Municipal Innovation Council

Special Meeting Minutes

Electronic Meeting

February 24, 2022 2:30 p.m.

Members

Kara Van Myall, CAO, Municipality of Saugeen Shores, Chair – *Arrived at 3:15 pm*
Mary Rose Walden, CAO, Township of Huron-Kinloss   Present
Sonya Watson, CAO Municipality of Brockton   Present
Roxanna Baumann, A/CAO/Director of Corporate Services, Kincardine   Present
Leanne Martin, CAO/Clerk Municipality of South Bruce   Present
Sylvia Kirkwood, CAO Municipality of Arran-Elderslie   Absent
Peggy Van Mierlo-West, CAO Municipality of Northern Bruce Peninsula – Absent
Matthew Meade, Strategic Initiatives Specialist at Bruce County   Present

Staff/ Other:
Becky Smith, Director for the Centre for Municipal Innovation (non-voting)
Emily Dance, Clerk Township of Huron-Kinloss, Recording Secretary (non-voting)

Additional Staff from participating municipalities attended the presentation

1. Call to Order
In absence of the Chair, Matt Meade called the meeting to order at 2:33 pm

2. Delegation

Mark Yep, Maheen Zia, Janna Andre and Arvind Chandrasekar from GHD Digital shared the findings and recommendations from the Joint IT Business Services Final Report.
Joint IT Business Analysis Review – Final Presentation GHB Digital February 24, 2022

The meeting adjourned at 3:30 p.m.

__Original Signed by Kara Van Myall__   __Original Signed by Emily Dance__
Chair Kara Van Myall   Secretary – Emily Dance

Joint IT Business Analysis Review
Final Presentation

→ **Municipal Innovation Council**

February 24th, 2022

Agenda

Project Overview & Context

- Project Background & Approach
- Growth Drivers for the MIC Municipalities & IT Modernization

Vision & Current State

- Vision & Guiding Principles for Joint IT Business Analysis Review
- Current State IT Landscape & Spend
- Overall Digital Maturity Assessment
- IT Capability Maturity Assessment
- Key Areas of Analysis For Joint IT Opportunities
- Current State Challenges & Opportunities

Opportunities & Future State

- Key Joint Opportunity Areas For IT Modernization
- Future State – Summary
- List of Initiatives / Recommendations

Roadmap & Cost Savings

- Roadmap – Summary
- Cost Savings – Summary

Appendix

Project Background & Approach

Background & Objectives

Background

GHD Digital was engaged to support the The Municipal Innovation Council (MIC) to conduct a Joint IT Business Analysis Review project with its member municipalities to develop a strategy that:

- Addressed the current and future needs of the MIC member municipalities' information technology solutions
- Analyzed the current IT spend
- Identified and prioritized opportunities for cost savings through shared services or digital modernization

Objectives

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

- A Shared Services Model / Agreement (regional approach to IT service delivery and support)
- Spend consolidation / co-ordination
- Local software upgrading needs
- Gaps in Current State (e.g., Disaster Recovery / Cybersecurity)

Approach and Timeline

PHASE

1

Digital and IT Service Delivery Discovery

PHASE

2

Digital and IT Service Delivery Needs Assessment

PHASE

3

Digital Modernization and Joint IT Services Report

Deliverables

① Digital Modernization and Joint IT Services Vision (including Guiding Principles) *

② Digital & IT Service Delivery Current State (including current challenges, spend) *

* Interim deliverables

Deliverables

③ Digital & IT Service Delivery Future State *

④ List of Draft Recommendations / Initiatives *

Deliverables

⑤ Digital Modernization and Joint IT Services Roadmap (including initiatives, priority) *

⑥ Potential Cost Savings *

⑦ **KEY DELIVERABLE:** Digital Modernization and Joint IT Services Final Report

Growth Drivers for the MIC Municipalities & IT Modernization

Population Growth & Diversification

- Many young families have been moving away from more urban areas into various MIC member municipalities during the pandemic.
- 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 through the adoption of enhanced IT and digital tools.

Attraction of New Business

- An increased number of small / home-based businesses are starting up within member municipalities during the pandemic.
- Existing businesses are also increasingly attracted to member municipalities to set up operations.
- As a result, municipalities have an increasing need to optimize the "customer experience" for those interested in doing business in the community and will require digital tools / enhanced IT to deliver this.

Growth Drivers Impacting MIC Member Municipalities
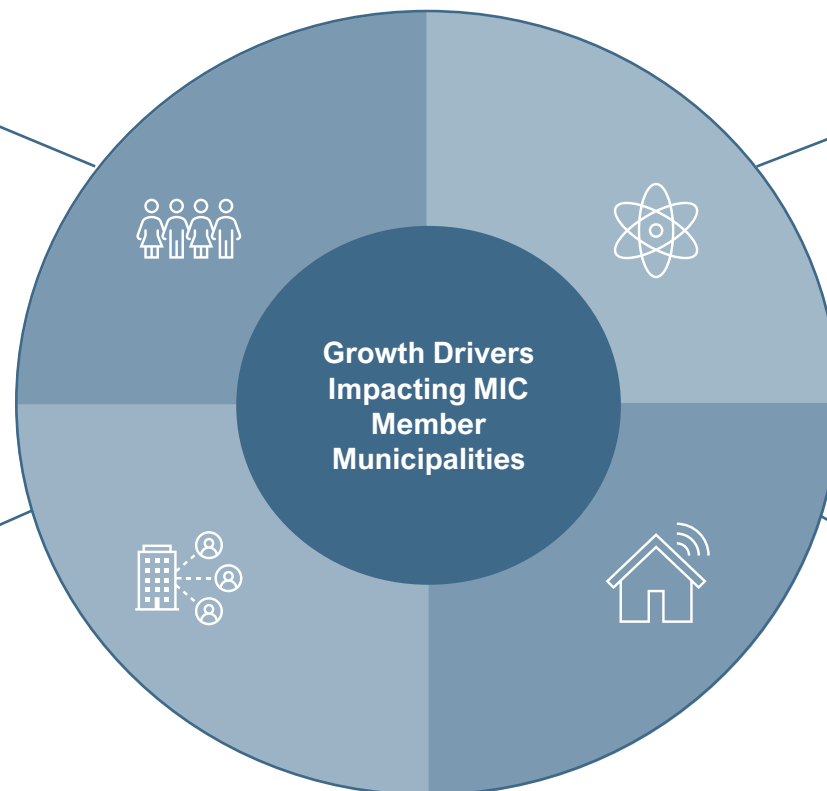
Bruce Power / Potential DGR Development

- 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.
- Resident growth driven by employment will further increase demand for services which need to be efficiently delivered.
- These projects are also increasing the cybersecurity risk faced by select municipalities, further underscoring the necessity to invest and prioritize this component of IT.

COVID-19 Pandemic & Remote Work

- The Pandemic has created a need to 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 compared to office work.
- Working from home has exposed challenges with legacy architecture (e.g., servers vs cloud), availability of IT support services, and cyber & disaster recovery risks which have not been comprehensively addressed.

Given the above growth drivers, 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.

Vision & Guiding Principles for Joint IT Business Analysis Review

Our Vision:

> 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

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.

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.

Share Information Actively

Foster a culture of proactive, regular dialogue to collaborate and share information between people as well as systems.

Allow for Flexibility

Identify a model that is flexible and scalable in scope to meet the individual needs and budgets of our member municipalities.

Align on Standards

Strive to standardize IT services and technology in order to maximize the value for each of the member municipalities.
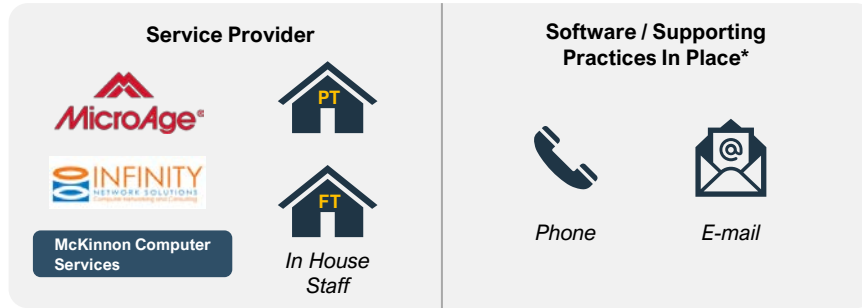
Establish Commitment

Agree on the minimum level of participation required for the model the to be successful as well as the commitment period.
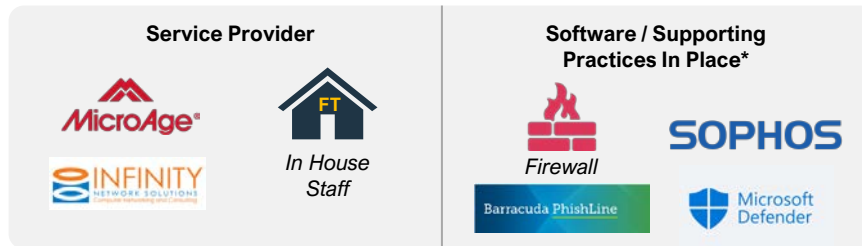
Current State IT Landscape

Analysis Area

1 IT Services

2 Cybersecurity

3 Disaster Recovery

4 IT Strategic Sourcing, Procurement, & Upgrades

Key Service Providers / Software (Current State)

Service Provider

MicroAge
INFINITY NETWORK SOLUTIONS
McKinnon Computer Services

PT
FT In House Staff

Software / Supporting Practices In Place*

Phone   E-mail

Service Provider

MicroAge
INFINITY NETWORK SOLUTIONS

FT In House Staff

Software / Supporting Practices In Place*

Firewall   SOPHOS

Barracuda PhishLine   Microsoft Defender

Service Provider

MicroAge
INFINITY NETWORK SOLUTIONS

FT In House Staff

Software / Supporting Practices In Place*

datto
OFFSITE BACKUP

Hardware Procurement Service Provider

MicroAge
INFINITY NETWORK SOLUTIONS

FT In House Staff
Retail Stores
VOR Channels (E.g., CDW)

