ANNUAL REPORT 2019/20



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 2019-2020 Annual Report covering the Office's annual objectives for April 1, 2019 to March 31, 2020 and the goals included in the 2017-20 Strategic Plan.

This fiscal year was the third and final year of the 2017-20 Business Plan, and the OCIO implemented objectives identified in the plan. Over the past fiscal year, the OCIO moved MyGovNL from a pilot project to a fully operational digital service delivery platform. This enabled citizens of the province of Newfoundland and Labrador to avail of online services at the time of their choosing, and avoid waiting in line at our service centres.

We are committed to making all services as accessible as possible to all residents of the province. The Provincial Government has progressively transformed the way services are delivered in Newfoundland and Labrador, and online service options have been useful in complementing traditional services. Through the OCIO, we will continue our government's plan to enhance online service delivery for residents and businesses.

I also acknowledge the efforts of OCIO employees in ensuring government has the necessary tools and technologies to conduct its business and provide services to the public

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

South Stoodley

Hon. Sarah Stoodley Minister Responsible for the Office of the Chief Information Officer

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Organizational Overview

The Office of the Chief Information Officer (OCIO) provides professional information technology (IT) and information management (IM) 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.

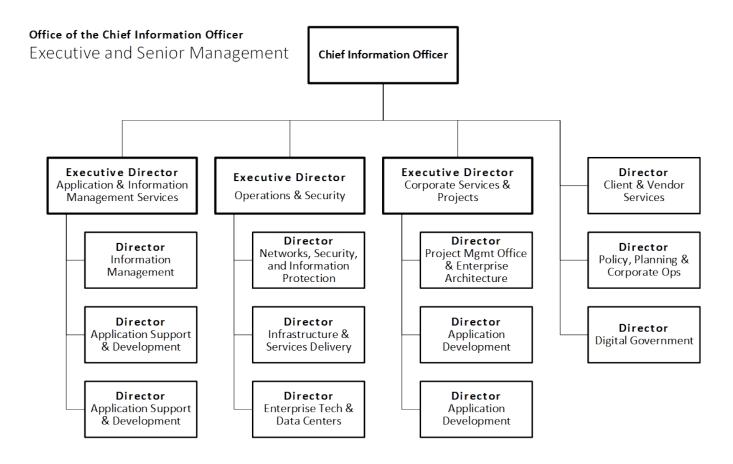


Figure 1 - OCIO Executive and Senior Management

Application and Information Management Services Branch: provides overall leadership and vision for the support, enhancement, maintenance, protection and database administration of government's portfolio of applications. The branch also develops information management directives, standards, procedures and guidelines, and provides advisory services and support to government departments and other supported public bodies. 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 IT infrastructure. This includes computers, mobile devices, networking, storage, data backup, server infrastructure, enterprise data centre, enterprise infrastructure applications and related technologies. In addition, the branch is responsible for the OCIO's Information Protection (IP) program and related advisory services that support government-wide IP initiatives.

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

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

Client and Vendor Services Division is primarily responsible for engaging and collaborating with departments to set strategic IT direction, assisting in the prioritization of departmental IT spend, managing the interests of client departments and supported agencies, acting as a liaison with the local IT industry, and managing vendor relationships. The division has additional responsibility for planning, monitoring and reporting for the OCIO.

Projects Division is responsible for the delivery of IT solutions to government departments and supported entities using project management best practices and standards and striving to reduce technology complexity by promoting integration of systems and data, reducing duplication, and supporting standardization of processes and systems.

Digital Government Division is responsible for leading, defining, and delivering the overall government-wide digital strategy and digital channel in support of a more efficient public sector and government-wide service delivery change for residents and businesses.

The OCIO's main office is located at 40 Higgins Line in St. John's. Several staff are located in alternate offices throughout the city and there are six regional offices located in: Clarenville, Corner Brook, Gander, Grand Falls-Windsor, Happy Valley-Goose Bay, and Stephenville.

Please visit <u>www.gov.nl.ca/ocio</u> for more information.

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 2019-20 budget for the OCIO, including revenues, was \$47,930,100.

Branch	# of Employees	Budget
Application and Information	106	\$9,808,500
Management Services		
Operations and Security	123	\$23,175,600
Corporate Services and Projects	70	\$14,946,000
Total	299	\$47,930,100

Highlights and Partnerships

The OCIO works in partnership with government departments, supported public bodies, and the IT industry 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 with a focus on delivering services that are digital by design.

