

Service Plan for Information Technology

2016-2019
(2019)

Capital Regional District

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Table of Contents

1	Overview.....	1
1.1	Division & Service Summary	1
1.2	Organization Chart.....	3
1.3	Key Trends, Issues & Risks – Service Specific.....	4
1.4	Link to Priorities	5
2	Services.....	5
2.1	Service Levels	5
2.2	Workforce Considerations	6
3	Divisional Initiatives & Budget Implications	7
4	Goals & Performance Indicators	10
	Contact	10

1 Overview

1.1 Division & Service Summary

Information Technology and GIS Services (ITGIS) is responsible for the management of the CRD information systems and associated infrastructure across 24 different locations. The division strives to guide and support the organization in the use of information technology applications and resources in a secure and efficient manner.

The mission of the Information Technology & GIS division is:

- To serve the information technology needs of CRD departments as well as the public;
- To provide and support information systems which assist the organization in achieving defined business objectives.

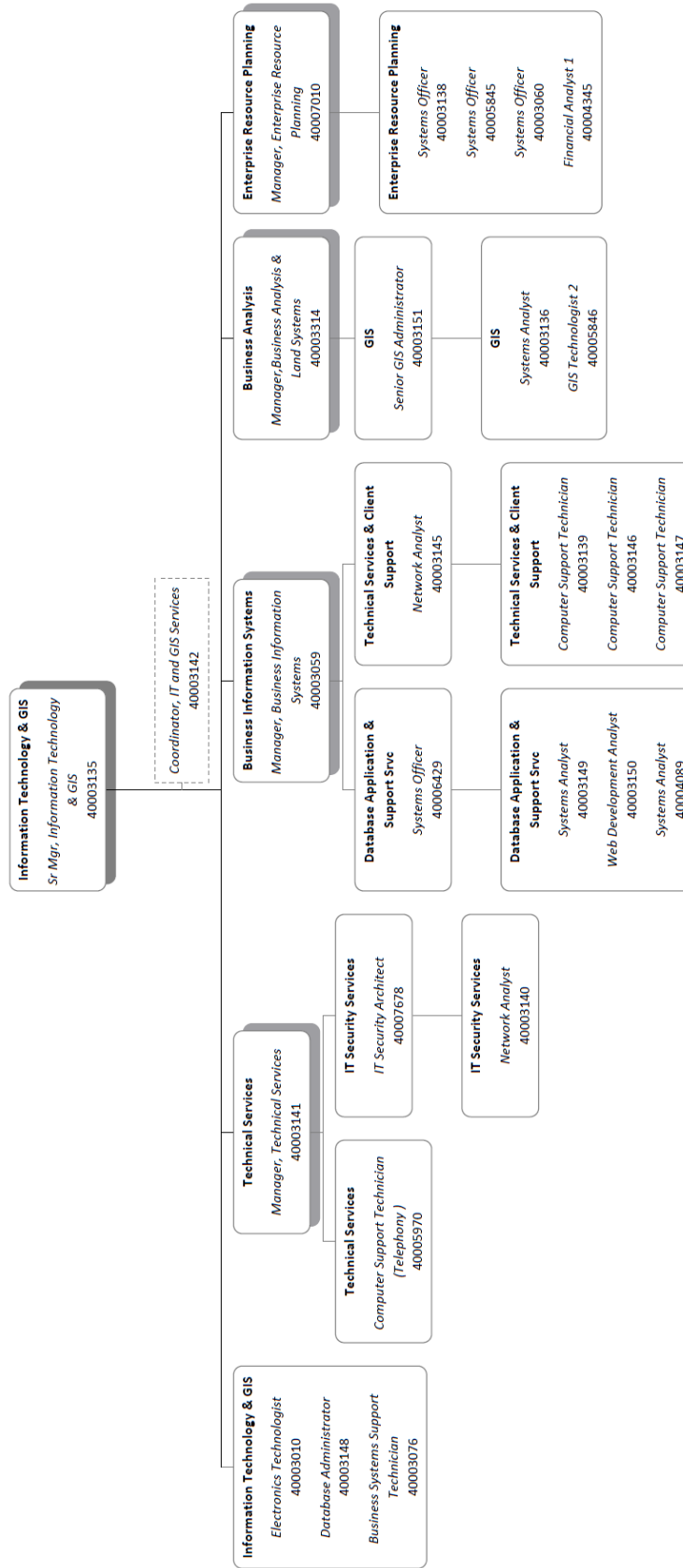
The Information Technology division serves the entire organization. The organization service areas vary in size and activity, impacting the scope of work and skills required by IT.

