

2024 Progress Report

Information Technology Strategic Plan 2021 – 2026





Land Acknowledgement

Burnaby is located on the ancestral and unceded homelands of the Һәһqәmiһәm and Sḵwxwú7mesh Sníchim speaking peoples. We are grateful for the opportunity to work and live on this territory.

Table of Contents

- Executive Summary** 4
 - Background 5
 - Report Structure 5

- STRATEGIC THEME 1**
- Expanding Digital Resident Services** 6
 - Overview 7
 - Progress Update 7

- STRATEGIC THEME 2**
- Strengthening the City’s Technology Future** 10
 - Overview 11
 - Progress Update 11

- STRATEGIC THEME 3**
- Improving the Lives of Residents through Technological Innovation** 15
 - Overview 16
 - Progress Update 17

- Conclusion** 19

Executive Summary

The Burnaby Strategic Plan commits to creating a city that we all want to live and be in. It also includes a Burnaby Promise to uphold the values that all City staff strive towards each day:

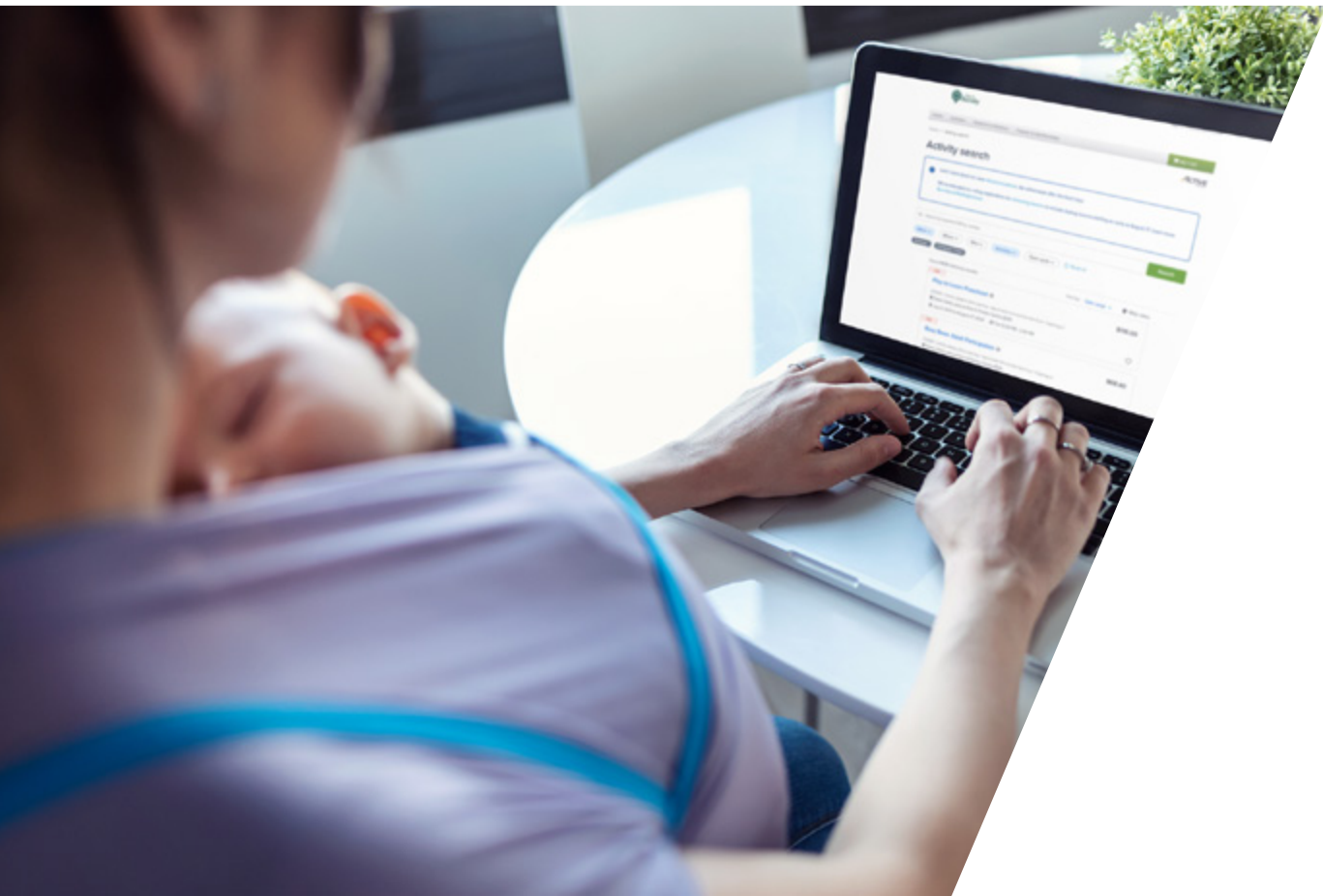
COMMUNITY • INTEGRITY • RESPECT • INNOVATION • PASSION

