GHD Digital

eSolutionsGroup
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Joint IT Business Analysis: Final Report

Municipal Innovation Council

9 March 2022

→ The Power of Commitment

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Project Overview

Background

The Municipal Innovation Council ("MIC") is a collaborative body (created as a three–year pilot project) comprised of members from 8 different Municipal organizations in Southwestern Ontario, Canada. The MIC's primary objective is to assist its member Municipalities in collaboratively identifying and implementing opportunities and recommendations across its member Municipalities in order to improve service delivery capabilities, and thereby enhance the resident experience for citizens in each community.

In particular, improving IT service delivery emerged as a key opportunity area that the MIC desired to explore further in 2021, which was further assisted through funding provided by the Province of Ontario (Ministry of Municipal Affairs and Housing) through the Municipal Modernization Program.

In January 2022, GHD Digital was engaged to support the MIC in conducting a Joint IT Business Analysis Review ("Project", "Review") with its member Municipalities to develop a strategy that:

1. Addressed the current and future needs of the MIC member Municipalities' information technology solutions
2. Analyzed the current IT spend
3. Identified and prioritized opportunities for cost savings through shared services or Digital modernization

Throughout the 9–week engagement, GHD Digital worked closely with all 8 MIC member Municipalities including the following organizations:

1. The County of Bruce ("Bruce County")
2. Town of Saugeen Shores ("Saugeen Shores")
3. Municipality of Kincardine ("Kincardine")
4. Municipality of Brockton ("Brockton")
5. Township of Huron–Kinloss ("Huron–Kinloss")
6. Municipality of South Bruce ("South Bruce")
7. Municipality of Northern Bruce Peninsula ("Northern Bruce Peninsula")
8. Municipality of Arran–Elderslie ("Arran–Elderslie")

Please refer to *Appendix A* for a glossary of all acronyms used throughout this report.

Objectives

The primary objective of the project was to identify opportunities for the MIC member Municipalities to jointly address the following topics:

1. A shared services model / agreement (regional approach to IT service delivery and support)
2. Spend consolidation / co–ordination
3. Local software upgrading needs
4. Gaps in current state (e.g., disaster recovery / cybersecurity)

Approach

The approach taken by GHD Digital to conduct the Joint IT Business Analysis is outlined below.

Phase 1: Digital and IT Service Delivery Discovery

- During Phase 1 of the project, GHD Digital conducted a Vision Lab with the MIC and Municipality CAOs and IT leaders / staff members to establish a Digital Modernization and Joint IT Services Vision Please refer to *Appendix B* for a list of Vision Lab participants.

- In parallel, interviews were conducted with leaders and staff members from all 8 Municipalities in order to gain insights into the current state of digital and IT within each organization Please refer to *Appendix C* for list of stakeholders engaged for interviews.
- GHD Digital then conducted a business capability maturity scoring exercise in collaboration with each Municipality in order to determine a maturity score which reflected each organization's overall digital maturity (across all business capability areas), and specifically for the IT business capability area Please refer to *Appendix D* for list of business capability areas analyzed and their descriptions.
- GHD Digital also assessed all current state documentation available. This was leveraged along with interview and business capability findings to develop an analysis of the Digital and IT Service Delivery Current State.

Phase 2: Digital and IT Service Delivery Needs Assessment

- In Phase 2, GHD Digital determined and validated desired future state scores for overall digital maturity, and for the IT capability area.
- GHD Digital then documented individual opportunities and developed corresponding initial recommendations across the primary opportunity areas relevant for the project (IT services, IT strategic sourcing and procurement, IT upgrades, cybersecurity, and disaster recovery).
- Through the development and validation of final recommendations (including options analysis exercises) during a number of Future State Working Sessions with the Project Team, GHD Digital then delivered a List of Draft Recommendations / Initiatives which distilled the recommendations into a series of actionable steps to be taken.

Phase 3: Digital Modernization and Joint IT Services Report

- Following the completion of the previous phase, a Digital Modernization and Joint IT Services Roadmap was developed, which added further detail around initiative / activity sequencing and duration over the next 5 years, as well as preliminary ownership and participation information to indicate the Municipalities that would be involved in each initiative based on the preferences discussed.
- A Potential Cost Savings analysis was also conducted specifically around the IT strategic sourcing and procurement, and IT upgrades opportunity areas to determine the financial impact of implementing the related key recommendations.
- A Final Report for the Joint IT Business Analysis Review (i.e., this report) was then completed which summarized all of the key analysis resulting from project Phases 1, 2 and 3.

Deliverables

The project had seven deliverables, as listed below. The first six deliverables were "interim deliverables" delivered as either Microsoft PowerPoint or Excel files. The seventh deliverable, this report, serves as the final key deliverable of this project.

Delivered in Phase 1:

1. Interim Deliverable: Digital Modernization and Joint IT Services Vision
2. Interim Deliverable: Digital and IT Service Delivery Current State

Delivered in Phase 2:

3. Interim Deliverable: Digital and IT Service Delivery Future State
4. Interim Deliverable: List of Draft Recommendations / Initiatives

Delivered in Phase 3:

5. Interim Deliverable: Digital Modernization and Joint IT Services Roadmap
6. Interim Deliverable: Potential Cost Savings
7. Key Deliverable: Final Report

Digital Modernization and Joint IT Services Vision

It was important that there was alignment on a shared vision for Joint Digital and IT Modernization project, along with clear guiding principles within individual, and across all participating Municipalities. GHD Digital facilitated a Vision Lab, a 2–hour long workshop (accompanied by pre–work completed by participants prior to the session), in order to bring together various perspectives related to the Vision and Guiding Principles.

Following the Vision Lab, the following Vision statement and the supporting Guiding Principal statements were developed and validated with the Project Team, and then used as the “north star” to guide decision making throughout the engagement.

Vision Statement

The statement below describes the vision that the MIC and participating Municipalities desire to achieve:

“We will collaborate effectively to share information, aim for consistency in IT services and technology, and potentially establish a shared IT services and technology model in a flexible and a cost–effective manner, to maximize value for our member Municipalities’ stakeholders.”

Guiding Principles

The following Guiding Principles were developed in collaboration with the Project Team to support the Vision, and were taken into consideration when evaluating the options and developing future state recommendations throughout the project.

1. **Build a Solid Foundation:** Establish the foundation for IT modernization and digital transformation first before building and optimizing anything that sits on top of the foundation.
2. **Make the Right Investments:** Support investments in IT that are required to meet the needs of each organization, leveraging economies of scale to drive cost effectiveness where possible.
3. **Share Information Actively:** Foster a culture of proactive, regular dialogue to collaborate and share information between people as well as systems.
4. **Allow for Flexibility:** Identify a model that is flexible and scalable in scope to meet the individual needs and budgets of our member Municipalities.
5. **Align on Standards:** Adopt technology that is modern, easy to use, connected, and enables lean processes, leveraging prior investments, where possible.
6. **Establish Commitment:** Agree on the minimum level of participation required for the model the to be successful as well as the commitment period.

Digital and IT Service Delivery Current State

The following section of the report will provide an overview of the current state of digital and IT including a summary of growth drivers impacting MIC member Municipalities, key current state IT facts, analysis of current state IT spend, current state maturity scores, and key joint challenges observed.

Growth Drivers Impacting MIC Municipalities and IT Modernization

The eight MIC member Municipalities all operate in a continuously evolving business environment which is being impacted by several key growth drivers in the recent past and upcoming years. These common growth drivers impacting all MIC Municipalities include the following:

Population Growth and Diversification

- Many families, especially young families, have been moving away from more urban areas into various MIC member Municipalities during the COVID–19 pandemic.
- As a result, residents will increasingly demand an increased number / breadth of high–quality services and opportunities to digitally engage with Municipalities.
- The growing demand for services will require Municipalities to deliver at a faster pace and increase the efficiency of internal operations to enable this, primarily supported by the adoption of enhanced IT and digital tools.

Bruce Power / Potential DGR Development

- The Bruce Power site, as well as the potential deep geological repository (DGR) site (currently under consideration for development in South Bruce) will continue to drive new employment opportunities which is attracting new residents to the communities within the MIC Municipalities.
- As a result, population growth driven by employment opportunities will further increase demand for services which will need to be efficiently delivered.
- These power related projects are also increasing the cybersecurity risk faced by select Municipalities, further underscoring the necessity to further invest and prioritize this component of IT.

Attraction of New Business

- An increasing number of small / home–based businesses have been starting up within member Municipalities during the COVID–19 pandemic.
- Existing businesses are also increasingly attracted to member Municipalities to set up operations.
- As a result, Municipalities have an increasing need to enhance the “customer experience” for those interested in doing business in the community and will require digital tools / enhanced IT capabilities in order to efficiently enable and deliver this.

COVID–19 Pandemic and Remote Work

- The pandemic has created a need for organizations to rapidly shift to remote working, which had not been the norm for most MIC member Municipalities in the past.
- Working from home has created increased and / or new needs around hardware and software required by staff compared to working in the office.
- Working from home has exposed challenges with legacy architecture (e.g., servers vs. Cloud based applications), the availability of IT support services, and cybersecurity and disaster recovery risks which have not been comprehensively addressed in the past.

Given the nature of the growth drivers impacting MIC Municipalities, IT will be a critical business capability to prioritize developing in the coming years, because it will support the efficient delivery of high quality, new and existing services that will be demanded by a growing, diversifying community of residents and businesses. Improved IT capabilities will also better position MIC member Municipalities to respond to change more rapidly and effectively in an increasingly digital operating environment amidst the COVID–19 pandemic and beyond.

Current State IT Landscape

The current state analysis (and future state analysis) for the MIC Joint IT Business Analysis Review was focused on the following 5 analysis areas and these categories will be presented on a recurring basis within this report. The 5 analysis areas are defined below for the purpose of this Review.

1. **IT Services:** Refers to the service delivery model and processes involved in core IT operations (e.g., actioning of IT support requests from staff primarily consisting of maintenance / break–fix of IT assets being used in the course of conducting business). For reference, other typical IT services include: IT operations and service management (described above), IT strategy and architecture, IT sourcing / procurement, IT vendor management, IT satisfaction management, security / cybersecurity management, disaster recovery planning, application development and maintenance, data management / governance, visualization and advanced analytics, and IT operating model and governance.
2. **IT Strategic Sourcing and Procurement:** Refers to the process of sourcing and procuring IT products (hardware and software) and other IT services (telecom, internet, etc., but not including IT operations services, which will be addressed in the previous analysis area).
3. **IT Upgrades:** Refers to the process of determining future state IT upgrade needs (i.e., new hardware and software) that are common among Municipalities, which will serve as the starting point for the joint procurement opportunities being explored.
4. **Cybersecurity:** Refers to the cybersecurity program (i.e., including cybersecurity framework, polices, procedures, and practices in place at each Municipality, but not including cybersecurity service delivery which will be addressed in the previously defined IT services analysis area).
5. **Disaster Recovery:** Refers to the disaster recovery program (i.e., including the disaster recovery framework, polices, procedures, and practices in place at each Municipality, but not including disaster recovery service delivery which will be addressed in the previously defined IT services analysis area).

Current State of IT Services

With regards to the delivery of IT services within each Municipality, 2 general service delivery models are used across the 8 Municipalities, external and internal service delivery.

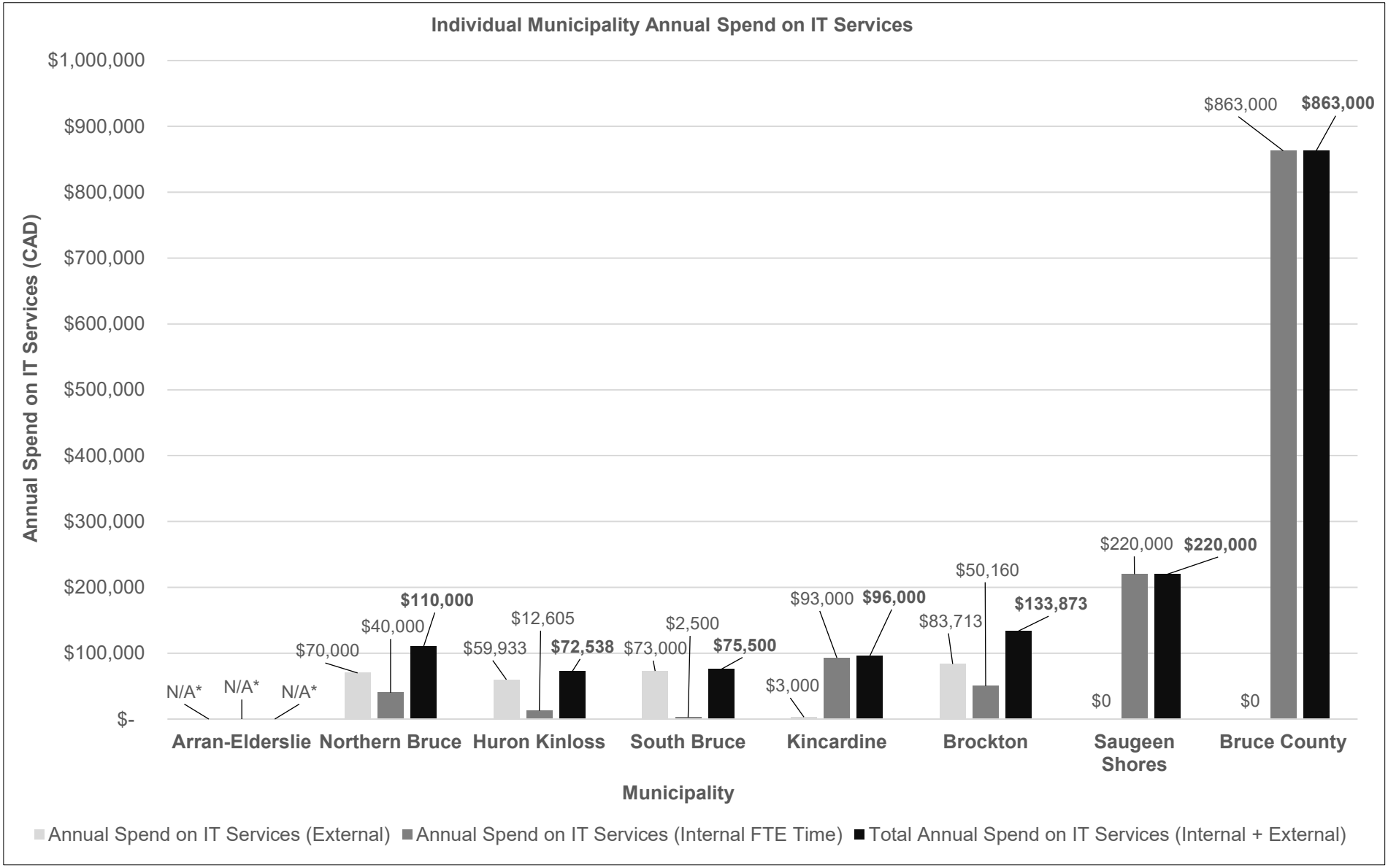
1. **External IT Service Delivery (Third–party Service Provider):** 5 of 8 Municipalities leverage one of the following 3 external service providers to deliver IT services.
    - **MicroAge:** is leveraged by Brockton, Huron–Kinloss, South Bruce, Kincardine (for cybersecurity only), and Arran–Elderslie (for cybersecurity only).
    - **Infinity Solutions:** is leveraged by Northern Bruce Peninsula only.
    - **McKinnon Computer Services**: is leveraged by Arran–Elderslie only.
2. **Internal IT Service Delivery (In–house IT Staff):** Only 3 of 8 Municipalities have dedicated, full time, in–house staff members that are solely focused on IT responsibilities. These Municipalities are as follows.
    - Bruce County (10 full time IT staff members).
    - Saugeen Shores (2 full time IT staff members).
    - Kincardine (1 full time staff member).

The 5 Municipalities mentioned above that rely on external IT service providers have no dedicated, full time IT staff members, instead, tend to have an existing staff member or leader that also assumes some IT responsibilities on a part–time basis in addition to their primary role (e.g. Treasury, Building and Planning, etc. in addition to IT). This part–time IT responsibility primarily involves liaising with the third–party provider and serving as an escalation point between the staff and the provider as needed.

There are some common supporting software / practices in place to support delivery of IT services across Municipalities which primarily include the use of the phones and email to communicate internally within the organization (to flag IT related issues) and externally with third–party service providers (to request service). In most cases, no dedicated service desk / request ticketing portals or tools are used to manage IT operations.

With regards to current state spend on IT services, the following graph depicts a comparison of annual internal spend on IT services (full time employee time allocated to delivering IT services), external spend on IT services (service fees paid by those Municipalities who leverage a third–party service provider), and the total internal plus external spend on IT services across all Municipalities. Please refer to *Appendix E* for detailed current state IT spend data per Municipality.

Figure 1 Graph Depicting Individual Municipality Annual Spend on IT Services

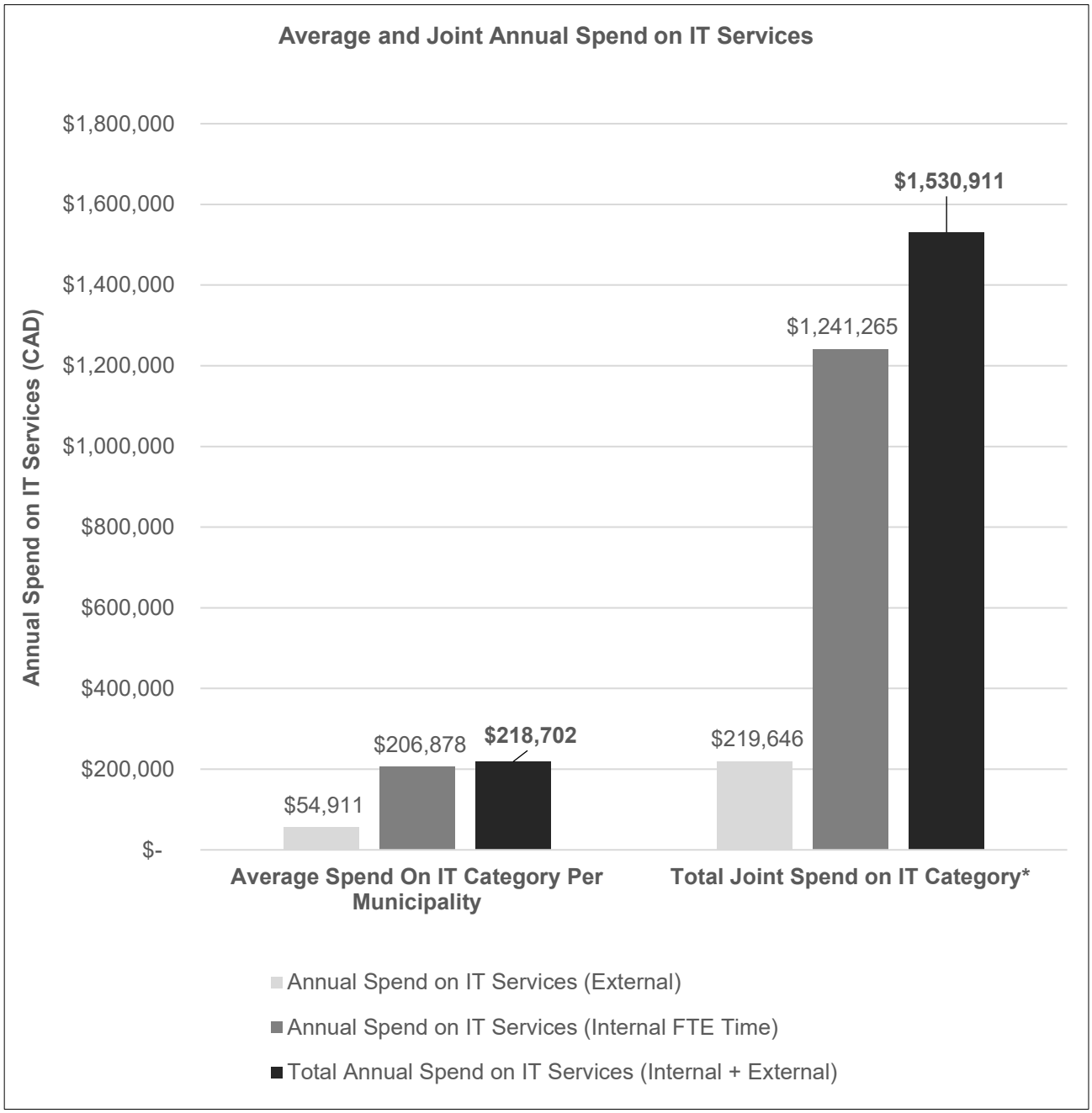


***Note:** "N/A" Values in graph indicate that data was not available from that Municipality for that category (as opposed to the value being zero).*

Based on this comparative analysis of spend, some key observations were identified. Bruce County has a significantly higher annual IT services spend ($863,000) as a result of the size and maturity of their organization compared to the other 7 Municipalities. Aside from Bruce County, Saugeen Shores has the second highest annual spend on IT services ($220,000), followed by Brockton ($133,873), and then Northern Bruce Peninsula ($110,000). Huron–Kinloss and South Bruce have very similar annual spend amounts ($72,538 and $75,500 respectively). Annual spend on IT services generally appears to be correlated with Municipality size (population) and staff size, with larger Municipalities incurring higher annual costs to deliver a higher degree and level of IT services.

The following graph depicts the average annual spend on IT services per Municipality on the left (internal, external, and combined), and then the total joint spend on IT services across all 8 Municipalities (internal, external, and combined) on the right.

Figure 2 Graph Depicting Average and Joint Annual Spend on IT Services



Based on the chart above, the average annual spend on IT services (internal plus external) across all 8 Municipalities is $218,702. If Bruce County is removed from this average, the average would be $113,318 across the lower tier Municipalities. Overall, all 8 Municipalities spend a total of $1,530,911 to deliver IT services to their organizations, or $667,911 excluding Bruce County.

Current State of IT Strategic Sourcing, Procurement, and Upgrades

The IT strategic sourcing, procurement, and upgrades current state assessment in the following section is focused on procurement of IT services (i.e., IT operations provided by a third–party vendor, telecommunications services, internet services), hardware, and software.

In the current state, all Municipalities independently procure all IT services, as each service agreement was originated and entered into independently (as opposed to established through a joint RFP process), despite the fact that the same providers are used by many Municipalities (e.g., MicroAge). The annual spend for this category has been outlined in the previous set of graphs. Please refer to the graph on the following page for an overview of annual spend on telecommunications and internet services.

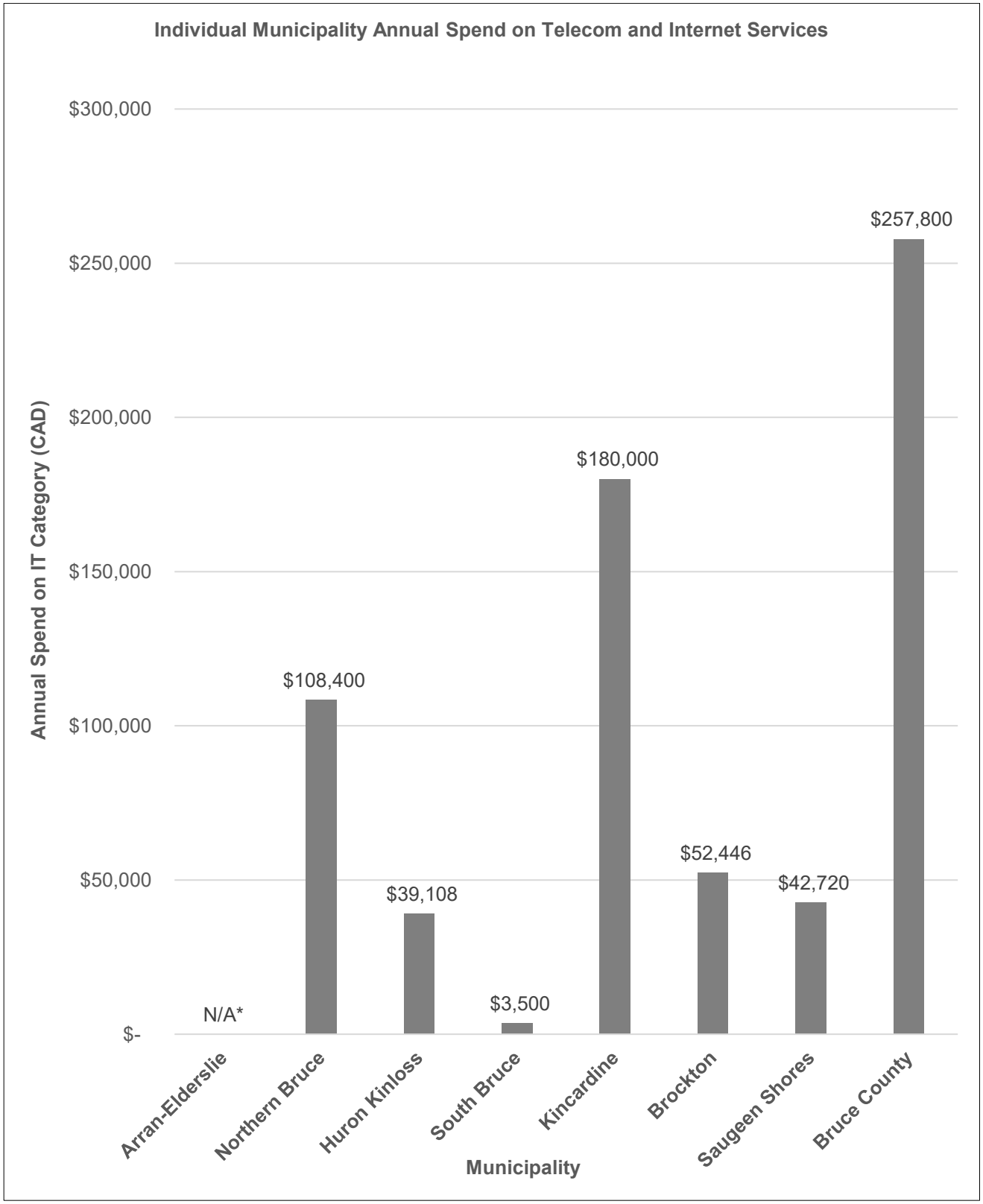
For hardware procurement, most Municipalities who leverage third–party service providers such as MicroAge, Infinity Solutions, or McKinnon Computer Services, also tend to rely on that provider for hardware procurement in most cases (with the exception of Kincardine). In some scenarios however (e.g., if there is a small scale or an urgent need), Municipal staff also procures some hardware items directly, typically through purchases made at retail stores such as Staples. Bruce County and Saugeen Shores, however, fully conduct their hardware procurement internally through dedicated IT staff members who proactively conduct market scans and price matching for various items, and tend to leverage known Canadian government–specific vendor of record channels to make cost effective purchases (e.g., through the DMSP3 agreement through the Province of Ontario for desktop management services and products).

For software procurement, all Municipalities primarily manage this in–house through staff–led decision making. Individual department leaders or staff tend to first identify a specific software purchase or upgrade need, then they socialize the need with relevant internal stakeholders to gain buy in, approval is then provided by Finance / Treasury and the CAO, followed by Council where necessary. From there, RFPs are issued where required, or the software is then directly purchased by the Municipality directly working with the Vendor.

Please refer to *Appendix E* for data collected on current state hardware and software spend per Municipality. Please note that due to incomplete data available, as we as discrepancies in data available (i.e., no purchase year information in some cases), graphs have not been included for these categories in this Report, as a meaningful comparison could not be performed at this time.

The following graph provides an overview of annual spend on telecommunications and internet service across each Municipality. Please refer to *Appendix E* for detailed data related to IT spend for this category.

Figure 3 Graph Depicting Individual Municipality Annual Spend on Telecom and Internet Services

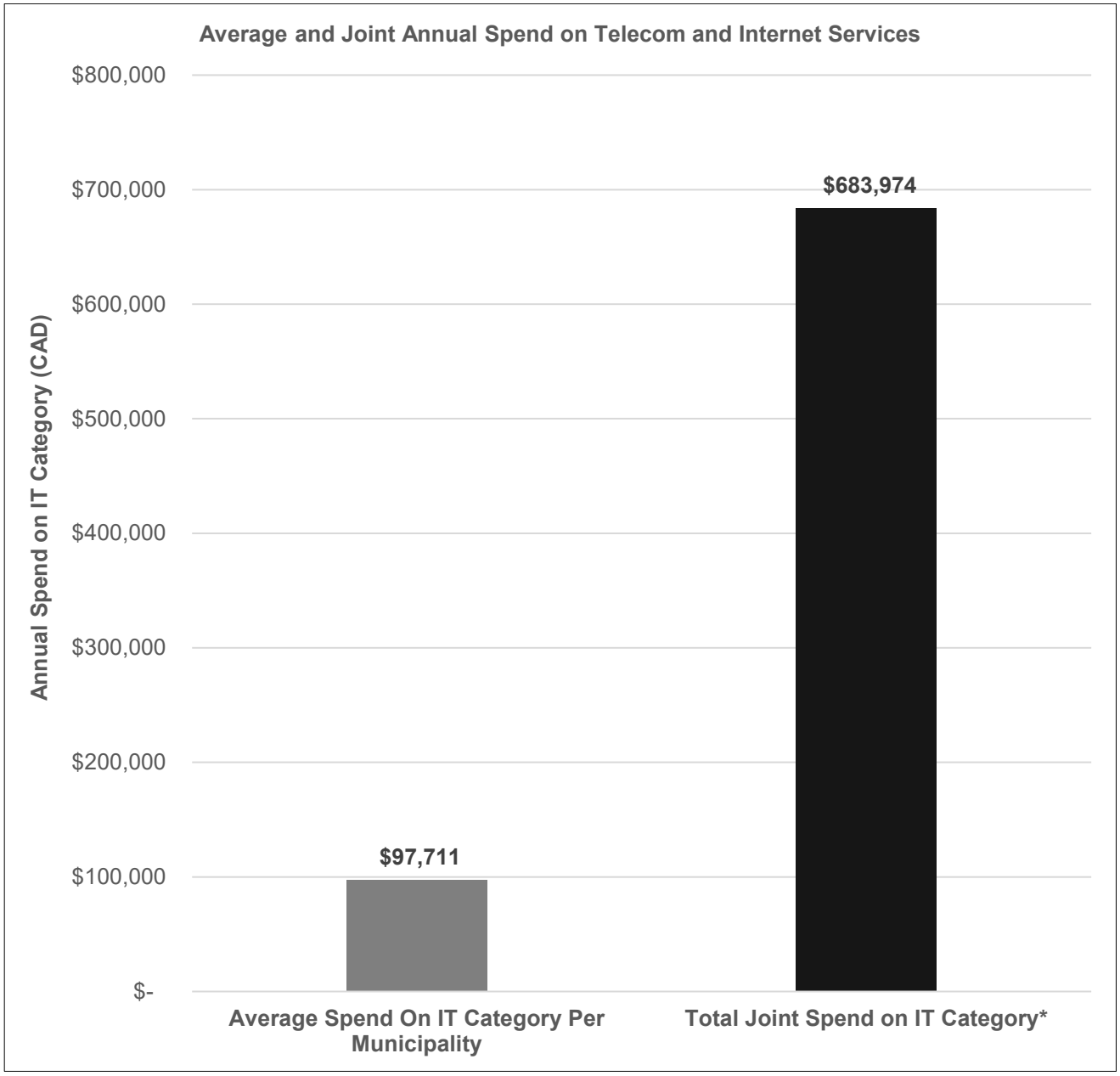


***Note:** "N/A" Values in graph indicate that data was not available from that Municipality for that category (as opposed to the value being zero).*

Based on these results, Bruce County ($257,800) followed by Kincardine ($180,000) and Northern Bruce Peninsula ($108,400) have the highest annual spend on telecommunications and internet.

The following graph displays the average annual spend on telecommunications and internet services per Municipality (on the left), and the total joint spend on this category across all 8 Municipalities (on the right).

Figure 4 *Graph Depicting Average and Joint Annual Spend on Telecom and Internet Services*



Based on these results, the average spend per Municipality on this IT category is $97,711, or $71,029 excluding Bruce County. The total joint spend per year is $683,974, or $426,174 excluding Bruce County.

Current State of Cybersecurity

Most Municipalities have introduced new cybersecurity software tools and supporting practices in recent years. These tools and processes are largely managed and overseen by third–party service providers (for those Municipalities leveraging one, with the exception of Bruce County and Saugeen Shores). As a result, internal staff at most Municipalities have very minimal involvement in the day–to–day operations or strategic planning for cybersecurity.

The key common supporting software / practices in place to support cybersecurity across Municipalities primarily include the use of firewalls, antivirus software (e.g., Microsoft Defender, Sophos software products for network monitoring and intrusion detection), and phishing software for email (e.g., Barracuda software products). Some Municipalities are also using or planning on introducing additional cyber related measures such as cybersecurity training to staff (i.e., Saugeen Shores and Bruce County use KnowBe4, South Bruce is planning on doing this in 2022), multifactor authentication (i.e., Saugeen Shores and Bruce County are doing this, with Kincardine planning on implementing this in 2022), and penetration testing (i.e., Saugeen Shores is planning on doing this in 2022).

In order to further assess cybersecurity structures and practices in place at each Municipality, a survey was conducted which collected insights on cybersecurity for both Information Technology (IT) and Operational Technology (OT) across each organization. Please refer to *Appendix G* for detailed survey results for the current state of cybersecurity at each Municipality.

Key Insights from Current State Cybersecurity for IT Survey:

- Areas of strength in the current state include: account management, access and privileges, malware protection and data recovery practices in place for IT (all Municipalities responded “Yes” to these questions).
- Areas of weakness in the current state include: having cybersecurity roles and responsibilities, policies, data protection regimens, and third–party security management which are not commonly in place for IT.
- Cybersecurity for IT appears to be a stronger focus area for most Municipalities compared to OT.

Key Insights from Current State Cybersecurity for OT Survey:

- Across the 8 Municipalities, there appears to be generally low maturity for OT cybersecurity (compared to IT cybersecurity).
- Areas of strength in the current state include: account management, access and privileges, malware protection, and data recovery practices for OT which are commonly in place.
- Areas of weakness in the current state include: roles and responsibilities, policies, third–party security management, and penetration testing which are not commonly in place for OT.
- Only 2 of the Municipalities have indicated that a system security policy is in place for OT.

For an overview of current state annual spend on cybersecurity, please refer to the graph in the upcoming section related to disaster recovery (Figure 5). Based on the data provided by each Municipality, only a combined spend value with disaster recovery was commonly available, and therefore was reviewed as part of the current state assessment.

Current State of Disaster Recovery

Most Municipalities have introduced some degree of disaster recovery software and practices in recent years. Similar to cybersecurity, these are largely managed and overseen by their third–party service provider as well (for those that leverage one, with the exception of Bruce County and Saugeen Shores). As a result, internal staff has minimal involvement in day–to–day or strategic planning for disaster recovery in most cases.

The key common supporting software / practices in place to support disaster recovery across Municipalities primarily includes performing offsite data backups on a recurring basis, and leveraging Datto software products / services in many cases to do so, which is usually managed by the third–party IT service provider (with the exception of Bruce County and Saugeen Shores).

