

Information Technology Services Business Model Report**Report Purpose**

To provide Council with a report on Information Technology Services department's business model, including information on service delivery, staffing levels and contracted services.

Recommendation

n/a

Our Strategic Goals

Governance Requirement

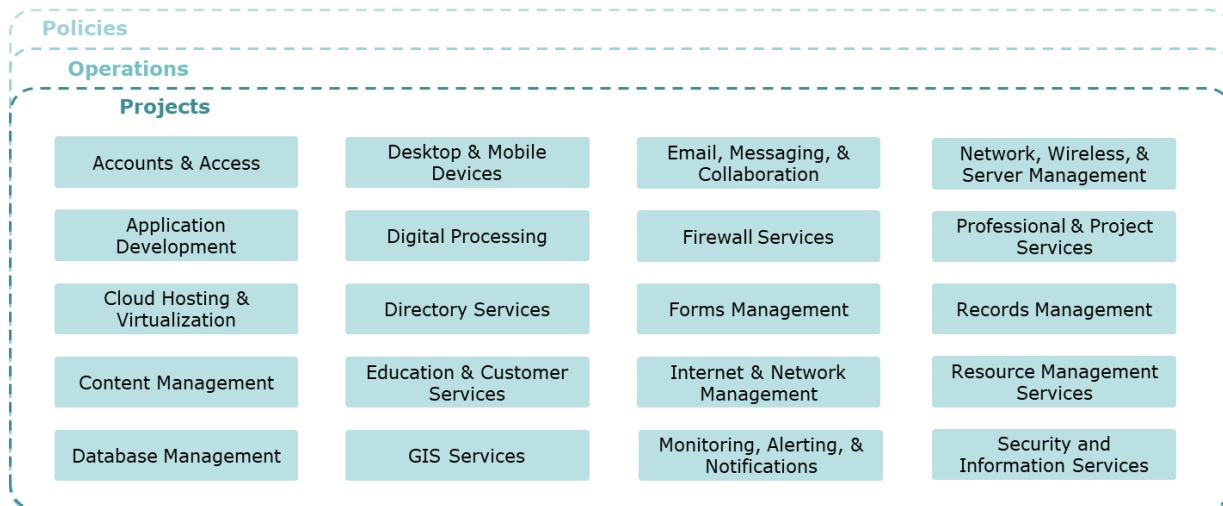
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Report

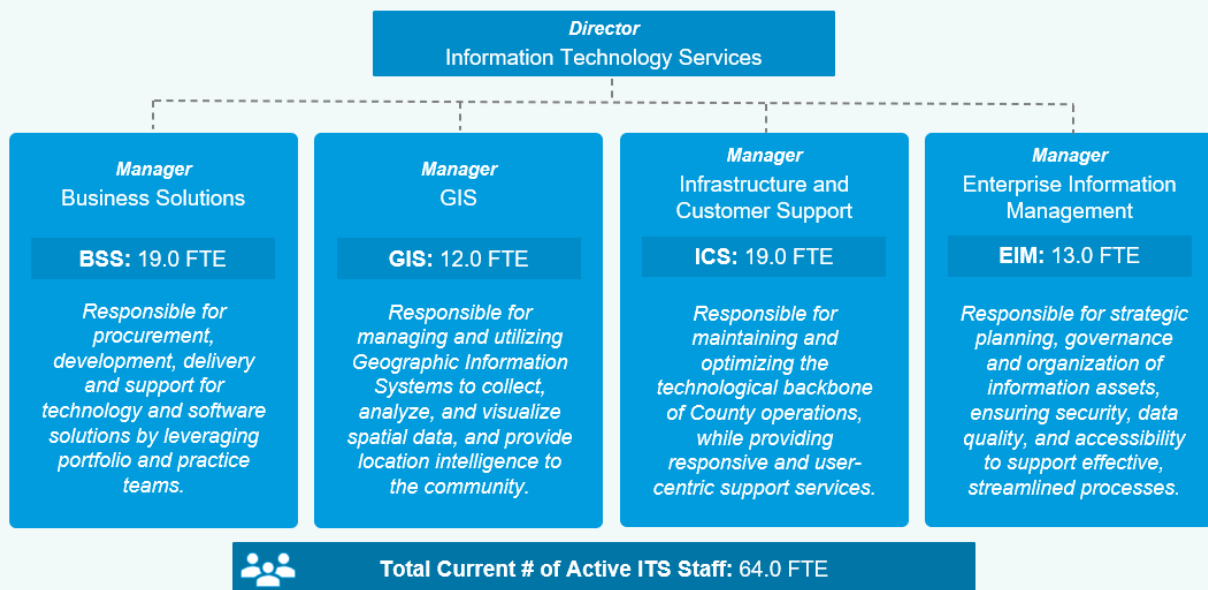
Strathcona County's Information Technology Services (ITS) department engaged RSM Canada Consulting (RSM) in early August 2023 to conduct a Functional Review. The purpose of this engagement is to document the current ITS business model, identify and discuss department needs for ITS support and services, and identify gaps and opportunities for future growth. Over the course of the engagement, RSM has conducted eight workshops with 14 different departments, held three focus groups with Senior Leadership Team and four interviews with ITS managers. These discussions were part of the current state discovery process and provided context and feedback that was used to compile this report.

