

DRAFT

Strategic Technology Plan

2024-2028



**City
of
Milwaukee**



TABLE OF CONTENTS

Vision, Mission	2	Guiding Principles	5
Executive Summary, Core Values..	3	Business Environment	6
Goals	4	Strategic Objectives	7-11

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VISION

Milwaukee will be a regional leader in enhancing the experience for every person who lives, works, visits, or does business in the city through the effective use of technology.

MISSION

To empower City of Milwaukee government and all residents, businesses, and visitors by delivering secure, cost-effective, reliable, equitable, and timeless access to data, technology, and support.

Executive Summary

This Executive Summary provides an overview of the City of Milwaukee Strategic Technology Plan for 2024-2028. The City has developed this plan to describe how it intends to leverage technology for serving the public and achieving the City’s business vision and objectives. The plan was developed by the Information Management and Technology Division (ITMD). While a strategic plan provides a business vision and objectives for an enterprise, a strategic technology plan describes how the enterprise intends to leverage technology toward achieving the business vision and objectives.

This plan attempts to describe current technology and forecasted technology needs. The CIO will be responsible for regularly reviewing and updating the plan, making the plan available to all departments and the general public through the City’s website.



David Henke
Chief Information Officer

CORE VALUES



TRANSPARENCY

IT will be open, accountable and honest with residents on how we operate, being a model of transparency and facilitating transparency for all city operations.



EQUALITY

IT will facilitate the provision of services being provided consistently and equitably and will treat support needs in a fair and equitable manner.



EFFICIENCY

IT will enable responsible fiscal stewardship and a stable budgetary future for our city through efficient use of available resources.



SERVICE

IT will provide the highest quality of customer service delivered with a focus on the needs of others and through collaboration and teamwork.



Goals

Like the City's core values, IT vision and mission statements, the City's IT goals are established, long-term objectives. There are multiple projects grouped into specific focus categories, all aligned to achieving the goal. The City's goals are presented and defined below.

1

Secure information technology systems and data from targeted and accidental threats

- Focus #1: Data Protection
- Focus #2: System Optimization
- Focus #3: Endpoint Management and Monitoring

2

Improve resident and employee access to information and services through technology

- Focus #1: Employee Technology Training
- Focus #2: Fully Leverage Enterprise Tools
- Focus #3: Constituent Communications
- Focus #4: Data Dashboards
- Focus #5: Community Outreach

3

Expand community communication and regional partnerships to innovate and improve services

- Focus #1: Inter-government Partnerships
- Focus #2: Public-Private Partnerships
- Focus #3: Equity-Focused Initiatives

4

Provide modern, resilient, effective technology services and solutions aligned with current and future city needs

- Focus #1: System Replacements
- Focus #2: Field Automation
- Focus #3: System Consolidation

5

Refine service delivery through technology for process improvement

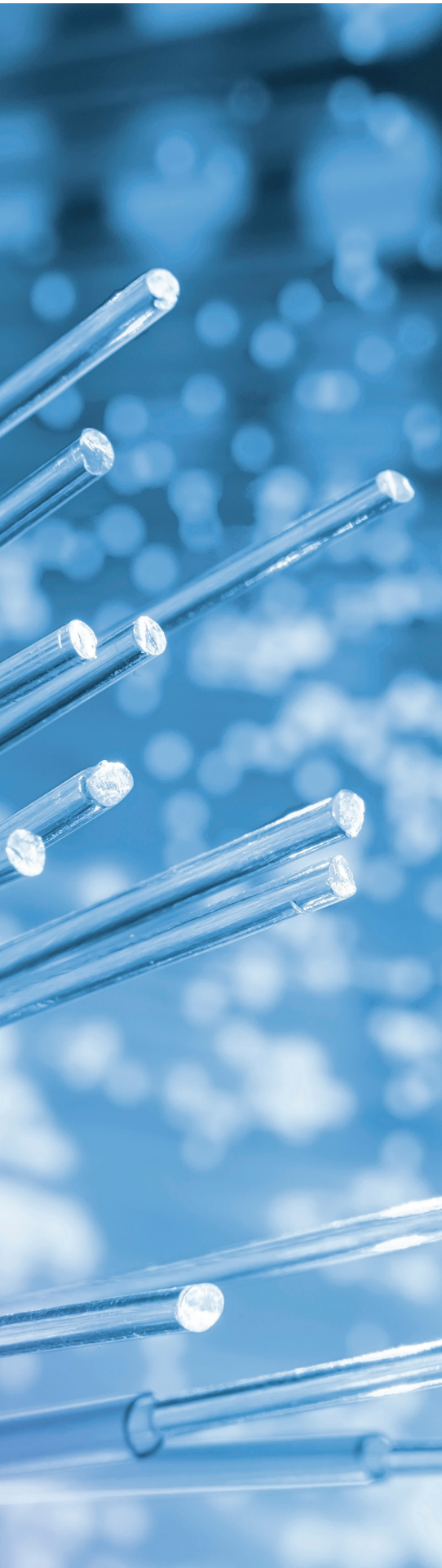
- Focus #1: Cost Savings
- Focus #2: Operations
- Focus #3: Field Technology
- Focus #4: Enterprise Tools