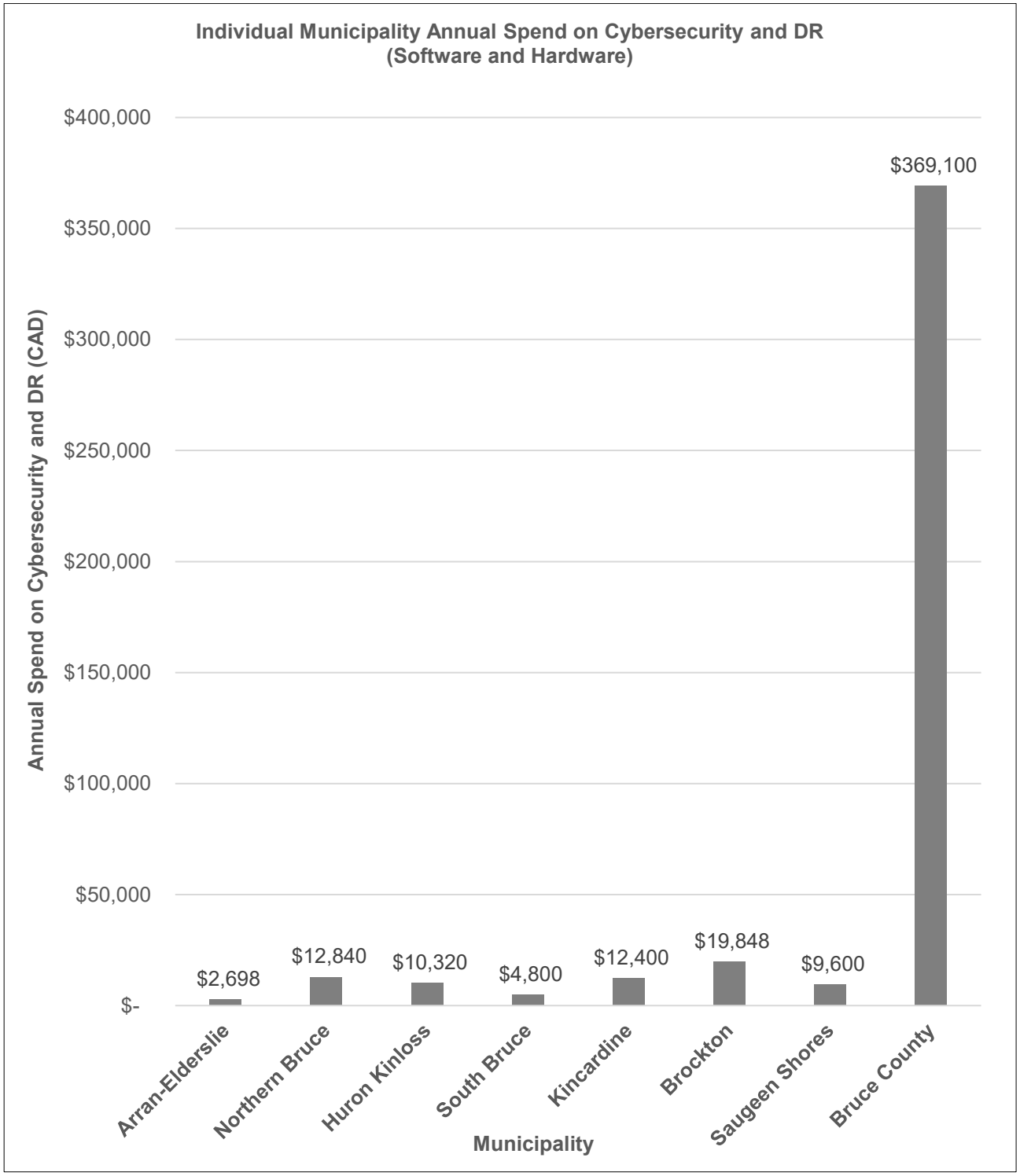
In order to further assess disaster recovery structures and practices in place at each Municipality, a survey was conducted which collected insights on current state measures being taken. Please refer to *Appendix G* for detailed survey results for the current state of disaster recovery at each Municipality.

Key Insights from Current State Disaster Recovery Survey:

- Overall, only 4 of the 8 Municipalities have indicated that they have a Disaster Recovery plan in place and have prioritized critical business functions / processes (these Municipalities include, Bruce County, Saugeen Shores, Huron–Kinloss and Northern Bruce Peninsula).
- Amongst the Municipalities with a Disaster Recovery Plan, only 2 have it segmented this plan by roles, situations, locations, etc.
- Only 2 Municipalities periodically review and test their Disaster Recovery Plan.
- Only Northern Bruce Peninsula has indicated that a training program is in place related to disaster recovery.

The following graph displays a combined annual spend for cybersecurity and disaster recovery across all 8 Municipalities. This annual spend amount includes the annual costs associated with the purchase of cybersecurity hardware and software (many priced with a monthly or annual subscription fee model). Please refer to *Appendix E* for detailed current state cybersecurity and disaster recovery spend data per Municipality.

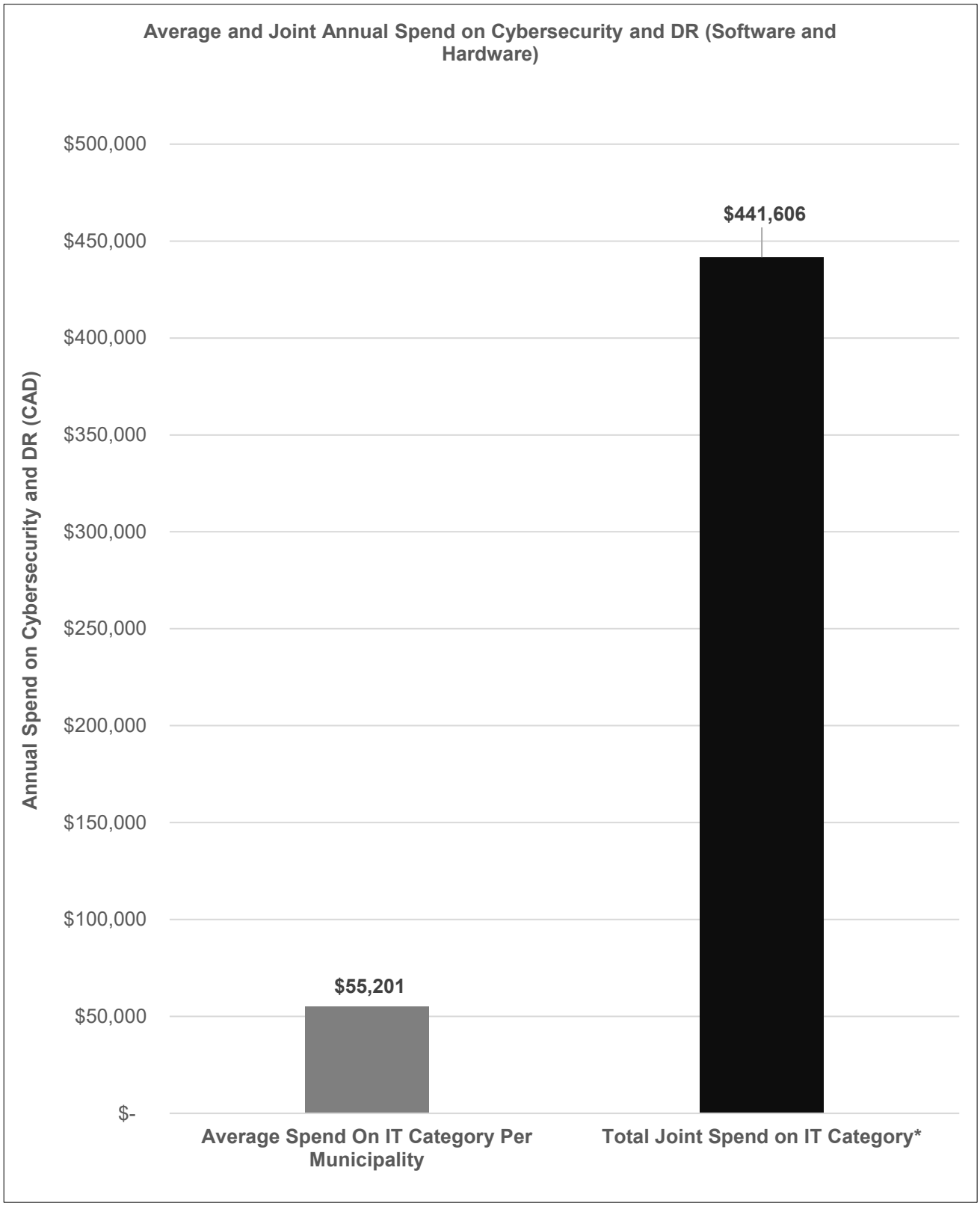
Figure 5 Graph Depicting Individual Municipality Annual Spend on Cybersecurity and DR (Software and Hardware)



Based on this comparative analysis of spend, the following key observations were identified. Aside from Bruce County ($369,100), Brockton has the highest annual spend on cybersecurity and disaster recovery ($19,848), followed by Northern Bruce Peninsula ($12,840), and then Kincardine ($12,400). Arran–Elderslie and South Bruce have the lowest annual spend on cybersecurity and disaster recovery of the group. Annual spend on IT services appears to be less correlated with organization (staff) size as some larger Municipalities (e.g., Saugeen Shores – $9,600 / year with 300 staff members) have lower annual spend than smaller ones (Northern Bruce Peninsula – $12,840 / year with 55 staff members).

The following graph depicts the average annual spend on cybersecurity and disaster recovery per Municipality on the left, and the total joint spend on cybersecurity and disaster recovery across all 8 Municipalities on the right.

Figure 6 Graph Depicting Average and Joint Annual Spend on Cybersecurity and DR (Software and Hardware)



Based on these findings, the average annual spend on cybersecurity and disaster recovery across all 8 Municipalities is $55,201 ($10,558, if excluding Bruce County which has a significantly higher annual spend). Overall, all 8 Municipalities collectively spend $441,606 to deliver IT services to their organizations, or $72,506, if excluding Bruce County.

Current State Overall Digital Maturity Scores

While the previous sectioned outlined several key facts related to the current state of IT, the following section leverages these facts to present an assessment of current state digital maturity, and IT maturity. A core part of the approach taken was utilize a “Business Capabilities Map” (specific to municipal organizations) which outlines the core business capabilities (and typical sub capabilities) that were common to the 8 Municipalities in scope for this Review. The Business Capability Map consisted of the following 15 business capabilities. Please refer to *Appendix D* for further details and descriptions for each business capability and its sub–capabilities.

1. Office of the CAO
2. Business and Economic Development
3. Clerk's Office
4. Financial Management / Treasury
5. Building and Planning
6. Public Works
7. Community Services
8. Emergency Services
9. Project Management
10. IT and Data Management
    - 10.1. Cybersecurity
    - 10.2. Disaster Recovery
11. HR and Talent Management
12. Retail Operations
13. Legal Services
14. Public Health
15. Innovation

After GHD Digital documented a preliminary maturity assessment, input was collected from each Municipality including their assessment of their own maturity score for each business capability, supported by rationale and examples relevant to key technology gaps (software and hardware) that might be influencing the current state score. The primary focus of the assessment was to determine the overall digital maturity at an organizational level (i.e., the extent to which these business capabilities are supported by digital / technology). An overview of the scoring methodology used to determine digital maturity of each business capability is shown in the table below.

Table 1 Digital Maturity Scoring Methodology Used for Business Capability Map Assessment

Maturity Score	Score Description
0	**Non–Existent:** Capability not supported by Digital / technology at all
1	**Very Low Maturity:** Capability minimally supported by Digital / technology
2	**Low Maturity:** Capability somewhat supported by Digital / technology
3	**Medium Maturity:** Capability mostly supported by Digital / technology
4	**High Maturity:** Capability fully supported by Digital / technology (basic)
5	**Very High Maturity:** Capability fully supported by Digital / technology (best–in–class)

The following table displays the scoring results across each Municipality, with each score representing an average of the scores collected for all 15 business capabilities. The table also contains the average overall joint digital maturity score across all 8 Municipalities. Please refer to *Appendix F* for further details around the scores selected for all 15 business capability that make up these average scores, along with rationale and examples of key current state challenges indicated by each Municipality.

Table 2 Overall Current State Digital Maturity Scores Determined for Each Municipality

Municipality	Current State Score
Bruce County*	3.7*
Saugeen Shores	3.2
Kincardine	2.4
Brockton	2.4
Huron–Kinloss	2.4
Northern Bruce Peninsula	2.1
South Bruce*	2.4*
Arran–Elderslie	2.1
Joint Average Overall Digital Maturity Score	**2.6**

***Note:** Business Capability Map (scores and rationale) were not completed by 2 Municipalities; Bruce County and South Bruce. As such, a general assessment of their maturity was provided by GHD Digital based on interviews and a review of current state documentation provided.*

Based on these results, the average digital maturity score at an organizational level across all MIC member Municipalities is 2.6, which indicates “low maturity”. This average score indicates that most Municipalities feel that their organization is “somewhat” supported by digital / technology. The most mature Municipalities from a digital maturity perspective are Bruce County (score of 3.7) and Saugeen Shores (score of 3.2), both of which have “medium maturity”, and are “mostly” supported by digital / technology. The least mature Municipalities from a digital maturity perspective are Arran–Elderslie (score of 2.1) and Northern Bruce Peninsula (score of 2.1). Many Municipalities appear to have a very similar level of digital maturity including Kincardine, Brockton, Huron–Kinloss, and South Bruce, all of which had the same score of 2.4. Digital maturity appeared to be very similar across the group, as most Municipalities had very similar software in place across most departments (with the exception of Bruce County), and relatively similar technology gaps that they intend to address in the coming years.

Digital maturity also appears to be directly correlated with Municipality size, as this reflects a larger population and tax base, as well as increased / evolving demand from residents for more efficiently delivered, and digitally enabled services that some Municipalities have started catering to. In turn, this has resulted in larger Municipalities being able to dedicate more resources and allocate larger budgets to investments in digital solutions compared to their peers that are of a smaller geographical size.

Most Municipalities with lower maturity recognize the importance of moving towards a more digitally enabled future state, while also acknowledging that it will take “baby steps” to transform due to internal and external constraints and limitations (Council decisions, budgets, competing priorities, etc.). At this time, 5 of 8 Municipalities (Bruce County, Saugeen Shores, Kincardine, Huron–Kinloss, and Northern Bruce Peninsula) have created some type of dedicated “digital modernization strategy” which is tailored to their Municipality which includes some form of Roadmap for their path forward as an organization. That said, some Municipalities (e.g., Brockton) are currently considering developing this strategy and Roadmap in the future.

Current State IT Maturity Scores

In addition to the organization–level digital maturity score, a maturity score specific to the maturity of the IT capability was also assessed for each Municipality, as this is a key focus are of this project. The primary focus of the assessment was to determine the IT maturity at an organizational level (i.e., the extent to which IT has the appropriate technology, people, process, data, and governance, required to support the business). An overview of the scoring methodology used to determine IT maturity is shown in the table below.

Table 3 IT Maturity Scoring Methodology Used for Business Capability Map Assessment

Maturity Score	Description
0	**Non–Existent:** No technology (hardware, software, architecture, etc.), as well as processes, data, governance, and people are in place to support the IT business capability.
1	**Very Low Maturity:** Minimal technology (hardware, software, architecture, etc.), as well as processes, data, governance, and people are in place to support the IT business capability.
2	**Low Maturity:** Basic technology (hardware, software, architecture, etc.), as well as processes, data, governance, and people are in place to support the IT business capability.
3	**Medium Maturity:** Moderate level of technology (hardware, software, architecture, etc.), as well as processes, data, governance, and people are in place to support the IT business capability.
4	**High Maturity:** Comprehensive level of technology (hardware, software, architecture, etc.), as well as processes, data, governance, and people are in place to support the IT business capability.
5	**Very High Maturity:** Advanced and innovative level of technology (hardware, software, architecture, etc.), as well as processes, data, governance, and people are in place to support the IT business capability.

The following table displays the results observed across each Municipality, with each score representing the average score for IT maturity. The table also contains the average overall IT maturity score across all 8 Municipalities. Please refer to *Appendix F* for further details around the scores for the IT business capability (as well as cybersecurity and disaster recovery sub–capabilities) that make up these average scores, along with rationale and examples of key current state challenges and opportunities indicated by each Municipality.

Table 4 IT Maturity Current State Scores Determined for Each Municipality

Municipality	Current State Score
Bruce County*	4.5*
Saugeen Shores	4.0
Kincardine	2.0
Brockton	2.0
Huron–Kinloss	2.0
Northern Bruce Peninsula	2.0
South Bruce*	2.0*
Arran–Elderslie	2.0
Joint Average IT Maturity Score	**2.6**

***Note:** Business Capability Map (scores and rationale) were not completed by 2 Municipalities; Bruce County and South Bruce. As such, a general assessment of their maturity was provided by GHD Digital based on interviews and a review of current state documentation provided.*

Based on these results, the average IT maturity score across all MIC member Municipalities is 2.6, which indicates “low maturity”, where “basic” technology (hardware, software, architecture, etc.), as well as processes, data, governance, and people are in place to support IT. The most mature Municipalities from an IT perspective are Bruce County (score of 4.5), and Saugeen Shores (score of 4.0). There is no distinct Municipality with the lowest majority, as the remaining 6 of 8 Municipalities had the same current state IT maturity score of 2.0 (“low maturity”). The high degree of similarity in IT maturity is indicative of the fact that most of the lower tier Municipalities have a very similar IT service delivery model (e.g., reliance on a limited number of third–party service providers), which has resulted in similar challenges being observed which will be outlined in the following section.

Most Municipalities with lower maturity recognize the importance of improving internal IT capabilities and measures in place / or the quality and availability of external service provision, especially as this will lead to increased process efficiency, and enablement of digital transformation in the future. However, IT has not been prioritized as an internal capability to proactively develop in–house due to gaps in available resources, expertise among existing staff, and a lack of urgent need to improve this function (aside from pandemic–related work from home changes that did notably raise awareness around IT). At this time, only 2 of 8 Municipalities (Saugeen Shores and Bruce County) have created a dedicated “IT Strategic Plan” which is tailored to their Municipality and contains a Roadmap for their path forward as an organization.

Key Joint Current State Challenges

The following section provides an overview of key current state challenges observed across the 5 primary analysis areas of this Review: IT services, IT strategic sourcing and procurement, IT upgrades, cybersecurity, and disaster recovery. These challenges outlined below provide detailed rationale and examples of why the 8 Municipalities scored an average IT maturity score of 2.6 (“low maturity”).

IT Services: Joint Challenges

- Current IT resources, whether internal or external, tend to be insufficient to meet growing municipal IT needs (in terms of availability (e.g., single individual only available onsite one day per week), limited scope of services offered, etc.).
- No SLAs (service level agreement / expected time to resolve IT tickets e.g., 24 hours) exist between Municipalities and their third–party service providers, and no formal agreement is in place either in some cases (e.g., Huron–Kinloss and MicroAge).
- Slow IT service results in lost productivity among staff members who might be unable to continue working while they are waiting for their issue to be resolved.
- Internal IT leaders face capacity constraints while trying to manage multiple priorities, and often spend more time on day–to–day IT operations (“ticket” management), or liaising with MicroAge, Infinity Solutions, McKinnon Computer Services, rather than conducting any strategic planning or critical one–time exercises (e.g., developing accurate software / hardware inventories, or initiating internal or external third–party audits to identify cost leakage such as unused phone lines which could result in substantial cost savings, etc.).
- There is insufficient collection / analysis of IT operational data occurring to conduct “problem management” (understanding the most common “tickets”) and addressing root causes to reduce ongoing tickets associated with known issues.
- IT services delivered and ongoing decision making tends to be reactive (“putting out fires”) rather than proactive (performing preventative maintenance / upgrades).
- There is no consistent level, or defined structure of collaboration in place across Municipalities to jointly deliver IT amongst each other, or to collectively negotiate with external service providers (e.g., MicroAge, Infinity Solutions) for increased service levels / better rates, etc.
- Internal IT policies and procedures do not exist in some Municipalities (e.g., Arran–Elderslie).

IT Strategic Sourcing and Procurement: Joint Challenges

- Currently, IT related data (e.g., hardware and software inventories, purchase prices, ongoing costs) is not well managed and maintained by some Municipalities, and is unreliable in some cases (incomplete or outdated) for most Municipalities with a few exceptions (e.g., Saugeen Shores, Huron–Kinloss, etc.).
- Due to significant data gaps, it is difficult (and not possible in some cases) to analyze detailed spend on IT products (hardware and software) by subcategory (e.g., laptops, desktops, monitors) and purchase year to identify procurement trends or differences across Municipalities.
- Most Municipalities source and procure most forms of IT (hardware / software) on their own, with very few cases of collaboration with some Municipalities purchasing hardware through arrangements in place at Bruce County or Saugeen Shores.
- Software joint procurement is very limited to select use cases such as ESRI GIS licenses that the County has issued to other Municipalities, and voting software that the Saugeen Shores Clerk's Office jointly procured via RFP in collaboration with another neighboring County in the past.
- There appears to be inconsistent awareness across Municipalities regarding their eligibility to participate in discounted purchasing arrangements already in place at Bruce County (via CompuCom DMSP3 provincial agreement for ~10% discounted hardware which Kincardine participates in), CDW (for hardware), OECM (for consultancy, hardware, and software), Connectrix (for insights), Softchoice (discounted pricing for MS 365 used by Saugeen Shores, etc.), resulting in increased and preventable higher costs being incurred for hardware purchases (e.g., ~$1,200 vs. $1,800 laptop). In some cases, purchasing arrangements were shared by the County with the lower tiers, but still was not actively leveraged by some Municipalities.
- There is an increasing need for additional hardware devices (new laptops, tablets, etc.) in the recent past and upcoming period to better support working from home and increased digitalization of processes during the pandemic and beyond (e.g., shift to Cloud vs. server–based solutions, use of new tools to execute processes, elimination of paper from processes, where possible, etc.), and budgets are constrained, especially for smaller Municipalities. This further creates a need to look for cost savings through economies of scale in joint purchasing.

IT Upgrades: Joint Challenges

- There is a large degree of diversity in hardware manufacturers / brands being used across Municipalities, as most purchasing decisions were made by staff on an ad–hoc basis, or by a third–party which makes maintenance more challenging.
- Inconsistency in hardware refresh cycles observed across Municipalities, with some Municipalities using very outdated devices (e.g., for longer than 3 to 5 years), and potentially some refreshing too often, therefore incurring higher, preventable costs.
- Most Municipalities have software portfolios which have proliferated over time, rather than strategically chosen for individual tools' ability to integrate and complement each other, as a result, many legacy systems have created challenges and need to be replaced in the coming years (e.g., Keystone Financial).
- Various common software gaps exist across Municipalities for key functions such as ePermitting, budgeting, digital document storage, records retention, project management, work order management, HRIS, payroll, etc., only some of which are being addressed via in–flight RFPs. Please note that specific examples and use cases for joint software procurement will be outlined later in this Report in the Future State Recommendations section.
- Majority of Municipalities are operating in a legacy server environment rather than leveraging a Cloud solution, with the exception of Saugeen Shores which has began using Google Cloud, and Bruce County which has significant plans in place modernize infrastructure architecture (shift from on–premises servers to the Cloud). Some Municipalities (e.g., Kincardine), recognize that this might be pursued in the future i.e., 5 years from now.

- Potential challenges are expected with regards to technology change adoption from some segments of staff who are less comfortable with technology (e.g., field work teams such as Fire, Public Works, older demographics, etc.) which is delaying some software upgrades.

Cybersecurity: Joint Challenges

- Investment in cybersecurity has been steadily increasing to protect Municipalities against cyber–related risks, however, majority of Municipalities (aside from Saugeen Shores and Bruce County) do not have a dedicated cybersecurity program (including framework to align with, policies, procedures) in place, or consistent measures across organizations (e.g., multi–factor authentication).
- Generally, cybersecurity maturity appears to be low across many of the MIC Municipalities (e.g., most MIC Municipalities don't have a complete inventory of hardware and software systems which is a crucial first step towards cybersecurity maturity), and only 2 of 8 MIC Municipalities have defined roles, responsibilities, behaviors, and practices for cybersecurity.
- Responsibility and maintenance of cybersecurity measures in place is primarily left to MicroAge / Infinity Solutions (for majority of Municipalities using external providers, excluding Saugeen Shores and Bruce County who manage cybersecurity in–house), with very little in–house knowledge or involvement in process / planning, resulting in vulnerability to risks in the event of an adverse event beyond basic measures in place.
- There is limited (although increasing) awareness across broader staff groups about cybersecurity concepts, risks, and best practices due to only a basic level of training being provided to date.
- Municipalities may risk becoming ineligible for cybersecurity insurance or may face high premiums unless they can provide adequate evidence of having key cybersecurity measures in place, which further increases the risk level faced by some organizations if uninsured, or the operational cost for those who have been able to secure insurance (e.g., through CFC Underwriting in the case of Brockton); premiums potentially increasing from $8,000 to $30,000 for Kincardine.

Disaster Recovery: Joint Challenges

- Disaster recovery planning has not been prioritized as a capability to develop across most Municipalities in the past, however, it is increasingly coming into focus, as Municipalities continue to become more aware of risks, especially in an increasingly Digital work environment.
- Data backup are the only measure in place to support disaster recovery for all Municipalities (except Saugeen Shores and Bruce County which have more robust disaster recovery practices) which is insufficient in the event of an adverse event.
- No formal program (including framework, policies, or procedures) exists for disaster recovery or business continuity in many cases, exposing Municipalities to a high degree of operational and/or financial risk in the event of an adverse situation.

Digital and IT Service Delivery Future State

The following section leverages the current state analysis conducted to determine the desired future state of digital and IT for the MIC member Municipalities. This section will include an overview of overall future state digital maturity and IT maturity scores, key joint future state opportunities identified, an overview of the core recommendations proposed as part of this Review, and finally, a summarized list of initiatives which are proposed to enable the group to achieve the target future state.

Future State Overall Digital Maturity Scores and Gaps

The following table displays the results for the future state overall digital maturity scores determined for each Municipality, with each score representing an average of the scores of all 15 business capabilities. The table also contains the average overall Digital maturity score across all 8 Municipalities. Please refer to *Appendix F* for further details around the scores for all 15–business capability that make up these average scores, along with rationale and examples of key future state opportunities indicated by each Municipality.

Table 5 Overall Future State Digital Maturity Scores Determined for Each Municipality

Municipality	Current State Score	Future State Score	Gap Between Current and Future State Score
Bruce County*	3.7	3.8	0.1
Saugeen Shores	3.2	3.8	0.6
Kincardine	2.4	3.2	0.8
Brockton	2.4	3.1	0.7
Huron–Kinloss	2.4	3.1	0.8
Northern Bruce	2.1	3.5	1.3
South Bruce*	2.4	3.1	0.7
Arran–Elderslie	2.1	3.2	1.1
Joint Average Overall Digital Maturity Score	**2.6**	**3.4**	**0.8**

***Note:** Business Capability Map (scores and rationale) were not completed by 2 Municipalities; Bruce County and South Bruce. As such, a general assessment of their maturity was provided by GHD Digital based on interviews and a review of current state documentation provided.*

Future State IT Maturity Scores and Gaps

The following table displays the desired future state IT maturity scores identified by each Municipality. The table also contains the average overall IT maturity score across all 8 Municipalities. Please refer to *Appendix F* for further details around the scores for the IT business capability (and the cybersecurity and disaster recovery sub–capabilities) that make up these average scores, along with rationale and examples of key current state future state opportunities indicated by each Municipality.

Table 6 Future State IT Maturity Scores Determined for Each Municipality

Municipality	Current State Score	Future State Score	Gap Between Current and Future State Score
Bruce County*	4.5	4.6	0.1
Saugeen Shores	4.0	4.1	0.1
Kincardine	2.0	4.0	2.0
Brockton	2.0	3.0	1.0
Huron–Kinloss	2.0	3.0	1.0
Northern Bruce	2.0	4.0	2.0
South Bruce*	2.0	3.0	1.0
Arran–Elderslie	2.0	3.0	1.0
Joint Average IT Maturity Score	**2.6**	**3.6**	**1.0**

***Note:** Business Capability Map (scores and rationale) were not completed by 2 Municipalities; Bruce County and South Bruce. As such, a general assessment of their maturity was provided by GHD Digital based on interviews and a review of current state documentation provided.*

Based on these results, the average desired future state IT maturity score across all MIC member Municipalities is 3.6, which would take the group from “low maturity” in the current state (score of 2.3) to “medium maturity”. The Municipalities which hope to see the greatest increase in in maturity are Kincardine, and Northern Bruce Peninsula, both of which already have some extent of their own internal plans to improve the capability, in addition to potentially participating in joint opportunities. Other Municipalities have expressed a moderate expected increase in IT maturity including Saugeen Shores, Brockton, Huron–Kinloss, and Arran–Elderslie. All Municipalities recognize that to achieve an increased level of future state maturity, investments will have to be made, and collaboration opportunities will have to be explored to better identify and leverage opportunities that could come from joint service provision, among other shared activities.

Key Joint Future State Opportunities

IT Services: Joint Opportunities

- MIC member Municipalities have the opportunity to redesign the IT service delivery model which could take several different forms.
- Initial possible preferences indicated by Municipalities include the following (to be discussed in greater detail in the Recommendations section of this report).
    - **External delivery (by a new provider *within* the MIC group):** Of all the member Municipalities, Bruce County appears to be the primary candidate best positioned to lead IT service delivery if this type of option is chosen (given their current state maturity and expertise).
    - **External delivery (by a new *third–party* IT services vendor):** All member Municipalities requiring external IT can pursue a joint RFP to select a new external provider which can provide a higher service level than MicroAge / Infinity Solutions / McKinnon Computer Services and / or a more competitive rate.
    - **Status quo with some improvements (i.e., create information sharing committee, leave individual delivery models as is):** Some Municipalities have apprehension around changing the current state service delivery model out of concern that service levels might be reduced due to new staffing limitations introduced (within the new shared service provider), and degree of change / overhaul new service provider would introduce / expect to see would be too overwhelming for the size of their organization.
- In addition, best practices such as IT problem management (through KPI tracking and data analysis), development of standard operating procedures for generic software (e.g., MS Office products), data management (e.g., centralization), and strategic planning capabilities can also start being developed within the new, dedicated service provider team to aid in maintaining high quality service which will be well prepared to handle evolving needs.

IT Strategic Sourcing and Procurement: Joint Opportunities

- There is a strong interest and appetite for exploring cost savings potential of joint procurement / bulk purchasing for hardware due to greater similarity of devices being used by most Municipalities.
- There is relatively less appetite for joint procurement of software because Municipalities feel that their individual needs, preferences, budgets, etc. might vary from their peers, especially for smaller Municipalities with more narrow scope of needs and more constrained budgets.
- However, if there was increased awareness around current vendors of record, and common software upgrade plans, there is an opportunity to collaborate and issue joint RFPs (e.g., for various finance related software which many plan to eventually purchase in the near or longer term).
- Information sharing regarding previous / ongoing / upcoming market scans / product research being done by some Municipalities with their peers also has the potential to be very valuable because it can ensure that these efforts are not duplicated.
- With regards to telecom and networking (office / building phones, cell phones and internet), some Municipalities are committed to staying with their current providers (primarily local companies such as Bruce Telecom, HuronTel, Wightman, Eastlink, etc.), but there is an opportunity for knowledge sharing related to this category, or potentially joint contract negotiation, and / or joint mobile device purchasing among Municipalities who have flexibility (and are currently using a combination of Rogers, Bell, Telus, etc.).

IT Upgrades: Joint Opportunities

- Opportunity to identify common upcoming hardware / software needs and purchasing plans, and potentially work to align plans across Municipalities (e.g., make group decision to only purchase new laptops at the start of a new Council election year, that way it can be done together).

- After aligning needs and timing, opportunity to validate which Municipalities would like to participate, and pursue joint purchasing or RFPs to benefit from volume discounts / more competitive pricing.
- Municipalities with common software gaps can collaborate to conduct needs assessment and evaluate products / vendors in market for that offering, including sharing knowledge on previous market scans that were completed.
- Municipalities can consider standardizing hardware brands of equipment being purchased to improve ease and cost of maintenance across Municipalities (especially if a shared services provider will be servicing all / several Municipalities).
- Municipalities can also consider consolidating the number of vendors / sources through which they actually procure hardware through (as opposed to relying on MicroAge in some cases, or on staff who purchase directly from retail stores of their choice in other cases).

Cybersecurity: Joint Opportunities

- Opportunity to align to or adopt an industry–standard cybersecurity framework which could primarily remain consistent for most Municipalities (majority of framework content) and have the remaining framework elements be customized to meet individual Municipality needs.
- Opportunity to develop formal policies and procedures (leveraging existing materials from within the MIC Municipalities, where possible) which will provide clarity into specific actions to be taken to address cyber risks by staff.
- Opportunity to pursue joint staff training (leveraging existing materials from within the MIC Municipalities, where possible), as information being delivered will be relevant and consistent for all Municipalities who have a similar operating environment.
- Opportunity to improve / standardize cybersecurity measures in place in order to ensure that all Municipalities remain eligible for cybersecurity insurance and can potentially negotiate lower premium rates.
- Opportunity to leverage / adopt good practices used by a few of the Municipalities such as ‘Multi Factor Authentication’ which can be replicated by the other Municipalities.
- Overall opportunity to stand–up a Committee / Steering Group to share knowledge and good practices about cybersecurity (also discussed in IT shared services session).

Disaster Recovery: Joint Opportunities

- Opportunity to develop a standard disaster recovery plan and framework (leveraging existing materials from within the MIC Municipalities, where possible) which could primarily remain consistent for most Municipalities (majority of framework content) and have the remaining framework elements be customized to meet individual Municipality needs.
- Opportunity to develop formal policies and procedures (leveraging existing materials from within the MIC Municipalities, where possible) which will provide clarity into specific actions to be taken to address disaster response scenarios by staff.
- Opportunity to pursue joint staff training (leveraging existing materials from within the MIC Municipalities, where possible), as information being delivered will be relevant and consistent for all Municipalities who have a similar operating environment.

Future State Analysis Approach

Based on the Stakeholder interviews conducted, documentation review, and Future State Working Sessions with the Project Team, 6 opportunity areas were identified and prioritized to help improve joint maturity across the most critical sub–capabilities within the IT business capability, which will in turn better support all of the other business capabilities of each Municipality. Depending on the nature of the opportunity, different levels of analysis were completed (i.e., options analysis, cost savings analysis, and / or recommendation development) The analysis approach which was used to further investigate each opportunity area on the project is outlined below.

1. **Opportunity Area 1: IT Services**
    - Recommendations Developed: Yes
    - Options Analysis Conducted: Yes
    - Cost Savings Analysis Conducted: No
2. **Opportunity Area 2: IT Strategic Sourcing and Procurement***
    - Recommendations Developed: Yes
    - Options Analysis Conducted: Yes
    - Cost Savings Analysis Conducted: Yes (only for selected option and in scope items)
3. **Opportunity Area 3: IT Upgrades***
    - Recommendations Developed: Yes
    - Options Analysis Conducted: No
    - Cost Savings Analysis Conducted: Yes (only for selected option and in scope items)*

    ***Note:** Opportunity areas 2 and 3 were combined and one set of recommendations were developed which included information for both due to the similar nature of these opportunity areas.*
4. **Opportunity Area 4: Cybersecurity**
    - Recommendations Developed: Yes
    - Options Analysis Conducted: No
    - Cost Savings Analysis Conducted: No
5. **Opportunity Area 5: Disaster Recovery**
    - Recommendations Developed: Yes
    - Options Analysis Conducted: No
    - Cost Savings Analysis Conducted: No
6. **Opportunity Area 6: Other General Recommendations**
    - Recommendations Developed: Yes
    - Options Analysis Conducted: No
    - Cost Savings Analysis Conducted: No

The first 5 opportunity areas from this list were researched, analyzed, and discussed at Future State Working Sessions with the Project Team to arrive at a consensus for options being presented, and / or to refine recommendations proposed by GHD Digital to more closely align with the preferences of all stakeholders from all Municipalities in attendance. With regards to Opportunity Area 6, these general recommendations were developed by GHD Digital and socialized with the Project Team as well as a list of additional supplementary recommendations that would support the primary recommendations for items 1 through 5.

Where options analysis exercises were conducted, a description of each option, the relative pros and cons of each option, and various scores were assigned to each option to help evaluate its suitability in meeting Municipal stakeholder needs. The scoring criteria for the options analysis used were as follows:

1. **Time to Implement**
    - Score of 1 (high time to implement) to 5 (low time to implement)
2. **Cost to Implement**
    - Score of 1 (high potential cost to implement) to 5 (low potential cost to implement)
3. **Cost Savings** (this was only assessed for Opportunity Area 2 and 3: IT Strategic Sourcing, Procurement, and Upgrades)
    - Score of 1 (low potential cost savings from implementing) to 5 (high potential cost savings from implementing)
4. **Strategic Alignment**
    - Score of 1 (low alignment with Project Guiding Principles) to 5 (high alignment with Project Guiding Principles)

Future State Recommendations

The following section provides an overview of the recommendations developed in collaboration with the Project Team across the 5 primary opportunity areas: IT services, IT strategic sourcing and procurement, and upgrades, cybersecurity, and disaster recovery. The context and background on each opportunity, followed by a summary of options evaluated (where options analysis was conducted), and the final recommendations for each opportunity area is outlined in below.