Service Purpose, Role or Overview	Participants	Funding Sources	CRD Board Committee and/or Commission Reporting Structure
<p>Corporate Information System (SAP) Development and Support</p> <p>Manage the data integrity of the integrated Corporate Information System (SAP) ensuring all financial records are captured accurately allowing for the production of accurate and timely financial information and reporting that complies with legislative and audit requirements. Provide systems support and expertise for specific use and further development of SAP for application in multiple CRD departments</p>	<p>All CRD Departments, CRHC, RMTS</p>	<p>Internal Recovery</p>	<p>Finance Committee</p>
<p>Website Development & Support</p> <p>Ensure the Enterprise Content Management System is implemented to provide a reliable and secure corporate website.</p>	<p>All CRD Departments, CRHC, RMTS</p>	<p>Internal Recovery</p>	<p>Finance Committee</p>
<p>Security, Data, Communications, Networking and Electronic Messaging</p> <p>Ensure the security and availability of all information systems for the organization including secure email</p>	<p>All CRD Departments, CRHC, RMTS</p>	<p>Internal Recovery</p>	<p>Finance Committee</p>

services, voice and data radio systems and document storage.			
Departmental Support: Systems Analysis and Business Requirement Definition Provide other CRD departments and divisions with systems and analytical expertise in the analysis, design, selection and development of information systems solutions (i.e. Landfill Scales System, Recreation Management, Housing Property and Tenant Management).	All CRD Departments, CRHC, RMTS	Internal Recovery	Finance Committee
Helpdesk – Customer Support Provide all users with computer technical assistance related to desktop, laptop, tablet and mobile hardware and software. Technical support to Boardroom meetings when streaming to the public.	All CRD Departments, CRHC, RMTS	Internal Recovery	Finance Committee
Custom Application Development Provide business units with custom developed applications and ensure all website based applications are reliable, secure and available.	All CRD Departments, CRHC, RMTS	Internal Recovery	Finance Committee
Geographical Information Systems Provide geospatial services to the residents of the capital region and a standardized cadastre fabric. Manage corporate geographic data, ensuring the data integrity of systems.	All CRD Departments, CRHC, RMTS, CRD member municipalities and electoral areas	Internal Recovery and Requisition	Finance Committee
Data Analytics Systems (New) Provide other CRD departments and divisions with expertise to design and build analytic models to support the business needs.	All CRD Departments, CRHC, RMTS	Internal Recovery	Finance Committee

1.2 Organization Chart

Information Technology & GIS



1.3 Key Trends, Issues & Risks – Service Specific

Trends & Issues:

- **Difficulty in hiring:** With the increasing cost of living accompanied by increased housing costs and very high occupancy rates, it is becoming extremely challenging to attract new talent. Salaries for highly skilled technical positions seem to be misaligned with technical skills in the marketplace making CRD less and less competitive with other companies or other job markets.
- **Security:** Security continues to be an area of focus as threats become more sophisticated, combined with increased system access from mobility devices it will be increasingly more important for applications to assume a higher profile role in securing data. Security aware applications will need new ways to offer protection as firewalls by themselves will can no longer offer enough security. This will continue to increase the acquisition and operating costs of applications and software tools.
- **Data Mobility and Analytics:** As mobile devices continue to proliferate there is an increased emphasis on serving the needs of the mobile user. This will continue to raise significant systems challenges for IT as more user endpoint devices are deployed and an increased need for data access from the field. Analytics may also become more common place as the volume of data generated by systems increases and vast pools of structured and unstructured data inside and outside the enterprise require analyzing. Not only will this trend change our need for access to data but will also influence our hiring practices as the organization will require staff skilled in data analysis.
- **Increased use of and rapid changes in technology:** As a part of providing effective and responsive services, the division is increasingly spending time analyzing existing business processes and reviewing new technologies. With the increased use of technology across all facets of CRD service delivery, there are increased resource demands on the division, e.g. Surveillance Systems.