Guiding Principles

As the City increases its reliance on technology to support effective and efficient services/programs, there is a related and growing challenge to find an appropriate balance of value and risk. Principles act as a policy framework to promote a standard and cost-effective approach to delivering and operating IT.

GUIDING PRINCIPLES	
Central Review and Coordination of IT	<ul style="list-style-type: none"> IT investments should be coordinated at a citywide level to leverage development efforts, reduce duplicative costs, and ensure compatibility of systems.
IT Enables Effective and Efficient Service Delivery	<ul style="list-style-type: none"> IT systems must be secure, reliable, and resilient to provide 24/7/365 accessible systems. When assessing new software solutions, commercial off-the-shelf software packages that adequately meet the business requirements of the City are preferable to custom developed applications. The City should determine requirements and analyze both operational and financial business cases when evaluating the alternatives of building or buying new software applications. Investments in legacy systems should be limited to mandated and essential changes that can demonstrate extending the useful life of the system.
IT Standards	<ul style="list-style-type: none"> Hardware, software, and methodologies for management and development should adhere to citywide standards.
Access to Information and Services	<ul style="list-style-type: none"> Information and services should be provided using web-based technology with standard navigation tools and interfaces where appropriate. A reliable and secure communication and computer infrastructure should be provided to ensure seamless self-service access to information and services. Solutions should improve information sharing (as appropriate and ensuring confidentiality) across the City
Business Process Improvement	<ul style="list-style-type: none"> Industry best practices should be applied to optimize business processes. When implementing commercial off-the-shelf software packages, the City should adopt and implement industry best practices, redesigning business processes as required in order to improve operations, minimize customization and speed the delivery of new business applications. Data should be captured once and shared to reduce cost, duplication of effort and potential for errors.
Privacy and Security	<ul style="list-style-type: none"> Reasonable, cost-effective measures should be implemented to protect data, hardware and software from inappropriate or unauthorized use, alteration, loss or destruction.





Business Environment

This section presents an overview of the business environment that impacts and influences how the City of Milwaukee will use IT to conduct and operate its business, internally and externally, and provide services to the public.

Reengineering Technology

The City should take positive steps to keep pace with innovation. To do so, first consider modernizing IT infrastructure to improve efficiency and deliver services in new ways. Next, streamline the processes of IT budgeting, organization, and delivery to help drive mission success.

New Technology

The City should watch technology trends that will expand innovation in our back-office systems such as Smart Cities, Internet of Things (IoT), and Artificial Intelligence (AI). As new technology is proven, the City should follow a “fast follower” approach to avoid the mistakes of others while adopting innovative best practices when opportunities arise to modernize back office systems to support better constituent facing services.

Access to Information and Services

As customers of government, the public will not accept the old manual processes for obtaining government information and services. The public expects it to be easy to find information and conduct business with the City. Local governments will need to be innovative in developing e-Government applications and portals for managing processes and increasing the productivity and response to the public’s need for government services.

Increased Cost Efficiency

As is the case in other areas of government, the technology support services are finding savings by centralizing and consolidating IT resources to accrue savings through economies of scale.

Data Records Management and Information Exchange

Technology advances have created the need for efficient means of storing, retrieving, and sharing of information between interested parties.

Communications and Virtual Computing

While the recent rapid expansion of remote work and virtual interactions required deployment of new technology to meet short-term needs, the City of Milwaukee should look to how to best utilize these technologies for the long-term organizational needs. This includes communication from field personnel and remote workers to their in-office counterparts, as well as automated collection of field data and environmental status with back office systems.

City of Milwaukee Business Climate

The high cost of securing and maintaining the City’s computing environment and information assets has been identified as a large cost driver of City IT operations.

As departments struggle under reduced resources to deliver high-quality services, there can be a tendency to focus inward and exert control over their scarce resources rather than look outward to ways to leverage from the work of other City departments or to share service delivery resources with other City departments.

Strategic Objectives

City of Milwaukee has made progress toward its long-term vision, however there is still significant work to be done. The next section represents a blueprint of the strategic objectives that will be completed during the period of this Strategic Technology Plan.

City of Milwaukee has identified and documented 65 specific projects organized into 18 focus areas that support attaining the five goals.