Opportunity Area 1: IT Services

Opportunity Context and Background

A key focus area of the Project was to determine an improved future state service delivery model for MIC member Municipalities that would address current state challenges observed with the existing model. In order to develop recommendations for the new delivery model, GHD Digital first gauged each Municipality's preferences for the type of delivery model they would prefer, and the desired IT services to be provided through the new model. This feedback was collected through completion of a survey across all Municipalities. Please refer to *Appendix H* for detailed survey results for future state IT service delivery preferences indicated by each Municipality.

The first survey question asked: Which IT services do you require in the future state (of the following options listed)?

1. IT Strategy and Architecture
2. IT Sourcing / Procurement
3. IT Vendor Management
4. IT Operations and Service Management
5. IT Satisfaction Management
6. Security / Cybersecurity Management
7. Disaster Recovery Planning
8. Application Development and Maintenance
9. Data Management / Governance
10. Visualization and Advanced Analytics
11. IT Operating Model and Governance
12. Overall IT and Data Management

The second survey question asked: for each IT service desired in the future state (from list above), what type of service delivery model would you prefer to deliver each service (of the following options listed)?

1. In–house Delivery of Service
2. External (Third–party) Delivery of Service
3. External (Other MIC Municipality) Delivery of Service

The results of the survey are as follows. 4 IT services of the original list of 12 were commonly selected as being the most important future state services required by most Municipalities. These services included the following.

1. IT Operations and Service Management
2. IT Sourcing / Procurement
3. Security / Cybersecurity Management
4. Disaster Recovery Planning

With regards to delivery model preferences for each service, the short–term and long–term preferences are indicated below.

1. **Future State IT Service 1: IT Operations and Service Management**
    - In the short and long term, only 1 Municipality wanted an external third–party to provide this service, and 2 Municipalities wanted a MIC Municipality to provide this service.
2. **Future State IT Service 2: IT Sourcing / Procurement**
    - In the short term, none of the Municipalities wanted an external third–party to provide this service, and 3 Municipalities wanted a MIC Municipality to provide this service (the rest wanted to do this in–house).
    - In the long term, more Municipalities wanted a MIC Municipality to provide this service (vs. in–house).
3. **Future State IT Service 3: Security / Cybersecurity Management**
    - In the short term, 2 of the Municipalities wanted an external third–party to provide this service, and only 1 Municipality wanted a MIC Municipality to provide this service.
    - In the long term, more Municipalities wanted a MIC Municipality provide this service (none prefer a third–party).
4. **Future State IT Service 4: Disaster Recovery Planning**
    - In the short term, 3 of the Municipalities wanted an external third–party to provide this service, and only 1 Municipality wanted a MIC Municipality to provide this service.
    - In the long term, fewer Municipalities wanted an external third–party, rather preferred to have a MIC Municipality deliver this service.

As a result of collecting this survey information, the scope of the new service provider was generally determined (to include the 4 identified services) which will be reflected in the recommendations to be outlined later in this section. As multiple preferences were indicated across in–house, external (other MIC Municipality) and external (third–party) delivery over the short and long terms, an options analysis exercise was then conducted to arrive at a consensus for the service delivery provider and an appropriate phased approach.

Summary of Options Evaluated

1. **Option 1A:** Status Quo.
    - Everything stays as is (Municipalities continue to independently delivery or leverage a third–party – MicroAge, Infinity Solutions, or McKinnon Computer Services to deliver IT services).
2. **Option 1B:** Status Quo + Joint IT Steering Committee (“JITS”).
    - Everything stays as is (see Option 1A above), but a Joint IT Steering Committee is also established for the primary purpose of information / knowledge sharing.
3. **Option 2A:** Bruce County Delivers IT Shared Services to Lower Tier Municipalities.
    - The County will begin delivering the selected 4 IT services to select participating Municipalities.
4. **Option 2B:** Saugeen Shores Delivers IT Shared Services to Other MIC Member Municipalities.
    - Saugeen Shores will begin delivering the 4 selected IT services to select participating Municipalities.
5. **Option 2C:** New Third–party Vendor Delivers IT Shared Services to MIC Member Municipalities.
    - A third–party organization will deliver the selected 4 IT services to select participating Municipalities.
6. **Option 3:** MIC Municipality + New third–party Delivers IT Shared Services to MIC Member Municipalities.
    - A third–party organization (e.g., similar to MicroAge, Infinity Solutions) provides the selected IT services to the participating Municipalities.

Please refer to *Appendix I* for details behind options evaluated (i.e., time to implement, cost to implement, strategic alignment with Guiding Principles, pros, cons, and additional considerations).

Recommendations

From the list of Options presented above, Option 2A + 1B was recommended and agreed upon by the Project Team as the preferred option at this point in time for the long term. In order to decide upon Bruce County's suitability, or any other Municipality (e.g., potentially Saugeen Shores), a business model including cost structure will have to be developed by those candidate service providers. This, and other more detailed activities related to establishing the Joint IT Steering Committee will be outlined in the *Roadmap* presented later on in this Report. As part of this recommendation, note that where Bruce County might not be able to provide certain services, a third–party would be engaged as needed. The specific details around the recommendation to implement the Bruce County led and JITS supported IT service delivery model are outlined below as a phased approach with short, medium, and long term recommended actions to be taken.

Short Term Recommendations Overview (3 – 6 Months)

1. Start with an IT Audit and Digital Modernization Strategy to assess the gaps in IT within each MIC Municipality and the costs associated with closing those gaps; then address critical gaps. Lower tiers to collaborate and identify third–party to help conduct comprehensive Audit and Digital Modernization Strategy (e.g., through joint RFP to get optimal price).
2. Establish a Joint IT Steering Committee (JITS) focused on knowledge sharing related to all relevant services.
    - Recommendation Owners: MIC + JITS + Individual Municipalities (see *Roadmap* for more granular details on sub activities and owners / participants).

Mid–Term Recommendations Overview (6 – 18 Months)

3. Leverage a third–party or a shared employee across select Municipalities with similar needs (e.g., Arran–Elderslie, Huron Kinloss, Brockton, South Bruce) to deliver IT operations and service management in the interim period.
    - Recommendation Owners: Select Individual Municipalities (see *Roadmap* for more granular details on sub activities and owners / participants).
4. Leverage JITS to facilitate knowledge sharing related to IT security / cybersecurity management.
5. Leverage JITS to facilitate knowledge sharing related to IT disaster recovery planning.
6. Leverage JITS to facilitate knowledge sharing for procurement best practices (e.g., VOR information), coordinating collaboration, and executing RFP process for joint RFPs for group software purchases. See *recommendations for IT strategic sourcing, procurement, and upgrades* for further background on joint procurement software candidates identified.
    - Recommendation Owners: JITS (see *Roadmap* for more granular details on sub activities and owners / participants).
7. Develop a business model (including fees structure to individual Municipalities) for the provision of shared services to be provided in the long term.
    - Recommendation Owners: Bruce County (see *Roadmap* for more granular details on sub activities and owners / participants).
8. New IT Shared Services Provider (i.e., Bruce County) to begin providing IT strategic sourcing / procurement services limited to select hardware items: printers / photocopiers / scanners / fax machines only (start with this category as a pilot purchase). See *recommendations for IT strategic sourcing, procurement, and upgrades* for further background on why this category was included in scope.
    - Recommendation Owners: IT Shared Services Provider (Bruce County, leveraging a third–party where needed) (see *Roadmap* for more granular details on sub activities and owners / participants).

Long Term Recommendations Overview (2+ Years)

9. New IT Shared Services Provider (i.e., Bruce County) to begin providing IT operations and service management (shared services), IT security / cybersecurity management (shared services), disaster recover planning (shared services), and IT sourcing / procurement limited to select hardware items: printers / photocopiers / scanners / fax machines and networking equipment.
    - Recommendation Owners: IT Shared Services Provider (Bruce County, leveraging a third–party where needed) (see ***Roadmap*** for more granular details on sub activities and owners / participants).
10. Continue leveraging JITS to facilitate knowledge sharing on all services (IT security / cybersecurity management and disaster recovery planning, as well as facilitating knowledge sharing for procurement best practices (e.g., VOR information), and coordinating collaboration process for joint RFPs for group software purchases).
    - Recommendation Owners: JITS (see ***Roadmap*** for more granular details on sub activities and owners / participants).

Opportunity Area 2: IT Strategic Sourcing and Procurement, and IT Upgrades

Opportunity Context and Background

Another key focus area of the Project was to determine a method for collaboratively engage MIC member Municipalities in strategic sourcing and procurement, while also recommending specific joint IT upgrade use cases that can be made by the group based on upcoming needs. In order to develop recommendations for this area, GHD Digital first gauged each Municipality's preferences for the categories of items the group would be interested in jointly procuring through an options analysis exercise which will be outlined below. Once the joint in scope categories for procurement were identified, GHD Digital then developed a more detailed scope list of the sub–categories of items (i.e., specific hardware / software products) that could be procured jointly in the future, (or independently, with a net new cost savings opportunity associated with it as a result of knowledge sharing within the group).

Summary of Options Evaluated

1. **Option 1:** Status Quo: Everything Stays as Is (Independent Procurement For All Hardware, Software, Telecommunications, Internet Services).
2. **Option 2:** Joint Procurement of Hardware Only.
3. **Option 3:** Joint Procurement of Software Only.
4. **Option 4:** Joint Procurement of Telecommunications and Internet Services Only.
5. **Option 5:** "Hybrid": Joint Procurement of Some Combination of Hardware + Software.
6. **Option 6:** Joint Procurement of All IT Products and Services.

Please refer to *Appendix I* for details behind options evaluated (i.e., time to implement, potential cost savings from implementing, strategic alignment with Guiding Principles, pros, cons, and additional considerations).

Recommendations

From the list of Options presented above, Option 5 is the recommended option that was agreed upon by the Project Team as this option offers an optimal balance between maximum procurement collaboration opportunities (i.e., through 2 significant in scope categories, hardware and software), and maximum flexibility (i.e., for Municipalities who don't have purchase needs or timelines aligning with the others to decide to opt–in / opt–out).

In order to determine which hardware and software items would be in scope for future state procurement, an additional Future State Working Session was held with the Project Team to determine planned upgrade needs across each Municipality. The resulting, agreed upon category–specific scope for hardware and software procurement is outlined below.

Hardware Procurement: Recommended Scope

Category 1: Joint Procurement Items (to be purchased via new IT shared services provider).

1. Printers / Scanners / Photocopiers / Fax Machines (use this category to make first pilot purchase)
2. Networking Equipment (E.g., Servers, Switches, Routers, Firewall Hardware, etc.)

Category 2: Individual Procurement Items (to be purchased via vendor of record channels to access preferred pricing, specifically for those Municipalities not currently leveraging this).

1. Laptops
2. Desktops
3. Monitors / TVs
4. Tablets

Software Procurement: Recommended Scope

Using information collected from the Business Capability scoring exercise completed in Phase 1 of the project, common software gaps were identified across Municipalities which was then used to determine the strongest candidates for joint future state procurement. These joint software purchase candidates were selected because there were a significant number of Municipalities who identified a need to make this upgrade in the future (typically 3 to 6 Municipalities intend to participate in these purchases). Please refer to ***Appendix L*** for list of Municipalities who indicated they will be considering purchasing software within these categories, along with tentative products being considered and projected purchase / implementation years. The list of preliminary software candidates identified for joint procurement is as follows.

1. MS 365 (to replace desktop versions of MS Office, or licenses that need to be upgraded, i.e., MS 365 Standard vs Premium – use this category to make first pilot purchase)
2. MS SharePoint Consultancy Services (i.e., customization, intranet development, implementation)
3. Digital Records Retention Software
4. Project Management Software
5. CMMS / Work Order Management Software
6. HRIS Software
7. Budgeting Software
8. Finance / Treasury Software

Out of Scope Items (i.e., for joint procurement recommendation and Potential Cost Savings analysis):

The following items were determined to be out of scope due to limited opportunities for additional cost savings due to the smaller and / or individual nature of these items specific to each Municipality. However, these categories can still be discussed among Municipalities through knowledge sharing via JITS so that individual Municipalities can make better independent purchase decisions related to these items.

1. Peripherals (Keyboards, Mouse, Speakers, Webcams, Local Storage Devices, etc.)
2. Office Phones
3. Telecom / Internet Services

Short Term Recommendations Overview (3 – 6 Months)

1. Municipalities should ideally complete their individual Digital Modernization Strategies / Roadmaps as a starting point to ensure optimal purchase decisions are being made for each individual Municipality (e.g., detailed software gaps are identified for each Municipality, enterprise systems vs. stand–alone software solutions have been considered prior to participating in joint software procurement opportunities., etc.).
    - Recommendation Owners: Individual Municipalities (see ***Roadmap*** for more granular details on sub activities and owners / participants).
2. Thoroughly validate list of upcoming IT upgrade plans for each Municipality and align on purchase timelines (using initial list developed: “Software Procurement: Recommended Scope” list on previous page as a starting point. Please refer to details in software assumptions category of ***Appendix L*** for further information).
3. Conduct independent purchasing pilot for MS 365 licenses via VOR pricing available (i.e., via Softchoice). This is the recommended pilot purchase because there is a common confirmed need for this upgrade across multiple municipalities, and this will serve as quick win as it leverages knowledge sharing to enable the purchase (as opposed to a joint RFP).
    - Recommendation Owners: JITS and Individual Municipalities (see ***Roadmap*** for more granular details on sub activities and owners / participants).

Mid–Term Recommendation Overview (6 – 18 Months)

4. Conduct hardware joint purchasing pilot. Recommendation is to start with printers / scanners / photocopiers / fax machines at first.

- Recommendation Owners: IT Shared Services Provider (Bruce County, leveraging a third–party where needed) (see ***Roadmap*** for more granular details on sub activities and owners / participants).

5. Conduct joint purchasing of software via RFP (if required) for 3 – 5 significantly overlapping software upgrade needs across Municipalities. Recommendation is to first pursue “smaller scale” software purchases based on high degree of overlapping need identified across Municipalities. These items include the following.
    - SharePoint Consultancy Services: Note that SharePoint itself will be included in MS 365 (most Municipalities already have access to the base version of it, and those purchasing MS 365 licenses will soon gain access), but customization (intranet build), implementation, procedure development, staff training etc. could be delivered by an external SME / vendor specialized in this area.
    - Digital Records Retention Software: e.g., Gimmal.
    - Budgeting Software: e.g., Questica.
    - Recommendation Owners: JITS and Individual Municipalities (see ***Roadmap*** for more granular details on sub activities and owners / participants).

Long Term Recommendation Overview (2+ Years)

6. Conduct joint purchasing of software via RFP (if required) for 3 – 5 significantly overlapping software upgrade needs across Municipalities. Recommendation is to pursue “larger scale” software upgrades in the longer term, as this is when most Municipalities intend to make these larger investments. The items below are recommended as they have a high degree of overlapping need identified across Municipalities, and also were not identified as immediate priorities to be acquired in the short or mid–term.
    - Project Management Software: e.g., Cascade.
    - CMMS / Work Order Management Software: e.g., City Reporter.
    - HRIS Software: e.g., Bamboo HR.
    - Finance / Treasury Software: e.g., TownSuite Financial.
    - Recommendation Owners: JITS and Individual Municipalities (see ***Roadmap*** for more granular details on sub activities and owners / participants).

Opportunity Area 3: Cybersecurity

Opportunity Context and Background

The next key focus area of this Review was to develop recommendations around a centralized cybersecurity framework that would be relatively standardized across all MIC member Municipalities in order to enhance proactive cyber risk management measures in place.

To understand potential frameworks that could be adopted to improve cybersecurity maturity for the MIC member Municipalities, the following industry standards were presented to the MIC member Municipalities at a Working Session held for cybersecurity, and have been factored into the final recommendation presented in the upcoming section.

- Canadian Centre for Cybersecurity's guidelines on the baseline controls
- ISO 27001 requirements (intrinsically followed by Canadian Centre for Cybersecurity's guidelines)
- NIST Framework

Additionally, an industry scan to understand the minimum requirements for cybersecurity insurance was also analyzed in relation to the MIC member Municipalities, as cybersecurity insurance was a key current state challenge identified. The typical minimum requirements for cybersecurity insurance are as follows, and have been factored into the recommendation outlined in the upcoming section.

1. **Multi–Factor Authentication (MFA)**: Multi–Factor Authentication adds a multiple step verification process during login.
2. **Phishing Tests**: Intentionally sending out fake phishing emails to train employees to spot them.
3. **Strong Password Policy**
    - **Password history:** How often an old password can be reused.
    - **Password age:** How long users must keep a password before they can change it.
    - **Password length:** How long a password must be to be used.
    - **Complexity requirements:** What the password can contain, and how many character types it must use (lowercase letters, uppercase letters, numbers, and symbols).
    - **Password reset:** How often passwords are reset.
    - **Lockout:** Automatically lock and account for X number of minutes after X number of failed logins.
4. **Local and / or Offsite Backups**: A local backup is the process of backing up systems, applications, and data to a reliable local / offsite device. This device should ideally be a network–attached storage (NAS) device with redundant disks, unique passwords, and enhanced security.
5. **Next–Gen Security Firewalls**
    - Standard firewall capabilities (stateful inspection).
    - Intrusion prevention.
    - Application control and awareness; seeing and blocking risky apps.
    - Threat intelligence sources.
    - Upgrade paths (such as future information feeds).
    - Techniques such as machine learning to address evolving security threats.
6. **Endpoint Protection**: The process of securing endpoints such as desktops, laptops, and mobile devices from being exploited.
7. **Patching / Managed Software Updates**: Updates should be executed through a centrally monitored service that has eyes on all your systems to find outliers or devices that are falling behind.

As the current state analysis around cybersecurity including the survey results (please refer to *Appendix G* for survey details) identified several key gaps across most Municipalities, the recommendations outlined in the following section are comprehensive and will enable those Municipalities with gaps to establish a cybersecurity program at their organization and become eligible for cybersecurity insurance, or receive a better rate with the assistance of JITS and the new shared services provider.

Recommendations

1. **Adopt Canadian Center for Cybersecurity Standard as a Framework**

    - It is recommended that the MIC member Municipalities (aside from Saugeen Shores and Bruce County given their current plans) at least adopt the Canadian Center for Cybersecurity standard (where frameworks do not already exist) due to its suitability for small and medium sized organizations (i.e., with less than 500 employees.).
    - This framework will provide various guidelines and baseline controls to manage cybersecurity at an organizational level. The baseline controls align to the cybersecurity framework recommended by the National Institute of Standards and Technology (NIST). It also adheres to the global standard cybersecurity framework provided by ISO 27001.
    - As some organizations (i.e., Bruce County and Saugeen Shores already have some familiarity with this and other standards, it is also recommended that knowledge sharing related to cybersecurity via JITS should be prioritized, especially as most lower tier Municipal staff lack cybersecurity expertise.
        - Saugeen Shores already subscribes to the baseline controls for Network Security Zones, Email Domain Protection and Security Controls.
        - Bruce County is planning to get ISO 27001/2 certified and have begun the process of adapting to their Framework.
    - Note that if a centralized program for cybersecurity is instead adopted among multiple MIC Municipalities (as opposed to the internal, individual approach), the ISO 27001 standard would be more appropriate for a larger number of employees as the Canadian Center for Cybersecurity standard is only appropriate for organizations with less than 500 employees.

Short Term Recommendations Overview (3 – 6 Months)

2. **Identify Leadership Roles:**

    - Identify someone in a leadership role within JITS who is specifically responsible for IT and OT cybersecurity (including for knowledge sharing with other Municipalities).
    - Recommendation Owners: JITS and Individual Municipalities (see *Roadmap* for more granular details on sub activities and owners / participants).

3. **Conduct a Cybersecurity Baseline / Gaps Assessment:**

    - Evaluate the scope of the assessment:
        - Identify all assets that will be evaluated.
        - Determine any other assets, devices, or information that each asset touches.
    - Determine each asset's value:
        - Identify intangible factors and the qualitative risks associated with each asset.
        - Determine the comprehensive value of each asset.
    - Identify cybersecurity gaps and risks:
        - Identify gaps in cybersecurity (e.g., situations where the asset could be exploited, the likelihood of exploitation, and the total impact that exploit could have on the organization).
    - Compare the value of the asset with the cost of prevention:

- Identify various loss scenarios to determine if the cost of preventing such incidents is more than the asset is worth.
- Evaluate alternative controls or prevention methods that makes more financial sense.

- Develop a plan to address identified gaps:
  - Identify initiatives required (including people, process, technology, sustainment) and priority.
- Recommendation Owners: JITS / Individual Municipalities (see *Roadmap* for more granular details on sub activities and owners / participants).

Mid–Term Recommendations Overview (6 – 18 Months)

4. **Design a Centralized Cybersecurity Function**:

- A comprehensive and centralized cybersecurity program can be considered that scales to meet the needs of the MIC municipalities.
- This would involve overlaying cybersecurity functionality across multiple organizations in a cohesive and co–operative structure.
  - Determine the structure and roles and responsibilities of the centralized cybersecurity function.
  - Establish a centralized governance model.
  - Staff the centralized function.
  - Recommendation Owners: JITS (see *Roadmap* for more granular details on sub activities and owners / participants).

Further Context Around Centralized Cybersecurity Function

- A centralized cybersecurity model will include the following elements.
  - **People:** Dedicated to owning cybersecurity, especially of critical infrastructure. These may be a hybrid of MIC resources, existing municipal SMEs, and outsourced functions / resources.
  - **Policies:** Processes to govern and guide cybersecurity.
  - **Technology:** Tools in place for managing cybersecurity.
  - **Sustainment:** Ensuring the endurance of cybersecurity as risk continue to grow and evolve over time.
- A sample structure of the processes to be performed by a potential centralized cybersecurity function include the following.
  - Security, policy design, maintenance, and compliance monitoring.
  - Design and commissioning (including risk assessments and analysis, mitigation management, and asset management).
  - Change control (including testing laboratory).
  - Threat reporting.
  - Operations (incident management, networking monitoring and intrusion detection, and vulnerability and patch management).
  - Training and awareness (including cyber exercises and program metrics, and reporting).
  - Acquisition and supply chain.

5. **Develop Incident Response Process:**

- Define scope and conduct of the incident response process.

- Set criteria to detect and analyze incidents (leverage existing materials where available within the MIC Municipalities).
- Recommendation Owners: JITS / Individual Municipalities (see *Roadmap* for more granular details on sub activities and owners / participants).

6. **Develop Compliance Process:**
    - Develop a rationalized Risk Management Framework (RMF) process (leverage existing materials where available within the MIC Municipalities).
    - Recommendation Owners: JITS / Individual Municipalities (see *Roadmap* for more granular details on sub activities and owners / participants).
7. **Build a Cybersecurity Metrics Program:**
    - Create the framework for the metrics program leveraging design principles of an effective metrics program (leverage existing materials where available within the MIC Municipalities).
    - Recommendation Owners: JITS / Individual Municipalities (see *Roadmap* for more granular details on sub activities and owners / participants).

Long Term Recommendations Overview (2+ Years)

8. **Design a Centralized Cybersecurity Function:**
    - Continue to staff the joint function, as needed.
    - Recommendation Owners: JITS / Bruce County (leveraging a third–party where needed) (see *Roadmap* for more granular details on sub activities and owners / participants).
9. **Develop Cybersecurity Policies:**
    - Based on the outcomes of the policy strategy, develop a full list of required policies (leverage existing materials where available within the MIC Municipalities).
    - Recommendation Owners: JITS / Bruce County (leveraging a third–party where needed) (see *Roadmap* for more granular details on sub activities and owners / participants).
10. **Develop Incident Response Process:**
    - Complete setting up criteria to detect and analyze incidents.
    - Prepare to contain, eradicate, and recover from incidents.
    - Ensure postmortem learning.
    - Recommendation Owners: JITS / Bruce County (leveraging a third–party where needed) (see *Roadmap* for more granular details on sub activities and owners / participants).
11. **Streamline Compliance Process:**
    - Streamline deployment decisions.
    - Assess and update deployment status.
    - Recommendation Owners: JITS / Bruce County (leveraging a third–party where needed) (see *Roadmap* for more granular details on sub activities and owners / participants).
12. **Build a Cybersecurity Metrics Program:**
    - Track the metrics program and refine, as needed.
    - Recommendation Owners: JITS / Bruce County (leveraging a third–party where needed) (see *Roadmap* for more granular details on sub activities and owners / participants).
13. **Implement an Effective Workforce Awareness Campaign:**
    - Identify and understand workforce behaviors.

- Design audience–focused awareness efforts (leverage existing materials where available within the MIC Municipalities).
- Evaluate effectiveness.
- Recommendation Owners: JITS / Bruce County (leveraging a third–party where needed) (see *Roadmap* for more granular details on sub activities and owners / participants).

Opportunity Area 4: Disaster Recovery

The next key focus area of this Review was to develop recommendations around establishing a disaster recovery program that would be relatively standardized across all MIC member Municipalities in order to further enhance proactive risk management measures in place for this area. The following recommendations are outlined below, and ideally should be implemented within the time period of 1 year from today.

Recommendations

1. **Identify Leadership Roles**
    - Identify someone in a leadership role within JITS who is specifically responsible for Disaster Recovery (including for knowledge sharing with other Municipalities).
    - Recommendation Owners: JITS and Individual Municipalities (see ***Roadmap*** for more granular details on sub activities and owners / participants).
2. **Identify Critical Operations**
    - Identify elements of business which are essential that needs instant access without disruption (leverage existing materials where available within the MIC Municipalities).
    - Recommendation Owners: JITS and Individual Municipalities (see ***Roadmap*** for more granular details on sub activities and owners / participants).
3. **Evaluate Disaster Scenarios**
    - Evaluate different disaster scenarios, including cybersecurity, and how they would impact your business. (leverage existing materials where available within the MIC Municipalities).
    - Work with all the Municipality / department leaders to identify all disaster scenarios.
    - Recommendation Owners: JITS and Individual Municipalities (see ***Roadmap*** for more granular details on sub activities and owners / participants).
4. **Create a Communication Plan**
    - Assign specific people to clearly defined roles.
    - Identify required regulatory communications (leverage existing materials where available within the MIC Municipalities).
    - Recommendation Owners: JITS / Individual Municipalities (see ***Roadmap*** for more granular details on sub activities and owners / participants).
5. **Develop a Data Backup and Recovery Plan**
    - Create a checklist of all equipment and data required to operate (leverage existing materials where available within the MIC Municipalities).
    - Collate contact information for your 24–hour recovery team both for internal staff and any managed services team (leverage existing materials where available within the MIC Municipalities).
    - Based on all the above activities, develop the Disaster Recovery Framework and Plan.
    - Recommendation Owners: JITS / Individual Municipalities (see ***Roadmap*** for more granular details on sub activities and owners / participants).
6. **Develop the Disaster Recovery Framework and Plan**
    - Create a checklist of all equipment and data required to operate (leverage existing materials where available within the MIC Municipalities).
    - Collate contact information for your 24–hour recovery team both for internal staff and any managed services team (leverage existing materials where available within the MIC Municipalities).

- Based on all the above activities, develop the Disaster Recovery Framework and Plan.
- Recommendation Owners: JITS / Individual Municipalities (see Roadmap for more granular details on sub activities and owners / participants).

7. Test the Plan

- Run a drill simulating all the disaster scenarios identified, evaluate effectiveness, and refine the Disaster Recovery Framework and Plan, as needed.
- Recommendation Owners: JITS / Individual Municipalities (see Roadmap for more granular details on sub activities and owners / participants).

List of Initiatives / Recommendations

The following section summarizes a list of initiatives which represents the path forward for the Joint IT Modernization project after the completion of this Review. This list represents the highest–level actions to be taken from the recommendations outlined in the previous section (now serving as the “core” initiatives), along with some supplementary “foundational” and “additional initiatives” which have been developed to support the core initiatives proposed in the short and long term.

List of Initiatives

Foundational Initiatives

1. Develop Foundation for Joint IT Modernization

Core Initiatives

2. Leverage an Interim IT Service Provider Within Applicable Municipalities
3. Establish New Shared Services Function
4. Establish IT Service Provider Feedback Process for Continuous Improvement
5. Conduct Joint Purchasing / Independent Purchasing (via VOR Pricing / Other Channels) of Hardware
6. Conduct Joint Purchasing of Software
7. Assess Individual Opportunities for Internet / Telecom Cost Savings
8. Implement Cybersecurity Program Within Applicable Municipalities
9. Implement Enhanced Cybersecurity Practices Within Applicable Municipalities (To Secure Cybersecurity Insurance)
10. Implement Disaster Recovery Program Within Applicable Municipalities

Additional Recommendations

11. Consider Innovation Program to Identify Additional Joint Technology Related Opportunities on an Ongoing Basis via JITS
12. Consider Transition from Server to Cloud Based Infrastructure Within all Applicable Municipalities
13. Consider Robotic Process Automation For Select IT Operations Processes Within Shared Service Provider's Organization

Key Benefits of Overall Recommendations

- The overall series of recommendations developed consists of a combination of quick wins (e.g., easy / quick to realize cost savings through VOR purchasing), and longer–term transformational initiates which will improve efficiency and productivity and will enhance IT maturity across MIC member Municipalities.
- The overall solution also provides optimal balance between maximum scope / degree of collaboration, and maximum flexibility (to opt–in / opt–out where necessary by individual Municipalities).
- The quality of IT services to be provided by the new shared services provider is expected to improve compared to third–party services currently being provided (potentially in terms of availability, extent of services offered including more tailored / more proactive vs. reactive approach being taken, etc.).
- Key unaddressed cybersecurity and disaster recovery risks faced by most Municipalities in current state will be mitigated through enhancement of measures in place.
- Increased level of standardization in hardware and software expected to emerge over time as a result of joint procurement, thereby improving ease of IT service delivery (e.g., maintenance).
- Improved knowledge sharing across MIC group related to IT, technology, and digital transformation topics over the long term helps raise IT awareness across Municipalities with less current state in–house expertise and maturity.

Key Considerations For Overall Recommendations

- When pursuing the implementation of the 13 proposed initiatives, it needs be acknowledged by all participating Municipalities that there will be increased time commitments, effort, and investment requirements from Municipalities to participate in collaboration (e.g., first starting through the establishment and participation in JITS), and then when standing up the new IT shared services function.
- It is important to note that the degree of success of the proposed initiatives and any related cost savings will be highly dependent on the degree of participation from a maximum number of municipalities. As a result, achieving “buy in” from relevant key stakeholders at all municipalities will be crucial (i.e., all CAOs, Councils, staff who will be using products / services the most, etc.).

Joint Digital Modernization and IT Services Roadmap

Roadmap Overview

In order to translate the proposed recommendations and initiatives into a clear and actionable plan, a Roadmap was developed which includes additional information on each initiative including the relevant sub activities, owners and participants (proposed at this time based on feedback from the Project Team), duration to start and complete the initiative and its activities, and sequencing of each initiative relative to each other. The sequencing of the following 13 initiatives was based upon discussions with the Project Team regarding priorities and key considerations (e.g., individual Municipality preferences, plans and constraints). Overall, there are three general categories of initiatives that have been included in the Roadmap.

1. **Foundational Initiatives:** Initiative 1.0 is foundational and consists of many activities which will help support the structure and approach to delivering the overall Joint IT Roadmap therefore should begin in early 2022.
2. **Core Initiatives:** These are the highest priority major initiatives that ideally should be pursued in order to achieve joint objectives including: establishing the IT shared services function, begin conducting individual and joint procurement in order to achieve cost savings, and establishing cybersecurity and disaster recovery programs where required. The core initiatives include: 2.0, 3.0, 5.0, 6.0, 8.0, 10.0.
3. **Additional Initiatives to Explore:** These initiatives are related to strengthening existing practices outlined in the core initiatives, and creating processes to identify ongoing opportunities for continuous improvement across the group. The additional initiatives which will further enhance the joint IT maturity are 4.0, 7.0, 9.0, 11.0, 12.0, and 13.0.

The table below presents the highest level roll up view of the Roadmap which displays the 13 initiatives derived from the recommendations outlined in the previous section of this report. The overall initiative or activity duration is represented below by the yellow bars. Note that the detailed, complete Roadmap is available in Excel format and has been provided to the Project Team as an interim deliverable previously. Please refer to *Appendix J* for detailed assumptions which were determined and validated with the Project Team related to the Roadmap.

Table 7 Highest Level Joint IT Roadmap Summary

Initiative #	Initiative Title	Participating Municipalities	Initiative Start Date	Initiative End Date	2022	2023	2024	2025	2026
1.0	**Develop Foundation for Joint IT Modernization**	• All Municipalities • JITS • MIC	**Mar 2022**	**Feb 2023**					
2.0	**Leverage an Interim IT Service Provider Within Applicable Municipalities**	• JITS • Brockton • Huron–Kinloss • South Bruce • Northern Bruce Peninsula • Arran–Elderslie	**Apr 2022**	**Aug 2024**					
3.0	**Establish New Shared Services Function**	• All Municipalities • JITS	**Apr 2023**	**Apr 2025**					
4.0	**Establish IT Service Provider Feedback Process for Continuous Improvement**	• JITS • Kincardine • Brockton • Huron–Kinloss • South Bruce • Northern Bruce Peninsula • Arran–Elderslie	**Jan 2025**	**May 2025**					
5.0	**Conduct Joint Purchasing / Independent Purchasing (via VOR Pricing / Other Channels) of Hardware**	• All Municipalities • JITS	**Mar 2022**	**Nov 2023**					
6.0	**Conduct Joint Purchasing of Software**	• All Municipalities • JITS	**Jun 2022**	**Apr 2026**					
7.0	**Assess Individual Opportunities for Internet / Telecom Cost Savings**	• JITS • Kincardine • Brockton • Huron–Kinloss • South Bruce • Northern Bruce Peninsula • Arran–Elderslie	**May 2022**	**Dec 2022**					

8.0	**Implement Cybersecurity Program Within Applicable Municipalities**	• All Municipalities • JITS	**Nov 2022**	**Dec 2024**					
9.0	**Implement Enhanced Cybersecurity Practices Within Applicable Municipalities (To Secure Cybersecurity Insurance)**	• JITS • Kincardine • Brockton • Huron–Kinloss • South Bruce • Northern Bruce Peninsula • Arran–Elderslie	**Oct 2022**	**Sep 2024**					
10.0	**Implement Disaster Recovery Program Within Applicable Municipalities**	• JITS • Kincardine • Brockton • South Bruce • Arran–Elderslie	**Aug 2023**	**Aug 2024**					
11.0	**Consider Innovation Program to Identify Additional Joint Technology Related Opportunities on an Ongoing Basis via JITS**	• JITS • MIC	**Jan 2023**	**Jul 2023**					
12.0	**Consider Transition from Server to Cloud Based Infrastructure Within all Applicable Municipalities**	• JITS • Saugeen Shores • Kincardine • Brockton • Huron–Kinloss • South Bruce • Northern Bruce Peninsula • Arran–Elderslie	**Jan 2026**	**Jan 2027**					
13.0	**Consider Robotic Process Automation For Select IT Operations Processes Within Shared Service Provider's Organization**	• Bruce County	**Aug 2025**	**Jul 2026**					

Roadmap Details

The following table presents the complete Roadmap including each initiative and its sub–activities. Please refer to *Appendix K* for an alternative view of activity owners and participants (check mark format) which can be used to quickly scan participation across individual Municipalities.