Along with findings from internal County stakeholders, RSM leveraged industry research from trusted sources including Gartner and Info-Tech to provide industry benchmarks and comparators. Existing ITS documentation was also referenced to better understand current processes, structures, policies, etc. The final piece of discovery involved the release of two surveys, an internal ITS Satisfaction Survey and an external Municipal Scan Survey. The ITS Satisfaction Survey was focused on identifying strengths and weaknesses in current ITS services and support from the perspective of other departments. The survey received over 100 responses from departments across the county and these results were reviewed collaboratively with staff in the department workshops. The Municipal Scan Survey was shared with IT leaders in municipalities across Alberta, British Columbia, and Ontario. Over 12 municipalities responded and provided details surrounding their current IT operations, structure, spend, service, and more. The four responses that have a size and scope most comparable with Strathcona County will be further analyzed throughout the report.

The ITS department provides many services, all of which contribute to the technology backbone that supports County-wide operations. The department oversees projects, operations, and policies for all the following services:

ITS Service Catalogue


These services are delivered through ITS' decentralized delivery model leveraging resources both within and outside of the department. There are additional technology roles outside of ITS across the organization. Many of these roles are focused on GIS, IT administration, and Oracle. There are four primary branches within ITS: Business Solutions, GIS, Infrastructure and Customer Service, and Enterprise Information Management. Each branch is led by a manager and is responsible for a variety of core ITS operations.

Core ITS Functions


Outside of core ITS functions, there are several resources supporting IT across the County. The Business Excellence (BEX) department represents the largest subset of external IT support. This department was created to support the Oracle implementation and is comprised of individuals with expertise in the platform that are managing the roll out and will provide ongoing support to the County. ITS also utilizes contracted resources for several reasons including specialized support for highly technical, short-term projects, major implementations, and ad-hoc needs. Leveraging contractors is common practice in IT departments because of the specialized equipment and expertise that is required for certain requests.

ITS has several intake processes for requests and opportunities from department staff. Incidents and service requests are received primarily through the ITS Portal. Projects and opportunities are collected through the opportunity form and are added to the ITS project queue as showcased below. A large volume of both external and ITS sponsored projects are focused on asset lifecycle and improvement and expansion, resulting in limited capacity to explore new innovations and growth opportunities. The following chart displays items in the current ITS project queue list that are set to be completed over the course of 2023 to 2028.

Queue Listing (09/26/23)	Cancelled	Completed	In Progress	Planned Future Projects	Grand Total
ITS External (Sponsored by Customer Department)	6	18	16	29	69
Application Upgrades & Replacements		9	2	16	27
Improvement and Expansion	4	5	6	5	20
Innovation & Growth	2	3	8	6	19
Operational Projects		1		2	3
ITS Internal (Sponsored by ITS)	1	7	8	6	22
Application Upgrades & Replacements		5	3	2	10
Improvement and Expansion				1	1
Innovation & Growth		1		2	3
Operational Projects	1	1	5	1	8
Grand Total	7	25	24	35	91

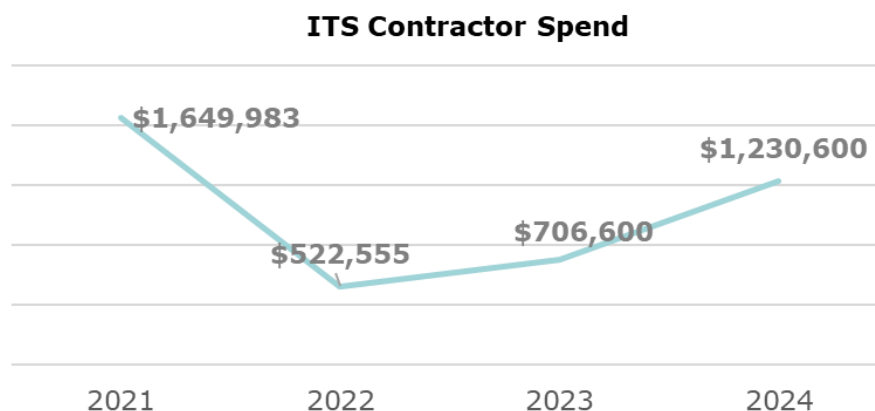
The following numbers reflect incidents and requests received over 2021/2022, these numbers do not include requests received outside of formal IT channels.

