MISSISSAUGA

Information Technology

2022–2025 Business Plan
& 2022 Budget

Foreword

Our Vision for the Future

Mississauga will inspire the world as a dynamic and beautiful global city for creativity and innovation, with vibrant, safe and connected communities; where we celebrate the rich diversity of our cultures, historic villages, Lake Ontario and the Credit River Valley. A place where people choose to be.

Mississauga City Council approved Our Future Mississauga; a Strategic Plan to achieve this vision over a 40-year timeframe. The City engaged over 100,000 people to develop this Vision Statement. To achieve this vision the City has identified five Strategic Pillars for Change: **move**, **belong**, **connect**, **prosper**, and **green**. Each year the City proposes various initiatives that are aligned with the Strategic Pillars and are intended to bring us closer to fulfilling our vision for the future. The City delivers over 300 services which are consolidated into 16 Service Areas (including the Stormwater Program) that are outlined in this Plan. The 2022-2025 Business Plan & 2022 Budget document details how and where the City plans to allocate resources to deliver programs and services.

The City is committed to providing programs and services cost effectively. In this Plan we have outlined measures that will help assess the quality, efficiency and customer satisfaction that our services achieve. The results help inform decisions on resource allocations and direct program offerings, and improve service delivery to ensure our vision is efficiently realized.

The ongoing COVID-19 global pandemic is a significant factor impacting the 2022-2025 Business Plan & 2022 Budget. Service levels and service delivery continue to be affected.

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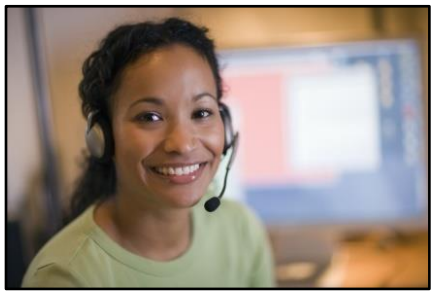


Executive Summary of Information Technology

Mission: We are committed to providing our clients with innovative, reliable, responsive and secure solutions that align business, process and technology.

Services we provide:

The Information Technology (IT) Service Area has six sections that focus on technology planning, service delivery, support, and operations to enable City services and drive efficiencies.

Interesting facts about this service:

- IT operates seven days a week, 365 days a year providing support to over 5,000 staff in over 100 facilities
- The City's website provides online services, information and transactions, with 14.6 million unique visits occurring in 2020
- Wireless Mississauga is free public access to high-speed Wi-Fi available at many City facilities (libraries, community centres, marinas, and arenas). In 2020, the total number of hours of free City Wi-Fi used by the public translated to 183 years of service
- The Public Sector Network is a state-of-the-art fibre network co-owned by the Region of Peel, Mississauga, Brampton, and Caledon. Over 842 kilometres of high-speed fibre connect 1,016 partner and 15 subscriber sites. Among the co-owners, the City has the largest number of sites/nodes and the lowest cost per connection
- From January to July 2021, the City received an average of 508,000 malicious emails monthly while in 2020 the monthly average was 987,000. During the pandemic lockdown, monthly malicious emails received peaked at 1.7 million in June 2020

Highlights of the Business Plan include:

- Implementation and delivery of Microsoft Office 365 Roadmap via the Microsoft contract renewal (signed June 2021)
- Supporting the Hazel McCallion Central Library renovation together with vendors to provide the latest technology and audio visual products
- Continuing to support the mobile workforce, enabling people to work from anywhere; continuing to support virtual meetings as the City transitions out of the pandemic
- Maintaining IT security and cybersecurity response to protect data, privacy and City assets
- Continuing to support the use of the new City website (mississauga.ca) to add more online services and communicate with the community
- Continuing to maintain IT infrastructure in a state of good repair while sustaining City services

Net Investment ($000s)	2022	2023	2024	2025
Operating	33,244	33,171	31,466	30,744
Capital	21,068	17,778	17,626	20,269
Full Time Equivalents	266.3	260.3	249.3	223.3

Core Services

Vision, Mission, Goals of Service and Service Delivery Model

Vision

To support the City's strategic pillars of move, connect, prosper, belong and green through the strategies and action items defined in the IT Master Plan to create a connected and engaged City.

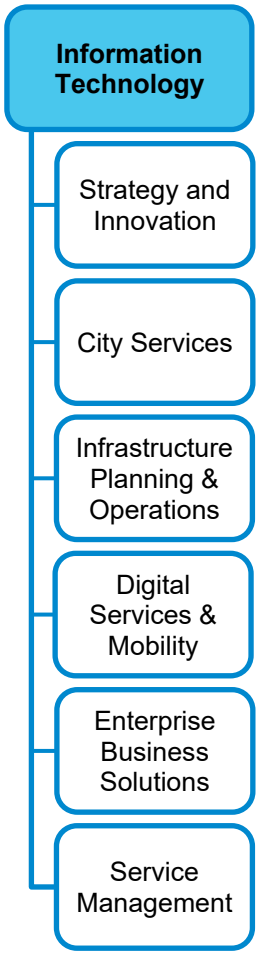
Mission

We are committed to providing our clients with innovative, reliable, responsive, and secure solutions that align business, process and technology.

Goals of Service

- Foster open and accessible government
- Enable decisions through research and analytics
- Create a connected and engaged workplace
- Improve services through innovation and partnerships
- Build a connected and engaged City: a Smart City for everyone

Service Delivery Model



Service Levels and Trends

The IT Service Area is responsible for the planning, development, maintenance and overall management of the City of Mississauga's technology infrastructure, business solutions and digital public services.

IT provides and supports the systems, applications, computers, networks, data, Internet access, security and policies critical to the delivery of City services seven days a week, 365 days a year.

Partnerships have been established to improve service, efficiency and cost-effectiveness in areas such as Wireless Mississauga for Sheridan, the Public Sector Network, and Voice Communication (VCOM) Radio.

Smart City digital infrastructure and services and Internet of Things are in demand through public transit initiatives. Wi-Fi and other direct public services are available through Open Data and other sensor technology. There is demand to deliver service using augmented reality and artificial intelligence (AI) in public spaces where citizens, visitors, and businesses are likely to access our services and interact with the City.