1 Secure information technology systems and data from targeted and accidental threats

FOCUS	PROJECT
Data Protection	Explore the adoption and deployment of an additional data loss prevention (DLP) tool or tools
Data Protection	Complete application for and maintain cyber liability insurance
Data Protection	Deploy an enterprise social media records management tool
Data Protection	Review and refine data governance plan for overall management of the confidentiality, availability, and integrity of data
System Optimization	Review current major systems platform configuration for implementation and optimization of latest security best practices
System Optimization	Consolidate redundant systems onto common platform
System Optimization	Decommission legacy platforms that are unsupported
Endpoint Management and Monitoring	Integrate State of Wisconsin Cybersecurity Plan to City of Milwaukee cybersecurity planning
Endpoint Management and Monitoring	Utilize the State and Local Cybersecurity Grant Program (SLCGP) for funding to improve cybersecurity resilience
Endpoint Management and Monitoring	Deploy multiple tools for improved endpoint detection, vulnerability





2

Improve resident and employee access to information and services through technology

FOCUS	PROJECT
Employee Technology Training	Develop Online Training Catalog - enable staff to find available opportunities for IT training
Employee Technology Training	Implement new LMS (Learning Management System) in Workday Deployment
Fully Leverage Enterprise Tools	Encourage and extend use of existing enterprise IT tools used by ITMD to other department IT groups
Fully Leverage Enterprise Tools	Integrate SSO (Single Sign-On) for existing applications wherever possible for operational ease of use and reduction in passwords to maintain
Fully Leverage Enterprise Tools	Develop Online Software Catalog to enable staff to identify existing tools available to them (tied in with Online Training Catalog)
Fully Leverage Enterprise Tools	Expand use of existing IT support tools for project management, change management, IT service management (ITSM), and IT asset management (ITAM)
Fully Leverage Enterprise Tools	Promote use of maps, apps, dashboards and reports through ESRI ArcGIS enterprise agreement (to be available starting in late 2024)
Fully Leverage Enterprise Tools	Extend enterprise network security monitoring to include other City groups that manage their own networks
Constituent Communications	Model service request, license, and permit application communications on best-of-class private sector delivery notifications and communications
Constituent Communications	Align multiple segmented text/email notification platforms into a streamlined set of enterprise solutions
Constituent Communications	Implement statewide Next Generation 9-1-1 (NG911) to facilitate both voice and data (in the form of pictures, videos, text messages, and incident information) from requests for emergency assistance, with the ability to transfer 9-1-1 calls between geographically dispersed Public Safety Answering Points (PSAPs)
Data Dashboards	Promote use of maps, apps, dashboards and reports through ESRI ArcGIS enterprise agreement (to be available starting in late 2024)
Data Dashboards	Improve use of dashboards for public safety via Microsoft Power-BI, OnCall Analytics, and coordination with MPD OMAP
Data Dashboards	Improve City website by leveraging end-user training, removing old/stale content, and using new tools from recent system updates
Community Outreach	Partner with other City agencies in Adopt-A-Neighborhood program to promote UCC and available resources
Community Outreach	Deploy an enterprise social media management tool, improve social media records management, and media monitoring
Community Outreach	Expand the use of Social Pinpoint as an enterprise tool for community engagement with major projects

3

Expand community communication and regional partnerships to innovate and improve services

FOCUS	PROJECT
Inter-government Partnerships	Partner with peer government organizations that manage their own networks to extend common network security monitoring tools
Inter-government Partnerships	Explore shared contracts for major IT contracts for better pricing and reduced administrative overhead
Inter-government Partnerships	Partner with other county governments for common GIS and mapping resources
Inter-government Partnerships	Explore potential partnerships for shared cloud computing resources with other area governments
Public-Private Partnerships	Expand sharing of City fiber optic communications infrastructure with local non-profits, hospitals, colleges, etc.
Public-Private Partnerships	Investigate mobile application software program for seamless use of multimodal transportation in Milwaukee
Public-Private Partnerships	Promote electronics recycling into the community by recycling City electronics with local refurbishing partners
Public-Private Partnerships	Collaborate with DOA Innovation Director to identify strategic partnership opportunities
Equity-Focused Initiatives	Complete website translation project using ARPA funding
Equity-Focused Initiatives	Investigate use of AI Chatbot by call centers for language translation and improved response during peak call times
Equity-Focused Initiatives	Implement new Web Content Accessibility Guidelines 2.2 standard to make City website content more accessible to a wider range of people with disabilities.
Equity-Focused Initiatives	Continue efforts with the Milwaukee Broadband Partnership to improve affordability, accessibility, availability, and adoption of residential broadband in low-income areas





