

CITY OF **MADISON**

Information Technology

Strategic Plan

2021—2023



## **Introduction**

The City of Madison's technology needs are changing rapidly, and demand for Information Technology services is growing. We are shifting to digital services and automated, data-intensive processes that require increased support.

Moving forward, we need to explore emerging technologies and accelerate our development timelines to achieve industry standards.

The 2021 – 2023 Strategic Plan for City of Madison Information Technology focuses on prioritizing customer service, improving the digital toolset we provide, and connecting the public to City government.

## **Our Vision**

Our Madison – Inclusive, Innovative, & Thriving Through Technology

## **Our Mission**

Connect employees and the public to City services and information through people-focused technology solutions.

## Message from the Director



I am pleased to present the City of Madison Information Technology (IT) 2021 – 2023 Strategic Plan. This plan incorporates feedback from City staff, City Leadership and our community partners. In developing the IT Strategic Plan, a team of IT employees brought their expertise and experiences to the table, outlining key recommendations for their vision of the Information Technology department in the next three to five years. IT Management reviewed and accepted these recommendations, adopting the 2021 – 2023 IT Strategic Plan, focusing on six strategic priorities: Customer Service, Digital Inclusion, Digital Workplace, Employee Engagement, Infrastructure and Operations, and Security.

As a department, we need to practice an inclusive mindset when supporting our new digital and in-person workforces, as well as growing digital initiatives and programs. The City's Information Technology (IT) Strategic Plan outlines our strategies for embracing and supporting the ongoing, global digital transformation. In efforts to be best prepared for what this digital transformation will bring, we need to budget proactively to support digital government and sustainable technology. The IT Strategic Plan will guide City decision making and planning as we modernize and innovate service delivery.

Our City is in the middle of a digital transformation. We are relying more heavily on technology to engage with customers, allow workplace flexibility, and to replace paper processes with automated processes that improve transparency and efficiency. As a City, this digital transformation has encouraged us to connect our residents to City services and local government digitally; we are bringing City government to our residents, rather than asking residents to come to City government.

We look forward to collaborating with our partners and continuing our digital growth, as we embrace the journey of this digital transformation.

A handwritten signature in black ink, appearing to read 'Sarah Edgerton'.

*Sarah Edgerton, CIO*

*City of Madison Information Technology Director*

# Executive Summary

Priority	Strategies
<b>Customer Service</b>	<ol style="list-style-type: none"><li>1. Build Partnerships</li><li>2. Service Requests</li><li>3. Project Portfolio</li><li>4. Customer Training</li><li>5. Communication</li></ol>
<b>Digital Inclusion</b>	<ol style="list-style-type: none"><li>1. Connectivity</li><li>2. Digital Engagement</li><li>3. User Experience</li><li>4. Accessibility</li><li>5. Language Access</li></ol>
<b>Digital Workplace</b>	<ol style="list-style-type: none"><li>1. Shared Services</li><li>2. Flexible Workplace</li><li>3. Employee Workstations</li></ol>
<b>Employee Engagement</b>	<ol style="list-style-type: none"><li>1. Hiring</li><li>2. Retention &amp; Promotion</li><li>3. Staff Training</li><li>4. Communication &amp; Collaboration</li><li>5. Underrepresented Groups</li></ol>
<b>Infrastructure &amp; Operations</b>	<ol style="list-style-type: none"><li>1. Fiber Network</li><li>2. Optimize Processes</li><li>3. Cloud Strategy</li><li>4. Network Modernization</li><li>5. Incident Management</li><li>6. Disaster Preparedness</li></ol>
<b>Security</b>	<ol style="list-style-type: none"><li>1. Security Infrastructure</li><li>2. Audits &amp; Assessments</li><li>3. Policies</li><li>4. Education</li></ol>

# Customer Service

City Information Technology strives to provide quality, sustainable services to our customers. We can provide services more effectively when we understand customers' business needs and goals. We want to build trust with our customers and provide solutions that meet their needs. To provide more holistic services, we need to improve our project intake and management processes and standardize service delivery across Information Technology.

