Interoffice Memorandum   **Date:**   October 1, 2013

To: Mayor Shannon Snyder
                 Vice Mayor Willie Charles Shaw
                 Commissioner Paul Caragiulo
                 Commissioner Suzanne Atwell
                 Commissioner Susan Chapman

**Thru:**   Pamela M. Nadalini, MBA, CMC, City Auditor and Clerk

From: Philip Hurwitz, Director, Information Technology

Subject: Information Technology Strategic Plan

Attached please find the Information Technology Strategic Plan for the City of Sarasota. This plan specifies the information technology goals, objectives, strategies and actions necessary for the Information Technology Department to continue to meet its business objectives to provide needed technological services and a quality customer service experience to the City.

I am available at your convenience if you have any questions.

c: Thomas Barwin, City Manager
         Robert M. Fournier, City Attorney
         Directors
         File
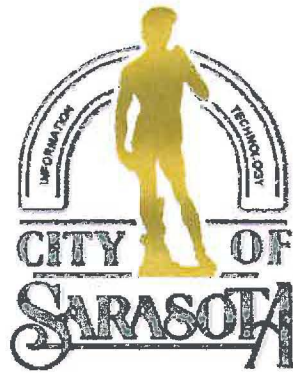
Information Technology
Strategic Plan

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Plan Overview

Like many departments faced with growth in the demand for services combined with a challenging economy, the City of Sarasota Information Technology (IT) Department continues to experience significant challenges in sustaining the innovation the City wants while continuing to solidify and secure the current environment.

This past year the added pressures of a law enforcement investigation, combined with significant changes in leadership have added to that challenge. The department was moved from under the auspices of the City Manager to the City Auditor and Clerk; the Director was removed and subsequently replaced, and one of the two managers was on Administrative Leave for a year before being replaced. During the same period, the primary Systems Administrator also left. These items are mentioned only to highlight external factors that can significantly derail progress and redirect effort. With limited personnel, minor issues or diversions can have significant impact and talent/knowledge drain is a constant threat.

These challenges and opportunities are fueled by heightened expectations from the City's constituents and business community with regard to interacting and conducting business with the City, particularly electronically. As the private sector embraces web and mobile-based capabilities that enhance information exchange, communication, and transactions in a variety of formats, government is expected to follow suit. The ripple effect of the need to meet customer needs can leave little time available for back end process review and management. In this environment of rapid change with the need for responsiveness exacerbated by finite resources, the importance of thoughtfully considered deployment of technology that embraces supportable standards is emphasized.

The City's Information Technology capabilities must be adaptable, scalable, secure, contemporary, and environmentally conscious and able to respond to new goals and dynamically changing service and operational requirements by various requestors.

Mission and Value Statement

To support Commission goals, facilitate departmental requirements, and provide value to the citizens of Sarasota through efficient use of technology resources, managed by a team of skilled professionals.

Following its core tenets of security, stability, and quality customer service, the Information Technology (IT) Department handles all aspects of technology, both existing and emerging, for the City of Sarasota including:

- Networking and Telecommunications : The design and maintenance of the network infrastructure that links the various City departments and sites together to include the latest in fiber, Ethernet, copper trunks, VOIP, and wireless technologies to support phone communications and high speed access to applications and resources.
- Peripherals: The many computers, printers, plotters, scanners, and mobile devices that allow the various departments to daily serve our constituents.
- Customer Support: The quality support of the departments via in-person assistance, phone support, and remote troubleshooting for hardware, application, and access issues.
- Security: The confidentiality, integrity, and availability of the City's systems, applications, and network.
- Geographic Information Systems (GIS): The enterprise-wide data infrastructure for all GIS databases, GIS process mapping, and the web-based GIS data viewer for both internal and external customers facilitating integration with deployed solutions.

Principles, Strategic Direction

Via a three-pronged approach, the IT Department will tailor its strategic direction to meet its core tenets of security, stability, and quality customer service. The approach will have the following focal points:

1. Secure the infrastructure
2. Improve Customer Service
3. Facilitate New Initiatives

All three of these focal points are critical to maintaining a secure, effective, and relevant information technology environment.