4

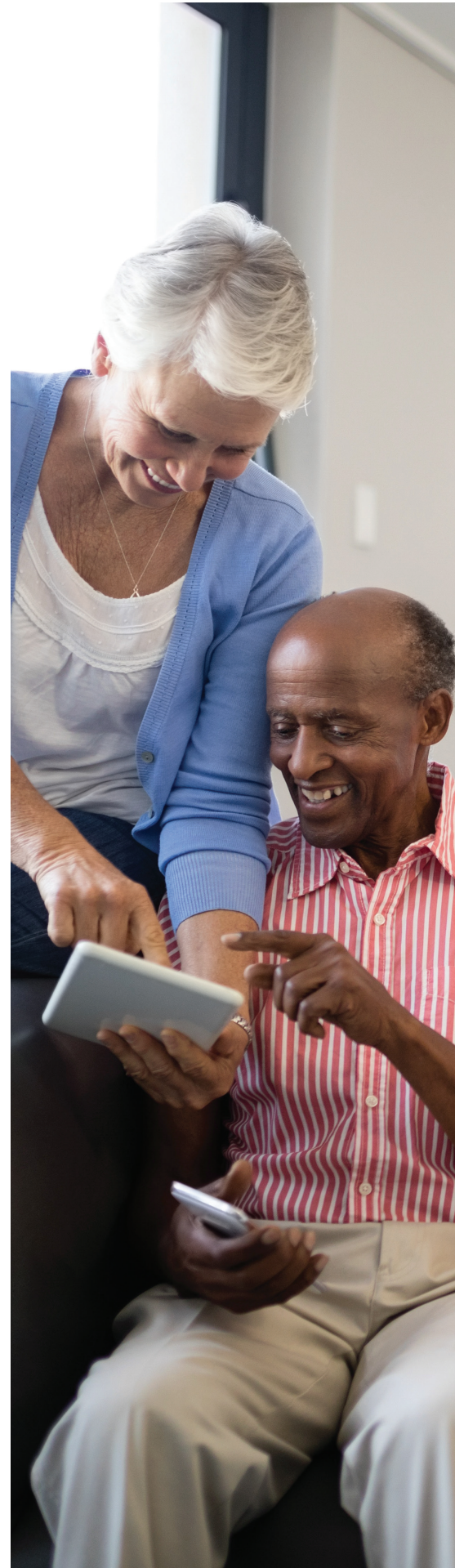
Provide modern, resilient, effective technology services and solutions aligned with current and future city needs

FOCUS	PROJECT
System Replacements	Replace homegrown real estate management application for Department of City Development
System Replacements	Replace homegrown grant and project tracking application for Neighborhood Improvement Development Corporation
System Replacements	Replace Enterprise Resource Planning software with Workday SaaS platform
System Replacements	Migrate Treasurer cashiering platform from hosted on-site to cloud-based
System Replacements	Update City Attorney case management solution
System Replacements	Modernize existing telephony platforms
System Replacements	Upgrade core network hardware
Field Automation	Extend time-entry solution for Workday and Telestaff to field staff
Field Automation	Scale up remote communications options for visibility to traffic control cabinets
Field Automation	Migrate DPW field staff from radio system to smartphones
Field Automation	Extend city fiber optic network deeper into remote controls cabinets for traffic, sewers, street lights, and other systems
System Consolidation	Review use of fax and modem lines for migration to modern solutions
System Consolidation	Extend use of electronic signature software to reduce paperwork
System Consolidation	Review use of desk phones, smart phones, web collaboration and other communications tools to optimize and streamline communications
System Consolidation	Consolidate separate phone, voicemail, and recording platforms for public safety and general city communications
System Consolidation	Reduce the number of datacenters, virtual server environments, backup environments, and other core IT infrastructure to simplify management and maintenance

5

Refine service delivery through technology for process improvement

FOCUS	PROJECT
Cost Savings	Consolidate telephony billing for legacy public safety and general city communications for cost and administrative overhead reduction
Cost Savings	Change phone and translation billing from individual departments to centralized processing to reduce administrative overhead
Operations	Align multiple segmented text/email notification platforms into a streamlined set of enterprise solutions
Operations	Review use of personal printers and move to multi-function/secure ID to reduce printer costs and improve security
Operations	Reduce paperwork and manual processes through deployment of Workday and DocuSign
Field Technology	Support DPW Field Modernization project
Field Technology	Facilitate DPW asset management solution review with goal of a single platform for all divisions that integrates directly with Workday
Enterprise Tools	Explore replacements and integrations of existing software as follow-on to initial Workday deployment
Enterprise Tools	Integrate internal service request workflow tools into Accela CMS solution
Enterprise Tools	Migrate LIRA and other internal workflows into Accela Civic Platform solution





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