## 1 Build Partnerships

Become a strategic business partner by developing solutions that fit customers' needs and goals.

- 1.1 **Assign a portfolio manager for each agency.** Improve the service we provide to each agency by assigning a portfolio manager who can evaluate and support its specific technology needs.
- 1.2 **Co-create value with partners.** Develop a better understanding of customers' needs, goals, and values. Develop solutions based on the people who will use the technology.
- 1.3 **Empower customers to create content and manage systems.** Develop solutions that give City employees the power and flexibility to do their jobs without requiring frequent technical support.
- 1.4 **Provide guidance on service design.** Help customers develop processes that are equitable, accessible, efficient, and sustainable. Use technology solutions to fill gaps in current processes.

## 2 Service Requests

Standardize and improve the intake process for service requests.

- 2.1 **Implement a new Service Manager.** Transform our processes to respond to service requests more quickly. Standardize service delivery across teams.
- 2.2 **Develop a customer self-service portal.** Make it faster and easier for customers to submit service requests.

## 3 Project Portfolio

Complete work successfully and quickly by improving our ability to select and manage projects.

- 3.1 **Project Management Office (PMO).** Establish the Project Management Office to manage the IT Project Portfolio.
- 3.2 **Standardize project intake.** Define a consistent process for new project requests. Develop a Project Statement at the initiation of all new projects. Implement criteria for accepting and prioritizing projects.
- 3.3 **Develop an annual Work Plan.** Establish project timelines to manage staff workloads and ensure the timely completion of projects.
- 3.4 **Implement a standard project process.** Develop standard frameworks for project management across teams. Give project managers the tools they need to complete successful projects.
- 3.5 **Apply rapid development practices to shorten project timelines.** Take advantage of shorter delivery cycles to collect feedback and take action based on user responses.

## 4 Customer Training

Standardize and improve the way we train our customers.

- 4.1 **Train new employees on standard technologies and processes.** Leverage the New Employee Orientation to set best practices. Make sure all employees have the tools and resources they need to be successful at the City.
- 4.2 **Provide trainings on enterprise technologies.** Improve the use and efficiency of technology by making sure our customers understand the systems they use.
- 4.3 **Align with Citywide training standards.** Standardize and improve our trainings by following Citywide guidelines.
- 4.4 **Provide learning resources.** Publish resources and documentation to EmployeeNet for City staff to reference.

## 5 Communication

Build trust with our customers by improving lines of communication.

- 5.1 **Provide professional, friendly, and consistent customer service.** Develop a culture where all staff value partnerships and quality customer service.
- 5.2 **Train Information Technology staff on customer service.** Establish consistent policies, processes, and expectations to standardize the service we provide to customers.
- 5.3 **Maintain open lines of communication.** Develop standard processes for communicating with customers. Keep customers informed by communicating in a timely manner.
- 5.4 **Improve communication of incidents and outages.** Standardize our procedures for notifying customers of planned maintenance windows, unplanned outages, and large-scale incidents.
- 5.5 **Assist with change management.** Provide resources, information, and training to our customers to help them understand and use our new processes and systems.

# Digital Inclusion

Technology is changing rapidly, and altering the ways residents expect to interact with their government. We will create more opportunities for residents to access City services and engage in City government through technology.

## 1 Connectivity

Connect all residents to the devices and networks they need to access the Internet.

- 1.1 **Increase Wi-Fi access in public spaces.** Continue to add Wi-Fi in City-owned facilities.
- 1.2 **Increase availability of low-cost Internet service for residents in affordable housing.** Support initiatives to connect Community Development Authority (CDA) housing to the Internet.
- 1.3 **Digital literacy training.** Continue to increase digital literacy by funding programs for low-income residents.
- 1.4 **Provide fix-it clinics.** Help residents understand and maintain their devices.
- 1.5 **Increase availability of low-cost devices.** Continue to fund device refurbishment programs that provide low-cost devices to low-income residents.

## 2 Digital Engagement

Use technology to connect the public to City government.