Software Procurement Service Provider
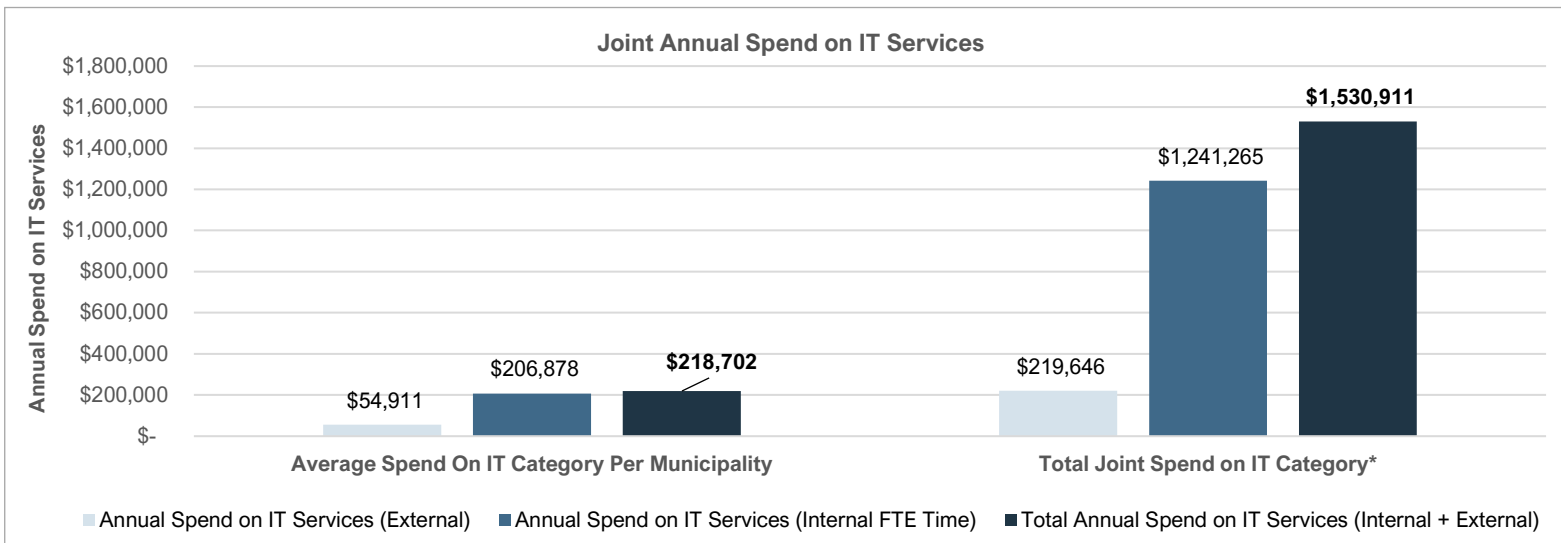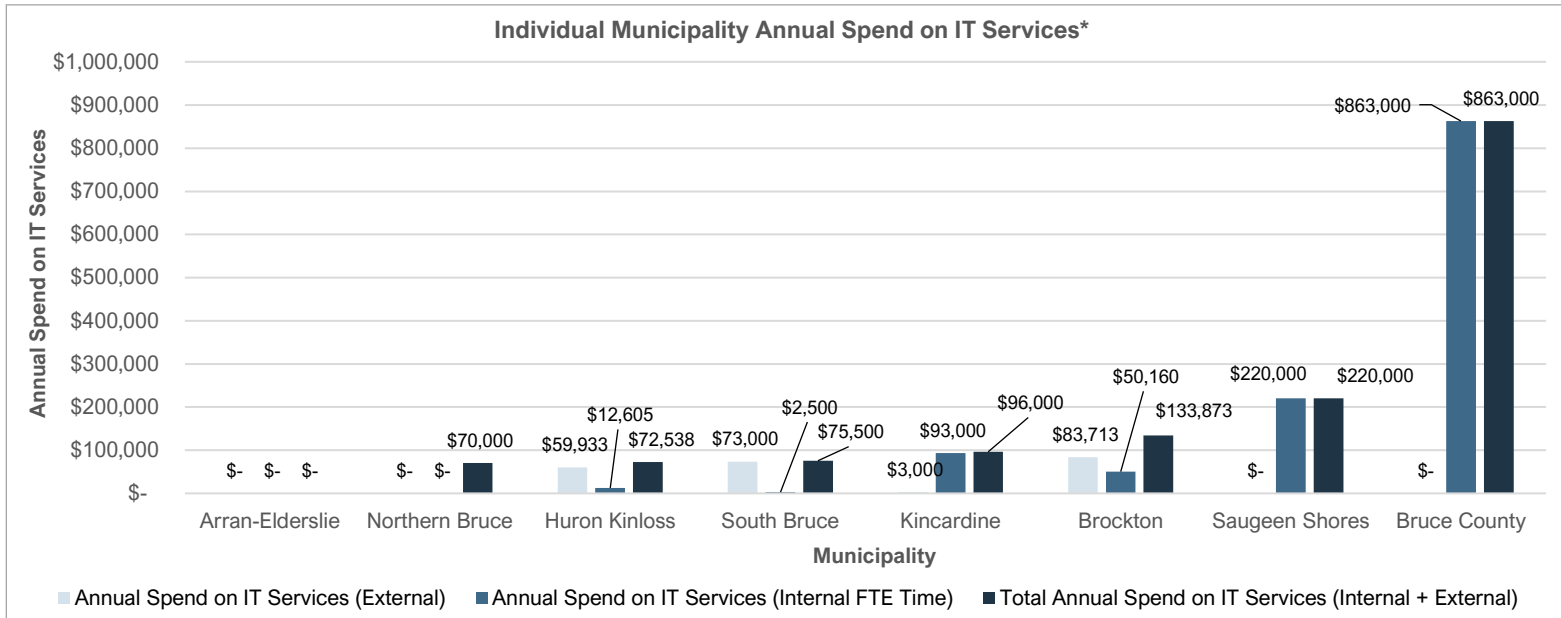
MicroAge

FT   PT
In House Staff

Key Insights

- 5 of 8 municipalities leverage one of the following 3 external service providers to deliver IT services:

  1. **MicroAge:**
     - Brockton
     - Huron-Kinloss
     - South Bruce
     - Arran-Elderslie (Cybersecurity only)
     - Kincardine (Cybersecurity only)
  2. **Infinity Solutions**
     - Northern Bruce Peninsula
  3. **McKinnon Computer Services**
     - Arran-Elderslie

- 3 of 8 municipalities have dedicated in-house staff which are solely focused on IT:

  - Bruce County
  - Saugeen Shores
  - Kincardine

- Most municipalities have introduced cybersecurity and disaster recovery software and practices in recent years, but are largely managed and overseen by their third-party service provider (with the exception on Bruce County and Saugeen Shores), and internal staff has minimal involvement in day to day or strategic planning for this area.

- Most municipalities rely on third party service providers for hardware procurement in most cases (with the exception on Bruce County, Saugeen Shores, and Kincardine).

- Most software procurement occurs in-house through staff-led, and CAO / council approved decision-making processes on an as-needed basis.

- Overall, most municipalities are operating independently across key IT functions, with minimal knowledge sharing / collaboration occurring, and no shared services function exists.

__Note:__ Bruce County / Saugeen Shores use several more advanced software / practices which have not been outlined here – only common tools / practices have been listed.

Current State IT Services Spend

Individual Municipality Annual Spend on IT Services*

Legend:
- Annual Spend on IT Services (External)
- Annual Spend on IT Services (Internal FTE Time)
- Total Annual Spend on IT Services (Internal + External)

Data labels:
- Arran-Elderslie: $-, $-, $-
- Northern Bruce: $-, $-, $70,000
- Huron Kinloss: $59,933, $12,605, $72,538
- South Bruce: $73,000, $2,500, $75,500
- Kincardine: $3,000, $93,000, $96,000
- Brockton: $83,713, $50,160, $133,873
- Saugeen Shores: $220,000, $220,000, $-
- Bruce County: $863,000, $863,000, $-

Joint Annual Spend on IT Services

- Average Spend On IT Category Per Municipality: $54,911, $206,878, **$218,702**
- Total Joint Spend on IT Category*: $219,646, $1,241,265, **$1,530,911**

