

Information Systems Strategic Plan Project

Final Report
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Executive Summary

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Executive Summary

The Town of St. Marys is looking to modernize and find efficiencies in its current software applications and software processes. Pecunia House Consulting was engaged to conduct a high-level current state needs analysis of the Town's software and provide recommendations for improvements.

After interviewing senior management and staff, and reviewing the Town's documentation, Pecunia House Consulting identified the following key issues:

- **People**
 - There is concern with longevity of some software.
 - Staff have data entry fatigue due to manual processes and duplication of effort.
 - Staff have limited confidence in data.
- **Processes**
 - Many manual processes are resource and time intensive.
 - The lack of system integration has led to gaps in communication across the organization.
 - Data is not stored in a centralized manner.
 - The reporting process is not user-friendly or consistent.
- **Technology**
 - Majority of systems are not integrated with the financial software.
 - Not every module of purchased software are utilized.
 - A centralized approach is required for software implementation.
- Two peer organizations were also interviewed, and best practices were identified. These findings and additional research guided the development of recommended technology solution option that promotes integration.

Executive Summary: Recommendations

- Future needs identified from interviews fell under the following themes: increase system integration, eliminate manual processes, have a centralized database, have user friendly software, and add reporting and analytical functionality.
- Based on these future needs common themes, environmental scan, and research, we recommend the implementation of an enterprise resource planning (ERP) application as the solution option.

Implement an ERP system

- Procure and implement an ERP application across the organization. For quick wins, start with the financial and human resources modules.
- Procure and implement a recruitment software and a business intelligence software.
- Roll out the ProCare software for childcare services.

Establish an implementation team

- Hire a project manager and a business analyst to carry out project activities such as the creation of project documents: project plan, requirements (business, configuration, data migration etc.).
- Establish steering committee to provide advice and guidance for the project implementation.
- This project's sponsor is to champion project.
- Establish an internal operational team to take over the project once it transitions to operations.

Develop change strategy & policies

- Develop a change management strategy and plan.
- Develop a communication plan which should include a clear change story for the implementation with customized messaging.
- Document business processes and procedures with input from employees on how to work with the new technology systems.
- Develop and update policies to guide consistent decision-making: data retention policy, software purchasing policy etc.

Executive Summary: Benefits, Efficiencies, & Costs

- The enterprise resource planning (ERP) application will offer the Town many benefits such as:
 - Enhanced data collection,
 - Staff morale improved,
 - Better decision-making information,
 - Customer service improvements,
 - Greater resource management: more staff time gained to redeploy for more strategic activities and/or avoid future staffing needs,
 - More efficient use of our technology hardware,
 - Reliable data sharing among locations and interfaces, and
 - Efficiencies gained in data restoration and business continuity in the event of failure/breach.
- The Town may realize over \$54,000 annually in savings and efficiencies by implementing an ERP system.
- Based on high level conversations with multiple vendors, the costs for implementing an ERP in year 1 can range from \$57,000 to \$350,000. After year 1, the annual costs range from \$32,000 to \$96,000. A better cost estimate can be obtained once the Town has had after in-depth meetings with vendors.

Introduction

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Project Objectives

- The Town of St. Marys is a single tier municipality with 7,300 residents looking to modernize and find efficiencies in its current software applications and software processes. Pecunia House Consulting was engaged to conduct high level current state needs analysis of current software and provide recommendations for improvements.
- The scope of this project includes:
 - Conduct high level current state needs analysis of current software,
 - Conduct gap analysis, and
 - Provide recommendations including estimated costs for improvements identified as short-term, medium-term, long-term using a prioritization methodology.
- A three-phase approach was used for this project. This document is in the phase 3 report (see next slides for details on the project approach).
 - Phase 1 Stakeholder Engagement: in this phase, stakeholders were interviewed to document the current state, and identify a future state vision.
 - Phase 2 Software Needs Assessment: in this phase, software needs and gap analyses were conducted to determine the software systems, and activities required to achieve the future vision. An environmental scan was also conducted so that best practices at similar municipal organizations could be identified.
 - Phase 3 Report: in this phase, a final report (this document) will be created to provide a consolidation of all our findings.

Project Approach

	Phase 1 Stakeholder Engagement July 29 to Sept 13	Phase 2 Software Needs Assessment Sept 13 to Oct 22	Phase 3 Report Oct 22 to Nov 5
Activities	<ul style="list-style-type: none"> Review Town documentation Prepare a project plan Conduct Project Kick-off Meeting with Stakeholders Define Project Governance Confirm project approach Stakeholder Engagement Document Current State Document Software Requirements (future state) Conduct Workshop #1 to confirm Current State, Needs, define Priorities and Constraints 	<ul style="list-style-type: none"> Conduct Gap Analysis between current and future state Conduct software/system needs analysis Develop a detailed listing of all system requirements (by priority) and options Conduct environmental scan of 2 peer organizations Conduct Workshop #2 to review options, business & system requirements & costs 	<ul style="list-style-type: none"> Create draft report Review draft report with stakeholders Incorporate stakeholder feedback and finalize report Final knowledge transfer
Deliverables	<ul style="list-style-type: none"> Project Kick-off Current State Future needs Priorities Project plan Stakeholder interview list Meetings Workshop #1 	<ul style="list-style-type: none"> Software Needs Analysis with selected option Environmental scan findings Workshop #2 System & business requirements (priority & cost) Recommendations 	<ul style="list-style-type: none"> Draft report Final report Knowledge transfer



Current State: Key Findings



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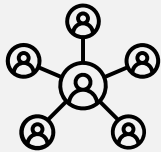
Current State Analysis Approach

The process below was used to gather current state data and document findings.

1) Organizational documents were reviewed, and key stakeholders were engaged to gather data and document the current state of software in the organization.

- **Conducted 21 interviews**

- 5 group interviews



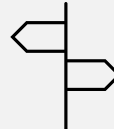
- 16 individual interviews



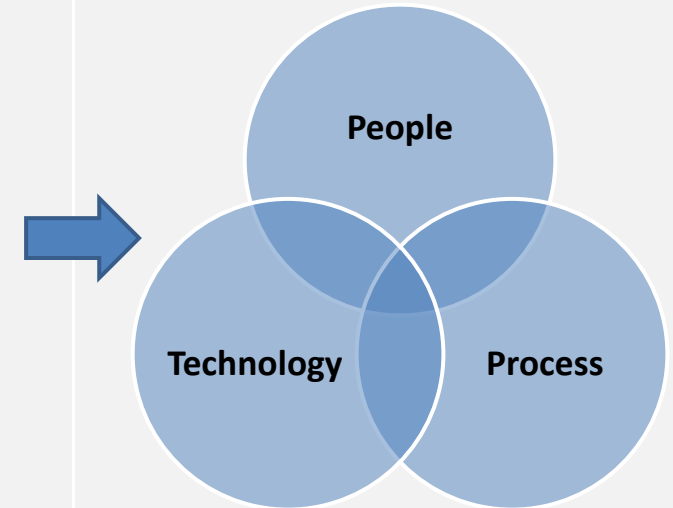
- **Organizational document review**



2) Current challenges and future needs were identified.



3) Current state findings were categorized into three domains: people, process and technology.

