

ANNUAL REPORT

2018-19

Office of the Chief Information Officer





MESSAGE FROM THE MINISTER

As the Minister responsible for the Office of the Chief Information Officer (OCIO), I am pleased to present the 2018-2019 Annual Report.

Over the past fiscal year, the OCIO has continued to make important strides toward realizing the objectives identified in the 2017-20 Business Plan, as well as implementing commitments outlined in **The Way Forward**. Through the implementation of new technologies, the OCIO has enhanced government's ability to manage cybersecurity risks by detecting and mitigating vulnerabilities, as well as limiting harmful internet traffic to and from government's applications.

As well, and as committed in the Digital Way Forward, over the past fiscal year the OCIO launched the MyGovNL pilot project for the Motor Registration Division in partnership with Service NL. MyGovNL allows users to manage their driver's licence and vehicle registration renewals in one combined online platform.

The Digital Way Forward is government's plan to enhance government services for residents and businesses. Through this plan, government will realize the approach of "One Client. One GovNL. One Relationship."

Throughout the coming year, the OCIO will continue to support Provincial Government departments and agencies in their efforts to provide programs and services to citizens and businesses throughout Newfoundland and Labrador. I acknowledge the efforts of OCIO employees in this work; their dedication and innovation is ensuring the OCIO's continued progress and fulfillment of its goals.

My signature below indicates my accountability for the results reported herein.

A handwritten signature in blue ink, appearing to read "Tom Osborne".

Hon. Tom Osborne

Minister Responsible for the Office of the Chief Information Officer

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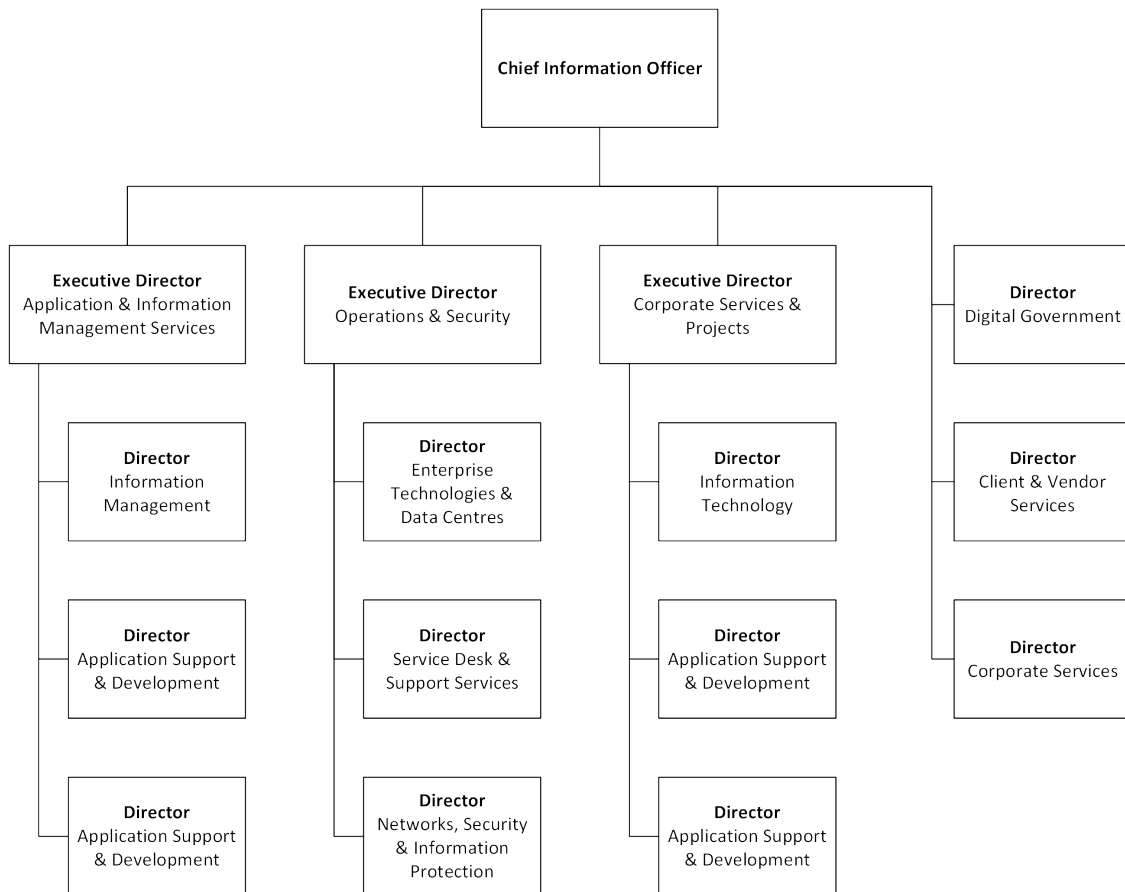
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Departmental Overview

