



THE
CITY OF WESTON
FLORIDA

Technology Strategic Plan

FY2018–2021

Executive Summary

Any strategic plan for information technology (IT) must examine and define the role of technology within the business/government operation. The role of IT within the City of Weston is to support the City's business objectives and to promote efficient and effective services to our constituents. This plan provides a broad framework for the effective management of information technology in line with the City's broader and long-term Strategic Value and Business Plan.

Many future technology efforts will cross multiple City departments with a single goal of providing seamless services. This environment requires technology to be used as the basis for communication, interoperability, data, and resource-sharing. Furthermore, technology is a vehicle through which cost reduction can occur by increasing efficiency and efficacy of our services.

The internal and external environments of The City of Weston are changing, and technology is a critical supporter of the development, implementation, and enhancement of services to our constituents.

With dynamic demands imposed on our government leaders, it is imperative that there is an overall approach for the selection, use and support of technology and that it aligns with City resources, business needs and processes.



Introduction

Background

Since its inception, The City of Weston's management philosophy has been to hire exceptional people and provide them with the resources they need to excel.

The City has minimized the number of full-time City employees while emphasizing efficiency, effectiveness and flexibility; there are only ten (10) official Weston employees. The City contracts with service providers to perform most services including Police, Fire, Building, Code Enforcement, Planning & Zoning, Engineering, Parks, Public Works, Landscaping, IT and Administrative Services.

The City's ten employees' primary function is to deliver the best services by carefully monitoring and managing the contract service providers.

As such, it is essential that the City employees have access to tools and technology that provide them quick and easy access to information regarding operations and performance.

The City has recognized the need for better enterprise-wide technology plans and has begun the process toward that end.

The City of Weston's Technology Services Department is responsible for the City's technology environment and provides innovative strategic direction to the operation by leveraging technology to improve the delivery of services to our constituents.



Technology Goals and Guiding Principles

Goals

The City has established a strategic approach that focuses on leveraging technology to promote the following four key goals:

1. **Promote Efficiency and Efficacy**
2. **Improve Service Delivery**
3. **Increase Transparency**
4. **Mitigate Risk**

The City has developed this Technology Strategic Plan based on a shared vision for technology and a set of shared goals and guiding principles. An investment strategy is further defined within the City's overarching Strategic Value and Business Plan.

GOAL 1: Promote Efficiency and Efficacy

- ✓ Offers a positive return on investment (ROI) and/or reduces future expenditures
- ✓ Improves internal productivity and/or simplifies operations

GOAL 2: Improve Service Delivery

- ✓ Improves accessibility while decreasing complexity to City services, resources, and/or officials
- ✓ Improves the quality, responsiveness and/or usability of City services

GOAL 3: Increase Transparency

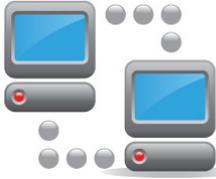
- ✓ Improves accessibility of public records and decision-related materials
- ✓ Promotes constituent engagement and collaboration initiatives

GOAL 4: Mitigate Risk

- ✓ Improves cybersecurity and privacy measures
- ✓ Improves resiliency through disaster recovery and continuity of operations
- ✓ Proactively mitigates risk associated with software and/or equipment useful lifecycles



Guiding Principles

Central Review and Coordination of IT	
✓	IT investments should be coordinated at a Citywide level to leverage development efforts, reduce duplicative costs, and ensure compatibility of systems.
✓	When assessing new software solutions, commercial off-the-shelf (COTS) software packages that adequately meet the business requirements of the City are preferable to custom-developed applications. IT will expand/reuse before it buys and buy before it builds.
	
Technology Standards	
✓	Hardware, software, and methodologies for management and development should adhere to City standards defined by the Director of Technology Services.
✓	Hardware and software should adhere to open (vendor autonomous) standards to promote flexibility, interoperability, cost effectiveness, and to mitigate the risk of dependence on individual vendors, where applicable.
	
Access to Information and Services	
✓	Information and services should be provided using web-based, self-service architecture with standard navigation tools and interfaces where appropriate.
✓	Data integration should be promoted. Data should be captured once and shared to reduce cost, duplication of effort, and potential for error.
	
Continuous Business Process Improvement	
✓	When implementing commercial off-the-shelf software packages, the City should adopt and implement industry best practices, redesigning business processes as required to improve operations, minimize customization, and speed the delivery of new business applications.
✓	The City's technology decisions are best approached incrementally within and overall strategic perspective and include measurable key performance indicators.
	