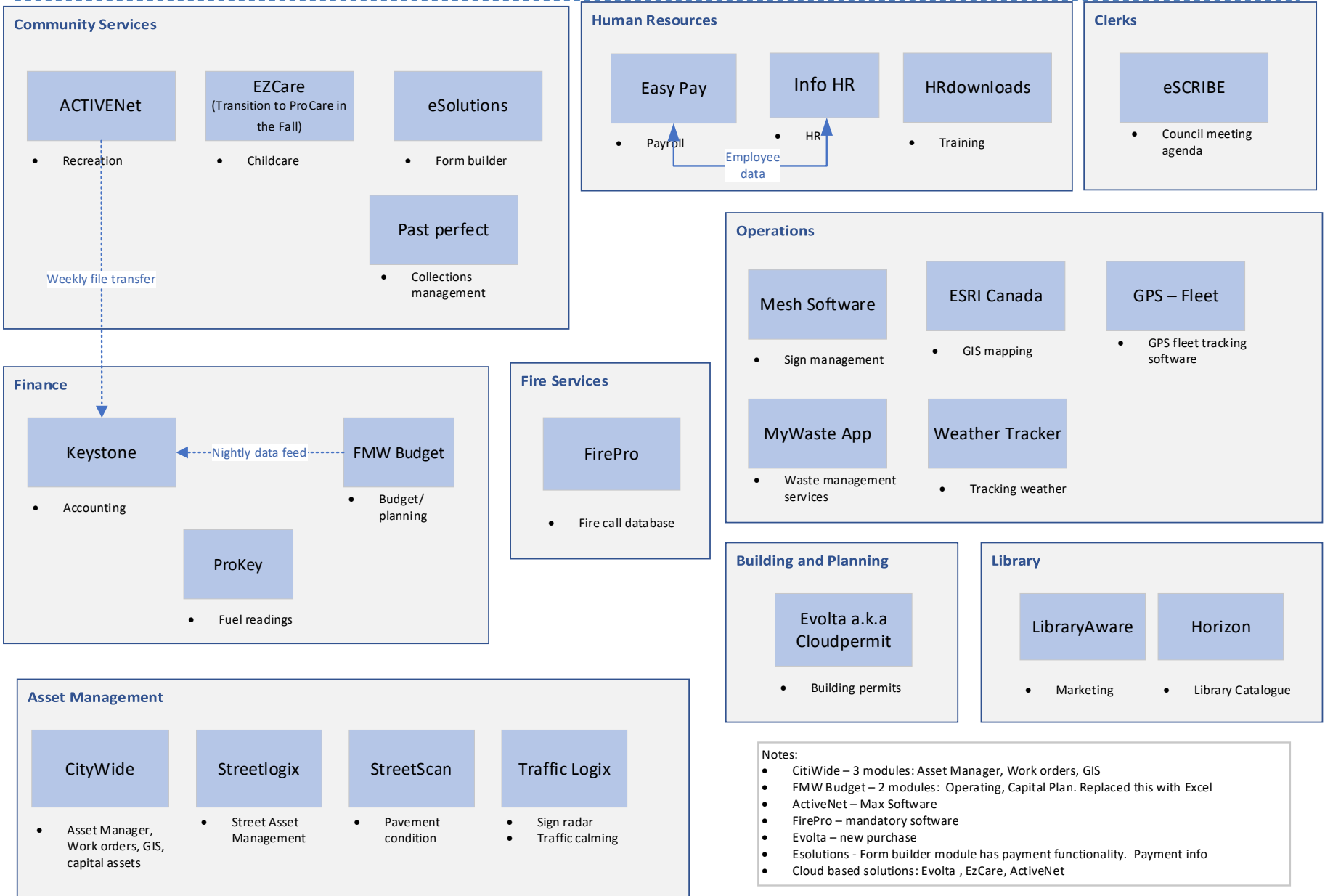


Stakeholders engaged

Senior Management and Staff interviewed

- Directors:
 - Corporate Services, HR, Building & Planning, Public Works, Community Services.
- Fire Chief
- Library CEO
- IT representatives:
 - Network Administrator, IT Workstation Administrator.
- Community Services representatives:
 - Senior Services Supervisor, Aquatics Supervisor, Cultural Services Supervisor, Recreation Supervisor, Operations Supervisor.
- Finance representatives:
 - Accounting Clerk, Finance Clerk, Tax Collector.
- Super Users representatives:
 - Clerk, Payroll/Benefit Specialist, Asset Management Specialist, PW/Planning Assistant, PW/Planning Coordinator, Community Services Coordinator, ELC Supervisor, Communications Manager, Library Services Coordinator.
- Customer Service representatives: Library CEO, Clerk, Senior Services Supervisor.

Key Software and Functions



- Notes:
- CitiWide – 3 modules: Asset Manager, Work orders, GIS
 - FMW Budget – 2 modules: Operating, Capital Plan. Replaced this with Excel
 - ActiveNet – Max Software
 - FirePro – mandatory software
 - Evolta – new purchase
 - Esolutions - Form builder module has payment functionality. Payment info
 - Cloud based solutions: Evolta , EzCare, ActiveNet



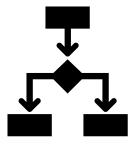
Current State: People

Culture

- Staff are open to new software.
- Staff are customer service focused.
- There is concern with longevity of some software; if the vendor ceases operations, there is a high potential for data loss and negative impact on day-to-day business operations.
- There is data entry fatigue experienced by staff caused by many manual processes.
 - There is also duplication of effort due to lack of system integration.
- Stakeholders reported having limited confidence in data and lack of trust in reports produced by some software.
- The executive sponsor for this project is very focused on modernizing the Town's systems and maximizing efficiencies.
- Stakeholders reported being very happy with the organization's ability to pivot and work remotely during pandemic.
- Most interviewees were unaware of this project.

Implications To Future State

- High adoption rate of new software can be expected due to staff's openness to new technology.
- Initiative has senior management support and executive sponsorship which is integral to project success.
- Change management strategy will need to include effective communication to increase awareness of project and project success.



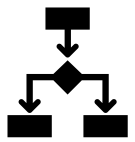
Current State: Process

Manual Processes

- The manual processes at the Town exert significant pressure on human resources and time. Some examples reported are:
 - Manual transfer of data from HR software (Info HR) to payroll software (Easy Pay) takes ½ day biweekly.
 - Exhaustive amount of time spent correcting and reviewing timesheet data in the difficult HR software because staff do not always enter the right time code in the right place.
- The lack of system integration has led to gaps in communication. Changes made in one system must be manually repeated in another system by staff.

Data Collection and Quality

- Data is not uniform across the organization and is not stored in a centralized manner.
 - There isn't a single source of truth that staff can rely on.
- Data entry issues: staff reported issues with data synching, errors and duplication.
- Data error risk exposure is high across the organization.
 - Data is manually entered into the siloed systems.



Current State: Process

Data Analysis and Reporting

- Reporting is not user-friendly or consistent.
 - Staff reported difficulty creating reports due to the limited reporting and analytical functionalities of current systems.
 - Reports created from one reporting period to the next do not have consistent data.
- There is no mechanism to do proper analytics.
 - It is not possible to analyze current data to get any business intelligence metrics for the Town.

Implications To Future State

- For any new software to be successfully implemented:
 - Manual processes need to be standardized, automated and documented to ensure that business processes are carried out consistently.
 - Maximizing the full potential of any technology solution will require dynamic processes that are user friendly and automated.
 - Automated processes will reduce staff frustration, duplication of effort, and increase staff's trust in the Town's data.
- Data is the foundation of business intelligence and will need to be centralized. Its integration will be challenging.
- Any solution implemented will need to improve the reporting process and data flow between departments.



Current State: Technology

Integration

- Majority of systems are siloed and not integrated with the Town's financial software (Keystone).
- Data must be transferred manually by Staff from one system to the next which results in a lack of data communication, flow & linkage between departments.

Software efficiency

- Staff do not find some software user friendly. Info HR and Keystone were the top 2 software systems cited.
 - Customizing and building reports are difficult.
- The Town has created efficiencies by sharing of software with the County.
 - Horizon is a software shared with the County
 - GPS-fleet is another software that is being considered for sharing in the future.

Software rollout

- A centralized approach is required for software rollouts.
- More implementation resources required to roll out software.
 - The implementation of ProCare (childcare software) has been delayed due to the lack of a dedicated implementation team
 - ACTIVENet has been implemented but not all modules are functional yet due to competing priorities



Current State: Technology

Software under-utilization

- Not all features and functionality of the software owned by the Town has been implemented or used. Software reported by staff include: EZCare, ACTIVENet, CityWide, eScribe, Mesh etc.

Implications To Future State

- Without the integration of systems, user efficiency and data will continue to be compromised.
 - The future software solution must reduce the gaps between systems.
- Common functionalities across departments need to be defined and aligned to implement the least number of software solutions.
- An implementation plan that accounts for roadblocks will be required for the successful rollout of new software solutions.

Future Needs: Prioritization Method

During interviews, staff identified many high-level business requirements (see Appendix A). These high-level business requirements were reviewed by stakeholders and our team, and 26 were identified to be part of this project. The 26 requirements were then prioritized by stakeholders using the Moscow method (see Appendix B). Under this prioritization method, stakeholders assigned the 26 requirements to four categories:

1. **M - Must have**

- In this category, stakeholders identified all the requirements that are necessary and mandatory for the successful completion of this project.
- 13 requirements are in this category.