Risks:

- The **Corporate Information System (SAP)** requires significant work in order to effectively meet evolving Corporate and Departmental needs. Many of the modules no longer meet the daily operating needs and, in some cases, no longer align with business processes. Program maintenance consumes the majority of available resources and results in delays or inability to deliver on new SAP initiatives or custom report development needs.
- As indicated above, the continued increase in demand for IT-related services from across the organization also presents a risk. While a number of critical IT-related projects are proposed over the next few years which directly support Department Service Delivery (ex: Recreation Management System for 3 centres and Regional Parks) these projects can also limit the division's ability to participate in or respond to emerging IT Systems work.
- **Cyber security:** Even though we continue to implement new security mechanisms, cyber criminals continue to evolve on a very rapid pace while organizations struggle to keep up. CRD needs to expand efforts in this area by having dedicated and focused resources to ensure security, integrity and availability of our systems.
- **Cloud based solutions and privacy risk:** IT vendors continue to prioritize their Cloud Based vs On Premises solutions and some new technologies will only be available on the cloud. While these solutions may bring productivity gains, they significantly increase networking work as well as increase privacy and security risks. This demands more effort on our IT department to work closely with vendors understanding in detail cloud solutions prior to recommending them to the organization.

1.4 Link to Priorities

The Division will provide support to all departments across a variety of services on corporate projects and in support of core service delivery, and as such may have a role in supporting numerous priorities. Specifically, the division has a direct link to the following priorities:

CLIMATE CHANGE

- Evaluate and implement solutions that can help the CRD reduce its carbon footprint

CORPORATE DEVELOPMENT

- Evaluate the use of innovative technologies and corporate support systems for continuous improvement and effective service delivery.

EDUCATION, OUTREACH & INFORMATION

- Demonstrate transparency and increase visibility through the provision of accessible, relevant, time and usable data and information

2 Services

2.1 Service Levels

Service	Base Year	Year 4 (2019)
Corporate Information System (SAP)	Facilitate implementation of Enterprise Asset Management, as well as enhancements and support for Maintenance Management, Corporate/HR Organizational Structure, Workflow, Payroll, Budgeting, General Ledger, Grants Management, Real Estate and SAP Mobility into the organization.	Adjust to meet service delivery needs, as required
Website Development & Support	Ensure the enterprise content management system is implemented and website based applications are reliable, secure and available	Review & Assess
Security, Data Communication, Networking and Electronic Messaging	Ensure the security of existing computing environment Manage data communications and delivery of electronic mail to all locations Provide networking services to all 24 CRD locations as well as 450 landline and cellular phone services	Review & Assess
Departmental Support: Systems Analysis and Business Requirement Definition	Provide business analysis services to CRD Departments as they look to modernize, renovate and/or replace old aging systems	Review & Assess
Helpdesk Customer Support	Provide customer support to 650 computers, 150 servers, and 135 print devices	Review & Assess
Application Development, Application	Support Line of Business applications and provide custom application development services and support as required	Review & Assess

Service	Base Year	Year 4 (2019)
Support and Database Management	Manage corporate and departmental databases ensuring data integrity, availability and security	
Spatial Data Management and Addressing (GIS)	Provide geographic and property information to all CRD services and applications	Review & Assess
Document & Records Management Systems	Manage corporate documents and records, ensuring the security and integrity of all files	Review & Assess
Radio & Geospatial Services	Provide 3 radio repeater sites and services and analysis to all CRD departments Provide geospatial services to enable surveying across the CRD	Review & Assess