IT services are provided 24/7/365 and support the following:

- mississauga.ca for information
- All online services, which are increasingly in demand
- Business solutions for public-facing Service Areas (e.g., Transit, Library, Recreation, Culture and Economic Development)
- Financial, Human Resource and City asset systems
- Primary and secondary data centres
- Fibre network for all voice and data communications
- Business continuity and disaster recovery services
- Intranet and staff productivity tools and software
- Secure "connect anywhere" Virtual Private Network (VPN) services
- Public, staff and Call Centre Voice Communications
- Secure staff wireless Internet access
- Free public Wi-Fi through the Wireless Mississauga and Virtual Campus (eduroam) initiatives
- TXM Tax Manager – an in-house-developed property tax system used by a number of Ontario municipalities
- COVID-19 work-from-home protocols (developed in 2020 and still in use), with the ability to be agile while quickly reacting to different pandemic developments
- A comprehensive, City-wide cybersecurity awareness campaign and training platform, which was undertaken in 2021 to educate staff to easily recognize phishing emails, malware and the social engineering tactics used by cyber criminals

Performance Measures and Results

The City of Mississauga is committed to delivering services economically and efficiently. The City's performance measures are used to help assess how well we are doing at achieving our goals and where we need to improve operations. The results also inform decision-making and strengthen accountability.

Balanced Scorecard

A Balanced Scorecard traditionally assembles organizational performance measures from four areas: customer, financial, workforce, and business process. Measures from each area tell an important part of the performance story. Changes in one area can result in pressures in another, as they do within an ecosystem; taken together, measures from all four areas present a balanced overview of how things are going.

- Customer measures describe how well the service is provided (quality; outcome attainment; and user and citizen satisfaction measures on dimensions such as quality, value, price, product, and service), and how much service the organization provides (volume or capacity measures)
- Financial measures describe the organization's financial performance. Companies often use measures such as profit, revenue to cost, and cash flow. Corporately, City examples include investment performance and interest costs. Service Area measures could include ratios of revenue to cost, costs per unit of service delivered (cost efficiency), per capita costs
- Workforce (formerly 'Employee') measures describe workforce factors that can contribute to the effective delivery of service. These could include rates of innovation, employee satisfaction, qualifications/training, and workforce stability measures such as the rate of succession plan participation
- Business Process measures describe the efficiency and/or effectiveness of a given process. They help to identify any gaps, delays, bottlenecks, shortages, or waste. Time is often a dimension of these measures; e.g., time to respond on scene to an emergency. Resource use and rate of targeted outcome attainment are also often dimensions of business process measures

As an organization with a service (vs. profit) mandate, the City gives customer measures pre-eminence on its Balanced Scorecards. Doing this does not diminish the importance of financial, workforce and efficiency measures. Those measures help the City focus on achieving an outcome that is as important to taxpayers as any other, which is to get the most value possible out of their money.

Below are descriptions of the customer, financial, workforce, and business process performance measures tracked in this Service Area's Balanced Scorecard. The Balanced Scorecard table that follows shows trends since 2018 and expected outcomes to 2025.

Customer Measures

Wi-Fi Service Hours per Access Point measures the usage of the City's public Wi-Fi services.

Number of Open Data Sets provides the number of publicly available data sets that can be used by anyone, anywhere for application development or reports.

Number of Self-serve Web Applications counts the number of self-serve City applications. The City targets adding two self-serve applications per year.

Number of Connected Things exhibits growing infrastructure requirements and how progressively Mississauga is becoming a Smart City.

Financial Measures

Capital Spend Rate (Spending Efficiency) shows the rate at which IT is spending its capital funding. IT is increasing this rate by utilizing project management best practices and agile resource models.

Operating Licensing Budget Growth measures the rate of growth of the IT software and licensing budget.

Optimization of Voice and Data Communications measures the percentage of employees that use a software phone versus a traditional phone. The City expects to increase this percentage as more office staff adopt mobile workforce strategies.

Workforce Measures

Percentage of Mobile Workers City-wide shows how the City's modernization strategy is working and is an indicator of workforce mobility. Mobile work is cost-effective, contemporary and enticing to potential talent.

Business Process Measures

City Website Unique Visits measures the number of unique visits to the City's website.

IT Help Desk First Call Resolution is the percentage of calls that are resolved in one phone call. Strategies to improve include enhancing the IT management knowledge base process, expanding the IT Help Desk training and continuous learning program, and live-transferring calls.

Number of Real-time Dashboard Measures demonstrates how IT is increasingly using automation for building reports and monitoring City services.

Balanced Scorecard

Measures for Information Technology	2018 (Actual)	2019 (Actual)	2020 (Actual)	2021 (Plan)	2022 (Plan)	2023 (Plan)	2024 (Plan)	2025 (Plan)
Customer:								
Wi-Fi Service Hours per Access Point	9,775	8,200	3,930	4,145	4,410	4,700	5,010	5,340
# of Open Data Sets	200	182	226	230	235	240	245	250
# of Self-serve Web Applications	72	75	77	79	81	84	86	89
# of Connected Things	13,228	14,478	14,480	14,622	14,800	14,900	15,100	15,300
Financial:								
Capital Spend Rate (Spending Efficiency)	44.5%	52.2%	43.0%	45%	45%	45%	45%	45%
Operating Licensing Budget Growth	16.3%	25.2%	6.0%	2.3%	9.9%	10%	10%	10%
Optimization of Voice & Data Communications	10%	12%	62%	71%	87%	90%	93%	96%
Workforce:								
Percentage of Mobile Workers City-wide	39%	41%	22%	26%	30%	40%	44%	46%
Business Process:								
City Website Unique Visits (millions)	18.5	15.9	14.6	14.5	14.7	15.0	15.3	15.5
IT Help Desk First Call Resolution Rate	91.6%	94.2%	94.3%	95%	95%	95%	95%	95%
# of Real-time Dashboard Measures	129	162	179	227	239	251	263	276

Awards and Achievements

International Organization for Standardization (ISO) 37122 Indicators for Smart Cities Certification – from the World Council on City Data (WCCD) as an early adopter of their data standards. Mississauga is one of the first global cities and the only Canadian municipality to achieve this certification.

Intelligent Community Forum (ICF) names Mississauga as one of its Top7 Intelligent Communities for 2021 – the ICF has developed a method that communities can use to develop prosperous and inclusive economies, strong societies and rich cultures. In March 2021, the ICF also named Mississauga as one of the Smart21 Intelligent Communities of the Year.

Mississauga ranked 10th in North America for its GIS Program – through the 2020 Geospatial Maturity Index (GMI) Survey. In 2019, the City also ranked 10th but 2020 had more participants entered into the ranking.

New mississauga.ca website launched – the site has a new, modern design with improved customer-focused navigation to facilitate searches and conduct business. It also has a number of rebuilt services and sub-services for improved performance.

Open Data Day was held March 6, 2021 – open data is public information that can be freely used by anyone. It is available for public research, analysis, reporting and mobile app development.