2. **S - Should have**

- In this category, stakeholders grouped requirements that are important to this project but are not necessary.
- 6 requirements are in this category.

3. **C - Could have**

- In this third category, stakeholders included requirements that are nice to have but will make a small impact for this project.
- 4 requirements are in this category.

4. **W - Will not have**

- In this last category are the requirements that stakeholders identified as not a priority for this project.
- 3 requirements are in this category.

Future Needs: Must Have Category

The 13 must-have requirements identified by stakeholders to be addressed by this project are as follows:

Highest Priority Requirements

1. A recruitment software/plugin is required.
2. An HRIS software is required and must have the following functionality: timesheet & reporting capabilities, integration with payroll, mobile friendly, easy approval process.
3. Canned/off-the-shelf systems are required.
4. A tax software is required if Keystone is replaced.
5. Records retention policy and software is required.
6. User friendly software is required.
7. Minimize the number of software and sign-ins across the organization.
8. Purchasing policy: better vetting of software, and centralize purchase & implementation of software.
9. Require change management strategy.
10. System security will remain a priority.
11. Improved reporting and analytic capabilities.
12. Require integration between financial system with any other software that perform financial transactions.
13. One database for customer base which can also track their complaints.

Findings From Peer Organizations

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Environmental Scan

- Two peer organizations were interviewed to identify best practices of similar municipal organizations and to assess the Town's current and future states against. Findings from the environmental scan were provided to stakeholders with differing perspectives on how the future state may be designed.
- The two peer organizations interviewed were:
 - Municipality of North Perth
 - Township of Georgian Bay

Profile

- The Municipality of North Perth serves 14,000 residents.
- The Municipality has 150 full time employees and three of them work for the IT department.
- Operates a hybrid IT system: operate both the cloud and on-premise infrastructure.

Strengths / Successes

- They are currently implementing a new maintenance management system successfully and they have good stakeholder buy-in.
- As part of their change management best practice, everyone at the organization is taking a change management course.
- They formed an IT governance group with representation of all departments across the organization.

Weaknesses / Challenges

- Ensuring that everyone is aware of what's going on is difficult
- They buy software and don't utilize it

Future Opportunities

- They are interested in partnering with another organization to purchase childcare software.
- IT governance group: they are looking to add a person with a corporate services vision to the group.

Lessons Learnt

- IT and Finance systems should be prioritized.
- IT needs to know what software packages are being used in the organization.
- People need to think about the whole organization.
- Work to get rid of the silos in the organization.
- Every department needs to be at the table but the person leading the meetings needs to have a corporate view.
- Everyone at the organization should take a change management course.
- Implementation best practices:
 - Standard operating procedures should be created, and staff should be cross trained. This practice allows staff to keep learning and ensures there are no gaps in business activities when a staff member is away.
 - Share project status at every meeting.
 - Implement new software in phases.



Profile

- The township has 2,800 residents however in the summer, it serves about 18,000 people.
- They have 30 full time employees, and no IT staff because they use an IT Managed Services company for their IT needs.

Strengths / Successes

- Their new ERP implementation will improve integration and they hired a Business & Data Analyst to help with the implementation.
- Creation of an IT strategic plan.
- Migrated from On-Premise infrastructure to a Cloud infrastructure.
- Council approved procurement of the ERP software.
- Got stakeholder buy-in by doing 2-to-5-hour customized vendor demo sessions for each department.

Weaknesses / Challenges

- Lack of Integration across the organization.
- ERP implementation:
 - Haven't had a lot of play time with the ERP.
 - Asset management: replacement costs & forecasting will not be covered by ERP solution.



Future Opportunities

- The ERP software will be rolled out in 9 releases over 12 months.
 - Finance will be the first release.
- The new ERP software will replace 4 current applications
- They will work with the ERP vendor to build what is lacking in the software.
- The Township is open to doing a district partnership to share software costs.

Lessons Learnt

- The ERP database backend is not visible to customers.
 - Data stored in the ERP is not controlled by the Township.
 - Implementation of the software will take a year.
- Migration: wait till the new software has been rolled out before telling current software suppliers that their software will no longer be required.

Future State: Solution Options Analysis

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Gap Analysis

- A gap analysis was conducted to determine the actions required to achieve the Town's future vision for its software, data, processes and policies.

Software Platform		
Current State	Future State	Action
<ul style="list-style-type: none">▪ Siloed systems	<ul style="list-style-type: none">▪ Integrated systems	<ul style="list-style-type: none">▪ Implement an ERP to reduce the number of systems, and to make information more accessible across the organization.▪ Establish a project implementation team (PM, BA, Steering Committee).▪ Train users as part of the change management strategy.

Gap Analysis (continued)

Data and Reporting

Current State

- Fragmented data
- High data error risk exposure
- Reporting is not user-friendly or consistent

Future State

- Centralized data
- Improved reporting & analytic capabilities

Action

- Implement a business intelligence tool.
- Standardize and automate the reporting process.
- Train users on the data and reporting process as part of the change management strategy.

Gap Analysis (continued)

Processes

Current State

- Manual and resource intensive processes

Future State

- Standardized and automated processes

Action

- Implement a business process initiative to document and standardize processes.
- Update and document processes to include the new software.

Gap Analysis (continued)

Policies

Current State

- Lack or unawareness of policies

Future State

- Documented policies

Action

- Implement a business policy initiative to create and document policies.
- Develop records retention policy.
- Update purchasing policy to ensure users and IT are consulted prior to software purchase.