- An IT incident is an unexpected event that disrupts or reduces the quality of a business operational process or service. It can cause a loss of operations, services, or functions. Since May 2020 ITS has resolved/closed an average of **452 incidents per month**, or about 5,400 incidents per year, *across all teams*.
 - 2021: **5,362** incidents resolved
 - 2022: **5,389** incidents resolved
- A service request is a formal request by a user or department for any service they require from the IT service catalog. Since May 2020 ITS has fulfilled an average of **670 service requests per month**, or about 8,043 service requests per year, *across all teams*.
 - 2021: **7,901** service requests fulfilled
 - 2022: **8,706** service requests fulfilled

Strathcona County leverages several **contracted resources to support essential IT functions** that are highly specialized and/or require additional resourcing support and capacity. The following projects and initiatives are examples of when ITS brought in contractors to support:

- **Transition to NG911:** contractors are supporting the NG911 implementation and providing a unique set of skills and knowledge in telecommunications, network infrastructure, emergency services, and standards compliance.
- **M365 Rollout:** contractors were leveraged throughout the County's transition to M365 to augment existing internal resources, to enhance capacity and expertise with the platform.
- **GIS Aerial Imagery:** contractors are brought in on a two-year rotation to take GIS aerial images leveraging their high-tech position equipment and high-resolution cameras.
- **Intelli:** contractors were engaged for implementation because specialized configuration was required up front. Intelli is used by the Recreation, Parks and Culture department and ITS full-time staff are able to support it on an ongoing basis.
- **Oracle:** contractors are being used for the Oracle implementation as it is large ERP system that requires a highly specialized team and an extensive knowledge base. Most organizations do not implement Oracle using solely in-house resources.

Over the past several years and continuing into 2023, the ITS contractor spend fluctuates based on the projects on the docket each year.



Some of the primary benefits of contracting ITS resources include having access to specialized subject matter expertise for complex, specialized, and/or short-term activities. Contractors also provide additional resourcing to support ITS and department functions that do not have capacity.

Information Technology trends in the Canadian public sector project continued growth of the digital movement and development of digital strategies. Some of the top focus areas include **technology modernization, cyber security and privacy, and the citizen experience.**

- Creating seamless integrations for digital channels into the traditional in-person and telephone services is a key driver for Canadian public sector organizations.
- Putting security borders around systems using legacy tools has proven to be challenging as there are vulnerabilities in the old systems, investments into new systems should be considered to combat security threats.
- Local governments should leverage application portfolio management tooling that supports evaluation of the health of applications and operation and project investments in them.
- AI is helping governments with predictive maintenance, improved cybersecurity analytics/defense, among many other potential uses.
- Effective enterprise portfolio management requires organizations be dedicated to developing and maintaining good quality, current data around the key aspects of their enterprise portfolio.
- 84% of Canadians want increased access to enhanced, digitized municipal services.
- The top technology implementations in 2023 include cloud connectivity, artificial intelligence, sensors, and monitoring, and chatbots.

The security landscape for municipalities is changing constantly and rapidly with new tools and techniques to combat attacks. The top IT security risks for Canadian municipalities include **ransomware, supply chain, operational technology, talent, and governance.**

- **High Impact Areas:**
 - *Ransomware:* A successful attack would lock out data from staff until it could be recovered.
 - *Supply chain:* A successful attack would compromise software and hardware prior to delivery that is introduced to the environment creating vulnerabilities.
 - *Talent:* Security talent is scarce and highly sought after. Labour costs are increasing, resulting in the need for contractors with specialized expertise.
- **Medium Impact Areas:**
 - *Governance:* Without following a defined framework, we may miss high risk items or areas.
 - *Operational Technology:* Most of this technology is core infrastructure that has safeguards that if disrupted would impact the public.