During 2019-20, the OCIO continued to work with its managed service provider to partner with 113 private sector IT vendors to maximize opportunities to meet the needs of government.

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

Highlights

During 2019-20, the OCIO was responsible for managing over 25 projects for 18 client departments and supported public bodies. Nineteen (19) projects and 44 new websites were delivered for client departments.

The Digital by Design roadmap is government's plan to increase the number of government services delivered online for residents and businesses, and enhance the overall experience and satisfaction of Newfoundlanders and Labradorians as clients of provincial government services. Some significant outcomes of the Digital by Design roadmap this fiscal include:

- The OCIO moved MyGovNL to a fully operational digital service delivery platform available to all citizens of the province. MyGovNL was established as the portal enabling government digital services, as envisioned in the Digital by Design roadmap.
- The OCIO, in partnership with the Department of Digital Government and Service NL (formerly ServiceNL), delivered Motor Registration Division (MRD) services including online renewals of vehicle and driver licences via MyGovNL, to all citizens of the province. The services combined many foundational components including online Payment integration and real-time data access.
- The Lotteries application was the first application to be delivered as part of the Digital by Design program. This application can be found at this location: <u>www.gov.nl.ca/dgsnl/lotteries.</u>

Security of citizens' information remains a top priority for the OCIO. Through the implementation of new technologies, the OCIO has enhanced government's ability to manage cyber security risks by detecting and mitigating known vulnerabilities, as well

as restricting the flow of malicious attacks via internet traffic to and from government's applications.

Partnerships

The OCIO engaged with IT partners and vendors to address several key areas including the following:

- Provision of opportunities for 113 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 enterprise Oracle Financial Management and Human Resource Management Systems (including payroll), as well as Oracle databases.
- Support and maintenance for government's enterprise Microsoft technologies including e-mail, server enterprise applications and file server operating systems.

Service	Vendor	Total Expenditure
		for 2019-20
Professional	Managed Service Provider (MSP)	\$7,771,483
Services	Non MSP	\$871,075
Data Centre	Bell Canada	\$4,143,104
WAN	Bell Canada	\$1,422,850
Oracle Support	Oracle Canada ULC	\$1,370,399
Microsoft	Microsoft	\$1,443,715
Total		\$17,022,626

The following table outlines major expenditures to/through IT vendors:

Report on Performance

March 31, 2020 concluded the period covering the department's Strategic Plan for 2017-20. In consideration of the mandate and financial resources of the department, three issues were identified as the department's key priorities in its Strategic Plan: Value; Service; and, Security. This section reports on the goals for each issue, as well as the annual objectives for 2019-20 in support of those goals.

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 achieve the maximum benefit out of the money it spends on IT for government departments and agencies under its mandate.

2017-20 Goal Statement

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.

2017-20 Goal Reporting

Indicator (Planned)	Accomplishments (Actual)
Developed and began to	Technology roadmaps were created for the AMANDA
implement technology	licencing and permitting solution, Human Resource
roadmaps and	Management System (HRMS/PeopleSoft), and the five-
investment plans for	year digital government strategy. Investment plans were
several core	created for technology infrastructure acquisitions.
infrastructure platforms	
and select applications.	
Refined and	The refined reuse model was communicated to Planning
communicated the	Service Delivery Committees and other benefiting
technology reuse model	stakeholders.
to departments and	
agencies under its	The OCIO successfully reused several applications to
mandate.	provide technology solutions and/or enhancements
	including a grants management system, helpdesk system,
	fleet management system, ice monitoring solution, online
	publishing portal and enterprise website templates.
Provided guidance on	The OCIO communicated standards and provided
standardized business	guidance to departments and agencies in the areas of
capabilities to	information and records management, information
departments and	protection, document collaboration, wireless standards,
agencies under its	international travel with mobile devices, cloud usage and
mandate.	online security.

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.