The Office of the Chief Information Officer (OCIO) provides professional information technology and information management capability, which is aligned to support the business of the Government of Newfoundland and Labrador. Further information about the OCIO, including its vision, mandate and client departments, can be found by visiting www.gov.nl.ca/ocio.

Organizational Structure

The OCIO is comprised of three branches: Application and Information Management Services, Operations and Security, and Corporate Services and Projects.



Branch Descriptions

Application and Information Management Services: provides overall leadership and vision for the government's application services, including application support, enhancement, maintenance, protection and database administration. The branch also develops Information Management (IM) directives, standards, procedures and guidelines, and provides advisory services and support to government departments and supported agencies. In addition, the branch is responsible for the administration of the **Management of Information Act**, providing government-wide advice and guidance on IM activities and initiatives.

Operations and Security Branch: provides support, maintenance, and security services to ensure the integrity and availability of government's Information Technology (IT) infrastructure. This includes all desktops/laptops, smartphones (and other mobile devices), networking, storage, data back-up and server infrastructure required to run the many systems and applications of government departments. The branch supports government's enterprise data centre, enterprise infrastructure applications and related technologies and is responsible for OCIO facilities management. In addition, the branch is responsible for the OCIO's Information Protection (IP) program and related advisory services that support government-wide information protection initiatives.

Corporate Services and Projects Branch is comprised of four divisions: Corporate Services, Client and Vendor Services, Projects and Digital Government.

Corporate Services is responsible for business operations, financial management (budget preparation and monitoring), vendor contract management, human resource planning, IT procurement oversight, cabinet support, and Occupational Health and Safety.

Client and Vendor Services sets IT strategic direction for government, participates in the development of departmental IT strategic and operational

plans, assists in the prioritization of departmental IT spend, coordinates and develops the OCIO IT Business Plan, manages the interests of client departments and supported agencies, acts as a liaison with the local IT industry, manages vendor and client relationships and researches, develops and implements IT policies and standards.

Projects is responsible for the design, development, implementation and deployment of applications and new technologies for government departments and supported entities. The division manages the portfolio for active projects, the development of project management best practices and standards, as well as ongoing web development and support. The division is responsible for creating a technology environment which promotes integration of systems and data, reduces duplication, and supports standardization of processes and systems.

Digital Government is responsible for leading, defining and delivering the overall government-wide digital strategy. The division champions the need for a government-wide digital channel and serves as a voice for this vision. This division provides thought leadership to government employees and collaborates with departments to drive digital adoption across government. The division also provides leadership to drive meaningful change in government-wide service delivery to residents and businesses.

Staff and Budget

The majority of the OCIO's employees are located in offices throughout St. John's. Employees are also distributed among the OCIO's regional offices in Happy Valley-Goose Bay, Corner Brook, Stephenville, Grand Falls-Windsor, Gander and Clarenville.

Budget

The 2018-19 budget for the OCIO, including revenues, was \$50,080,400.