The **2020 Smart City Annual Report** highlights the City's achievements in technology and world-class innovations in an interactive format. The report allows citizens to virtually explore and learn about how and where the City utilizes Smart City technology. This is Mississauga's first Smart City annual report and the first municipal report of its kind.

Other notable achievements include:

The Data Handling Policy was adopted by Council in June 2021. The policy describes how data is managed by employees and third parties and applies to data that is in use, in storage and in transmission. It will be phased in over several years.

The Open Data Policy was revised in June 2021 to include the adoption of the six International Open Data Charter principles. Adopting these principles will help increase transparency and also enable the City to continue to foster innovation by enabling anyone to openly download a wide variety of datasets.

The Canadian Access Federation online newsletter (September 2020) featured a case study on the City's use of eduroam connectivity to provide a city-wide virtual campus. The case study examines why eduroam was adopted and its impact on the population.

Expansion of the existing Laptop and Hotspot Lending Program to include a pilot of 100 Chromebook laptops, available at the City's 18 libraries as of June 2021.

With the installation of two cameras in Kariya Park, residents can continue to view the spring cherry blossoms despite being unable to access the park due to COVID-19 protocols.

The 2022-2025 Business Plan Outlook

Planning for the Future

As the City emerges from the pandemic, IT is ready to continue and/or expand many programs in the future including:

- Reviewing state-of-the-art technology needs for use in the Central Library revitalization
- Continuing to support mobile workforce/work-from-anywhere/virtual meetings enhancements in post-pandemic recovery
- Reprioritization of work, where necessary, for business continuity and disaster preparedness
- Enhancing online service delivery on items such as tax self-service, pet registration, licence renewals and recreation program registration
- Continuing to meet customer service expectations via the IT Help Desk, IT Tech Hub and remote assistance
- Supporting the expanding external client base of the in-house-developed municipal tax system (TXM Tax Manager)
- Modernizing technologies, platforms and infrastructure that support mississauga.ca
- Continuing to provide and expand public Wi-Fi
- Continuing with the implementation of online services, introducing innovative uses of augmented reality and AI to provide City services in public spaces
- Continuing to implement iParks, introducing sensor-based technology to measure environmental indicators and participation in parks
- Moving toward cloud services
- Continuing provision of IT service as a 24/7 utility; always on, always available
- Keeping pace with rapid developments in emerging technology (e.g., 5G, digitization, cryptocurrency, smart vehicles)
- Supporting the continued enhancement and education of cybersecurity awareness; protecting and securing data
- Executing a large number of digital transformation projects
- Election Enterprise Management System replacement and Election System upgrades including the technology requirements to support all aspects of the 2022 Election
- Mandatory upgrading or replacement of the Voice Communication (VCOM) radio system of 1,300 radios, in partnership with Peel Region, Peel Police and Mississauga, Brampton and Caledon Fire
- Maintaining IT infrastructure in a state of good repair

Finding Efficiencies

Lean Program

The City's Lean Program focuses on strengthening the organization's culture of continuous improvement and instills Lean concepts and principles as a way of work in every Service Area. The program focuses on maximizing customer value and minimizing waste along with empowering staff at all levels to problem-solve on a daily basis. Since becoming permanent in 2016, the Lean program has produced such enhancements as improved customer experience, faster processing times, higher quality and lower costs.

Highlights of the many projects and improvements completed include:

- Standardized IT user access requests, reduced errors/rework, improved productivity, achieving $18,555 in cost avoidance, 280 hours freed capacity
- Reduced duplication of contract documents by 75 per cent while also reducing paper usage by 50 sheets per contract
- Adopting new software allows for the processing of a series of city maps versus each being created individually, realizing 210 annual hours of freed capacity

Completed Initiatives					Total Benefits	
Improvement Type	**2014 – 2019**	**2020**	**Up to Sep 2021**	**Total**	**Type**	**Total**
Small Improvements	366	219	106	691	Cost Savings and Avoidance	$2,674,543
Rapid Improvements	1	3	2	6	Customer Service Improvements	372
Projects	3	1	0	4	Safety Improvements	90
Total	370	223	108	701	Environmental Improvements	76

In-progress Initiative	**Goals of the Initiative**
Computer equipment handling and distribution process	Standardize process and reduce lead time by reviewing hardware levels (stock) to ensure availability of hardware and services offered through the Tech Hub.
Intake process for work requests and projects (Phase One)	Ensure recording of 100 per cent of work requests meets IT work request criteria; decrease IT touch time by 20 per cent.

Advancing the City's Strategic Plan

The City's Vision and Strategic Plan are the starting points for our annual business planning and budgeting cycle. The 40-year Strategic Plan, Our Future Mississauga, is built on five pillars – **move, belong, connect, prosper, and green**. Business Plans are designed to strengthen aspects of these pillars to support the attainment of Mississauga's Vision.

Below are examples of how the initiatives of Information Technology relate to the Strategic Plan pillars.

move – developing a transit oriented city

- IT is providing the technology services for Light Rail Transit and Advanced Traffic Management Services
- IT supports transit with MiWay technology, real-time bus tracking and advanced analytics

belong – ensuring youth, older adults and new immigrants thrive

- Virtual Campus allows locally registered students and students registered in institutions in many countries around the world to access their post-secondary school's resources from City Hall, Celebration Square, libraries, community centres, transit terminals and parks. Mississauga was the first city in Canada to have a virtual campus (eduroam)
- Ensuring free access to broadband for those that may not have reliable access elsewhere
- IT supports a personal computer lending service available to assist youth, older adults and newcomers with access to technology

connect – completing our neighbourhoods

- IT continues to work to modernize mississauga.ca to meet the needs of users by redesigning existing services to meet people-centred digital standards, starting with mississauga.ca informational and transactional services

prosper – cultivating creative and innovative businesses

Smart City Wi-Fi provides:

- Free access to Wi-Fi and Smart City sensor technology tailored to meet the needs of each local community
- Opportunities for innovation and learning for individuals and local businesses

green – living green

- IT's data centres continue to reduce energy consumption and expense by leveraging modern technology, environmental sensors, and using cloud-based services to grow our data and computing requirements in a smart way

Transforming Service with Technology

Visioning, engagement and creativity are the foundations of the IT Master Plan.

The original IT Master Plan (October 2015) established a three- to five-year outlook with strategies and actions for investment in technologies that are innovative and improve how City services are provided. The IT Master Plan was refreshed in 2019 and it continues to align with corporate priorities and the objectives of the City's Strategic Plan. IT works directly with all departments to update their technology roadmaps. The second iteration of the IT Master Plan is expected to be ready for the 2023-2026 business planning cycle.

