Town of Milton

Digital Strategy

August 2022

FINAL

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MILTON
CONTEXT

Acronyms

Acronym	Definition
AP	Accounts Payable
CASB	Cloud Access Security Brokers
COBIT	Control Objectives for Information and Related Technologies
ERM	Enterprise Risk Management
HR	Human Resources
IT	Information Technology
ITIL	Information Technology Infrastructure Library
ITSM	Information Technology Service Management
ITSP	Information Technology Strategic Plan
KPI	Key Performance Indicator

Acronym	Definition
LMT	Leadership Management Team
NIST	National Institute of Standards and Technology
PDF	Portable Document Format
RFP	Request for Proposal
RPA	Robotic Process Automation
SDR	Service Delivery Review
SMT	Strategic Management Team
TCO	Total Cost of Ownership
TOR	Terms of Reference
UCC	Unified Communications and Collaboration

Introduction

Background

The Town of Milton (Milton or the Town) is a dynamic, modern and innovative urban centre. Set against the backdrop of the Niagara Escarpment within Halton Region, Milton is well-situated at the core of one of Canada's most significant technology clusters, the Toronto-Waterloo Innovation Corridor.

Milton's population is among the youngest in Ontario (median age of 34.6) and ranks amongst Ontario's most educated, with 73% of the labour force possessing a postsecondary education.* As of 2021, Milton's population is expected to grow to 235,000 by 2031**, outpacing the provincial average between 2011 and 2016.

In addition, technology continues to change at a fast pace and the Town needs a plan to manage its adoption of technology.

As such, the development of a Digital Strategy is a priority within the Town's Council-Staff Work Plan, 2020-2023.

What is digital?

Digital is a means to an end, not an end itself. Digital creates better value for investments and enables more efficient services.***

A digital strategy serves as an integrated plan articulating how the Town uses technology to deliver services. It takes both the external (residents, businesses, visitors) and internal (staff, management) perspectives. The scope of digital strategies can vary, however typically include service channels (phone, website, etc.), information and data, systems, and technology.

Consequently, Information Technology (IT) and the IT Division are key enablers to any digital strategy.

Why is a digital strategy important?

The pandemic accelerated the need for many organizations to think differently about service delivery, customer service, automation and self-service – both from a service continuity and safety perspective. In addition, the Town's demographics desire more digitally enabled services and access to information.

It is with this context that the Town is developing its first digital strategy.

* StatisticsCanada, 2021
** Halton Region Best Planning Estimates, 2011
*** Ontario's Digital Action Plan

Digital services are not a new concept, but they start with several premises

In March 2017, the Province announced its Digital Action Plan. This initiative seeks to make digital service delivery and digital operations the preferred mechanism used by the Province to serve residents.

The UK launched its digital government strategy in 2011, leading with the phrase "Digital by Default". Undoubtedly COVID-19 has accelerated this trend. Digital by Default starts with a number of premises:

- Taking a resident's perspective
- Applying technology to digitize manual processes as it will make us more efficient, reduce errors and create a wealth of information that will inform our decision-making
- Make the services more convenient and easier to use, so residents, businesses and partners choose the digital channel above all others

Our approach for developing the Strategy

Development of the Strategy was highly collaborative, engaging Council, management and staff from all departments of the Town

In 2021, the Town engaged the services of a third-party consulting firm to work with a project team and employees across the Town on the development of a Digital Strategy. The project involved three phases:

Assess where we are	▸ Conducting interviews and surveys across the organization ▸ Developing customer journey maps for priority areas ▸ Assessing the Town's current use of technology
Determine where we want to be	▸ Creating a vision for the Town's digital future ▸ Collecting ideas from departments and Members of Council on where they see the future ▸ Leveraging common digital practices from the province and federal government
Build a plan to get there	▸ Working with Town staff to develop step-by-step plans to achieve the vision

This Strategy builds on the hard work the Town has been doing

This Strategy also leverages and supports the previous hard work of Council and staff. Specifically, over the past few years, the Town has commissioned and/or developed a number of studies and reports:

Many explicitly identify the need for technology, others infer it. Review of these documents and the current project pipeline indicates that there is high demand for digital within the organization.

Distilling the needs from these sources indicates a number of emerging themes (see right).

Increasing Automation
(doing away with paper and manual activities)

Addressing System Gaps
(ensuring the systems used within the organization fully meet the needs of staff and the community)

Desire for Greater Data and Analytics

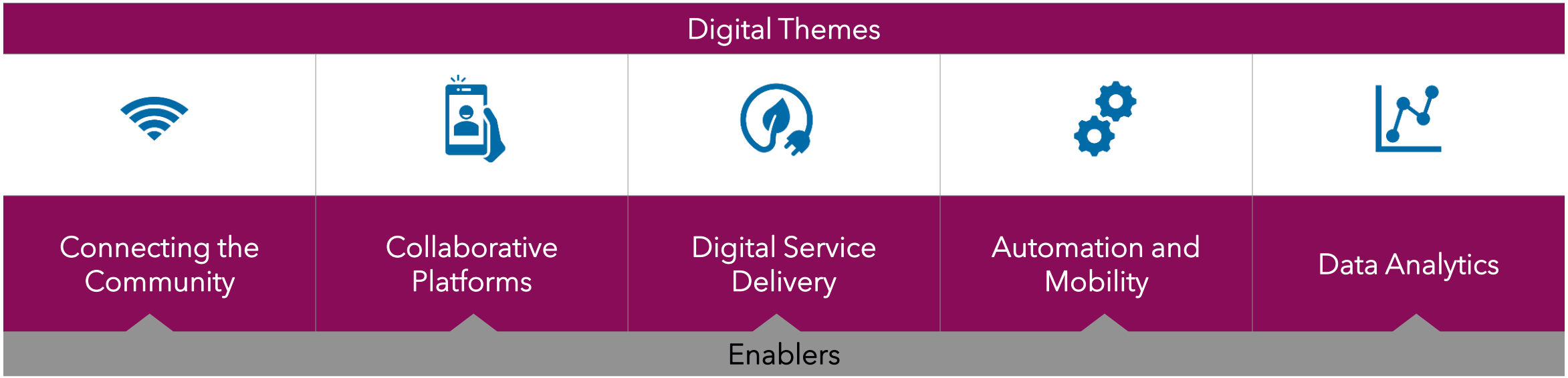
Going Digital
(offering straight-thru processing / self service for residents and businesses)

These needs align with industry and consumer trends

This Strategy adopts the principle of digital by default

Using the 'digital by default' principle, the Town has identified a set of digital themes

By focusing on a set of themes, the Town is able to ensure future technology investments are done in a manner that promotes the digital by default narrative. These themes provide a structure for the Town's digital strategy and initiatives. We summarize these themes below:



Each of the five digital themes will require enabling technology, security and process changes that will impact how the Town and the Information Technology Division operates.

These themes are important because it will help ensure the Town is able to deliver improved customer service, now and as it grows. It will also enhance the Town's ability to deliver services.

Connectivity provides the foundation for residents and businesses to use digital services

Below we provide further details on each theme, what they are, why they are important, and some examples of current and future initiatives that support these themes:

Connecting the Community	The application of digital technologies can only be achieved when people have access to good connectivity.	Internet has become a utility, a basic need for people to access services. This is also a key requirement to accessing digital services.	*Examples include:* • *Partnering and working with agencies to expand high-speed internet in Milton* • *Offering free WI-FI in Town facilities*
Collaborative Platforms	Beyond connecting is collaborating. Access to internet is only one part of the requirement to help digitize services. The Town also needs to have in place and actively pursue/evolve technology to collaborate between departments, as well as with residents, visitors and businesses.	It is important to have efficient collaboration tools so that the Town is able to reduce transaction costs, provide timely and efficient services to residents and facilitate two-way interaction and communication with the community.	*Examples include:* • *Staff being able to work efficiently in office, home and remote* • *Offering online services to submit and track requests* • *Enabling two-way communication with the community*
Digital Service Delivery	Digital by Default challenges the Town to offer as many services as possible digitally and that it is the preferred choice as it is easier, simpler and more convenient for residents and businesses.	It enables the Town to provide more cost-effective services and a platform to launch more.	*Examples include:* • *Digitizing processes* • *Creating more self-services for residents and businesses to perform their own transactions* • *Educating the public on how to use digital services*

The themes compliment each other with a focus on improving Town efficiency and effectiveness

Automation and Mobility	Automation: technology driven process transformation. Mobility: enabling work to happen at the right location.	Automation will help the Town be more efficient with managing its growth, reducing the need for adding staff. Mobility will allow staff to spend more time in the field. It also enables residents to use self-services, reducing wait times and reliance on Town staff.	*Examples include:* • *Automating repeatable activities (e.g. finance, HR, taxes, permits) using Robotic Process Automation* • *Providing mobile responsive services for residents* • *Providing field staff with the most appropriate devices*
Data Analytics	While capturing and managing data is important, it is even more critical that it be useful. The tools are a starting point, but the skills and knowledge of staff is essential.	Previous Town reports indicate the need for data-driven decision-making and the desire for it to be efficient to compile the required data. The importance of data analytics is to make the Town more efficient with its use of data to plan for future growth as well as provide greater transparency to residents.	*Examples include:* • *Creating a data warehouse and data marts* • *Using data visualization tools to support open data* • *Using data to develop business cases for budgeting* • *Providing readily available and frequently updated datasets on an Open Data hub*
Enablers	Each of the five digital themes will require enabling technology, security and process changes that will impact how the Town and the Information Technology Division operates.	Without evolving how IT operates any digital strategy will not be successful. IT is a key enabler to helping the Town achieve the digital strategy.	*Examples include:* • *Cyber security* • *Enhancing the Town's network infrastructure* • *Automating IT processes*

This Strategy unlocks value for different stakeholders

Technology is a key enabler to unlock the value and potential the Town can offer to its various stakeholders

Residents and Visitors

- Perform more services online
- Provide transparency
- Make it easier to find information

Businesses

- Streamline processes (removing red tape)
- Reduce wait times
- Manage service expectations

Town Staff

- Use data to inform decision-making
- Create and foster a culture of innovation
- Reduce their carbon footprint at work
- Manage growth efficiently

Customer Service

Measuring the value the strategy will deliver will become increasingly important

While having key performance indicators is important, moreso is the ability to accurately and efficiently produce those measures. This strategy will help the Town do so.