Branch	# of Employees	Budget
Application and Information Management Services	108	\$9,896,800
Operations and Security	120	\$23,306,700
Corporate Services and Projects	63	\$16,876,900

Highlights and Partnerships

The OCIO works in partnership with government departments, supported public bodies, and the local IT sector on initiatives that address the IT and IM/IP needs of the Government. Through these shared commitments, the OCIO addresses the key strategic objectives outlined in its 2017-20 Business Plan and **The Way Forward**.

During 2018-19, the OCIO continued to work with its managed service provider to partner with 82 private sector IT vendors to maximize opportunities while meeting the needs of government.

The OCIO also continued to maintain engagement and communication with the broader IT sector, and participated in relevant Newfoundland and Labrador Association of Technology Industries (NATI) events.

Highlights

During 2018-19, the OCIO was responsible for managing over 53 projects for 18 client departments and supported public bodies. Fourteen (14) were new starts and 39 carried over from the previous period.

Through the implementation of new technologies, the OCIO has enhanced government's ability to manage cybersecurity risks by detecting and mitigating known application vulnerabilities, as well as limiting internet traffic to and from government's applications.

The OCIO, in partnership with ServiceNL, launched the MyGovNL pilot project for the Motor Registration Division (MRD). This was the first publicly available digital service under the Digital Way Forward five-year plan that was announced in April 2018.

MyGovNL allows users to manage their driver's licence and vehicle registration renewals in one combined online platform. As committed in the Digital Way Forward, this pilot includes:

- MyGovNL digital ID: The digital ID will provide participants with one set of authentication credentials for select MRD services and applications.
- MyGovNL profile: The MyGovNL profile will consolidate each participant's common, shared client information into a single client record. At the end of the five-year plan, the profile will allow each participant to update their personal information across government accounts in one centralized place.
- MyGovNL dashboard: A secure self-service area where participants can manage their licence and vehicle registration renewals. The goal is to expand this over the coming years, to allow users to manage digital interactions across government using this dashboard.
- Alerts and notifications: Government will be able to send personalized alerts regarding upcoming renewals directly to participants. The intent is to expand this over the coming years to allow government to update residents about matters of importance to them, and in turn, residents will be able to set personalized alerts and receive the notifications.

Starting on March 28, 2019, approximately 5,000 motorists were invited to take part in the pilot project for the Motor Registration Division. Approximately 10,000 additional motorists were invited to participate each month since.

The Digital Way Forward is government's plan to enhance government services for residents and businesses. Through this plan, government will realize the new approach of One Client. One GovNL. One Relationship. The intent is that the public will see government as one organization regardless of the individual or department with whom they interact. The plan will be implemented by 2022-23.

Partnerships

The OCIO awarded approximately \$15,559,600 in 2018-19 through service contracts that addressed several key areas, including:

- Provision of opportunities for 82 registered private sector IT vendors through government’s managed service provider (MSP). These vendors work on government IT initiatives requiring specialized IT skills not available in-house or to supplement short-term staffing gaps. The OCIO also engaged with additional vendors as required to meet the technology service needs of government.
- Management of the government’s data centre, mainframe services and midrange services (large and medium size servers).
- Management of government’s wide area network (WAN) and shared Internet service.
- Support and maintenance for government’s Oracle Financial Management and Human Resource Management Systems (including payroll), as well as Oracle databases.

The following table outlines expenditures to/through IT vendors:

Service	Vendor	Total Expenditure for 2018-19
Professional Services	Managed Service Provider (MSP)	\$8,528,300
	Non MSP	\$352,600
Data Centre	Bell Canada	\$4,219,000
WAN	Bell Canada	\$1,320,000
Oracle Support	Rimini Street	\$1,139,700
Total		\$15,559,600

Report on Performance

In accordance with the **Transparency and Accountability Act**, this section is an account of the OCIO's progress in meeting the 2018-19 objectives and accompanying indicators as outlined in the 2017-20 Business Plan. Indicators for plan objectives outlined below were developed by senior management and identify activities to address planned results.