Table 8 Detailed Joint IT Roadmap

Item #	Initiative / Activity Title	Participating Municipalities	Initiative / Activity Start Date	Initiative / Activity End Date	2022	2023	2024	2025	2026
1.0	**Develop Foundation for Joint IT Modernization**	**• All Municipalities • JITS • MIC**	**Mar 2022**	**Feb 2023**					
1.1	Review and socialize outcomes from Joint IT Business Analysis Review Final Report with individual Municipalities' key staff members to assess desire for participation and continued collaborating on the Joint IT Roadmap execution	• All Municipalities	Mar 2022	May 2022					
1.2	Establish a Joint IT Steering Committee (JITS) to support Joint IT Roadmap implementation (which will meet on a regular cadence, e.g., initially monthly and then quarterly)	• All Municipalities • JITS • MIC	May 2022	Oct 2022					
1.3	Establish roles and responsibilities among JITS members (e.g., including RACI (responsible, accountable, consulted, informed) and decisioning matrix (key decision makers, etc.)	• MIC • JITS	Jul 2022	Oct 2022					
1.4	Develop change management strategy and plan for Joint IT Roadmap (minimally, to support core initiatives)	• MIC • JITS	Aug 2022	Nov 2022					
1.5	Complete comprehensive IT audits (potentially via joint RFP / select vendor) for individual Municipalities (where required, including hardware, software, and telecom / internet services inventories and financials)	• Saugeen Shores • Kincardine • Brockton • South Bruce • Northern Bruce Peninsula • Arran–Elderslie	Apr 2022	Aug 2022					
1.6	Address critical gaps identified in IT audit which could impact readiness / eligibility for new Shared Service provider to take Municipality on as a client	• Saugeen Shores • Kincardine • Brockton • South Bruce • Northern Bruce Peninsula • Arran–Elderslie	Jun 2022	Aug 2022					
1.7	Complete Digital Modernization Strategies to assess future needs for individual Municipalities including at the department level (where required, including individual Roadmaps)	• Saugeen Shores • Brockton • South Bruce • Arran–Elderslie	Aug 2022	Feb 2023					

Item #	Initiative / Activity Title	Participating Municipalities	Initiative / Activity Start Date	Initiative / Activity End Date	2022	2023	2024	2025	2026
2.0	**Leverage an Interim IT Service Provider Within Applicable Municipalities**	**• All Municipalities except Bruce County, Saugeen Shores, and Kincardine • JITS**	**Apr 2022**	**Aug 2024**					
2.1	Issue RFP / vendor selection for new third–party IT service provider, or develop business case to hire new shared IT employee (among select Municipalities) to provide IT Operations and Service Management	• Brockton • Huron–Kinloss • South Bruce • Northern Bruce Peninsula • Arran–Elderslie	Apr 2022	Jul 2022					
2.2	Make go / no–go decision on engaging a third–party or hiring a new shared employee	• Brockton • Huron–Kinloss • South Bruce • Northern Bruce Peninsula • Arran–Elderslie	Jun 2022	Aug 2022					
2.3	Complete transition activities with previous IT service providers (e.g., end contracts, collect any relevant operational information that new service provider might need access to, assess need for IT ticketing tool, as needed etc.)	• Brockton • Huron–Kinloss • South Bruce • Northern Bruce Peninsula • Arran–Elderslie	Jun 2022	Aug 2022					
2.4	Interim IT service provider to begin delivering IT service	• Brockton • Huron–Kinloss • South Bruce • Northern Bruce Peninsula • Arran–Elderslie	Aug 2022	Aug 2024					
3.0	**Establish New Shared Services Function**	**• All Municipalities • JITS**	**Apr 2023**	**Apr 2025**					
3.1	Develop business plan (including resourcing needs, proposed fee structure, service levels, chargeback system, etc.) for the potential shared services function to be created within each candidate Municipality (Bruce County or other Municipalities, as needed)	• Bruce County	Apr 2023	Aug 2023					
3.2	Conduct selection process (RFP / vendor selection, as needed) for a new IT service provider with the shortlist including Bruce County (or other Municipalities) and 3rd parties as needed	• All Municipalities except Bruce County	Aug 2023	Nov 2023					
3.3	Make go / no–go decision on Bruce County (or other Municipalities, as needed) providing select IT services for Municipalities who will opt–in to receive service	• All Municipalities except Bruce County	Nov 2023	Dec 2023					

Item #	Initiative / Activity Title	Participating Municipalities	Initiative / Activity Start Date	Initiative / Activity End Date	2022	2023	2024	2025	2026
3.4	Complete transition activities with previous IT service providers (e.g., end contracts, collect any relevant operational information that new shared services provider might need access to, assess need for IT ticketing tool, as needed etc.) (start with a pilot (e.g., Huron–Kinloss, Arran–Elderslie) and roll out to the other Municipalities)	• All Municipalities except Bruce County and Saugeen Shores	Nov 2023	Dec 2023					
3.6	Begin delivery of IT services (IT service management including incident / request / problem / change management) to relevant Municipalities on an ongoing basis (start with a pilot (e.g., Huron–Kinloss, Arran–Elderslie) and roll out to the other Municipalities)	• Bruce County	Jul 2024	N/A – Ongoing					
3.7	Begin delivery of IT services (IT operations, including development of procedures for common software such as MS 365) to relevant Municipalities on an ongoing basis (start with a pilot (e.g., Huron–Kinloss, Arran–Elderslie) and roll out to the other Municipalities)	• Bruce County	Sep 2024	N/A – Ongoing					
3.8	Begin delivery of IT services (IT cybersecurity management) to relevant Municipalities on an ongoing basis (Start with the pilot and roll out to other Municipalities)	• Bruce County	Nov 2024	N/A – Ongoing					
3.9	Begin delivery of IT services (disaster recovery planning) to relevant Municipalities on an ongoing basis (start with a pilot (e.g., Huron–Kinloss, Arran–Elderslie) and roll out to the other Municipalities)	• Bruce County	Jan 2025	N/A – Ongoing					
4.0	**Establish IT Service Provider Feedback Process for Continuous Improvement**	**• All Municipalities except Bruce County • JITS**	**Jan 2025**	**May 2025**					
4.1	Develop feedback framework / process to assess Municipality satisfaction level with IT services being provided by IT Shared Service provider	• All Municipalities except Bruce County • JITS	Jan 2025	Mar 2025					
4.2	Begin assessing IT Shared Service provider's performance / service quality on an ongoing basis (i.e., quarterly)	• All Municipalities except Bruce County	Mar 2025	May 2025					
5.0	**Conduct Joint Purchasing / Independent Purchasing (via VOR Pricing / Other Channels) of Hardware**	**• All Municipalities • JITS**	**Mar 2022**	**Nov 2023**					
5.1	Share information on DMSP3 Agreement (Ontario vendors of record for desktop management services and products) with all Municipalities	• Bruce County • JITS	Mar 2022	Apr 2022					

Item #	Initiative / Activity Title	Participating Municipalities	Initiative / Activity Start Date	Initiative / Activity End Date	2022	2023	2024	2025	2026
5.2	Rationalize and develop list of preferred vendors / suppliers / manufacturers and standard models, etc. for hardware asset models for recurring purchases to be made across MIC group (from VOR options available)	• JITS	Apr 2022	Jun 2022					
5.3	Align on needs / timelines and determine Municipalities to participate in purchase of printers / photocopiers / scanners / fax machines (pilot purchase)	• All Municipalities except Bruce County • JITS	Jun 2022	Aug 2022					
5.4	Conduct pilot joint purchase of printers / photocopiers / scanners / fax machines for select Municipalities via new IT Shared Service provider	• Bruce County	Jun 2023	Aug 2023					
5.5	Begin to align on needs / timelines and determine Municipalities to participate in purchase of networking equipment (on a recurring basis)	• All Municipalities except Bruce County • JITS	Sep 2023	N/A – Ongoing					
5.6	Begin conducting joint purchase of networking equipment for select Municipalities via new IT Shared Service provider (on a recurring basis)	• Bruce County	Oct 2023	N/A – Ongoing					
5.7	Begin conducting independent purchasing of laptops, monitors, desktops, TVs and tablets via VOR pricing / channels	• All Municipalities	Jun 2022	Sep 2022					
6.0	**Conduct Joint Purchasing of Software**	**• All Municipalities** **• JITS**	**Jun 2022**	**Apr 2026**					
6.1	Conduct pilot purchase of Microsoft 365 via the VOR (Softchoice)	• Kincardine • Huron–Kinloss • South Bruce • Northern Bruce Peninsula • Arran–Elderslie • JITS	Jun 2022	Aug 2022					
6.2	Jointly issue RFP / select vendor and purchase SharePoint consultancy services (customization, implementation, etc., among select Municipalities)	• Saugeen Shores • Kincardine • Huron–Kinloss • Northern Bruce Peninsula • Arran–Elderslie • JITS	Dec 2022	Mar 2023					

Item #	Initiative / Activity Title	Participating Municipalities	Initiative / Activity Start Date	Initiative / Activity End Date	2022	2023	2024	2025	2026
6.3	Jointly issue RFP / select vendor and purchase Digital records retention software (e.g., Gimmal, among select Municipalities)	• Saugeen Shores • Huron–Kinloss • JITS	Sep 2023	Dec 2023					
6.4	Jointly issue RFP / select vendor and purchase project management software (e.g., Cascade, among select Municipalities)	• Bruce County • Kincardine • Brockton • Northern Bruce Peninsula • Arran–Elderslie • JITS	May 2024	Sep 2024					
6.5	Jointly issue RFP / select vendor and purchase CMMS / work order management software (e.g., City Reporter, among select Municipalities)	• Kincardine • Northern Bruce Peninsula • Arran–Elderslie • JITS	Jan 2025	Apr 2025					
6.6	Jointly issue RFP / select vendor and purchase HRIS software (e.g., Bamboo HR, among select Municipalities)	• Kincardine • Brockton • Northern Bruce Peninsula • JITS	Oct 2025	Jan 2026					
6.7	Jointly issue RFP / select vendor and purchase Budgeting software (e.g., Questica, among select Municipalities)	• Saugeen Shores • Brockton • South Bruce • Northern Bruce Peninsula • Arran–Elderslie • JITS	Nov 2022	Feb 2023					
6.8	Jointly issue RFP / select vendor and purchase Financial software (e.g., TownSuite Financial, among select Municipalities)	• Saugeen Shores • Kincardine • Brockton • Northern Bruce Peninsula • JITS	Jan 2026	Apr 2026					
7.0	**Assess Individual Opportunities for Internet / Telecom Cost Savings**	**• All Municipalities except Bruce County and Saugeen Shores** **• JITS**	**May 2022**	**Dec 2022**					
7.1	Begin conducting periodic (i.e., quarterly, annual) knowledge / information sharing with other Municipalities to determine if better rates might be available	• JITS	May 2022	N/A – Ongoing					
7.2	Begin conducting periodic (i.e., quarterly, annual) price matching / rate re–negotiation discussions with internet / telecom providers (leveraging data compiled in IT Audits around annual spend amounts and trends) and lock in new rates	• All Municipalities except Bruce County and Saugeen Shores	Nov 2022	N/A – Ongoing					

Item #	Initiative / Activity Title	Participating Municipalities	Initiative / Activity Start Date	Initiative / Activity End Date	2022	2023	2024	2025	2026
8.0	**Implement Cybersecurity Program Within Applicable Municipalities**	**• All Municipalities • JITS**	**Nov 2022**	**Dec 2024**					
8.1	Establish a centralized cybersecurity function (either within the new IT Shared Service provider, or with a third–party provider)	• Bruce County • JITS	Nov 2022	May 2023					
8.2	Perform a cybersecurity gap assessment at all applicable Municipalities	• Bruce County • JITS	Feb 2023	Aug 2023					
8.3	Develop standardized cybersecurity policies for all applicable Municipalities (leveraging information from Bruce County)	• Bruce County • JITS	Aug 2023	Feb 2024					
8.4	Develop standardized compliance procedures for all applicable Municipalities (leveraging information from Bruce County)	• Bruce County • JITS	Aug 2023	May 2024					
8.5	Design a cybersecurity metrics program (including KPIs to be tracked to evaluate cybersecurity risk management performance)	• Bruce County • JITS	Jan 2024	Aug 2024					
8.6	Design and deliver a cybersecurity training program at all applicable Municipalities	• Bruce County • JITS	Apr 2024	Nov 2024					
8.7	Customize and begin implementation of cybersecurity policies, compliance procedures, metrics program, and training within applicable Municipalities	• All Municipalities except Bruce County	Nov 2024	N/A – Ongoing					
9.0	**Implement Enhanced Cybersecurity Practices Within Applicable Municipalities (To Secure Cybersecurity Insurance)**	**• All Municipalities except Bruce County and Saugeen Shores • JITS**	**Oct 2022**	**Sep 2024**					
9.1	Validate cybersecurity insurance eligibility requirements with individual insurance providers and take action where required (e.g., activities 10.2 – 10.8 where applicable)	• All Municipalities except Bruce County and Saugeen Shores	Oct 2022	Nov 2022					
9.2	Implement multi–factor authentication (MFA) as part of relevant business processes at all applicable Municipalities	• All Municipalities except Bruce County and Saugeen Shores • JITS	Oct 2022	Dec 2022					
9.3	Begin conducting phishing tests at all applicable Municipalities	• All Municipalities except Bruce County and Saugeen Shores • JITS	Oct 2022	N/A – Ongoing					
9.4	Implement a strong password policy is across business processes at all applicable Municipalities	• All Municipalities except Bruce County and Saugeen Shores • JITS	Oct 2022	Nov 2022					

Item #	Initiative / Activity Title	Participating Municipalities	Initiative / Activity Start Date	Initiative / Activity End Date	2022	2023	2024	2025	2026
9.5	Establish local or offsite backups at all applicable Municipalities	• All Municipalities except Bruce County and Saugeen Shores • JITS	Nov 2023	Feb 2024					
9.6	Implement next–gen security firewalls at all applicable Municipalities	• All Municipalities except Bruce County and Saugeen Shores • JITS	Nov 2022	Mar 2022					
9.7	Establish comprehensive endpoint protection at all applicable Municipalities	• All Municipalities except Bruce County and Saugeen Shores • JITS	Nov 2023	Mar 2024					
9.8	Begin timely patching / managed software updates at all applicable Municipalities	• All Municipalities except Bruce County and Saugeen Shores • JITS	Feb 2023	N/A – Ongoing					
9.9	Secure cybersecurity insurance (for applicable Municipalities)	• Huron–Kinloss • South Bruce • Northern Bruce Peninsula • Arran–Elderslie	Mar 2024	Sep 2024					
10.0	**Implement Disaster Recovery Program Within Applicable Municipalities**	**• Kincardine • Brockton • South Bruce • Arran–Elderslie • JITS**	**Aug 2023**	**Aug 2024**					
10.1	Identify critical operations and scenarios for disaster recovery for all applicable Municipalities	• Kincardine • Brockton • South Bruce • Arran–Elderslie • JITS	Aug 2023	Nov 2023					
10.2	Evaluate disaster scenarios for all applicable Municipalities	• Kincardine • Brockton, South Bruce • Arran–Elderslie • JITS	September 2023	Dec 2023					
10.3	Create a Communications Plan for disaster recovery for all applicable Municipalities	• Kincardine • Brockton • South Bruce • Arran–Elderslie • JITS	Oct 2023	Jan 2024					

Item #	Initiative / Activity Title	Participating Municipalities	Initiative / Activity Start Date	Initiative / Activity End Date	2022	2023	2024	2025	2026
10.4	Develop a Data Backup and Recovery Plan for all applicable Municipalities	• Kincardine • Brockton • South Bruce • Arran–Elderslie • JITS	Oct 2023	Apr 2024					
10.5	Develop the Disaster Recovery Framework and Plan for all applicable Municipalities	• Kincardine • Brockton • South Bruce • Arran–Elderslie • JITS	Jan 2024	Jul 2024					
10.6	Test, revise and implement the Plan within applicable Municipalities	• Kincardine • Brockton • South Bruce • Arran–Elderslie • JITS	May 2024	Aug 2024					
11.0	**Consider Innovation Program to Identify Additional Joint Technology Related Opportunities on an Ongoing Basis via JITS**	**• MIC • JITS**	**Jan 2023**	**Jul 2023**					
11.1	Develop process (including web–based portal / tool, as needed) for all Municipalities, and all staff members at all levels to independently submit any joint Innovation / Continuous Improvement opportunities that could be evaluated by JITS and socialized with the broader group (e.g., new technology driven service delivery approaches / offerings, new hardware / software tools in market that staff might have heard about at a conference, market trends, etc.)	• MIC • JITS	Jan 2023	Apr 2023					
11.2	Roll out joint opportunities' portal to all Municipalities	• JITS	Mar 2023	Jul 2023					
12.0	**Consider Transition from Server to Cloud Based Infrastructure Within all Applicable Municipalities**	**• All Municipalities except Bruce County • JITS**	**Jan 2026**	**Jan 2027**					
12.1	Explore appetite for Municipalities to begin to transition applications / workload from server–based infrastructure to the Cloud (following lead of Bruce County / possibly Saugeen Shores)	• All Municipalities except Bruce County • JITS	Jun 2026	Sep 2026					
12.2	Assess information from Bruce County regarding their cloud transition plan / Roadmap that was followed to gain knowledge on process	• All Municipalities except Bruce County	Aug 2026	Nov 2026					

Item #	Initiative / Activity Title	Participating Municipalities	Initiative / Activity Start Date	Initiative / Activity End Date	2022	2023	2024	2025	2026
12.3	Conduct investigation into next steps for those Municipalities interested in taking on infrastructure modernization project (i.e., rationalizing / standardizing inventories, develop strategy / approach to migrating to the Cloud, selecting cloud vendors, etc.)	• All Municipalities except Bruce County	Oct 2026	Jan 2027					
13.0	**Consider Robotic Process Automation for Select IT Operations Processes Within Shared Service Provider's Organization**	**• Bruce County**	**Aug 2025**	**Jul 2026**					
13.1	Identify RPA candidate processes (i.e., high volume, low human judgement, rule based / repetitive tasks) being conducted within Shared Service provider's IT function (e.g., password reset requests) as well as other departments (e.g., Finance, HR), which could be completed by a "Digital worker" due to standardized nature of process)	• Bruce County	Aug 2025	Nov 2025					
13.2	Conduct RPA pilot for selected candidate process leveraging a third–party developer / consultant as needed to develop "Digital worker" / "bot" (e.g., via UiPath, Blue Prism)	• Bruce County	Nov 2025	Jan 2026					
13.3	Make go / no–go decision to productionize RPA "Digital worker" / "bot"	• Bruce County	Dec 2025	Jan 2026					
13.4	Implement RPA bot in production environment	• Bruce County	Jan 2026	Apr 2026					
13.5	Establish automation Centre of Excellence (If desired) to continually identify, evaluate, and automate RPA candidate processes	• Bruce County	Apr 2026	Jul 2026					

Potential Cost Savings

Potential Cost Savings Overview

The objective of the Potential Cost Savings analysis was to determine the costs that could be saved by the 8 Municipalities as a result of improved strategic sourcing and procurement practices using the following approach and scope which was validated with the Project Team.

With regards to the approach taken, potential cost savings for hardware purchases over the next 5 years ware calculated by taking projected hardware spend budgets compiled from each Municipality for the relevant in scope hardware items, and then applying various potential discount rate assumptions that could be achieved if these products were to be jointly procured or independently procured (via VORs). From here, the amount of money that could be saved by each Municipality was forecasted. The discount rates applied to hardware budgets ranged from 5 – 40% depending on the category of item, and were identified based on the knowledge and experience of SMEs from the Project Team (from Bruce County and Saugeen Shores) who have observed these discount rates in the past.

Potential cost savings for software were calculated by compiling a list of sample / reference products (e.g., MS 365, Questica, Gimmal, Cascade, City Reporter, Bamboo HR, TownSuite Financial) for each future state software upgrade category identified (see list of 8 items below in category 3). Once the general implementation cost, and annual costs for those sample software products were determined (through previous data collection done by GHD Digital with these vendors), an assumed discount rate that could be achieved through a joint RFP (consistently estimated to be 15%) was applied to those costs to project potential cost savings per participating Municipality. In the case of software savings, only those Municipalities who identified a specific plan to make the in–scope upgrades had cost savings projected for their organization. The tentative purchase year of each of these software products (based on information collected as part of this Review) were also aligned with the years for those activities outlined in the Roadmap in order to ensure cost savings were only being documented for the appropriate years. Please refer to *Appendix L* for detailed assumptions specific to the Potential Cost Savings analysis which were identified and validated with the Project Team. The following items were included in the scope of the calculations.

Category 1: Joint procurement items (to be purchased via new IT shared service provider) of select hardware products. These products include: printers / scanners / photocopiers / fax machines (pilot purchase). networking equipment (e.g., servers, switches, routers, firewall hardware, etc.).

Category 2: Individual procurement of select hardware products (to be purchased via vendor of record channels to access preferred pricing). These products include: Laptops, Desktops, Monitors / TVs, Tablets.

Category 3: Joint procurement of select software products where joint needs were identified for more than 2 municipalities**.** The software candidates proposed include: MS 365 (pilot purchase), SharePoint consultancy services (customization, implementation, etc.), Digital Records Retention Software, Project Management Software, CMMS / Work Order Management Software, HRIS Software, Budgeting Software, and Finance / Treasury Software.

Out of Scope Items: The following items are not considered in scope due to limited opportunities for cost savings: peripherals (keyboards, mouse, speakers, webcams, storage devices, etc.), office phones, telecom / internet services.

Summary of Potential Cost Savings

Potential Joint Cost Savings

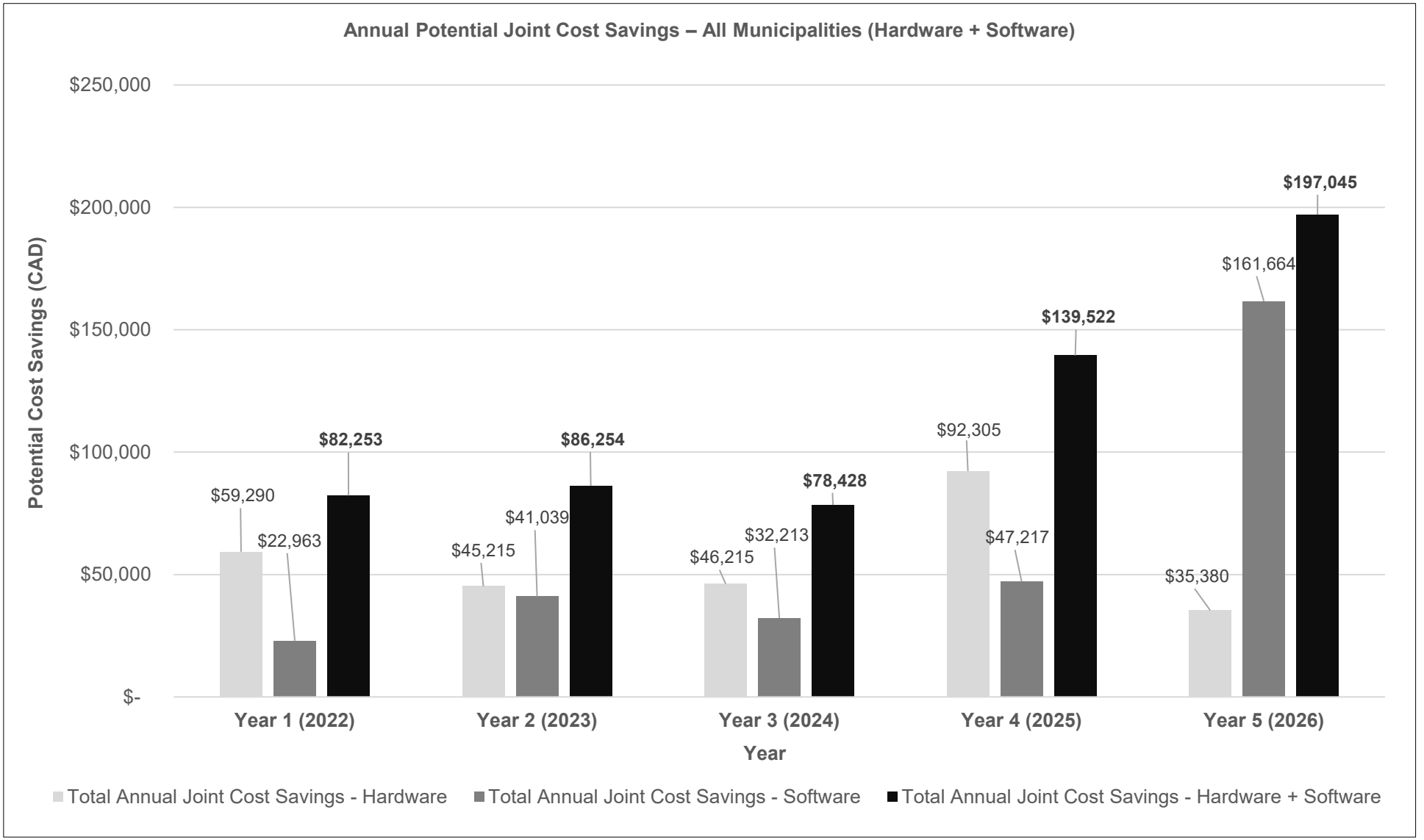
The Table below summarizes the joint results of the Potential Cost Savings analysis for all of the in–scope items, for all 8 Municipalities.

Table 9 Summary of Potential Joint Cost Savings

Metric	Year 1 (2022)	Year 2 (2023)	Year 3 (2024)	Year 4 (2025)	Year 5 (2026)	5 Year Total
Total Annual Joint Cost Savings – Hardware	$59,290	$45,215	$46,215	$92,305	$35,380	**$278,407**
Total Annual Joint Cost Savings – Software	$22,963	$41,039	$32,213	$47,217	$161,664	**$305,095**
Total Annual Joint Cost Savings – Hardware + Software	**$82,253**	**$86,254**	**$78,428**	**$139,522**	**$197,045**	**$583,502**

The same information as the table above is also reflected in the following graph. The first series of bars for each year repersents the savings for hardware (light grey), the middle bars for each year (mid–tone grey) repersent software savings, and the last series of bars (black) repersent the total savings for hardware plus software

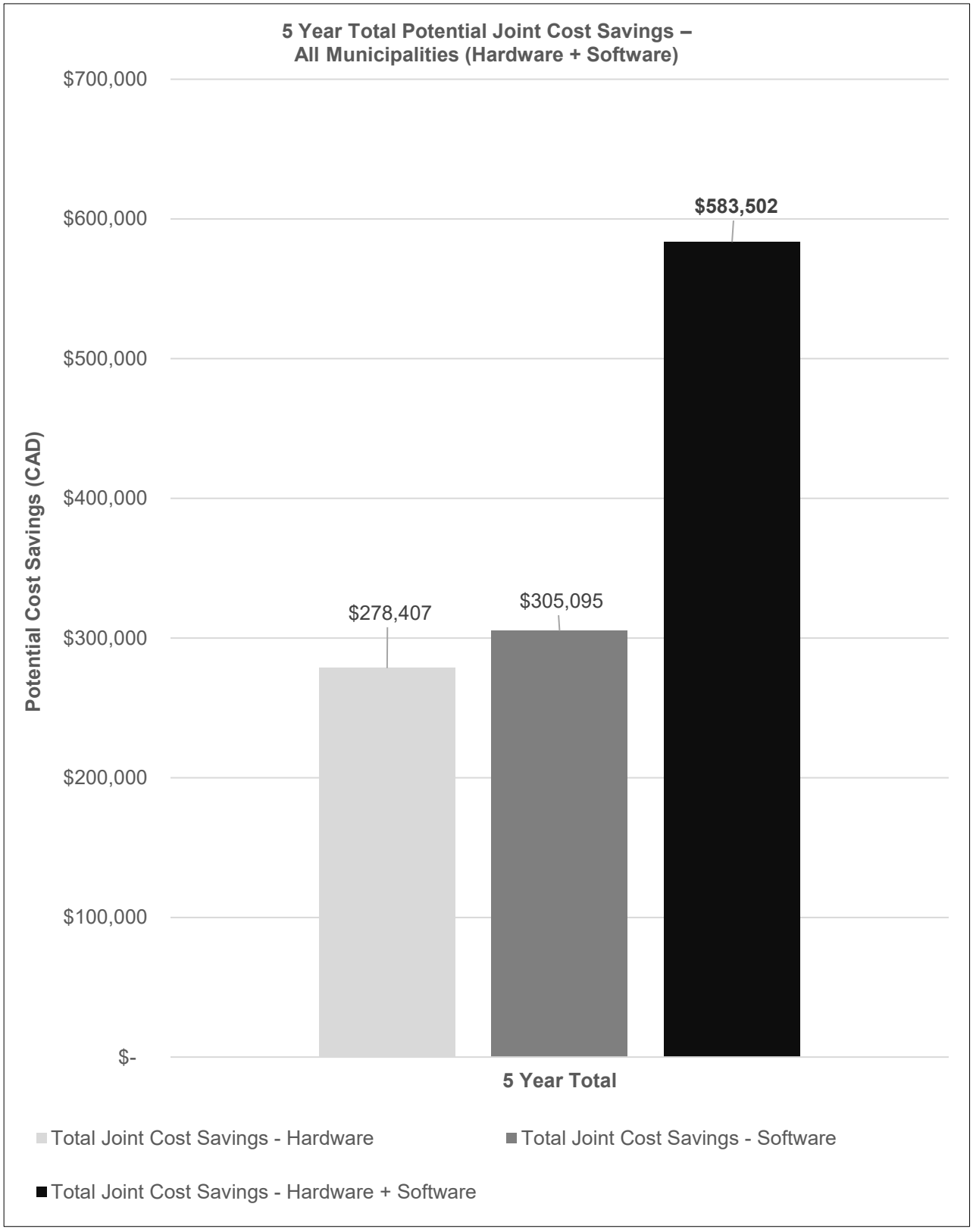
Figure 7 *Graph Depicting Annual Potential Joint Cost Savings (Hardware + Software)*



Based on these results, potential cost savings for both hardware and software purchases will steadily increase over time in proportion to increasing IT budgets over the years. Over the next 5 years, all 8 Municipalities will collectively benefit from potential annual cost savings ranging from $78,428 – $197,045 per year.

The following graph displays the 5 year total joint cost savings that can be incurred by all 8 Munciaplities (summation of all the bars from the previous graph).

Figure 8 Graph Depicting 5 Year Total Potential Joint Cost Savings (Hardware + Software)



Based on these results, over a 5–year period, the total joint (cumulative) potential cost savings to be incurred across all 8 Municipalities is **$583,502** for both hardware and software purchases. Potential software joint cost savings appear to be higher than hardware joint cost savings due to the higher overall acquisition cost of the 8 in scope software candidates selected.

Potential Individual Municipality Cost Savings

The tables below summarize the individual cost savings that can potentially be realized by each Municipality.

Bruce County Potential Cost Savings

As per the table below, the annual potential cost savings that could be achieved by Bruce County ranges from $1,600 (in 2022) to $36,620 (in 2025). The 5–year total potential cost savings is $57,261.

Table 10 Annual Potential Cost Savings for Bruce County

Municipality / Cost Savings Category	Year 1 (2022)	Year 2 (2023)	Year 3 (2024)	Year 4 (2025)	Year 5 (2026)	5 Year Total
Bruce County – HW	$1,600	$10,720	$1,280	$34,600	$3,000	**$51,200**
Bruce County – SW	$0	$0	$2,020	$2,020	$2,020	**$6,061**
Bruce County – HW + SW	**$1,600**	**$10,720**	**$3,300**	**$36,620**	**$5,020**	**$57,261**

Saugeen Shores Potential Cost Savings

As per the table below, the annual potential cost savings that could be achieved by Saugeen Shores ranges from $4,425 (in 2022) to $37,872 (in 2025). The 5–year total potential cost savings is $57,261.

Table 11 Annual Potential Cost Savings for Saugeen Shores

Municipality / Cost Savings Category	Year 1 (2022)	Year 2 (2023)	Year 3 (2024)	Year 4 (2025)	Year 5 (2026)	5 Year Total
Saugeen Shores – HW	$0	$450	$5,450	$13,500	$3,500	**$22,900**
Saugeen Shores – SW	$4,425	$11,589	$4,839	$4,839	$34,372	**$60,063**
Saugeen Shores – HW + SW	**$4,425**	**$12,039**	**$10,289**	**$18,339**	**$37,872**	**$82,963**

Kincardine Potential Cost Savings

As per the table below, the annual potential cost savings that could be achieved by Kincardine ranges from $12,326 (in 2023) to $44,403 (in 2025). The 5–year total potential cost savings is $120,723.

Table 12 Annual Potential Cost Savings for Kincardine

Municipality / Cost Savings Category	Year 1 (2022)	Year 2 (2023)	Year 3 (2024)	Year 4 (2025)	Year 5 (2026)	5 Year Total
Kincardine – HW	$31,050	$9,000	$10,850	$10,900	$8,000	**$69,800**
Kincardine – SW	$0	$3,326	$3,097	$8,098	$36,403	**$50,923**
Kincardine – HW + SW	**$31,050**	**$12,326**	**$13,947**	**$18,998**	**$44,403**	**$120,723**

Brockton Potential Cost Savings

As per the table below, the annual potential cost savings that could be achieved by Brockton ranges from $8,055 (in 2023) to $36,732 (in 2026). The 5–year total potential cost savings is $80,666.

Table 13 Annual Potential Cost Savings for Brockton

Municipality / Cost Savings Category	Year 1 (2022)	Year 2 (2023)	Year 3 (2024)	Year 4 (2025)	Year 5 (2026)	5 Year Total
Brockton – HW	$9,100	$5,130	$5,130	$5,330	$730	**$25,422**
Brockton – SW	$4,425	$2,925	$4,945	$6,947	$36,001	**$55,244**
Brockton – HW + SW	**$13,525**	**$8,055**	**$10,076**	**$12,277**	**$36,732**	**$80,666**

Huron–Kinloss Potential Cost Savings

As per the table below, the annual potential cost savings that could be achieved by Huron–Kinloss ranges from $1,330 (in 2022) to $9,994 (in 2023). The 5–year total potential cost savings is $23.272.

Table 14 Annual Potential Cost Savings for Huron–Kinloss

Municipality / Cost Savings Category	Year 1 (2022)	Year 2 (2023)	Year 3 (2024)	Year 4 (2025)	Year 5 (2026)	5 Year Total
Huron–Kinloss – HW	$1,330	$1,330	$1,330	$1,330	$1,330	**$6,650**
Huron–Kinloss – SW	$0	$8,664	$2,653	$2,653	$2,653	**$16,622**
Huron–Kinloss – HW + SW	**$1,330**	**$9,994**	**$3,983**	**$3,983**	**$3,983**	**$23,272**

South Bruce Potential Cost Savings

As per the table below, the annual potential cost savings that could be achieved by South Bruce ranges from $6,222 (in 2023) to $14,427 (in 2025). The 5–year total potential cost savings is $43,425.

Table 15 Annual Potential Cost Savings for South Bruce

Municipality / Cost Savings Category	Year 1 (2022)	Year 2 (2023)	Year 3 (2024)	Year 4 (2025)	Year 5 (2026)	5 Year Total
South Bruce – HW	$2,780	$2,875	$5,940	$11,080	$2,935	**$25,610**
South Bruce – SW	$4,425	$3,347	$3,347	$3,347	3,347	**$17,815**
South Bruce – HW + SW	**$7,205**	**$6,222**	**$9,287**	**$14,427**	**$6,282**	**$43,425**

Northern Bruce Peninsula Potential Cost Savings

As per the table below, the annual potential cost savings that could be achieved by Northern Bruce Peninsula ranges from $13,978 (in 2022) to $50,339 (in 2026). The 5–year total potential cost savings is $119,522.

