you implement or enable company-wide changes while minimizing the impact of those changes on your IT service delivery.

  - **Knowledge Base** – The Town should have the ability to create, share, update, and access knowledge regardless of location.

  - **Asset Management** – A best practice framework will ensure that all your company-wide assets are maintained over time, and employees can reap the maximum output from them. You will also understand which new assets are in demand and which existing ones need replacement.

  - **Reporting (Metrics/Trending)** - Creating detailed reports can lead to better analysis, evaluation, and, most importantly, decision making

- A strong approach to ITSM will help position IT as an enabler of digital growth. However, doing so successfully —with results — involves more than simply implementing a point ITSM solution. An enterprise approach is required for the Town, in which technology and business teams work closely together to help the ITSM function address the business's needs.

Support

- The current model of having two part-time external resources providing infrastructure and security support is not meeting the Town's requirements.

  The Town requires a Service Provider that can be available at least 5 days a week and is able to provide after-hours support. It also requires that security be improved and maintained, mitigating the risk of a successful attack by nefarious actors. Moving to a single, full-time Managed Services Provider will provide Carleton Place with the support it needs to effectively manage its infrastructure and security

- **Managed Services** - The recommended approach for the Town would include procuring IT managed services from a qualified firm that would provide critical IT services including but not limited to expertise with:

  - IT process development

  - IT service management (help desk)

  - Network security and infrastructure support

  - Cloud technologies

Proposed Organizational Structure & Governance
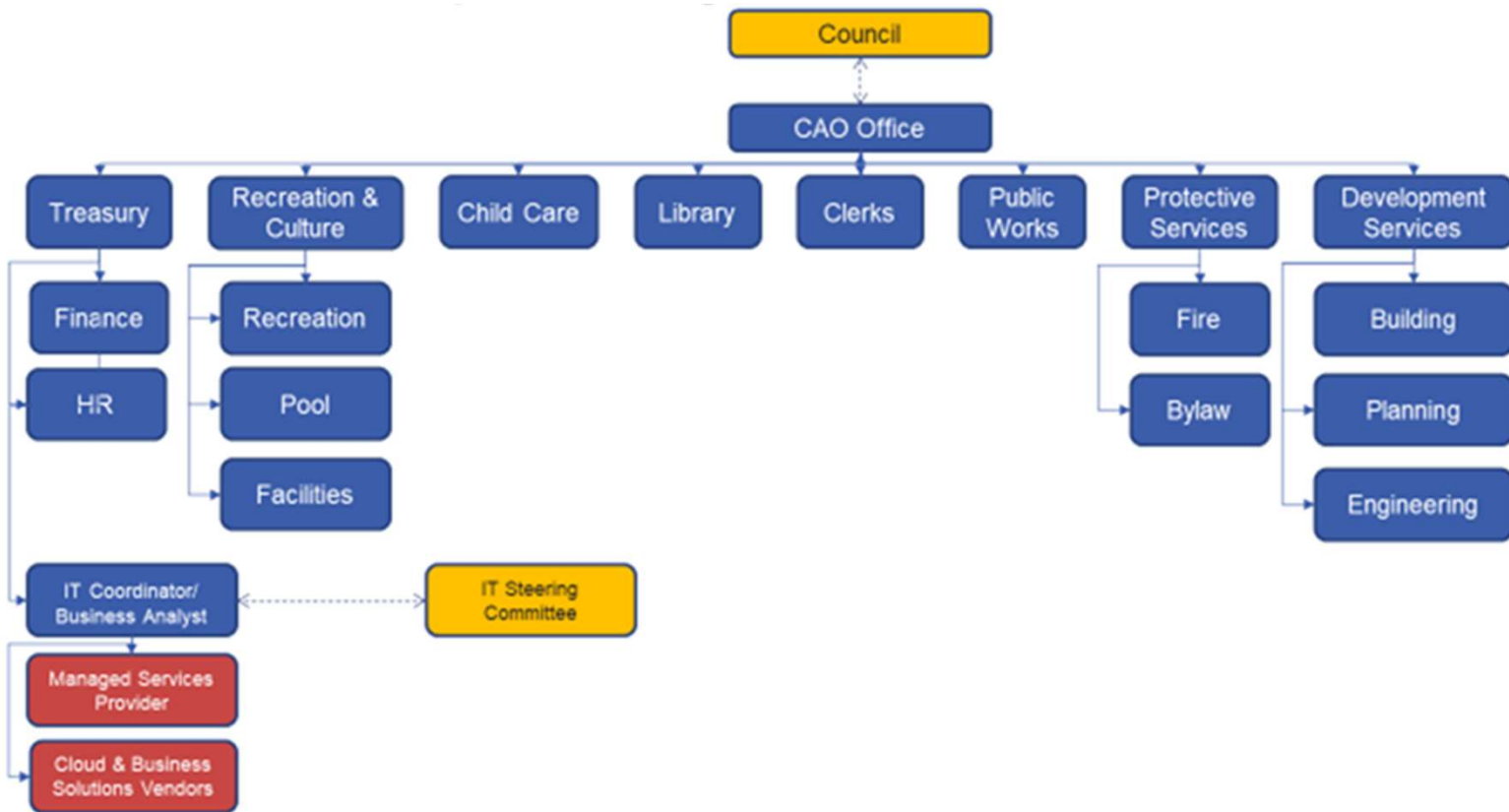
3c. Service Transformation & Business Solutions

Service Transformation

- Carleton Place compares somewhat favourably with similar municipalities when it comes to online service delivery. However, the demand to be able to do things online rather than in person is increasing all the time, and other services could be expanded to have an online delivery channel. Building inspections and permits are examples of this.