Legend:
- Annual Spend on IT Services (External)
- Annual Spend on IT Services (Internal FTE Time)
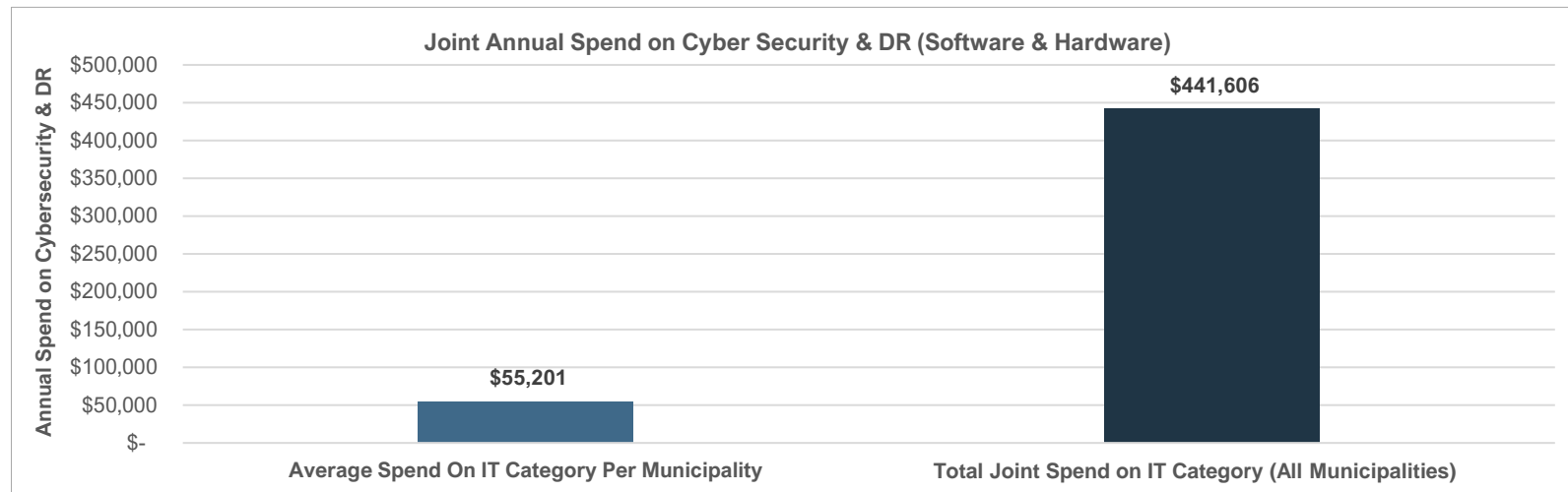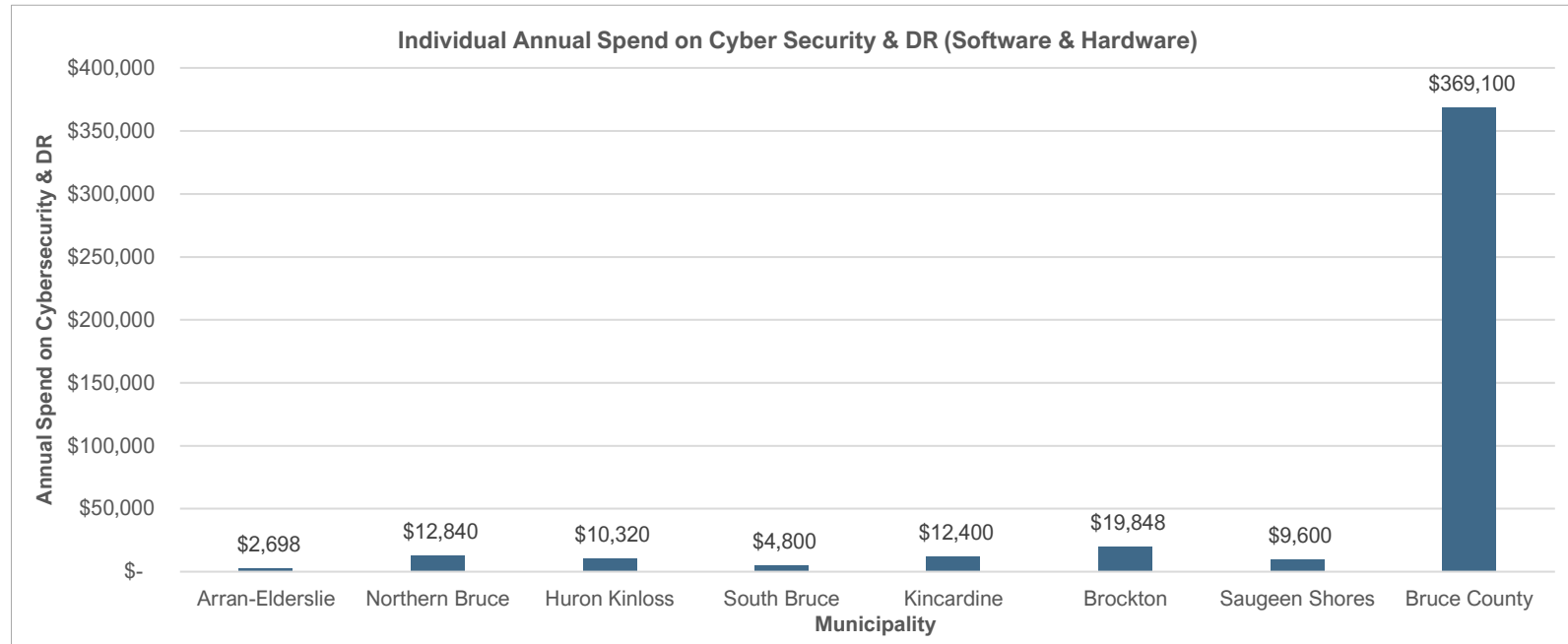- Total Annual Spend on IT Services (Internal + External)

Key Insights

- The **average annual spend on IT services** (internal FTE costs + external 3rd party service provider costs) across all 8 municipalities is **$218,702** (**$113,318**, if excluding Bruce County which has a significantly higher annual spend).

- Aside from Bruce County, Saugeen Shores has the highest annual spend on IT services ($220,000), followed by Brockton ($133,873), and then Kincardine ($96,000).

- Northern Bruce Peninsula, Huron-Kinloss, and South Bruce all have very similar annual spend amounts (~$70,000 – $75,000).

- Annual spend on IT services appears to be directly correlated with municipality size (population) and staff size, with larger municipalities incurring higher annual costs to deliver a higher level of IT services.

Current State IT Cybersecurity & Disaster Recovery Spend

Individual Annual Spend on Cyber Security & DR (Software & Hardware)

Joint Annual Spend on Cyber Security & DR (Software & Hardware)

Key Insights

- The **average annual spend on cybersecurity & disaster recovery** (software and hardware – not including services) across all 8 municipalities is **$55,201** (**$10,558**, if excluding Bruce County which has a significantly higher annual spend).

- Aside from Bruce County, Brockton has the highest annual spend on cybersecurity & 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 - $12,840 / year with 55 staff members).

Overall Digital Current State Maturity Assessment

Average Digital Maturity Scores (For All Business Capabilities)*

					✕* South Bruce Northern Bruce		✕ (3.2) Saugeen Shores		✕* Bruce County		
				✕ (2.1)							
0.0	**0.5**	**1.0**	**1.5**	**2.0**	**2.5**	**3.0**	**3.5**	**4.0**	**4.5**	**5.0**
				✕ (2.1) Arran-Elderslie	✕ (2.4) Kincardine					
					✕ (2.4) Huron-Kinloss					
					✕ (2.4) Brockton					

2.4: Average Score

Low Maturity ——————————————————→ High Maturity
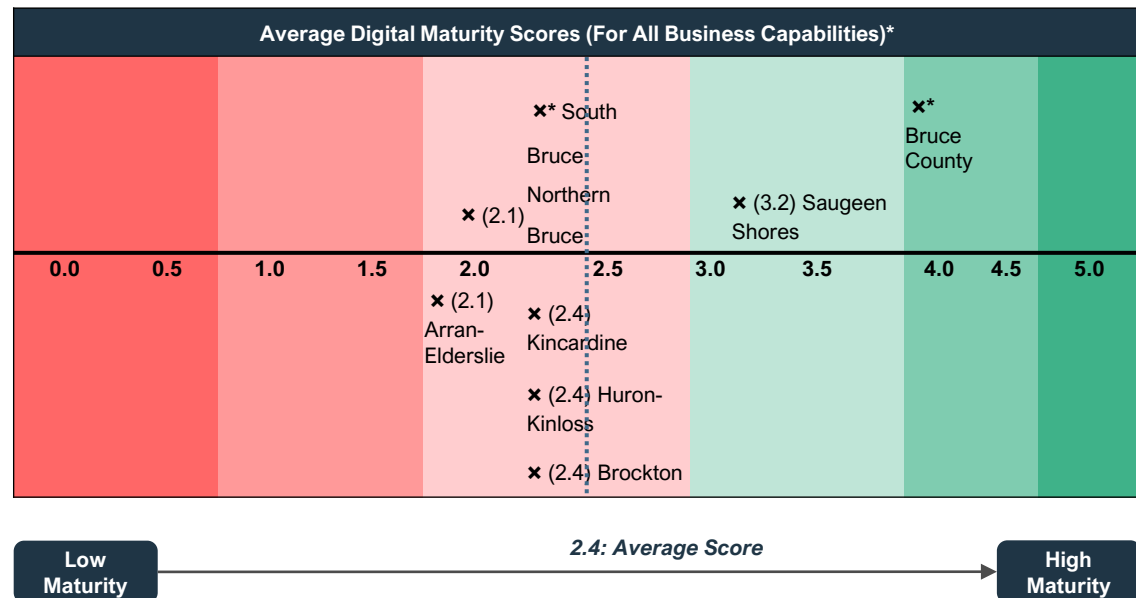
Legend – *How well are all business capabilities supported by digital?*
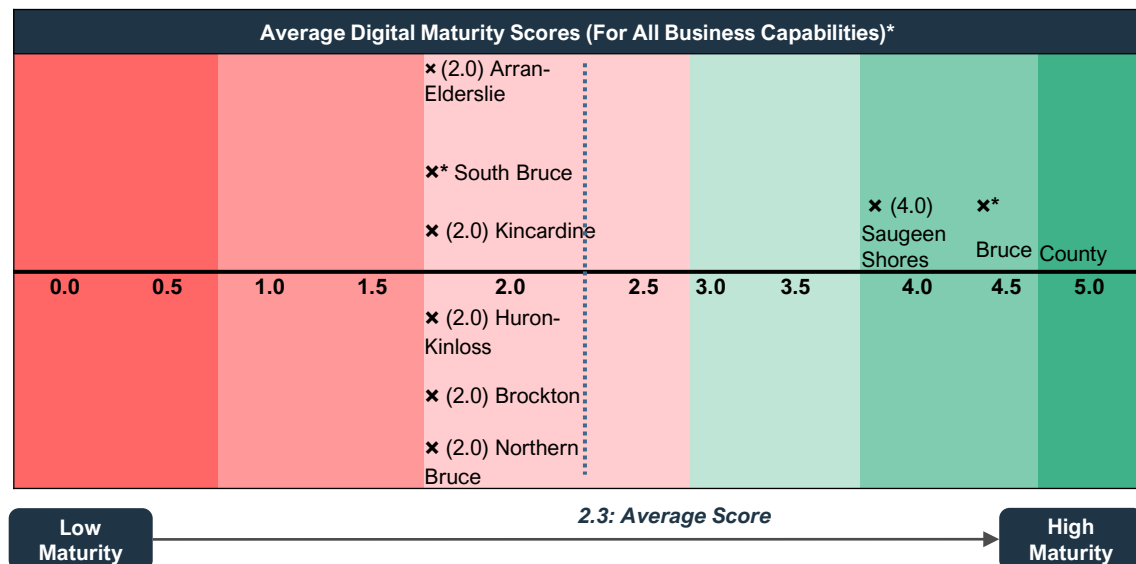
0	**Non-Existent:**	Capability not supported by Digital / Technology at all
1	**Very Low Maturity:**	Capability minimally supported by Digital / Technology
2	**Low Maturity:**	Capability somewhat supported by Digital / Technology
3	**Medium Maturity:**	Capability mostly supported by Digital / Technology
4	**High Maturity:**	Capability fully supported by Digital / Technology (basic)
5	**Very High Maturity:**	Capability fully supported by Digital / Technology (best-in-class)

Note: *Business capability map scores & rationale were not provided by 2 municipalities; Bruce County and South Bruce, but general assessment of their maturity was conducted based on interviews and review of documentation.*

Key Insights

- The average digital maturity score at an organizational level across all MIC member municipalities is 2.4, which indicates low maturity.

- The most mature municipalities from a digital maturity score perspective are Bruce County* and Saugeen Shores.

- The least mature municipalities from a digital maturity score perspective are Arran-Elderslie and Northern Bruce.

- Many municipalities have very similar digital maturity scores including Kincardine, Huron-Kinloss, Brockton, and South Bruce.