Issue 1: Value

In today's context of ongoing change, investments, assets and approaches should continuously adapt to maximize business value. With this strategic plan, the OCIO sets out a clear path to achieving the maximum benefit out of the money it spends on IT for government departments and agencies under its mandate.

2017-20 Goal

By March 31, 2020, the Office of the Chief Information Officer will have optimized the value of information technology expenditures by adapting its investments, assets and approaches to maximize cost effectiveness.

2018-19 Objective

By March 31, 2019, the Office of the Chief Information Officer will have begun to implement technology roadmaps and investment plans while drafting additional technology roadmaps and investment plans for other core infrastructure platforms and select applications.

Indicators and Accomplishments 2018-19

Indicator (Planned)	Accomplishments (Actual)
Continued to develop and implement technology roadmaps and investment plans for several core infrastructure platforms and select applications.	<p>The developed plans include:</p> <ul style="list-style-type: none"> ○ An AMANDA (licencing and permitting solution) technology roadmap was completed. ○ A five year investment plan was created and is being used to guide technology infrastructure acquisitions based on available budget allocations.
Continued to apply the technology reuse model to departments and agencies under its mandate.	<p>The OCIO successfully reused the following applications to provide technology solutions.</p> <ul style="list-style-type: none"> ○ Grants Management Application – Municipal Affairs and Environment ○ Helpdesk System – Children, Seniors and Social Development
Continued to provide guidance on standardized business capabilities to departments and agencies under its mandate.	<p>The OCIO continued to communicate standards and provide guidance to departments and agencies in the following areas:</p> <ul style="list-style-type: none"> ○ Information Management Advisory Services ○ Information Protection Advisory Services ○ Records Management ○ Document Collaboration ○ Wireless Standards ○ International Travel

Discussion of Results

As detailed in the table above, the OCIO met all performance indicators related to the 2018-19 Value Objective to “implement technology roadmaps and investment plans while drafting additional technology roadmaps and investment plans for other core infrastructure platforms and select applications.”

The OCIO successfully implemented technology roadmaps and investment plans including:

- An AMANDA technology roadmap was completed in early 2018-19 to support the Permit and Licensing Program. The focus was on re-usable technology standards and guidelines.
- A newly created five-year plan identifies critical investments that will be required in enterprise IT infrastructure over the next five years.

The OCIO continued to employ its technology reuse model by:

- Implementing a Grants Management Application to allow the Climate Change Branch of the Department of Municipal Affairs and Environment to administer the Low Carbon Economy Leadership Fund, and its associated grant programs.
- Developing a Helpdesk solution for the Department of Children, Seniors and Social Development to support the use of their internal case management system.

The OCIO continued to provide guidance on standardized business capabilities in the areas of Information Management and Information Protection advisory services, records management system usage, document collaboration, wireless standards guidelines and international travel to ensure consistency and a coordinated approach towards IM and IT services.

2019-20 Objective

By March 31, 2020, the Office of the Chief Information Officer will have continued to implement and draft technology roadmaps and investment plans for core infrastructure platforms and select applications.

Indicators

- Continued to implement technology roadmaps for core infrastructure platforms and applications.
- Continued to apply the technology reuse model.
- Continued to provide guidance on standardized business capabilities.

Issue 2: Service

Today, citizens expect technology that provides the best service to them, when and where they need it, and in a client-centric manner. They expect to be assured that departments and agencies are using the best available data to make evidence-based decisions with respect to policies, programs and services that affect them.

2017-20 Goal

By March 31, 2020, the Office of the Chief Information Officer will have enabled government's foundation for digital service delivery.

2018-19 Objective

By March 31, 2019, the Office of the Chief Information Officer will have procured a credential management solution, continued to increase online services and established an innovative work arrangement proof of concept.