Five key strategies have been developed as part of the IT Master Plan. These inspire the City to be innovative in using technology to enhance and deliver City services, while at the same time transforming the City of Mississauga into an engaged and connected city. They are:

- Foster Open and Accessible Government
- Enable Decisions through Research and Analytics
- Create a Connected and Engaged Workplace
- Improve Services through Innovation and Partnerships
- Build a Connected and Engaged City

There are 21 key actions within the IT Master Plan which provide specific direction on technologies and innovations that support the overall objectives and transformation of the City through the adoption of technology.

As the technology landscape has continued to rapidly change, the City has developed and grown significantly. Therefore, it is prudent to continually renew the City's IT strategy, ensuring alignment with changing City, business and technology trends.

- Mobile workforce, work from home, work from anywhere
- Virtual meetings, virtual reality
- Broadband, free Wi-Fi are expected
- Services driven by consumers (mobile apps and sites)
- Everything/everyone is connected
  - Traffic signals, streetlights, sensors
  - City fleet and mobile workforce
- Fibre, Wi-Fi, cellular
- Smart City – open data, big data, hackathons
- Cloud computing, software as a service
- Social media, online engagement, digital inclusion
- Innovative technology partnerships
- Disruptive technologies, cybersecurity, threat intelligence
- Technology driving the economy
- Digital transformation in libraries, streaming content for eBooks, music, video

Maintaining City Infrastructure

One of the most critical components of the IT capital budget is ensuring technology is renewed in line with both industry and operational standards. IT cybersecurity is also extremely important as reports of IT hacking, phishing, breaches, social engineering, ransomware, and malware scams continue to be front and centre in the news. IT takes data security very seriously as evidenced by the hiring in 2020 of the third of three Security Analysts to detect, analyze, respond to, and prevent cybersecurity incidents. This staffing level aligns with the implementation of the National Institute of Standards and Technology (NIST) IT Security standard and the three-year IT Security work plan.

Ransomware

The technology required to provide City services is supported by a primary data centre and a back-up data centre. All supporting technology including network devices, servers and databases are updated based on the following lifecycle program:

- Server and storage area network – five years
- Desktop computers, laptops – five years commencing in 2021, four years previously
- Minor software upgrades for all City business systems and software – three years; major – seven to 10 years
- IT Standards for standard software and hardware are reviewed annually and reported to Council

Federal and provincial government funding programs are leveraged when possible to assist in funding IT programs.

A fundamental piece of the City's infrastructure is the Public Sector Network. Some key facts:

- The Public Sector Network is a partnership between Mississauga, Peel, Brampton, and Caledon (Mississauga owns 26.8 per cent)
- The Public Sector Network includes 842 kilometres of high-speed fibre connecting 395 City sites and nodes (distribution points to connect things like intersections or extend Wi-Fi) and is the largest publicly owned fibre network in Canada
- This network paid for its own total capital costs over a two-year period via cost avoidance of leased telecommunication lines. Operating costs are fully funded through subscriber fees generated by the City leasing fibre to partner agencies

As of December 31, 2020 the estimated replacement value of the City's hardware and software assets was $200 million and estimated actual annual replacement was $24.9 million.

People and Culture

A municipality is a service organization, and people deliver services. The continuous understanding, balancing and development of the City's workforce are essential to its members' success in delivering superior service. The following describes this Service Area's people, and its plans to foster the supportive culture that enables them to succeed in their work with trust, quality and excellence.

Workforce Analytics

Fifty IT employees are enrolled in the leadership succession program and 16 leaders are eligible for retirement in the next four years. IT provides development experiences to employees enrolled in the program to help them move into leadership roles.

Our Structure

IT has six sections that support the City: Strategy & Innovation, City Services, Infrastructure Planning & Operations, Digital Services & Mobility, Enterprise Business Solutions and Service Management.

Partnerships have been established to improve service, efficiency and cost effectiveness. Examples include the Public Sector Network (PSN), VCOM radio and Wireless Mississauga for Sheridan College.

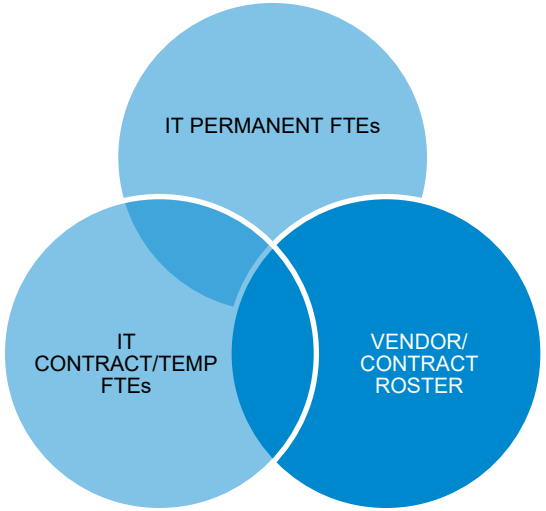
Our Talent

The Information Technology Service Area is comprised of:

- Section and Program Managers
- Business Analysts
- Project Managers
- IT Technicians and Specialists
- Database Administrators
- Application Specialists (e.g., SAP, GIS, SharePoint)
- Help Desk Specialists
- Application Developers
- Communication Specialists
- IT Security Specialists
- Systems and Network Architects
- Students, Sheridan College co-op program

Critical Roles/Functions to Achieve Business Goals

Current staffing issues are focused around Information Technology's ability to assign the right resources to priority initiatives while maintaining a level of capacity to deliver projects and maintain day-to-day operations. A combination of permanent, contract and part-time staff is utilized so that resources to deliver on key projects can grow with demand and be directly funded by the initiatives.



IT Resource Model

Talent Needs

To keep up with today's continually changing Information Technology needs, HR and IT created a pre-qualified roster for professional IT services so that unique skill sets could be acquired on an as-needed basis. IT and HR have also created a roster of staffing agencies to provide staff augmentation for both project and operational activities. This provides more agility to respond to increasing workloads.

For 2022, IT has one Budget Request (BR #9018, Microsoft Office 365 Core Implementation), which includes the following four capital-funded contract positions (all starting January 2022 and ending December 2023):

- One IT Project Lead
- One M365 Solutions Architect
- One Identity and Access Administrator
- One IT Technical Specialist

Internal transfers and changes in positions have not affected the FTE count. There are five total FTE additions for 2022. These result from the four capital-funded positions requested in BR #9018 and the net addition of one capital-funded FTE (owing to the conclusion of one capital-funded FTE and the addition of two).