- Digital maturity scores appears to be directly correlated with municipality size, as this reflects a larger population & tax base, as well as increased / evolving demand from residents for more efficiently delivered, and digitally enabled services.

- 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 smaller peers.

- Most municipalities with lower maturity scores 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, Only 4 of 8 municipalities (Bruce County, Kincardine, Huron-Kinloss, & Northern Bruce Peninsula) have created some type of dedicated digital modernization strategy which is tailored to their municipality with a roadmap for their path forward as an organization. That said, some municipalities (e.g., Brockton) are currently considering developing this strategy and roadmap.

IT Capability Current State Maturity Assessment

Average Digital Maturity Scores (For All Business Capabilities)*

✖ (2.0) Arran-Elderslie

✖* South Bruce

✖ (2.0) Kincardine

✖ (4.0) Saugeen Shores

✖* Bruce County

| 0.0 | 0.5 | 1.0 | 1.5 | 2.0 | 2.5 | 3.0 | 3.5 | 4.0 | 4.5 | 5.0 |

✖ (2.0) Huron-Kinloss

✖ (2.0) Brockton

✖ (2.0) Northern Bruce

Low Maturity → *2.3: Average Score* → **High Maturity**

Legend – *How well is the IT capability supported by the organization?*

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.

***Note:** Business capability map scores & rationale were not provided by 2 municipalities; Bruce County and South Bruce, but general assessment of their maturity was conducted based on interviews.*

Key Insights

- The average IT maturity score across all MIC member municipalities is 2.3, which indicates low maturity.

- The most mature municipalities from an IT perspective are Bruce County*, and Saugeen Shores.

- There is no distinct municipality with the lowest maturity, as 6 of 8 municipalities had the same current state score of 2.0 for IT (low maturity).

- Most municipalities with lower maturity scores recognize the importance of improving internal IT capabilities & 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 Areas of Analysis For Joint Opportunities

The focus of the current and future state investigation on the MIC Joint IT Business Analysis Review was centered on the following 5 topics. These topics were discussed with each municipality to identify key current state challenges and opportunities, and were later used to develop key project recommendations.

1	**IT Services**	Refers to the service delivery model and processes involved in core IT operations (actioning of support requests from staff primarily consisting of maintenance / break-fix of IT assets being used in the course of conducting business, and cybersecurity / disaster recovery services, and others * – see list of typical IT services at the bottom left of slide).
2	**IT Strategic Sourcing & Procurement**	Refers to the process of sourcing IT products (hardware and software) and new IT services (telecom, internet, etc., but not including IT operations services – see category #1 above where this is addressed).
3	**IT Upgrades**	For the purpose of this review, refers to the process of determining which future state IT upgrade needs (new hardware and software) exist and are common among municipalities, which served as starting point for joint procurement being explored in category #2 above.
4	**Cybersecurity**	Refers to the cybersecurity program (including framework, polices, procedures, and practices, but not including cybersecurity service delivery – see category #1 above where this is addressed) in place at municipalities.
5	**Disaster Recovery**	Refers to the disaster recovery program (including framework, polices, procedures, and practices, but not including disaster recovery service delivery – see category #1 above where this is addressed) in place at municipalities.

Typical IT services include:

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

Joint Challenges	Joint Opportunities
1 **IT Services**	

1 — IT Services

Joint Challenges

- Current state 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 (expected time (e.g., 24 hours) to resolve IT tickets) exists between municipalities and their 3rd 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, rather than conducting strategic planning or critical one-time exercises (e.g., developing accurate software / hardware inventories, initiating internal or external 3rd 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 & ongoing decision making tends to be reactive ("putting out fires") rather than proactive (performing preventative maintenance / upgrades).

- Currently, 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 & procedures do not exist in some municipalities (e.g., Arran-Elderslie).

Joint Opportunities

- MIC member municipalities have the opportunity to redesign the IT service delivery model which could take several different forms as outlined below.

- Initial possible preferences indicated by municipalities include the following:

  - **External delivery by a new provider *within* the MIC group:** Of all the member municipalities, Bruce County appear to be primary candidates 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 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.

	Joint Challenges	Joint Opportunities
2 **IT Strategic Sourcing & Procurement**	• Current state data (inventory, purchase prices, ongoing costs) is not 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 & software) by sub-category (laptops, desktops, monitors, etc.) 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. • 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 now participates in, CDW (for hardware), OECM (for consultancy, hardware, & 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, but not utilized by some municipalities who had access to it. • 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.	• 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 & 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 some opportunity for joint contract negotiation, and joint mobile device purchasing among municipalities who have flexibility (and are currently using a combination of Rogers, Bell, Telus, etc.).

Current State Analysis – Summary

	Joint Challenges	Joint Opportunities
3 **IT Upgrades**	• 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 – 5 years), and potentially some refreshing too often, therefore incurring higher 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 system have created challenges and need to be replaced in the coming years (e.g., Keystone Financial). • Various common gaps for some municipalities in software observed for key functions such as ePermitting, budgeting, digital document & records management, project management, work order management, HRIS & payroll etc., only some of which are being addressed via in-flight RFPs. Please note that specific examples are listed in the "Master Business Capability Map" Excel file delivered (see Tab 2, Row 14), and will be further discussed at the future state working session for IT upgrades. • 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 who has significant plans in place modernize infrastructure architecture (shift from on-premise to the Cloud). Some municipalities (e.g., Kincardine), recognize that this might be pursued in the future i.e., 5 years form 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.	• 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).

GHD Digital

Joint Challenges	Joint Opportunities
4 **Cybersecurity**	• Investment in cybersecurity has been steadily increasing to protect municipalities against cyber-related risks, however, majority of municipalities (aside from Saugeen Shores & 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 (a crucial first step towards cybersecurity maturity), 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.	• 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).

Current State Analysis – Summary

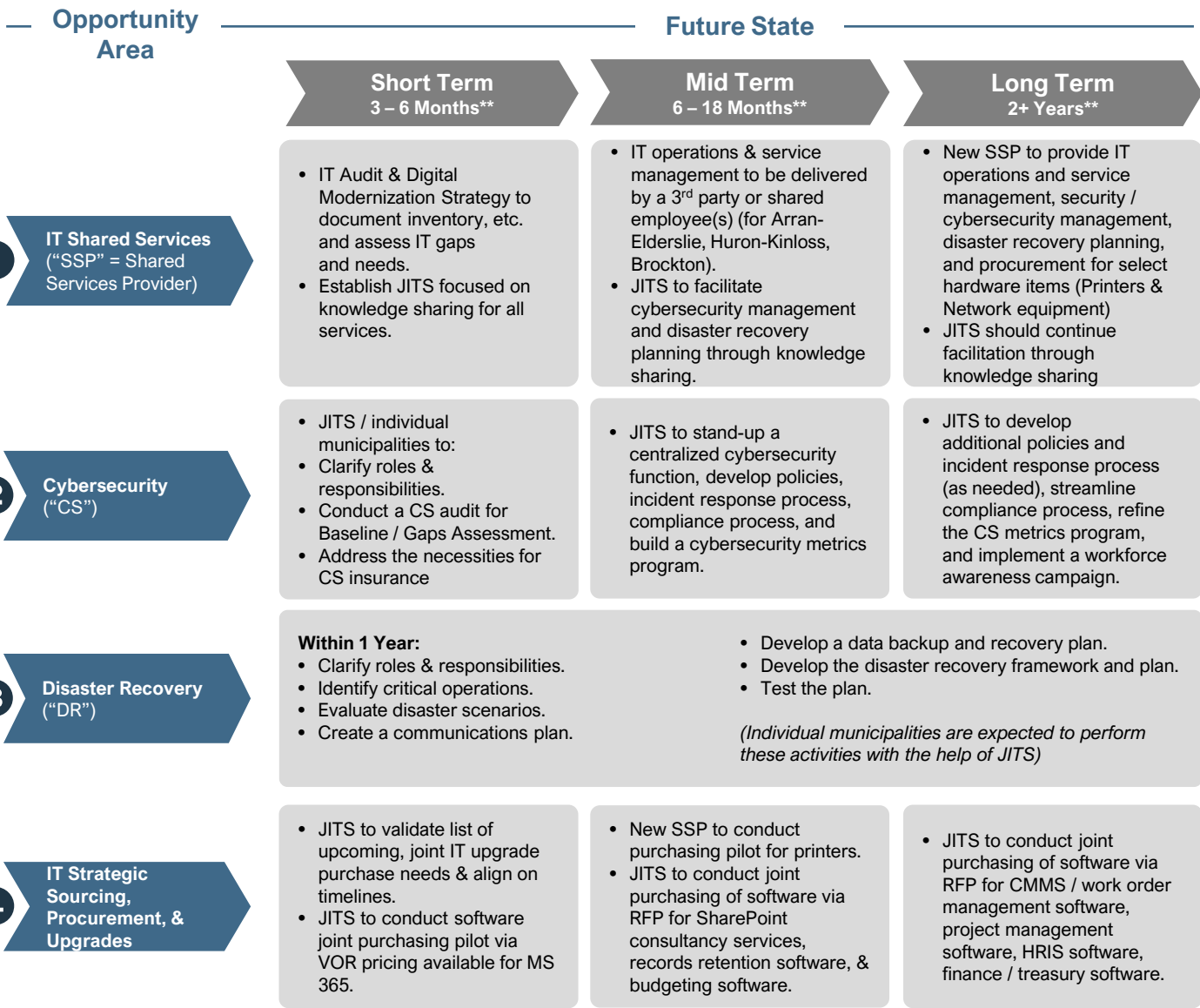|	Joint Challenges	Joint Opportunities
5 **Disaster Recovery**	• Disaster recovery planning has not been prioritized as a capability to develop across most municipalities in the past, however, it is increasingly coming into focus, as municipalities continue to become more aware of risks, especially in 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.	• Opportunity to develop a standard disaster recovery 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.

IT Services › IT Strategic Sourcing & Procurement › IT Upgrades › Cybersecurity › Disaster Recovery

Key Joint Opportunity Areas for IT Modernization

Based on the interviews conducted, documentation review, and stakeholder working sessions, opportunity areas were identified and prioritized to help improve joint maturity across the most critical sub-capabilities within the IT business capability. The analysis approach which was used to further investigate each opportunity area on the project is also outlined below.