Privacy and Security	
✓	The City should adopt and implement an effective IT security policy that articulates the manner in which it collects, uses, and protects data, and the choices offered to protect personal and sensitive information within the constraints of public disclosure law.
✓	Reasonable, cost-effective measures should be implemented to protect data, hardware, and software from inappropriate or unauthorized use, alteration, loss, or destruction.
✓	Auditable security measures should be part of the initial architecture, and design as IT solutions are developed and implemented.
	

Public Sector Trends

Cybersecurity and Compliance- The City considers cybersecurity a top priority and has invested in several solutions to mitigate the risks and challenges of today’s highly interconnected, Internet-driven world. The City manages a diverse ecosystem of technologies in which cybersecurity solutions and compliance are layered into the technology stack at all levels. This multi-level threat protection model includes a combination of next generation firewalls, cloud-based anti-spam & anti-malware and endpoint protection. In addition to hardware and software, sound processes controls and security policies are being put in place to further minimize risk. Security must not be viewed as a single project or piece of technology but an ongoing process that must be continually revisited and fortified.

Civic Engagement/ Experience- The use of social media in government communications is no longer a luxury, or something to be considered as an afterthought. Social media such as Twitter, Facebook, Instagram and numerous others are now mainstay forms of communications for millions of Americans, especially members of the younger generations. Other forms of digital communications such as blogs, RSS feeds and e-alerts also provide multiple ways for users to communicate and engage with municipal governments and vice versa. The effective use of social media for communications and resource management in numerous emergency situations has been well documented over the past few years and presents a very real opportunity for governments to “harness” community action and knowledge.

Mobile Workforce and Mobile Friendly Services- City agencies increasingly rely on mobile technology to carry out their field operations and missions. In addition, the need to deliver information and services to the public via mobile-friendly solutions has dramatically increased. Smartphones, tablets and other mobile devices are fast replacing computers as the primary means for users to access the Internet, and new “cloud” computing models will allow data, information and applications to be accessed anywhere, anytime, from any device.

Transparency and Open Data- New developments in web technologies including cloud computing and web services are having a profound impact on government agencies at all levels. Constituents are increasingly demanding greater transparency, accountability, and access to information which is a driving force behind what is known as the Open Data movement



in government. Open data is the notion that government data should be freely available to everyone to access via the web.

Disaster Recovery/ Continuity of Operations Planning- The City's ability to function during a disaster depends upon a resilient IT infrastructure that keeps critical agency applications running, data accessible and secure, and telecommunications networks operating.

Geospatial/GIS Integrations- Almost every City service and asset can be tied to a location on the map, making GIS an increasingly valuable tool. Besides its traditional internal use in helping local governments visualize data and make correlations, it has now also become a common tool for the public.

Business Intelligence/ Analytics- Information is one of the most valuable City assets. Providing the right information to the right people at the right time can help the City gain more insight and drive better decisions and outcomes. In addition, data integration and visualization using BI tools has simplified analysis of large data sets empowering decision makers with insights into their daily operations.

Cloud Computing- Cloud computing has held great promise for the public sector, but it only recently has become realizable with proven technologies and business models driven by the largest commercial players including Google, Amazon, Microsoft and others. The City's transition to cloud services should be done in a phased approach and be directly aligned with the City's overall IT security framework.