The IT department has undertaken a comprehensive refresh of its Information Technology Strategic Plan (2021-2026), to deliver on the Burnaby Promise by aligning with the rapidly evolving technological landscape and future strategic goals.

This refresh process included a thorough evaluation of initiatives from the strategy and a forward-looking approach to address the emerging needs across three key themes:

- » Expanding digital resident services
- » Strengthening the City's technology future
- » Improving the lives of residents through technological innovation

This document provides an overview of progress to date of the IT Strategic Plan 2021-2026 focusing on the three themes, while a separate document is currently under development to update the IT Strategic Plan (2024-2029).



Strategic Theme 1: Expanding digital resident services prioritizes the expansion of online services across transactions, relationships and engagement categories. Key initiatives aimed at streamlining processes and enhancing identity management include the rollout of the **BurnabyConnect mobile app** and enhanced platform technologies such as **Online Permits, Online Business Licence Renewals, Online Recreation Registrations** and **Golf Tee Time Reservations**.

Strategic Theme 2: Strengthening the City's technology future focuses on modernizing our software and hardware assets. The successful rollout of major digital platforms such as **Microsoft 365 Applications** and the **IT Ticketing and Service Management System** along with the operational launch of the new **Laurel Street Data Centre**, have significantly bolstered our technological capabilities. Furthermore, improvements have been made in strengthening cybersecurity by creating new security policies, governance processes and enhancing the City's security resilience.

Strategic Theme 3: Improving the lives of residents through technological innovation is a forward-looking theme integrating innovative technology into community services and collaborating with the community to solve problems. Our efforts focus on participating in **intelligent community pilots**, defining technology standards, formalizing data consolidation, and delivering digital literacy programs.

Background

The development of this progress report involved an assessment of the initiatives outlined in the IT Strategic Plan (2021-2026) and represents the culmination of these efforts, detailing the progress made across the themes and sub-themes of the IT Strategic Plan (2021-2026).

It serves as a critical reflection on achievements in our digital transformation journey, providing an overview of strategies and initiatives that remain relevant and will continue to guide the City's technology efforts in the years ahead.

Furthermore, it lays the groundwork for the IT Strategic Plan (2024-2029), which builds upon the insights gained and integrates additional considerations for emerging technologies crucial to the City's continued development.

Report Structure

Each theme update includes the following two elements:

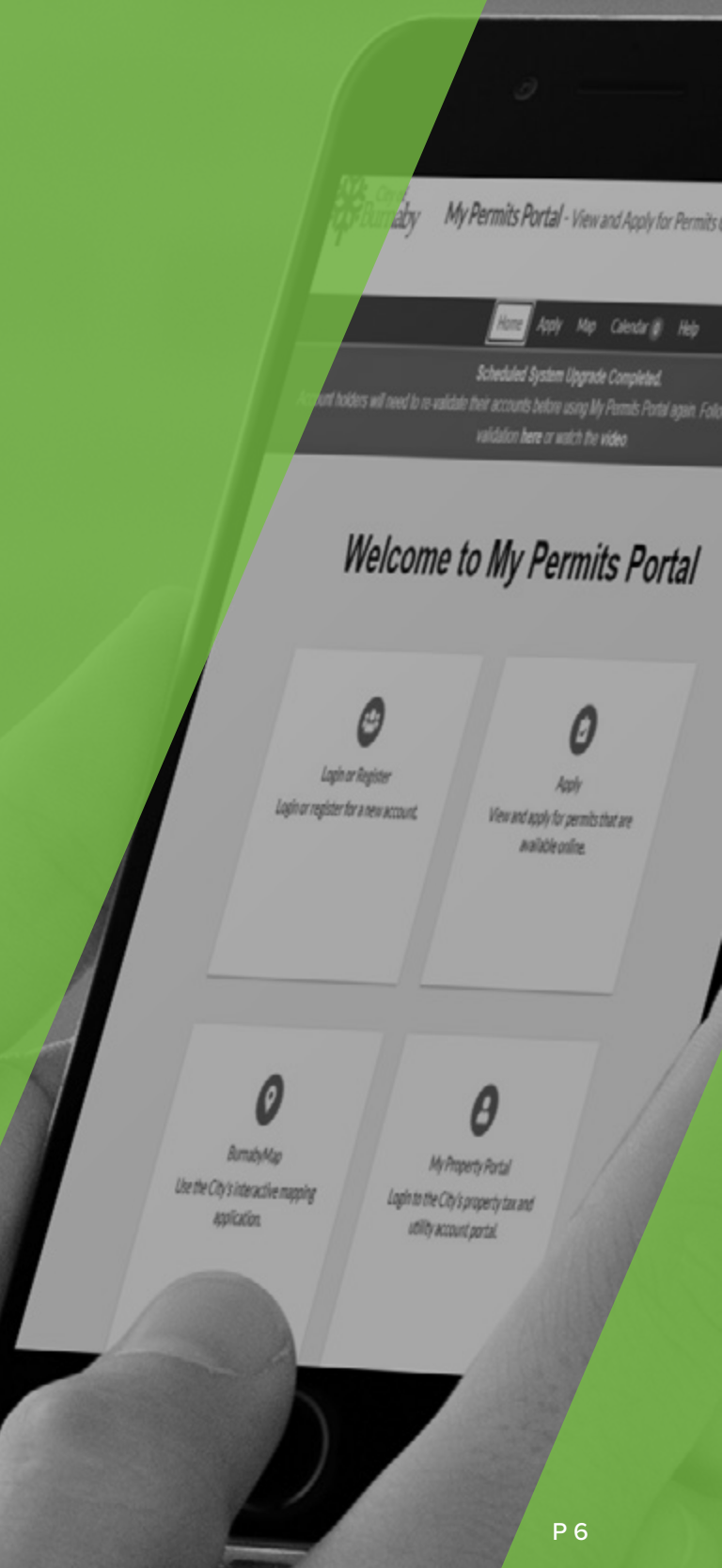
OVERVIEW

Theme definition and highlights of progress made to date.

PROGRESS UPDATE

Detailed progress update for each theme, including key performance indicators (By the Numbers).

Expanding Digital Resident Services



STRATEGIC THEME 1

Expanding Digital Resident Services

Overview

One of the City's top IT strategic objectives is to expand digital resident services while being mindful of serving residents who do not have access to technology. This strategic theme focuses on activities for implementing and supporting online digital services, and aims to expand the number and type of digital services available to the residents of Burnaby.

Over the past four years, we have launched several digital services for residents, with over 1.5 million resident transactions now taking place online annually. Opportunities have been identified to digitize paper forms and streamline processes, reflecting a proactive approach to sustainability and future improvements.

Progress Update

New digital resident services that have been launched and adopted include a modern **Recreation Activity Registration System (WebReg)**, **My Permits Portal**, **Online Business Licence Renewals**, a modern **Golf Burnaby website** and **Online Golf Tee Time Booking and Payments system**.