Opportunity Areas			Future State Analysis Approach		
Priority Categorization	#	Opportunity Areas to Solution For	Recommendations to be Developed?	Options Analysis to be Conducted?	Cost Savings Analysis to be Conducted?
Category A: Opportunities Prioritized for Recommendations, Option Analysis, and Cost Savings Analysis	1	IT Strategic Sourcing & Procurement	Yes	Yes (Potentially including hardware, software, or telecom opportunities that are identified, and indicating which municipalities would benefit from this). **Sample Options:** • Option A – Status Quo (everyone buys their own IT products / services) • Option B – Hybrid (some IT purchased independently, e.g., hardware but not software, some are purchased jointly, etc.). • Option C – Fully Joint Purchasing – All IT purchased jointly	Yes (only for selected option & scope)
Category B: Opportunities Prioritized for Recommendations and Options Analysis	2	IT Shared Services	Yes – including desired scope of work (based on our survey), and various options for delivery model (degree of "shared" services, degree of municipal participation, vendor / organization to provide service, etc.)	Yes (Options across either MIC member or 3rd party delivering service) **Sample Options:** • Option A – Status Quo (everyone provides their own IT services) • Option B – Hybrid (some services on their own, some are shared) • Option C – Fully Shared (all IT services are shared)	No
Category C: Opportunities Prioritized for Detailed Recommendations	3	IT Upgrades	Yes – including list of potential software / vendors for RFP, only for the business capabilities (e.g., Finance) where common opportunities were identified for a joint approach to IT upgrades in upcoming years (e.g., replacing Keystone).	No	No
	4	IT Cybersecurity	Yes – including high-level framework.	No	No
	5	IT Disaster Recovery	Yes		
Category D: Additional High Level Supporting Recommendations	6	Other – General Recommendations	Yes – to be included in the final report.	No	No

Future State – Summary

Opportunity Area

Future State

	Short Term 3 – 6 Months**	**Mid Term** 6 – 18 Months**	**Long Term** 2+ Years**
1 **IT Shared Services** ("SSP" = Shared Services Provider)	• IT Audit & Digital Modernization Strategy to document inventory, etc. and assess IT gaps and needs. • Establish JITS focused on knowledge sharing for all services.	• IT operations & service management to be delivered by a 3rd party or shared employee(s) (for Arran-Elderslie, Huron-Kinloss, Brockton). • JITS to facilitate cybersecurity management and disaster recovery planning through knowledge sharing.	• New SSP to provide IT operations and service management, security / cybersecurity management, disaster recovery planning, and procurement for select hardware items (Printers & Network equipment) • JITS should continue facilitation through knowledge sharing
2 **Cybersecurity** ("CS")	• JITS / individual municipalities to: • Clarify roles & responsibilities. • Conduct a CS audit for Baseline / Gaps Assessment. • Address the necessities for CS insurance	• JITS to stand-up a centralized cybersecurity function, develop policies, incident response process, compliance process, and build a cybersecurity metrics program.	• JITS to develop additional policies and incident response process (as needed), streamline compliance process, refine the CS metrics program, and implement a workforce awareness campaign.
3 **Disaster Recovery** ("DR")	**Within 1 Year:** • Clarify roles & responsibilities. • Identify critical operations. • Evaluate disaster scenarios. • Create a communications plan.	• Develop a data backup and recovery plan. • Develop the disaster recovery framework and plan. • Test the plan. *(Individual municipalities are expected to perform these activities with the help of JITS)*	
4 **IT Strategic Sourcing, Procurement, & Upgrades**	• JITS to validate list of upcoming, joint IT upgrade purchase needs & align on timelines. • JITS to conduct software joint purchasing pilot via VOR pricing available for MS 365.	• New SSP to conduct purchasing pilot for printers. • JITS to conduct joint purchasing of software via RFP for SharePoint consultancy services, records retention software, & budgeting software.	• JITS to conduct joint purchasing of software via RFP for CMMS / work order management software, project management software, HRIS software, finance / treasury software.

Exceptions include Bruce County & Saugeen Shores

** Specific timing, and more detailed initiatives / activities to outlined in Excel version of Roadmap*

Recommendation Assessment

✚ Key Benefits of Future State Combined Recommendation

- Overall recommendation 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 enhance IT maturity across MIC member municipalities.
- Overall solution provides optimal balance between maximum scope / degree of collaboration, and maximum flexibility (to opt in / opt out where necessary by individual municipalities).
- New IT service quality to improve compared to 3rd party service 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 & 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 & maturity.

▬ Key Considerations For Future State Recommendations

- Increased time and investment requirements from municipalities to participate in collaboration (e.g., JITS), and stand up the new IT shared services function / "business" (in the case of Bruce County / Saugeen Shores).
- Success of initiatives is highly dependent on degree of participation, so buy in from key stakeholders will be crucial.

◎ Alignment With Guiding Principles

1 Very Low	2 Low	3 Medium	4 High	5 Very High
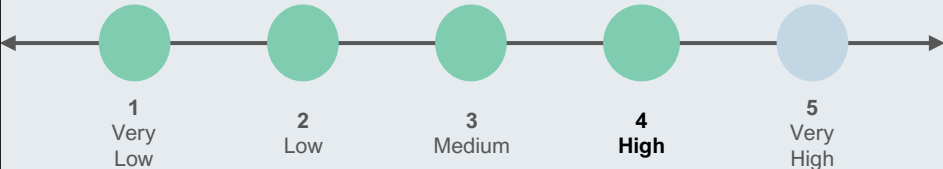
List of Recommendations / Initiatives

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 Initiatives:

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

Initiative #	Initiative Title	MIC	JITS	BC	SS	KD	BK	HK	SB	NB	AE	Initiative Start Date	Initiative End Date	Year 1 (2022)	Year 2 (2023)	Year 3 (2024)	Year 4 (2025)	Year 5 (2026)
1.0	Develop Foundation for Joint IT Modernization	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Mar 2022	Feb 2023					
2.0	Leverage an Interim IT Service Provider Within Applicable Municipalities		✓				✓	✓		✓	✓	Apr 2022	Aug 2024					
3.0	Establish New Shared Services Function		✓	✓	✓	✓	✓	✓	✓	✓	✓	Apr 2023	Apr 2025					
4.0	Establish IT Service Provider Feedback Process for Continuous Improvement		✓		✓	✓	✓	✓	✓	✓	✓	Jan 2025	May 2025					
5.0	Conduct Joint Purchasing / Independent Purchasing (via VOR Pricing / Other Channels) of Hardware		✓	✓	✓	✓	✓	✓	✓	✓	✓	Mar 2022	Nov 2023					
6.0	Conduct Joint Purchasing of Software		✓	✓	✓	✓	✓	✓	✓	✓	✓	Jun 2022	Apr 2026					
7.0	Assess Individual Opportunities for Internet / Telecom Cost Savings		✓		✓	✓	✓	✓	✓	✓	✓	May 2022	Dec 2022					
8.0	Implement Cybersecurity Program Within Applicable Municipalities		✓	✓	✓	✓	✓	✓	✓	✓	✓	Nov 2022	Dec 2024					
9.0	Implement Enhanced Cybersecurity Practices Within Applicable Municipalities (To Secure Cybersecurity Insurance)		✓		✓	✓	✓	✓	✓	✓	✓	Oct 2022	Sep 2024					
10.0	Implement Disaster Recovery Program Within Applicable Municipalities		✓		✓	✓			✓		✓	Aug 2023	Aug 2024					
11.0	Consider Innovation Program to Identify Additional Joint Technology Related Opportunities on an Ongoing Basis via JITS	✓	✓									Jan 2023	Jul 2023					
12.0	Consider Transition from Server to Cloud Based Infrastructure Within all Applicable Municipalities		✓		✓	✓	✓	✓	✓	✓	✓	Jan 2026	Jan 2027					
13.0	Consider Robotic Process Automation For Select IT Operations Processes Within Shared Service Provider's Organization			✓								Aug 2025	Jul 2026					

Key Insights

- The sequencing of the following 13 initiatives is based upon discussions with the project team regarding priorities & key considerations (e.g., individual municipality preferences, plans and constraints).

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.

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.

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.

Potential Cost Savings Summary – Joint Savings (Procurement)

Cost savings were projected for the selected in scope categories:
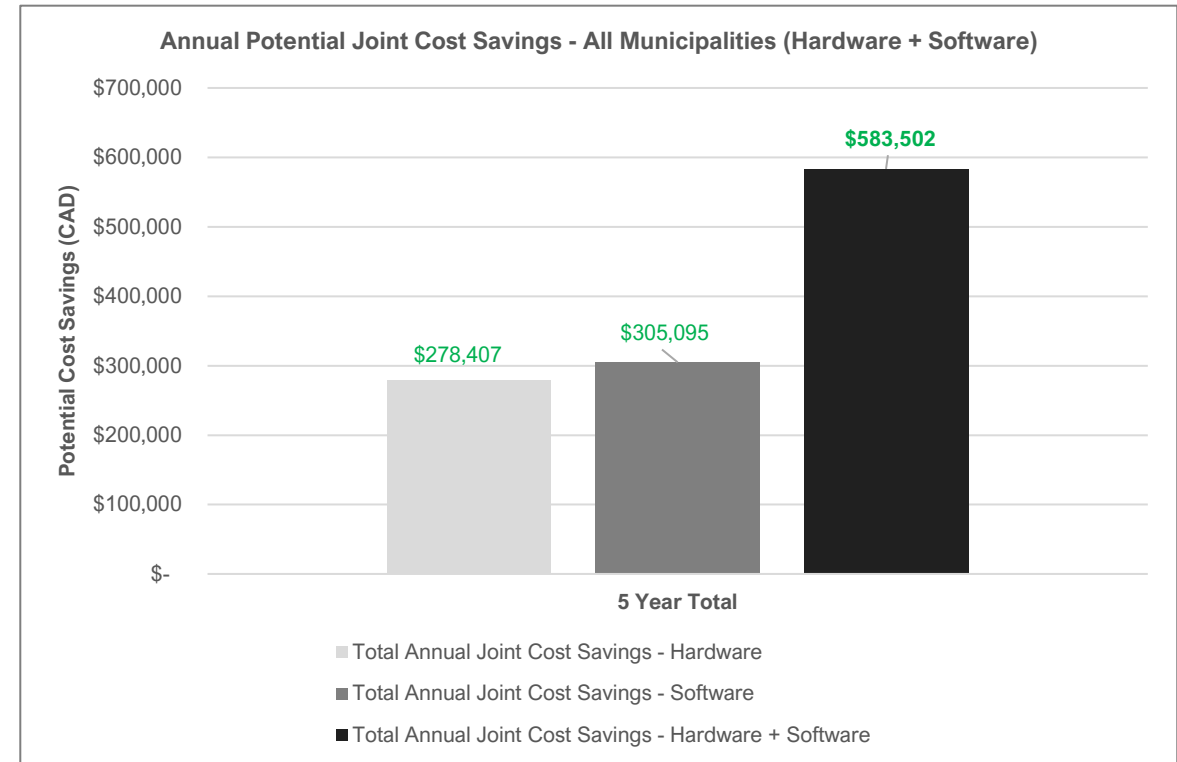
1. **Hardware:**
   a) **Joint Procurement:** Printers / scanners / photocopiers / fax machines, and Networking equipment
   b) **Individual Procurement (via VORs):** Laptops, desktops, monitors / TVs, tablets

2. **Software:**
   a) **Individual Procurement (Via VOR):** MS 365 licenses
   b) **Joint procurement (via RFPs as needed):** SharePoint consultancy services, records retention software, project management software, CMMS / Work order management software, HRIS software, budgeting software, finance / treasury software.