As it implements the strategy the Town should see noticeable changes both internally (staff) and externally (residents and businesses) as it implements the Strategy – some indicators that may be used to measure delivered value are:

- Customer Satisfaction
- % of services that are self Service / automated
- Cost of services (e.g. cost/transaction)
- The Town is able to track and report customer service request standards / response timeframes
- Use of online services
- Website, mobile web usage statistics
- Ability to perform data modeling and analytics in real-time
- Speed to share information with residents and businesses


MILTON
THE PATH FORWARD
PEGGYS
NOW
Yesterday... And

A vision for the future

Imagine a Milton where…

- Completing transactions are seamless and transparent;
- Your channel of choice is robust [able to do what you want on the channel you prefer];
- Information is accessible, timely, accurate;
- Messaging from the Town is consistent across different channels; and
- The Town uses analytics and data to make informed and timely decisions.

This is glimpse into the Town's 'digital by default' vision.

Achieving the vision will require a focus on twelve unique initiatives

A vision based on the principle of digital by default

Connected by innovative digital services

To achieve this vision, there are twelve strategic priorities the Town should focus on:

1	2	3	4	5	6	7	8	9	10	11	12
Define the Town's Digital Governance	Create a Target Architecture	Expand digital Self-service Capabilities	Monetize Town Assets	Digital / IT Literacy Program	Cloud First policy	Develop an Enterprise Data Action Plan	Enhance ITSM and Update IT Processes	Enhance Policies	Pilot the Use of Robotic Process Automation	Develop and execute an Application lifecycle Plan	Enhance Hybrid Workforce Model

The initiatives align and support the digital by default themes

The strategic initiatives align to the aforementioned digital themes and will build a solid foundation for the Town to manage growth efficiently without compromising on service standards

	Connecting the Community	Collaborative Platforms	Digital Service Delivery	Automation and Mobility	Data Analytics	Enabler
#1 - Define the Town's Digital Governance			X			X
#2 - Create a Target Architecture	X	X	X	X	X	X
#3 - Expand Digital Self-service Capabilities		X	X	X		X
#4 - Monetize Town Assets	X	X			X	X
#5 - Digital / IT Literacy Program			X		X	X
#6 – Cloud First Policy	X		X			X
#7 - Develop an Enterprise Data Action Plan		X		X	X	X
#8 - Enhance ITSM and Update IT Processes			X	X		X
#9 - Enhance Policies		X		X		X
#10 - Pilot the use of Robotic Process Automation		X	X	X		X
#11 - Develop and Execute an Application Lifecycle Plan		X	X	X	X	X
#12 - Enhance Hybrid Workforce Model	X	X		X		X

Each initiative has a set of activities and benefits supporting the digital by default principle

#	Initiative	Brief Description	Benefits
1	Define the Town's Digital Governance	The Town will establish new working groups to govern digital. These new groups will prioritize digital opportunities, evaluate different solutions and develop technical standards to govern new technology.	▸ This will address a gap of digital ownership. It will also create a consistent way for the Town to prioritize digital opportunities.
2	Create a Target Architecture	The Town does not have a complete "blueprint" of the systems in use. As the Town grows and adopts new technology it will be important to have a blueprint to guide these changes. This initiative focuses on building a blueprint of today and for the future.	▸ Having a blueprint will help to reduce data duplication and make it easier for the Town integrate new systems in the future.
3	Expand Digital Self-service Capabilities	This initiative focuses on continuing to expand the Town's online and mobile experience, so residents and businesses are able to do more – quickly and efficiently.	▸ This will improve staff productivity, help the Town grow more efficiently and enhance customer service.
4	Monetize Town Assets	Digital services can enable the Town to find new revenue streams. In addition, given the current economic outlook financial constraints may continue to impact the Town. This initiative provides the Town with a structure to identify, assess, pilot and implement potential revenue generating opportunities.	▸ The primary benefit and reason for doing this is to find ways to subsidize the cost of technology and better use Town assets.
5	Digital / IT Literacy Program	With the increasing use of technology Town staff need to have the right level of skills to use it. This initiative focuses on assessing Town staff's ability to use technology, identify areas of improvement and develop a training program to help them better use technology. It will also help inform the Town's recruitment, so staff come in with a better understanding of the technology knowledge they need to be successful.	▸ Having a more knowledgeable workforce will improve staff productivity as well as ensure the Town investments in systems are being used to its full potential.

Many require the involvement of the Town's IT Division

#	Initiative	Brief Description	Benefits
6	Cloud First Policy	The move to Cloud is almost inevitable. In response to this, Governments around the world are creating avenues to adopt it more securely and efficiently. To help the Town with this adoption, IT needs a policy and templates to assess when best to use certain Cloud products and how to migrate existing systems to the Cloud. This initiatives helps to achieve that goal while not compromising on security.	▸ The main benefit is improving scalability and resiliency with the adoption of Cloud. A secondary benefit is timing the activities so that the Town maximizes its current investments before moving to the Cloud.
7	Develop an Enterprise Data Action Plan	By the very nature of services, the Town provides, it captures a vast amount of information. However, the Town has limited data analytics and Business Intelligence (BI) capabilities making it time consuming to find information for decision-making. This initiative focuses on improving the Town's ability to capture, transform, analyze and report information for internal purposes as well as support the Town's open data directive.	▸ Doing this will better inform residents, improve Town insights and analytics and reduce information wait times.
8	Enhance ITSM and Update IT Processes	With greater technology adoption there is more work for the Town's IT Division to manage it. Therefore, it is imperative that the IT Division is operating as efficiently as possible. Currently, IT's tools have limitations causing manual, time intensive activities. This initiatives aims to enhance its main tool (IT Service Management) and update (automate) IT processes to the extent possible.	▸ This initiative will improve IT staff efficiency, provide greater ability for staff to self-service and enable IT to implement a performance dashboard.
9	Enhance Policies	As the Town continues to grow, the importance of having policies and processes to ensure a consistent experience will be important. During this initiative IT will update and revise its policies to ensure it aligns with new technology standards and to make sure they support a consistent user experience.	▸ The primary benefit is to improve the Town's overall security posture and deliver a consistent user experience.

As well as support from various Town departments

#	Initiative	Brief Description	Benefits
10	Pilot the use of Robotic Process Automation	Many Town divisions rely on manual processes to perform services. Robotic Process Automation (RPA) is becoming widely adopted as a cost effective and quick solution to address manual, repetitive processes. During this initiative, IT will work closely with other operating divisions to automate those manual processes.	▸ This initiative will help reduce manual effort, increase staff efficiency and reduce potential for errors.
11	Develop and Execute an Application lifecycle Plan	The Town relies on systems to deliver effective resident services. Systems are and will be a key component to enabling this digital strategy. However, the Town has several systems that over the next five years will need replacement, upgrades or purchasing to address gaps. This initiative focuses on building a plan to replace/ upgrade key systems and address gaps (no system today). This initiative will create a multi-year plan to help the Town understand the required resources and technical requirements and expenses.	▸ By having a multi-year plan, the Town will be better able to predict future expenses. ▸ In addition, by updating systems and addressing gaps the Town will be able to improve staff productivity and enable greater data analytics.
12	Enhance Hybrid Workforce Model	While the Town was able to adapt quickly during COVID-19 to a remote work style, the current model is now hybrid (work from home, and in office). The Town needs to evolve its approach to how it collaborates to ensure staff are working efficiently. This initiative starts with assessing the new ways of working of each operating division, developing technology profiles for those users (from phones, hardware and software) and how they collaborate both with other divisions and with residents. The intent is to build a more integrated solution for staff to work seamlessly whether at home or office or a mix.	▸ The primary benefit of this initiative is improving staff effectiveness in how they work and interact with other staff or residents.

Our roadmap to achieve the Town's digital vision

The implementation of the initiatives has been phased over five years

- The roadmap takes into account urgency, dependencies and estimated effort.
- There is a significant amount of work to achieve the Town's digital vision. While each initiative includes steps to complete them, it is anticipated that for many, further detailed planning will be required.
- This strategy also does not presume funding for each initiative is available. The Town will approve each of the initiatives as part of its annual budgeting process.

Following acceptance of this strategy, the Town will further validate the supporting assumptions, develop more detailed implementation plans and create capital projects for budgetary approval.

* Legend

- Denotes the main expense is internal resources
- Denotes the major expense will be external (third party, hardware, software, etc.)