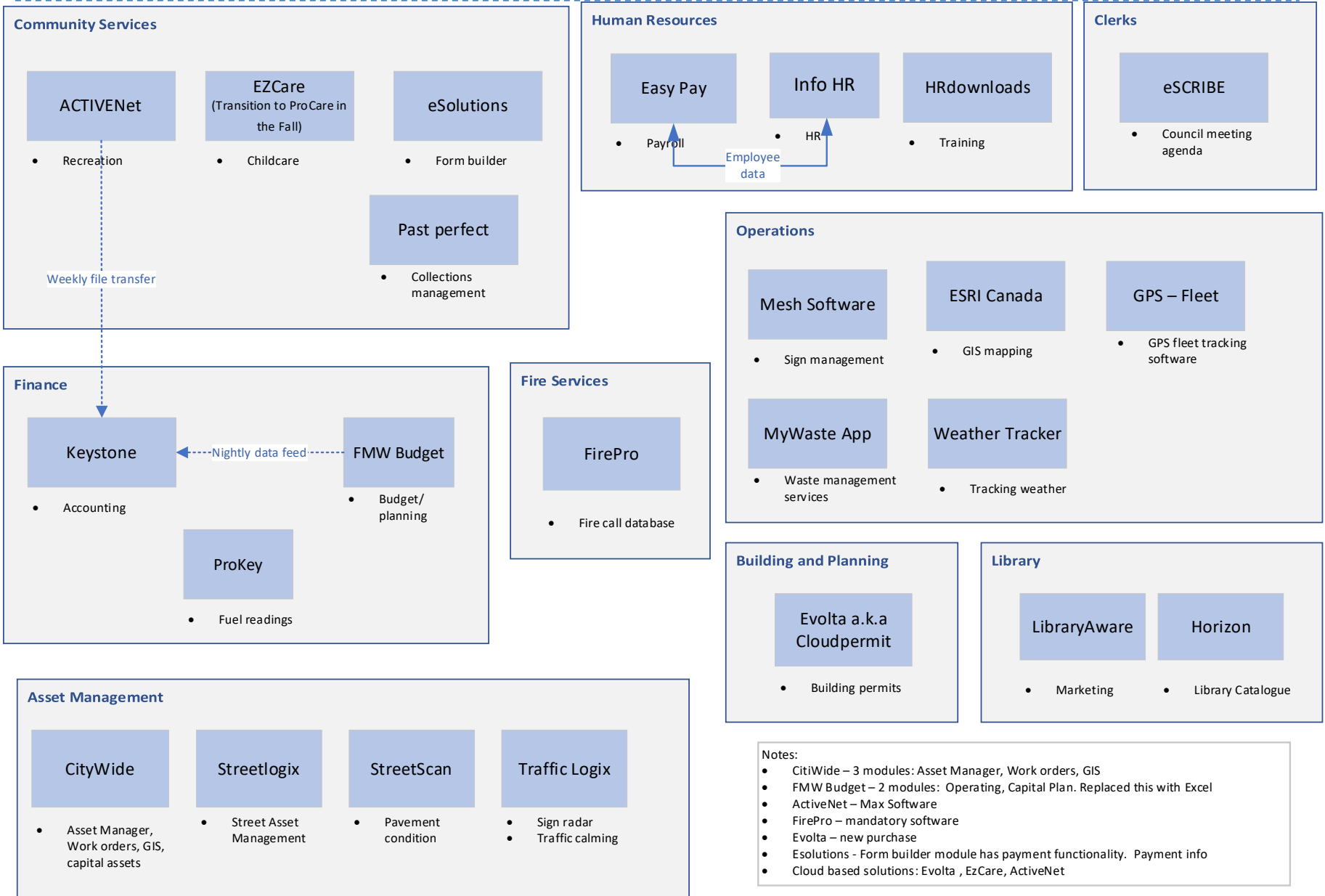
Solution Options

- The consulting team conducted a software needs analysis to determine the solution options required to achieve the future vision.
 - Our recommendations were also based on data from the environmental scan and research findings.
- The solution options focus on integration in order to:
 - Increase automation.
 - Increase data communication between departments.
 - Increase data quality.
 - Decrease number of siloed systems.
- 4 solution options were considered:
 - Status quo,
 - Full customization,
 - ERP solution, and
 - Software suite.
- The level of system integration of these 4 solution options are important because the higher the integration, the more streamlined the processes, the lower the costs, the higher the efficiency, and the easier it is to make changes and maintain the changes in the long-term.

Option #1: Status Quo - Retain Current Systems

- The Status Quo solution option is the least desirable of all options (see the next slide for the diagram).
- It maintains current state however it has the lowest level of system integration.
- **Advantages:**
 - No new financial investment will be required with this option.
 - There will be no disruption to current business and technology processes.
- **Disadvantages:**
 - Maintaining status quo sacrifices business process efficiencies.
 - Staff frustrations in existing systems will remain.
 - System fragmentation is retained with this solution option.
 - Reactive to end-of-life software and software vulnerability when vendor stops support for software
 - With this option, the Town will be exposed to compromised security and unreliability if it's not proactive in replacing the end-of-life software

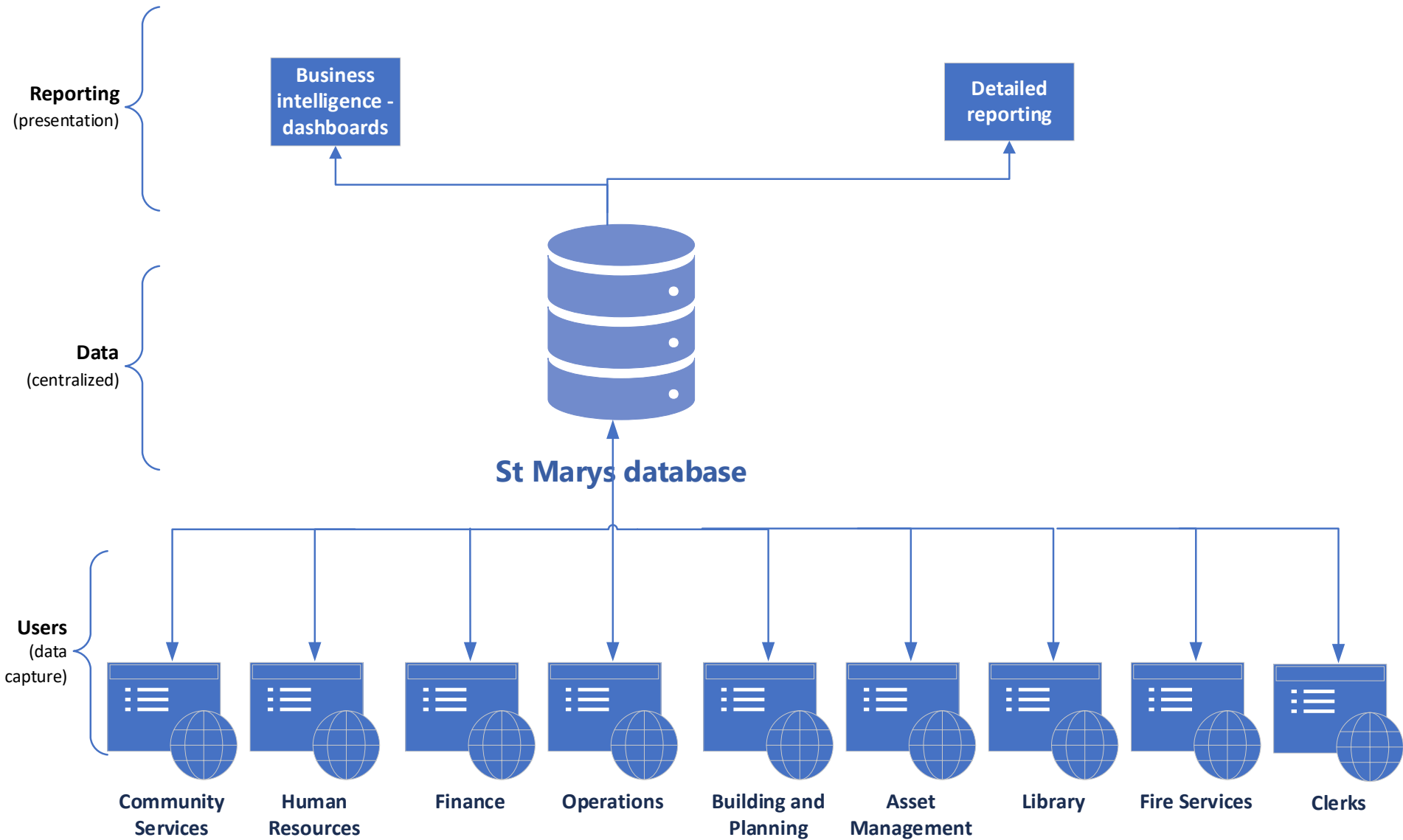
Option #1: Status Quo - Retain Current Systems (continue)



Option #2: Full Customization

- With this option, software is specifically developed and customized for all departments and users (see next slide for the diagram).
- **Advantages:**
 - This solution option can meet all business goals and unique requirements.
 - The Town will have complete ownership of the customized system.
 - This solution option offers better system efficiency and flexibility.
 - The Town's system will be fully integrated.
- **Disadvantages:**
 - This solution option will take years to fully develop.
 - The implementation will require significant time and effort from all key stakeholders.
 - A high initial financial investment will be required for the implementation.
 - In-house IT support expertise will be required for the lifetime of the solution.
 - Data migration will take time.