We continue to expand **free Wi-Fi access** and improve coverage for residents to enjoy seamless internet connectivity at key City locations, such as recreation centres, new City facilities, business venues and park spaces used for events. Plans are underway to implement a **Customer Relationship Management (CRM) system** for the Customer Service Centre, aiming to enhance customer service.

In the Council Chambers, a number of updates have been implemented to allow for technical redundancy. In addition, a visible timer, longer goose neck microphones, closed captions on the screen, and camera switching capabilities have significantly enhanced speaker visibility. These upgrades facilitate a more dynamic and inclusive discussion environment for both presenters and spectators during public meetings.

The permitting system, as well as **My Permits Portal**, have been modernized to meet emerging priorities through the Residential Zoning Simplification and Amenity Cost Charges/Development Cost Charges (ACC/DCC) bylaws.

By the Numbers

Over 1.2 million

transactions for Parks, Recreation and Culture activities and events have been processed since the launch of the new system in 2023.

16,000

calls were handled by the City's new Customer Service Centre in the first six months of 2024.

118

Council and committee meetings were hosted online in the last year.

140,000

unique devices connected to Burnaby Public Wi-Fi in 2023.

About 500

competitions posted to eBidding Portal by Procurement Services since 2022, for vendors to submit their proposal/bids online.

603

monthly online views of Council and committee meetings.

About 17,000

business licences are issued annually by the system.

80%

of golf tee time bookings are reserved and paid for online.

8,580

permit applications received from January to July 2024 through the newly implemented My Permits Portal.

Strategic Theme 1: Highlights of Resident Services Delivered

2021

- » Burnaby.ca modernization
- » Business licence (migration from annual to anniversary billing)
- » Wi-Fi expansion (44 Access Points added)

2022

- » eBidding Portal
- » Council chambers upgrade
- » Wi-Fi expansion (13 Access Points added)
- » My Burnaby app

2023

- » Online Recreation Registration System
- » Golf website and golf systems modernization
- » Installation and support for five blue light posts in Central Park
- » Customer Service Centre (CSC): technology enablement
- » Permitting system modernization: 40 new permit types
- » Wi-Fi expansion (70 Access Points added)

2024

- » Customer Service Centre (CSC): Customer Relationship Management implementation
- » Permitting system modernization: ACC/DCC and Residential Zoning Bylaws Simplification
- » Golf tee time and online payments
- » Wi-Fi expansion (28 Access Points planned to be added)

Strengthening The City's Technology Future

STRATEGIC THEME 2

Strengthening The City's Technology Future

Overview

This critical strategic theme focuses on the modernization of the City's software and hardware assets. It proposes detailed medium- and long-term planning for major enterprise applications, department-specific applications, and significant technology changes.

Over the past four years, IT has modernized the City's technological infrastructure and applications by replacing legacy systems with modern applications that are aligned with the City's technical future.

Initiatives such as the rollout of **Microsoft 365** and the **IT Ticketing and Service Management System**, along with the operational launch of the new **Laurel Street Data Centre**, have enhanced the organization's capabilities and enabled the City's future growth.

Progress Update

The **Microsoft 365** rollout to City staff represents one of the largest initiatives undertaken over the past two years. It highlights the substantial effort and commitment made to provide tools for staff to increase productivity, enhance self service options and collaboration, and introduce efficiencies by moving to the cloud. The rollout has provided valuable insights for future citywide deployments.

Microsoft Teams is now utilized not only for messaging, but also for video conferencing, file sharing and real-time multi-user document updates.

The **Laurel Street Data Centre** is now operational and available for use, enhancing the organization's digital infrastructure capabilities. Further work is planned to formalize the cloud and data centre strategy to automate cloud infrastructure creation and monitoring, software defined networks and to modernize our telephony system in the cloud.

A disaster recovery site has been built at the **Kamloops Data Centre** creating a recovery location out of region, in the event a rebuild of the City's digital infrastructure is required. Additionally, storage, network and phone infrastructure has been replaced by modern hardware and software, resulting in a reduction of capital costs and an increase in performance.