Town Digital Roadmap*	2023	2024	2025	2026	2027
#1 - Define the Town's Digital Governance					
#2 - Create a Target Architecture					
#3 - Expand Digital Self-service Capabilities					
#4 - Monetize Town Assets					
#5 - Digital / IT Literacy Program					
#6 – Cloud first Policy					
#7 - Develop an Enterprise Data Action Plan					
#8 - Enhance ITSM and Update IT Processes					
#9 - Enhance Policies					
#10 - Pilot the use of Robotic Process Automation					
#11 - Develop and Execute an Application Lifecycle Plan					
#12 - Enhance Hybrid Workforce Model					

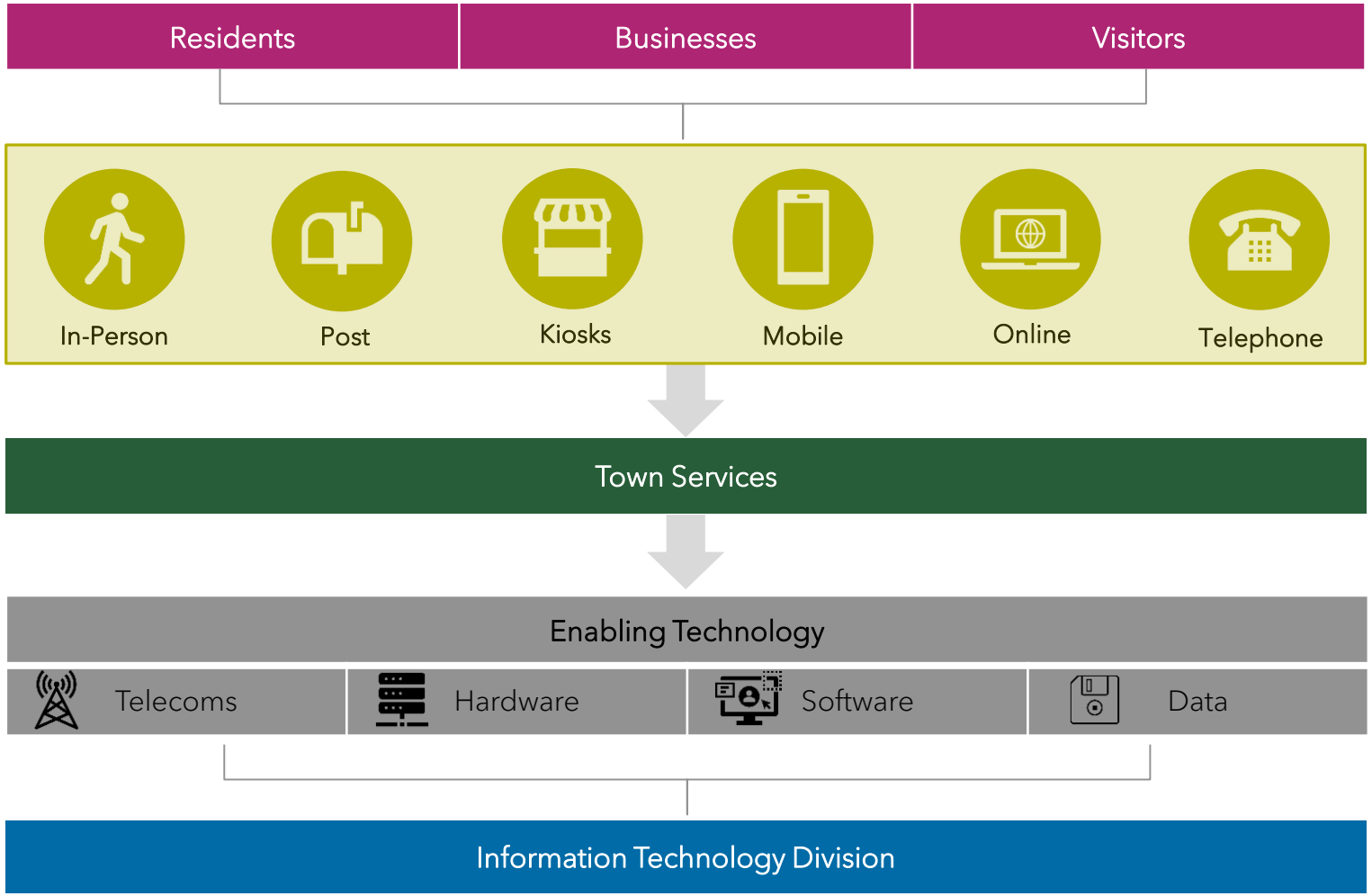
The Town's IT Division will be a key enabler

Residents and staff rely on technology to access Town services

- The illustration to the right demonstrates the connection between stakeholders at the top, the channels they use to access Town services, and the role the IT Division plays in supporting associated systems.

Given the Town's growth projections, current IT Division capabilities and the amount of change this strategy suggests, the Town's IT Division will need to evolve

- IT will need to transition its capabilities to help ensure it can support the Town's digital agenda. Some of those areas are identified on the right.
- Capacity is also a constraint. The Town's IT Division may need to consider alternatives to build capacity and flexibility (e.g. to scale for managing projects).
- The IT Division has given thought to the impact of the digital strategy and has a defined IT operating model to help align and guide them over the coming years.



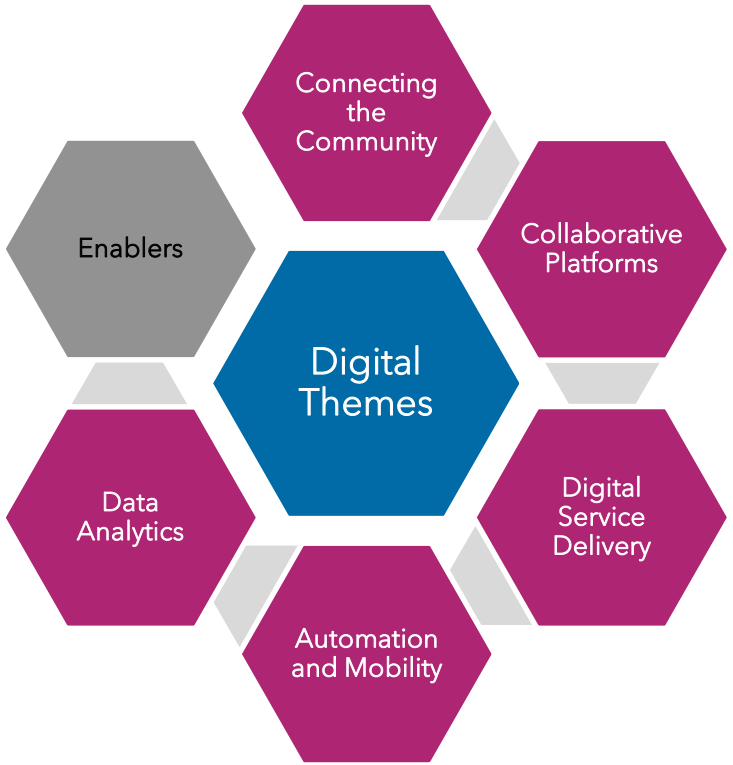
This strategy further highlights challenges the Town will need to manage

There are challenges the Town is and will continue to face as it embarks on this digital journey. In order to realize success, it will become increasingly important to manage these challenges effectively and in a financially responsible manner:

- More demand than supply – IT is a key enabler to achieve the Strategy, however their ability to manage these initiatives, day-to-day activities and other projects will create a greater imbalance between demand (from residents and departments) and IT's supply (staff). The consequence of this imbalance can result in the following:
  - Staff burnout
  - The Town is unable to manage growth efficiently
  - Operational risks emerge
- Tightening labour force – the Town like many other municipalities it facing a talent shortage on two fronts. The first with continued eligible retirements and loss of institutional knowledge, the second attracting and retaining qualified staff. The consequence of this tightening labour force may cause:
  - Capability gaps in delivering municipal services
  - Key person dependencies causing delays in executing the Strategy
  - Inconsistent user experience across platforms and digital channels
- Clear governance and ownership – digital is something that spans the entire organization, IT is not the owner but a key enabler. Consequently, without a model to manage decision-making the Town may suffer from inconsistent user experiences and degraded customer service across its various service channels.
- Evolving changes in technology – technology continues to evolve at a rapid pace and consequently, staff (both in IT and departments) need to keep abreast of new advancements and how best to take advantage of them. Inaction can cause the Town to underutilize key investments in technology and fall behind in its ability to meet the ever-evolving and increasing needs of a growing community.

Milton's future looks brighter with a digital strategy

By aligning our focus and technology investments to these themes will lead us down a digital path of continuous improvement and enhanced customer service as we continue to grow



Connected by innovative digital services

Milton's first digital strategy will help enable it to demonstrate why it is a destination of choice and the core of one of Canada's most significant technology clusters, the Toronto-Waterloo Innovation Corridor.

Imagine a Milton where…

- Completing transactions are seamless and transparent;
- Your channel of choice is robust [able to do what you want on the channel you prefer];
- Information is accessible, timely, accurate;
- Messaging from the Town is consistent across different channels; and
- The Town uses analytics and data to make informed and timely decisions.

THE INITIATIVES

Initiatives #1 – Define the Town's Digital Governance

Situation

The use of service channels differs across the organization. Some areas offer mostly online while others are in-person or telephone. This causes service fractures, customer service delays between different service groups and an overall degraded level of service to residents.
Also, the Town does not have a method to prioritize digital initiatives. Currently decisions regarding digital channels and its use are ad-hoc without clear ownership. As per the customer service strategy, some Councilors described their roles as "concierges" helping residents navigate the website or channels to interact with the Town.

Initiative

Define the Town's Digital governance to clearly articulate roles, responsibilities and decision-making for investing in and prioritizing initiatives within the organization that promote digital services and enhanced customer service.

Steps to Implement

Step 1: Design and confirm governance model

- Confirm the design and composition of the new governance model. As set out in the Appendix, this will consist of two new working groups responsible for overseeing digital services and functions on an organizational level.
- The Digital Working Group will set the digital priorities and ensure that the IT Division is performing work aligned to corporate needs. It will report into the Strategic Management Team (SMT).
- The Technical Working Group will be comprised of three separate subgroups, covering data, digital and technical standards. It will ensure that there are consistent data governance policies and practices, that systems have a consistent design, and that changes are tested and communicated effectively. It will report into Digital Working Group.
- SMT will review the draft Terms of Reference (ToR). Following any amendments, SMT will approve the working groups or staff will design a new model that is able to meet the same objectives.

Initiatives #1 – Define the Town's Digital Governance

Steps to Implement (cont'd)

Step 2: Create reporting templates

- To ensure that the Digital Working Group and Technical Working Group work effectively and to minimize administrative burdens, develop templates including standing agendas, meeting minutes, change advisory communications, and reports. This will allow the groups to stay focused and efficient.

Step 3: Create prioritization tool

- Create a framework for the Digital Working Group to use to assess digital initiatives across the organization. Criteria to prioritize initiatives includes:
  - Overall business value
  - Costs and resource constraints
  - Legislative need
  - IT capacity and capability
  - Complexity
  - Urgency
  - Supportability
- Use the framework to score and prioritize current and future initiatives and ensure a consistent approach to the overall needs of the Town.