Table 16 Annual Potential Cost Savings for Northern Bruce Peninsula

Municipality / Cost Savings Category	Year 1 (2022)	Year 2 (2023)	Year 3 (2024)	Year 4 (2025)	Year 5 (2026)	5 Year Total
Northern Bruce Peninsula – HW	$8,715	$10,875	$10,875	$10,875	$11,250	**$52,590**
Northern Bruce Peninsula – SW	$5,263	$6,013	$5,783	$10,784	$39,089	**$66,932**
Northern Bruce Peninsula – HW + SW	**$13,978**	**$16,888**	**$16,658**	**$21,659**	**$50,339**	**$119,522**

Arran–Elderslie Potential Cost Savings

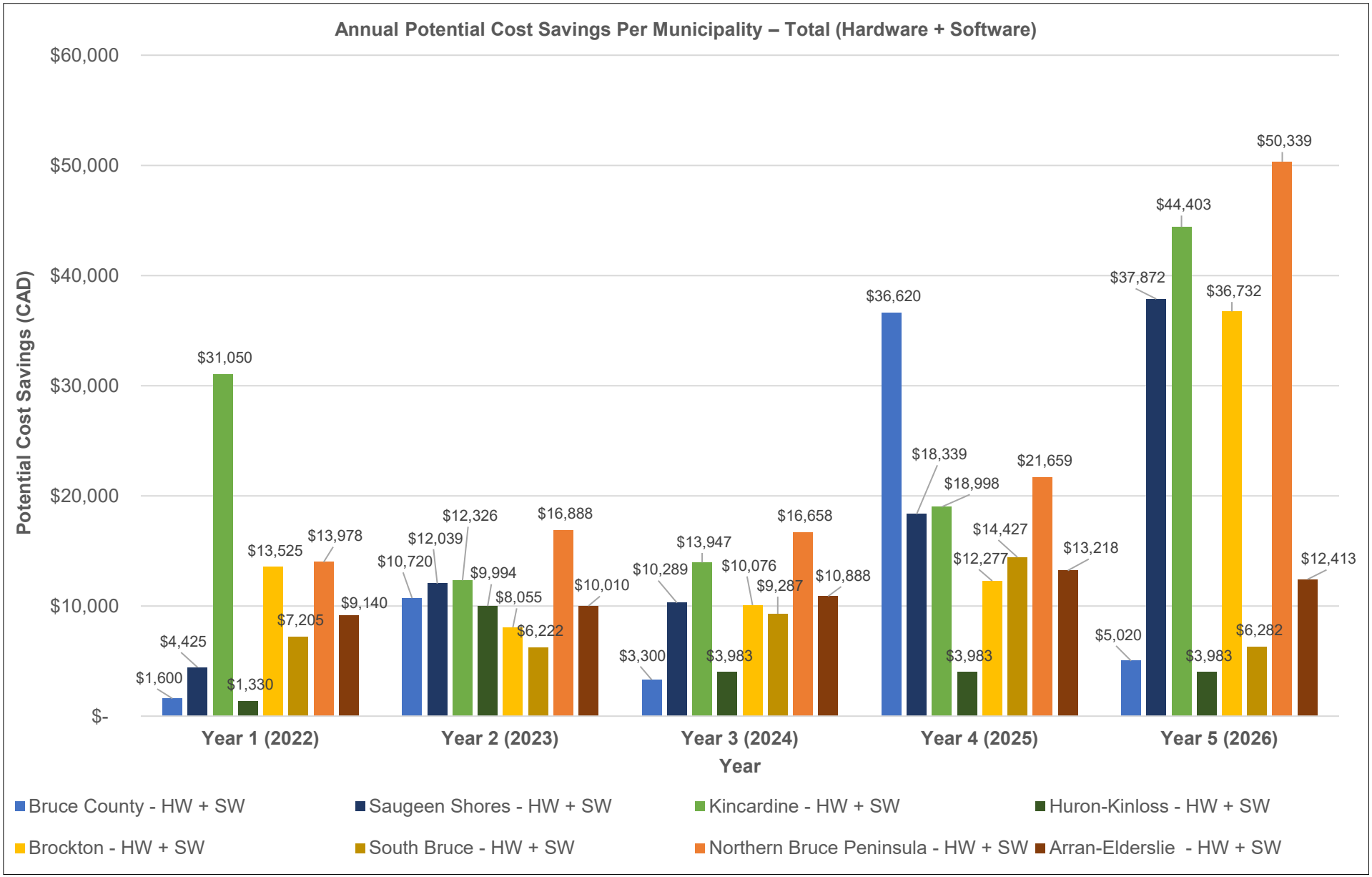
As per the table below, the annual potential cost savings that could be achieved by Arran–Elderslie ranges from $9,140 (in 2022) to $13,218 (in 2026). The 5–year total potential cost savings is $55,670.

Table 17 Annual Potential Cost Savings for Northern Bruce Peninsula

Municipality / Cost Savings Category	Year 1 (2022)	Year 2 (2023)	Year 3 (2024)	Year 4 (2025)	Year 5 (2026)	5 Year Total
Arran–Elderslie – HW	$4,715	$4,835	$5,360	$4,690	$4,635	**$24,235**
Arran–Elderslie – SW	$4,425	$5,175	$5,528	$8,528	$7,778	**$31,435**
Arran–Elderslie – HW + SW	**$9,140**	**$10,010**	**$10,888**	**$13,218**	**$12,413**	**$55,670**

The following graph presents a consolidated summary of the 8 individual Muncaiplity tables presented above, including the annual total (hardware plus software) cost savings that can be recognized by each Munciaplity over the next 5 years.

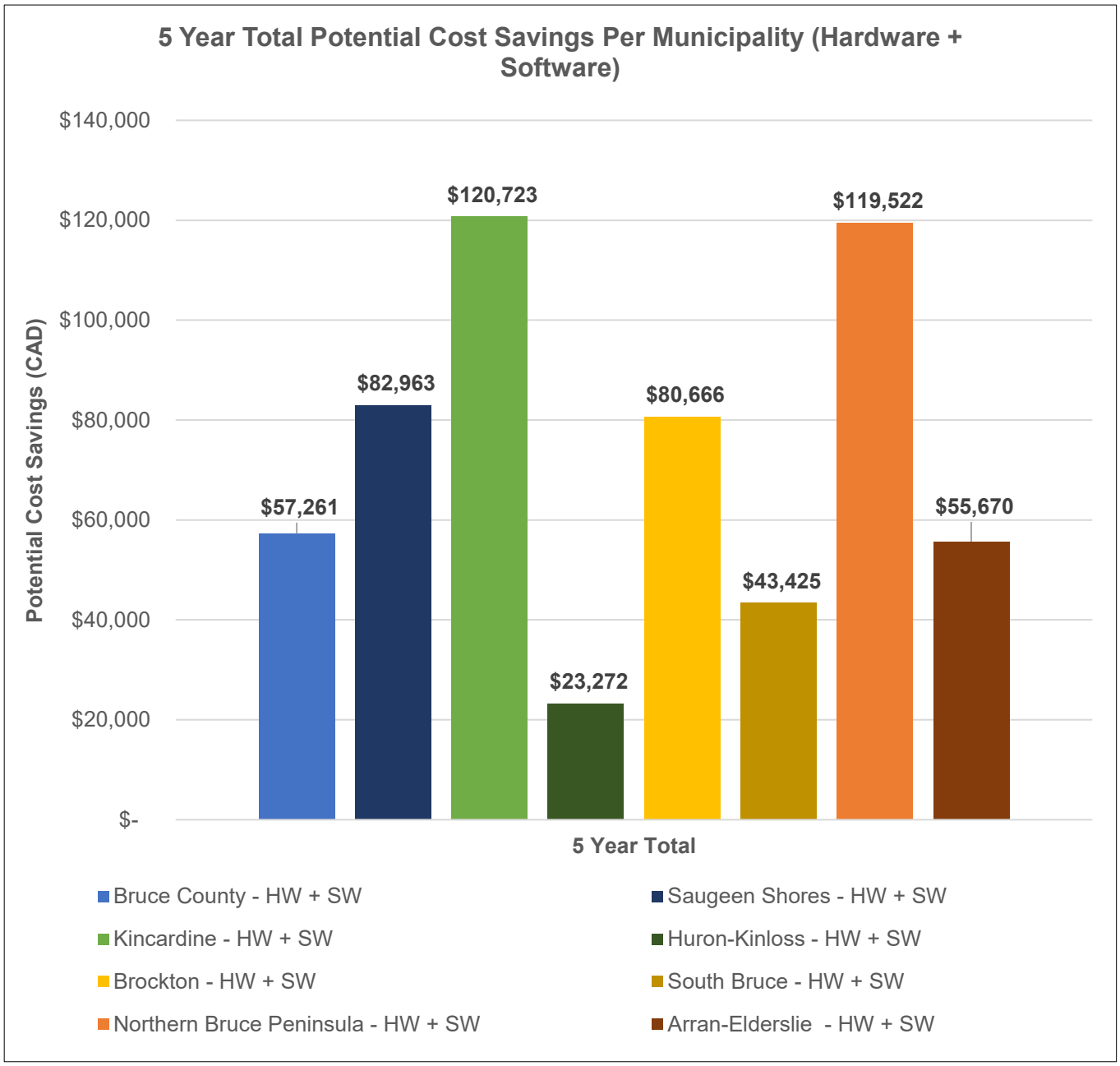
Figure 9 *Graph Depicting Annual Total (Hardware + Software) Potential Cost Savings Per Municipality*



Based on these results, potential cost savings for both hardware and software purchases varies across Municipalities due to individual opt–in / opt–out decisions (preliminary decisions have been identified and incorporated into calculations). Overall, Kincardine, Brockton, Northern Bruce Peninsula, Saugeen Shores, and Bruce County will benefit from some of the largest potential one–year cost savings for both hardware and software purchases in 2022, 2023, and 2025.

The following graph presents the 5–year total that can be achived by each Munciaplity.

Figure 10 Graph Depicting 5 Year Total (Hardware + Software) Potential Cost Savings Per Municipality



Based on these results, over a 5–year period, Kincardine will potentially recognize the highest individual cost savings ($120,723), with Northern Bruce Peninsula following ($119,522). Huron–Kinloss will potentially recognize the lowest individual cost savings ($23,272), primarily due to more opt–out decisions expected across several joint software purchases (given its individual Municipality Roadmap).

Appendices

Appendix A: Glossary of Report Acronyms

Table 18 Glossary of Report Acronyms

Acronym	Definition
2FA	Two Factor Authentication
AODA	Accessibility for Ontarians with Disabilities Act
AP	Accounts Payable
AE	Arran–Elderslie
BK	Brockton
BC	Bruce County
CAD	Canadian Dollars
CAO	Chief Administrative Office
CBO	Chief Building Officer
CFO	Chief Financial Officer
CMMS	Computer Maintenance Management System
COVID–19	Coronavirus Disease of 2019 / SARS–CoV2 Virus
CRM	Customer Relationship Management
CS	Cybersecurity
KnowBe4	Cybersecurity Training Vendor
DGR	Deep Geological Repository
DMSP3	Province of Ontario Vendor of Record Agreement for Desktop Management Services and Products
DR	Disaster Recovery
EM	Emergency Management
EOC	Emergency Operations Centre
ESRI	Environmental Systems Research Institute
FT	Full Time (Employee)
FTE	Full Time Employee
GIS	Geographic Information System
GPS	Global Positioning System
HW	Hardware
HRCM	Human Resource Cost Management
HRIS	Human Resources Information System
HK	Huron–Kinloss
IT	Information Technology
ISO 27001	International Standard For Information Security
JITS	Joint IT Steering Committee
KPI	Key Performance Indicator
KD	Kincardine

Acronym	Definition
LAN	Local Area Network
MDM	Mobile Device Management
MIC	Municipal Innovation Council
MS	Microsoft
MS 365	Microsoft 365
MESH	Mobile Operations Management Platform
MFA	Multi Factor Authentication
CDW	Name of Company (Computer Discount Warehouse)
NAS	Network Attached Storage
NB	Northern Bruce Peninsula
N/A	Not Applicable
OT	Operational Technology
PT	Part Time (Employee)
POS	Point of Sale
PM	Project Management
PW	Public Works
RFP	Request for Proposal
RPA	Robotic Process Automation
SS	Saugeen Shores
SLA	Service Level Agreement
SSP	Shared Service Provider
SW	Software
SB	South Bruce
SME	Subject Matter Expert
SCADA	Supervisory Control and Data Acquisition
TBD	To Be Determined
NIST	National Institute of Standards and Technology
VOR	Vendor of Record

Appendix B: Vision Lab Participants List

The following individuals attended the Vision Lab, held on January 14th, 2022. In total, the Vision Lab had 13 participants from 8 different organizations.

Table 19 Vision Lab Participants List

Organization	Stakeholder Name	Stakeholder Title
Municipal Innovation Council	Becky Smith*	Director, MIC
The County of Bruce	Michael Kirkpatrick**	Director of IT Services
The County of Bruce	Jaron Kerr**	Infrastructure Lead
Municipality of Arran–Elderslie	Christine Fraser McDonald*	Clerk
Municipality of Brockton	Trish Serratore**	IT Leader / CFO
Township of Huron–Kinloss	Jodi MacArthur**	Treasurer
Municipality of Kincardine	Roxana Baumann	CAO
Municipality of Kincardine	Paul Kerins**	IT Specialist
Municipality of Northern Bruce Peninsula	Kara Smith**	GIS / IT Coordinator
Town of Saugeen Shores	Darren Hill*	IT Leader
Town of Saugeen Shores	Jill Roote*	Manager, Strategic Initiatives
Municipality of South Bruce	Leanne Martin	CAO
Municipality of South Bruce	Rhonda Niesen**	IT Leader

**Steering Committee Member*

***"Project Team" Member (i.e., Future State, Roadmap, and Potential Cost Savings Working Sessions participants. Note that all Steering Committee Members were also part of the Project Team).*

Appendix C: Interviews and Working Sessions Participants List

The following individuals attended interviews facilitated by GHD Digital during the period of January 5th – January 17th, 2022. In total, 24 stakeholders were engaged from 9 organizations.

Table 20 Current State Interview and Future State Working Sessions Participants List

Organization	Stakeholder Name	Stakeholder Title
Municipal Innovation Council	Becky Smith*	Director, MIC
The County of Bruce	Christine MacDonald	CAO
The County of Bruce	Michael Kirkpatrick**	Director of IT Services
The County of Bruce	Matt Meade	Strategic Initiatives Manager
The County of Bruce	Jaron Kerr**	Infrastructure Lead
The County of Bruce	Keith Hilman	Information Security Analyst
Municipality of Arran–Elderslie	Sylvia Kirkwood	CAO
Municipality of Arran–Elderslie	Patrick Johnston**	IT Leader / CBO
Municipality of Arran–Elderslie	Tracey Neifer	Treasurer
Municipality of Arran–Elderslie	Christine Fraser McDonald*	Clerk
Municipality of Brockton	Sonya Watson	CAO
Municipality of Brockton	Trish Serratore**	IT Leader / CFO
Municipality of Brockton	Jessica Reinhart	Tax Collector / Deputy Treasurer
Township of Huron–Kinloss	Mary–Rose Walden*	CAO
Township of Huron–Kinloss	Jodi MacArthur**	Treasurer
Municipality of Kincardine	Roxana Baumann	CAO
Municipality of Kincardine	Paul Kerins**	IT Specialist
Municipality of Northern Bruce Peninsula	Peggy Van Mierlo–West	CAO
Municipality of Northern Bruce Peninsula	Kara Smith**	GIS / IT Coordinator
Town of Saugeen Shores	Kara Van Myall	CAO
Town of Saugeen Shores	Darren Hill*	IT Leader
Town of Saugeen Shores	Jill Roote*	Manager, Strategic Initiatives
Municipality of South Bruce	Leanne Martin	CAO
Municipality of South Bruce	Rhonda Niesen**	IT Leader

** Steering Committee Member*

***"Project Team" Member (i.e., Future State, Roadmap, and Potential Cost Savings Working Sessions participants. Note that all Steering Committee Members were also part of the Project Team).*

Appendix D: Business Capability Descriptions

Table 21 Business Capability Descriptions

Item	Business Capability Title	Business Capability Description	Sample Sub Capabilities
1.0	**Office of the CAO**	Leadership and oversight for the Organization, including directing the human, financial and physical resources to deliver services effectively, and ensuring that Council's directives are carried out.	• Municipal Services Oversight and Planning • Municipal Policy Planning • Business Performance Management • Strategic Planning, Special Initiatives, and Projects • Community Development • Corporate Communications • Community Engagement • Operating Model Management
2.0	**Business and Economic Development**	Promoting the Municipality as a great place to do business; and acting as the main contact for current, prospective and expanding businesses.	• Business Recruitment and Retention • Grants and Partnership Management • External Organization Support • Business Licensing and Permitting Service Delivery • Business Directory Management • Municipal Promotions and Marketing • Tourism Service Delivery
3.0	**Clerk's Office**	Day to day provision to Council, members of Council and its committees, with support and administrative services, and ensuring the Municipality meets all its statutory requirements in all areas.	• Mayor and Council Support Management • Corporate Records Management • Freedom of Information and Privacy Protection Management • Drainage Act Compliance • Integrity and Code of Conduct Management • By–Law Preparation • Accessibility Oversight and Reporting • Licensing • Municipal Elections Management
4.0	**Financial Management / Treasury**	Control, management, and administration of financial accounting and data processing functions of the Organization, including: financial planning, budgeting, accounting, investment and fund management, tax and water revenue management, risk management, payroll administration, and procurement.	• Planning, Budgeting, and Forecasting • Financial Performance Management • Accounts Receivables • Accounts Payable • Period End Closing and Reconciliation • Financial Reporting • General Ledger Management • Treasury and Tax Management • Service Payments / Cash Receipts • Payroll Management • Audits and Accounting Controls • Procurement • Asset Management • Grant Applications and Management
5.0	**Building and Planning**	Planning of land use, promotion of public safety, and ensuring compliance with the Ontario Building Code and the Property Standards Code. Accomplished with the cooperation of public health, fire protection, as well as adherence to structural sufficiency standards.	• Land Use Planning • Development / Site Plan Review • Building Permits and Inspections • Facilities Management • Energy Management, Audits and Reporting • Development Engineering • Engineering Design and Approvals

Item	Business Capability Title	Business Capability Description	Sample Sub Capabilities
6.0	**Public Works**	Management and execution of infrastructure and community services including the maintenance and construction of roads, waste management, water treatment, sewage treatment and disposal, as well as related services and equipment.	• Road Maintenance Service Delivery • Other Infrastructure Maintenance Service Delivery (Non–Roads) • Water and Wastewater Service Delivery Oversight • Waste Management (Waste Collection, Waste Diversion, Landfill Management, Litter and Graffiti) • Road / Traffic Safety Service Delivery • Public Works Administration • Fleet Management • GIS Management • Infrastructure Planning and Design • Wildlife Services • Transportation Services • Climate Change Planning / Response
7.0	**Community Services**	Management of recreational programing as well as the operation and maintenance of facilities for the Community.	• Child Care Service Delivery • Community / Affordable Housing Service Delivery • Long Term Care Service Delivery • Festivals and Events Delivery and Support Services • Recreation Program Service Delivery • Cemetery Management • Community Services Administration • By–Laws Enforcement • Income and Support Services • Newcomer Support Services • Parks planning and maintenance • Libraries, Museums and Galleries • Volunteer Services
8.0	**Emergency Services**	Delivery of fire and emergency protection services to the Municipality	• Fire Services Planning and Management • Emergency Management Planning • Fire Prevention Service Delivery • Fire Suppression Service Delivery • Public Education and Outreach • Emergency Medical Service Delivery • Crime Prevention • Law Enforcement • Community Safety and Wellbeing • Emergency Services Administration
9.0	**Project Management**	Project Management standards and procedures used across all departments in order to plan and deliver projects.	• Project Management Life Cycle Management • Project Management Reporting • Project Portfolio Management
10.0	**IT and Data Management**	Management, strategy, and governance of IT and digital data across the Organization.	• IT Strategy and Architecture • IT Sourcing / Procurement • IT Vendor Management • IT Operations and Service Management • IT Satisfaction Management • Security / Cybersecurity Management (see sub–capability 10.1 below for specific detail as this is a key focus for this project) • Disaster Recovery Planning (see sub–capability 10.1 below for specific detail as this is a key focus for this project)

Item	Business Capability Title	Business Capability Description	Sample Sub Capabilities
			• Application Development and Maintenance • Data Management / Governance • Visualization and Advanced Analytics • IT Operating Model and Governance
10.1	**Cybersecurity**	Selection, implementation, and oversight of cybersecurity tools, polices and operations across the organization.	• N/A
10.2	**Disaster Recovery**	Planning of a response to recover from an event that negatively affects business operations through the disruption of access to critical systems, IT infrastructure, and data.	• N/A
11.0	**HR and Talent Management**	Management and administration of human resources functions and talent retention across the Organization.	• HR Policies, Procedures and Employee Communications • Employee Data Management • Talent Strategy and Resource Planning • Timesheet Management • Talent Management • Union and Labour Relations • Performance Management • Compensation, Benefits and Rewards • Employee Health and Safety Policies and Oversight
12.0	**Retail Operations**	Management, marketing, and monitoring of retail operations across the Organization (i.e., in locations where services, tickets, or products are sold (e.g., tourism site ticket and gift shop sales).	• Sales Strategy and Forecast Demand • Channel Management • Market and Customer Analysis • Marketing Communications • Point of Sale Management • Inventory Management • Order Management • Customer Service
13.0	**Legal Services**	Provides legal advice to council and corporate departments, prepare contracts, agreements and bylaws, complete real estate transactions, prosecute bylaw and other offenses.	• Agreement, Bylaw and Contract Management • Legal Advice • Real Estate Transactions • Prosecutions • Insurance and Risk Management
14.0	**Public Health**	Management, marketing, and monitoring of retail operations across the Organization.	• Health Protection, Inspections and Investigations • Infectious Disease Service Delivery • Immunizations and Vaccines Management • Healthy Living Programs and Clinics • COVID–19 Response Program Service Delivery
15.0	**Innovation**	Continually assess and improve how the Municipality approaches problems by introducing new approaches, resources, and technologies that increase efficiency and enhance the delivery of services.	• Innovation Strategy • Partnerships • Funding Sources • Investments / Grants • Citizen Engagement • Incubation / Fostering Innovation

Appendix E: Detailed Current State IT Spend

Current State IT Services Spend

Table 22 Current State Spend on IT Services For all Municipalities

Municipality	Total Number of Staff (FT + PT)	Number of Residents	Total Annual Spend on IT Services (Internal + External)	Annual Spend on IT Services (External)	Annual Spend on IT Services (Internal FTE Time)	Total Annual IT Services Spend (External + Internal) Per Resident
Arran–Elderslie	106	6,910	N/A*	N/A*	N/A*	N/A*
Northern Bruce	55	4,000	$110,000	$70,000	$40,000	$28
Huron Kinloss	96	7,069	$72,538	$59,933	$12,605	$10
South Bruce	99	5,639	$75,500	$73,000	$2,500	$13
Kincardine	200	11,398	$96,000	$3,000	$93,000	$8
Brockton	133	9,461	$133,873	$83,713	$50,160	$14
Saugeen Shores	200	13,715	$220,000	$0	$220,000	$16
Bruce County	800	70,000	$863,000	$0	$863,000	$12
Average Spend on IT Category Per Municipality			**$224,416**	**$57,929**	**$183,038**	**$15**
Total Joint Spend on IT Category*	**1,789**	**128,192**	**$1,570,911**	**$289,646**	**$1,281,265**	

***Note:** "N/A" Values in tables above actually indicated that data was not available from that Municipality for that category (as opposed to the value being zero).*

Current State Hardware and Software Spend

Table 23 Current State Spend on Hardware Services For all Municipalities

Municipality	Total Known Spend to Date on Software**	Total Spend to Date On Hardware**	Total Known Spend to Date on Hardware + Software**
Arran–Elderslie	$84,883	N/A*	$84,883
Northern Bruce	$150,000	N/A*	$150,000
Huron Kinloss	$186,394	$1,224,117	$1,410,510
South Bruce	$91,459	$296,156	$387,614
Kincardine	$226,050	N/A*	$226,050
Brockton	$101,401	N/A*	$101,401
Saugeen Shores	$283,500	N/A*	$283,500
Bruce County	N/A*	$1,950,000	$1,950,000
Average Spend on IT Category Per Municipality	**$160,527**	**$1,156,757**	**$1,123,140**
Total Joint Spend on IT Category*	**$1,123,687**	**$3,470,272**	**$4,593,959**

***Note:** "N/A" Values in tables above actually indicated that data was not available from that Municipality for that category (as opposed to the value being zero).*

****Note:** Only 3 of 8 Municipalities provided data on hardware spend, and of the 3, only 1 Municipality provided purchase year information to determine annual hardware spend. Similarly, inconsistent information on software spend per year was also provided in most cases. As a result, a reliable annual comparison on software and hardware spend was not able to be made.*

Current State Cybersecurity and Disaster Recovery Spend

Table 24 Current State Spend on Cybersecurity and Disaster Recovery For all Municipalities

Municipality	Annual Spend on Cyber Security and DR (Software and Hardware)
Arran–Elderslie	$2,698
Northern Bruce	$12,840
Huron Kinloss	$10,320
South Bruce	$4,800
Kincardine	$12,400
Brockton	$19,848
Saugeen Shores	$9,600
Bruce County	$369,100
Average Spend on IT Category Per Municipality	**$55,201**
Total Joint Spend on IT Category	**$441,606**

Current State Telecommunications and Internet Spend

Table 25 Current State Spend on Telecommunications and Internet Services For all Municipalities

Municipality	Annual Spend on Telecom and Internet Services	Total Annual Spend on Telecom and Internet Services Per Staff Member	Internet Providers	Telecom Providers
Arran–Elderslie	N/A*	N/A*	N/A*	N/A*
Northern Bruce	$108,400	$1,971	Eastlink	Eastlink, Bell
Huron Kinloss	$39,108	$407	HuronTel, Bell	HuronTel, Bell
South Bruce	$3,500	$35	Wightman Telecom	Wightman Telecom
Kincardine	$180,000	$900	Bruce Telecom	Bruce Telecom
Brockton	$52,446	$394	Wightman, Eastlink	Wightman, Telus
Saugeen Shores	$42,720	$214	Bruce Telecom, Eastlink	Freiburger Communications, Rogers, Bruce Telecom, Eastlink
Bruce County	$257,800	$322	Eastlink, Hurontel, Rogers, BMTS	Rogers, Teams
Average Spend on IT Category Per Municipality	**$97,711**	**$596**		
Total Joint Spend on IT Category	**$683,974**			

***Note:** "N/A" Values in tables above actually indicated that data was not available from that Municipality for that category (as opposed to the value being zero).*

Appendix F: Detailed Business Capability Scores and Rationale

The following sections outline key scores for each individual Digital maturity score for each business capability areas. These individual capability scores were all included in the average overall Digital maturity scores presented in the Current State section of this Report. For an overview of the scoring methodology, please refer to this previous section of the report. Detailed definitions of each business capability and sub capability can be viewed in *Appendix D*. Note that completed business capability maps were not received from Bruce County and South Bruce, so not findings have been included in this Appendix section for these 2 Municipalities.

Business Capability 1.0: Office of the CAO

Table 26 Current and Future State Scores for Business Capability 1.0: Office of the CAO

#	Municipality	Current State Score	Future State Score
1	***Bruce County***	*N/A*	*N/A*
2	**Saugeen Shores**	3.0	4.0
3	**Kincardine**	3.0	4.0
4	**Brockton**	2.0	3.0
5	**Huron–Kinloss**	3.0	3.0
6	**Northern Bruce Peninsula**	2.0	4.0
7	***South Bruce***	*N/A*	*N/A*
8	**Arran–Elderslie**	2.0	3.0
All	**Joint Average**	**2.5**	**3.5**

Key Rationale for Scores Provided by Each Municipality:

Saugeen Shores

Key Current State Challenges

- Desktop versions of MS Office being used, limitations around file collaboration among staff.
- Gap in project management software to manage strategic initiatives, tracking goals / milestones.

Key Future State Opportunities

- MS 365 rolls out in first half of 2022.
- Cascade roll out planned in the future.

Kincardine

Key Current State Challenges

- Digital Document Repository: All day–to–day business documents being generated by staff are stored on a shared drive / paper, not in a cloud–based repository (i.e. SharePoint).
- IT Governance Model not yet implemented due to employee turnover.
- No permanent CAO.

Key Future State Opportunities

- Implementation of 'Intranet' portal for corporate communication, policies, templates, onboarding documentation, and human resource documents.

Brockton

Key Current State Challenges

- Digital Document Repository: All day–to–day business documents being generated by staff are stored on a shared drive / paper, not in a cloud–based repository (i.e. SharePoint).

- MS Teams: No online chat tool such as this exists which makes it difficult to efficiently communicate back and for the with staff members.
- MS 365: Don't have the full cloud suite currently, working of desktop / older versions of software. Not stored on desktop, all documents are shared on a shared, protected server.
- 311 / Complaints Workflow Portal: This was investigated many years ago but wasn't ultimately implemented.
- Hardware – Webcams: Needed for increased online meetings, and to increase in person and online meeting participation.

Key Future State Opportunities

- Implementation of MS Teams for improved communication.
- Upgrade to MS 365.
- Implementation of FormBuilder, used to improve and streamline complaint processing, and resident requests – currently in progress.

Huron–Kinloss

Key Current State Challenges

- Cloud based document repository (i.e., SharePoint): Shared/W Drive is used for document storage. It is difficult to find info / docs (everyone has their own subfolder). Also, Outlook is sed for communications. Pain Point: difficult to use as a collaboration tool when developing deliverables (vs. SharePoint which allows real time collaboration and storage).

Key Future State Opportunities

- Township wide project management solution can potentially improve visibility into other departments, resulting in more efficient planning for CAO.
- Township wide document management solution can improve ease of access and reduce time spent locating documents.

Northern Bruce Peninsula

Key Current State Challenges

- Digital Document Repository: All day–to–day business documents being generated by staff are stored on a shared drive / paper, not in a cloud–based repository (i.e., SharePoint).
- Project Management Software: No ability to track strategic initiatives or communicate about them.
- Lack of Executive Assistant means that there is a gap in scheduling and preparing for meetings, software may help achieve this.

Key Future State Opportunities

- Electronic Records Management System is proposed for implementation in 2022, subject to grant approval which will store files in a cloud–based repository.
- Development of a SharePoint site has been listed as a priority for 2022, we are waiting on upgrading to our server, network and fibre internet installation. Will focus as an intranet site for current working documents, communications to staff, easy access to files that are applicable to staff (pay, benefits, code of conduct, etc.).
- Other software to explore to address problems/gaps identified.

Arran–Elderslie

Key Current State Challenges

- No notable challenges.

Key Future State Opportunities

- No notable opportunities.

Business Capability 2.0: Business and Economic Development

Table 27 Current and Future State Scores for Business Capability 2.0: Business and Economic Development

#	Municipality	Current State Score	Future State Score
1	***Bruce County***	*N/A*	*N/A*
2	**Saugeen Shores**	3.0	4.0
3	**Kincardine**	3.0	3.0
4	**Brockton**	2.0	3.0
5	**Huron–Kinloss**	3.0	3.0
6	**Northern Bruce Peninsula**	2.0	3.0
7	***South Bruce***	*N/A*	*N/A*
8	**Arran–Elderslie**	2.0	2.0
All	**Joint Average**	**2.5**	**3.2**

Key Rationale for Scores Provided by Each Municipality:

Saugeen Shores

Key Current State Challenges

- Ineffective Use of CRM: There is a CRM implemented currently costing $1000 per year but it is not being used yet.
- No Business Directory that could added onto the existing website.
- third–party Tourism Website: Currently a third–party operates and owns the website – this has its pros and cons.
- Available land Inventory: Requires staff time to update – not live / organic.

Key Future State Opportunities

- Introduction of the following in the future:
- Lead generation system.
- Business Directory.
- Itinerary planner for tourism.
- Chat feature to talk with potential leads Business investment and tourism.

Kincardine

Key Current State Challenges

- Surveying/Analytic Tool not in use.
- Community Engagement Tool not in use.
- Staff vacancies (reduced team capability).

Key Future State Opportunities

- Plan to implement survey tool.

Brockton

Key Current State Challenges

- Resident Mobile App: App is not currently launched but will be launched in Sept 2022. The app is an extension of the website and will enable residents to perform various self–service functions and make payments online.
- Story mapping for the Saugeen River is pending.

Key Future State Opportunities

- Introduction of resident mobile app in 2022.

Huron–Kinloss

Key Current State Challenges

- No notable challenges.

Key Future State Opportunities

- Video Production Software (e.g., Render Forest): Could be used to develop promotional videos for Huron–Kinloss, or to explain to residents how to perform self service functions or for community engagement projects.
- Opportunity to streamline creative tools (e.g., have more staff using Canva vs. Adobe apps to eliminate access issues/costs).
- Opportunity to further train staff on how to use tools and use it for more use cases in order to improve quality of marketing materials.

Northern Bruce Peninsula

Key Current State Challenges

- Desire identified to improve customer experience, attract and be able to support new businesses which have been moving into the area recently, and internal IT ops will have to improve to support this.

Key Future State Opportunities

- Parkpass expansion to help tourism and by–law enforcement.
- Campground just started online booking, working well, hoping to expand to other areas like harbor to allow tourists to book in and reserve ahead of arrival.
- Improve website communications to improve customer experience.

Arran–Elderslie

Key Current State Challenges

- No notable challenges.

Key Future State Opportunities

- No notable opportunities.

Business Capability 3.0: Clerk's Office

Table 28 Current and Future State Scores for Business Capability 3.0: Clerk's Office

#	Municipality	Current State Score	Future State Score
1	***Bruce County***	*N/A*	*N/A*
2	**Saugeen Shores**	3.0	4.0
3	**Kincardine**	3.0	4.0
4	**Brockton**	2.0	3.0
5	**Huron–Kinloss**	2.0	3.0
6	**Northern Bruce Peninsula**	2.0	4.0
7	***South Bruce***	*N/A*	*N/A*
8	**Arran–Elderslie**	2.0	3.0
All	**Joint Average**	**2.3**	**3.5**

Key Rationale for Scores Provided by Each Municipality:

Saugeen Shores

Key Current State Challenges

- Digital Records Management Repository: All official records being retained on paper rather than through a dedicated, secure repository. Grant has been applied for to fund this project in the future.

Key Future State Opportunities

- Introduction of Digital records repository in the future.

Kincardine

Key Current State Challenges

- Centrally controlled document retention not currently accessible to all staff.
- Online fee/ticket/bylaw infraction system to reduce contact and streamline tracking.
- Accessibility on website: Website currently not capable of identifying accessible documents

Key Future State Opportunities

- Implementation of hybrid meetings.
- Implementation of live streamed meetings.
- Implementation of site license for records/data management.
- Implementation of AODA screening tool.

Brockton

Key Current State Challenges

- Digital Records Management Repository: Some official records still being retained on paper.
- Email record retention process/software not in use.
- Implementation of Consign Sync.

Key Future State Opportunities

- Continue to update or online streaming of Council meetings, including closed captioning.
- Currently in progress with implementing Consign Sync.
- Expand digital records retention to include a procedure for email retention and digitalization of older historic documents. In addition, a secure process for closed matters or sensitive data.

Huron–Kinloss

Key Current State Challenges

- Digital Document / Records Management Repository: Does not exist currently, most files are paper based and physically stored on site at municipal office. Limitations of this include the fact that it increases risk for Township if records are damaged in the future. Also, physical space is running out. Other staff members have longer wait times and rely on Clerk to get access to documents.
- Digital Signature Management / By–laws management: No electronic signature solution (e.g., DocuSign) exists now to make approval process more efficient (in situations where wet signature is not mandatory).
- Old system with limited functionality – Drain Brain: Dedicated system for drainage, but limitation is that it is not cloud accessible, and only 1 employee knows how to use it (1–2 more will be cross trained on it in the future). Not compatible with Township property database in Keystone (drainage repairs and payments are linked to property locations / owners). Need to provide notifications to people impacted in watershed area which is a manual process to determine who to contact.

Key Future State Opportunities

- Opportunity to adopt a Digital document repository that aligns with retention requirements. Reduce paper usage and storage risks.
- Opportunity to investigate Drainage Software options that would be compatible with Township software and cloud based.

Northern Bruce Peninsula

Key Current State Challenges

- Digital Records Management Repository: All official records being retained on paper rather than through a dedicated, secure repository. Grant has been applied for to fund this project in the future.
- Paper Cemetery Records are only accessible in the office through keystone and paper records, plot maps are only in hard copy. This makes accessing records, especially after hours or remotely extremely difficult.
- Inefficient Processes: Some processes such as staff reports (creation and approval), building agenda and minutes are more cumbersome on staff then necessary and could be automated.
- Hosting the online portion of Council meetings requires a lot of separate inputs with the existing audio–visual system and staff.

Key Future State Opportunities

- Electronic Records Management System is proposed for implementation in 2022, subject to grant approval which will store files in a cloud–based repository. Also looking at digitizing some of our existing paper files into this system.
- Council Portal Development: We will continue to develop our Icompass council portal to automate staff reports to council (built in templates save manual Labour and corrections) and the approvals which will streamline the agenda building process; currently working on using the system to create the agendas and minutes to create efficiencies for staff which we hope to start using for other Committees also; plan to implement video manager module in order to also host and record meetings.
- In 2022 will be reviewing how we host and use the technology to find efficiencies.
- Cemetery mapping and linking to existing records as an internal resource would be beneficial, future consideration for cemetery management software but issues with software integrating into Keystone.

- Improve communications around accessibility program.

Arran–Elderslie

Key Current State Challenges

- Digital / Phone based elections system: Not currently in place but is being rolled out in the near future. Hope is that it rolls out smoothly and works.
- Digital Records Management Repository: All official records being retained on paper rather than through a dedicated, secure repository.
- Other current state challenges within this capability area (i.e., related to process, data, people, and / or governance):
- Some staff / stakeholders are still using conference call to dial into Council meetings even though Digital / video / online solution has been introduced.