- **Online Service Delivery** - Implementing additional online services to citizens via the corporate website is recommended. The focus should be to offer over the counter services through the web channel as well as in the traditional way. In order to provide online services, the back-office processes should be automated with appropriate business systems. However, since this is a time-consuming process, even simple steps can be taken initially such as providing more online fillable forms, saving the constituent from having to print a form and mail it.

- **CRMs** are becoming more commonplace within municipal settings as they provide a number of beneficial features such as service requests, a customer service knowledge base, customer tracking and ID profile management, automated notification lists, digital service portal, etc. While CRMs are becoming more mainstream, they also require a sizeable investment to not only purchase but operate as well. Larger municipalities that have a centralized customer service function and call centre are ideally suited to CRMs.

  In our estimation, Carleton Place would not get enough value for money out of a CRM solution at this time. We believe that the Town should continue to leverage existing solutions to modernize the front end of service offerings (eForms conversion) and utilize existing relationships with online payment providers to enhance online customer service.

  We recommend that the Town explore the use of CityWide or another comprehensive asset management system that includes online requests to assist in managing customer service requests as it will help to bring in automation and better familiarize staff with the solution itself.

Municipal Online Services Assessment

Service	Status	Service	Status
Easy to use website	Y	Building permit application	Partial
Mobile website	Partial	Book a building inspection	N
Personalization	Y	Submit digital plans	Y
Single Account	Y	Submit development application	N
Submit a service request	N	Track development application	N
Track a service request	N	Employment search and applications	Partial
Responsive Web / App	N/A	Sign permits	N
Customer knowledge base	N	Fire / Fireworks permit	N
Online chat with CSR	N	Pet licence	Y
Tweet for help	N	Theatre Tickets	N/A
Online bid management	N	Road closures	Partial
Pay Taxes Online	Y	Snow clearance status	N
Pay an invoice	Y	Events calendar	Y
Parking / infraction ticket payment	N	Filming permits	N/A
Parking permits / exemptions	N	Business licences	N/A
Recreation program online booking	N	Council / committee web streaming	Y
Rent a facility	N	Online Agendas / Minutes	Y
eForms	Partial	Grants programs	N
Open Data	N	Council delegation request	N
Transit planning	N/A	Site suitability / selector / vacant land	N
Tax account management	Y	Marriage Licence	N
Tax certificates	Y	Digital Signatures	N

Business Solutions

- Generally speaking, the Town should take a more corporate view of business solutions rather than a departmental one. For the future, all new business solutions should be reviewed by the IT Steering Committee and evaluated for corporate value and use.

  For current systems, a strategy of consolidation where appropriate should be followed. This involves choosing the best solution for corporate purposes rather than multiple systems for each department.

- We recommend using a 'standard' set of business solutions to address the Town's requirements. Exceptions will need to be made but in general, these are the main systems to be used:
  - Great Plains (Financial system)
  - CityWide (Asset Management, Work Orders)
  - ActiveNet (Recreation program management, registrations)
  - Cloudpermit (Licenses, permits)
  - Esri (GIS)
  - SharePoint (Document management, collaboration)
  - M365 (Email, document creation)

4. Collaboration Opportunities

Collaboration Opportunities

- Carleton Place wanted the consultants to look at other municipalities, geographically close or with other similarities, with a view to seeking out collaboration opportunities. The consultants discovered a few potential opportunities:

Municipality	Potential Collaboration Areas	Comments	Potential
Lanark County	Great Plains (GP)	County has GP on-prem. CP may be able to help them with moving to cloud version	Medium
Lanark County	EDM	New Clerk wants to set up SharePoint. Possible knowledge sharing, potential shared consultant	Medium
Perth	Virtual Town Hall (VTH)	Implementing VTH with Central Square. Possible knowledge sharing. GP is hosted by County.	Low
Greater Napanee	TOMRMS	Town is using TOMRMS but with Laserfiche. Potential knowledge sharing.	Low
Mississippi Mills	Great Plains	Not using GP very well, CP may be able to help them by knowledge sharing	Low
Mississippi Mills	ActiveNet	MM may be able to provide CP with some information on setting up ActiveNet	Medium
North Grenville	SharePoint	They are only using the basics. Could be an opportunity for information sharing	Low
County Municipalities	Managed Services	Most municipalities in the County are using Zycom for managing their infrastructure and security. One of the recommendations in this report is to use a managed services company for infrastructure and security, and this has the potential of being an area of collaboration. This could be in the future where all municipalities in the County work with Zycom on a shared set of services.	High

5. Major Recommendations

Major Recommendations

The following describes the major recommendations the consultants are proposing. Details are provided in the main report:

Governance, Leadership and Training

- Hire an IT Coordinator to be responsible for the IT Program, including managing vendors and contractors
- Form an IT Steering Committee to oversee all IT activities from a corporate point of view
- Contact major solutions vendors to learn more about Business Solutions capabilities

Infrastructure, Operations and Support

- Engage a full-time Managed Services Provider to manage the Town's infrastructure and security
- Implement a security program as defined in the report provided to the Administration
- Ensure the Disaster Recovery Plan provided in this project is maintained as an ongoing program
- Implement ITSM, with the Managed Services Provider, to better manage IT Service Delivery

Service Transformation and Business Solutions

- Implement a program to make all online forms 'fillable' and submittable' online
- Allow constituents to submit Service Requests using existing technology
- Take a corporate view of business solutions rather than a departmental view

Questions?

Thank You!

Brian Whitelaw
brian.whitelaw@perrygroupconsulting.ca

Gary Walker
gary.walker@perrygroupconsulting.ca

Jeff Lanaus
jeff.lanaus@perrygroupconsulting.ca

Perry Group Consulting Ltd.