Step 4: Pilot governance model

- Pilot the governance model by conducting initial meetings and an after-action session to consider what worked well and what could be improved, if terms of reference or agendas should be modified to improve effectiveness.
- As well, after the first year, SMT will review the overall effectiveness, use of resources, and strategic outcomes of the governance structure and determine if any further changes to composition, terms of reference, or activities need to be made.

Step 5: Refine and optimize

- On a set basis (at least once every two years), review the effectiveness of the governance structure with SMT. Consider in the review:
  - Whether governance and working groups are structured appropriately and working effectively,
  - If they have the right members, and
  - Whether they are meeting the strategic goals of the Town.
- Update the Terms of References as required.

Initiatives #1 – Define the Town's Digital Governance

Risks	▸ Without clear definition of digital governance, the Town will continue to support an inconsistent digital ownership model leading to varying resident experiences and overall degraded customer service. ▸ There is a risk that if the working groups are not setup appropriately (composition, frequency, level of authority) they will only add a layer of bureaucracy and slow down the implementation of digital solutions within the organization..
Benefits	▸ Clear accountability for making decisions on customer interaction channels. ▸ Greater focus on customer service and the Town's ability to prioritize opportunities.
Resources	▸ The governance work will be delivered by internal resources from IT and some operating divisions staff.
Assumptions	▸ The Town will deliver this initiative using internal resources.
Dependencies	▸ No other initiatives.

Initiatives #2 – Create a Target Architecture

Situation

The Town does not have a documented comprehensive architecture. This target architecture will help to determine gaps in automation along with the enabling aspects of the Town's Customer Service Strategy. Having this will also help inform Request for Proposals (RFPs), the technical requirements and the flow of information between departments.

Initiative

Create a comprehensive target architecture of Town systems, data and integration points. This will allow the organization to have a clear picture of current system gaps and future direction with respect to improving digital tools and information exchange across the organization.

Steps to Implement

Step 1: Document current architecture

- The Town will create a current state system architecture. It will outline the systems, any integration points and data flow (bi/uni-directional). This architecture will include all systems regardless of the hosting type (in-house, third party, cloud).
- The intent is to have a comprehensive view of the current systems that Town staff use including integration points between these systems.

Step 2: Collate known future changes and update architecture

- IT will then put together a list of known and approved upcoming changes (system upgrades, replacements, introduction of new systems, and new integrations) then apply these changes to the diagram and create a target architecture.

Step 3: Identify gaps

- Leveraging information from various sources (Customer Service Strategy, customer journey maps, departmental needs, etc.), IT will identify gap areas in the target architecture. This could include solutions that are currently not meeting the needs of the organization or areas where there isn't a system, causing staff to resort to manual work-arounds.

Initiatives #2 – Create a Target Architecture

Steps to Implement (cont'd)

Step 4: Determine potential solutions

- After identifying gap areas, IT will investigate and collate a list of potential solutions and changes to systems, which will better support the Town and resident needs. The solutions will be presented to the Digital Working Group for approval.
- Once approved, for each solution, IT will work closely with departments to collect all the changes and create a package of improvements. For each potential change, IT should test it against the architecture to confirm the change remains valid.

Step 5: Document target architecture

- IT will define this architecture diagram and evolve it as the Town selects new systems / implements the changes. This is important as there will be many unknowns about the particular product the Town will select until it undertakes a competitive selection process.

Step 6: Develop roadmap to achieve target architecture

- It is important for the Town to develop a roadmap towards achieving this target architecture. The roadmap will need to consider capacity (effort of Town staff) and align IT milestones with any upcoming projects/dependencies.

Step 7: Update and maintain architecture and roadmap

- It is important to note that aligning business needs, available technology and the Town's target architecture is a continuous activity. As a result, the roadmap will continually need updating (at a minimum annually) as technology evolves or as new information arises.

Initiatives #2 – Create a Target Architecture

Risks	▸ The risk of not performing this initiative is that the Town could miss important opportunities to enhance the customer experience and employee experience. ▸ Technology investments are not being fully leveraged (e.g. not using all of the functionality a system has to offer).
Benefits	▸ A defined target architecture makes the process of integrating systems easier. Reducing data duplication and the likelihood of re-work. ▸ It also enables easier formulation of system requirements for new/future system selections.
Resources	▸ We estimate this initiative will require some external assistance (technical resources) working closely with the IT Division. The external assistance will help to identify, validate, and document current systems in use in the Town along with associated integration points and data exchanges.
Assumptions	▸ The Town has the capabilities to deliver this work using internal resources however will require additional third party capacity (contractor or consultancy) to complete the work.
Dependencies	▸ There are no dependencies. Align and coordinate work with two other important initiatives: - #3 - Expand digital self-service capabilities - #11 - Develop and execute an application life cycle plan

Initiatives #3 – Expand Digital Self-service Capabilities

Situation

Some areas of the Town offer online services to residents by way of web form or downloadable PDF form. While this provides efficient data collection and submission for residents, the overall benefit of such solutions is hampered by manual staff processes involved with extracting data from these forms and entering into back-end systems. Often times, this data needs to be manually transcribed from emails or PDF forms into existing Town systems before it can be actioned. There are few services that residents can start and complete online. If the Town continues with its current manual customer service processes and channel at it's continued high growth rate, keeping customer experience at the same level will be challenging for staff.

Additionally, as the Town continues to experience high growth rate, its demographics is also expected to change (i.e., average age of the Town will continue to lower). This, coupled with other socio-economic and consumer behaviour changes will increase the desire to use digital channels.

Initiative

Expand resident self-service capabilities (web / mobile) and improve process automation. This will allow the Town to manage multiple intake channels (should these channels be supported by the Town's Customer Service Strategy implementation), handle an increasing number of requests, track service standards, and expedite services.

This recommendation specifically refers to expanding digital self-service for the most frequently accessed/used Town services, as it may not be feasible or beneficial to digitally enable all services.

Initiatives #3 – Expand Digital Self-service Capabilities

Steps to Implement

Step 1: Use output from the Town's Customer Service Strategy and Council Staff Work Plans to prioritize a list of changes to enhance digital services

- Section 7.3 in Milton's customer service strategy recommends the following to mitigate the ongoing long-term need for additional departmental resources, reduce backlogs, and streamline access for customers:
  - Streamline Customer Access points
  - Complete Customer Journey Mapping
  - Prioritize Automation over Manual Processes
  - Transition to a "Digital First" Approach While Addressing Barriers to Access
  - Address After-Hours Service Issues
- While the customer service strategy does not include volume metrics, we provide a list of potential priority areas the Town should initially focus on (see Appendix 2).

Step 2: Assess and select preferred solutions

- In some cases, enabling a better digital experience is straight-forward, e.g. converting a PDF into a fillable form rather than having to print it out and mail it in. In other cases, there may be several alternative solutions that require options analysis. For those cases, the Town should assign a resource to assess the current situation, work with the impacting department and IT to develop alternatives. Research each alternative to develop a benefits/risks and cost analysis to decide on the best course of action. IT should also consider any technical implications of the options (particularly regarding technical standards and security). Privacy will be another factor to ensure it complies with the Town's privacy practices and compliance with legislation.
- Once a preferred option is identified the Town should follow its existing approval process for funding and resources.

Initiatives #3 – Expand Digital Self-service Capabilities

Steps to Implement (cont'd)

Step 3: Develop plan for website enhancements and/or a mobile app

- Given current consumer trends, the Town will need to enhance website functionalities to offer more straight-through online services. In some situations, the Town may benefit from relaunching a mobile app where web-native functions do not exist within a particular application. Ownership of particular online services and/or a mobile app should reside with a department (not IT). Typically, ownership would align with either customer service or the digital owner of the municipality. It should be governed using the newly formed Digital Working Group. If pursued, a mobile app owner will be responsible for developing a product roadmap and prioritizing a set of services / information that the mobile app will deliver.
- Perform a market scan to identify potential solutions that can provide this functionality for the Town and / or a vendor that can develop it. This information will provide the basis for a business case for Council approval.

Step 4: Update target architecture

- As the Town begins to add digital services through different systems and applications the Town would also need to update its target architecture to account for these changes.

Step 5: Select partner(s) and implement solutions

- After deciding which digital opportunities to proceed with, the Town should go to tender to the select vendors to implement the preferred solutions.

Step 6: Perform change management

- Enabling digital services will introduce significant change to both Town staff and residents. Change management and communications will be important to help ensure adoption. The Town will need to do an impact analysis to determine which group are most impacted by the change.
- The Town should consider adopting a formal change management framework, such as PROSCI (See Appendix 3) to provide guidance on implementing these changes and others included in this strategy.

Initiatives #3 – Expand Digital Self-service Capabilities

Risks	▸ Without appropriate change management the adoption rate of newly implemented digital solutions will continue to be low, creating a costly channel to maintain in addition to existing non-digital options (i.e. manual) processes. ▸ The risk of not pursuing this initiative could result in resident frustrations and the Town being unable to deliver timely and efficient services.
Benefits	▸ Improve staff efficiency by reducing manual activities. ▸ Improve customer service by offering more streamlined services.
Resources	▸ This initiative will require external assistance, particularly development of technical web site changes and mobile app development (if required). In addition, this initiative will require resources from the IT Division and other operating divisions (dependent on the self-service capabilities the Town wishes to enhance).
Assumptions	▸ The Town will perform steps 1,2, 4 and 5 using internal resources and leverage third parties all other steps. ▸ The Town will require third party assistance to execute implementation.
Dependencies	▸ There are no dependencies. Align and coordinate work with two other important initiatives: - #2 - Create a Target Architecture - #11 - Develop and execute an application life cycle plan

Initiatives #4 – Monetize Town Assets

Situation

Expanded digital services will result in the Town explicitly investing funds and resources in new areas, technologies and processes. At the same time, digital services can enable the Town to find new revenue streams to help offset these new costs.

Initiative

Monetize the use of Town assets - specifically providing network connectivity, leased fibre and leased co-location within facilities.