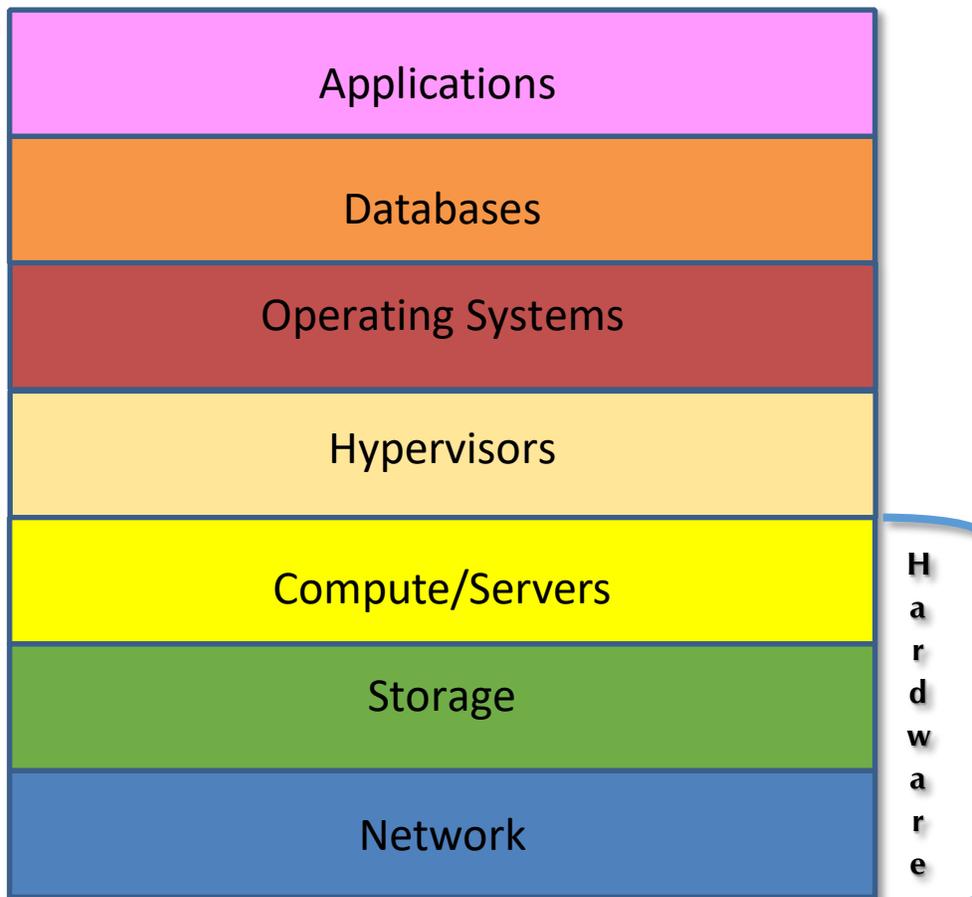
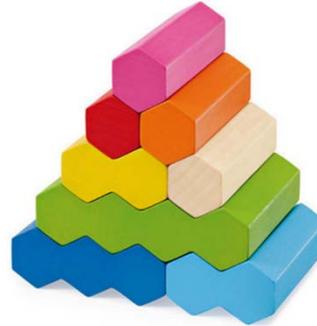
Internet of Things (IoT) and Smart Cities- The capacity to improve public services by collecting data and applying related analytics is within reach for the City as IoT, Industrial IoT and the concept of Smart Cities expands. If a device can connect to the Internet, it likely will in the future. From transportation to supervisory control and data acquisition (SCADA) systems, the City can have access to real-time data that supports effective and efficient decision-making. Any IoT implementation must also comply with the City's overall IT security framework.

FirstNet- The FirstNet mission is to deploy, operate, maintain, and improve the first high-speed, nationwide wireless broadband network dedicated to public safety. This reliable, highly secure, interoperable, and innovative public safety communications platform will bring 21st century tools to public safety agencies and first responders, allowing them to get more information quickly and helping them to make faster and better decisions.



Technology Stack

The City of Weston manages its technology infrastructure as an integrated “technology stack”. Each layer of the stack is dependent on the underlying layers. The foundations of the technology stack are typically hardware layers which support the top software/application layers. Like all City infrastructure, technology stack components have a useful life and must be maintained through a strategic planning process.



FY2018-2021 Strategic Objectives and Key Initiatives

Goal 1: Promote Efficiency and Efficacy	
<i>Objective 1.1</i>	<i>Implement and expand innovative technologies to improve internal operations.</i>
Initiatives	<ul style="list-style-type: none"> • Enterprise Resource Planning (ERP)- Deploy new ERP solution to streamline internal operations including Accounting, Accounts Receivable, Accounts Payable, Budget, Business Tax, Contract Management and Purchasing. • Master Data Framework- Develop a master data framework/data warehouse to guide the acquisition, creation, distribution, presentation, use, integration and storage of key data assets. A data framework will further facilitate business intelligence tools and e-Government services. • Business Intelligence (BI) and Decision Support- Develop meaningful BI tools using various data visualization techniques. • Internet of Things (IoT) and Smart Cities- Expand IoT devices including SCADA, digital signage, Building Automation Systems (BAS), etc. • Enterprise Content Management (ECM)- Expand ECM capabilities to align one-content repository integration with core City applications, mobile solutions and GIS while maintaining legal compliance. • Voice Over IP (VoIP)- Decommission legacy PRI phone systems and fully expand VoIP systems Citywide. • Single Pane of Glass Monitoring & Operations- Consolidate systems tools with centralized management to simplify IT monitoring and operations.
Goal 2: Improve Service Delivery	
<i>Objective 2.1</i>	<i>Leverage web, social media and mobile technologies to enhance service delivery and promote the City's "online vs. in line" E-government initiatives.</i>
Initiatives	<ul style="list-style-type: none"> • City Website- Deploy and enhance City's content management system (CMS) to improve usability, accessibility and content delivery. The City's website design is focused on simplification in which services are more direct, easier to understand and mobile-friendly. • E-Permits- Deploy and enhance e-permitting system including electronic plan review, digital signatures, inspection re-scheduling and payments. • Mobility and Mobile Applications- Implement and enhance mobile applications to provide content and functionality uniquely suited to mobile devices including citizen service requests, payments and alerting. • Parks and Recreation Reservation System- Deploy GIS-enabled Parks portal to streamline online reservations for facilities and programs. • Vendor Self Service Portal- Deploy vendor self-service portal to streamline contract administration, invoicing & payments, and project accounting. • Estoppel Requests- Deploy GIS-enabled estoppel request system.