Progress has been made in the roll-out of **Next Generation 911** technology including replacing aging emergency dispatch systems and phone infrastructure, and modernizing the next evolution of 911 services based on ESInet technology.

Cybersecurity efforts have continued to strengthen Burnaby's security resilience, with modern security tools and systems, anti-virus solutions and security monitoring.

Modernizing the telephony infrastructure by converting analog to digital phone lines increases our capacity from 80 to 200 concurrent phone calls and provides the additional benefit of removing location dependency for phone lines.

The implementation of a new **IT Ticketing and Service Management System** has yielded notable benefits, such as enhanced visibility into service levels and performance metrics. The self service portal removes administrative overhead for Helpdesk staff of creating and assigning tickets, allowing them to focus on the value-added work of resolving incidents and fulfilling service requests. As a result, over 95% of incidents are in the resolved or closed status.

Positive department feedback and a continuous improvement process have contributed to smoother adoption and ongoing refinement. Additionally, the development of online learning modules and an industry standard IT service management framework has strengthened staff understanding and compliance.

IT Policies

Efforts have been made to revamp and republish relevant IT policies. IT has published new policies and standards for ethical use of Artificial Intelligence (AI), and for Smart City and Internet of Things (IoT) technologies.

Online learning modules were developed and are assigned annually to staff through the Learning Management System (LMS) to guide City staff in understanding and adhering to these new policies.



By the Numbers

3,233,524

calls were completed using the City Voice over Internet Protocol (VoIP) phone system in 2023.

1,549

staff have completed information security awareness training.

1,758 users

have been migrated from Office 2016 to Microsoft 365 across all City departments.

**About
105 km**

of new conduit has created capability for City network expansion.

**Over
10 million**

emails are sent and received monthly.

**About
6,500**

Microsoft Teams (online) meetings take place monthly.

4,500

users have access to the self-serve IT Service Management system, and an average of

1,614

incidents and service requests are created each month.

\$15,400

of annual savings resulting from usage of pooled data across all City mobile devices.

157

learning courses (online and instructor-led) are available from the City's Learning Management System.

64 rack

Data Centre housed at the new facility opened at Laurel Street Works Yard to support the City's future growth and IT infrastructure.

Over 700

virtual and physical servers from City Hall were migrated to the Laurel Street Works Yard modern Data Centre.

Strategic Theme 2: Highlights of Staff Services Delivered

2021

- » Learning Management System
- » Migrating the City's default browser from IE 11 to Google Chrome

2022

- » Enterprise Content Management (ECM) data cleanup initiated
- » Cellular contract migration from TELUS to Rogers
- » Fire truck tablet replacement
- » All City staff provisioned with online access to earnings statements/T4s

2023

- » Microsoft 365
- » Enterprise Content Management initiated for pilot departments
- » Kamloops Data Centre
- » Business Intelligence Reporting
- » Laurel Street Data Centre
- » Business Continuity and Disaster Recovery System
- » Digital phone implementation

2024

- » Microsoft 365 (continued)
- » Enterprise Content Management deployed for pilot departments
- » IT Ticketing and Service Management System
- » Disability and labour relations management system



Improving The Lives Of Residents Through Technological Innovation

STRATEGIC THEME 3

Improving The Lives Of Residents Through Technological Innovation

Overview

We are committed to transforming the daily experiences of our residents by strategically embracing technological innovation. This theme targets a holistic improvement in quality of life by integrating innovative technology into the fabric of community services across education, safety, transportation and mobility. It aims to make the City not just a place to live, but a continuously evolving Smart City that is an example of modern urban living.

Smart City pilots are gaining momentum and IT is collaborating with departments to guide the efforts. Notable projects include e-Check AI software for faster permit processing, remote lighting, environment assessment for buildings, rain garden level monitoring, construction run-off water, water sensors and waste bin level monitoring.

We have taken pivotal steps towards creating a single source of truth and enhancing our open data program through a modern cloud-based data lake house. This system will consolidate data from City systems, smart city devices and the cloud, allowing Burnaby residents to interact with City data in real time and providing new analytical insights and reports.