Steps to Implement

Step 1: Create index of potential revenue streams

- The Town (working closely with IT) will develop an index of assets (e.g. building space, WIFI etc.) that could be monetized. The Town should consider creative methods to do so such as hosting a hackathon, leverage graduate student programs, Milton's innovation centre or think tanks to assist with generating the index of potential future revenue streams.

Steps to Implement (cont'd)

- Some common examples of monetizing municipal assets include:
  - Leasing municipal owned fibre
  - Digital signage on facilities and Town owned buildings
  - Renting space in facilities / data centre racks to third parties
  - Renting high-speed WiFi access in facilities to businesses (while offering basic WiFi for free)
  - Streaming services of events

Step 2: Evaluate monetization opportunities

- The Digital Working Group will evaluate monetization opportunities. The group should use a prioritization framework with set criteria and weights to ensure consistency and avoid any biases. The prioritization should occur at a minimal annually but depending on volume quarterly. This will help feed into the Town's budgeting process.
- Assessing the opportunities should also consider the revenue source (businesses, visitors, residents, etc.) as well as the equity of services.

Initiatives #4 – Monetize Town Assets

Steps to Implement (cont'd)

Step 3: Gather additional information / analysis

- Once the Town has a list of priorities to pursue an owner will be assigned to perform further analysis to create a business case. The intent of the business case is to ensure the opportunity's feasibility. The business case should take into account:
  - Cost
  - Potential Revenue
  - Feasibility
- Results of the analysis will be presented to the Digital Working Group to decide on whether to proceed or not.

Step 4: Perform pilot / proof of concept

- For those initiatives that the Digital Working Group approves, the Town will conduct a proof of concept or pilot (depending on the nature of the opportunity). The intent of the pilot / proof of concept is to help address any concerns as well as to build confidence that the initiative will meet the business cases benefits.
- Prior to performing the pilot / proof of concept the Town should establish success criteria so that it can objectively confirm whether it was a success or not.

Step 5: Seek necessary approvals and implement

- For pilots / proof of concepts that meet the success criteria and demonstrate the initiative is feasible and profitable then the Town should seek approval from senior management and/or Council to roll it out on scale.

Initiatives #4 – Monetize Town Assets

Risks	▸ There is a risk that without appropriate ownership and resources opportunities will not be able to pass step 2. ▸ The rate of technology expansion and digital service implementations at the Town will have a constant and growing financial burden on taxpayers as the Town continues to grow. By not pursuing this initiative, the Town is left with limited options to find new revenue streams and reduce this financial burden.
Benefits	▸ Additional revenue streams for the Town. ▸ Better use of Town assets and investments.
Resources	▸ Assessment of opportunities for potential new revenue streams would relay on internal staff and some third-party consultants).
Assumptions	▸ The Town will use internal resources to conduct steps 1-3, and work with third parties on steps 4 and 5. ▸ IT will be an enabler to help monetize Town assets.
Dependencies	▸ No other initiatives.

Initiatives #5 – Digital / IT Literacy Program

Situation

Town staff have varied levels of digital and IT literacy.

This can lead to more reliance on IT and under-utilized digital assets. Taking up IT staff time on routine issues, such as resetting passwords, training and enabling remote access to systems and data can take time away from resolving more complex issues and implementing new digital solutions aligned to strategic goals.

Initiative

Create a digital and IT literacy program for Town staff covering a range of topics from data analytics to self-service problem solving.

Steps to Implement

Step 1: Assess Town staff IT skills (HR-led)

- The Human Resources (HR) Division will be responsible for developing and executing the new digital and IT literacy initiative. First, current staff IT skills need to be documented and assessed. This includes comparing current skills to staff job requirements and technology use, for both current and future new systems and hardware.

Steps to Implement (cont'd)

Step 2: Assess job descriptions and recruitment requirements (HR-led)

- Review Town staff job requirements, and document current digital and IT skills needed for roles in the organization. Determine future workforce digital and IT competencies which will be needed for each position. Compile a list of needed competencies and how many staff will require each type of skill. Revise job descriptions to list specific IT / digital skill-sets required for a role.

Step 3: Develop digital and IT literacy training program

- Prioritize competencies to develop a training program for the Town's staff. Identify high priority training needs (such as missing competencies). Consider applying a train-the-trainer approach using staff volunteers to extend their expertise in corporate technologies who will then provide training to other staff members.
- Develop a program schedule outlining when training will take place, what skills will be taught, and which roles will receive training on given competencies.

Step 4: Source training program / learning material

- Using the training program, review and select training materials, documentation, and courses for each digital competency.

Initiatives #5 – Digital / IT Literacy Program

Steps to Implement (cont'd)

Step 5: Develop/modify training budget

- Collate total costs for the digital literacy program for each competency type across the training schedule. Seek approve for the total required training budget.

Step 6: Develop learning programs based on role

- Assign staff to take training based on their role, current skills, and needed digital competencies.

Step 7: Integrate learning program with performance management

- Aspects of the learning program including courses, feedback, and results, should be documented and tracked. This will ensure that staff training can be reported, tracked, and the overall effectiveness of the program can be measured and reported on.

Step 8: Monitor progress and refine IT literacy program

- As the program rolls out, key metrics should be tracked and regularly reported on. Staff feedback should be collected and used to ensure that programs and training are relevant, effective, and respectful of staff time and needs. As training continues, the mix of needed skills will change as staff acquire competencies, and the literacy program should reflect these changing needs.

Initiatives #5 – Digital / IT Literacy Program

Risks	▸ Lack of resources available for training. ▸ Lack of organizational buy-in from other departments to take training and capacity of HR to lead aspects of the training program. ▸ The risk of not pursuing this initiative could result continued reliance on IT for ad-hoc, lower-value tasks. Taking time away from focusing on system enhancement and improvements.
Benefits	▸ Improved use of systems and staff productivity.
Resources	▸ HR will lead this initiative with support from the IT Division. We expect that some activities will also require operating division time (e.g. Step 1).
Assumptions	▸ HR staff is available to lead the program.
Dependencies	▸ No other initiatives.

Initiatives #6 – Cloud First Policy

Situation

The move to the Cloud is almost inevitable. Software vendors are in many cases removing the on-premise option. In response to this, Governments around the world are creating avenues to adopt it more securely and efficiently.

The Town is using Cloud services however does not have a consistent method to determine when to use it and how best to migrate existing on premise systems to the Cloud.

Initiative

Create a policy and guidelines for use of Cloud. Apply this policy to all future IT system upgrades and implementations.

Steps to Implement

Step 1: Document guiding principles

- Before developing the policy, the Town should adopt certain principles to guide the policy and decision framework. To the right is a draft starting point the Town will use.

Steps to Implement (cont'd)

Objective	Principle
To ensure Cloud decisions are made consistently and with the appropriate individuals	The Town will use a decision framework to guide all Cloud decisions
	The Town will use a risk-based approach to consistently assess and approve the use of Cloud
To comply with government regulation and legislation	The decision framework will align with government (Federal, Provincial and Municipal) requirements and industry standards for risk mitigation, security and controls
To objectively compare options	Any future IT purchases, where a Cloud option is available it will be included as part of the options analysis
	When comparing pricing (Cloud vs. non-Cloud) the Town will perform Total Cost of Ownership (TCO) analysis to normalize pricing
To mitigate risk when using Cloud	The Town's IT Division will be accountable for validating the Cloud providers adherence to security standards on an annual basis

Initiatives #6 – Cloud First Policy

Steps to Implement (cont'd)

Step 2: Create the Cloud policy and decision framework

- IT will lead the development of a policy that describes its approach to adopting Cloud. The policy should include a decision-framework that considers:
  - Data sensitivity and criticality (including a Privacy Impact Assessment)
  - Financial impact and pricing certainty
  - Vendor supply chain
  - Commercial terms relating to service levels, step-in and data ownership/use
  - Business requirements
  - Technical requirements (latency, technical architecture, standards)

Step 3: Build a migration plan

- To prepare the Town for adopting Cloud the IT Division will develop a migration plan (moving existing on premise services to Cloud). This will include creating "move groups". Move groups are a grouping of applications that typically interact together to deliver a service. Other factors to consider when creating move groups is the user impact, complexity of the migration and technical dependencies (e.g. the server and storage it resides on). Categorizing applications into move groups and understanding their dependencies/interrelatedness is vital to ensure that the migration runs smoothly.

Step 3: Build a migration plan (cont'd)

- For applications that do not have a Software as a Service (SaaS) product investigate the use of Platform or Infrastructure as a Service options.
- Develop a migration plan that considers:
  - Move groups
  - Current asset replacement (servers, storage and data centre)
  - Application upgrades
  - Other IT initiatives
  - Scaling down or decommissioning disaster recovery sites and hardware
- This will help identify the ideal timing of migration activities from a risk, expense and resource perspective.

Initiatives #6 – Cloud First Policy

Steps to Implement (cont'd)

Step 4: Confirm security compliance

- Historically, a major concern with using the Cloud was the perception that it did not have the same level of security and visibility that IT operating practices have when it is on premise. Over the past few years Cloud Access Security Brokers (CASB) have emerged to provide the same level of operating and security practices. Broadly, the services cover five categories: visibility, compliance, data security, threat protection, and enterprise integration.
- Prior to implementing the Town's Cloud migration plan, it is important that the IT Division updates its IT operating and security practices and considers selecting and using a CASB.

Step 5: Execute Migration

- Depending on the migration plan (speed, timeframe, resources, etc.) the Town may wish to implement it as transformation program. This will require the Town to have appropriate program/project resources and processes to execute efficiently. Timing of any major move to the Cloud should also consider facility implications (ideally avoiding any major upgrades to the Town's data centre).

Initiatives #6 – Cloud First Policy

Risks	▸ We expect this initiative will have similar risks to any large-scale transformation - managing the program scope, resources, budget and timeline. ▸ The risk of not pursuing this initiative could result in the Town being forced to move to cloud (as software providers phase out support for non-cloud options) and not having adequate time, capability and security to manage it appropriately.
Benefits	▸ Reduced capital expenses. ▸ Improved security, resiliency and redundancy. ▸ Greater degree of scalability.
Resources	▸ There is no cost to perform the policy or migration plan. However, there will be costs for the actual migration.
Assumptions	▸ The Town can complete this work using internal resources from the IT Division and may require input from other areas such as Clerk and Procurement.
Dependencies	▸ No other initiatives.