Proposed Full-time Equivalent Staffing Distribution by Program

Program	2021	2022	2023	2024	2025
IT Admin, Strategy & Innovation	17.8	20.8	16.8	16.8	3.8
IT City Services	63.5	64.5	62.5	61.5	57.5
IT Digital Services & Mobility	72.4	66.4	66.4	62.4	57.4
IT Enterprise Business Solutions	25.4	27.4	27.4	26.4	26.4
IT Infrastructure Planning & Operations	58.0	60.0	60.0	56.0	53.0
IT Service Management	24.3	27.3	27.3	26.3	25.3
Total Service Distribution	**261.3**	**266.3**	**260.3**	**249.3**	**223.3**

Note: Numbers may not balance due to rounding.

Proposed Operating Budget

This part of the Business Plan sets out the financial resources required to deliver the proposed 2022-2025 Business Plan. Information is provided by major expenditure and revenue category as well as by program. The costs to maintain existing service levels and operationalize prior decisions are identified separately from proposed changes. The budget for 2021 was $31.7 million and the proposed budget for 2022 is $33.2 million.

Total Changes to Maintain Current Service Levels

The total amount required to maintain current service levels is $2.16 million. This amount is the net of various plus-side and minus-side factors. Highlights include:

- A total labour increase of $790,000, which is the net result of cost adjustments, fringe benefit changes and the annualization of new positions
- A maintenance and licensing cost increase of $1.34 million, which is due to contract increases and inflationary pressures
- A revenue decrease of $348,000, which resulted from lower participation by other municipalities in the TXM tax management system than forecast, owing to financial constraints municipalities experienced as a result of COVID-19. This in turn is fully offset by a corresponding $348,000 decrease in the transfer to reserve funds
- A revenue decrease of $30,000, which reflects a reduction in Fire/CAD recoveries from Brampton/Caledon as a result of a transition to Brampton administering this program

Efficiencies and Cost Savings

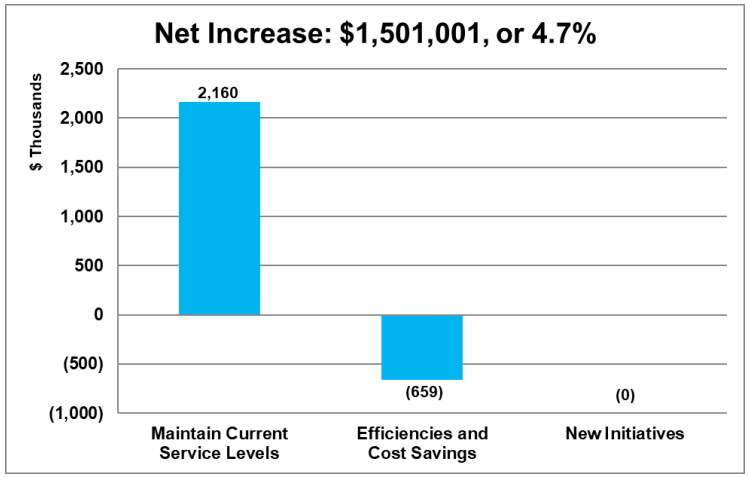
Total amount of IT cost savings is $658,908.

IT maintenance and licensing costs are reduced by $489,663 due to streamlining; additional cost savings totaling $169,245 are realized as a result of vacating space at 201 City Centre Drive.

New Initiatives

IT has one new initiative for the 2022 budget – BR #9018, Microsoft Office 365 Core Implementation. This request will have no operating budget impact as the requested contract labour will be capital funded. There are four contract FTEs requested for 2022.

Proposed Changes for 2022 Net Operating Budget by Category



Operating Budget Details

The following table identifies the budgeted and forecasted operating expenditures and revenues for 2022-2025, as well as the 2021 Budget and the 2020 actuals by major program within the Service Area.

Proposed Budget by Program

Description	2020 Actuals ($000s)	2021 Budget ($000s)	2022 Proposed Budget ($000s)	2023 Forecast ($000s)	2024 Forecast ($000s)	2025 Forecast ($000s)
Expenditures to Deliver Current Services						
IT Admin, Strategy & Innovation	859	(415)	(636)	(932)	(1,549)	(2,388)
IT City Services	7,758	8,638	8,659	8,574	8,534	8,302
IT Digital Services & Mobility	8,016	8,749	8,514	8,603	7,586	7,664
IT Enterprise Business Solutions	4,640	4,396	4,820	4,882	4,944	5,008
IT Infrastructure Planning & Operations	8,419	9,196	10,010	10,130	9,973	10,167
IT Service Management	2,786	2,730	3,050	3,087	3,125	3,164
Total Expenditures	**32,479**	**33,294**	**34,417**	**34,344**	**32,612**	**31,917**
Revenues	**(968)**	**(1,551)**	**(1,173)**	**(1,173)**	**(1,146)**	**(1,173)**
Transfers From Reserves and Reserve Funds	0	0	0	0	0	0
New Initiatives			0	0	0	0
Proposed Net Budget	**31,510**	**31,743**	**33,244**	**33,171**	**31,466**	**30,744**

Expenditures Budget - Changes by Year			3%	0%	(5%)	(2%)
Proposed Net Budget - Changes by Year			5%	0%	(5%)	(2%)

Note: Numbers may not balance due to rounding.

Summary of Proposed Budget

The following table shows the proposed budget changes by description and category. Costs (labour; operational costs; and facility, IT and support costs) and revenues are shown by category with the approved 2021 budget for comparison. The three columns to the far right of the table show the totals proposed for 2022 and their dollar and percentage changes over 2021. The second table summarizes the proposed 2022 budget and 2023-2025 forecasts.