Indicators and Accomplishments 2018-19

Indicator (Planned)	Accomplishments (Actual)
Continued to facilitate Digital by Design within government.	<p>The first year of the five-year digital government plan was successfully completed. This includes:</p> <ul style="list-style-type: none"> ○ MyGovNL: a dashboard; which provides a single, secure place for the management of driver’s licence and vehicle registration renewals. ○ MyApplications: planning and development of the first digital solution. ○ Website development standardization.
Continued to expand online service delivery for departments and agencies under its mandate.	<p>The OCIO successfully implemented the following online services:</p> <ul style="list-style-type: none"> ○ Provincial Nominee Program – Advanced Education, Skills and Labour ○ Tourism Operator Portal – Tourism, Culture, Industry and Innovation
Procured a credential management solution to simplify identity verification for GNL services.	<p>The OCIO has procured a credential management solution from a commercial vendor to be used for accessing online services.</p>
Continued to support mobile workforce and innovative work arrangements for departments and agencies under its mandate.	<p>The AMANDA Program Team finalized the proof of concept for mobile inspections.</p>

Discussion of Results

As detailed in the previous table, the OCIO met all performance indicators related to the 2018-19 Service Objective to “have procured a credential management solution, continued to increase online services and established an innovative work arrangement proof of concept.”

The completion of the first year of the five-year digital government plan was achieved. The successful completion resulted in enhancements to online service delivery for residents of the province when managing drivers’ licence and vehicle registration renewals. The development of a process to streamline and standardize website development using a digital content management system was also an accomplishment of the digital government plan.

The Office of Immigration and Multiculturalism launched an online portal to facilitate applications for the Provincial Nominee Program enabling applicants from anywhere in the world to apply for immigration sponsorship.

The Department of Tourism, Culture, Industry and Innovation launched its Tourism Operator portal to better support the growth of tourism province-wide. The portal enables the structured collection of data and management of tourism operator accounts online.

A credential management solution for the Digital by Design project has been procured and is being implemented into online services which have limited sensitive information. As more complex requirements for online access to sensitive data emerge, alternates may need to be explored.

The AMANDA Program Team developed a proof of concept for mobile inspections to support options for innovative work arrangements.

2019-20 Objective

By March 31, 2020, the Office of the Chief Information Officer will have begun to implement the credential management solution and continued to increase online services.

Indicators

- Continued to facilitate Digital by Design within government.
- Continued to expand online service delivery.
- Implemented a credential management solution for accessing online services.

Issue 3: Security

Citizens and businesses entrust their confidential information to government. In so doing, they trust that the government is taking the protection and security of that information seriously and making every effort to ensure that information is not compromised.

2017-20 Goal

By March 31, 2020, the Office of the Chief Information Officer will have enhanced cybersecurity capacity to ensure that the information that citizens and businesses share with government is secure and protected.

2018-19 Objective

By March 31, 2019, the Office of the Chief Information Officer will have investigated an approach for a Managed Security Service Provider, increased cyber security education and awareness communications and implemented database virtual patching technologies.

Indicators and Accomplishments 2018-19

Indicator (Planned)	Accomplishments (Actual)
Continued to implement solutions that augment protection against security threats to government technology networks and data	The OCIO implemented new security technologies: <ul style="list-style-type: none"> ○ Web Application Firewall ○ Application Scanning ○ Vulnerability Scanning ○ Email Gateway
Continued to improve threat identification and protection for critical endpoints.	The OCIO increased its capability in threat analysis, malware protection and internet access management with the continued implementation of a new endpoint protection system for workstations and servers.
Continued to increase cyber security education and awareness communications.	The OCIO's approach to education and communication included: <ul style="list-style-type: none"> ○ Cyber Security Awareness Month ○ Targeted Communication Campaigns ○ Education Sessions

Discussion of Results

As detailed in the table above, the OCIO met performance indicators related to the 2018-19 Security Objective to “have investigated an approach for a Managed Security Service Provider, increased cyber security education and awareness communications and implemented database virtual patching technologies.”

The OCIO implemented new security technologies enabling enhanced application security, improved visibility into all encrypted traffic and unknown files entering and leaving the government network and advanced threat detection for all government online services.