Initiatives #7 – Develop an Enterprise Data Action Plan

Situation

By the very nature of Municipal services, the Town captures vast amounts of information. Town services vary in the type of information and how it is collected (paper, voice, electronic). While the Town has made strides over the years to improve the ability to collate, index, search and use the information for analytics, there are still obstacles in performing the latter. Consequently, the Town has limited data analytics and Business Intelligence (BI) capabilities making it time consuming to find information for decision-making.

Initiative

Develop an enterprise-wide data action plan that enables the Town to efficiently acquire, store, process and use data for decision-making.

This action plan will impact both internal staff as well as enable the Town to provide more open data when it desires.

Steps to Implement

Step 1: Formalize data governance

- As explained in Initiative #1, the Town will form a data governance working group to define and develop policies and processes relating to data collection, storage, processing, and publishing.
- The working group will also develop recommendations in particular, roles and responsibilities for IT, operating divisions, and third parties as it relates to data management.

Step 2: Define open data directive objectives

- The Town will review and consider adopting the Open Data Charter, an international governmental collaboration promoting consistent standards for providing publicly accessible data and information.
- Following a review of the charter and other relevant sources, the working group will define the extent to which the Town will make it available to the public "data open-by-default". They will formalize this in a charter that SMT will review and approve.

Initiatives #7 – Develop an Enterprise Data Action Plan

Steps to Implement (cont'd)

Step 3: Define data analytic requirements and priorities

- The working group will document datasets across the Town in a data dictionary. This should include documenting data format, variables, frequency of updates, formats, responsible divisions, and document management policies. Once complete, the working group should ensure that the data dictionary is frequently maintained and up-to-date with changes, additions, and deletions made as required.
- The working group will use the data dictionary as a source to develop and confirm data warehouse requirements for storage and processing, and create a prioritization of datasets for formal management based on clear criteria. As well, business intelligence capabilities including; data visualization capabilities, forecasting, and other analytics.

Step 4: Develop a target data architecture

- Using the analytic requirements and available datasets, create a data model. This will include both a conceptual model of the data the business uses and its relationships, as well as a logical model outlining the database schema and the different Town systems. It should also include any external third-party data sources.
- Next the working group will work with representatives from operating divisions to determine any shortcomings (e.g. information gaps, or missing information) and finalize the target data architecture.

Step 5: Perform market scan analysis

- The Town will conduct a market scan of data warehouse and business intelligence products to better understand the range of potential systems available to the Town, their costs, and the impact on the Town's system architecture. Performing this market scan will ensure the Town understands the current market landscape, costs, and resource requirements. It will ensure the Town can select the most appropriate products for current and future needs.

Step 6: Build a data warehouse/BI solution architecture

- Document and confirm requirements for an RFP based on the data architecture, requirements and priorities. Determine the composition of the team to evaluate submissions, as well as the evaluation criteria which will be used. Team members should include members of the data governance working group.
- Launch a competitive procurement process in-line with Town procurement guidelines.

Step 7: Evaluate solutions

- Review proposals based on the evaluation criteria and proceed with necessary approvals. Communicate the result to the data governance working group and the IT Division.

Initiatives #7 – Develop an Enterprise Data Action Plan

Steps to Implement (cont'd)

Step 8: Perform Proof-of-Concept test (optional)

- To help develop a business case and ensure the Town has the right approach and solution it can be beneficial to perform a proof of concept or pilot. Given the importance of data, the Town may wish (optional) to do so.
- Using the preferred vendor(s) and solution, perform a proof-of-concept. In consultation with relevant IT staff and the working group identify specific use cases to assess the solutions viability and identify any changes. Develop a business case and budget request for the implementation.

Step 9: Develop implementation/change management plan

- Once approved, begin working with the preferred vendor(s) to develop a more detailed implementation plan and change management plan.
- The rollout should consider priority use cases and Town departmental readiness (ability to adopt the changes).

Initiatives #7 – Develop an Enterprise Data Action Plan

Risks	▸ Lack of training and change management could lead to low adoption and reduce the benefits realization. ▸ Without focused resources this initiative could become a "never ending" project.
Benefits	▸ Ability to better inform residents (providing greater self-service). ▸ Ability to quickly and efficiently produce insights and analytics to support decision-making. ▸ Reduce freedom of information wait time and staff effort.
Resources	▸ This initiative will require expertise from the IT Division along with a third party for all steps.
Assumptions	▸ The Town does not have the necessary capacity to manage this project (steps 1-7) and will require either contractor or consulting resources to assist.
Dependencies	▸ This initiative is dependent on #2 - Create a Target Architecture.

Initiatives #8 – Enhance ITSM and Update IT Processes

Situation

The Town's IT Division has limitations and gaps in its ability to efficiently track assets, automate processes and provide internal users with self service. While current IT operational service expectations are being met, the Town's IT Division processes and tools will need to advance to help support the Town's digital agenda.

Additionally, the IT Division presently does not have an efficient means of reporting on data pertaining to service standards/baselines and Service Level Agreement (SLA) compliance.

Initiative

Enhance the Town's Information Technology Service Management (ITSM) system and revise IT processes to offer staff greater self-service, automate IT activities (e.g. imaging, applying updates, etc.).

Steps to Implement

Step 1: Define IT / business needs

- Assign an IT staff member to redesign IT processes, specifically self-service, knowledge base, IT asset management, image and update management. Requirements should include reporting and analytics capability, as this is also an area which is underserved by current systems and processes.
- IT should take a service-oriented view of developing the new processes to help ensure it aligns with the Town's overall customer service strategy objectives.

Step 2: Acquire an ITSM tool

- Once the Town has ITSM requirements, it should initiate a competitive procurement to select a vendor and system. This process should align with the Town's procurement guidelines.

Step 3: Enhance ITSM and update IT processes

- Working with the preferred vendor, the Town will revise its IT processes to streamline and automate where possible. The requirements from Step 1 should guide the configuration and setup of the new ITSM. The Town should also leverage the vendor's expertise to identify other areas of improvement.

Initiatives #8 – Enhance ITSM and Update IT Processes

Steps to Implement (cont'd)

Step 4: Provide training to service desk and relevant staff

- During step 3, IT staff should receive ITSM training as relevant for their positions. IT should also revise its processes and knowledge base material to align to the new ways of working.
- As well, provide Town staff with communications outlining how they will be impacted by the new ITSM system and what they need to know, along with training as necessary to be able to use the new self-service capabilities effectively.

Step 5: Review effectiveness of current processes and iterate improvements

- The IT Division should regularly monitor their service levels and KPIs through the ITSM, and as well, communicate with users to ensure that overall service levels are appropriate for the Town.
- IT staff should regularly review their use of the ITSM and ensure that the system's capabilities and processes are used to their fullest extent. The knowledge base should be maintained continually, while formal processes and policies should be updated on at least an annual basis.

Initiatives #8 – Enhance ITSM and Update IT Processes

Risks	▸ There is a risk that without implementing an improved ITSM solution and configuring it correctly that the IT Division will not be able to keep up with the increasing support demands being placed on the team.
Benefits	▸ Improve IT staff efficiency (by automating tasks) and free up resource time to focus on other high value activities. ▸ Improve Town staff ability to self-service and reduce reliance on IT for common tasks. ▸ Expand IT's ability to measure performance using service levels and Key Performance Indicators (KPIs).
Resources	▸ IT Division resources will be required for this initiative along with some resources from the ITSM vendor.
Assumptions	▸ IT will have capacity and capability to deliver this initiative. ▸ Resources are available for the provision of a new system, including procurement capacity.
Dependencies	▸ No other initiatives.

Initiatives #9 – Enhance Policies

Situation

IT has few documented and/or continually updated policies and processes to guide the delivery of IT services. As the Town continues to grow, the importance of having policies and processes to ensure a consistent experience will be important.

Initiative

IT, working with other departments will develop a set of common policies and processes to help mitigate risk and ensure a consistent user experience.

Steps to Implement

Step 1: Confirm list of priority IT policies

- IT will prioritize a set of policies to document and/or update. Currently, this list includes; security, disaster recovery, IT asset refresh and acceptable use.
- IT will also conduct additional research to ensure the policies align with common practices such as but not limited to industry practices such as Information Technology Infrastructure Library (ITIL), National Institute of Standards and Technology (NIST), the Institute of Risk Management, Control Objectives for Information and Related Technologies (COBIT).

Steps to Implement

Step 2: Draft IT polices

- Using the research, IT will begin drafting the new policies and any supporting details e.g. process maps / procedural documentation of the phases, activities, roles and responsibilities.
- IT will check with the Clerk and/or the CAO Office, to ensure they follow Town guidelines for policy structure.
- IT will also identify other stakeholders that should participate in the policy development. For example, the disaster recovery.
- Additionally, IT will need guidance from the Town, particularly with respect to security and the Town's risk management to ensure they align.

Step 3: Assign owner accountable for each policy

- For each policy, the Town will assign an owner who will be accountable for ensuring that policy is enforced and determining exceptions.

Initiatives #9 – Enhance Policies

Steps to Implement (cont'd)

Step 4: Revise IT processes to be in line with policies

- Once policies are updated, review current IT processes and align as necessary.

Step 5: Approve policies and rollout

- As policies drafts are finished IT will work with other Town stakeholders to gather feedback and final approval. This will follow the Town's existing process for policy approval.
- Following approval, the Town will create a change management plan to rollout the policies, ensure staff are aware and receive the necessary training and communications.

Step 6: Review and optimize

- On a regular schedule (at least once every two years) IT will review the policies to ensure they are still relevant and effective. IT will make any necessary changes or update the policies to indicate a review has taken place.