Key Future State Opportunities

- Expected future state opportunities to improve score (i.e., plans to introduce new software relevant to this capability area)
- Introduction of Digital / phone–based elections system.

Business Capability 4.0: Financial Management / Treasury

Table 29 Current and Future State Scores for Business Capability 4.0: Financial Management / Treasury

#	Municipality	Current State Score	Future State Score
1	***Bruce County***	*N/A*	*N/A*
2	**Saugeen Shores**	3.0	4.0
3	**Kincardine**	3.0	4.0
4	**Brockton**	2.0	3.0
5	**Huron–Kinloss**	3.0	4.0
6	**Northern Bruce Peninsula**	2.0	4.0
7	***South Bruce***	*N/A*	*N/A*
8	**Arran–Elderslie**	3.0	**3.0**
All	**Joint Average**	**2.7**	**3.7**

Key Rationale for Scores Provided by Each Municipality:

Saugeen Shores

Key Current State Challenges

- Keystone: Has challenges and limitations, not integrated with other systems, concerns about product being near end of life and limited support might be offered by vendor in the long term (now Central Square). Replacement software previously considered includes Questica's financial software, and Vadim iCity (Central Square product).
- Capture Point: To digitize Accounts Payable. Initial implementation is complete, automatic routing and automatic population functions would increase efficiency for the system.
- Dayforce: HRCM system – Implementation complete. Not functioning in an ideal manner, still many manual adjustments and extensive user training required for it to be a well–functioning system.

Key Future State Opportunities

- Further enhancement of Capture Point and Dayforce is possible throughout 2023, no project plan in place.
- Replacement of Keystone by Jan 2025 (needs assessment in 2023, RFP in 2024).
- Integrated online payments (through eSolutions and CloudPermit) starting in 2021, most departments online by end of 2022.

Kincardine

Key Current State Challenges

- Keystone: Has challenges and limitations, not integrated with other systems, concerns about product being near end of life and limited support might be offered by vendor in the long term (now Central Square).
- Payroll system very manual and paper based, very time intensive and inconsistent templates. Payroll not integrated with time and attendance/work order system.
- Purchase orders are very manual, and paper based. Limited controls for users who are authorized to make purchases. Also not integrated with financial software. Approvals of purchase orders/invoices are done in a variety of ways, manual, through Adobe or Consigno, no consistency.

- No payment platform through the website, limited online payment acceptance.
- Asset management database is not integrated with financial planning software and is a standalone system (Citywide).
- Staff vacancies (reduced team capability).

Key Future State Opportunities

- Working towards integrating financial statements with current budgeting software, FMW.
- Making improvements to payroll excel templates to improve visibility of vacation, banked time and accessibility of information to employees.

Brockton

Key Current State Challenges

- Keystone: Has challenges and limitations, not integrated with other systems, concerns about product being near end of life and limited support might be offered by vendor in the long term (now owned by Central Square who has competing products).
- No immediate need to replace it, but if many other Municipalities were replacing it and had done the research and had rationale, Brockton might consider it. Benefit would be that AP Clerk and other stuff who use it are not bound to the office and can work from home (because currently Keystone is server and not cloud based).
- Budgeting Software: Does not currently exist but is in the process of being acquired.
- Automated cheque reader machine: would read them and auto deposit to the Municipality bank account.
- Electronic system for AP approval process and electronic record retention.

Key Future State Opportunities

- Introduction of budgeting software in 2022.
- Opportunity to replace Keystone with new core finance system.
- Opportunity to automate manual data entry (e.g., through robotic process automation in the long term).
- Opportunity to enable self service payments function for residents through website.

Huron–Kinloss

Key Current State Challenges

- Budgeting software: e.g., Questica, budgeting currently done in Excel.
- Keystone: Has challenges and limitations, not integrated with other systems, concerns about product being near end of life and limited support might be offered by vendor in the long term (now Central Square).

Key Future State Opportunities

Northern Bruce Peninsula

Key Current State Challenges

- Gathering timesheet/payroll information is cumbersome and could be done more effectively with fully electronic timesheets.
- Lack of tracking progress and changes in asset management as well as planning ahead in budgets.
- Budgeting software could assist Council and the public in the process and understanding the cost of projects.
- Grants and application deadlines and requirements are hard to track and not miss.
- Procurement is not standardized, and things fall between the cracks, software could really improve this.

Key Future State Opportunities

- Introduction of a new finance system to replace Keystone sometime within the next 5 years (although this will come with change management challenges among staff).
- Payroll management software will be explored in the future.
- Procurement software to be explored.
- Asset management software to be explored and work order management.

Arran–Elderslie

Key Current State Challenges

- Keystone: Has challenges and limitations, not integrated with other systems, concerns about product being near end of life and limited support might be offered by vendor in the long term (now Central Square).
- No online citizen portal: for self service activities (payments). Tax bills etc. are now Digital (sent via email), but that still requires manual work to send to individual people, rather than autogenerated and uploaded to a resident's online account through the website.

Key Future State Opportunities

- No notable opportunities.

Business Capability 5.0: Building and Planning

Table 30 Current and Future State Scores for Business Capability 5.0: Building and Planning

#	Municipality	Current State Score	Future State Score
1	***Bruce County***	*N/A*	*N/A*
2	**Saugeen Shores**	2.0	3.0
3	**Kincardine**	3.0	4.0
4	**Brockton**	2.0	3.0
5	**Huron–Kinloss**	3.0	4.0
6	**Northern Bruce Peninsula**	3.0	4.0
7	***South Bruce***	*N/A*	*N/A*
8	**Arran–Elderslie**	2.0	3.0
All	**Joint Average**	**2.5**	**3.5**

Key Rationale for Scores Provided by Each Municipality:

Saugeen Shores

Key Current State Challenges

- CloudPermit: Digitalization for building permitting processes not currently in place.

Key Future State Opportunities

- Introduction of CloudPermit in 2022.
- Online payments with Bambora through CloudPermit in 2022.

Kincardine

Key Current State Challenges

- Building permit online system, not yet implemented.

Key Future State Opportunities

- Plans to investigate new permitting system.
- Implementation of Cityworks work order system in 2022.
- County wide implementation of Ecopia through the MIC.

Brockton

Key Current State Challenges

- ePermitting Software (i.e., CloudPermit): Does not currently exist, but is in the process of being acquired.

Key Future State Opportunities

- Introduction of permitting software in 2022.

Huron–Kinloss

Key Current State Challenges

- CloudPermit: Used for the applications submission, and inspections process. It is advanced and allows for work assignment + timelines and admin to address governance needs, indicates types of buildings being constructed, shows some metrics. Inspection notes, pictures, supporting docs can be added to CloudPermit as well for reference. However, limitations of the system include Lack of payments capabilities, and not all agencies/approval bodies have access to system for efficient communications.

Limited info/data available via GIS integration through CloudPermit (e.g., it would be helpful to have more info on septic system, more infrastructure info, road mapping etc. available).

Key Future State Opportunities

- Potential to integrate with building permit software to create a complete conception to completion development system.
- Opportunity to use a Township wide work order management tool (i.e., one that facilitates the intake of all public requests for service). Reduce usage of phone / email / paper in this process.
- Opportunity to update by–laws to allow Digital document storage, and to adopt a Digital document repository.

Northern Bruce Peninsula

Key Current State Challenges

- In 2021, moved from using Keystone for building permits, however, were told that the systems would integrate and so far, staff are still having to input into both systems, and payment for online applications must go through staff and Keystone instead of automatically online.
- All files stored in paper property files; Staff would benefit from more accessible records in an electronic records repository.
- Currently still using some paper tickets that are written by hand because of lack of printers (supply shortage due to covid).
- Currently using multiple software to allow for STA licensing applications, inspections and permits.
- By–law inspections for property standards are still done manually, taking photos on a phone, and then coming back to the office to create reports.

Key Future State Opportunities

- Will continue to work with the software companies to eliminate redundancies and explore options for online payments.
- Implementing the new electronic records management system will improve access to records.
- More tablets and printers are coming which should allow for Digital only system for tickets.
- Evaluate more options to use for STAs eliminate duplication of efforts by staff and create efficiencies.
- Building a module to complete inspections electronically.

Arran–Elderslie

Key Current State Challenges

- Key technology / Digital gaps (i.e., software / hardware / services required to better support this capability):
- CloudPermit: Building and Planning workflows are still very paper heavy at the moment, and CloudPermit is not being leveraged for Digital document management to its full capability. If documents were cloud accessible, they could easily be pulled up when in the Truck / out in the “field”.
- GIS: Still being developed, but not at a fast enough rate due to resource constraints. Ideally one full time resource would need to be hired to be dedicated to its development. Summer Students hep write the ""apps"" to make GIS data usable in a dashboard format, but they are not available year–round.

Key Future State Opportunities

- No notable opportunities.

Business Capability 6.0: Public Works

Table 31 Current and Future State Scores for Business Capability 6.0: Public Works

#	Municipality	Current State Score	Future State Score
1	***Bruce County***	*N/A*	*N/A*
2	**Saugeen Shores**	3.0	4.0
3	**Kincardine**	2.0	3.0
4	**Brockton**	2.0	3.0
5	**Huron–Kinloss**	2.0	3.0
6	**Northern Bruce Peninsula**	2.0	3.0
7	***South Bruce***	*N/A*	*N/A*
8	**Arran–Elderslie**	2.0	2.0
All	**Joint Average**	**2.1**	**3.1**

Key Rationale for Scores Provided by Each Municipality:

Saugeen Shores

Key Current State Challenges

- VL Technology: Geo–referencing for Public Works fleet to keep record of locations to be used to protect the Municipality in the event of insurance claims / legal issues.

Key Future State Opportunities

- Introduction of VL technology in 2022.
- Introduction of asset optimizer and latest Cityworks/ArcGIS in 2022.

Kincardine

Key Current State Challenges

- Cityworks was implemented in 2020 for the water / wastewater departments. Due to limited resources, could not advance to other departments as quickly as we wanted.
- Limited number of devices for staff, limited number of software licenses.
- Training/willingness to move technology forward, given the age of staff is a challenge.

Key Future State Opportunities

- Implementation of Cityworks work order system across all departments in 2022.
- Implementation of SCADA sever and security system.
- Undertook road and sidewalk assessment in 2021, to be used to inform future replacement schedules and prioritize maintenance projects.

Brockton

Key Current State Challenges

- Digital Water Meter Reading Software (Neptune 360): Does not currently exist, but is in the process of being acquired.
- Electronic W/O system.

- Sign Reflective System – improvement or linked to current asset system.
- Updated GPS system for trucks – currently outdated.

Key Future State Opportunities

- Introduction of Neptune in 2022.

Huron–Kinloss

Key Current State Challenges

- Reporting Tool: To produce reports related to PW operations.
- Mobile Tablets / Patrolling mobile apps / CMMS: Were tried out for use in winter patrols, but app being used wasn't trusted / working well. The tablets are only being used by Veolia right now. Apps that were tried out: AET app, Citywide app, MESH, all had challenges so were not adopted.
- Citywide: Challenge is that Citywide shows numbers that are very far off from GIS data. Treasury doesn’t understand the GIS system well, and PW doesn't understand citywide as much. GIS consultant is engaged to help see how this can be resolved. Citywide issues a 4 Digital ID, but the Township uses an alpha numeric system, need to figure out how to integrate the 2. GIS is more accurate with the data than Citywide is since Citywide has data entry from treasury.
- Less interest / willingness within field team to adopt new technology, fatigue from trying out too many apps in the past.

Key Future State Opportunities

- Opportunity to use a Township wide work order management tool (i.e., one that facilitates the intake of all public requests for service). Reduce usage of phone / email / paper in this process.
- Opportunity to select a mobile app that will suit the needs of the department for patrolling.
- Opportunity to continue improving the GIS system.
- Opportunity to further explore functionality of Street Logix if capacity is freed up in other areas (i.e., if workflow management and project management becomes more efficient).

Northern Bruce Peninsula

Key Current State Challenges

- Lack of records for fleet management activities.
- Lack of Digital information regarding location of assets and systems, would make planning and repairs more efficient. Currently no server space to set up ESRI enterprise to house database.
- Demographic of Public Works staff tends to be a bit older, and there is a bit more hesitation to embrace / adopt new Digital tools / solutions (although this is changing with time as new staff come in).
- Difficulty tracking and managing capital projects, could be improved with software for either project management or capital tracker.

Key Future State Opportunities

- Fleet Management Software needs to be implemented if the capability exists in current technology or sought out as a separate system. Also need to have staff capable of monitoring and maintenance.
- Continued development and implementation of Patrolling and work order management, as well as complaints tracking.
- Capturing field data for asset and system location and details, we have acquired GPS equipment and will start collecting this year, but first need installation of ESRI Enterprise (including server) to allow the information to update back to the server for efficiencies; Continuing to build database of information.
- No GIS existed, once new server is configured and space is available, ESRI enterprise to be installed and database to be set up. Will move over existing data and build data via field collection and desktop.

- Set up field collection devices and start collecting data.
- All software exists and hardware exists but waiting on network upgrades to implement.

Arran–Elderslie

Key Current State Challenges

- Key technology / Digital gaps (i.e., software / hardware / services required to better support this capability).
- Other current state challenges within this capability area (i.e., related to process, data, people, and / or governance).
- Demographic of Public Works staff tends to be a bit older, and there is a bit more hesitation to embrace / adopt new Digital tools / solutions (although this is changing with time as new staff come in).

Key Future State Opportunities

- No notable opportunities.

Business Capability 7.0: Community Services

Table 32 Current and Future State Scores for Business Capability 7.0: Community Services

#	Municipality	Current State Score	Future State Score
1	***Bruce County***	*N/A*	*N/A*
2	**Saugeen Shores**	3.0	4.0
3	**Kincardine**	3.0	3.0
4	**Brockton**	3.0	3.0
5	**Huron–Kinloss**	2.0	3.0
6	**Northern Bruce Peninsula**	2.0	4.0
7	***South Bruce***	*N/A*	*N/A*
8	**Arran–Elderslie**	3.0	3.0
All	**Joint Average**	**2.5**	**3.5**

Key Rationale for Scores Provided by Each Municipality:

Saugeen Shores

Key Current State Challenges

- Recreation software not integrated with Keystone: Existing platforms used by Community Services do integrate with keystone financial platform. Better native/real time integration will occur once keystone is replaced later in the future.
- New working group related to affordable housing (is under Strategic Initiatives at Town of Saugeen Shores).

Key Future State Opportunities

- Full integration with new financial/billing system in the future.

Kincardine

Key Current State Challenges

- Use of Active Net at one facility, limited capabilities during the pandemic to offer time related activities.
- Staff turnover/training challenges.

Key Future State Opportunities

- Plans to use Active Net throughout all facilities for reservations.

Brockton

Key Current State Challenges

- No notable challenges.

Key Future State Opportunities

- No notable opportunities.

Huron–Kinloss

Key Current State Challenges

- Recreation software (integrated with Treasury): for booking and payments doesn't exist yet. Active net, Perfect Mind, Book King, being considered.
- CMMS: No work order system exists; work is manually assigned for facilities management.
- Remote facilities door access solution is pending to be acquired/implemented, and a manual punch code system is used on site now. Salto Doors system is being considered.
- Tree inventory software: This doesn't exist but would be very beneficial for mapping and to develop tree reforestation plan in the future. Mike to provide name of system being considered.

Key Future State Opportunities

- Opportunity to select a recreation booking software that suits the department's needs which will help eliminate duplication of data entry and reduce human error.
- Opportunity to select an inspections management tool that meets the department's needs which can make field processes paperless.
- Opportunity to introduce reporting through the digitization of inspections activity data, and use of a toll which can auto generate reports.

Northern Bruce Peninsula

Key Current State Challenges

- Arena booking software: Arena bookings are manual and hard to track/bill – booking software online would be ideal and allow public to book ice times.
- Lack of facility, parks management software.
- Lack of ability to track community strategies like climate action plan for progress and related projects.

Key Future State Opportunities

- Arena booking software.
- Work order management and asset management software would likely cover facility and parks management, something that we can partially do using our existing MESH platform.

Arran–Elderslie

Key Current State Challenges

- No notable challenges.

Key Future State Opportunities

- No notable opportunities.

Business Capability 8.0: Emergency Services

Key Future State Opportunities

Table 33 Current and Future State Scores for Business Capability 8.0: Emergency Services

#	Municipality	Current State Score	Future State Score
1	***Bruce County***	*N/A*	*N/A*
2	**Saugeen Shores**	3.0	3.0
3	**Kincardine**	2.0	3.0
4	**Brockton**	3.0	3.0
5	**Huron–Kinloss**	2.0	3.0
6	**Northern Bruce Peninsula**	2.0	3.0
7	***South Bruce***	*N/A*	*N/A*
8	**Arran–Elderslie**	1.0	1.0
All	**Joint Average**	**2.2**	**3.0**

Key Rationale for Scores Provided by Each Municipality:

Saugeen Shores

Key Current State Challenges

- No notable challenges.

Key Future State Opportunities

- No notable opportunities.

Kincardine

Key Current State Challenges

- Online burn permits not yet in place
- Webelos
- Staffing, training challenges

Key Future State Opportunities

- Move to virtual EOC/Mobile EOC hybrid.

Brockton

Key Current State Challenges

- No notable challenges.

Key Future State Opportunities

- No notable opportunities.

Huron–Kinloss

Key Current State Challenges

- Inspection Booking System: Could be used for residents to submit safety complaints online which would generate a request that goes to Fire Chief to reduce use of phone.

- Incident Management System: When an incident is dispatched, degree of dispatch needs to be determined based on nature/scale of incident, resources required need to be determined. This is happening on paper in current state.
- Emergency Management response involves a combination of info/activities to manager: photos, whiteboards, paper maps being printed, and computers used. There are apps available to manage this function.

Key Future State Opportunities

- Opportunity to digitize volunteer timesheet entry to eliminate paper from process.
- Opportunity to use mobile app on tablets when completing inspections in the field to eliminate paper from process.
- Opportunity to create self–service functionality on website for inspection requests from the public.
- Opportunity to improve work order management tool / process.
- Opportunity to use a dedicated fire permit management tool that is cloud accessible.
- Opportunity to make permit renewal process less manual if invoicing / payments component can be Digitalized (e.g., link sent to pay online).

Northern Bruce Peninsula

Key Current State Challenges

- Current RM solution is only on one computer and not accessible, or easily exported, or connected into financial software.
- No fleet maintenance/management software or records.
- Emergency management training is lacking.

Key Future State Opportunities

- Currently exploring electronic records keeping specifically for fire department as there is certain reporting that needs completed.
- Development of the web EOC for EM.

Arran–Elderslie

Key Current State Challenges

- Demographic of Public Works staff tends to be a bit older, and there is a bit more hesitation to embrace / adopt new Digital tools / solutions (although this is changing with time as new staff come in).

Key Future State Opportunities

- No notable opportunities.

Business Capability 9.0: Project Management

Table 34 Current and Future State Scores for Business Capability 9.0: Project Management

#	Municipality	Current State Score	Future State Score
1	***Bruce County***	*N/A*	*N/A*
2	**Saugeen Shores**	4.0	4.0
3	**Kincardine**	1.0	1.0
4	**Brockton**	3.0	3.0
5	**Huron–Kinloss**	1.0	3.0
6	**Northern Bruce Peninsula**	1.0	2.0
7	***South Bruce***	*N/A*	*N/A*
8	**Arran–Elderslie**	1.0	3.0
All	**Joint Average**	**1.9**	**2.7**

Key Rationale for Scores Provided by Each Municipality:

Saugeen Shores

Key Current State Challenges

- No notable challenges.

Key Future State Opportunities

- No notable opportunities.

Kincardine

Key Current State Challenges

- Project Management Software: Not used in current state to manage internal initiatives.

Key Future State Opportunities

- No notable opportunities.

Brockton

Key Current State Challenges

- No notable challenges.

Key Future State Opportunities

- No notable opportunities.

Huron–Kinloss

Key Current State Challenges

- PM Software: which could help auto generate reports or provide templates / dashboard views, while also overlaying budget information. Success of PM tool in the future will be dependent on willingness of team to update it accurately / consistently with the right data. Tool needs to be easy to use for everyone (data entry shouldn't be overly time consuming), reports don't need to be overly detailed. Will be helpful for different departments to be able to see info on other in–flight projects because it will save time on reduced communications because everyone can easily check / update status info by themselves (e.g., engineers for PW projects, can be field accessible / cloud based so its easy / fast to

update). Tool needs to be flexible enough for variety of projects done by Township (small vs. long term). Can also help improve insight into capacity across teams and improve decision making abilities.

Key Future State Opportunities

- Opportunity to use a Township wide project management software that each department can leverage and customize for their own planning needs.

Northern Bruce Peninsula

Key Current State Challenges

- Project Management Software: Not used in current state to manage internal initiatives. Most projects are seen as being very high effort (almost at the level of an election), possibly due to small size of staff, but potentially because of lack of dedicated tools in place to support.

Key Future State Opportunities

- Opportunity to implement Project Management Software

Arran–Elderslie

Key Current State Challenges

- Project Management Software: Not used in current state to manage internal initiatives.

Key Future State Opportunities

- No notable opportunities.

Business Capability 10.0: IT and Data Management

Table 35 Current and Future State Scores for Business Capability 10.0: IT and Data Management

#	Municipality	Current State Score	Future State Score
1	***Bruce County***	*N/A*	*N/A*
2	**Saugeen Shores**	4.0	5.0
3	**Kincardine**	3.0	4.0
4	**Brockton**	2.0	3.0
5	**Huron–Kinloss**	2.0	3.0
6	**Northern Bruce Peninsula**	2.0	4.0
7	***South Bruce***	*N/A*	*N/A*
8	**Arran–Elderslie**	2.0	3.0
All	**Joint Average**	**2.5**	**3.7**

Key Rationale for Scores Provided by Each Municipality:

Saugeen Shores

Key Current State Challenges

- LAN Sweeper: Used to track inventory of active hardware / software that is connected to a network. Limitation is that it can't pick up items not connected (i.e., old computer being used in a shop), so a detailed (physical) audit needs to be done to accurately assess inventory. (This is now done). Purchasing and asset lifecycle defined and documented including asset tag method to be implemented in 2022.
- IT Ticket Management: KPI's now implemented and tracked, as well as other reports such as Labour hours spent for each internal department.

Key Future State Opportunities

- Roll out of processes to track / analyze IT operations KPIs and continually identify opportunities to improve service quality.
- Launch of MS 365 including Intune for easier configuration of endpoints.
- New asset tag design to be rolled out that is scannable for faster information recovery.

Kincardine

Key Current State Challenges

- Limited Internal Resources For IT: There is only 1 dedicated IT staff member (Specialist) who is at capacity managing day to day IT needs for the Municipality, therefore does not have available time to dedicated to strategic planning, large new initiatives, etc.
- Incomplete Software Inventory: Discrepancy in reported annual software costs compared to actual spend due to time and resource constraints.
- Telecom / Internet: Limited to Bruce Telecom (because it is 100% owned by Kincardine), so no further opportunities to optimize service levels or cost savings by switching providers.

Key Future State Opportunities

- 'Live' inventory system/Hardware lifecycle management.

- Completion of Software Inventory.
- Implementation of ticket system.
- Centralization of Data, removal of data silos.
- Full Implementation of Laserfiche.
- Formation of Technology Steering Committee.
- Support for services through infrastructure.

Brockton

Key Current State Challenges

- Limited Availability of MicroAge: MicroAge is contracted to provide IT support (full-service agreement including hardware setup, IT assessment, cybersecurity, maintenance, networking, procurement, handling cell phones), but municipal IT needs have increased, and sometimes availability of MicroAge isn't enough (only once day per week), more resources required. The MicroAge resource, Tim, is flexible with his schedule, and can come twice a week if requested. If there are urgent priorities, staff are able to connect with MicroAge and someone can provide support, however it may not be Tim and staff can be waiting for service request to be actioned which impacts productivity.

Key Future State Opportunities

- Partnership contract and extended hours with MicroAge, with one or two Municipalities for IT support and hardware/software purchases.

Huron–Kinloss

Key Current State Challenges

- Limited Availability of MicroAge: resource services many Municipalities and they are not dedicated to Huron–Kinloss. As a result, SLAs are not in place and observed leading to some staff waiting days for a request to be actioned.
- Limited Internal IT Staff: IT leader is primarily focused on Treasury (which is their core role), therefore does not have capacity for strategic IT planning.

Key Future State Opportunities

- Opportunity to investigate and develop an IT strategy and architecture aligned with guiding principles that will inform future IT investment decisions and operating model.
- Opportunity to identify and consolidate data sources to access in one place and better leverage it for decision making.
- Opportunity to improve IT operating model and resourcing so that there can be increased service quality / availability.
- Opportunity to build broad visualization and analytics capability / Centre of Excellence to support decision making across the Township e.g., project management, GIS, etc.

Northern Bruce Peninsula

Key Current State Challenges

- Limited External Resources For IT: Infinity Solutions is providing some services (cybersecurity, network support, email, support for hardware that was purchased by them), but there are no SLAs in place or being met, and staff is left waiting long period to have tickets resolved which impacts productivity. Infinity Solutions services multiple clients so are not always available, and they only provide remote service, not onsite. (Onsite services provided by IT Coordinator who is dedicated to IT related work only). MicroAge and Konica Minolta were alternative vendors being considered. No alternative vendor has been chosen yet because there is still lack of clarity around what the internal IT needs truly are. Overall, the Municipality requires 20 hours per week worth of support (on top of the one internal staff

member dedicated to IT). Preference is to be part of a joint / mass RFP with the other MIC Municipalities.

- Many old workstations that are outdated and slow.
- Some formal IT policies, procedures, and purchasing process in place.
- Only recently discovered that purchasing can be done through County for hardware items at a discounted rate.

Key Future State Opportunities

- New sever and networking hardware, along with upgraded fibre should assist in efficiencies internally.
- Replacing workstations and creating a policy about replacement program.

Arran–Elderslie

Key Current State Challenges

- Limited Internal Resources for IT: Its responsibility is taken on by the Chief Building Official in addition to their other key responsibilities.
- Limited External Resources For IT: MicroAge is providing some services, but RFP is closing in Feb 2022 to select new vendor, will have a 1–year trial contract with them. Current service does not appear to be satisfactory.
- No formal IT policies, procedures, and purchasing process in place. Only discovered that purchasing can be done through county for hardware items at a discounted rate.

Key Future State Opportunities

- No notable opportunities.

Business Capability 10.1: Cybersecurity

Table 36 Current and Future State Scores for Business Capability 10.1: Cybersecurity

#	Municipality	Current State Score	Future State Score
1	***Bruce County***	*N/A*	*N/A*
2	**Saugeen Shores**	4.0	5.0
3	**Kincardine**	3.0	4.0
4	**Brockton**	3.0	4.0
5	**Huron–Kinloss**	3.0	4.0
6	**Northern Bruce Peninsula**	3.0	4.0
7	***South Bruce***	*N/A*	*N/A*
8	**Arran–Elderslie**	3.0	3.0
All	**Joint Average**	**3.2**	**4.2**

Key Rationale for Scores Provided by Each Municipality:

Saugeen Shores

Key Current State Challenges

- Mobile Device Management is rudimentary: Will be rolled out in 2022 as part of MS 365 and ongoing security updates.
- third–party audit/pen test: to happen in 2022 using approved vendor (most likely Digital Boundaries, same company we use for police).

Key Future State Opportunities

- MDM rolled out in 2022.
- Third–party test to be performed with recommendations.

Kincardine

Key Current State Challenges

- MicroAge manages service, level / availability of service is not fully adequate to meet Municipality's needs.
- Gaps in additional tools / software that could being used (e.g., multi–factor authentication), although this is on the radar as an important priority and is being investigated. Currently, spam filtering software and a firewall are being used.
- No formal cybersecurity policies / procedures in place.

Key Future State Opportunities

- Implementation of new cybersecurity tool / software in the future (e.g., F12, Copper tree, Act Zero, Sophos, and Darktrace).
- MFA/2FA implementation.

Brockton

Key Current State Challenges

- MicroAge manages "security software" (software name unknown).

- Potential gaps in additional cybersecurity tools.
- No formal cybersecurity policies, procedures in place.

Key Future State Opportunities

- Create a formal policy on cybersecurity.

Huron–Kinloss

Key Current State Challenges

- Still need to consider development of cybersecurity policies and procedures, provide staff training on an ongoing basis.

Key Future State Opportunities

- Develop policies and procedures.

Northern Bruce Peninsula

Key Current State Challenges

- Infinity Solutions manages service.
- They manage / provide the following:
- Anti–spam email protection
- Endpoint detection and response antivirus
- Intrusion detection system through firewalls
- Nightly scans
- Dark web monitoring
- Phishing training for staff
- No formal cybersecurity policies, procedures in place.

Key Future State Opportunities

- Develop policies and procedures.

Arran–Elderslie

Key Current State Challenges

- MicroAge manages service.
- Potential gaps in additional cybersecurity tools.
- No formal cybersecurity policies, procedures in place.

Key Future State Opportunities

- No notable opportunities.

Business Capability 10.2: Disaster Recovery

Table 37 Current and Future State Scores for Business Capability 10.2: Disaster Recovery

#	Municipality	Current State Score	Future State Score
1	***Bruce County***	*N/A*	*N/A*
2	**Saugeen Shores**	4.0	4.0
3	**Kincardine**	2.0	4.0
4	**Brockton**	3.0	4.0
5	**Huron–Kinloss**	2.0	2.0
6	**Northern Bruce Peninsula**	3.0	4.0
7	***South Bruce***	*N/A*	*N/A*
8	**Arran–Elderslie**	3.0	4.0
All	**Joint Average**	**2.9**	**3.7**

Key Rationale for Scores Provided by Each Municipality:

Saugeen Shores

Key Current State Challenges

- No notable challenges.

Key Future State Opportunities

- No notable opportunities.

Kincardine

Key Current State Challenges

- Potential gaps compared to best practices that could be followed, currently offsite data backups are being done.
- No formal disaster recovery / business continuity policies, procedures in place.

Key Future State Opportunities

- Creation of Disaster Recovery / Business Continuity Plans.

Brockton

Key Current State Challenges

- MicroAge manages data backups through Datto backup storage.
- No formal disaster recovery policies, procedures in place.

Key Future State Opportunities

- Develop a Cybersecurity plan.

Huron–Kinloss

Key Current State Challenges

- Data backups being conducted – other measures can also be taken to support disaster recovery.
- Still need to consider development of disaster recovery policies and procedures.

Key Future State Opportunities

- Develop policies and procedures.

Northern Bruce Peninsula

Key Current State Challenges

- Infinity Solutions manages service.
- Potential gaps in additional disaster recovery tools / practices.
- No formal disaster recovery policies, procedures in place. No policies – but Infinity has commented that they have sufficient backups and access to cloud servers that they could recover from a disaster and be back up in running in a business day.

Key Future State Opportunities

- Develop policies and procedures.

Arran–Elderslie

Key Current State Challenges

- MicroAge manages service.
- Potential gaps in additional disaster recovery tools / practices.
- No formal disaster recovery policies, procedures in place.

Key Future State Opportunities

- No notable opportunities.

Business Capability 11.0: HR and Talent Management

Table 38 Current and Future State Scores for Business Capability 11.0: HR and Talent Management

#	Municipality	Current State Score	Future State Score
1	***Bruce County***	*N/A*	*N/A*
2	**Saugeen Shores**	3.0	3.0
3	**Kincardine**	2.0	3.0
4	**Brockton**	2.0	3.0
5	**Huron–Kinloss**	3.0	3.0
6	**Northern Bruce Peninsula**	3.0	3.0
7	***South Bruce***	*N/A*	*N/A*
8	**Arran–Elderslie**	2.0	2.0
All	**Joint Average**	**2.5**	**3.0**

Key Rationale for Scores Provided by Each Municipality:

Saugeen Shores

Key Current State Challenges

- No notable challenges.

Key Future State Opportunities

- No notable opportunities.

Kincardine

Key Current State Challenges

- Timesheets: Not supported by a dedicated payroll system which has this feature, or an HRIS system which has this feature, currently being done in Excel.
- Online job posting/resume submission/screening site.
- Performance management lacking tracking/management capability (HRIS).

Key Future State Opportunities

- Digitization of timesheet entry process via the use of software in the future.

Brockton

Key Current State Challenges

- HRIS Software: Dedicated system doesn't exist, but this doesn't seem to be an immediate need. Currently have Dayforce for employee data and HRDownloads for HR services and support.
- HR Training Module: Doesn't exist yet but being considered. Will help improve onboarding experience for new hires and create other efficiencies among leadership / staff.

Key Future State Opportunities

- Introduction of HR training module in 2022.

Huron–Kinloss

Key Current State Challenges

- HRIS Software: To consolidate all employee data / info into one central system.

Key Future State Opportunities

- Opportunity to use an HRIS system that will house all employee data and provide other benefits / functionality to improve multiple capabilities in this area.

Northern Bruce Peninsula

Key Current State Challenges

- HRIS Software: No full functionality software is in place, but the current system, HR Downloads seems to be meeting current state needs and won't be replaced anytime soon. However, there is still a gap for training and employee management software. something that would incorporate training, external training records, performance reviews, personnel file would be more efficient.

Key Future State Opportunities

- Introduction of a broader functionality HRIS system (which potentially could allow Municipality to eliminate HR Downloads if functionality is duplicated).
- Interim could likely expand implementation of HR Downloads and intranet site to communicate better with staff.

Arran–Elderslie

Key Current State Challenges

- No notable challenges.

Key Future State Opportunities

- No notable opportunities.

Business Capability 12.0: Retail Operations

Table 39 Current and Future State Scores for Business Capability 12.0: Retail Operations

#	Municipality	Current State Score	Future State Score
1	***Bruce County***	*N/A*	*N/A*
2	**Saugeen Shores**	3.0	3.0
3	**Kincardine**	2.0	2.0
4	**Brockton**	*N/A*	*N/A*
5	**Huron–Kinloss**	2.0	3.0
6	**Northern Bruce Peninsula**	*N/A*	*N/A*
7	***South Bruce***	*N/A*	*N/A*
8	**Arran–Elderslie**	*N/A*	*N/A*
All	**Joint Average**	**2.3**	**2.7**

Key Rationale for Scores Provided by Each Municipality:

Saugeen Shores

Key Current State Challenges

- No notable challenges.

Key Future State Opportunities

- No notable opportunities.

Kincardine

Key Current State Challenges

- Square Mobile payment system (POS) not yet in place.
- Staff turnover and training challenges.
- No inventory management system.

Key Future State Opportunities

- Marina to switch to Square payment system (POS).

Brockton

Key Current State Challenges

- No notable opportunities.

Key Future State Opportunities

- No notable opportunities.

Huron–Kinloss

Key Current State Challenges

- POS System for Lighthouse (e.g., Square): Could be used to digitize the cash collection and inventory management processes at the Lighthouse.

Key Future State Opportunities

- Opportunity to use more dedicated technology (e.g., a POS system) which also collects relevant customer data which can be analysed and improve accuracy of inventory tracking to better support this capability.

Northern Bruce Peninsula

Key Current State Challenges

- No notable opportunities.

Key Future State Opportunities

- No notable opportunities.

Arran–Elderslie

Key Current State Challenges

- No notable opportunities.

Key Future State Opportunities

- No notable opportunities.

Business Capability 13.0: Legal Services

Table 40 Current and Future State Scores for Business Capability 13.0: Legal Services

#	Municipality	Current State Score	Future State Score
1	***Bruce County***	*N/A*	*N/A*
2	**Saugeen Shores**	3.0	3.0
3	**Kincardine**	2.0	2.0
4	**Brockton**	3.0	3.0
5	**Huron–Kinloss**	*N/A*	*N/A*
6	**Northern Bruce Peninsula**	*N/A*	*N/A*
7	***South Bruce***	*N/A*	*N/A*
8	**Arran–Elderslie**	*N/A*	*N/A*
All	**Joint Average**	**2.7**	**2.7**

Key Rationale for Scores Provided by Each Municipality:

Kincardine

- Ability to track agreements/payments/bylaws/insurance requirements (with notification / timelines).