- 2.1 **Increase government transparency.** Help residents access City news, meetings, data, and records through technology solutions. Build applications that make City data interesting and understandable.
- 2.2 **Support civic engagement.** Transform how people participate in the democratic process by facilitating an interactive relationship between the government and the public.
- 2.3 **Improve the effectiveness and efficiency of public communications.** Train agency customers on service-first communication. Develop solutions that support centralized communications and one cohesive digital presence.
- 2.4 **Update City policies to reflect the capabilities of current technologies.** Evaluate policies about public comments and meetings to promote equity and access to City government.
- 2.5 **Prepare for a 311 system.** Streamline service delivery and standardize user experience across departments. Provide transparency into residents' requests.

## 3 User Experience

Increase the usability of digital services by developing modern, user-friendly solutions.

- 3.1 **Redesign City of Madison website.** Overhaul the core sections of our website and continue to build a unified digital identity.
- 3.2 **Consolidate and standardize applications.** Develop and implement style guidelines shared across systems. Standardize infrastructure, functionality, user experience, and appearance.
- 3.3 **Simplify doing business with the City.** Continuously evaluate systems for ways to improve service design, website navigation, and user experience.
- 3.4 **Build for the future.** Explore options for one centralized resident account. Reduce the number of accounts required for residents and other members of the public.

## 4 Accessibility

Increase equity and access to City services by improving the accessibility of the City's web presence.

- 4.1 **Establish accessibility audits as a standard process.** Evaluate accessibility early and throughout projects. Follow compliance standards including Section 508, the Web Content Accessibility Guidelines (WCAG) 2.1, the Federal Plain Language Guidelines, and more.
- 4.2 **Produce accessible video content.** Add captions to all videos we produce. Produce alternatives with Audio Descriptive Service for videos that have nonverbal content.
- 4.3 **Encourage and support efforts to use plain language.** Provide trainings on writing in plain language. Explore solutions to make it easier for content editors to evaluate the reading level of their content.
- 4.4 **Evaluate new technologies for accessibility support and capabilities.** Ensure that third-party software follows our standards and best practices for accessibility and usability.

## 5 Language Access

Provide access to City services to residents with low or non-English language skills.

- 5.1 **Continue to develop multilingual website infrastructure.** Support multiple models of multilingual content management according to agency needs and abilities.
- 5.2 **Support multilingual video content.** Produce videos, create captioning, or otherwise translate content in the four languages supported by the Language Access Plan: Spanish, Hmong, Mandarin, and American Sign Language (ASL).
- 5.3 **Evaluate new technologies for multilingual support and capabilities.** Ensure that third-party software meets the needs of the City for multilingual features.



# Digital Workplace

Our work environments are constantly evolving. By implementing a digital workplace, we will create a framework for continual improvement of processes, tools, and operational efficiencies to meet our employees' needs and the City's goals.

## 1 Shared Services

Provide a comprehensive digital toolkit to our customers.

- 1.1 **Build and maintain a catalog of services and resources we support.** Develop awareness of what technologies the City is using. Use this catalog to help agencies select solutions.
- 1.2 **Support enterprise-wide solutions.** Implement reusable, scalable solutions that will fit Citywide needs and provide better, more consistent service to the public.
- 1.3 **Leverage purchased software to its full capacity.** Understand the capabilities of our software and identify opportunities to better utilize existing systems.
- 1.4 **Reduce duplicative applications.** Recover City resources and staff time by eliminating redundant systems.
- 1.5 **Connect our customers with data, analytics, and reports.** Make sure agencies have access to the data they need to improve their services. Give staff the tools they need to use and apply the data they collect.

## 2 Flexible Workplace

Remove barriers from remote work and collaboration.

- 2.1 **Provide secure connections to the City network.** Continue following industry best practices to enhance connectivity between remote locations and the City network.
- 2.2 **Improve remote desktop capabilities.** Explore technologies that would help City employees carry out standard operations while working remotely.
- 2.3 **Provide remote collaboration tools.** Support conferencing, phone, and file sharing technologies that allow employees to collaborate effectively when working remotely.
- 2.4 **Improve the digital literacy of City staff.** Provide trainings and learning resources on shared services to help employees use and understand digital tools.