2.2 Workforce Considerations

Workforce (FTEs)					
Service	Base Year	2016	2017	2018	2019
Corporate Information System (SAP)	4	5	5	5	5
System Architect Report Development	0.5	0.5	0.5	0.5	0.5
Project Management	0.3	0.3	0.3	0.3	0.3
Website Development	1.1	1.2	1.2	1.2	1.2
Security/Networking/Phones/Email	2.9	2.9	2.9	4.9	4.9
Systems and Business Analysis	1.6	1.6	1.6	1.6	1.6
Application Development	2.3	2.3	2.3	2.3	2.3
Helpdesk User Support	4.2	4.2	4.2	4.2	4.2
Line of Business Application Support	3	3	3	3	3
Spatial Data and Addressing	3	3	3	3	3
Document and Records Management	1.1	1	1	1	1
Radio and Geospatial Systems	1	1	1	1	1
Total	25	26 *	26	28**	28

* 1.0 FTE to be added to support the management and upgrading of the Corporate Information System (SAP).

** 1.0 FTE to be added to focus on security, 1.0 FTE to be added to support Networks team

3 Divisional Initiatives & Budget Implications

Title & Estimated Completion Date	Description	Priority	Budget Implications
2019			
Upgrade and enhance SAP Financial General Ledger (GL)	<p>The increased volume of staff turnover has highlighted the need to address this issue which will provide opportunities to modernize financial reporting and more closely align with departmental expectations and needs.</p> <p>This directly impacts on the resourcing required to support our Corporate Information System (SAP)</p>	Corporate Development	All purchase and development costs are reflected in the Financial Services budget.
Upgrade and enhance SAP Budgeting Module	<p>Current budgeting application is 17 years old and no longer meets the budgeting, modeling and reporting needs of the organization. Also, changes to the existing budget module are required to allow for improved integration with the new proposed Enterprise Asset Management project/application.</p> <p>This directly impacts resourcing required to support the Corporate Information System (SAP).</p>	Corporate Development	All purchase and development costs are reflected in the Financial Services budget.
Improvements to Existing Financial Reporting to meet the needs of departments	<p>Core financial reporting has remained unchanged for 16 years; the user community is requesting improvements to better meet their operational needs.</p> <p>This directly impacts resourcing required to support the Corporate Information System (SAP).</p>	Corporate Development	All purchase and development costs are reflected in the Financial Services budget.
Upgrade the Integrated Water Services Voice Radio System	In 2018, the IWS voice radio system will be 13 years old - it was last upgraded in early 2005.	Corporate Development	All purchase and development costs are reflected in the Integrated Water Services budget.
System re-development for Regional Source Control (CRIMS RSCP)	Regional Source Control has requested to re-develop old application originally built in 2006 and include new more modern capabilities to meeting current business processes	Corporate Development	All purchase and development costs are reflected in the Regional Source Control budget
Electronic Records Management	Legislative Services has requested the implementation of an electronic records management solution to	Corporate Development / Climate Change	250K

Title & Estimated Completion Date	Description	Priority	Budget Implications
	improve the management and searchability of CRD records.		
Upgrade to SharePoint 2016	SharePoint 2016 was released mid-2016 and CRD systems were last upgraded in 2015.	Corporate Development	All purchase and development costs are reflected in the IT&GIS budget
Integrated Human Resources Onboarding Process	HR has requested to integrate SAP HR / Payroll with the IT systems to assist in identifying corporate assets assigned to staff and to streamline and integrate the onboarding of new employees.	Corporate Development	All purchase and development costs are reflected in the HR budget
Develop enhancements to the CRD Board Information Portal (Portal 2.0)	Continued modification and enhancements to the Board Portal created in 2016-2017	Corporate Development	All purchase and development costs are reflected in the Legislative Services budget.
Implement enhancements to Intranet (CRD Central)	Executive Services and Corporate Communications requested the redevelopment of the Corporate Intranet (CRD Central) to meet Internal Communication needs based on feedback collected from CRD staff to improve communications.	Education, Outreach & Information	All purchase and development costs are reflected in the Executive Services budget
Implement solutions for management of privileged credentials (CyberArk)	CyberArk reduces the risk of cyber-attacks by providing secure management of privileged accounts as well as enabling master audit and supporting IT Security compliance	Corporate Development	All purchase and development costs are reflected in the IT&GIS budget
Create a Contract Management Register	Legislative services requested a repository with workflow capabilities to collaborate, track and store CRD cooperate contracts.	Corporate Development	All purchase and development costs are reflected in the Legislative Services budget
Review Telecommuting Requirements	With a renewed corporate interest to provide employees with more flexibility, IT will review and propose a telecommuting strategy which can solve that technological need	Corporate Development / Climate Change	5K for requirements and recommendations. Actual implementation costs will depend on selected solution.
Review Video Conferencing Requirements	Video conferencing from both designated meeting rooms and corporate desktops permits cost and environmental savings to the organization.	Corporate Development	All purchase and development costs are reflected in the Executive Services