Strathcona County has been tracking security metrics, some of the key statistics are as follows:

- **Email Security:** The County averages around 100,000 emails a week, of which 10% are spam or malware.
- **Firewalls:** The County network is protected by firewall security services. On average between 700,000 to 1,000,000 attempts to gain access to the network are blocked daily.
- **Malware/Antivirus:** The County uses an industry standard antivirus solution on all devices. Since July 1, 2023, they have remediated 90 viruses that were active in the environment.
- **Backup and Recovery:** The County operates a comprehensive backup service for both on-premises data as well as private and public cloud infrastructure. The average volume of recoveries is four recoveries per month.
- **Security Training:** The County provides mandatory security training that is completed by all staff members every two years.

Gartner and Info-Tech reports provide local government comparators which were used to benchmark Strathcona County's current IT position relative to spending, FTE count, and contractor usage.

Local Government Comparators		
Metric	Local Government (2023)	Strathcona County
IT Operational versus Capital Spending	83% to 17%	93% to 7%
IT Spending as a % of Operating Expenses	4.3%	3.5%
IT FTEs as a % of Employee	3.8%	3.2%
IT Spending per Employee	\$10,500	~ \$8,000
% of IT Spending on Contracting	11%	4.5%

Part of the IT Functional Review involved the release of a municipal scan survey. The purpose of this survey was to get metrics from comparable municipalities to compare and contrast current state operations and service offerings. We received over 12 responses from municipalities across Canada, but for the purpose of the presentation we will focus on the following five examples as they are comparable to Strathcona County in terms of population size and geographic location.



The following key findings have been identified throughout project discovery including stakeholder workshops, survey results, industry research, and documentation review.

- **Business Model:** The current department business model involves the use of centralized IT resources as well as more specialized IT resources that sit within various departments. These resources assist with specific department needs such as GIS capabilities.
- **Governance:** Governance processes, policies and procedures within ITS need to be simplified and re-focused on customer service. Current structures are complex and encourage County staff to side-step formal intake and procedures. The County needs to adopt industry standard governance models to support consistent IT investment, stewardship, and client experience between departments.
- **Department Demand:** Project and opportunity request volumes are consistent and high volume, keeping ITS resources fully utilized resulting in limited capacity for further collaboration and innovation. ITS will need to free up capacity to continue supporting department needs and assist with ad-hoc application and IT requests.
- **ITS Involvement:** The ITS Satisfaction Survey along with department and SLT workshops revealed a consistent sentiment that departments want ITS to be more involved in their operations. Whether it be throughout solution procurement, implementation, ongoing technical support, etc., department staff feel more collaboration would be a value-add.
- **Industry Trends:** Key trends in the IT space show the ongoing digitization of services and the digital movement bringing new technology and services to the table including the integration of AI. As a result, security best practices are constantly evolving to account for new vulnerabilities organizations face.

- **Contractors:** The current contracting model is in alignment with industry standards including the use of contractors to support critical operations and bringing in specialized expertise for set periods of time to offset capacity and skill requirements. These individuals are necessary for the implementation and roll out of enterprise-wide solutions and projects that require significant technical specialization and tooling.
- **Business Excellence:** The BEX department was created to provide focused support for critical corporate services to meet the needs of business across the organization including the implementation and ongoing management of the Oracle platform along with any business transformation activities that are supported by the platform. Oracle is a large, specialized, and complex system which requires cross functional resources to provide expert support and strategic direction to the County. Given the complexity and scope of these support duties and business process transformation efforts, it is appropriate to have BEX operate as a separate department.
- **Road Mapping and Future Needs:** ITS alongside the Executive Team is working together to create a roadmap (or masterplan) to continue the positive developments the department is achieving. In a recent study by MNP Digital which captured feedback from municipalities across Canada, 35% of respondents identified meeting citizen and stakeholder expectations as a major challenge. As departments look to utilize innovative technology solutions and citizens expect digital solutions to become the norm, ITS will need organizational support to grow.

Council and Committee History

October 16, 2023	Mayor's Executive Committee approved postponement of the Information Technology Services' Business Model report to the November 14, 2023 Council meeting.
May 16, 2023	Council approval: THAT the Information Technology Services Business Model report be prepared for Council by the revised due date of October 31, 2023.
February 28, 2023	THAT Administration prepare a report for Council's consideration by the end of July 2023 on the Human Resources and Information Technology Services department business models, with information on how the services provided are delivered, including staffing levels and the use of contracted services.

Other Impacts:

Policy: n/a

Legislative/Legal: n/a

Financial/Budget: n/a n/a

Interdepartmental: n/a

Master Plan/Framework: n/a

Enclosure

- 1 Information Technology Services Functional Review presentation