Annual Potential Joint Cost Savings - All Municipalities (Hardware + Software)

Annual Potential Joint Cost Savings - All Municipalities (Hardware + Software)

- 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.

- Over a 5-year period, the total joint 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.

Note 1: All projections were calculated using a set of assumptions agreed upon with the project team.
Note 2: All projections are +/-50%, and subject to change.

Potential Cost Savings Summary – Individual Savings (Procurement)

Annual Potential Cost Savings Per Municipality (Hardware + Software)

5 Year Total Potential Cost Savings Per Municipality (Hardware + Software)

Legend:
- Bruce County - HW + SW
- Saugeen Shores - HW + SW
- Kincardine - HW + SW
- Huron-Kinloss - HW + SW
- Brockton - HW + SW
- South Bruce - HW + SW
- Northern Bruce Peninsula - HW + SW
- Arran-Elderslie - HW + SW
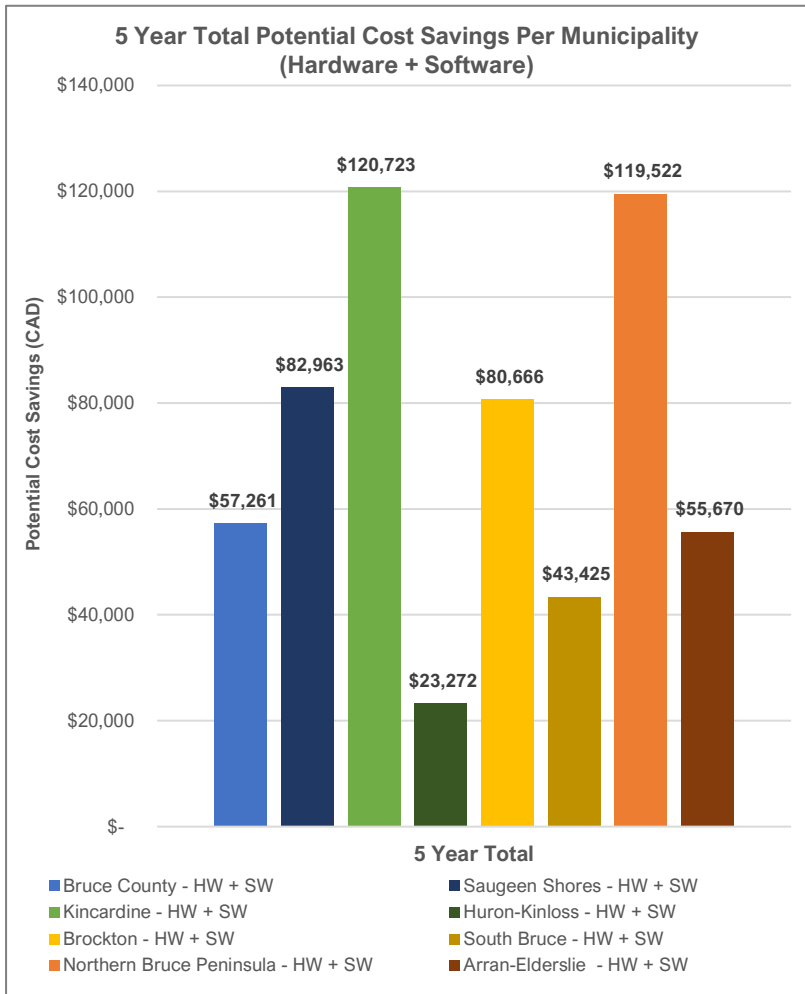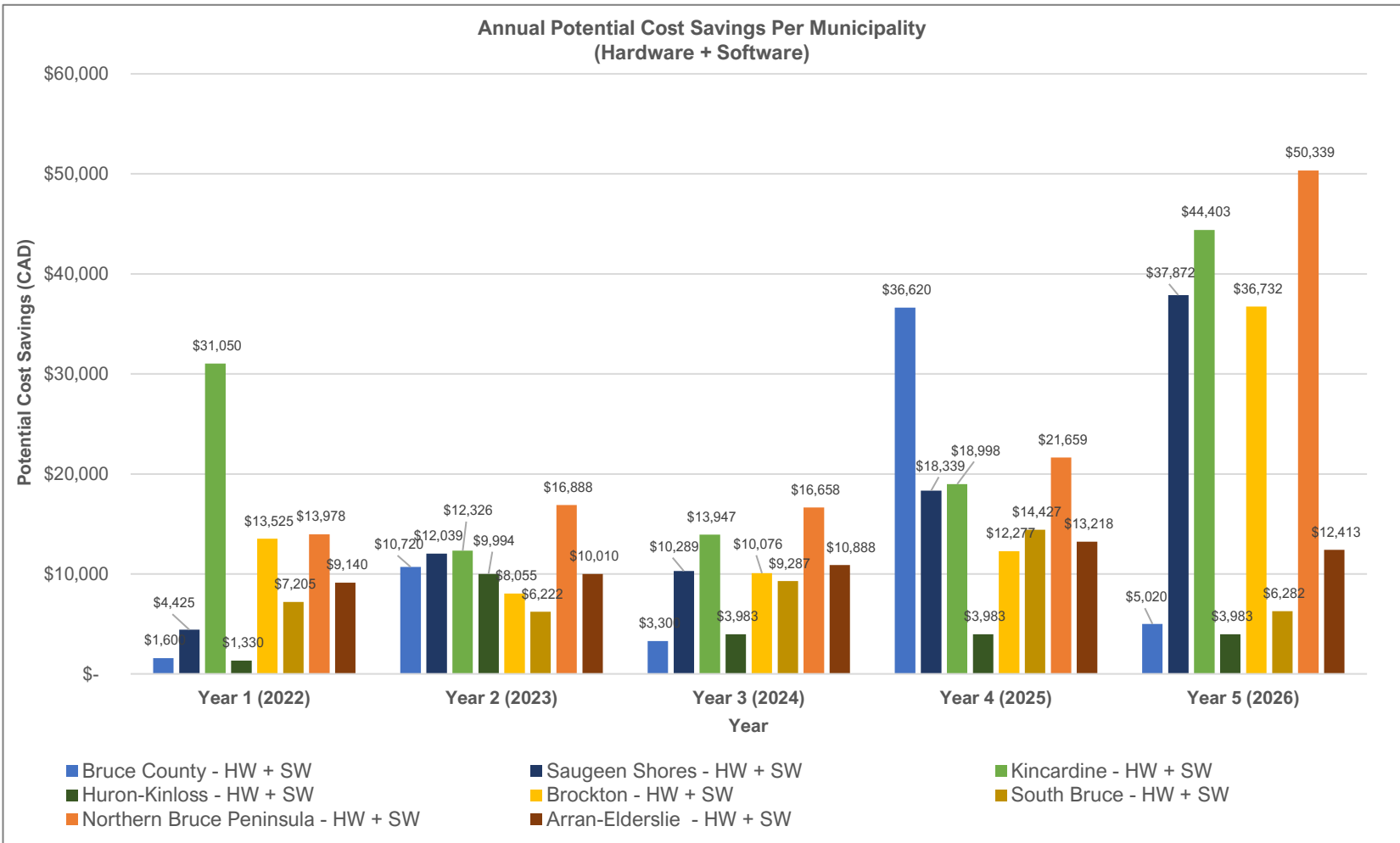
- Potential cost savings for both hardware and software purchases varies across municipalities due to individual opt-in / opt-out decisions (preliminary decisions have been identified and incorporated into calculations).
- Overall, Kincardine, Brockton, Northern Bruce Peninsula, Saugeen Shores, and Bruce County will benefit from some of the largest potential one-year cost savings for both hardware and software purchases in 2022, 2023, and 2025.

- Over a 5-year period, Kincardine will potentially incur the highest individual cost savings ($120,723), with Northern Bruce Peninsula following ($119,522).
- Huron-Kinloss will potentially incur the lowest individual cost savings ($23,272), primarily due to more opt-out decisions expected across several joint software purchases (due to individual Roadmap).

Note 1: All projections were calculated using a set of assumptions agreed upon with the project team.
Note 2: All projections are +/-50%, and subject to change.