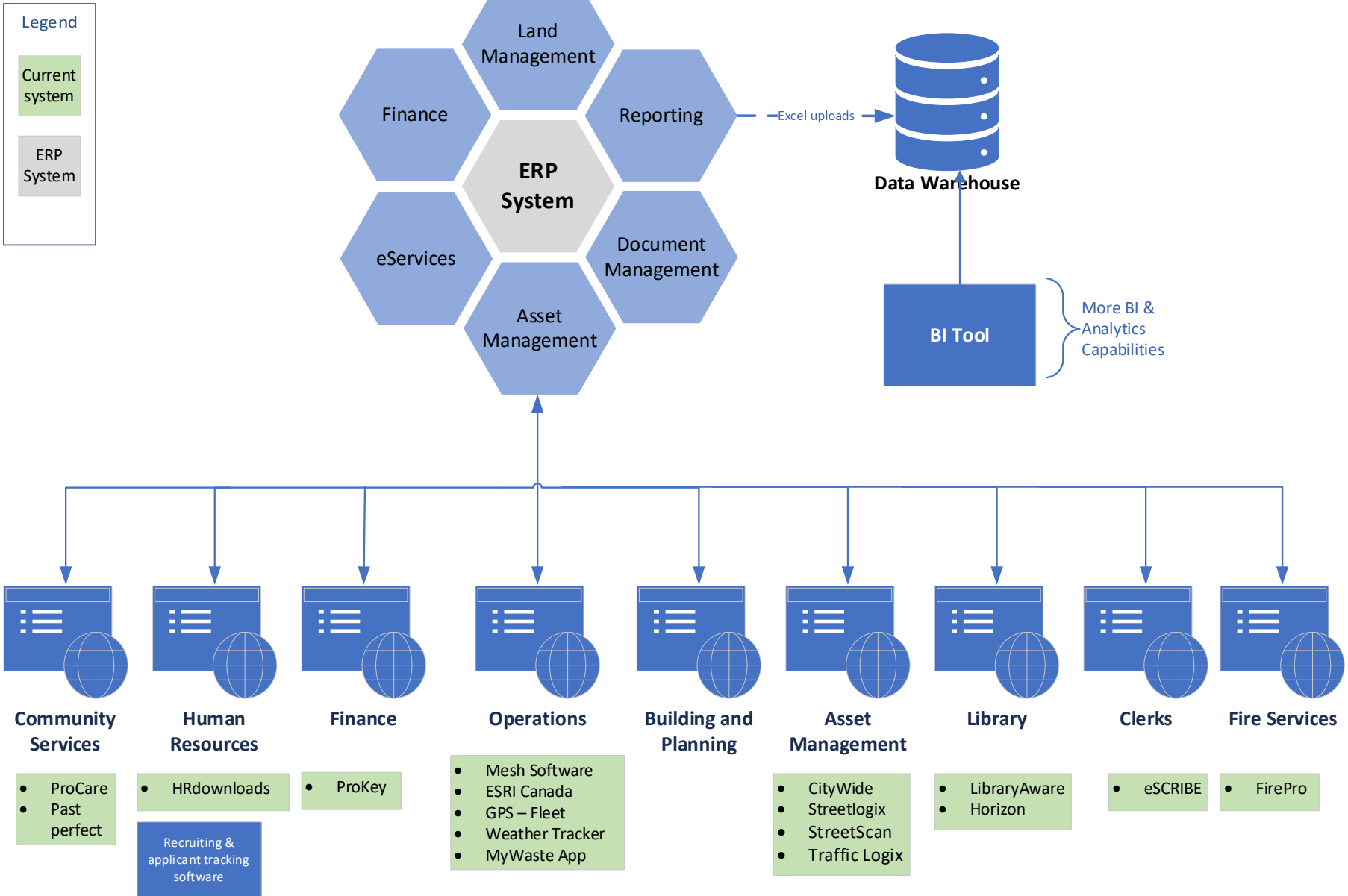
Option #2: Full Customization (continue)



Option #3: ERP Solution

- This solution option implements an Enterprise Resource Planning (ERP) solution (see next slide for the diagram).
 - With an ERP application, the Town's main business processes can be integrated, and their day-to-day business activities can be managed seamlessly in the application.
- **Advantages:**
 - Data is centralized in one application.
 - Most of the Town's business goals & requirements can be met.
 - This solution option will take less time to implement than a fully customized solution (option #2).
 - More analytics and reporting capability is provided with this solution option.
 - Can be considered as part of an insurance/risk management strategy for original data to be stored on vendor's servers.
 - Increases technology and business process efficiencies.
 - Increases system and department integration across the Town.
- **Disadvantages:**
 - Requires ongoing fees (license, support) plus an initial implementation cost.
 - High up-front financial investment, and high annual maintenance costs.
 - The roll-out may require a long implementation timeframe (years).
 - Data migration will take time.
 - High resource requirements from the Town will be required.
 - There's a risk of implementation failure.

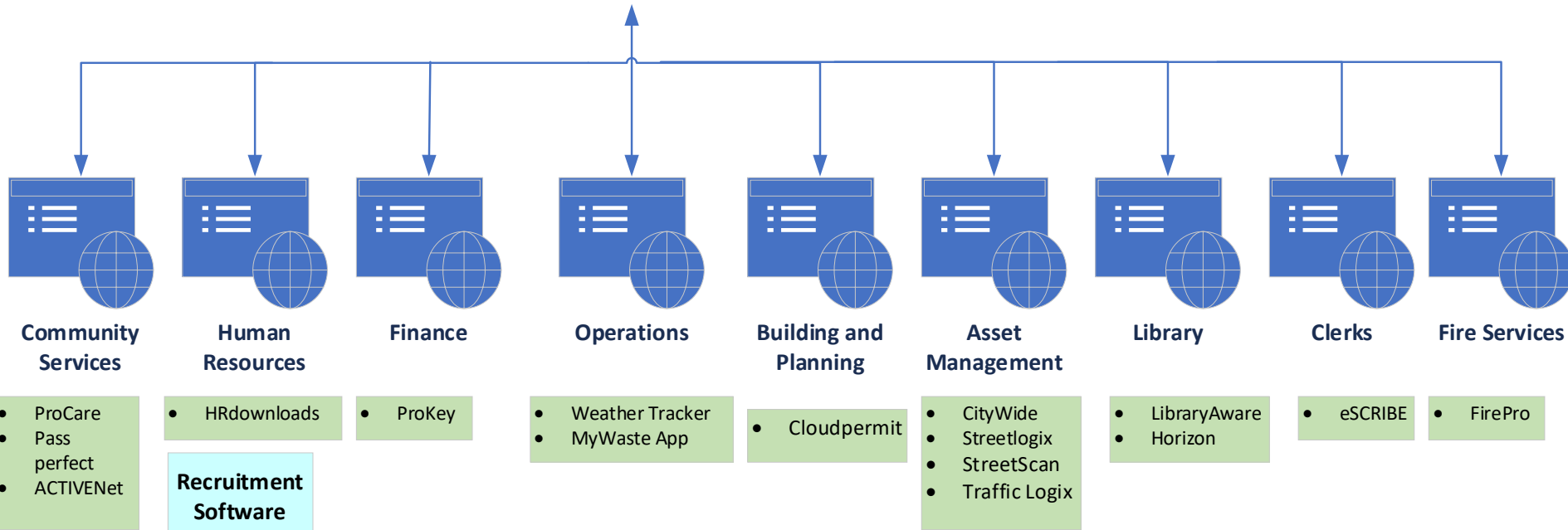
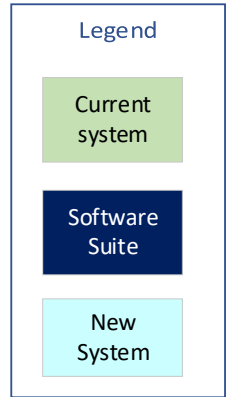
Option #3: ERP Solution (continue)



Option #4: Software Suite

- This solution option involves the implementation of a software suite (package of integrated software applications); see next slide for the diagram.
- **Advantages:**
 - This solution option provides technology efficiencies.
 - Increases software integration; there will be less fragmented software.
 - This solution option is more cost effective than buying individual software packages.
 - With a software suite, there is more ease of use due to similar user interface across the suite.
 - Faster for users to learn a software suite than the individual distinct applications.
- **Disadvantages:**
 - Too much investment in one vendor.
 - Likelihood of under-utilization since some of the purchased features may never be used.

Option #4: Software Suite (continue)





Recommendations and Estimated Costs



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Recommendations

- Recommendations were based on data from the environmental scan, interviews and research findings. Questions used to assess a particular software include:
 - What is the reputation of the vendor amongst peer municipal organizations?
 - How well does the product interface with other products in the marketplace?
 - How long has the vendor been operating in the marketplace?
- Advantages and disadvantages of each solution options were very important in determining the recommended solution option.
- Solution options were also assessed based on 3 dimensions:
 1. **Business and Technical Alignment:** how well does the solution option align with the Town's business and technical goals? Does the solution option meet the Town's must-have requirements?
 2. **Implementation effort:** how easily can the solution option be implemented to provide quick wins for the Town and how easy can the solution option be rolled out across the Town? How easy can the Town maintain the solution option with its current resources?
 3. **Cost:** what are the implementation and on-going costs of the solution option? What efficiencies costs can the Town realize by implementing the solution option compared to alternatives and status quo?
- Recommendations and their associated actions have been presented in short, medium and long term:
 - Short term actions are to be implemented in year 1.
 - Medium term actions are to be implemented from year 2 to year 3.
 - Long term actions are to be implemented from year 4 to year 5.

Recommendations (continued)

- The 3 main recommendations are:
 - **Implement an ERP solution (solution option #3)**
 - This is the best solution that provides the highest level of system integration.
 - **Establish implementation team**
 - All viable solution options will require significant implementation time thus having an implementation team dedicated to the project increases the successful rollout of the ERP application.
 - **Develop change strategy and policies**
 - The development of a change management strategy is required to ensure the Town successfully makes and maintains the change across departments, and also adapts quickly to the new ways of conducting business with the new technology solution.