Initiatives #9 – Enhance Policies

Risks	▸ Without a set of defined policies, the Town may not have appropriate education, enforcement and oversight to mitigate operational risks relating to data use, managing changes and service continuity. ▸ The risk of not pursuing this initiative could result in key person dependencies in delivering IT services (e.g. managing IT assets) or an inconsistent user experience such as responding to an IT service request or incident.
Benefits	▸ Improve the Town's overall security posture. ▸ Delivering a consistent user experience will improve staff effectiveness. ▸ Improve IT's ability to onboard new staff and third parties.
Resources	▸ The Town may require a third party to help complete Steps 1-2. They will work closely with resources from the IT Division.
Assumptions	▸ Assumes the Town IT Division will need assistance in developing the policies and procedures.
Dependencies	▸ This initiative is dependent on #8 – Enhance ITSM and Update IT Processes. ▸ Additionally, aspects of this initiative are dependent on the Town having a well-defined Enterprise Risk Management (ERM) framework to align its risk posture.

Initiatives #10 – Pilot the Use of Robotic Process Automation

Situation

Many Town divisions rely on manual processes to perform services. According to the Town's Service Delivery Review (SDR) Phase 2, the Town grew by 122% between 2006 and 2018, which has increased demand on Town services. It suggests the use of automating manual, repetitive activities to deal with increasing transaction volumes.

Robotic Process Automation (RPA) is becoming widely adopted as a cost effective and quick solution to address manual, repetitive processes. It can also help address areas where integration is cost prohibitive.

Initiative

Following the development of a target architecture, the Town should pilot the use of an RPA tool for enhancing business processes.

Steps to Implement

Step 1: Identify areas where RPA can be beneficial

- In order to identify which processes are candidates for RPA. The organization needs to identify which process do not require human thinking/cognition. For instance, many municipalities have begun to use Robotic Process Automation (RPA) technology to streamline their Accounts Payable (AP) processes which in turn creates a more efficient and cost-effective way to capture invoices (both those delivered electronically and paper-based).

Step 2: Develop pilot programs to test efficacy of RPA

- IT in conjunction with operational departments should consider piloting the RPA tools with different processes. Perhaps beginning with simpler processes then moving to more complex ones. Following the pilot, IT should gather feedback on the efficacy of the pilot, identify refinement opportunities and use the information from to pilot to determine which processes to prioritize and approve.

Step 3: Select an RPA platform and Business Units

- After developing the Pilot program, the Town will need to decide which RPA platform and department business process to use to run the pilot program. Initially IT should leverage Microsoft's product as it integrates with other Microsoft productivity tools the Town uses.

Initiatives #10 – Pilot the Use of Robotic Process Automation

Steps to Implement (cont'd)

Step 4: Train staff

- IT should create training material and training sessions for staff. In addition, they should create communication collateral focusing on the customer perspective and the impact of the changes. Then distribute it to management and staff so that there is a clear understanding of the impact of the changes. Additionally, IT should perform an annual continuous improvement review (self-assessment) to identify enhancements.

Step 5: Roll out RPA

- After the pilot program, IT should meet with the business units to assess the program and determine if RPA should be expanded to other business processes and department in the organization. If the pilot program is deemed successful, they should roll out the use of RPA for the rest of the organization.

Initiatives #10 – Pilot the Use of Robotic Process Automation

Risks	▸ There is a risk that without ongoing support the benefits of RPA will erode.
Benefits	▸ Eliminate or reduce manual labor and duplication of work. ▸ Reduce the potential for human error.
Resources	▸ This initiative will require resources from operating divisions to provide advice and guidance on automating business processes. They will work closely with resources from the IT Division. The Town will also need some external assistance to perform Steps 1-5.
Assumptions	▸ The Town will leverage its Microsoft 365 licensing to pilot RPA (at no additional licensing cost) ▸ The Town doesn't have the capability or capacity to implement the solution. Thus, we assume that the Town can find a third party to assist with this initiative.
Dependencies	▸ This initiative is dependent on #2 – Create a Target Architecture.

Initiatives #11 – Develop and Execute an Application Lifecycle Plan

Situation

The Town relies on systems to deliver effective resident services. Systems are and will be a key component to enabling this digital strategy. However, the Town has several systems that over the next five years will need replacement, upgrades or purchasing (to address gaps).

Initiative

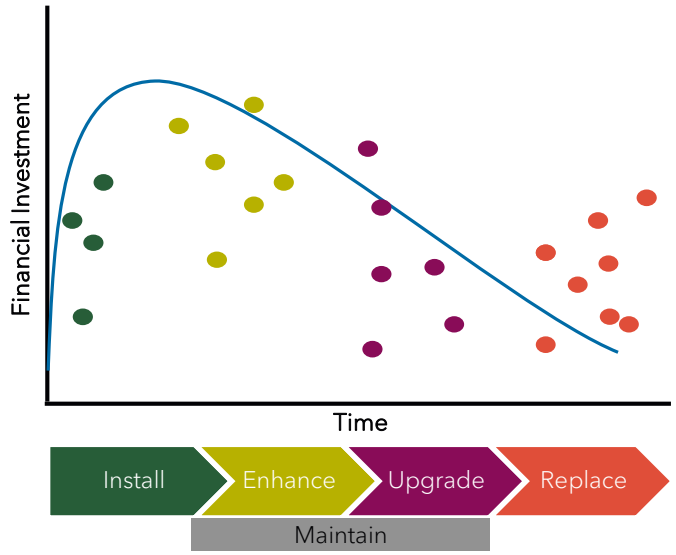
Develop and execute an application lifecycle plan. This plan will prioritize Town system changes.

Steps to Implement

Step 1: Develop an application lifecycle

- IT will leverage its existing application inventory data to create an application lifecycle. The application lifecycle will map out where each of the Town systems currently are in their lifecycle (see right illustration).
- As systems are replaced it is likely that many will move to the Cloud and reduce the future IT effort for system upgrades.

Steps to Implement (cont'd)



- In conjunction with developing a target architecture, the IT Division will work with other Town departments to coordinate these changes (upgrades, replacements, implementation) over a five-year timeframe.

Initiatives #11 – Develop and Execute an Application Lifecycle Plan

Steps to Implement (cont'd)

Step 2: Determine resource requirements

- Having developed the lifecycle, the Town will be in a better position to forecast resources requirements for the system changes. IT, working closely with any impacted departments will develop a resource plan (IT resources and departmental e.g. for requirements gathering, training, data migration testing, etc.).

Step 3: Create detailed project plans

- Using information from the previous steps, IT will develop more detailed project plans and an overall program (system changes). These plans will include common project plan characteristics (e.g. timeline, activities, owners, dependencies, resource effort, etc.).

Step 4: Develop budget

- For each project IT will develop a budget. The budget will coincide with the Town's budgeting cycle as an input. Where cost are unknown the Town may wish to perform market scans or Request for Information (RFIs) to gather additional information.

Step 5: Develop change management plan

- Similar to the enabling digital services initiative, this initiative will also introduce significant change to both Town staff and residents. Change management and communications will be important to help ensure adoption. The Town will need to do an impact analysis to determine which group are most impacted by the change.
- The Town should consider adopting a formal change management framework such as PROSCI (See Appendix 3) to provide guidance on implementing these changes and others included in this strategy.

Step 6: Execute

- The final setup to this initiative is executing on the program and its supporting project plans. The Town should monitor closely the first few projects and place an emphasis on lessons learned so that the Town can optimize future projects.

Initiatives #11 – Develop and Execute an Application Lifecycle Plan

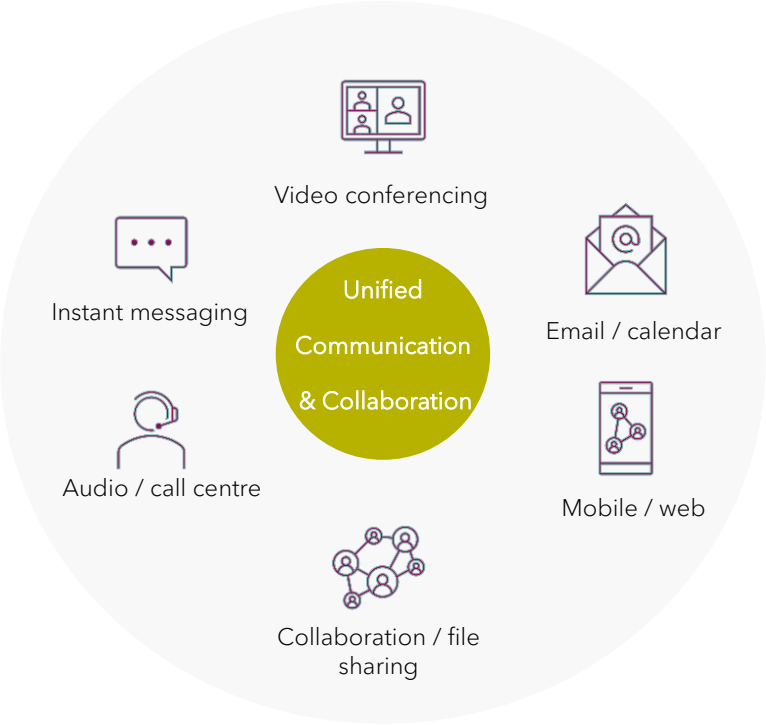
Risks	▸ Without a well defined application lifecycle the Town may constrain staff productivity (by not having the appropriate systems in place). ▸ The Town may not have sufficient resources to execute the plan causing a longer implementation timeline and deferred benefits.
Benefits	▸ Improve the predictability of future expenses and resource requirements. ▸ Improve staff productivity. ▸ Improve resident experience. ▸ Enable greater data analytics.
Resources	▸ The IT Division will lead this initiative, however, new or replacement systems will require additional resources from any impacted operating division (for requirements gathering or testing). In addition, it is likely the Town will need external assistance from the software vendor or a system integrator.
Assumptions	▸ The Town has the capability to deliver steps 1-4 using internal resources. The Town will need external assistance with steps 5 and 6.
Dependencies	▸ No other initiatives.