Business Capability 14.0: Public Health

Table 41 Current and Future State Scores for Business Capability 14.0: Public Health

#	Municipality	Current State Score	Future State Score
1	***Bruce County***	*N/A*	*N/A*
2	**Saugeen Shores**	*N/A*	*N/A*
3	**Kincardine**	*N/A*	*N/A*
4	**Brockton**	*N/A*	*N/A*
5	**Huron–Kinloss**	*N/A*	*N/A*
6	**Northern Bruce Peninsula**	*N/A*	*N/A*
7	***South Bruce***	*N/A*	*N/A*
8	**Arran–Elderslie**	*N/A*	*N/A*
All	**Joint Average**	*N/A*	*N/A*

Key Rationale for Scores Provided by Each Municipality:

N/A – Capability does not exist in all 8 Municipalities.

Business Capability 15.0: Innovation

Table 42 Current and Future State Scores for Business Capability 15.0: Office of the CAO

#	Municipality	Current State Score	Future State Score
1	***Bruce County***	*N/A*	*N/A*
2	**Saugeen Shores**	3.0	3.0
3	**Kincardine**	*N/A*	*N/A*
4	**Brockton**	*N/A*	*N/A*
5	**Huron–Kinloss**	*N/A*	*N/A*
6	**Northern Bruce Peninsula**	1.0	1.0
7	***South Bruce***	*N/A*	*N/A*
8	**Arran–Elderslie**	*N/A*	*N/A*
All	**Joint Average**	**2.5**	**3.5**

Key Rationale for Scores Provided by Each Municipality:

Northern Bruce Peninsula

- Innovation strategy tracking software or tool would be a great asset.

Appendix G: Current State Survey Results (Cybersecurity and Disaster Recovery)

Survey Results: Current State of Cybersecurity

A survey was conducted to understand the current state maturity of cybersecurity across all Municipalities, and to identify the gaps in the program / framework in place compared to industry standards. The following table contains the survey results for cybersecurity related to Information technology (IT). Information technology (IT) refers to the computer–based information systems used to create, process, store, retrieve, and exchange all kinds of electronic data and information within the context of business operations.

Table 43 Survey Results: Current State of Cybersecurity (IT)

Question	Arran Elderslie Response	Northern Bruce Response	Huron Kinloss Response	South Bruce Response	Kincardine Response	Brockton Response	Saugeen Shores Response	Bruce County Response	Total Number of Municipalities Who Provided a "Yes" Response
Does the organization have defined roles, responsibilities, behaviors, and practices for the implementation of cybersecurity?	No	No	Yes	Not Available	No	Not Available	Not Available	Yes	**2 of 8**
Does the organization have a System Security Policy?	No	No	No	No	No	No	Not Available	Yes	**1 of 8**
Is there an inventory of systems and critical components hardware and is it maintained?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	**8 of 8**
Is there an inventory of systems and critical components software and is it maintained?	No	No	Yes	No	Yes	Yes	Yes	Yes	**5 of 8**
Is there a data protection regimen in use?	No	No	No	No	Yes	No	Yes	Yes	**3 of 8**
Does the organization ensure secure configuration of enterprise assets and software?	No	Yes	Yes	Not Available	No	Yes	Yes	Yes	**5 of 8**
Does the organization actively manage user accounts?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	**8 of 8**
Does the organization actively manage what access and privileges levels are assigned to each user accounts?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	**8 of 8**

Question	Arran Elderslie Response	Northern Bruce Response	Huron Kinloss Response	South Bruce Response	Kincardine Response	Brockton Response	Saugeen Shores Response	Bruce County Response	Total Number of Municipalities Who Provided a "Yes" Response
Does the organization continuously monitor systems for vulnerabilities?	No	Yes	Yes	Not Available	Yes	Yes	Yes	Yes	**6 of 8**
System events are logged, and the logs are monitored?	No	Yes	Yes	Not Available	Yes	Yes	Yes	Yes	**6 of 8**
The organization employs email and web browser protections	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	**7 of 8**
Does the organization employ malware defenses?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	**8 of 8**
Does the organization have a data recovery capability?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	**8 of 8**
Does the organization keep its network infrastructure up to date?	No	Yes	Yes	Not Available	Yes	Yes	Yes	Yes	**6 of 8**
Does the organization continuously monitor its network for intrusions?	No	Yes	Yes	Not Available	No	Yes	Yes	Yes	**5 of 8**
Does the organization provide security awareness and skills training?	No	Yes	Yes	No	No	Yes	Yes	Yes	**5 of 8**
Does the organization manage the security of 3rd party service providers?	No	No	No	No	No	No	Yes	Yes	**2 of 8**
Does the organization have an incident response capability?	No	Yes	Yes	No	No	No	Yes	Yes	**4 of 8**
Has the organization performed a penetration test of its systems?	No	No	No	No	Yes	Yes	Yes	Yes	**4 of 8**

The next table contains the survey results for cybersecurity for Operational Technology (OT). Operational Technology (OT) is the hardware and software for control systems and associated instrumentation that detects or causes a change, through the direct monitoring and/or control of industrial equipment, assets, processes, and events. For example, the devices within their Process Control Systems (PCS).

Table 44 Survey Results: Current State of Cybersecurity (OT)

Question	Arran Elderslie Response	Northern Bruce Response	Huron Kinloss Response	South Bruce Response	Kincardine Response	Brockton Response	Saugeen Shores Response	Bruce County Response	Total Number of Municipalities Who Provided a "Yes" Response
Does the organization have defined roles, responsibilities, behaviors, and practices for the implementation of cybersecurity?	No	Not Available	Yes	Not Available	No	Not Available	Not Available	No	**1 of 8**
Does the organization have a System Security Policy?	No	Not Available	No	Not Available	No	No	Not Available	Not Available	**0 of 8**
Is there an inventory of systems and critical components hardware and is it maintained?	No	Not Available	Yes	Not Available	Yes	Not Available	Yes	Not Available	**3 of 8**
Is there an inventory of systems and critical components software and is it maintained?	No	Not Available	Yes	Not Available	Yes	Not Available	Yes	Not Available	**3 of 8**
Is there a data protection regimen in use?	No	Not Available	No	Not Available	Yes	Not Available	Yes	Not Available	**3 of 8**
Does the organization ensure secure configuration of enterprise assets and software?	No	Not Available	Yes	Not Available	No	Not Available	Yes	Not Available	**3 of 8**
Does the organization actively manage user accounts?	Yes	Not Available	Yes	Not Available	Yes	Not Available	Yes	Not Available	**4 of 8**
Does the organization actively manage what access and privileges levels are assigned to each user accounts?	Yes	Not Available	Yes	Not Available	Yes	Not Available	Yes	Not Available	**4 of 8**
Does the organization continuously monitor systems for vulnerabilities?	No	Not Available	Yes	Not Available	Yes	Not Available	Yes	Not Available	**3 of 8**

Question	Arran Elderslie Response	Northern Bruce Response	Huron Kinloss Response	South Bruce Response	Kincardine Response	Brockton Response	Saugeen Shores Response	Bruce County Response	Total Number of Municipalities Who Provided a "Yes" Response
System events are logged, and the logs are monitored?	No	Not Available	Yes	Not Available	Yes	Not Available	Yes	Not Available	**3 of 8**
The organization employs email and web browser protections	No	Not Available	Yes	Not Available	Yes	Not Available	Yes	Not Available	**3 of 8**
Does the organization employ malware defenses?	Yes	Not Available	Yes	Not Available	Yes	Not Available	Yes	Not Available	**4 of 8**
Does the organization have a data recovery capability?	Yes	Not Available	Yes	Not Available	Yes	Not Available	Yes	Not Available	**4 of 8**
Does the organization keep its network infrastructure up to date?	No	Not Available	Yes	Not Available	Yes	Not Available	Yes	Not Available	**4 of 8**
Does the organization continuously monitor its network for intrusions?	No	Not Available	Yes	Not Available	No	Not Available	Yes	Not Available	**3 of 8**
Does the organization provide security awareness and skills training?	No	Not Available	Yes	Not Available	No	Not Available	Yes	Not Available	**3 of 8**
Does the organization manage the security of 3rd party service providers?	No	Not Available	No	Not Available	No	Not Available	Yes	Not Available	**1 of 8**
Does the organization have an incident response capability?	No	Not Available	Yes	Not Available	No	Not Available	Yes	Not Available	**3 of 8**
Has the organization performed a penetration test of its systems?	No	Not Available	No	Not Available	Yes	Not Available	No	Not Available	**2 of 8**

Survey Results: Current State of Disaster Recovery

A survey was conducted to understand the current state maturity of disaster recovery across all Municipalities, and to identify the gaps in the program / framework in place compared to industry standards. The following table contains the results of this survey.

Table 45 Survey Results: Current State of Disaster Recovery

Questions	Arran Elderslie Response	Northern Bruce Peninsula Response	Huron Kinloss Response	South Bruce Response	Kincardine Response	Brockton Response	Saugeen Shores Response	Bruce County Response	Total Number of Municipalities Who Provided a "Yes" Response
Do you have a Business Continuity/ Disaster Recovery plan in place?	No	Yes	Yes	No	No	No	Yes	Yes	**4 of 8**
Is your plan updated periodically?	No	Yes	Yes	Not Available	Not Available	Not Available	Yes	Yes	**4 of 8**
Is the plan easily accessible for relevant employees?	No	No	Yes	Not Available	Not Available	Not Available	Yes	Yes	**3 of 8**
Is the plan actionable?	No	Yes	No	Not Available	Not Available	Not Available	Yes	Yes	**3 of 8**
Does the plan segment information by role, situation, location, etc.?	No	No	No	Not Available	Not Available	Not Available	Yes	Yes	**2 of 8**
Does the plan account for all potential threats?	No	No	Yes	Not Available	Not Available	Not Available	Yes	Yes	**3 of 8**
Does the plan prioritize critical business functions and processes?	No	Yes	Yes	Not Available	Not Available	Not Available	Yes	Yes	**4 of 8**
Does the plan enable quick, reliable communication among stakeholders?	No	Yes	Yes	Not Available	Not Available	Not Available	Yes	Yes	**4 of 8**
Is the plan periodically reviewed and tested?	No	Yes	No	Not Available	Not Available	Not Available	Yes	No	**2 of 8**
Do you have a training program in place for your plan?	No	Yes	No	Not Available	Not Available	Not Available	No	No	**1 of 8**

Appendix H: Future State Survey Results (IT Services Delivery Preferences)

Survey Summary: IT Services Delivery Preferences – Short Term

Table 46 Survey Summary: IT Services Delivery Preferences – Short Term

IT Service Category	Arran Elderslie Service Delivery Preference	Brockton Service Delivery Preference	Kincardine Service Delivery Preference	Northern Bruce Peninsula Service Delivery Preference	Huron Kinloss Service Delivery Preference	Saugeen Shores Service Delivery Preference	South Bruce Service Delivery Preference	Bruce County Service Delivery Preference
IT Strategy and Architecture	In–House	N/A	In–House	External (Other MIC Municipality)	External (Third–Party)	In–House	N/A	In–House
IT Sourcing / Procurement*	In–House	N/A	External (Other MIC Municipality)	External (Other MIC Municipality)	In–House	In–House	External (Other MIC Municipality)	In–House
IT Vendor Management	In–House	N/A	In–House	N/A	In–House	In–House	N/A	In–House
IT Operations and Service Management*	External (Third–Party)	N/A	In–House	External (Other MIC Municipality)	External (Other MIC Municipality)	In–House	N/A	In–House
IT Satisfaction Management	In–House	N/A	In–House	In–House	External (Other MIC Municipality)	In–House	N/A	In–House
Security / Cybersecurity Management*	In–House	N/A	In–House	External (Third–Party)	External (Third–Party)	In–House	External (Other MIC Municipality)	In–House
Disaster Recovery Planning*	In–House	N/A	External (Third–Party)	External (Third–Party)	External (Other MIC Municipality)	In–House	External (Third–Party)	In–House
Application Development and Maintenance	External (Third–Party)	N/A	External (Third–Party)	N/A	External (Third–Party)	External (Third–Party)	N/A	In–House
Data Management / Governance	In–House	N/A	In–House	External (Other MIC Municipality)	External (Third–Party)	In–House	N/A	In–House
Visualization and Advanced Analytics	External (Third–Party)	N/A	External (Third–Party)	N/A	In–House	External (Third–Party)	N/A	In–House
IT Operating Model and Governance	In–House	N/A	In–House	External (Other MIC Municipality)	In–House	In–House	N/A	In–House
Overall IT and Data Management	In–House	N/A	In–House	External (Other MIC Municipality)	In–House	In–House	External (Third–Party)	In–House

***Note:** The blue shaded bars represent the top 4 prioritized services that Municipalities expect to receive in the future state.*

Short Term IT Services Delivery Preferences –Total Votes

Table 47 Short Term IT Services Delivery Preferences – Total Votes

IT Service Category	In House Delivery	External (Other Municipality) Delivery	External (Third Party) Delivery	Total Votes Received*
IT Strategy and Architecture	4	1	1	6
IT Sourcing / Procurement*	4	3	0	7
IT Vendor Management	5	0	0	5
IT Operations and Service Management*	3	2	1	6
IT Satisfaction Management	5	1	0	6
Security / Cybersecurity Management*	4	1	2	7
Disaster Recovery Planning*	3	1	3	7
Application Development and Maintenance	1	0	4	5
Data Management / Governance	4	1	1	6
Visualization and Advanced Analytics	2	0	3	5
IT Operating Model and Governance	5	1	0	6
Overall IT and Data Management	5	1	1	7

***Note:** The "total votes" received number for each IT service category is inconsistent because not all Municipalities answered each question, so not every count is out of 8. The blue shaded bars also represent the top 4 prioritized services that Municipalities expect to receive in the future state.*

Survey Summary: IT Services Delivery Preferences – Long Term

Table 48 Survey Summary: IT Services Delivery Preferences – Long Term

IT Service Category	Arran Elderslie Service Delivery Preference	Brockton Service Delivery Preference	Kincardine Service Delivery Preference	Northern Bruce Peninsula Service Delivery Preference	Huron Kinloss Service Delivery Preference	Saugeen Shores Service Delivery Preference	South Bruce Service Delivery Preference	Bruce County Service Delivery Preference
IT Strategy and Architecture	External (Other MIC Municipality)	N/A	In–House	N/A	External (Other MIC Municipality)	In–House	N/A	In–House
IT Sourcing / Procurement*	External (Other MIC Municipality)	N/A	External (Other MIC Municipality)	External (Other MIC Municipality)	External (Other MIC Municipality)	In–House	External (Other MIC Municipality)	In–House
IT Vendor Management		N/A	In–House	External (Other MIC Municipality)	External (Other MIC Municipality)	In–House	N/A	In–House
IT Operations and Service Management*	External (Third–Party)	N/A	External (Other MIC Municipality)	N/A	External (Other MIC Municipality)	In–House	N/A	In–House
IT Satisfaction Management	In–House	N/A	In–House	N/A	External (Other MIC Municipality)	In–House	N/A	In–House
Security / Cybersecurity Management*	In–House	N/A	In–House	N/A	External (Other MIC Municipality)	In–House	External (Other MIC Municipality)	In–House
Disaster Recovery Planning*	External (Other MIC Municipality)	N/A	External (Third–Party)	N/A	External (Other MIC Municipality)	In–House	External (Third–Party)	In–House
Application Development and Maintenance	External (Third–Party)	N/A	External (Third–Party)	External (Third–Party)	External (Other MIC Municipality)	External (Third–Party)	N/A	In–House
Data Management / Governance	In–House	N/A	External (Third–Party)	N/A	External (Other MIC Municipality)	In–House	N/A	In–House
Visualization and Advanced Analytics	External (Other MIC Municipality)	N/A	External (Third–Party)	External (Third–Party)	External (Other MIC Municipality)	External (Third–Party)	N/A	In–House
IT Operating Model and Governance	External (Other MIC Municipality)	N/A	In–House	N/A	External (Other MIC Municipality)	In–House	N/A	In–House
Overall IT and Data Management	In–House	N/A	In–House	N/A	External (Other MIC Municipality)	In–House	External (Third–Party)	In–House

***Note:** The blue shaded bars represent the top 4 prioritized services that Municipalities expect to receive in the future state.*

Long Term IT Services Delivery Preferences –Total Votes

Table 49 Long Term IT Services Delivery Preferences –Total Votes

IT Service Area	In House Delivery	External (Other Municipality) Delivery	External (Third Party) Delivery	Total Votes Received*
IT Strategy and Architecture	3	2	0	5
IT Sourcing / Procurement*	2	5	0	7
IT Vendor Management	3	2	0	5
IT Operations and Service Management*	2	2	1	5
IT Satisfaction Management	4	1	0	5
Security / Cybersecurity Management*	4	2	0	6
Disaster Recovery Planning*	2	2	2	6
Application Development and Maintenance	1	1	4	6
Data Management / Governance	3	1	1	5
Visualization and Advanced Analytics	1	2	3	6
IT Operating Model and Governance	3	2	0	5
Overall IT and Data Management	4	1	1	6

***Note:** The "total votes" received number for each IT service category is inconsistent because not all Municipalities answered each question, so not every count is out of 8. The blue shaded bars also represent the top 4 prioritized services that Municipalities expect to receive in the future state.*

Appendix I: Future State Options Analysis Details

Recap of Options Scoring Methodology

1. **Time to Implement**
    - Score of 1 (high time to implement) to 5 (low time to implement).
2. **Cost to Implement**
    - Score of 1 (high potential cost to implement) to 5 (low potential cost to implement).
3. **Cost Savings** (this was only assessed for Opportunity Area 2 and 3: IT Strategic Sourcing, Procurement, and Upgrades).
    - Score of 1 (low potential cost savings from implementing) to 5 (high potential cost savings from implementing).
4. **Strategic Alignment**
    - Score of 1 (low alignment with Project Guiding Principles) to 5 (high alignment with Project Guiding Principles).

Opportunity 1: IT Services Options Evaluated

Option 1A: Status Quo

- **Description:** Everything stays as is (independent / in–house, or third–party service delivery with existing vendors).
- **In Scope Services and Participating Municipalities:** N/A – None.
- **Time to Implement:** 5 / 5 (very low).
- **Cost to Implement:** 5 / 5 (very low).
- **Strategic Alignment with Guiding Principles:** 1 / 5 (very low). Option does not resolve any of the current state challenges with IT services, especially for several lower tier Municipalities.
- **Pros:**
    - No changes involved (no change management).
    - Individual preferences (e.g., vendors, products) can be maintained by each Municipality.
- **Cons:**
    - Little to no opportunities for collaboration and information / knowledge sharing.
    - Minimal alignment with the Vision and Guiding Principles set during the Vision Lab.
    - Does not leverage leading practices from other Municipalities or third parties.
- **Additional Considerations:** N/A.

Option 1B: Status Quo + Committee

- **Description:** Everything stays as is plus a Joint IT Steering Committee is put in place (“JITS”).
- **In Scope Services and Participating Municipalities:**
    - The committee covers collaboration and information / knowledge sharing regarding the following:
        - IT Operations and Service Management – For all Municipalities.
        - IT Security / Cybersecurity Management – For all Municipalities.
        - Disaster Recovery Planning – For all Municipalities.
        - IT Sourcing / Procurement – For all Municipalities.

- **Time to Implement:** 4 / 5 (low). Minimal time required compared to options where another Municipality or third–party provides services.
- **Cost to Implement:** 5 / 5 (very low). Little to no implementation cost compared to Options where another Municipality or third–party provides services.
- **Strategic Alignment with Guiding Principles:** 2 / 5 (low). Does not resolve many of the current state challenges with IT services, especially for several lower tier Municipalities.
- **Pros:**
    - Minimal change management required for setting up a committee compared to other options involving another Municipality or third–party.
    - Individual preferences (e.g., vendors, products) can be maintained by each Municipality.
    - Benefits can be gained from the collective knowledge and experience across the MIC Municipalities (upper and lower tiers).
- **Cons:**
    - Does not fully leverage the scale and potential benefits from the other options involving another Municipality or third–party.
- **Additional Considerations:**
    - The committee will have to be well–defined with clarity of mandate, roles and responsibilities, governance structure, etc.

Option 2A: Bruce County Delivers IT Shared Services to Lower Tier Municipalities

- **Description:** Bruce County to establish Shared Service function and provides the selected IT services to the participating Municipalities.
- **In Scope Services and Participating Municipalities:**
    - The committee covers collaboration and information / knowledge sharing regarding the following:
        - IT Operations and Service Management – For all Municipalities.
        - IT Security / Cybersecurity Management – For all Municipalities.
        - Disaster Recovery Planning – For all Municipalities.
        - IT Sourcing / Procurement – For all Municipalities.
- **Time to Implement:** 3 / 5 (medium). More time will be required compared to the two status quo Options.
- **Cost to Implement:** 3 / 5 (medium). Higher implementation costs might be expected compared to the two status quo Options.
- **Strategic Alignment with Guiding Principles:** 4 / 5 (high). Aligns well with the Guiding Principles and addresses many of the current state challenges with IT services, especially for several lower tier Municipalities.
- **Pros:**
    - Bruce County provides a sense of confidence that they can deliver high quality IT services (given adequate resources).
    - Good alignment with the Vision and Guiding Principles set during the Vision Lab.
    - Bruce County has expertise with relatively higher standards of Cyber Security and Disaster Recovery.
    - Bruce County has existing teams for all the services mentioned which makes it a viable option for Municipalities who may be sceptical about a third–party handling these services.

- Potential cost savings through increased purchasing power / volume pricing and leveraging common systems / data.

- **Cons:**
  - Longer time to implement changes compared to the two status quo options.
  - Costs might be higher than average IT budgets for individual Municipalities.
  - Potential competing priorities within the Municipalities and Bruce County when prioritizing resources for services.
  - Potential conflict between upper–tier and lower–tier Municipality bylaws.
- **Additional Considerations:**
  - The operating model will have to be well–defined with clarity of mandate, roles and responsibilities, governance structure, etc.
  - The feasibility of this approach depends on Bruce County's ability to serve ~700 additional users (in additional to current ~800 users) which is a significant increase.
  - Each of the participating Municipalities will have to improve its maturity (as needed) to fully take advantage of any shared services e.g., develop a Digital / IT Strategy and Roadmap, develop the ability to plan and forecast demand for the IT services to be provided.

Option 2B: Saugeen Shores Delivers IT Shared Services to other MIC member Municipalities

- **Description:** Saugeen Shores provides the selected IT services to the participating Municipalities.
- **In Scope Services and Participating Municipalities:**
  - The committee covers collaboration and information / knowledge sharing regarding the following:
    - IT Operations and Service Management – For all Municipalities.
    - IT Security / Cybersecurity Management – For all Municipalities.
    - Disaster Recovery Planning – For all Municipalities.
    - IT Sourcing / Procurement – For all Municipalities.
- **Time to Implement:** 2 / 5 (high) – More time will be required compared to the two status quo options and to the Bruce County option.
- **Cost to Implement:** 2 / 5 (high) Some higher implementation costs might be expected compared to the two status quo options and to the Bruce County option.
- **Strategic Alignment with Guiding Principles:** 4 / 5 (high). Aligns well with the Guiding Principles and addresses many of the current state challenges with IT services, especially for several lower tier Municipalities.
- **Pros:**
  - Saugeen Shores provides a sense of confidence that they can deliver high quality IT services (given adequate resources), however, not as well positioned as Bruce County at the current moment.
  - Good alignment with the Vision and Guiding Principles set during the Vision Lab.
  - Saugeen Shores' staff are trained and knowledgeable about all Municipalities as well as products related to IT Operations and Service Management.
  - Saugeen Shores follows Government of Canada's recommendations for Disaster Recovery.
  - Saugeen manages data through Active Directory integration, which is a scalable solution.

- Potential cost savings through increased purchasing power / volume pricing and leveraging common systems / data.

- **Cons:**
  - Longer time to implement changes compared to the two status quo options.
  - Costs might be higher than average IT budgets for individual Municipalities.
  - Potential competing priorities within the Municipalities and Saugeen Shores when prioritizing resources for services.
  - Potential conflict between Municipality by–laws.
- **Additional Considerations:**
  - The operating model will have to be well–defined with clarity of mandate, roles and responsibilities, governance structure, etc.
  - The feasibility of this approach depends on Saugeen Shores' ability to serve ~700 additional users (in additional to current ~300 users) which is a significant increase.
  - Each of the participating Municipalities will have to improve its maturity (as needed) to fully take advantage of any shared services e.g., develop a Digital / IT Strategy and Roadmap, develop the ability to plan and forecast demand for the IT services to be provided.

Option 2C: Third–party Provides IT Shared Services to MIC member Municipalities

- **Description:** A third–party organization (e.g., MicroAge, Infinity Solutions) provides the selected IT services to the participating Municipalities.
- **In Scope Services and Participating Municipalities:**
  - The services provided include:
    - IT Operations and Service Management – For all Municipalities except Bruce County.
    - IT Security / Cybersecurity Management – For all Municipalities except Bruce County.
    - Disaster Recovery Planning – For all Municipalities except Bruce County.
    - IT Sourcing / Procurement (only for in scope hardware items) – For all Municipalities except Bruce County.
- **Time to Implement:** 4 / 5 (low). Less time will be required compared to the Bruce County and Saugeen Shores options as third–party organizations may have staff more readily available (potentially).
- **Cost to Implement:** 3 / 5 (medium). Lower implementation costs might be expected compared to the Bruce County and Saugeen Shores options as the third–party likely will have scale beyond the MIC Municipalities and can potentially offer better rates (potentially).
- **Strategic Alignment with Guiding Principles:** 3 / 5 (medium). Aligns well with the Guiding Principles and addresses many of the current state challenges with IT services, especially for several lower tier Municipalities; however, many Municipalities have indicated a preference for an MIC Municipality over a third–party.
- **Pros:**
  - A third–party likely can deliver high quality IT services at scale with shorter notice (as they should have staff more readily available).
  - Alignment with the Vision and Guiding Principles set during the Vision Lab.
  - Access to leading practices and tools from the third–party vendor, which would have experience from beyond the MIC Municipalities.
  - Lower time to implement changes compared to the Bruce County and Saugeen Shores options (potentially).

- Cost might be lower than average IT budgets for individual Municipalities (potentially).

- **Cons:**
  - Perceived greater risk (e.g., security / cyber security) as this is a third–party organization and not one of the MIC Municipalities.
  - Potential limited pool of third–party service providers to choose from that can provide services to all participating Municipalities (e.g., for geographic coverage.).
  - Depending on where the third–party resources are located, there might be additional travel costs involved.
- **Additional Considerations:**
  - The operating model will have to be well–defined with clarity of mandate, roles and responsibilities, governance structure, prioritization of the various Municipalities, etc.
  - Each of the participating Municipalities will have to improve its maturity (as needed) to fully take advantage of any shared services e.g., develop a Digital / IT Strategy and Roadmap, develop the ability to plan and forecast demand for the IT services to be provided.

Option 3: MIC Municipality + Third–Party

- **Description:** A third–party organization (e.g., MicroAge, Infinity Solutions) provides the selected IT services to the participating Municipalities.
- **In Scope Services and Participating Municipalities:**
  - The services provided include:
    - IT Operations and Service Management – For all Municipalities except Bruce County and Saugeen Shores (service provided by Bruce County or Saugeen Shores).
    - IT Security / Cybersecurity Management – For all Municipalities except Bruce County and Saugeen Shores (service provided by third–party).
    - Disaster Recovery Planning – For all Municipalities except Bruce County and Saugeen Shores (service provided by third–party).
    - IT Sourcing / Procurement – For all Municipalities except Bruce County and Saugeen Shores (service provided by Bruce County or Saugeen Shores).
- **Time to Implement:** 3 / 5 (medium). Less time will be required compared to the Bruce County only and Saugeen Shores only options as third–party organizations may have staff more readily available (potentially).
- **Cost to Implement:** 2 / 5 (low). Lower implementation costs might be expected compared to the Bruce County only and Saugeen Shores only options as the third–party likely will have scale beyond the MIC Municipalities and can potentially offer better rates (potentially).
- **Strategic Alignment with Guiding Principles:** 3.5 / 5 (medium / high). Aligns well with the Guiding Principles and addresses many of the current state challenges with IT services, especially for several lower tier Municipalities; however, many Municipalities have indicated a preference for an MIC Municipality vs. a third–party.
- **Pros:**
  - A third–party likely can deliver high quality IT services at scale with shorter notice (as they should have staff more readily available).
  - Alignment with the Vision and Guiding Principles set during the Vision Lab.
  - Access to leading practices and tools from the third–party vendor, which would have experience from beyond the MIC Municipalities.

- Where preferred, some of the services can be provided by Bruce County or Saugeen Shores e.g., IT Operations and Service Management, IT Security / Cyber Security, IT Sourcing / Procurement (based on the long–term preferences in the survey).

- **Cons:**
  - Longer time to implement changes compared to the third–party only option given more complexity (potentially).
  - Costs might be higher compared to the third–party only option (potentially).
  - Perceived greater risk (e.g., security / cyber security) as this is a third–party organization and not one of the MIC Municipalities.
  - Potential limited pool of third–party service providers to choose from that can provide services to all participating Municipalities (e.g., for geographic coverage).
  - Depending on where the third–party resources are located, there might be additional travel costs involved.
  - Potential competing priorities within the Municipalities and Saugeen Shores when prioritizing resources for services.
  - Potent conflict between Municipality by–laws.
  - The operating model between the Municipality, the MIC Municipality providing some services, and the third–party providing the rest of the services will be more complex than the other options.
- **Additional Considerations:**
  - The operating model will have to be well–defined with clarity of mandate, roles and responsibilities, governance structure, prioritization of the various Municipalities, etc.
  - Each of the participating Municipalities will have to improve its maturity (as needed) to fully take advantage of any shared services e.g., develop a digital / IT Strategy and Roadmap, develop the ability to plan and forecast demand for the IT services to be provided.

Opportunity 2: IT Strategic Sourcing and Procurement Options Evaluated

Option 1: Status Quo

- **Description:** Everything stays as is. (Independent procurement of software / hardware in the majority of cases).
- **Time to Implement:** 5 / 5 (very low). No time / effort involved to implement.
- **Expected Cost Savings:** 1 / 5 (very low). No cost savings beyond baseline being realized by some Municipalities, (e.g., Kincardine purchasing some Hardware via Bruce County).
- **Strategic Alignment with Guiding Principles:** 1 / 5 (very low). Does not involve any joint collaboration or proactive opportunity identification.
- **Pros:**
    - **Limited Change Management Efforts:** Those Municipalities who rely on MicroAge / Infinity Solutions for procurement and are satisfied by that arrangement do not have to change their processes.
    - **All Purchase Decisions Remain 100% Tailored to Individual Municipal Needs (No Compromises):** All Municipalities can purchase the highest quality hardware (within their individual budgets which varies across Municipalities) rather than feeling obligated to purchase "one size fits all" solutions.
    - **Time Spent on Collaboration "Avoided":** For some Municipalities (and internal IT staff) who face significant capacity constraints as part of daily operations, not pursing any joint procurement opportunities will limit any further demands on their time which might be challenging to accommodate.
- **Cons:**
    - **Significant Missed Opportunities for Cost Savings:** Everyone will continue to purchase independently (with limited exceptions), and as a result, many will continue to incur higher expenses by purchasing at non–discounted / preferred rates.
    - **IT Knowledge Silos Will Remain:** Municipalities will not be able to share information on best products (hardware, software) and services (telecom / internet services) available in the market or share info on best available rates which would financially benefit everyone.
    - **Misalignment with (Preliminary) Preference for New Future State Shared Service Delivery Model:** Preferred option for new IT service delivery model (as of today) is to have another MIC member Municipality lead the shared service group, and they will also take on procurement responsibilities. As a result, not pursuing joint sourcing / procurement opportunities means this function will not be taking place.
- **Additional Considerations:** N/A

Option 2: Joint Procurement of Hardware Only

- **Description:** For example, option variations: Laptops only, Laptops + Desktops + Monitors, Laptops + Desktops + Monitors, but not networking equipment, etc.
- **Time to Implement:** 4 / 5 (low). Will be much faster / more streamlined to come to a consensus on hardware needs only (as these have greater similarity compared to software).
- **Expected Cost Savings:** 3 / 5 (medium). Discounts from bulk purchase volume or access to preferred pricing (e.g., via provincial / CompuCom agreement) of hardware units is reliably expected because savings are already being realized by some Municipalities.

- **Strategic Alignment with Guiding Principles:** 3.5 / 5 (medium / high). Takes advantage of a key joint opportunity (and a potential “quick win”), but scope is limited compared to hybrid option (e.g., hardware + software).
- **Pros:**
    - **Cost Savings on Some Already Known Purchase Price Discounts:** Some Municipalities are currently spending ~$1,800 on an identical laptop model that could be purchased for ~$1,200 through Bruce County, therefore joint procurement for these categories will produce cost savings by default.
    - **Additional Potential Cost Savings (Reduced Hardware Maintenance Expenses):** Knowledge sharing, and consistent decision for hardware can result in better, more reliable products, (potentially with longer and more comprehensive warranties) being purchased. This might limit the overall time spent / frequency of maintenance and replacement required, and also increase ease of service provided by Shared Service group who will become familiar with all common devices.
    - **Increased Knowledge Sharing Related to Hardware:** Smaller Municipalities will benefit from the market awareness of the more knowledgeable / larger ones when it comes to procuring the most suitable manufacturers, products, best warranties, etc. instead of relying on individual staff decisions (who may lack hardware expertise).
- **Cons:**
    - **Limited Cost Savings:** Missed opportunities for cost savings for software or networking / telecom services as those categories are absent in this option.
    - **High Coordination Effort for Decisions (and Developing Standards):** Municipalities will have to do a thorough needs assessment and spend time and effort communicating and collaborating across each other to identify specific hardware upgrading needs across subcategories (e.g., standard types of laptops to be used by different teams / use cases) on an ongoing basis, every time a purchase is made.
    - **One Size Fits All Solution for Hardware Might Not Suit Everyone:** Could result in larger Municipalities feeling obligated to purchase lower quality / lower functionality hardware than what suits their specific needs.
    - Alternatively, smaller Municipalities might find that one size fits all hardware solution leads to purchase of too high quality / high functionality hardware where a more basic solution could have sufficed.
    - **Mitigation to Con:** If needs across different pockets of Municipalities (e.g., smaller 4 vs. larger 4) are opposed, procurement of hardware can occur within those groups rather that across all 8.
- **Additional Considerations:** Phased approach considerations:
    - Steering committee needs to spearhead collaboration / decision making structure (in the short term) to decide: Which categories of hardware will be purchased, which brands, which products, for which Municipalities, and when.
    - For example, start with Laptops first as a pilot purchase for all Municipalities to participate in.
    - In the long term, new Shared Service provider can take this on.

Option 3: Joint Procurement of Software Only

- **Description:** For example, possible scenarios include: MS 365 (across 2 Municipalities in 2022 via Softchoice discount). + Project Management Software for 3 Municipalities in 2024 (user discount applicable). + New finance system for 4 Municipalities via joint RFP in 2025.
- **Time to Implement:** 3 / 5 (medium). Will take significant time and discussion to align software needs, budgets, and timelines for purchase.

- **Expected Cost Savings:** 3 / 5 (medium). Many software products are priced based on number of active users which can help drive volume discounts (cheaper per user cost compared to independent purchasing).
- **Strategic Alignment with Guiding Principles:** 3 / 5 (medium) Takes advantage of a key joint opportunity, but scope is limited compared to hybrid option (e.g., software + hardware).
- **Pros:**
    - **Cost Savings Towards High Value Purchases:** Acquiring software tends to be very expensive (one–time fee or annual subscriptions) compared to smaller scale hardware purchases which happen on an ongoing basis, therefore there are high–cost savings possible from joint procurement for this category.
    - **Increased Efficiency of RFP Process:** Fewer number of RFPs need to be created, issued, and evaluated, saving time and effort for individual Municipalities.
    - **Improved IT Support for Software:** With more Municipalities using same software tools, new IT shared service provider can provide more efficient service due to their increased familiarity with consistent systems in place. In addition, new provider can help develop standard operating procedures everyone can use for common software tools.
    - **Improved Knowledge Sharing and Vendor Management:** When using the same systems, all Municipalities can share feedback with each other / report similar concerns and requests which will carry more weight than the individual approach.
- **Cons:**
    - **Limited Cost Savings:** Missed opportunities for cost savings for hardware or telecom / internet services as those categories are absent in this option.
    - **High Coordination Effort for Decisions:** Municipalities will have to do a thorough needs assessment and spend time and effort communicating and collaborating across each other to identify specific software upgrading needs on an ongoing basis, every time a purchase needs to be made.
    - **One Size Fits All Solution for Hardware Might Not Suit Everyone:** Could result in larger Municipalities feeling obligated to purchase lower quality / lower functionality software than what suits their specific needs.
    - Alternatively, smaller Municipalities might find that one size fits all software solution leads to purchase of too high quality / high functionality hardware where a more basic solution could have sufficed.
    - **Mitigation to Con:** If needs across different pockets of Municipalities (e.g., smaller 4 vs. larger 4) are opposed, procurement of software can occur within those groups rather that across all 8.
- **Additional Considerations:** Phased approach considerations:
    - Steering committee needs to spearhead collaboration / decision making structure (in the short term) to decide: Which common software will be purchased, which vendor, which products, for which Municipalities, and when.
    - For example, start with MS 365 first as a pilot purchase for all Municipalities (who plan to upgrade to it) to participate in.
    - In the long term, new Shared Service provider can take this on.