Recommendations: Benefits

An ERP solution will change the way the Town operates and offers many benefits:

- **Staff morale improved**
 - The ERP solution will automate manual processes thereby increasing easier and faster collaboration across departments and teams at the Town. Staff frustration will decrease as many manual labor and processes are eliminated. Staff morale and experience will also increase as they spend less time struggling with manual business tasks and can spend more time working as a team on more complex and strategic tasks.

- **Better decision-making information**
 - The ERP solution provides the highest level of system integration and will enable data entered by one staff member to be available and transparent to other staff members across the Town. Data can then be quickly turned into business intelligence reports and insights that decision makers can use to make evidence-based decisions in a timeline manner.

- **Customer service improvements**
 - With the ERP solution automating time intensive manual tasks, Staff can be reallocated to serve customers more. With its enhanced data collection system, resident data will be centralized which will allow for improved customer analytics and customer business intelligence. The Town will be able to better understand its residents and their needs. By utilizing this single source of truth and single view of residents, staff can serve residents better and faster. For example, with all resident information in a shared, easily accessible database, staff can process resident payments quickly at any Town location. They will be able to provide payment history information, answer other resident queries or provide status on resident complaints immediately on the spot with accuracy and without having to forward customer queries to other departments.

Recommendations: Benefits (continued)

An ERP solution will change the way the Town operates and offers many benefits (continued):

- **More staff time gained to redeploy for more strategic activities and/or avoid future staffing needs**
 - The ERP system will increase staff time gained thereby improving overall staff effectiveness because more staff time can be shifted from previous manual tasks to strategic activities for the Town and residents. For example, the ERP system will automate repeatable manual tasks such as reporting, data entry etc. With automation, the staff time spent these manual business tasks are almost eliminated, allowing staff to focus on value added strategic activities.

- **More efficient use of our technology hardware**
 - The ERP solution will replace many software systems and reduce the number of technology hardware such as servers that the Town will need to manage. The hardware resources can be dedicated more efficiently to support the remaining software. Security is also increased because as the number of software systems decrease, the number of potential access points decrease.

- **Reliable data sharing among locations and interfaces**
 - Data reliability, accuracy and availability will be supported and increased by the ERP system across the Town and enable better reporting and identification of trends. The integration of data throughout the Town will allow staff to work more efficiently and be more agile. Staff will have a central view of the financial, operational and business data across various interfaces in real-time.

Recommendations: Benefits (continued)

An ERP solution will change the way the Town operates and offers many benefits (continued):

- **Efficiencies gained in data restoration and business continuity in the event of failure/breach**
 - In the event of a failure or breach, a back-up copy of data is the best way for the Town to avoid data loss and ensure business continuity. Data communication is crucial during disasters. The geographic distribution of the ERP cloud infrastructure increases data security and availability for users during disasters. With the implementation of an ERP solution, staff will be able to access data during a failure or breach.

Recommendations: Benefits (continued)

All viable solution options will require significant implementation time and we recommend the Town establish an implementation team dedicated to the project. Hiring an external project manager and business analyst on contract would ensure that the ERP solution will be rolled out successfully on time. The benefits of an implementation team are:

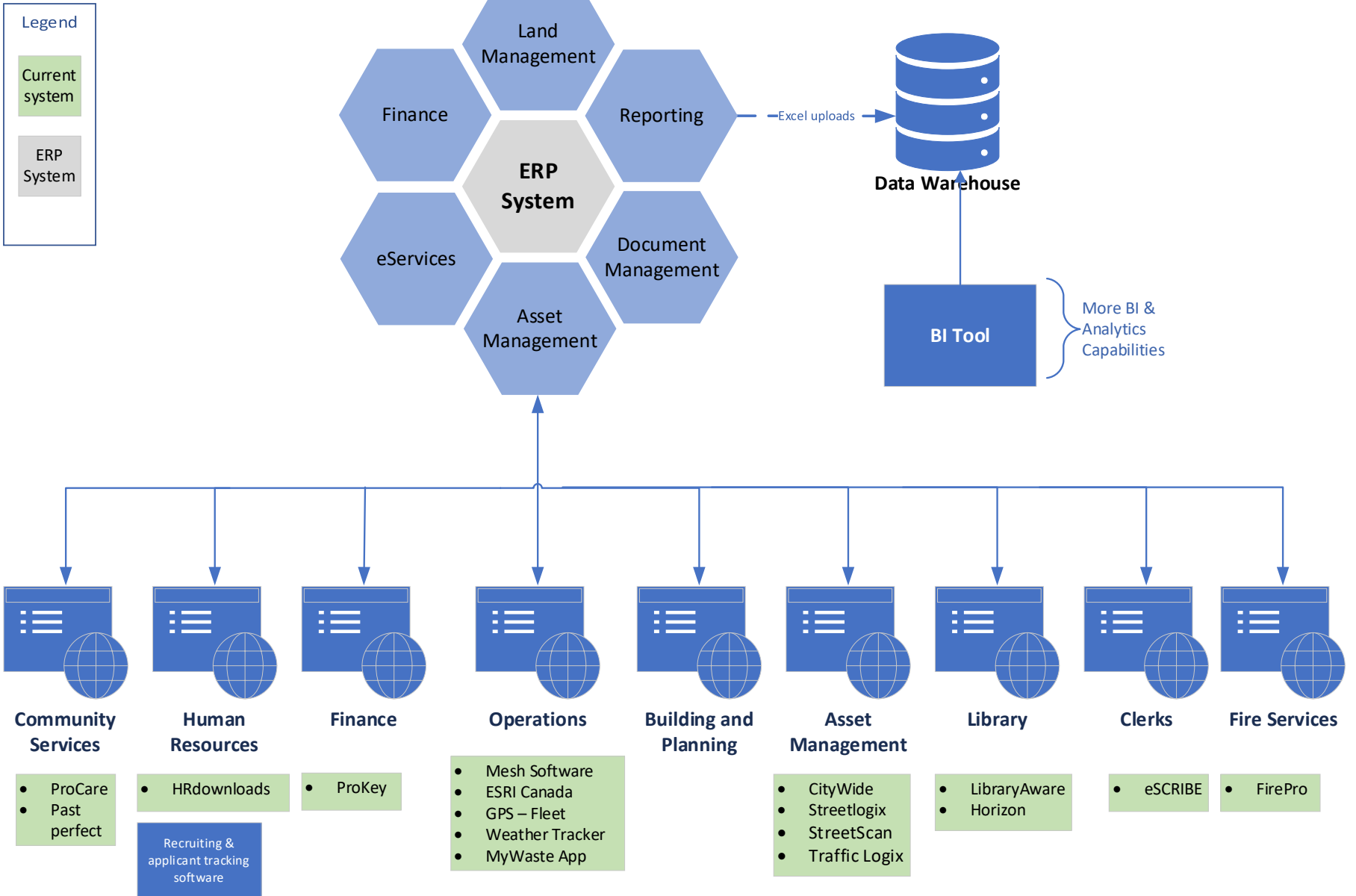
- **Cost effectiveness:**
 - By hiring a project manager and business analyst on contract, the Town will reduce all costs associated with recruitment. They will also only pay an agreed upon fee based on the contract and will not have to pay salaries and benefits associated with permanent employees. This arrangement is more cost effective in the long-run.
- **Dedication to the project:**
 - The implementation team will be 100% focused on the execution of the project and will allow Staff to focus on strategy and goals of the project. Staff can focus on their daily vital tasks while the implementation team focuses on the vital project tasks such as documenting business requirements, creating the project plan and other project documents, and driving the execution of the change management activities. A risk identified in this report is data migration which will require extensive amount of time. The business analyst and project manager will define the data migration plan and policies. The team can execute the data preparation, integration and testing activities. The team will also perform other data migration activities such as: identifying data source and target systems, assess data migration impact on reports and business activities, perform data cleansing activities, and manage timelines.

Recommendation 1: Implement an ERP Solution (option #3)

Option #3 is the recommended solution option.