2019-20 Indicators and Accomplishments

Indicator (Planned)	Accomplishments (Actual)
Continued to implement	The Human Resource Management System (PeopleSoft)
technology roadmaps for	technology roadmap was used to:
several core	 Initiate a PeopleSoft Tools/Application upgrade,
infrastructure platforms	based on Oracle's certification path
and applications.	 Increase the user-base of the PeopleSoft platform
	 Analyze implementation of the Human Resource
	Management System (PeopleSoft) for the Royal
	Newfoundland Constabulary (RNC)
	The AMANDA Licencing and Permitting roadmap was
	used to:
	 Implement Electrical Permits
	 Replace Mineral Rights Administration System
	(MIRIAD)
	\circ Plan the next permits and licencing applications to
	be replaced, in alignment with the application
	portfolio rationalization review.
Continued to apply the	The technology reuse model was used to develop:
technology reuse model.	 A Fleet Management system
	 Badger Ice Monitoring System
	The technology reuse model was used to enhance:
	 Child Care Directory Online Publishing Portal

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	0	Request Portal for Immigration's Provincial
		Nominee Program
	0	Grants Management System
	0	Helpdesk Applications
	Reusa	able templates were developed for the enterprise
	websi	te platform to be used by all government
	stake	holders.
Continued to provide	The C	OCIO continued to communicate standards and
guidance on	provic	le guidance to departments and agencies in the
standardized business	follow	ing areas:
capabilities.	0	Information Management Advisory Services
	0	Information Protection Advisory Services
	0	Records Management
	0	Document Collaboration
	0	IT Systems Security Requirements for Cloud and
		COTS Solutions
	0	Staying Safe on Social Media
	0	Password Management Directive
	0	Remote Access and Administration Standard
	0	Working Remotely – Information Management and
		Protection Tips

Discussion of Results

Between April 1, 2017 and March 31, 2020, the Office of the Chief Information Officer successfully met its goal of "optimizing the value of information technology expenditures by adapting its investments, assets and approaches to maximize cost effectiveness."

The OCIO developed and implemented technology roadmaps for several core infrastructure platforms and select applications. The AMANDA licencing and permitting roadmap was completed and used to implement electrical permits, replace a mineral rights system and set the groundwork for development of future permits, licencing and inspections applications using a standardized approach to increase efficiencies in the deployment of these services. The Human Resource Management System was also enhanced to accommodate a larger user base. The OCIO also developed an investment plan for a core infrastructure platform.

The technology reuse model was refined and communicated to departments and the beneficiaries of the model. The OCIO continued to apply its technology reuse framework to deliver new and enhance existing services. The OCIO continued to provide guidance on standardized business capabilities in the areas of information management and information protection to ensure consistency and a coordinated approach towards IM and IT services.

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.

Indicator (Planned)	Accomplishments (Actual)
Facilitated Digital by	The MyGovNL dashboard was developed providing a
Design within	secure online location for the management of several
government.	Motor Registration activities including driver's licence and

2017-20 Goal Reporting

	vehicle registration renewals, notice of sale, and change of
	address. The digital by design initiative also developed
	standardization of online payment processing, created an
	online lottery application and standardized the framework
	to enable a common look and feel of 44 government
	websites.
Expanded online service	The OCIO expanded several areas of online service
delivery for departments	delivery including help desks, audit systems, public land
and agencies under its	use atlas, Human Resource Management System
mandate.	(HRMS/PeopleSoft) functionality, a new online
	immigration request portal, tourism operator portal,
	Support Enforcement application viewer services, and
	usage of cloud solutions.
Simplified identity	MyGovNL offers credential management functionality to
verification to	allow citizens to access online services.
government services.	
Supported mobile	The AMANDA licencing and permitting solution team
workforce and innovative	finalized a proof of concept for mobile inspections.
work arrangements for	
departments and	The OCIO planned, organized and facilitated the rapid
agencies under its	deployment of required functionality and the necessary
mandate.	devices to enable a remote workforce in the face of a
	global pandemic securing continuity in the delivery of
	government services and programs to citizens.

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.

2019-20 Indicators and Accomplishments

Indicator (Planned)	Accomplishments (Actual)
Continued to facilitate	The second year of the five-year digital government plan
Digital by Design within	was successfully completed. This includes:
government.	 Standardization of online payment processing.
	\circ Implementation of the following services via
	MyGovNL:
	 Motor Registration Division services:
	Notice of Vehicle Sale
	Change of Address
	 Vehicle Registration Renewal
	Driver's Licence Renewal
	 Lottery Applications
	 44 websites upgraded and standardized
Continued to expand	The OCIO successfully completed the following:
online service delivery.	 Upgraded the PowerSchool K-12 system,
	consolidated for all schools in the province and
	moved to a cloud environment
	 Enhanced Support Enforcement recalculation
	services and online processes
Implemented a	Credential management functionality was implemented
credential management	with MyGovNL, which now accepts the public user's
solution for accessing	credentials for access to online services.
online services.	

Discussion of Results

Between April 1, 2017 and March 31, 2020, the Office of the Chief Information Officer was successful in "enabling government's foundation for digital service delivery."