These include:

- A web application firewall was implemented to improve government's application security posture and has been effective in managing cybersecurity risks.
- Application scanning was incorporated into daily operational support to ensure all scanned production applications and websites are secure.
- Vulnerability scanning was enhanced for both operational support and project transition models.
- The OCIO has also implemented a new email gateway which scans all incoming and outgoing email, reducing the amount of malicious email delivered to recipients.

The OCIO revisited its requirement for database virtual patching technologies as there may be other technology options that can more effectively protect government's databases and applications. The OCIO developed a plan in 2018-19 offering the best approach and value moving forward into 2019-20.

The OCIO continues to promote cyber security education and awareness across government, with targeted messaging throughout the year, focused on key cyber

security risks such as phishing and international travel with mobile devices. During Cyber Security Month (October 2018), the OCIO distributed cyber security promotional materials, delivered cyber security awareness sessions to a wide range of audiences including key government executives, and disseminated information on safe web browsing and the use of Cloud based storage services. Within the OCIO, education sessions were delivered regarding the evolving cyber threat landscape, our protective measures, impacts of successful threats, and key considerations for IT professionals related to application development/support, mobile devices and wireless technologies.

2019-20 Objective

By March 31, 2020, the Office of the Chief Information Officer will have continued to augment protection against security threats to government technology networks and data, increased cyber security education and awareness communications and performed annual network perimeter security scans.

Indicators

- Continued to improve threat identification and protection for critical endpoints.
- Continued to increase cyber security education and awareness.
- Continue to improve the security of the internal government network.

Opportunities and Challenges

During 2018-19, the OCIO worked to meet the objectives in its 2017-20 Business Plan as well as actions documented in **The Way Forward** needing IT support. The continued success of the organization in meeting its strategic goals as outlined in its 2017-20 Business Plan and **The Way Forward**, will be contingent on its ability to address potential challenges while capitalizing on future opportunities.

Digital Government

Digital government, or Digital by Design, means transforming the way that government operates, including engaging with and delivering services to residents and businesses using a “digital-first” approach. The regular use of online and mobile platforms (e.g., smartphones and tablets) in citizens’ everyday lives has dramatically affected citizens’ expectations for their interactions with government. There is increased demand for alternative channels for government interaction, including sharing information and accessing services. Benefits realized by other Canadian jurisdictions that have implemented digital government include better service to citizens and businesses, cost savings and operating efficiencies through simplified processes.

Evolution of Technology

The OCIO continues to be challenged with balancing the demand for online services, while also protecting and securing government’s sensitive data from external threats. The use of cloud services, social media, mobile devices and the mandate to bring more services online has compelled the OCIO to shift from traditional security models. The OCIO’s development of the Information Protection and Security Program has a primary objective to protect government’s information assets from unauthorized or inappropriate access or use, with an increased focus on systems that have higher sensitivity information or are deemed to be most at risk. The program is well-defined and continually evolving using policy instruments, governance, processes and technology as the fundamentals for risk assessment and management.

Financial Information

Expenditure and revenue figures included in this document are unaudited and based on public information provided in the Report on the Program Expenditures and Revenues of the Consolidated Revenue Fund for the Year Ended 31 March 2019. Audited financial statements are a requirement at the government level and made public through the Public Accounts process; however, the OCIO is not required to provide a separate audited financial statement.

REPORT ON THE PROGRAM EXPENDITURES AND REVENUES OF THE CONSOLIDATED FUND

DEPARTMENT OF EXECUTIVE COUNCIL (CONTINUED)