- Recommended software:
 - The following software are the preferred shortlist based on environmental scan & research:
 - **ERP options:**
 - TownSuite, Diamond ERP Software.
 - **Recruitment options:**
 - Breezy HR, Zoho Recruit.
 - **Business intelligence options:**
 - Microsoft Power BI, Tableau.
- It is also recommended that the Town first take advantage of free trial versions of all options before purchasing recruitment and business intelligence (BI) software.
- It is also recommended that the Town completed business requirements prior to demos with ERP vendors.

Recommendation 1: ERP Solution (continue)



Recommendation 1: ERP Solution (continue)

	Short Term Year 1	Medium Term Year 2-3	Long Term Year 4-5
Activities	<ul style="list-style-type: none"> Procure an ERP application and implement the Finance and HR modules. Test free trial of recruitment software. Procure and implement the preferred recruitment software after the free trial period. Roll out ProCare for the childcare department. 	<ul style="list-style-type: none"> Implement the next ERP module as required. Test free trial of BI tools. Procure and implement the preferred BI tool after the free trial period. 	<ul style="list-style-type: none"> Rollout the remaining ERP modules as required by the organization.
Costs	<ul style="list-style-type: none"> Installation and annual subscription cost of ERP, ProCare and recruitment applications. 	<ul style="list-style-type: none"> Installation and annual subscription cost of BI tool. Annual subscription cost of ERP, recruitment software. Implementation cost of new ERP modules. 	<ul style="list-style-type: none"> Annual subscription cost of ERP, BI tool, and recruitment software. Implementation cost of new ERP modules.

Recommendation 2: Establish an Implementation Team

	Short Term Year 1	Medium Term Year 2-3	Long Term Year 4-5
Activities	<ul style="list-style-type: none"> ▪ Hire a project manager. ▪ Hire a business analyst. ▪ Establish a steering committee. ▪ Sponsor to champion project. ▪ Create project documents such as implementation plan, project plan, requirements (business, configuration, data migration etc). 	<ul style="list-style-type: none"> ▪ Consider maintaining the implementation team if required. ▪ Establish internal operational team. 	<ul style="list-style-type: none"> ▪ Consider maintaining the implementation team if required.
Costs	<ul style="list-style-type: none"> ▪ Labour cost of Project Manager (part-time). ▪ Labour cost of Business Analyst (part-time). ▪ Labour cost of Internal Staff. 	<ul style="list-style-type: none"> ▪ Labour cost of Project Manager (part-time) if required. ▪ Labour cost of Business Analyst (part-time) if required. ▪ Labour cost of Internal Staff. 	<ul style="list-style-type: none"> ▪ Labour cost of Internal Staff.

Recommendation 3: Develop Change Strategy and Policies

	Short Term Year 1	Medium Term Year 2-3	Long Term Year 4-5
Activities	<ul style="list-style-type: none"> Develop a Change Management Strategy and Plan. Develop a communication plan: include a clear change story for the implementation with customized messaging. Document business processes and procedures with input from employees on how to work with new technology tools. Develop or update policies to guide consistent decision-making: data retention policy, software purchasing policy etc. Train staff. 	<ul style="list-style-type: none"> Update and develop polices and procedures as required. Train staff as required. 	<ul style="list-style-type: none"> Update and develop polices and procedures as required. Train staff as required.
Costs	<ul style="list-style-type: none"> Labour cost of Project Manager (part-time). Labour cost of Business Analyst (part-time). Labour cost of Internal Staff. 	<ul style="list-style-type: none"> Labour cost of Internal Staff. 	<ul style="list-style-type: none"> Labour cost of Internal Staff.

Estimated Costs: Software Implementation

- The software costs below were obtained from online research and discussions with vendors (see Appendix C for more details). These costs are estimates and to finalize them, in-depth meetings with vendors will be required.
 - ERP costs are estimates based on the implementation of 2 modules (Finance & HR)

	Year 1	Year 2	Year 3
ERP application	\$57,120 to \$351,158	\$32,758 to \$96,000	\$32,758 to \$96,000
BI application	\$3,288 + implementation fee	\$3,288	\$3,288
Recruitment application	\$2,988 + implementation fee	\$2,988	\$2,988
Implementation Team (contract PM & BA)	\$75,000	\$75,000	\$75,000

Estimated Efficiency Savings

During the interviews, staff also highlighted some costs due to manual processes and lack of integration.

- It is estimated that the Town will save \$54,934 per year by implementing an ERP system. This value was calculated by multiplying the annual hours of the manual processes by the hourly rate and by the estimated efficiency rate.
- The total annual hours spent on manual processes was based on data from consultation with staff and management. The rate is the average wage/benefits costs within the Town. The estimated efficiency rate is the percentage of time expected to be saved by moving to an ERP system/processes.

Estimated Efficiency Savings (Based on staff interviews and management discussions)						
Software	Manual Process	Hours	Rate	Costs	Estimated Efficiency from ERP process change %	Efficiency Savings (Annual) \$
Assumptions:	Average Rate of pay - gross rate + benefits	\$	30.00			
	# of hours per week		35			
	# of weeks per years		50			
	# of days per week		5			
Payroll	Transfer of data from infohr to easypay (4hrs biweekly)	104	30.00	\$ 3,120.00	75%	\$ 2,340.00
Info HR	Timesheet entry and approval (Timesheet Tab)	2652	30.00	\$ 79,560.00	40%	\$ 31,824.00
EZCare	Daycare invoicing (1 week per month)	420	30.00	\$ 12,600.00	25%	\$ 3,150.00
Keystone	Daycare payment processing (2 hours per month)	24	30.00	\$ 720.00	100%	\$ 720.00
Activenet	Weekly Activenet to Keystone Reconciliation (8 hr/week)	140	30.00	\$ 4,200.00	100%	\$ 4,200.00
Finance	Monthly account and bank reconciliations (2 days/month)	840	30.00	\$ 25,200.00	10%	\$ 2,520.00
FMW	Budget software data transfer verification (4 hrs/month)	48	30.00	\$ 1,440.00	100%	\$ 1,440.00
Evolta	Data transfer to Keystone (20 min per day)	83	30.00	\$ 2,500.00	100%	\$ 2,500.00
Recruitment	832 hours per year - no current system automation	832	30.00	\$ 24,960.00	25%	\$ 6,240.00
IT Support	User system support (20 hrs/mth)	240	30.00	\$ 7,200.00	20%	\$ 1,440.00
General IT	Software Patching and Maintenance (20 hrs/mth)	240	30.00	\$ 7,200.00	25%	\$ 1,800.00
Total (\$)				\$ 154,300.00		\$ 54,934.00

Estimated Savings


- The annual estimated savings of \$12,500 was calculated by subtracting the estimated annual cost of a new ERP application from the annual cost of current individual software systems that would be replaced. Extra savings will also be realized since the Town will no longer to maintain the hardware required to run these systems.
 - Estimated annual cost of the ERP were derived from high level discussion with vendors and from the environmental scan data.

ERP Project - Direct Estimated Savings			
<i>Estimated as at October 18, 2021</i>			
Software	Annual Fee	Priority of Replacement	
Finance G/L, A/P	\$12,500	High	Replace in Year 1
Asset Management	\$8,500	Medium	Replace in Year 2-3
Asset Management	\$2,000	Medium	Replace in Year 2-3
Asset Management	incl. above	Medium	Replace in Year 2-3
Budget	\$5,000	High	Replace in Year 1
Payroll	\$350	High	Replace in Year 1
HR	\$6,000	High	Replace in Year 1
Recreation	\$15,500	Medium	Replace in Year 2-3
Building	\$12,700	Medium	Replace in Year 2-3
	Total Annual Cost	\$62,550	
	Estimated annual cost using ERP Solution	\$50,000	
<i>*Detailed quotes not yet obtained, estimates based on discussions with various suppliers</i>			
	Potential Annual Software Savings	\$12,550	

Estimated Savings (continued)

Another source of extra savings will come from the automation of manual reports.