The digital government plan successfully developed the option to perform select Motor Registration services via MyGovNL, including driver's licence renewal, vehicle registration renewal, notice of vehicle sale, and change of address. An online lottery application was completed and enterprise website development was streamlined.

The OCIO expanded and implemented several online services including an improved online portal, new services to the immigration sponsorship application program, and a tourism operator portal, which enabled the structured collection of data and the management of tourism operator accounts online.

The AMANDA program finalized a proof of concept for mobile inspections to support options for innovative work arrangements for departmental inspection programs.

The OCIO organized and implemented a plan to provide tools and technologies enabling secure remote work capabilities for the provincial government, minimizing disruption in the provision of government programs and services to the citizens of Newfoundland and Labrador during a global pandemic.

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 cyber security capacity to ensure that the information that citizens and businesses share with government is secure and protected.

2017-20 Goal Reporting

Indicator (Planned)	Accomplishments (Actual)
Implemented solutions	The OCIO implemented/improved the following security
that augment protection	technologies:
against security threats	 Web Application Firewall
to government	 Application Scanning
technology, networks	 Vulnerability Scanning
and data.	 Email Gateway
Improved threat identification and protection for critical endpoints.	The OCIO deployed a new endpoint security system to workstations and servers enabling enhanced threat analysis, web filtering, malware protection, and internet access management.
Increased cyber security education and awareness communications.	 The OCIO conducts regular Information Protection education and awareness activities. These activities include: Cyber Security Awareness Month Activities Print Materials for Departments and Agencies Targeted Communication Campaigns Education Sessions and Online Courses

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.

2019-20 Indicators and Accomplishments

Indicator (Planned)	Accomplishments (Actual)
Continued to improve	The OCIO continued to increase its capability in threat
threat identification and	analysis, malware protection and internet access
protection for critical	management with the implementation of increased security
endpoints.	controls and the maturing of the endpoint protection
	system for workstations and servers. New security
	technologies were implemented, enabling improved
	malware detection for network traffic. Security controls
	were increased to limit the possibility of malware being
	able to spread across the government network. The
	following activities were included in the work completed
	this year:
	 A next generation firewall was implemented to
	improve malware detection and advance threat
	protection for all network traffic travelling through
	the government network.
	 Increased security controls including local firewalls
	on all workstations, restricted use of remote desktop
	protocol, restricting the use of macros, and
	continued reduction in the number of user accounts
	with administrative privileges.

	• Vulnerability scanning continued to be enhanced for
	both operational support and project transition
	models.
Continued to increase	The OCIO's approach to education and communication
cyber security education	included:
and awareness.	 Cyber Security Awareness Month
	Cyber awareness
	Social engineering
	 Password management
	\circ Targeted Communication Campaigns, with focus
	on phishing and mobile device security
	 Education Sessions
Continued to improve	The OCIO continued to improve the security of the
the security of the	internal government network through the implementation
internal government	of enhanced firewall technology, additional security
network.	controls, and improved patching of workstations and
	servers.

Discussion of Results

Between April 1, 2017 and March 31, 2020, the Office of the Chief Information Officer "will have enhanced cyber security capacity to ensure that the information that citizens and businesses share with government is secure and protected."

This was accomplished by improving government's application security posture and managing cybersecurity risks. The OCIO implemented new security technologies enabling improved visibility into all encrypted traffic and unknown files entering and leaving the government network and advanced threat detection for all government online services.

The OCIO deployed a new endpoint security system, and prepared and delivered a cybersecurity awareness program.

The OCIO provides ongoing awareness campaigns regarding the evolving cyber threat landscape as it relates to application development/support, mobile devices and wireless technologies, and general computing platforms.

Opportunities and Challenges

During 2019-20, the OCIO worked to meet the objectives in its 2017-20 Business Plan, and provided IT support to departments as they increased the number of services delivered online to Newfoundlanders and Labradorians.

Opportunities

Digital Government

Making digital by design service delivery a priority is an opportunity for this government to modernize government services to meet the evolving needs of our citizens, create greater efficiencies in how we do business, provide better services, and contribute to better outcomes for all Newfoundlanders and Labradorians. The OCIO continues to invest in the implementation of digital services which can be accessed remotely anywhere, anytime – especially beneficial in situations such as the current global pandemic environment.

Challenges

Technological Change and Investment

The OCIO continues to be challenged with maintenance and modernization of IT infrastructure, equipment and applications. The rapid evolution of technology demands significant investment to ensure the secure, continuous delivery of government's programs and services.