Next Steps

GHD to Finalize & Deliver Report to MIC / Project Team by Mon Feb 28th

MIC / Project Team to Provide Feedback via Becky S. in written format by Wed Mar 2nd EOD

GHD to Incorporate Feedback & Deliver Final Accessible Report by Wed Mar 9th EOD
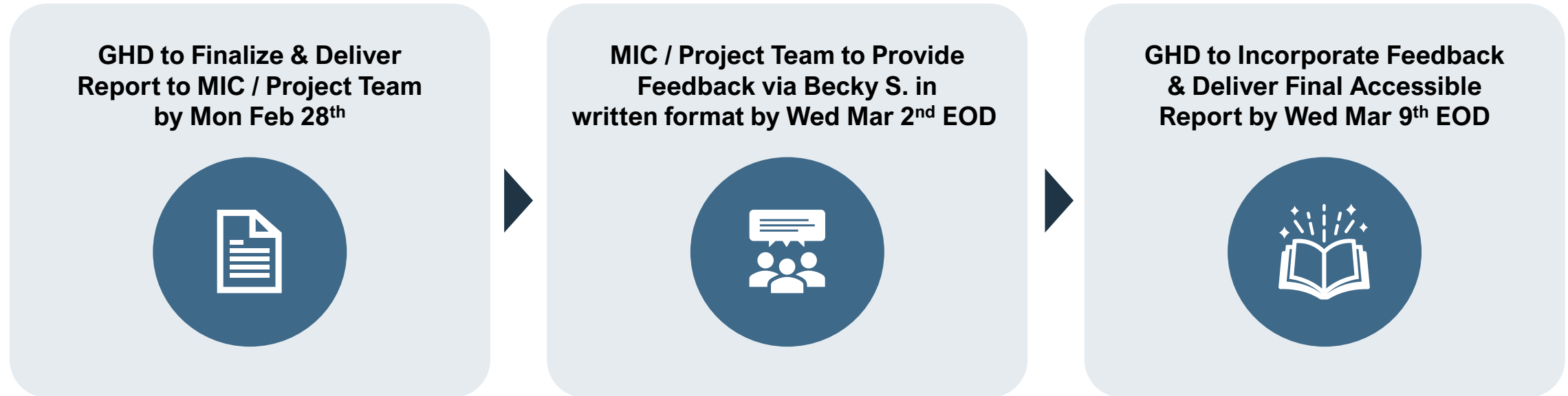
Appendix

→ **Joint IT Business Analysis Review**

Current State

→ **Detailed IT Spend Data**

Detailed IT Spend Data

		Municipality Info		IT Services				Hardware & Software			Cyber & DR	Telecom and Internet			
	Key Current State Financials - All Municipalities *(Based on most recent available data provided by municipalities)*														
		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	Total Known Spend to Date on Software**	Total Known Spend To Date On Hardware**	Total Known Spend To Date on Hardware + Software**	Annual Spend on Cyber Security & DR (Software & Hardware)	Annual Spend on Telecom and Internet Services	Total Annual Spend on Telecom & Internet Services Per Staff Member	Internet Providers	Telecom Providers
1	Arran-Elderslie	106	6,910	N/A	N/A	N/A	N/A	$84,883	N/A	$84,883	$2,698	N/A	N/A	N/A	N/A
2	Northern Bruce	55	4,000	$70,000	N/A	N/A	$18	$150,000	N/A	$150,000	$12,840	$108,400	$1,971	Eastlink	Eastlink, Bell
3	Huron Kinloss	96	7,069	$72,538	$59,933	$12,605	$10	$186,394	$1,224,117	$1,410,510	$10,320	$39,108	$407	Huron Tell, Bell	Huron Tell , Bell
4	South Bruce	99	5,639	$75,500	$73,000	$2,500	$13	$91,459	$296,156	$387,614	$4,800	$3,500	$35	Wightman Telecom	Wightman Telecom
5	Kincardine	200	11,398	$96,000	$3,000	$93,000	$8	$226,050	N/A	$226,050	$12,400	$180,000	$900	Bruce Telecom	Bruce Telecom
6	Brockton	133	9,461	$133,873	$83,713	$50,160	$14	$101,401	N/A	N/A	$19,848	$52,446	$394	Wightman, Eastlink	Wightman, Telus
7	Saugeen Shores	300	13,715	$220,000	N/A	$220,000	$16	$283,500	N/A	$283,500	$9,600	$42,720	$142	Bruce Telecom, Eastlink	Freiburger Communications, Rogers, Bruce Telecom, Eastlink
8	Bruce County	800	70,000	$863,000	N/A	$863,000	$12	N/A	$1,950,000	$1,950,000	$369,100	$257,800	$322	Eastlink, Hurontel, Rogers, BMTS	Rogers, Teams
All	Average Spend On IT Category Per Municipality			$218,702	$54,911	$206,878	$13	$160,527	$1,156,757	$1,123,140	$55,201	$97,711	$596		
All	Total Joint Spend on IT Category*	1,789	128,192	$1,530,911	$219,646	$1,241,265		$1,123,687	$3,470,272	$4,492,558	$441,606	$683,974			

Notes:

* "N/A" Values indicate that data was **not available** from that municipality for that category (as opposed to the value being zero or not applicable).

**Only 3 of 8 municipalities provided data on current state hardware spend, and of the 3, only 1 municipality provided purchase year information to help identify annual hardware spend.
Similarly, information provided on software spend per year was inconsistent in most cases. As a result, it was not possible to conduct a reliable comparison of annual software and hardware spend.

Future State

→ **Detailed Options Discussed & Recommendations**

IT Shared Services – Options Discussed

Option	Description	Selected Services – Participating Municipalities	Time to Implement	Cost	Strategic Alignment
1A	**Status Quo** – Everything stays as is.	• **N/A**	5 (Very Low)	1 (Very Low)	1 (Very Low)
1B	**Status Quo + Committee** – Everything stays as is plus a Regional IT Committee is put in place.	The committee covers collaboration and information / knowledge sharing regarding the following: • **IT Operations & Service Management** - *All Municipalities* • **IT Security / Cybersecurity Management** - *All Municipalities* • **Disaster Recovery Planning** - *All Municipalities* • **IT Sourcing / Procurement** - *All Municipalities*	4 (High)	5 (Very High)	2 (Low)
2A	**Bruce County** – The municipality provides the selected IT services to the participating municipalities.	The services provided include: • **IT Operations & Service Management** - *All Municipalities except Bruce County.*	3 (Medium)	3 (Medium)	4 (High)
2B	**Saugeen Shores** – The municipality provides the selected IT services to the participating municipalities.	• **IT Security / Cybersecurity Management** - *All Municipalities except Bruce County.* • **Disaster Recovery Planning** - *All Municipalities except Bruce County.* • **IT Sourcing / Procurement (only for in scope hardware items)** - *All Municipalities except Bruce County.*	2 (Low)	2 (Low)	4 (High)
2C	**3rd Party** – A 3rd party organization (e.g., MicroAge, Infinity Solutions) provides the selected IT services to the participating municipalities.		4 (High)	3 (Medium)	3 (Medium)
3	**MIC Municipality + 3rd Party** – A 3rd party organization (e.g., MicroAge, Infinity Solutions) provides the selected IT services to the participating municipalities.	The services provided include: • **IT Operations & Service Management** - *All Municipalities except Bruce County & Saugeen Shores (service provided by Bruce County or Saugeen Shores).* • **IT Security / Cybersecurity Management** - *All Municipalities except Bruce County & Saugeen Shores (service provided by 3rd party).* • **Disaster Recovery Planning** - *All Municipalities except Bruce County & Saugeen Shores (service provided by 3rd party).* • **IT Sourcing / Procurement** - *All Municipalities except Bruce County & Saugeen Shores (service provided by Bruce County or Saugeen Shores).*	3 (Medium)	2 (Low)	3.5 (Medium)

Scoring Legend:
- **Time to Implement:** 1-5 → (High to Low)
- **Cost Savings:** 1-5 → (Low to High)
- **Strategic Alignment:** 1-5 → (Low to High)

Recommended Option: Option 2A + 1B is the recommended option in the **long term** for further analysis (i.e., roadmap initiatives) as discussed during IT Shared Services Future State session – deciding on 2A or 2B would be dependent on the cost model to be provided by Bruce County . Where Bruce County cannot provide certain services, a 3rd party would be engaged. See next slide for additional considerations.

29

IT Shared Services – Recommendations

Time Period	Recommendation Description	Recommendation Owner*
Short Term (3 – 6 Months)	• Start with an IT Audit / Digital Modernization Strategy to assess the gaps in IT in each MIC municipality and the costs associated with closing those gaps; address critical gaps. Lower tiers to collaborate and identify 3rd party to help conduct comprehensive audit (e.g., through joint RFP to get best price).	• Individual Municipalities
	• Establish Joint IT Steering Committee (JITS) focused on knowledge sharing on all services.	• MIC + Individual Municipalities
Mid – Term (6 – 18 Months)	• IT Operations and Service Management – 3rd party or a Shared Employee (e.g., Arran-Elderslie, Huron Kinloss, Brockton).	• Individual Municipalities
	• IT Security / Cybersecurity Management (Knowledge Sharing).	• JITS
	• Disaster Recovery Planning (Knowledge Sharing).	• JITS
	• IT Sourcing / Procurement limited to: ○ Select Hardware Items: Printers / Photocopiers / Scanners / Fax Machines only (pilot purchase).	• IT Shared Services Provider (Bruce County, leveraging a third party where needed)
	• JITS focused on knowledge sharing on all services, especially IT Security / Cybersecurity Management & Disaster Recovery Planning, as well as facilitating knowledge sharing for procurement best practices (e.g., VOR information), and coordinating collaboration and executing RFP process for joint RFPs for group software purchases.	• JITS
	• Develop a business model (including fees structure to individual municipalities) for the provision of Shared Services to be provided in the long term.	• Bruce County
Long Term (2+ Years)	• IT Operations and Service Management (Shared Services).	• IT Shared Services Provider (Bruce County, leveraging a third party where needed)
	• IT Security / Cybersecurity Management (Shared Services).	
	• Disaster Recover Planning (Shared Services).	
	• IT Sourcing / Procurement limited to (Shared Services): ○ Select Hardware Items: Printers / Photocopiers / Scanners / Fax Machines and Networking Equipment	
	• Committee / Steering Group focused on knowledge sharing on all services. (Continued)	• JITS
	• JITS focused on knowledge sharing on all services, especially IT Security / Cybersecurity Management & 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.	• JITS

Refer to Roadmap Excel file for more granular detail on activities and owners.

IT Strategic Sourcing, Procurement, & Upgrades – Options Discussed

Option	Description	Preferred Scope For Joint Procurement	Time to Implement	Expected Cost Savings	Strategic Alignment
1	Status Quo	• None / None	5 (Very Low)	1 (Very Low)	1 (Very Low)
2	Joint Procurement of Hardware Only	• N/A – Not selected as preferred option	4 (Low)	3 (Medium)	3.5 (Medium)
3	Joint Procurement of Software Only	• N/A – Not selected as preferred option	2 (Medium – High)	3 (Medium)	3 (Medium)
4	Joint Procurement of Telecom / Internet Only	• N/A – Not selected as preferred option	3 (Medium)	2 (Low – Medium)	3 (Medium)

5	Hybrid: Joint Procurement of Some Combination of Hardware + Software	• Joint procurement via the Shared Service provider of higher value hardware items with a service component (e.g., only printers / scanners / photocopiers / fax machines, and networking equipment).
		
		• Joint procurement via RFPs, via the coordination of the Steering Committee (e.g., who facilitate discussions, run the RFP, etc.), of select software on a case-by-case basis where overlapping needs and purchase timelines were identified and validated.
		