Title & Estimated Completion Date	Description	Priority	Budget Implications
	Expanded use of video conferencing will allow better use of meeting resources and time.		
Implement Digital Asset Management Solution	Executive Services and Corporate Communications requested a solution to manage and control the use and distribution of media files across the organization.	Corporate Development / Education, Outreach & Information	100K Implementation /
Grants Submission Application	Currently the Arts and Finance divisions are responsible for receiving, evaluation and awarding different types of grants. They have approached the IT department to implement a web solution to automate this paper-based process.	Corporate Development	70K Development / 9K Yearly cost for maintenance.
SCADA Network Design and Integration to Corporate Network	The current SCADA system operates on an independent network and security platform. This project will combine the networking and security services of the SCADA network into a single seamless corporate system. Providing for the automated patching of server operating systems, the automated delivery of anti-virus and anti-spam updates, more secure and managed remote access system and offering the security protection of the corporate firewall.	Integrated Water Services	All purchases, development and maintenance costs are reflected in the Integrated Water Services budgets.
HRIS/OH&S	Implementation of new Human Resources and Occupational Health and Safety systems to align HR and OH&S daily operations and data more closely with Corporate objectives in support of the Corporate Organizational Development plan.	Human Resources	Software and consulting services are reflected in the IT ERP and Human Resources budgets.

4 Goals & Performance Indicators

Indicator Name	2018 Planned	2018 Projected	2019 Planned
<p>Financial</p> <p>Cost of IT as a % of Operating Budget (industry average is 4.1%)</p> <p>Security cost as a % of IT Budget (industry average is 4% - 6.9%)</p>	<p>2.2 %</p> <p>4.5 %</p>	<p>2.1 %</p> <p>2.7%</p>	<p>2.2 %</p> <p>4.5 %</p>
<p>Systems Availability Corporate Website Availability</p> <p>Is the probability that a system is not failed or undergoing a repair when it needs to be used.</p>	<p>99 %</p> <p>99 %</p>	<p>99.5 %</p> <p>99.5 %</p>	<p>99 %</p> <p>99 %</p>
<p>Systems Reliability</p> <p>Failure rate of networking hardware</p> <p>Failure rate of user devices</p> <p>Backup/restore success rate</p> <p>The probability that a device will perform its intended function during a defined period of time under stated conditions.</p>	<p>< 2.0 %</p> <p>< 1.5 %</p> <p>99 %</p>	<p>1.75 %</p> <p>1.2 %</p> <p>99 %</p>	<p>< 2.0 %</p> <p>< 1.5 %</p> <p>99 %</p>
<p>Systems Security</p> <p>SPAM to valid email ratio</p> <p>Time to apply critical operating system patches</p> <p>Email Gateway Virus Detection</p> <p># of security related incidents</p> <p>% of downtime due to security incidents</p> <p>The process of implementing measures and designing systems to securely protect and safeguard information, both business and personal data, thereby preserving the value, confidentiality, integrity, intended use and its ability to perform their permitted business functions.</p>	<p>9:1</p> <p>< 24 hours</p> <p>< 1 %</p> <p>< 10</p> <p>< .05 %</p>	<p>9:1</p> <p>18 hours</p> <p>.002%</p> <p>2</p> <p>0%</p>	<p>9:1</p> <p>< 24 hours</p> <p>< 1.0 %</p> <p>< 10</p> <p><.05 %</p>
<p>Customer Satisfaction</p> <p>Survey results are compiled from a random sampling of staff requests for IT services.</p>	<p>90 %</p>	<p>91.5 %</p>	<p>90 %</p>

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