IT Resource Supply and Demand

The current technology resource landscape in Newfoundland and Labrador can present issues with recruitment and retention. The IT industry is highly competitive, which can present a challenge for the OCIO to attract and retain skilled IT professionals.

Cyber Security

Continuous evolution of cyber threats requires a proactive approach to ensure government data remains uncompromised. Protection of government's information assets from unauthorized or inappropriate access or use remains paramount. Threats are more advanced than ever, while the availability of skilled Cyber professionals is limited.

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 2020. 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.

		Estimates	
	Actual	Amended	Original
	\$	\$	\$
OFFICE OF THE CHIEF INFORMATION OFFICER			
OFFICE OF THE CHIEF INFORMATION OFFICER			
CURRENT			
4.1.01. CORPORATE SERVICES AND PROJECTS			
01. Salaries	4,701,389	4,765,200	4,665,200
Operating Accounts:			
Employee Benefits	15,905	16,000	13,300
Transportation and Communications	185,527	249,800	249,800
Supplies	680,432	709,700	709,700
Professional Services	880,486	1,369,300	898,000
Purchased Services	246,060	281,200	281,200
Property, Furnishings and Equipment	387,644	424,200	221,200
02. Operating Accounts	2,396,054	3,050,200	2,373,200
Total: Corporate Services and Projects	7,097,443	7,815,400	7,038,400
4.1.02. APPLICATION AND INFORMATION MANAGEMENT			
SERVICES			
01. Salaries	8,139,552	8,157,000	8,063,000
Operating Accounts:			
Employee Benefits	-	8,800	8,800
Transportation and Communications	4,934	5,000	4,500
Supplies	25,465	24,100	4,100
Professional Services	1,474,026	1,707,300	1,707,300
Purchased Services	46,114	73,000	93,500
Property, Furnishings and Equipment	10,167	-	-
02. Operating Accounts	1,560,706	1,818,200	1,818,200
	9,700,258	9,975,200	9,881,200
02. Revenue - Provincial	(16,967)	(72,700)	(72,700)
Total: Application and Information Management Services	9,683,291	9,902,500	9,808,500

	-	Estimates	
	Actual	Amended	Original
	\$	\$	\$
OFFICE OF THE CHIEF INFORMATION OFFICER			
OFFICE OF THE CHIEF INFORMATION OFFICER			
CURRENT			
4.1.03. OPERATIONS AND SECURITY			
01. Salaries	7,702,769	7,719,100	7,873,100
Operating Accounts:			
Employee Benefits	-	11,500	11,500
Transportation and Communications	1,520,858	1,533,500	1,533,500
Supplies	7,145,143	7,159,300	7,396,300
Professional Services	231,548	237,200	237,200
Purchased Services	5,011,559	5,105,600	5,105,600
Property, Furnishings and Equipment 02. Operating Accounts	<u>967,451</u> 14,876,559	<u>1,040,900</u> 15,088,000	803,900 15,088,000
02. Operating Accounts	22,579,328	22,807,100	22,961,100
02. Revenue - Provincial	(256,717)	(343,500)	(343,500)
Total: Operations and Security	22,322,611	22,463,600	22,617,600
CAPITAL			
4.1.04. CORPORATE SERVICES AND PROJECTS			
01. Salaries	971,090	1,000,000	1,000,000
Operating Accounts:	,	.,,	
Transportation and Communications	5,890	39,000	39,000
Supplies	186,163	233,400	233,400
Professional Services	5,859,647	5,955,200	5,645,200
Purchased Services	12,224	-	-
Property, Furnishings and Equipment	301,916	990,000	990,000
02. Operating Accounts	6,365,840	7,217,600	6,907,600
Total: Corporate Services and Projects	7,336,930	8,217,600	7,907,600
4.1.05. OPERATIONS AND SECURITY			
Operating Accounts:			
Property, Furnishings and Equipment	558,000	558,000	558,000
02. Operating Accounts	558,000	558,000	558,000
Total: Operations and Security	558,000	558,000	558,000
TOTAL: OFFICE OF THE CHIEF INFORMATION OFFICER	46,998,275	48,957,100	47,930,100
TOTAL: OFFICE OF THE CHIEF INFORMATION OFFICER	46,998,275	48,957,100	47,930,100
TOTAL: EXECUTIVE COUNCIL	86,585,002	90,952,900	89,682,800