Initiatives #12 – Enhance Hybrid Workforce Model

Situation

Socio-economic behaviours are also rapidly changing service expectations. Nowhere is that more apparent than with millennials or Gen Z who will make up the new workforce. Combined with the ongoing need for remote working, the Town needs to evolve its approach to collaboration.

Unified Communication and Collaboration (UCC) can help. UCC takes disparate communications and collaboration silos (voicemail, telephony, email/calendaring, audio and video conferencing, instant messaging, and intranet) and brings them together seamlessly from a user perspective. This can help reduce service frictions, improve service delivery and increase staff efficiency.



Initiative

Enhance the Town's Hybrid Workforce Model by aligning user needs with a unified solution.

Steps to Implement

Step 1: Identify hybrid workforce needs

- IT will lead a project to analyze staff collaboration needs and determine the most suitable use of technology. This should include segmentation analysis of the staff, examples include (but not limited to): field staff, power users, remote office workers, executives, creative users and third parties.
- For each segment determine the degree of mobility, collaboration, autonomy and process automation required – this will help determine an appropriate technology for each segment.

Initiatives #12 – Enhance Hybrid Workforce Model

Steps to Implement (cont'd)

Step 2: Develop technology profiles

- Using the segmentation analysis, build technology profiles taking into account the facilities, systems, data and devices that are most suitable given the nature of their work and work habits. For example, some staff may only require a tablet device as they review and approve rather than create or perform deep analytics.

Step 3: Develop facility enhancements

- Determine if Town facilities require physical changes to accommodate the hybrid workforce. Consider the extent to which meeting rooms are able to facilitate in-person and remote collaboration.
- To help staff who work in different styles, document requirements for hot-desking areas. Work with facility staff to develop a budget and schedule to make needed changes to high-priority areas.

Step 4: Build a solution architecture

- Analyze current IT assets and systems available to support the different technology profiles. Consider whether current collaboration tools are able to provide seamless integration across in-office and remote work. Where gaps exist, considering procuring solutions fitting within the Town's preferred systems architecture.
- Review the Town's use of Office 365 and consider using additional tools that Microsoft offers or other existing systems the Town uses. Develop IT staff expertise, including taking training/certifications as needed, to ensure that the IT Division can recommend and apply Office 365 applications to their greatest extent.
  - Where existing systems also offer overlapping functionality (such as Teams and Zoom), perform an options analysis.
  - Review integration with telephony and extend if required
- Using this information, develop a UCC solution architecture outlining the current and needed systems and integrations across the different functionality areas.

Initiatives #12 – Enhance Hybrid Workforce Model

Steps to Implement (cont'd)

Step 5: Acquire and implement software and hardware

- Create a timeline to acquire, implement, and deploy identified software and hardware and facility changes.
- Identify pilot groups to test the new solution architecture and use the results of the pilot test to inform the wider rollout to staff.
  - After the pilot test, revise the rollout plan to take into account any necessary changes.
  - Throughout the deployment of software and hardware to staff, review the effectiveness of the deployment. Confirm with users across all segment types that the software and hardware is appropriate for their needs, that the segmentation descriptions accurately describe user needs, and that the UCC architecture is still valid.
  - After full deployment, review the hybrid workforce model on a regular basis as part of IT asset refresh to ensure the model is still relevant.

Initiatives #12 – Enhance Hybrid Workforce Model

Risks	▸ The Town will need to have a clear remote work policy prior to this initiative. Without it there is a risk the two will not align ▸ Without training and a change in organizational culture, staff may not use collaboration and remote tools fully effectively.
Benefits	▸ Improved remote working capabilities and greater staff effectiveness. ▸ Improved collaboration, data sharing, and document development across the Town.
Resources	▸ This initiative will be led by the IT Division but supported by a third party consulting firm.
Assumptions	▸ The Town will require third party assistance to perform the analysis due to internal capacity constraints. ▸ The IT department is currently reviewing the telephony needs of the Town, the preferred solution will provide support for UCC integration.
Dependencies	▸ No other initiatives.

APPENDICES

Appendix 1 – Digital Working Group Terms of Reference

Objectives	**Set digital priorities and govern digital channel ownership**		
Frequency	▸ Quarterly		
Chair	▸ Director, Strategic Initiatives	**Participants**	▸ Director, IT Division ▸ Director, Communications ▸ Representatives from Operating Divisions (as required)
Decisions	▸ Confirm digital strategy and ensure alignment with customer service ▸ Govern ownership of digital channels and the roles and responsibilities of Operating Divisions and the IT Division ▸ Prioritize digital initiatives and ensure IT Division work is aligned to corporate needs ▸ Identify monetization of Town asset opportunities		
Inputs	▸ New digital and technology initiatives, systems, and channels		
Outputs	▸ Updated digital strategy ▸ Prioritization of new digital initiatives ▸ Digital grant sourcing and capital budget development in conjunction with IT Division ▸ Ownership of systems and channels, and defined roles and responsibilities of Operating Divisions and the IT Division		
Notes	▸ Reports to SMT		

Appendix 1 – Technical Working Group Terms of Reference

Objectives	**To oversee the design and implementation of digital systems**		
Frequency	▸ Quarterly and as needed		
Chair	▸ Director of IT	**Participants**	▸ Town Clerk ▸ Information Governance and Records Manager ▸ Representatives from Communications ▸ IT Division Management ▸ Representatives from Operating Divisions (as required)
Structure	▸ Three working groups report into the Technical Group. ▸ *Design Authority*: approving and defining architecture and standards ▸ *Change Management Authority*: approving changes to systems ▸ *Data Governance*: oversees data strategy, performance, and priorities ▸ Each working group will meet separately, have a defined composition including IT staff, and have its own Terms of Reference.		
Decisions	▸ Ensure consistent data governance policies and practices ▸ Govern system design and architecture ▸ Responsible for ensuring changes are tested and communicated effectively to users		
Inputs	▸ Decisions from working groups		
Outputs	▸ Communications to users ▸ Data governance strategies, processes, and policies ▸ Approved changes to systems and architecture		
Notes	▸ Reports to Digital Working Group		

Appendix 2 – List of Potential Changes

With a younger, professional population, the Town is uniquely able to provide more digital self-services

- Municipalities are increasingly offering more online/mobile self service. Below summarizes gaps (in grey) comparing the Town's website to other municipalities.

Building Services Permit applications, inspections	**Planning Services** Application submissions	Fire Permit applications, education, inspections
By-law Enforcement Parking and by-law infractions/inquiries	Recreation Program registration, facilities, events, grants	**Operations** Repair requests, snow plow tracking, permits
HR View & apply for Municipal jobs	Clerk License application, FOI requests	**Taxes** Property tax look up, online payment
Live Chat – Ability to chat with agents in real time		
Customer Inquiries/Complaints – Email or lookup general inquiries		

- The COVID-19 pandemic demonstrates that organizations are not equally prepared to offer digital/online services when physical services are inaccessible. Additionally, digital/online services may become part of business continuity plans for greater resiliency in the future.

Specific examples of changes to consider include:

Offer additional self services

- Change of Address (billing and collections)
- Account Change or Cancellation Form (billing and collections)
- Property Tax Inquiries
- Register a Complaint (by-law/animal control)

Convert to fillable forms to integrate into systems

- Filming Permit
- Conflict of Interest Inquiry Form
- Annual Business Licence Application

Appendix 3 – Governing Change (1/2)

Change implementation is the processes, tools and techniques that manage, prepare and support staff in making, realizing, adopting and acknowledging change.

While project management focuses on the tasks to achieve project requirements, change implementation focuses on the people and how to achieve outcomes

Rather than preparing stakeholders for change, this concept emphasizes helping stakeholders (e.g. staff) make the change and sustain that change through reinforcement.

Adopting an approach for managing change implementation has numerous benefits

- Gets staff excited about change
- Anticipates challenges and addresses concerns about change fatigue
- Reduces the risks associated with the change, the time to implement change and the possibility of an unsuccessful change
- Maintains or even improves organizational effectiveness and efficiency by acknowledging the concerns of staff
- Provide a means to measure outcomes and values

Change management requires understanding the change from an individual's perspective

Successful implementation of change typically starts with a clear understanding of why the change is occurring, how it impacts stakeholders and the benefits it will have.

- Each stakeholder should progress through the five outcomes:

  A Awareness of the need for change

  D Desire to support the change

  K Knowledge of how to change

  A Ability to demonstrate new skills / behaviours

  R Reinforcement to make the change stick

- This model, known as the ADKAR model from PROSCI*, provides structure and direction for stakeholders – it allows an organization to understand what activities staff require (training, coaching etc.) to transition through each stage.

*Note, the Town is not a member of PROSCI.

Appendix 3 – Governing Change (2/2)

The Town should ensure the right tools and process are in place to effect change. The following is an approach the Town can use to manage change.

Step One: Preparing for Change

Identify change leaders who will promote change and guide all stakeholders through the PROSCI ADKAR stages. Identify the situational elements:

- What is the change (i.e. system upgrade, new process)?
- Why is it needed (i.e. in response to new strategy, increase efficiency / increase revenue)?
- Who does the change impact and how (i.e. finance staff day-to-day tasks)?
- How much change management is needed (i.e. across the organization, in one department)?
- Who will lead the change (i.e. division managers, non-leadership staff)?

Step Two: Managing Change

Create the change management plan with steps that will enable the organization to support each of the impacted stakeholders, by addressing:

- How and when to communicate the change?
- Who needs training? When and how will they receive the training?
- What are the anticipated areas of resistance? How can this be mitigated?

Where appropriate consider using scenario training or other methods to allow stakeholders to learn more about the change and get accustomed to it. Modify the change management activities to suit the organization and stakeholders as some activities may be more or less effective.

Step Three: Reinforcing Change

Develop action plans so that once the change has been implemented, it is sustained. These plans should contain metrics to measure and identify:

- How well the change is taking hold
- Any changes in staff behaviour
- Differences between the new way staff should be working and the way they are actually working
- Success and recognition

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