Secure the infrastructure is the framework on which the environment is built. Just like the foundation of a building, the infrastructure must be capable of imperviously sustaining continued daily usage. Unlike the building foundation though, an IT infrastructure requires constant attention and maintenance as the technology and the threats against that technology change at an almost frightening rate of speed.

Improve Customer Service is a strategy that permeates the other two points as well as every interaction IT has with its customers, be it a technological interaction or a personal interaction. We are continuing to look for ways to make the technology easier and more relevant with better products, more training, and more integration behind the scenes. As well, we constantly strive to improve the personal face of IT. Better processes, better training, and departmental buy-in to providing the best possible service every day are the hallmarks of our thrust for continued improvement.

Facilitate New Initiatives also ties integrally in to the other two points. Improvement requires constantly evaluating new technologies and assessing how they could benefit our customers. This runs the gamut from back-end hardware that makes integration more seamless or more secure to new applications that increase productivity and better the technology experience. One constant to these different initiatives is the continual communication with the customer. Information Technology improvement cannot occur

in a vacuum. It must remain customer-focused and it must relate directly to the improvement strategies of the other City departments. IT is committed to maintaining that communication.

Secure the Infrastructure

Above all else, securing the City's infrastructure is a critical part of the ongoing strategy to provide a quality technological platform. A stable and secure platform provides an integral foundation for improved customer service and implementing new initiatives. Unfortunately, this is also the most difficult aspect to quantify or cost justify. Patching and hardening necessitates down time. Security impacts the customer experience. Most improvements have no readily apparent deliverable to the customer base. Ultimately, a successful security program means ...nothing happens. In contrast, the cost of a breach or disclosure of private data has been illustrated time and again in recent news in terms of increased expense, bad publicity, and loss of public trust.

We have continued opportunities to improve our security posture. This is an ongoing and constantly changing effort, in which proactive work can help to significantly reduce more impacting and costly reactive work. Some projects involve minimal effort, some significant effort, and some require major expenditures of time and money.

In the past year, we have undergone two security reviews by external vendors, one by Sylint, and one by Sunera. Their recommendations are incorporated into our prioritized list, along with other best practices that we have identified. Moving forward, we will be validating our progress with annual external scans, to ensure that we are protecting the City of Sarasota's systems and data.

A cornerstone to our continued security posture will be implementing the SANS Institute's Twenty Critical Controls (http://www.sans.org/critical-security-controls/) over the course of the next three to five years. SANS is the largest source for information security training and security certification in the world. It also develops, maintains, and makes available at no cost, the largest collection of research documents about various aspects of information security, and it operates the Internet's early warning system - the Internet Storm Center. The Twenty Critical Controls are the end result of a concerted effort by a public/private security consortium that includes the NSA (National Security Agency), the CIS (Center for Internet Security), the SANS Institute, the DoD (Department of Defense), and a variety of private industry experts to define a focused set of controls that address the most prevalent attacks found in government and industry.

> *The Critical Security Controls effort focuses first on prioritizing security functions that are effective against the latest Advanced Targeted Threats, with a strong emphasis on "What Works" - security controls where products, processes, architectures and services are in use that have demonstrated real world effectiveness. Standardization and automation is another top priority, to gain operational efficiencies while also improving effectiveness. The US State Department has previously demonstrated more than 94% reduction in "measured" security risk through the rigorous automation and measurement of the Top 20 Controls.* (Twenty Critical Security Controls for Effective Cyber Defense)

We will be delineating our current progress toward these twenty controls, and establishing a defined plan to implement, monitor, and maintain the controls going forward.