- Manual reports and its creation process was another frustration highlight by Staff during interviews. A lot of time is spent creating the reports. Staff spend a lot of time pulling data from multiple sources, analyzing and aligning the data, manually review the data, and sharing the reports with the intended audience. This task is repeated at least once every month.
- A study found that 22% of an employee's time is spent on repetitive tasks such as the creation of manual reports. This equates to and costs the Town 4.4 business days per month.
 - An ERP system will automate the reporting process and will save over 52.8 business days on annual basis
 - Using an average hourly rate of \$30, this savings will be \$11,088 annually (52.8 days x 7 hours/day x \$30/hour)



Appendix A: Future needs identified by stakeholders



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Future Needs

The following are high-level business requirements identified by staff during interviews:

Software Needs

- An HRIS software is required with the ability to:
 - Provide timesheet capabilities or interface with a time & attendance system
 - Integrate with MS Outlook, Easy Pay & HRdownloads
 - Approved vacation time should automatically display calendars (management, staff)
 - Provide reporting capabilities: track employees, and provide: quick snapshot of active employees, training matrix, employee turnover report, staff details
 - Perform data verification and reconciliation (time entry, head count)
 - Be user friendly and mobile friendly
 - Ability to enter and approve time on mobile devices
 - Provide an easy approval process
 - Automatically fill in hours for salaried people since they work the same hours regularly
 - Change automatic hour settings when salaried staff work different hours
 - Only record absent time
 - Manage part time employees seamlessly
 - Interface with a clock in and clock out system for employees
- Require one software for all of Community Services
- Marketing: Need e-news software

Future Needs (continued)

Software Needs (continued)

- Require a Childcare software with the ability to:
 - Bill through one system
 - Advanced payments: childcare services are billed in advance
 - Ability to handle subsidized payment plans
 - Push invoices to families
 - Send pictures of child to parent
 - Automatically email parents
 - Provide updates to family throughout the day
- Video conferencing:
 - Determine which software to keep between Zoom & Teams.
- Requires eSCRIBE to integrate with Outlook and email
 - Meeting action items should populate the action item owner's calendar
 - Actions items should be sent to the owner by email automatically
- Require formal room/equipment booking software
- Require software for digital programs

Future Needs (continued)

Software Needs (continued)

- Adobe creative suite full package
 - Library Services Coordinator's requirement however the Communications has a copy
- Canned/off-the-shelf systems are required
- eSignature software is required
- A tax software is required if Keystone is replaced
- Would like a daycare module in Keystone
- Require a Municipal system that can run everything e.g. landfill, daycare etc.
- Business intelligence solution
- Better Records retention – currently no system that keeps their records and do not have a records retention policy
- Require a financial software with invoice management:
 - Ability to scan and store all invoices (digital)
 - Invoice notification status is required: an email or alert is to be sent when an invoice has been processed or paid

Future Needs (continued)

Security Needs

- Require that the building automation control & refrigeration control systems are secure, and they can remote into them seamlessly

User Friendly and Ease of Use

- Require user friendly software
- Software should have an easy interface for public and staff to use

Integration Needs

- Require integrated solution
 - Integration between systems is required
 - One sign-on
 - Require the integration of payroll & timesheet
 - Require integration between the POS systems at the Canteen & Bar with ActiveNet and Keystone
 - Require the daycare software (EZCare) to integrate with financial software (Keystone)
 - Require the ability for the library to integrate with town services
 - Require integration between Cloudpermit and Keystone

Future Needs (continued)

Data/Information Needs

- Require the ability to share ActiveNet information on display devices like TV for customers
- Require consistent information across the organization
- Require ability to manage customer lists across the organization
- One database for customer base which can also track their complaints
- Require a volunteer database (currently in Info HR)
- Data centralization
 - An integrated system is required for customer information
 - Require the ability for customers to pay for things at different locations across town (Council requested this)
 - Track nature of our frequent complaints

Reporting Needs

- Require consistent reports
- Require pre-set/canned reports
- Improved reporting
 - Require the ability to set parameters for reports
 - Better and easy to use reporting functionality
 - Require the ability to pull reports on staffing and wages
- Enhancement of the reporting feature in Keystone is required

Future Needs (continued)

Customer Service/Website

- Would like to roll out CitiWide across the organization to help with tracking complaints
- Require a software that track complaints
- Require a system that allows for cross service
- Require a robust website with self serve options for customers
 - The ability for customers to pay parking tickets and other services online and with their credit cards
 - Require the ability for residents to track their usage of town services (tax, hydro, parking tickets)
 - Require the ability for residents to see town events
 - Require an information product for residents - one stop shop
 - Require the ability for customer to register for classes/programs seamlessly
- Would like to improve the e-transfer process for residents so that they can easily pay for town services at their bank
- Require the ability to implement changes and updates on the website quickly
- Require a better designed and dynamic website
- Wants a front facing GIS system for public to see zoning data, roads
- Improve communication and information on website for residents

Future Needs (continued)

Policy Needs

- Data retention policy:
 - Chats disappear after 2 weeks in Teams
- Purchasing policy:
 - Better vetting of software

Infrastructure Needs

- Require Point of Sales (POS) devices
- Improved Wifi
- Require a fingerprint scanner (like mitrefinch) to manage staff time
- Require organizational decision on which phones to go with – Apple vs Android

Communications Needs

- Better communication to the public on how to use the MyWaste app
- Require that communications only go through the Communications Department
- Require one marketing solution in the organization

Future Needs (continued)

Staff Training Needs

- Require change management strategy
- Weather training:
 - Staff should be trained to recognize when it's humid and hot outside so that they can take more breaks, more water, etc.
- User cybersecurity training is needed

Appendix B: Prioritization of business requirements

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Prioritization of Software High Level Requirements

The high-level business requirements (Appendix A) were reviewed by stakeholders and our team. 26 were identified to be part of this project and were prioritized by core stakeholders using the Moscow method.

Must Have (show stopper)		Should Have (important but not necessary)	
1	Require a recruitment software/plugin	1	Require a Childcare software (billing: advance payments & subsidized, family friendly)
2	HRdownloads, reporting capabilities, mobile friendly, easy approval process, Require the integration of payroll & timesheet)	2	Require formal room/equipment booking software for all of town facilities
3	Canned/off-the-shelf systems are required	3	Require software for virtual programs
4	A tax software is required if Keystone is replaced	4	Business intelligence solution
5	Records retention policy and software (another project)	5	Require a financial software with invoice management
6	User friendly software	6	eSignature software is required
7	Minimize the number of software and sign-ins		
8	Purchasing policy: better vetting of software, centralize purchase and implementation of software		
9	Require change management strategy		
10	System security will remain a priority		
11	Improved reporting & analytic capabilities		
12	Require integration between financial system with most of other software are performing financial transactions		
13	One database for customer base which can also track their complaints		
Could Have (nice to have, small impact)		Won't Have (not a priority)	
1	One software for all of Community Services	1	One software for all
2	e-news software	2	Requires eSCRIBE to integrate with Outlook and email
3	Require a volunteer database	3	Would like a daycare module in Keystone
4	An HRIS software (Integrate with MS Outlook, Interface to a clock in and clock out system, auto fill in hours)		

Appendix C: Detailed costs

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Costs: software

ERP (2 modules): \$57,120 to \$351,158

- Total one-time implementation costs: Up to \$175,000
- Total Annual Subscription Fees: \$32,758 to \$44,000

BI tool (20 users): \$3,288 per year plus implementation fee

- Subscription fee: \$13.70+ Per user/month
- Free trials available


Recruitment tool: From \$2,988 per year

- Subscription fee: US\$ 143/month to 399/month
- Free trials available

Cost: project manager and business analyst

- Contract employee annual salary:
 - IT Project Manager: \$104,662
 - Business Systems Analyst: \$77,603
- Independent contractor hourly rate:
 - IT Project Manager: \$100+ per hour
 - Business Analyst: \$95+ per hour

Source: indeed.com (Ontario average)



Appendix D: Solution option matrix assessment



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Solution options assessed 3 dimensions

- 3 additional dimensions used to assess solution options:
 1. **Business and Technical Alignment:** how well does the solution option align with the Town’s business and technical goals?
 2. **Implementation effort:** how easily can the solution option be delivered to provide quick wins for the Town and how easy can the solution option be rolled out across the Town?
 3. **Cost:** what are the implementation and on-going costs of the solution option?

	Solution Option #1 (status quo)	Solution Option #2 (customization)	Solution Option #3 (ERP)	Solution Option #4 (software suite)
Business and Technical Alignment	✓	✓✓✓✓	✓✓✓✓	✓
Implementation effort	✓✓	✓	✓✓✓✓	✓✓✓✓
Cost	✓✓	✓	✓✓✓	✓✓
Overall	✓	✓✓	✓✓✓	✓✓

Legend	Most beneficial	Beneficial	Neutral	Least beneficial
	✓✓✓✓	✓✓✓	✓✓	✓

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