## 3 Employee Workstations

Provide all City employees with the tools they need to do their jobs.

- 3.1 **Continue transitioning to a single-device policy.** Evaluate the business needs of machine requests, and make sure all City employees have access to a single device that fits their needs.
- 3.2 **Maintain a 4-year replacement lifecycle.** Balance employee needs with budget costs and savings.
- 3.3 **Maintain workstations with regular patching.** Keep employee workstations running smoothly and securely with regular software updates.

# Employee Engagement

Employees are our most valuable resource, and are key to our organizational success. We want our employees to feel valued, engaged, and satisfied with their jobs.

Our workforce should reflect the diversity of the community we serve. To accomplish this, we need to support women, people of color, and other marginalized employees in the workplace.

## 1 Hiring

Attract and hire skilled candidates from diverse backgrounds, and empower new employees to be successful at the City.

- 1.1 **Create trainee development paths.** Develop career paths to help our trainees be successful.
- 1.2 **Connect with community partners to broaden the reach of hiring opportunities.** Maximize applicant pools to support the hiring of women and people of color.
- 1.3 **Use hiring as an opportunity improve organizational structure.** Review and evaluate current position allocations to fit the needs of the department and balance workloads.
- 1.4 **Develop plans for filling vacant positions.** When possible, recruit soon after positions vacate to reduce the strain on current employee workloads. Communicate hiring timelines to the relevant staff.
- 1.5 **Work with Human Resources to condense hiring timelines.** Identify, interview, and select applicants quickly so quality candidates are still available and interested in City employment.
- 1.6 **Develop a standard on-boarding process.** Establish consistent practices between teams. Make sure all new employees have the information they need to be successful and engaged.

## 2 Retention & Promotion

Retain skilled employees by increasing job satisfaction and promotional opportunities.

- 2.1 **Establish a career ladder.** Provide clearer pathways for promotions, and reduce the need for reclassification.
- 2.2 **Perform annual job evaluations.** Evaluate employees' performance and workloads, and develop work plans for the following year. Review position descriptions with supervisor.
- 2.3 **Recognize innovation and exceptional work.** Establish a work culture of praise and performance recognition. Talk about how employee roles contribute to the City's vision, goals, and objectives.
- 2.4 **Establish dedicated project work time.** Manage workloads by implementing a scheduled rotation system for development and customer service.
- 2.5 **Develop a standard off-boarding process.** Evaluate and improve our effectiveness as an employer by conducting standard exit interviews.

## 3 Staff Training

Cultivate a skilled workforce by providing valuable training opportunities.

- 3.1 **Establish individual employee development plans.** Identify and target areas of improvement at annual job evaluations (*see Employee Engagement 2.2*).
- 3.2 **Provide valuable technical training.** Offer high-quality trainings that help employees develop technical skills that apply to their interests and responsibilities.
- 3.3 **Support leadership and professional development.** Encourage participation in leadership development programs and other professional development opportunities.
- 3.4 **Develop a mentorship program.** Connect employees with their peers to share knowledge and build relationships.

## 4 Communication & Collaboration

Promote communication and relationships between individuals and teams within our department. Foster an open environment, recognizing and engaging our multigenerational workforce.

- 4.1 **Improve cross-team communication and collaboration.** Hold bi-weekly check-ins between all team leaders. Establish cross-team work groups and foster collaboration between teams.
- 4.2 **Facilitate communication between employees and upper management.** Develop a system for management to accept and respond to employee feedback.
- 4.3 **Conduct quarterly department meetings.** Keep employees informed of strategic direction and decisions that impact work. Provide updates on initiatives and major projects.
- 4.4 **Establish a bi-monthly newsletter.** Recognize team and individual achievements. Provide updates on team projects and department-level news.
- 4.5 **Foster employee relationships.** Host bi-monthly breakfast or lunch events. Support other social events.
- 4.6 **Empower employees to take ownership of their unique skills.** Allow employees to engage in conversations, projects and initiatives that are engaging for the individual and benefits the entire group to collaborate on a single product.
- 4.7 **Create an agile work culture.** Embrace new and different perspectives to solve problems. Encourage flexibility and innovation to develop creative solutions for how and where we work.