Option 4: Joint Procurement of Telecom / Internet Only

- **Description:** For example, option variations: Telecom Only, Internet Only, Telecom + Internet
- **Time to Implement:** 3 / 5 (medium). Dependent on readiness of Municipalities to switch providers (e.g., based on when current contracts are about to end).

- **Expected Cost Savings:** 2 / 5 (low) Current state spend on internet and telecom is not as substantial as software / hardware, and participation rate will be lower, so savings are lower for this category.
- **Strategic Alignment with Guiding Principles:** 2 / 5 (low) Current state spend on internet and telecom is not as substantial as software / hardware, and participation rate will be lower, so savings are lower for this category.
- **Pros:**
    - **Reduce High Variation in Telecom / Internet Spend Across Municipalities:** In the current state, the spend for this category per staff member ranges from $35 to $1,971 (average is $596 / staff member). Joint procurement could help normalize rates for those who are potentially overpaying for these services.
    - **Will Encourage Reliable Inventory / Financials to Be Developed and Maintained:** Many Municipalities are not collecting significant data on cell phones and networking hardware being used by their staff and collaborating on this area can encourage baseline data to be collected for better decision making / comparative analysis.
    - **Will Encourage Municipalities to Conduct Phone Line Audits:** Unused phone lines have been noted to be a source of cost leakage by some Municipalities who investigated this (e.g., resulting in $10k cost savings). Collaborating on this area can bring greater emphasis on conducting these audits.
- **Cons:**
    - **Limited Participation Reduces Extent of Benefits:** Some Municipalities are committed to supporting specific local providers (e.g., Kincardine owns Bruce Telecom, some other want to stay with HuronTel, Wightman Telecom, Eastlink, etc.), therefore this limits the extent of negotiation / volume discounts that can be achieved.
    - **Different Telecom / Internet Needs Across Municipalities:** Some Municipalities have connectivity issues in their area due to infrastructure challenges (fibre being installed in the future) or might not have coverage in their geography. As a result, different needs across Municipalities might limit collaboration potential.
- **Additional Considerations:** Phased approach considerations:
    - Start by jointly procuring internet or telecom services (+ associated hardware such as cell phones with phone plans) for small group of Municipalities who are in a position to switch from local provider.
    - Note: Based on group discussion on 02/04, this category will be considered out of scope for joint procurement. However, recommendations will be delivered in the final report related to telecom / internet knowledge sharing (i.e., for the purposes of price matching where possible) and individual Municipalities to conduct detailed telecom / internet services audit and spend analysis, and annual re–negotiation with their individual providers.

Option 5: “Hybrid” Joint Procurement of Some Combination of Hardware + Software

- **Description:** For example, option variation could be: Hardware: Laptops, Desktops, Monitors only + Software: MS Office, Project Management Software, Finance System, etc.
- **Time to Implement:** 4 / 5 (high) Dependent on various readiness factors across Municipalities, and extent of procurement categories chosen to jointly pursue.
- **Expected Cost Savings:** 4 (high) Combination of all rationale provided for Options 2 + 3 + 4.
- **Strategic Alignment with Guiding Principles:** 4.5 / 5 (high / very high) Offers best balance between maximum collaboration, and maximum flexibility.
- **Pros:**
    - **Greatest Degree of Flexibility:** Municipalities can opt–in or opt–out of decisions across all categories of opportunities being explored.

- **All of the same individual benefits of options 2, 3, 4 combined:**
    - Cost savings on some already known purchase price discounts additional potential cost savings (reduced hardware maintenance expenses).
    - Increased knowledge sharing related to hardware.
    - Increased efficiency of RFP process.
    - Improved IT support for software.
    - Improved vendor management.
    - Will encourage reliable inventory / financials to be developed and maintained.

- **Cons**
    - **Developing Collaboration Structure and Decision–Making Framework Will Be Critical for Success:** This option involves the maximum scope of categories, and the most flexibility for Municipalities, therefore coordinating information sharing and processes to purchase will be very critical to achieve benefits.
    - **High Effort Might Offset Some Cost Savings:** Higher amount of staff time that will be allocated to collaboration might offset some of the cost savings (through reduced productivity on other tasks related to their day–to–day role at their organization).
    - **One Size Fits All Solutions Across Multiple Categories Might Not Suit Everyone:** See previous comments on this item.
- **Additional Considerations:** Phased Approach Considerations:
- New shared services provider + steering committee to take leadership and define framework for decision making, run RFP processes, conduct market scans, make purchases.
- Pilot with hardware first, because it is easier to align on those needs and realize some immediate savings for upcoming purchases (especially any urgent needs that might exist), then some software to follow.
- Pilot with one software product, and select Municipalities (e.g., MS 365 in 2022).

Option 6: Fully Joint Purchasing for All IT Products and Services

- **Description:** Software + Hardware + Telecom / Internet Services.
- **Time to Implement:** 5 / 5 (very high). Will require the highest degree of alignment which involves discussion and coordinated planning.
- **Expected Cost Savings:** 4 / 5 (high). Highest degree of cost savings can be realized.
- **Strategic Alignment with Guiding Principles:** 4 / 5 (high). Maximum extent of collaboration compared to other options but might be too challenging to coordinate and could result in compromises being made by individual Municipalities.
- **Pros:**
    - **Maximize Cost Savings:** As all categories are in scope in this option, highest degree of cost savings can be realized.
    - **Maximize Extent of Standardization:** Consistency across the Municipalities will develop through growing similarity across multiple categories.
    - **Maximize Ease of Delivering IT Shared Services (Maintenance):** Due to increased consistency of software, hardware, telecom, and internet.
    - All of the same individual benefits of options 2, 3, 4, 5 combined.
- **Cons:**

- **Highest Degree of Coordination Effort for Decisions:** Municipalities will have to do a very extensive needs assessment and spend time and effort communicating and collaborating across each other to identify specific upgrading needs on an ongoing basis, every time a purchase needs to be made across all categories.
- **High Effort Might Offset Some Cost Savings:** Higher amount of staff time that will be allocated to collaboration might offset some of the cost savings (through reduced productivity on other tasks related to their day–to–day role at their organization).
- **One Size Fits All Solutions Across Multiple Categories Might Not Suit Everyone:** See previous comments on this item.
- **Higher Degree of Compromises to Be Made:** This option has every category in scope, which represents a large amount of purchase decisions to be made. It is likely some Municipalities will have to make comprises and go with group decisions instead of their own choices at times.

- **Additional Considerations:** Phased Approach Considerations:
  - New shared services provider + steering committee to take leadership and define framework for decision making, run RFP processes, conduct market scans, make purchases.
  - Pilot with hardware first, because it is easier to align on those needs and realize some immediate savings for upcoming purchases (especially any urgent needs that might exist), then some software to follow.
  - Pilot with one software product, and select Municipalities (e.g., MS 365 in 2022).

Appendix J: Roadmap Assumptions

The following assumptions were determined and validated with the Project Team during the creation of the Roadmap. Please note that a comprehensive file containing all assumptions and details was provided to the Project Team previously in Excel format.

Roadmap Activities

1. The activities outlined for each of the initiatives are a general representation of commonly in–scope tasks and are non–exhaustive.
2. Activities that will need to be pursued by various MIC Municipalities individually (i.e., not jointly) have not been included in this Roadmap. Examples include: activities related to securing funding for initiatives (e.g., individual grant applications that will need to be made, etc.),and activities related to completing implementation of software (where third–party vendors are involved in implementation, vendors will provide detailed project plans which outline key activities and milestones in greater detail with input from the participating Municipalities, as needed).

Approval from Council

3. The Roadmap assumes that Council will approve all decisions outlined in this Roadmap, to the extent where even if some individual Municipalities can no longer participate in a joint initiative, they will be able to opt–out (within the bounds of any contractual joint agreement that was entered into), and the overall initiative can still move forward with the remaining participating Municipalities who did receive approval.

Initiative / Activity Timing / Sequencing

4. Timelines are optimistic but are also spaced out enough over time across initiatives to accommodate for extra time to require coordinating across Municipalities. It is assumed that joint IT modernization will be a priority and as such, the initiatives will be closely managed, and resources will be made available as needed to stay within projected timelines.
5. Activities listed with a "start date", followed by "N/A – ongoing" as the "end date" are expected to be a continuous / recurring activity from the start date onwards.
6. Start date of providing IT shared services was determined by feedback provided by Saugeen Shores and Bruce County regarding the feasibility of standing up this function within their organizations (earliest projected operation start date is around 2024).
7. Software joint purchasing dates were determined by year where highest number of Municipalities would likely be prepared / interested in purchasing that software (based on preferences collected though business capability map and future state sessions).
8. The Roadmap also assumes that those Municipalities who might be planning on purchasing software X by a specific date might consider delaying, or pushing up a purchase decision in order to participate in, and benefit from group purchasing. Where timeline accommodations cannot be made, it is assumed the impacted Municipality can opt–out of the group purchase (prior to any contractual agreements being entered into).
9. Cybersecurity and Disaster Recovery activity durations were estimated based on industry norms for implementation of such activities within a mid–sized organization.

Initiative / Activity Dependencies

10. Where possible (where no dependencies exist), it is assumed that some individual activities can be carried out in parallel to the joint activities.
11. All activities throughout the Roadmap requiring input / support from the JITS team have been forecasted to start after the establishment of the JITS team in early 2022.
12. To "implement enhanced cybersecurity practices within applicable Municipalities" (Initiative 9.0), Municipalities are expected to use in–house / current IT service provider to assist in the implementation of the recommendations outlined in the short term until the new shared service provider is operational.

Activity Owners / Participants

13. Bruce County is marked as the owner for all activities to be owned by the new IT shared service provider as they are the primary candidate now to deliver service, although decision is still pending and will be determined after the RFP is issued. Other Municipalities (e.g., Saugeen Shores) could potentially be deemed to be candidates for providing the service later).
14. Additional participants (individual Municipalities) checked off for various activities are representative of preliminary interest in participation in each activity identified through discussions with Joint IT Business Analysis Review Project Team to date. Participant list subject to change as Municipalities chose to opt–in / opt–out over time.
15. The Roadmap assumes that opt–in to receive service from new shared service provider will include all Municipalities except for Bruce County (who is the primary candidate to become the new provider).
16. While Saugeen Shores is a potential future shared service provider candidate, it is assumed they will also be interested in receiving some services from the new provider if Bruce County is selected (while maintaining some of their IT services in–house as well).

Appendix K: Roadmap Initiative / Activity Owners and Participants Summary

The table on the following page provides an alternative view of the Roadmap, which uses check marks (✓) and X (×) symbols to allow each Municipality to quickly scan their own Column in order to quickly assess which Initiatives and Activities they will be participating in. A legend explaining the symbols and acronyms used in the Roadmap summary can be seen below.

Table 50 Legend for Roadmap Owners / Participants Summary View

Symbol / Acronym	Meaning
✓	Organization Will Own / Participate in Initiative / Activity
×	Organization Will Not Own / Participate in Initiative / Activity
MIC	Municipal Innovation Council
JITS	Joint IT Steering Committee
BC	Bruce County
SS	Saugeen Shores
KD	Kincardine
BK	Brockton
HK	Huron-Kinloss
SB	South Bruce
NB	Northern Bruce Peninsula
AE	Arran-Elderslie

Table 51 Roadmap Initiative / Activity Owners and Participants Summary (see next page)

Item #	Initiative / Activity Title	MIC	JITS	BC	SS	KD	BK	HK	SB	NB	AE	Initiative / Activity Start Date	Initiative / Activity Start Date
1.0	**Develop Foundation for Joint IT Modernization**	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	**March 2022**	**February 2023**
1.1	Review & socialize outcomes from Joint IT Business Analysis Review Final Report with individual municipalities' key staff members to assess desire for participation and continued collaborating on the Joint IT Roadmap execution	×	×	✓	✓	✓	✓	✓	✓	✓	✓	March 2022	May 2022
1.2	Establish a Joint IT Steering Committee (JITS) to support Joint IT Roadmap implementation (which will meet on a regular cadence, e.g., initially monthly and then quarterly)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	May 2022	October 2022
1.3	Establish roles and responsibilities among JITS members (e.g., including RACI (responsible, accountable, consulted, informed) & decisioning matrix (key decision makers, etc.)	✓	✓	×	×	×	×	×	×	×	×	July 2022	October 2022
1.4	Develop change management strategy and plan for Joint IT Roadmap (minimally, to support core initiatives)	✓	✓	×	×	×	×	×	×	×	×	August 2022	November 2022
1.5	Complete comprehensive IT audits (potentially via joint RFP / select vendor) for individual municipalities (where required, including hardware, software, and telecom / internet services inventories and financials)	×	×	×	✓	✓	✓	×	✓	✓	✓	April 2022	August 2022
1.6	Address critical gaps identified in IT audit which could impact readiness / eligibility for new Shared Service provider to take Municipality on as a client	×	×	×	✓	✓	✓	×	✓	✓	✓	June 2022	August 2022
1.7	Complete Digital Modernization Strategies to assess future needs for individual municipalities including at the department level (where required, including individual Roadmaps)	×	×	×	✓	×	✓	×	✓		✓	August 2022	February 2023
2.0	**Leverage an Interim IT Service Provider Within Applicable Municipalities**	×	✓	×	×	×	✓	✓	✓	✓	✓	**April 2022**	**August 2024**
2.1	Issue RFP / vendor selection for new 3rd party IT service provider, or develop business case to hire new shared IT employee (among select municipalities) to provide IT Operations and Service Management	×	✓	×	×	×	✓	✓	✓	✓	✓	April 2022	July 2022
2.2	Make go / no–go decision on engaging a 3rd Party or hiring a new shared employee	×	✓	×	×	×	✓	✓	✓	✓	✓	June 2022	August 2022
2.3	Complete transition activities with previous IT service providers (e.g., end contracts, collect any relevant operational information that new service provider might need access to, assess need for IT ticketing tool, as needed etc.)	×	×	×	×	×	✓	✓	✓	✓	✓	June 2022	August 2022
2.4	Interim IT service provider to begin delivering IT service	×	×	×	×	×	✓	✓	✓	✓	✓	August 2022	August 2024

Item #	Initiative / Activity Title	MIC	JITS	BC	SS	KD	BK	HK	SB	NB	AE	Initiative / Activity Start Date	Initiative / Activity Start Date
3.0	**Establish New Shared Services Function**	×	✓	✓	✓	✓	✓	✓	✓	✓	✓	**April 2023**	**April 2025**
3.1	Develop business plan (including resourcing needs, proposed fee structure, service levels, chargeback system, etc.) for the potential shared services function to be created within each candidate Municipality (Bruce County or other municipalities, as needed)	×	×	✓	×	×	×	×	×	×	×	April 2023	August 2023
3.2	Conduct selection process (RFP / vendor selection, as needed) for a new IT service provider with the shortlist including Bruce County (or other municipalities) and 3rd parties as needed	×	✓	×	✓	✓	✓	✓	✓	✓	✓	August 2023	November 2023
3.3	Make go / no–go decision on Bruce County (or other municipalities, as needed) providing select IT services for municipalities who will opt–in to receive service	×	✓	×	✓	✓	✓	✓	✓	✓	✓	November 2023	December 2023
3.4	Complete transition activities with previous IT service providers (e.g., end contracts, collect any relevant operational information that new shared services provider might need access to, assess need for IT ticketing tool, as needed etc.) (start with a pilot (e.g., Huron–Kinloss, Arran–Elderslie) and roll out to the other municipalities)	×	×	×	×	✓	✓	✓	✓	✓	✓	November 2023	December 2023
3.6	Begin delivery of IT services (IT service management including incident / request / problem / change management) to relevant municipalities on an ongoing basis (start with a pilot (e.g., Huron–Kinloss, Arran–Elderslie) and roll out to the other municipalities)	×	×	✓	×	×	×	×	×	×	×	July 2024	N/A – Ongoing
3.7	Begin delivery of IT services (IT operations, including development of procedures for common software such as MS 365) to relevant municipalities on an ongoing basis (start with a pilot (e.g., Huron–Kinloss, Arran–Elderslie) and roll out to the other municipalities)	×	×	✓	×	×	×	×	×	×	×	September 2024	N/A – Ongoing
3.8	Begin delivery of IT services (IT cybersecurity management) to relevant municipalities on an ongoing basis (Start with the pilot and roll out to other municipalities)	×	×	✓	×	×	×	×	×	×	×	November 2024	N/A – Ongoing
3.9	Begin delivery of IT services (disaster recovery planning) to relevant municipalities on an ongoing basis (start with a pilot (e.g., Huron–Kinloss, Arran–Elderslie) and roll out to the other municipalities)	×	×	✓	×	×	×	×	×	×	×	January 2025	N/A – Ongoing
4.0	**Establish IT Service Provider Feedback Process for Continuous Improvement**	×	✓	×	×	✓	✓	✓	✓	✓	✓	**January 2025**	**May 2025**
4.1	Develop feedback framework / process to assess Municipality satisfaction level with IT services being provided by IT Shared Service provider	×	✓	×	×	✓	✓	✓	✓	✓	✓	January 2025	March 2025

Item #	Initiative / Activity Title	MIC	JITS	BC	SS	KD	BK	HK	SB	NB	AE	Initiative / Activity Start Date	Initiative / Activity Start Date
4.2	Begin assessing IT Shared Service provider's performance / service quality on an ongoing basis (i.e., quarterly)	×	×	×	×	✓	✓	✓	✓	✓	✓	March 2025	May 2025
5.0	**Conduct Joint Purchasing / Independent Purchasing (via VOR Pricing / Other Channels) of Hardware**	×	✓	✓	✓	✓	✓	✓	✓	✓	✓	**March 2022**	**November 2023**
5.1	Share information on DMSP3 Agreement (Ontario vendors of record for desktop management services and products) with all municipalities	×	✓	✓	×	×	×	×	×	×	×	March 2022	April 2022
5.2	Rationalize and develop list of preferred vendors / suppliers / manufacturers and standard models, etc. for hardware asset models for recurring purchases to be made across MIC group (from VOR options available)	×	✓	×	×	×	×	×	×	×	×	April 2022	June 2022
5.3	Align on needs / timelines and determine municipalities to participate in purchase of printers / photocopiers / scanners / fax machines (pilot purchase)	×	✓	×	✓	✓	✓	✓	✓	✓	✓	June 2022	August 2022
5.4	Conduct pilot joint purchase of printers / photocopiers / scanners / fax machines for select municipalities via new IT Shared Service provider	×	×	✓	×	×	×	×	×	×	×	June 2023	August 2023
5.5	Begin to align on needs / timelines and determine municipalities to participate in purchase of networking equipment (on a recurring basis)	×	✓		✓	✓	✓	✓	✓	✓	✓	September 2023	N/A – Ongoing
5.6	Begin conducting joint purchase of networking equipment for select municipalities via new IT Shared Service provider (on a recurring basis)	×	×	✓	×	×	×	×	×	×	×	October 2023	N/A – Ongoing
5.7	Begin conducting independent purchasing of laptops, monitors, desktops, TVs and tablets via VOR pricing / channels	×	×	×	✓	✓	✓	✓	✓	✓	✓	June 2022	September 2022
6.0	**Conduct Joint Purchasing of Software**	×	✓	✓	✓	✓	✓	✓	✓	✓	✓	**June 2022**	**April 2026**
6.1	Conduct pilot purchase of Microsoft 365 via the VOR (Softchoice)	×	✓	×		✓	×	✓	✓	✓	✓	June 2022	August 2022
6.2	Jointly issue RFP / select vendor and purchase SharePoint consultancy services (customization, implementation, etc., among select municipalities)	×	✓	×	✓	✓	×	✓	×	✓	✓	December 2022	March 2023
6.3	Jointly issue RFP / select vendor and purchase digital records retention software (e.g., Gimmal, among select municipalities)	×	✓	×	✓	×	×	✓	×	×	×	September 2023	December 2023
6.4	Jointly issue RFP / select vendor and purchase project management software (e.g., Cascade, among select municipalities)	×	✓	✓	×	✓	✓	×	×	✓	✓	May 2024	September 2024
6.5	Jointly issue RFP / select vendor and purchase CMMS / work order management software (e.g., City Reporter, among select municipalities)	×	✓	×	×	✓		×	×	✓	✓	January 2025	April 2025
6.6	Jointly issue RFP / select vendor and purchase HRIS software (e.g., Bamboo HR, among select municipalities)	×	✓	×	×	✓	✓	×	×	✓		October 2025	January 2026

Item #	Initiative / Activity Title	MIC	JITS	BC	SS	KD	BK	HK	SB	NB	AE	Initiative / Activity Start Date	Initiative / Activity Start Date
6.7	Jointly issue RFP / select vendor and purchase Budgeting software (e.g., Questica, among select municipalities)	×	✓	×	✓		✓	×	✓	✓	✓	November 2022	February 2023
6.8	Jointly issue RFP / select vendor and purchase Financial software (e.g., TownSuite Financial, among select municipalities)	×	✓	×	✓	✓	✓	×	×	✓	×	January 2026	April 2026
7.0	**Assess Individual Opportunities for Internet / Telecom Cost Savings**	×	✓	×	×	✓	✓	✓	✓	✓	✓	**May 2022**	**December 2022**
7.1	Begin conducting periodic (I.e., quarterly, annual) knowledge / information sharing with other municipalities to determine if better rates might be available	×	✓	×	×	×	×	×	×	×	×	May 2022	N/A – Ongoing
7.2	Begin conducting periodic (I.e., quarterly, annual) price matching / rate re–negotiation discussions with internet / telecom providers (leveraging data compiled in IT Audits around annual spend amounts and trends) and lock in new rates	×	×	×	×	✓	✓	✓	✓	✓	✓	November 2022	N/A – Ongoing
8.0	**Implement Cybersecurity Program Within Applicable Municipalities**	×	✓	✓	✓	✓	✓	✓	✓	✓	✓	**November 2022**	**December 2024**
8.1	Establish a centralized cybersecurity function (either within the new IT Shared Service provider, or with a 3rd party provider)	×	✓	✓	×	×	×	×	×	×	×	November 2022	May 2023
8.2	Perform a cybersecurity gap assessment at all applicable municipalities	×	✓	✓	×	×	×	×	×	×	×	February 2023	August 2023
8.3	Develop standardized cybersecurity policies for all applicable municipalities (leveraging information from Bruce County)	×	✓	✓	×	×	×	×	×	×	×	August 2023	February 2024
8.4	Develop standardized compliance procedures for all applicable municipalities (leveraging information from Bruce County)	×	✓	✓	×	×	×	×	×	×	×	August 2023	May 2024
8.5	Design a cybersecurity metrics program (including KPIs to be tracked to evaluate cybersecurity risk management performance)	×	✓	✓	×	×	×	×	×	×	×	January 2024	August 2024
8.6	Design & deliver a cybersecurity training program at all applicable municipalities	×	✓	✓	×	×	×	×	×	×	×	April 2024	November 2024
8.7	Customize and begin implementation of cybersecurity policies, compliance procedures, metrics program, and training within applicable municipalities	×	×	×	✓	✓	✓	✓	✓	✓	✓	November 2024	N/A – Ongoing
9.0	**Implement Enhanced Cybersecurity Practices Within Applicable Municipalities (To Secure Cybersecurity Insurance)**	×	✓		×	✓	✓	✓	✓	✓	✓	**October 2022**	**September 2024**
9.1	Validate cybersecurity insurance eligibility requirements with individual insurance providers & take action where required (e.g., activities 10.2 – 10.8 where applicable)	×	×	×	×	✓	✓	✓	✓	✓	✓	October 2022	November 2022
9.2	Implement multi–factor authentication (MFA) as part of relevant business processes at all applicable municipalities	×	✓	×	×	✓	✓	✓	✓	✓	✓	October 2022	December 2022

Item #	Initiative / Activity Title	MIC	JITS	BC	SS	KD	BK	HK	SB	NB	AE	Initiative / Activity Start Date	Initiative / Activity Start Date
9.3	Begin conducting phishing tests at all applicable municipalities	×	✓	×	×	✓	✓	✓	✓	✓	✓	October 2022	N/A – Ongoing
9.4	Implement a strong password policy is across business processes at all applicable municipalities	×	✓	×	×	✓	✓	✓	✓	✓	✓	October 2022	November 2022
9.5	Establish local or offsite backups at all applicable municipalities	×	✓	×	×	✓	✓	✓	✓	✓	✓	November 2023	February 2024
9.6	Implement next–gen security firewalls at all applicable municipalities	×	✓	×	×	✓	✓	✓	✓	✓	✓	November 2022	March 2022
9.7	Establish comprehensive endpoint protection at all applicable municipalities	×	✓	×	×	✓	✓	✓	✓	✓	✓	November 2023	March 2024
9.8	Begin timely patching / managed software updates at all applicable municipalities	×	✓	×	×	✓	✓	✓	✓	✓	✓	February 2023	N/A – Ongoing
9.9	Secure cybersecurity insurance (for applicable municipalities)	×	×	×	×	×	×	✓	✓	✓	✓	March 2024	September 2024
10.0	**Implement Disaster Recovery Program Within Applicable Municipalities**	×	✓	×	×	✓	✓	×	✓	×	✓	**August 2023**	**August 2024**
10.1	Identify critical operations and scenarios for disaster recovery for all applicable municipalities	×	✓	×	×	✓	✓	×	✓	×	✓	August 2023	November 2023
10.2	Evaluate disaster scenarios for all applicable municipalities	×	✓	×	×	✓	✓	×	✓	×	✓	September 2023	December 2023
10.3	Create a Communications Plan for disaster recovery for all applicable municipalities	×	✓	×	×	✓	✓	×	✓	×	✓	October 2023	January 2024
10.4	Develop a Data Backup and Recovery Plan for all applicable municipalities	×	✓	×	×	✓	✓	×	✓	×	✓	October 2023	April 2024
10.5	Develop the Disaster Recovery Framework and Plan for all applicable municipalities	×	✓	×	×	✓	✓	×	✓	×	✓	January 2024	July 2024
10.6	Test, revise and implement the Plan within applicable municipalities	×	✓	×	×	✓	✓	×	✓	×	✓	May 2024	August 2024
11.0	**Consider Innovation Program to Identify Additional Joint Technology Related Opportunities on an Ongoing Basis via JITS**	✓	✓	×	×	×	×	×	×	×	×	**January 2023**	**July 2023**
11.1	Develop process (including web–based portal / tool, as needed) for all municipalities, and all staff members at all levels to independently submit any joint Innovation / Continuous Improvement opportunities that could be evaluated by JITS & socialized with the broader group (e.g., new technology driven service delivery approaches / offerings, new hardware /	✓	✓	×	×	×	×	×	×	×	×	January 2023	April 2023

Item #	Initiative / Activity Title	MIC	JITS	BC	SS	KD	BK	HK	SB	NB	AE	Initiative / Activity Start Date	Initiative / Activity Start Date
	software tools in market that staff might have heard about at a conference, market trends, etc.)												
11.2	Roll out joint opportunities' portal to all municipalities	×	✓	×	×	×	×	×	×	×	×	March 2023	July 2023
12.0	**Consider Transition from Server to Cloud Based Infrastructure Within all Applicable Municipalities**	×	✓	×	✓	✓	✓	✓	✓	✓	✓	**January 2026**	**January 2027**
12.1	Explore appetite for municipalities to begin to transition applications / workload from server–based infrastructure to the Cloud (following lead of Bruce County / possibly Saugeen Shores)	×	✓		✓	✓	✓	✓	✓	✓	✓	June 2026	September 2026
12.2	Assess information from Bruce County regarding their cloud transition plan / roadmap that was followed to gain knowledge on process	×	×	×	✓	✓	✓	✓	✓	✓	✓	August 2026	November 2026
12.3	Conduct investigation into next steps for those municipalities interested in taking on infrastructure modernization project (i.e., rationalizing / standardizing inventories, develop strategy / approach to migrating to the Cloud, selecting cloud vendors, etc.)	×	×	×	✓	✓	✓	✓	✓	✓	✓	October 2026	January 2027
13.0	**Consider Robotic Process Automation for Select IT Operations Processes Within Shared Service Provider's Organization**	×	×	✓	×	×	×	×	×	×	×	**August 2025**	**July 2026**
13.1	Identify RPA candidate processes (i.e., high volume, low human judgement, rule based / repetitive tasks) being conducted within Shared Service provider's IT function (e.g., password reset requests) as well as other departments (e.g., Finance, HR), which could be completed by a "digital worker" due to standardized nature of process)	×	×	✓	×	×	×	×	×	×	×	August 2025	November 2025
13.2	Conduct RPA pilot for selected candidate process leveraging a 3rd party developer / consultant as needed to develop "digital worker" / "bot" (e.g., via UiPath, Blue Prism)	×	×	✓	×	×	×	×	×	×	×	November 2025	January 2026
13.3	Make go / no–go decision to productionize RPA "digital worker" / "bot"	×	×	✓	×	×	×	×	×	×	×	December 2025	January 2026
13.4	Implement RPA bot in production environment	×	×	✓	×	×	×	×	×	×	×	January 2026	April 2026
13.5	Establish automation Center of Excellence (If desired) to continually identify, evaluate, and automate RPA candidate processes	×	×	✓	×	×	×	×	×	×	×	April 2026	July 2026

Appendix L: Potential Cost Savings Assumptions

The following assumptions were determined and validated with the Project Team during the conducting the Potential Cost Savings analysis. Please note that a comprehensive file containing all assumptions, calculations, and source data was provided to the Project Team previously in Excel format.

General Assumptions

1. All monetary values are listed in Canadian Dollars (CAD).
2. Cost savings projections have only been made for future state hardware and software purchases based on discussions with Project Teams, as this is where the joint opportunities lie, or individual opportunities to begin using VOR pricing. Please refer the table on the following page for a complete breakdown of recommendation scope included in cost savings analysis.

Hardware Assumptions

3. All future state projected annual hardware spend per Municipality is based on data provided by Municipalities, however budgets are subject to change based on ongoing decisions to be made in upcoming years. Please refer to "Source Data – Hardware Budgets" tab in the Interim Deliverable Excel file provided for further details.
4. Budget numbers provided are assumed to be inclusive of taxes to be paid on hardware purchases.
5. Hardware discount rates selected were based on knowledge / experience of Bruce County and Saugeen Shores. Please refer to "Source Data – Assumptions" tab in the Interim Deliverable Excel file for further details around hardware discount rate assumptions determined for each hardware category.
6. Analysis does not include additional FTE costs that would be incurred for future state hardware purchases as this would be factored into an IT shared services / business model.

Software Assumptions

7. All software costs listed in this analysis are +/– 50%, and are subject to change based on product selected, modules selected, specific number of users / licenses required, etc.
8. Software purchase price estimates have been indicated for a sample product for each category (e.g., Budgeting software —> Questica). These prices are reflective of research done by GHD Digital which includes prices / quotes received from vendors on previous (recent) municipal Digital strategy engagements. Please refer to "Source Data – Software Costs" tab in the Interim Deliverable Excel file for further details (including user counts and pricing packages used to calculate sample product price).
9. Taxes have not been included in software cost estimates provided (due to software vendor pricing which could be based on non–Ontario or US taxation rates depending on vendor).
10. Software purchase price discounts were assumed based on conservative estimates and is consistently set at 15% which was validated with Saugeen Shores to be a reliable forecasted rate that could be achieved via a joint RFP process (average taken of 10–20%). Please refer to "Source Data – Assumptions" tab in the Interim Deliverable Excel file for further details.
11. Analysis does not include additional FTE costs that would be incurred for future state software purchases (i.e., running RFP via JITS).
12. The following table on the next page includes further assumptions and source data used to determine scope of 8 software candidates to be jointly procured, along with the various Municipalities who potentially intend to opt–in to the joint purchase opportunity.

***Note for table on next page:** Sample products have been provided based on market scans / options analysis previously conducted by GHD Digital within each of these software categories. Individual digital modernization roadmaps ideally should be completed by those Municipalities who do not have one in order to determine specific products of choice (listed as "TBD" on following page). Also, sample products were selected with the goal of limiting dependencies, so individual products were selected, rather than an enterprise system with multiple modules for each use case.*

Table 52 List of Software Products in Scope for Joint Procurement in Potential Cost Savings Analysis

Software / Service Name	Reference Product Used in Analysis*	Assumed Implementation Year (From Roadmap)	Assumed Municipalities to Opt in	Non Discounted Implementation Fee	Non Discounted Annual Fee	Year 1: Non Discounted Implementation + Annual Fee
1. MS 365 (Pilot Purchase)	MS 365 (via Softchoice VOR pricing)	**2022**	**1. Kincardine** – MS 365 (2023) **2. Huron–Kinloss** – MS 365 Premium (Year TBD) **3. South Bruce** – MS 365 – (Year TBD) **4. Northern Bruce Peninsula** – MS 365 (2022) **5. Arran–Elderslie** – MS 365 (2023 / 2024)	$24,755	Depends on number of users and license types required. Individual cost per Municipality can be found on "Detailed Costs Savings" tab of Excel file provided.	Depends on number of users and license types required. Individual cost per Municipality can be found on "Detailed Costs Savings" tab of Excel file provided.
2. SharePoint Consultancy Services (Customization, Implementation, etc.)	SharePoint "Basic Intranet" Development (GHD Digital Estimate)	**2023**	**1. Saugeen Shores –** Solution TBD (2023) **2. Kincardine** – Solution TBD (make it available to all staff) (Year TBD) **3. Huron–Kinloss** – SharePoint (2022) **4. Northern Bruce Peninsula** – Solution TBD (2022) **5. Arran–Elderslie** – Solution TBD (Year TBD)	$15,000	$0	$15,000
3. Digital Records Retention Software	Gimmal	**2023**	**1. Saugeen Shores** – Solution TBD (2022) **2. Huron–Kinloss** – Gimmal (2023) **3. Northern Bruce Peninsula** – Solution TBD (2022)	$30,000	$12,758	$42,758
4. Project Management Software	Cascade	**2024**	**1. Bruce County** – Solution TBD (Year TBD) **2. Kincardine** – Solution TBD (Year TBD) **3. Brockton** – Solution TBD (Year TBD) **4. Northern Bruce Peninsula** – Solution TBD (Year TBD) **5. Arran–Elderslie** – Solution TBD (Year TBD)	$0	$13,469	$13,469
5. CMMS / Work Order Management Software	City Reporter	**2025**	**1. Kincardine** – Cityworks Work Order Mgmt. (expand usage through module) (2022) **2. Northern Bruce Peninsula** – Solution TBD (Year TBD) **3. Arran–Elderslie** (Year TBD)	$5,000	$15,000	$20,000
6. HRIS Software	Bamboo HR	**2025**	**1. Kincardine** – Solution TBD (Year TBD) **2. Brockton** – HR Training Module (2022) **3. Northern Bruce Peninsula** – Solution TBD (Year TBD)	$3,190	$10,152	$13,342
7. Budgeting Software	Questica	**2022**	**1. Saugeen Shores** – Questica (2022) **2. Brockton** – FMW / Citywide (2022) **3. South Bruce** – Solution TBD (Year TBD) **4. Northern Bruce Peninsula** – Solution TBD (Year TBD) **5. Arran–Elderslie** – FMW / Citywide (Year TBD)	$10,000	$19,500	$29,500
8. Finance / Treasury Software	TownSuite Financial	**2026**	**1. Saugeen Shores** – Solution TBD (2025) **2. Kincardine** – Solution TBD (~2026) **3. Brockton** – Solution TBD (Year TBD) **4. Northern Bruce Peninsula** – Solution TBD (~2026)	$169,900	$26,988	$196,888