	Actual	Estimates	
		Amended	Original
	\$	\$	\$
OFFICE OF THE CHIEF INFORMATION OFFICER			
OFFICE OF THE CHIEF INFORMATION OFFICER			
<i>CURRENT</i>			
4.1.01. CORPORATE SERVICES AND PROJECTS			
01. Salaries	5,184,669	5,201,700	4,875,800
Operating Accounts:			
<i>Employee Benefits</i>	10,807	14,300	14,300
<i>Transportation and Communications</i>	231,046	245,500	245,500
<i>Supplies</i>	411,165	446,600	111,600
<i>Professional Services</i>	2,009,283	2,299,900	3,004,900
<i>Purchased Services</i>	263,671	276,000	86,000
<i>Property, Furnishings and Equipment</i>	205,464	211,200	31,200
02. Operating Accounts	3,131,436	3,493,500	3,493,500
Total: Corporate Services and Projects	8,316,105	8,695,200	8,369,300
4.1.02. APPLICATION AND INFORMATION MANAGEMENT SERVICES			
01. Salaries	8,579,154	8,634,900	8,181,300
Operating Accounts:			
<i>Employee Benefits</i>	10,269	10,300	6,800
<i>Transportation and Communications</i>	3,326	5,000	5,000
<i>Supplies</i>	6,008	7,800	3,600
<i>Professional Services</i>	1,355,831	2,072,600	2,107,300
<i>Purchased Services</i>	115,609	122,500	95,500
<i>Property, Furnishings and Equipment</i>	14,451	-	-
02. Operating Accounts	1,505,494	2,218,200	2,218,200
	10,084,648	10,853,100	10,399,500
02. Revenue - Provincial	(26,537)	(502,700)	(502,700)
Total: Application and Information Management Services	10,058,111	10,350,400	9,896,800

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REPORT ON THE PROGRAM EXPENDITURES AND REVENUES OF THE CONSOLIDATED FUND

DEPARTMENT OF EXECUTIVE COUNCIL (CONTINUED)

	Estimates		
	Actual	Amended	Original
	\$	\$	\$
OFFICE OF THE CHIEF INFORMATION OFFICER			
OFFICE OF THE CHIEF INFORMATION OFFICER			
<i>CURRENT</i>			
4.1.03. OPERATIONS AND SECURITY			
01. Salaries	7,561,738	7,693,800	8,028,800
Operating Accounts:			
<i>Employee Benefits</i>	7,156	10,000	10,000
<i>Transportation and Communications</i>	1,406,717	1,458,000	1,635,000
<i>Supplies</i>	7,363,397	7,457,400	7,457,400
<i>Professional Services</i>	226,696	259,500	259,500
<i>Purchased Services</i>	4,918,055	4,939,600	4,939,600
<i>Property, Furnishings and Equipment</i>	1,007,229	1,008,200	831,200
02. Operating Accounts	14,929,250	15,132,700	15,132,700
	22,490,988	22,826,500	23,161,500
02. Revenue - Provincial	(370,992)	(412,800)	(412,800)
Total: Operations and Security	22,119,996	22,413,700	22,748,700
<i>CAPITAL</i>			
4.1.04. CORPORATE SERVICES AND PROJECTS			
01. Salaries	490,291	490,300	490,000
Operating Accounts:			
<i>Transportation and Communications</i>	2,652	16,600	16,600
<i>Supplies</i>	270,118	814,600	1,314,900
<i>Professional Services</i>	5,289,129	5,780,100	6,411,100
<i>Purchased Services</i>	26,000	26,000	10,000
<i>Property, Furnishings and Equipment</i>	1,377,141	1,380,000	265,000
02. Operating Accounts	6,965,040	8,017,300	8,017,600
Total: Corporate Services and Projects	7,455,331	8,507,600	8,507,600
4.1.05. OPERATIONS AND SECURITY			
Operating Accounts:			
<i>Supplies</i>	213,139	214,100	223,000
<i>Property, Furnishings and Equipment</i>	342,426	343,900	335,000
02. Operating Accounts	555,565	558,000	558,000
Total: Operations and Security	555,565	558,000	558,000
TOTAL: OFFICE OF THE CHIEF INFORMATION OFFICER	48,505,108	50,524,900	50,080,400
TOTAL: OFFICE OF THE CHIEF INFORMATION OFFICER	48,505,108	50,524,900	50,080,400
TOTAL: EXECUTIVE COUNCIL	87,791,006	92,003,300	90,261,100