## 5 Underrepresented Groups

Hire and support women, people of color, non-binary people, people with disabilities, and members of other underrepresented groups. Establish a culture of inclusion in the workplace.

- 5.1 **Provide paid internships for underrepresented groups.** Maximize applicant pools to support the hiring of women, non-binary people, people of color, and people with disabilities.
- 5.2 **Develop a youth apprenticeship program.** Engage young women, non-binary people, people of color, and people with disabilities with technology careers by providing training and support.
- 5.3 **Develop support networks that are more inclusive for all employees.** Encourage awareness of and participation in Citywide employee groups like the Women's Initiatives Committee, Multicultural Affairs Committee, and Racial Equity & Social Justice Initiative. Establish affinity groups for women, non-binary people, people of color, people with disabilities, and other underrepresented groups within Information Technology.
- 5.4 **Require all employees to complete Racial Equity & Social Justice (RESJ) training.** Organize RESJ training for new employees and all employees who have not already completed it.

# Infrastructure & Operations

Agencies depend on a strong technology infrastructure to support public services. As the backbone of City operations, we must provide a reliable, secure, and responsive technology environment.

A strong physical and virtual technology infrastructure will support City operations, and will prepare us for the future.

## 1 Fiber Network

Build and maintain a strong, connected fiber network that supports City operations.

- 1.1 **Build redundancies.** Improve our ability to recover from outages by building multiple routes to critical locations.
- 1.2 **Support new City facilities.** As new facilities are developed, build fiber to ensure ongoing connectivity
- 1.3 **Support the Bus Rapid Transit (BRT) program.** Build fiber along bus routes to support traffic controls, digital signage, and other program needs.
- 1.4 **Maintain existing fiber builds.** Conduct ongoing maintenance so that we continue to provide a high-quality fiber network.

## 2 Optimize Processes

Evaluate and improve processes within our department and the City as whole.

- 2.1 **Optimize and automate.** Develop tools to manage repetitive tasks, reducing human error and allowing the City to invest valuable employee time into higher-value work.
- 2.2 **Use data to guide our processes and projects.** Establish performance measures, and use these to evaluate project success. Support outcome-based budgeting.
- 2.3 **Develop an internal change management process.** Document processes and communicate changes to employees. Check-in with employees to evaluate the effectiveness of process changes.
- 2.4 **Support continuous improvement within our department.** Evaluate our own processes regularly, and make adjustments as needed. Support the work of the IT Process Improvement Team.
- 2.5 **Support continuous improvement Citywide.** Analyze workflows. Increase the City's effectiveness by helping agencies improve their workflows and processes.

## 3 Cloud Strategy

Increase our flexibility, sustainability, and uptime by shifting to a cloud-first strategy.

- 3.1 **Conduct a cloud readiness assessment.** Migrate select systems to cloud-based solutions.
- 3.2 **Support API development.** Build connections between on-premises and hosted solutions.
- 3.3 **Leverage Software-as-a-Service.** Develop a strategy for purchasing and implementing cloud-based solutions.
- 3.4 **Be strategic about budgeting.** Analyze long-term budget impacts and leverage potential cost-savings.

## 4 System Modernization

Renew the technologies we support according to industry and operational standards.

- 4.1 **Maintain sustainable hardware lifecycles.** Monitor hardware warranties and replace equipment proactively.
- 4.2 **Decommission legacy systems.** Replace aging software with modern solutions.
- 4.3 **Increase server and storage capacity.** Improve retention, redundancy, and recovery of City infrastructure.

## 5 Incident Management

Follow ITIL best practices to grow our Incident Management processes and minimize service downtime for customers.