Objectives

Governance
- Concerted effort to document internal procedures and policies to ensure consistency and knowledge retention
- Refresh current policies and Administrative Regulations to reflect technological advances (Social Media Policy, smart phones, Bring Your Own Device (BYOD), streaming video, conferencing, etc.) as required
- Identify any gaps in our current Policies
- Establish a document management/retention policy so as to combat data sprawl
- Standardize all server builds

Protect the Perimeter
- Network infrastructure refresh
- Proactive monitoring – intrusion detection, log aggregation, wireless management
- Continuous patching and maintenance
- Annual vulnerability scans

Disaster Recovery (DR)
- Coordinate with City departments to identify and prioritize critical applications
- Procedures and scheduled validation (testing)

Personnel Optimization
- Make maximum use of and better prepare City personnel through increased relevant training
- Training in applicable new technologies
- Cross-training
- Communication

Application Control
1) Better processes
2) Convergence on the backend
3) Across-the-board administration

Improve Customer Service

Customer service is the primary focus of the IT Department. Whether it is protecting the customers' data, providing a stable network, implementing a new initiative, or resolving a service desk request, the ultimate aim is to satisfy our customer base. To this point, our Professional Business Services group is the face and the soul of the department. Here too, we must maximize the personnel we have. Empowering our customers to resolve common issues without needing to reach out for help is mutually beneficial to the customer and to the IT Department. Toward that end, we will look to provide tools to facilitate this, such as knowledge bases, FAQs (Frequently Asked Questions), application training, and self-help video snippets. Giving our Service Desk personnel targeted training will also facilitate their continuous improvement, again providing a mutual benefit.

Objectives

Technology Improvements

- Deploy a new service desk ticketing system to provide simplified ticket submission and better reporting
- Standardize desktop and laptop images to enable quicker resolution of issues.
- Streamline security model to enable easier access changes

Transparency

- Enable users to view the status of their issues and track their position in the queue.
- Develop clear Service Level Agreement (SLA) for tickets and regularly review metrics for process improvement opportunities.

Help Customers Help Themselves

- Provide an online Knowledge Base of instructions for standard tasks, common solutions, and access to needed forms and information
- Partner with Human Resources (HR) to facilitate Customer Training on core applications

Personnel Optimization

- Provide ITSM (IT Service Management) training and certification for all Service Desk Employees to ensure alignment of IT services with business needs while emphasizing benefits to internal customers.

Facilitate New Initiatives

Technology is improving on an almost daily basis and opportunities for new efficiencies City-wide are prevalent. We are constantly looking for opportunities and synergies where technology can enable other departments to increase productivity, provide better service and/ or a better employee experience. This, in turn, will allow the City to provide better service to our constituents. The challenge is to balance the implementation and support of these new initiatives with the need to maintain a high caliber of support of the initial two focal points.

Objectives

Guest Network

- Provide a managed guest network for constituents that visit City Hall that is managed, segmented, and yet, easily accessible.

Wireless Centralization

- Centralize the management of our wireless network for better security, manageability, and compliance.

Inventory Management

- Work with Finance to revamp the SCRAP process to better integrate it with FMS II, our financial management software, eliminating duplication of entry and providing better reporting of assets

Neighborhood Development Services Department (NDS) Systems
- Partner with NDS to replace their aging software system.
- Identify opportunities to concurrently update the (Development) Billable Fees system
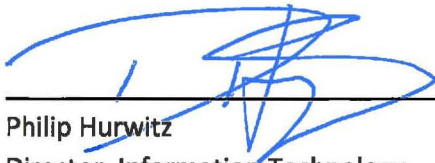
Geographical Information System (GIS)
- Expand our current offerings to provide easier, user-friendly GIS opportunities in the form of downloadable, user-configurable maps and a more enhanced online GIS Map experience.

Document Retention
- Work with Central Records to develop a process for aging and appropriately destroying old digital records, while still ensuring compliance with State of Florida retention requirements.

Urban Design Studio
- Partner with the new Urban Design Studio to facilitate the move to a form-based code. There will be lots of opportunity for technology collaboration in this graphic/communication rich environment.

Philip Hurwitz
Director, Information Technology

Date 10/1/2013

Pamela M. Nadalini, MBA, CMC
City Auditor and Clerk

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Robert M. Fournier
City Attorney

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