<i>Objective 2.2</i>	<i>Leverage Geographic Information Systems (GIS) to enhance service delivery and spatial analysis capabilities.</i>
Initiatives	<ul style="list-style-type: none"> • Enterprise GIS Architecture- Complete re-architecture of enterprise GIS environment. • GIS Database Migration to Local Government Information Model (LGIM)- Complete migration to ESRI’s LGIM shared data model and implement change management controls to maintain data integrity. • GIS Portal- Design and implement GIS portal to host City map applications, static maps and open GIS data for internal and external use.
Goal 3: Increase Transparency	
<i>Objective 3.1</i>	<i>Leverage web, social media and mobile technologies to promote transparency and accessibility to public records.</i>
Initiatives	<ul style="list-style-type: none"> • Open Data Portal- Deploy self-service public records portal for commonly requested City reports and records. • Meeting and Agenda Automation- Deploy automated agenda and meeting system to include indexed video-on-demand.
Goal 4: Mitigate Risk	
<i>Objective 4.1</i>	<i>Maintain and enhance the IT infrastructure to promote reliability, agility, scalability and end-user satisfaction of systems.</i>
Initiatives	<ul style="list-style-type: none"> • Technology Refresh- Develop a long-range capital plan for IT including funding for lifecycle technology refresh in sync with the City’s Strategic Value and Business Plan. • IT Infrastructure Consolidation- Standardize, consolidate and virtualize IT infrastructure to reduce costs and improve disaster recovery. • Virtual Desktop Interfaces (VDI)- Expand use of VDI technology to simplify IT operations, enable remote access and improve desktop experience for end-users. • Hybrid Cloud Services- Extend the City’s on-premises resources into the cloud including the potential of Infrastructure as a Service (IaaS) for Disaster Recovery and Business Continuity.
<i>Objective 4.2</i>	<i>Provide a stable and secure computing environment that ensures data privacy, data integrity and mitigates cyber-security threats.</i>
Initiatives	<ul style="list-style-type: none"> • IT Security Audit and Plan- Conduct a comprehensive IT security audit/assessment and develop a security plan using best practices to help address challenges with data security, network security, disaster recovery and PCI compliance issues. • Standard Operating Procedures (SOPs)- Develop and document SOPs for all major IT functions and add them to IT Operations Manual. • Disaster Recovery (DR) and Continuity of Operations -Enhance, operationalize and periodically test the IT disaster recovery plan. • Security Education and Awareness- Educate the City’s workforce on cyber-security threats and codify policies and procedures. • Advanced Threat Protection (ATP)- Deploy ATP to proactively detect attacks and exploits using advanced behavioral analytics and machine learning. • Network Virtualization- Expand network virtualization efforts through micro-segmentation and optimization of granular security policies.

Tracking Progress and Impacts

Objectives and key initiatives were developed with measurability in mind, and specific metrics will define success on two levels: 1) tracking the progress of each initiative, and 2) assessing the impacts achieved.

1. **Tracking Progress:** The initiatives are the fundamental action steps for this plan, and their progress will be tracked through internal project management.
2. **Impact Assessment:** Key performance indicators (KPIs) are being developed for each objective to measure how effectively it is being addressed. These KPIs will contain a mix of quantitative and qualitative metrics and are constructed around the central challenges and opportunities each objective addresses.

Going Forward

The City of Weston's Technology Strategic Plan provides proactive direction for information technology and is intended to integrate with the City's Strategic Value and Business Plan. The nature of technological advances and changing City needs will mandate plan revisions keeping it flexible and always forward-thinking!





Department of Technology Services

17200 Royal Palm Boulevard

Weston, FL 33326

www.WestonFl.org