Summary of Proposed 2022 Budget

Description	2021 Approved Budget ($000s)	Maintain Current Service Levels ($000s)	Efficiencies and Cost Savings ($000s)	Annualized Prior Year's Budget Decisions ($000s)	Operating Impact of New Capital Projects ($000s)	Proposed New Initiatives ($000s)	Special Purpose Levies ($000s)	Proposed 2022 Budget ($000s)	$ Change Over 2021 ($000s)	% Change Over 2021
Labour & Benefits	24,625	(180)	0	970	0	(0)	0	25,415	790	3%
Operational Costs	9,848	1,340	(659)	0	0	0	0	10,529	681	7%
Facility, IT and Support Costs	(1,527)	0	0	0	0	0	0	(1,527)	0	0%
Transfer To Reserves & Reserve Funds	348	(348)	0	0	0	0	0	0	(348)	(100%)
Total Gross Expenditures	**33,294**	**812**	**(659)**	**970**	**0**	**(0)**	**0**	**34,417**	**1,123**	**3%**
Total Revenues	(1,551)	378	0	0	0	0	0	(1,173)	378	(24%)
Transfer From Reserves & Reserve Funds	0	0	0	0	0	0	0	0	0	0%
Total Net Expenditures	**31,743**	**1,189**	**(659)**	**970**	**0**	**(0)**	**0**	**33,244**	**1,501**	**5%**

Summary of Proposed 2022 Budget and 2023 - 2025 Forecasts

Description	2020 Actuals ($000s)	2021 Approved Budget ($000s)	2022 Proposed Budget ($000s)	2023 Forecast ($000s)	2024 Forecast ($000s)	2025 Forecast ($000s)
Labour & Benefits	24,363	24,625	25,415	25,399	23,667	22,972
Operational Costs	9,918	9,848	10,529	10,472	10,472	10,472
Facility, IT and Support Costs	(1,802)	(1,527)	(1,527)	(1,527)	(1,527)	(1,527)
Transfer To Reserves & Reserve Funds	0	348	0	0	0	0
Total Gross Expenditures	**32,479**	**33,294**	**34,417**	**34,344**	**32,612**	**31,917**
Total Revenues	(968)	(1,551)	(1,173)	(1,173)	(1,146)	(1,173)
Transfer From Reserves & Reserve Funds	0	0	0	0	0	0
Total Net Expenditures	**31,510**	**31,743**	**33,244**	**33,171**	**31,466**	**30,744**

Note: Numbers may not balance due to rounding.

Proposed Cost Increase Required to Maintain Current Service Levels

The following table provides detailed highlights of budget changes by major cost and revenue category. It identifies the net changes to maintain current service levels, taking into account efficiencies, cost savings, and cost increases arising from prior-year decisions.

Category	2021 Budget ($000s)	2022 Proposed Budget ($000s)	Change ($000s)	Details (all values in thousands)
Labour and Benefits	**24,625**	**25,415**	**790**	**Increase reflects labour adjustments and other fringe benefit changes**
Administration and Support Costs	(1,527)	(1,527)	0	
Communication Costs	455	455	0	
Contractor & Professional Services	230	230	0	
Equipment Costs & Maintenance Agreements	8,559	9,409	850	($490) Cost efficiencies due to maintenance and licensing rationalization $1,340 Increase in software license fees/maintenance due to contract increases and inflationary pressures
Finance Other	171	171	0	
Materials, Supplies & Other	96	96	0	
Occupancy & City Costs	226	56	(169)	Decrease due to vacating 201 office space
Staff Development	71	71	0	
Transfers To Reserves and Reserve Funds	348	0	(348)	Decrease due to reduction in TXM recoveries as three municipalities did not go forward with their TXM implementation plans, offset by revenue decrease
Transportation Costs	41	41	0	
Subtotal - Other Operating Costs	**8,669**	**9,002**	**333**	
Total Revenues	(1,551)	(1,173)	378	$348 decrease due to TXM recoveries as three municipalities did not go forward with their TXM implementation plans, offset by reduction in reserve fund transfer $30 decrease due to transitioning “Infor” Fire/CAD recoveries/expenses to Brampton
Subtotal - Revenues	**(1,551)**	**(1,173)**	**378**	
Total	**31,743**	**33,244**	**1,501**	

Note: Numbers may not balance due to rounding.

Proposed New Initiatives

This table presents the costs by Budget Request (BR) for proposed new initiatives. Each BR is numbered. Detailed descriptions of any year one and year two BRs can be found in the pages following the table.

Description	BR #	2022 FTE Impact	2022 Proposed Budget ($000s)	2023 Forecast ($000s)	2024 Forecast ($000s)	2025 Forecast ($000s)	2022 to 2025 FTE Impact	2022 to 2025 Capital ($000s)
Microsoft Office 365 Core Implementation	9018	4.0	0	0	0	0	0.0	3,066
Total		**4.0**	**0**	**0**	**0**	**0**	**0.0**	**3,066**

Note: Numbers may not balance due to rounding. Numbers are net.

Budget Request #: 9018

Proposed Initiative	Department	Service Area
Microsoft Office 365 Core Implementation	Corporate Services Department	Information Technology

Description of Budget Request

IT is working on the Microsoft Enterprise Agreement and Product Mix Project to renew the City's Microsoft contract. Staff will review Microsoft Cloud technologies to extend existing product capabilities and add new capabilities to meet the City's growing business needs. This project will also implement the Microsoft Office 365 Roadmap. Four capital-funded contract FTEs are required in 2022.

Required Annual Operating Investment

Impacts ($000s)	2022	2023	2024	2025
Gross Expenditures	0.0	0.0	0.0	0.0
Reserves & Reserve Funds	0.0	0.0	0.0	0.0
User Fees & Other Revenues	0.0	0.0	0.0	0.0
Tax Levy Requirements	0.0	0.0	0.0	0.0
* Net Change in $		0.0	0.0	0.0
FTEs	4.0	4.0	0.0	0.0

**In each year, all values are cumulative, not incremental.*

Required Capital Investment

Total Capital ($000s)	2021 & Prior	2022	2023	2024	2025 & Beyond
Expenditures	0.0	1,676.2	919.9	400.0	70.0

Why Staff Recommend this Initiative

The capital-funded resources will allow the City-wide implementation of the core Microsoft 365 services and provide value to the budgets and contract signed with Microsoft. This will meet the commitments of the Office 365 Roadmap initiatives that ensure we are delivering the right services and advancing on our strategic vision. In addition, we will ensure ongoing benefits and service levels are sustained while maximizing budgets.

Details of Service Change

This initiative requires dedicated resources for implementation and ongoing management. With the 2022 hiring of these four capital-funded staff plus Microsoft professional services ($400,000 in 2022; $870,000 from 2023 to 2025) and equipment/licensing costs ($765,200 in 2022), the 2022 capital budget will increase by $1.676 million. This initiative is funded by capital and capital recoveries. There is no impact to the tax rate: however, increases in licensing fees have been accounted for in the 2022-2025 IT operating budget as part of business as usual.

Service Impact

Office 365 changes the way organizations work by enabling individuals and teams to be more productive, use collaboration tools more seamlessly, and take advantage of cloud storage and security advances. The adoption of the technologies will have an impact on employees and the organization.