- 5.1 **Quickly identify incidents.** Identify incidents as quickly as possible using automated technologies and monitoring tools.
- 5.2 **Log and categorize incidents.** Log all incidents using classification and prioritization frameworks to ensure complete historical records.
- 5.3 **Perform initial investigation of incidents and diagnose the problem.** Immediately investigate incidents to understand the incident scope and appropriate course of action for mitigation.
- 5.4 **Make assignments or escalate the issue to mitigate incidents.** Develop an Incident Management chain of command to delegate tasks and escalate issues as needed, allowing staff to work quickly and effectively.
- 5.5 **Facilitate resolutions and perform testing.** Implement incident resolutions and test all services and systems thoroughly to ensure service recovery.
- 5.6 **Document and communicate incident closures.** Document the incident's resolution and testing protocol to close the incident. Communicate resolution and incident closure to all groups impacted.
- 5.7 **Perform post-incident user satisfaction surveys.** Following large service disruptions and incidents, perform a post-incident user satisfaction survey to gather feedback from customers and develop lessons learned for future incidents.

## 6 Disaster Preparedness

Support the continuity of City technology operations in the event of a disaster.

- 6.1 **Develop agency business continuity plans for critical systems.** Work with agencies to identify vital systems and develop plans to maintain operations.
- 6.2 **Develop a priority list of critical technical services.** Work with City leadership to prioritize vital systems and develop plans to maintain operations.
- 6.3 **Maintain a technology infrastructure that supports continuous City operations.** Align IT infrastructure and operations with the City's Continuity of Operations Plan.

# Security

A secure technology environment allows the City to operate safely and efficiently. By centering our work on security, we proactively protect the City's resources from evolving cybersecurity threats.

City staff are the first line of defense in protecting our security infrastructure. We need to continue training the City's workforce to recognize and respond to cybersecurity threats. Ongoing collaboration ensures our data and systems remain protected and creates interconnected enterprise solutions that everyone in the City can use.

## 1 Security Infrastructure

Develop and maintain a secure foundation for City operations.

- 1.1 **Strengthen layered security.** Maintain multiple levels of security across our systems. Be proactive in seeking out opportunities to improve systems and procedures.
- 1.2 **Stay current with security patches.** Ensure that security updates are installed when they are released. Automate patch management.
- 1.3 **Evaluate new technologies for security compliance.** Ensure that third-party software follows our standards and best practices for privacy, encryption, and other security concerns.

## 2 Audits & Assessments

Regularly evaluate our systems to ensure a secure environment.

- 2.1 **Conduct comprehensive annual cybersecurity assessments.** Identify and address vulnerabilities rapidly.
- 2.2 **Conduct ongoing security reviews.** Review log reports to identify and correct any potential issues.
- 2.3 **Regularly audit our online systems.** Ensure we are following security best practices on all systems.
- 2.4 **Follow recommendations from financial, technical, and security audits.** Maintain required certifications to support City operations.

## 3 Policies

Maintain policies and processes that support secure City operations.

- 3.1 **Strengthen incident response.** Continue to develop our Incident Response Plan, and conduct regular drills.
- 3.2 **Follow the Principle of Least Privilege (PoLP).** Grant users minimal access rights needed to accomplish tasks.
- 3.3 **Review and update our password policy based on current best practices.** Establish expectations for password management and security. Implement password management software.
- 3.4 **Protect privacy and sensitive data.** Set standards for designating private datasets and for de-identifying sensitive data. Earn our public's trust by protecting their privacy.

## 4 Education

Create a first line of defense by developing an educated and prepared workforce.

- 4.1 **Invest in Information Technology staff training.** Support rigorous, ongoing security training on current standards, threats, and best practices.
- 4.2 **Train City staff to recognize and report potential attacks.** Conduct mandatory, bi-annual security trainings for all City employees.
- 4.3 **Inform customers with cybersecurity outreach.** Use monthly cybersecurity newsletters, the employee intranet, and training presentations to continue educating City staff to recognize and respond to cybersecurity threats.