Our focus on sustainability as a key operational priority has resulted in three main areas of focus, namely, choosing energy efficient technology, recycling and reducing waste and opting for sustainably sourced materials. Our sustainability efforts have resulted in energy efficient “in-row” cooling system at Laurel Street Data Centre and in use of recycled materials for technology devices when appropriate.

We are committed to promoting digital literacy through Tech Talks that explain complex topics, such as cybersecurity, in simple and practical ways helping residents protect themselves from online fraud and cyberattacks. We will keep supporting virtual learning sessions for the community. These efforts not only engage residents but also lay the groundwork for future digital innovation.

Progress Update

Create standards and initiate intelligent community pilots

We are building a solid technology foundation that utilizes the City's IT infrastructure to connect sensors and Internet of Things (IoT) devices to our digital network. This technology foundation will reduce maintenance and cellular costs, and promote information security, data consolidation and insights using AI by mining the vast amounts of data that will be available from these devices.

In addition, we have drafted a framework to guide City departments considering new sensors, Internet of Things (IoT) devices and other emerging Smart City technologies. Our framework defines guidelines for data privacy, responsible use of AI, data management, digital infrastructure and information security.

Build capacity for data analytics and the use of data for decision-making

- » A data governance model is being developed and is set to be further enhanced with a formal structure and clear stewardship, particularly regarding data ownership across various platforms.
- » A Cloud data lake house platform is being built to combine data stored in and outside City systems. Existing data is primarily structured and defined, and we have plans to address anticipated increases in unstructured data (videos, images, documents) through additional cleansing and processing.
- » Reporting and analytics processes are evolving, with plans to establish a single source of truth, enhance data quality and reduce reliance on one-off requests by developing more efficient solutions. This will lay the foundation to create more resident facing dashboards and portals to increase transparency and engagement from the community.



By the Numbers

100

Microsoft Artificial Intelligence (AI) assistant licences have been deployed to provide assistance with Microsoft 365 tools (e.g. automated meeting summarization).

5

Emergency blue phones installed in Central Park for quick access to 911.

AI chatbot

pilot in progress to assist with inquiries related to municipal bylaws.

3

Residential District building blueprints were auto-checked for e-compliance during Archistar AI software pilot.

100%

recycled packaging for all City computers,

50%

recycled steel in personal computer chassis

90%

recycled aluminum and

85%

recycled plastic in computer monitors

Conclusion

Conclusion

We are making excellent progress toward the digital goals in our Information Technology Strategic Plan (2021-2026). Engagement from all City departments was crucial and we appreciate the support they provided over the past four years to help us achieve these goals. The successful introduction of new resident services has underscored the importance of robust organizational change management and transformation strategies to refine business operations and positively transform perception regarding digital services. We realize that access to high-quality data is crucial for enhancing AI and automation capabilities, and advancements in AI will continue to transform how our services are delivered and improved.

Implementation of new digital systems have highlighted to us the significance of upgrading IT staff skills and better preparing employees to successfully capitalize on new opportunities. Advancing data literacy and establishing a structured approach to data governance with clear leadership will provide a solid foundation for both departmental and resident data initiatives and will be a crucial step toward evolving into a data-driven, self-service model. Collaboration with provincial and local government partners will be one of our key considerations for enabling digital resident identities, such as the use of BCeID to access City services.

As we celebrate our achievements, we realize that the journey is an ongoing one, and there is always room for improvement. The feedback received from City departments and community members guides us to refine and expand our initiatives in the coming years. By staying responsive to the evolving needs of our residents, we continue to build a safer, more resilient community for everyone.

The refresh to the IT Strategic Plan (for 2024-2029) will expand on this IT Strategy by introducing new technological initiatives and aligning them with the City's long-term goals. This ensures Burnaby remains at the forefront of digital innovation and is well-equipped to navigate future technological advancements while enhancing the quality of life for residents.