Benefits include:

- Realize and sustain the ongoing benefits of effective execution of the renewed Microsoft contract (products do not implement themselves)
- Continue to support existing Microsoft functionality and service levels at an effective cost
- Retain talent and knowledge internally over the course of implementation to be able to support existing demands, client strategic initiatives and requests in the most cost effective, agile and efficient manner

Proposed Capital Budget

This section summarizes the forecast 10-year capital requirements for this service. The following table presents the forecast by major program.

Proposed 2022-2031 Capital Budget by Program

Program Expenditures	2022 Proposed Budget ($000s)	2023 Forecast ($000s)	2024 Forecast ($000s)	2025 Forecast ($000s)	2026-2031 Forecast ($000s)	2022-2031 Total ($000s)
Applications	9,774	9,145	4,904	7,801	46,314	77,939
Geospatial Solutions	440	350	440	450	2,700	4,380
Infrastructure	6,979	7,173	10,249	9,632	49,914	83,946
PC Replacement & Peripherals	3,876	1,111	2,032	2,386	11,267	20,671
Total	**21,068**	**17,778**	**17,626**	**20,269**	**110,195**	**186,936**

Note: Numbers may not balance due to rounding. Numbers are gross.

Proposed 2022-2031 Capital Forecast Highlights:

- $25.4 million – Server and Storage Replacement, Expansion (2022-2031)
- $18.2 million – PC/Laptop/Tablet and Library Public PC Replacement Lifecycle (2022-2031)
- $14.5 million – Switches and Routers (2022-2031)
- $10.5 million – Network Wireless Infrastructure (2022-2031)
- $9.5 million – Network Security Infrastructure (2022-2031)
- $9.5 million – Network Fibre (2022-2031)
- $9.3 million – Server Applications (2022-2031)
- $8.6 million – TXM Platform Maintenance, Work Plan (2022-2031)
- $8.0 million – Enterprise Asset Management (2028, 2030)
- $7.9 million – SAP: Upgrades, Cash Management, Security Implementation, Legislative Changes (2022-2031)
- $7.0 million – Payroll/SuccessFactors Upgrade (2028, 2029)
- $6.5 million – VoIP Systems and Phones (2022-2031)
- $4.4 million – Digital Solutions (2022-2028)
- $4.1 million – Desktop Software Licences, Operating System (2022-2031)
- $3.7 million – Topographical Updating (2022-2031)

Proposed 2022-2031 Capital Budget by Funding Source

The following table provides the funding sources proposed to fund the capital portion of the proposed 2022-2025 Business Plan & 2022 Budget and the consolidated forecast for 2026-2031.

Funding	2022 Proposed Budget ($000s)	2023 Forecast ($000s)	2024 Forecast ($000s)	2025 Forecast ($000s)	2026-2031 Forecast ($000s)	2022-2031 Total ($000s)
Tax Capital	21,068	17,778	17,626	20,269	110,195	186,936
Subsidies and Senior Govt. Level Grants	0	0	0	0	0	0
Other Reserves & Reserve Funds	0	0	0	0	0	0
Total	**21,068**	**17,778**	**17,626**	**20,269**	**110,195**	**186,936**

Note: Numbers may not balance due to rounding. Numbers are gross.

Proposed 2022 Capital Budget Detail

The following tables provide a detailed listing of proposed capital projects for 2022.

Program: Applications

Project Number	Project Name	Gross Cost ($000s)	Recovery ($000s)	Net ($000s)	Funding Source
CPIT007126	Library - Self-Check-out System (RFID - SirisDynix/Bibliotheca) (Renewal/Replacement)	545	0	545	Tax Capital
CPIT007432	TXM Platform Maintenance	525	0	525	Tax Capital
CPIT007438	MAX - Beyond Oracle Forms Platform	250	0	250	Tax Capital
CPIT007458	Golf Operations Management Software System (GEN) Lifecycle Replacement	75	0	75	Tax Capital
CPIT007461	Professional Services for Amanda 7	150	0	150	Tax Capital
CPIT007463	Desktop Operating System Upgrade M/S	350	0	350	Tax Capital
CPIT007483	Continuous Improvement - Public Facing Systems	50	0	50	Tax Capital
CPIT007627	Telematics-AVL/GPS Project	5	0	5	Tax Capital
CPIT008381	New Hire IT Costs - City Wide 2021	28	0	28	Tax Capital
CPIT008407	TXM Support to Onboard Clients	223	0	223	Tax Capital
CPIT008743	TXM Workplan 2022	350	0	350	Tax Capital
CPIT008748	Infor Mobile	295	0	295	Tax Capital
CPIT008755	Desktop Software Licenses	300	0	300	Tax Capital
CPIT008759	Server Applications 2022	814	0	814	Tax Capital
CPIT008772	SAP Legislative Changes and Enhancements 2022	200	0	200	Tax Capital
CPIT008773	SuccessFactors Sustainment Services 2023	150	0	150	Tax Capital
CPIT008774	S4 HANA Security Assessment and Implementation	200	0	200	Tax Capital
CPIT008778	AirWatch System Upgrade and Staff Training	30	0	30	Tax Capital
CPIT008783	CPS-CMO IT Upgrade Program - Replacement 2022	250	0	250	Tax Capital
CPIT008917	Automated Staff Scheduling Solution	664	0	664	Tax Capital
CPIT009144	Fuel Pump Management Sytem Upgrade	50	0	50	Tax Capital
CPIT009154	Geospatial Software Licenses and Hardware	20	0	20	Tax Capital
CPIT009155	Stone Orchard Cemetery Management System	25	0	25	Tax Capital
CPIT009269	ITSM Professional Services	150	0	150	Tax Capital
CPIT009276	SAP Automated Testing Tool	400	0	400	Tax Capital
CPIT009277	SAP Project Systems for Cost Allocation	600	0	600	Tax Capital

Program: Applications

Project Number	Project Name	Gross Cost ($000s)	Recovery ($000s)	Net ($000s)	Funding Source
CPIT009279	Fiori Timesheets for Time Tracking	100	0	100	Tax Capital
CPIT009309	SAP BOE Upgrade	200	0	200	Tax Capital
CPIT009344	Microsoft Office 365 Core Implementation	1,661	0	1,661	Tax Capital
CPIT009750	Digital Solutions	750	0	750	Tax Capital
CPIT009751	Infor Application Upgrade	70	0	70	Tax Capital
CPIT9069	New Hire IT Costs - City Wide 2022	151	0	151	Tax Capital
CPS009414	Audio Visual Resources	58	0	58	Tax Capital
TWRG06619	Parking Enforcement Systems	85	0	85	Tax Capital
Total		**9,774**	**0**	**9,774**	

Note: Numbers may not balance due to rounding.