		• List of Preliminary Software Candidates Identified For Joint Procurement.
		  1. MS 365 (to replace desktop versions of MS Office, or licenses that need to be upgraded)
		  2. MS SharePoint
		  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
		
		See next slide for details on which municipalities to participate, and estimates of years purchases are currently planned to take place in.
			4 (High)	4 (High)	4.5 (High)

6	Fully Joint Purchasing For All IT Products & Services	• N/A – Not selected as preferred option	5 (Very High)	4 (High)	4 (High)

Scoring Legend:
- **Time to Implement:** 1-5 → (High to Low)
- **Cost Savings:** 1-5 → (Low to High)
- **Strategic Alignment:** 1-5 → (Low to High)

Recommended Option: Option 5 is the recommended option as this option offers an optimal balance between maximum collaboration opportunities (i.e., through 2 significant in scope categories), 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).

IT Upgrades Joint Findings – Upcoming Software Needs

Detailed Joint Software Upgrade Candidates Identified	
Software Category / Example	**Municipalities Intending to Purchase**
• **Cloud Based Productivity Suite** • E.g., MS 365 (including MS Teams & all cloud-based MS Office apps)	1. **Kincardine** – MS 365 (2023) 2. **Huron-Kinloss** – MS 365 Premium (Year TBD) 3. **South Bruce** – MS 365 – (Year TBD) 4. **Northern Bruce** – MS 365 (2022) 5. **Arran-Elderslie** – MS 365 (2023 / 2024) **5 of 8 Municipalities**
• **Digital Document Repository / File Collaboration Software** • E.g., SharePoint Consultancy Services (e.g., customization, implementation, intranet development)	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** – Solution TBD (2022) 5. **Arran-Elderslie** – Solution TBD (Year TBD) **5 of 8 Municipalities**
• **Digital Records Retention Software** • E.g., Gimmal	1. **Saugeen Shores** – Solution TBD (2022) 2. **Huron-Kinloss** – Gimmal (2023) 3. **Northern Bruce** – Solution TBD (2022) **3 of 8 Municipalities**
• **Finance / Treasury Software** (to replace Keystone) • E.g., TownSuite Financial	1. **Bruce County** – Solution TBD (Year TBD) 2. **Kincardine** – Solution TBD (Year TBD) 3. **Brockton** – Solution TBD (Year TBD) 4. **Northern Bruce** – Solution TBD (Year TBD) 5. **Arran-Elderslie** – Solution TBD (Year TBD) **5 of 8 Municipalities**
• **Budgeting Software** • E.g., Questica	1. **Kincardine** – Cityworks Work Order Mgmt. (expand usage through module) (2022) 2. **Northern Bruce** – Solution TBD (Year TBD) 3. **Arran-Elderslie** (Year TBD) **3 of 8 Municipalities**
• **CMMS / Work Order Management System** (for patrolling tasks / field work data entry) • E.g., City Reporter	1. **Kincardine** – Solution TBD (Year TBD) 2. **Brockton** – HR Training Module (2022) 3. **Northern Bruce** – Solution TBD (Year TBD) **3 of 8 Municipalities**
• **Project Management Software** • E.g., Cascade	1. **Saugeen Shores** – Questica (2022) 2. **Brockton** – FMW / Citywide (2022) 3. **South Bruce** – Solution TBD (Year TBD) 4. **Northern Bruce** – Solution TBD (Year TBD) 5. **Arran-Elderslie** – FMW / Citywide (Year TBD) **5 of 8 Municipalities**
• **HRIS Software** (for employee career management and payroll / absence management) • E.g., Bamboo HR	1. **Saugeen Shores** – Solution TBD (2025) 2. **Kincardine** – Solution TBD (~2026) 3. **Brockton** – Solution TBD (Year TBD) 4. **Northern Bruce** – Solution TBD (~2026) **4 of 8 Municipalities**

*Dependent on outcome of Vendor Review work being completed with GHD Digital

Joint procurement pilot use case – short term (within the next 3 – 6 months)

Initial recommendations for joint procurement of software – medium / long term (within 6 months – 3+ years – specific dates provided in Roadmap to accommodate maximum number of municipalities)

IT Strategic Sourcing, Procurement, & Upgrades – Recommendations

Time Period	Recommendation Description	Recommendation Owner*
Short Term (3 – 6 Months)	• Municipalities should ideally complete their individual digital modernization strategies / roadmaps as a starting point to ensure optimal decisions are being made for each individual municipality (e.g., gaps are identified for each municipality, enterprise systems vs stand alone software solutions have been considered prior to pursuing significant joint software procurement opportunities., etc.).	• Individual Municipalities
	• Thoroughly validate list of upcoming, joint IT upgrade purchase needs (using GHD list as a starting point – please refer to details for option 5 on previous slide for reference) and align on purchase timelines.	• JITS

	• Conduct software joint purchasing pilot via VOR pricing available.
	   ○ **Recommendation – Based on confirmed need, quick win joint purchase scenario which does not involve RFP:**
	     – MS 365 (including MS Teams) among Kincardine, Saugeen Shores, Brockton, and any additional municipalities who wish to participate.
		• JITS

Mid – Term (6 – 18 Months)	• Conduct hardware joint purchasing pilot.
	   ○ **Recommendation:**
	     – Printers / scanners / photocopiers / fax machines.
		• IT Shared Services Provider (Bruce County, leveraging a third party where needed)

	• Conduct joint purchasing of software via RFP (if required) for 3 – 5 significantly overlapping upgrade needs across municipalities.
	   ○ **Recommendations – Smaller scale purchases based on high degree of overlapping need identified across municipalities:**
	     – SharePoint (Consultancy Services): Note, this will be included in MS 365 Business Premium version, but customization (intranet build), staff training etc. could be delivered by an external SME / vendor specialized in this area.
	     – Digital Records Retention Software: E.g., Gimmal, etc.
	     – Budgeting Software: E.g., Questica.
		• JITS

Long Term (2+ Years)	• Conduct joint purchasing of software via RFP (if required) for 3 – 5 significantly overlapping upgrade needs across municipalities.
	   ○ **Recommendations – Based on high degree of overlapping need identified across municipalities, larger scale purchases, and additional lower priority opportunities identified which were not already addressed:**
	     – 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.
		• JITS

Dependent on outcome of Vendor Review work being completed with GHD Digital   *Refer to Roadmap Excel file for more granular detail on activities and owners.*

Cybersecurity – Recommendations (1 of 3)

Time Period	Recommendation Description	Recommendation Owner*
Short Term (3 – 6 Months)	• **Identify Leadership Roles:** ○ Identify someone in a leadership role who is specifically responsible for IT & OT cybersecurity (including for knowledge sharing with other municipalities).	• JITS / Individual Municipalities

	• **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 it 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 your 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.
		• JITS / Individual Municipalities

Refer to Roadmap Excel file for more granular detail on activities and owners.

Cybersecurity – Recommendations (2 of 3)

Time Period	Recommendation Description	Recommendation Owner*
Mid – Term (6 – 18 Months)	• **Design a Centralized Cybersecurity Function:** 　○ Determine the structure and roles & responsibilities of the centralized cybersecurity function. 　○ Establish a centralized Governance Model. 　○ Staff the centralized function.	• JITS
	• **Develop Cybersecurity Policies:** 　○ Assess current cybersecurity policy needs for the participating MIC municipalities. 　○ Design a policy strategy (leverage existing materials where available within the MIC municipalities).	• JITS / Individual Municipalities
	• **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).	• JITS / Individual Municipalities
	• **Develop Compliance Process:** 　○ Develop a rationalized Risk Management Framework (RMF) process (leverage existing materials where available within the MIC municipalities).	• JITS / Individual Municipalities
	• **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).	• JITS / Individual Municipalities

Refer to Roadmap Excel file for more granular detail on activities and owners.

Cybersecurity – Recommendations (3 of 3)

Time Period	Recommendation Description	Recommendation Owner*
Long Term (2+ Years)	**Design a Centralized Cybersecurity Function** ○ Continue to staff the joint function, as needed.	• JITS / (Bruce County, leveraging a third party where needed)
	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).	• JITS / (Bruce County, leveraging a third party where needed)
	Develop Incident Response Process ○ Complete setting up criteria to detect and analyze incidents. ○ Prepare to contain, eradicate, and recover from incidents. ○ Ensure postmortem learning.	• JITS / (Bruce County, leveraging a third party where needed)
	Streamline Compliance Process ○ Streamline deployment decisions. ○ Assess and update deployment status.	• JITS / (Bruce County, leveraging a third party where needed)
	Build a Cybersecurity Metrics Program ○ Track the metrics program and refine, as needed.	• JITS / (Bruce County, leveraging a third party where needed)
	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.	• JITS / (Bruce County, leveraging a third party where needed)

Refer to Roadmap Excel file for more granular detail on activities and owners.

Disaster Recovery – Recommendations

Time Period	Recommendation Description	Recommendation Owner*
Within 1 Year	• **Identify Leadership Roles** o Identify someone in a leadership role who is specifically responsible for Disaster Recovery (including for knowledge sharing with other municipalities)	• JITS / Individual Municipalities
	• **Identify Critical Operations** o Identify elements of business which are essential that needs instant access without disruption (leverage existing materials where available within the MIC municipalities)	• JITS / Individual Municipalities

	• **Evaluate Disaster Scenarios**
	  o Evaluate different disaster scenarios, including cybersecurity, and how they would impact your business. (leverage existing materials where available within the MIC municipalities)
	  o Work with all the municipality / department leaders to identify all disaster scenarios
		• JITS /
		Individual Municipalities

	• **Create a Communication Plan**
	  o Assign specific people to clearly articulated roles
	  o Identify required regulatory communications (leverage existing materials where available within the MIC municipalities)
		• JITS /
		Individual Municipalities

	• **Develop a Data Backup and Recovery Plan**
	  o Create a checklist of all equipment and data required to operate (leverage existing materials where available within the MIC municipalities)
	  o 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)
	  o Based on all the above activities, develop the Disaster Recovery Framework and Plan
		• JITS /
		Individual Municipalities

	• **Develop the Disaster Recovery Framework and Plan**
	  o Create a checklist of all equipment and data required to operate (leverage existing materials where available within the MIC municipalities)
	  o 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)
	  o Based on all the above activities, develop the Disaster Recovery Framework and Plan
		• JITS /
		Individual Municipalities

	• **Test the Plan** o Run a drill simulating all the disaster scenarios identified, evaluate effectiveness, and refine the Disaster Recovery Framework and Plan, as needed	• JITS / Individual Municipalities

Refer to Roadmap Excel file for more granular detail on activities and owners.