Program: Geospatial Solutions

Project Number	Project Name	Gross Cost ($000s)	Recovery ($000s)	Net ($000s)	Funding Source
TWOE00207	Survey Control Network and Road By-Laws	50	0	50	Tax Capital
TWOE00208	Topographical Updating	390	0	390	Tax Capital
Total		**440**	**0**	**440**	

Note: Numbers may not balance due to rounding.

Program: Infrastructure

Project Number	Project Name	Gross Cost ($000s)	Recovery ($000s)	Net ($000s)	Funding Source
CPIT007441	VoIP Systems & Phones	901	0	901	Tax Capital
CPIT007588	IT Resources for Enterprise Performance Measures	150	0	150	Tax Capital
CPIT007590	Project Portfolio Management/Project Management Automation: Phase 2	284	0	284	Tax Capital
CPIT007629	Smart City Master Plan Implementation	100	0	100	Tax Capital
CPIT008406	IT Customer Service Enhancement and Self-Service Portal	180	0	180	Tax Capital
CPIT008758	Server and Storage Replacement & Expansion 2022	637	0	637	Tax Capital
CPIT008760	Network Fibre 2022	980	0	980	Tax Capital
CPIT008761	Network Security Infrastructure	843	0	843	Tax Capital
CPIT008764	Network Wireless Infrastructure 2022	650	0	650	Tax Capital
CPIT008765	Switches and Routers	700	0	700	Tax Capital
CPIT008781	Special IT Equip - Includes Public	250	0	250	Tax Capital
CPIT008782	VCOM Mobile Radio 2022	724	0	724	Tax Capital
CPIT008998	Cisco Webex Licensing	280	0	280	Tax Capital
CPIT009749	Microsoft SQL Database refresh cycle	300	0	300	Tax Capital
Total		**6,979**	**0**	**6,979**	

Note: Numbers may not balance due to rounding.

Program: PC Replacement & Peripherals

Project Number	Project Name	Gross Cost ($000s)	Recovery ($000s)	Net ($000s)	Funding Source
CPIT008750	911 Next Generation (NG) Implementation	125	0	125	Tax Capital
CPIT008777	Meeting Room & Space Modernization 2022	450	0	450	Tax Capital
CPIT008780	Library Public PC Replacement	1,500	0	1,500	Tax Capital
CPIT008788	PC/Notebook/Tablet Lifecycle 2022	1,800	0	1,800	Tax Capital
CPIT009263	PC/Notebook/Tablet Lifecycle 2023	1	0	1	Tax Capital
Total		**3,876**	**0**	**3,876**	

Note: Numbers may not balance due to rounding.

Proposed 2022-2031 Capital Budget by Sub-Program

The following tables provide a listing of capital needs by sub-program for 2022-2031.

Sub-Program	2022 Proposed Budget ($000s)	2023 Forecast ($000s)	2024 Forecast ($000s)	2025 Forecast ($000s)	2026 Forecast ($000s)	2027 Forecast ($000s)	2028 Forecast ($000s)	2029 Forecast ($000s)	2030 Forecast ($000s)	2031 Forecast ($000s)	Total Forecast ($000s)
Applications											
IT Applications-New	1,572	1,524	745	575	400	2,300	3,400	460	5,400	600	16,976
IT Applications-Replacement/Enhancements	8,202	7,571	4,159	7,226	6,159	6,812	9,476	5,248	3,208	2,781	60,843
IT Portal	0	50	0	0	70	0	0	0	0	0	120
Subtotal	**9,774**	**9,145**	**4,904**	**7,801**	**6,629**	**9,112**	**12,876**	**5,708**	**8,608**	**3,381**	**77,939**

Sub-Program	2022 Proposed Budget ($000s)	2023 Forecast ($000s)	2024 Forecast ($000s)	2025 Forecast ($000s)	2026 Forecast ($000s)	2027 Forecast ($000s)	2028 Forecast ($000s)	2029 Forecast ($000s)	2030 Forecast ($000s)	2031 Forecast ($000s)	Total Forecast ($000s)
Geospatial Solutions											
IT Survey Ctrl/Equip, Rd Bylaw Svcs	50	50	60	60	60	60	60	60	60	60	580
IT Topographical Updating	390	300	380	390	300	480	390	390	390	390	3,800
Subtotal	**440**	**350**	**440**	**450**	**360**	**540**	**450**	**450**	**450**	**450**	**4,380**

Sub-Program	2022 Proposed Budget ($000s)	2023 Forecast ($000s)	2024 Forecast ($000s)	2025 Forecast ($000s)	2026 Forecast ($000s)	2027 Forecast ($000s)	2028 Forecast ($000s)	2029 Forecast ($000s)	2030 Forecast ($000s)	2031 Forecast ($000s)	Total Forecast ($000s)
Infrastructure											
IT Network Infrastructure	5,478	4,944	5,653	5,595	5,582	4,888	5,801	6,745	5,695	4,774	55,155
IT Server Expansion	0	0	0	0	0	0	0	0	0	0	0
IT Server Replacement/Maintenance	637	1,929	4,301	3,787	1,271	1,092	2,075	4,288	4,266	1,847	25,493
IT Service Management	864	300	295	250	250	250	285	305	250	250	3,298
Subtotal	**6,979**	**7,173**	**10,249**	**9,632**	**7,103**	**6,230**	**8,161**	**11,338**	**10,211**	**6,871**	**83,946**

Sub-Program	2022 Proposed Budget ($000s)	2023 Forecast ($000s)	2024 Forecast ($000s)	2025 Forecast ($000s)	2026 Forecast ($000s)	2027 Forecast ($000s)	2028 Forecast ($000s)	2029 Forecast ($000s)	2030 Forecast ($000s)	2031 Forecast ($000s)	Total Forecast ($000s)
PC Replacement & Peripherals											
IT PC/Notebook-Replacement/Maintenance	3,301	1,111	1,902	2,161	1,905	1,586	1,329	1,800	1,800	1,330	18,224
IT Peripherals	0	0	0	95	95	152	0	0	0	0	342
IT Specialized Equipment	575	0	130	130	130	0	0	380	380	380	2,105
Subtotal	**3,876**	**1,111**	**2,032**	**2,386**	**2,130**	**1,738**	**1,329**	**2,180**	**2,180**	**1,710**	**20,671**
Total Expenditures	**21,068**	**17,778**	**17,626**	**20,269**	**16,222**	**17,620**	**22,815**	**19,676**	**21,449**	**12,412**	**186,936**

Note: Numbers may not balance due to rounding. Numbers are net.