Empowering Marion County

Information Technology
Strategic Plan
2016 - 2020

Marion County
Information Technology
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Executive Summary

I am pleased to present the 2016 Information Technology Strategic Plan. This strategic plan provides a vision for Marion County's technology initiatives. Technology continues to evolve at an astonishing rate. This evolution will necessitate the periodic review and update of this strategic plan as the County moves forward.

We live in a connected society where mobile devices, social media, and the internet have changed the way we do business, the way we communicate, and the way in which we interact with the world around us. Technology has the potential to transform every aspect of government. By making strategic investments in technology, we can better serve Marion County's residents, businesses, and visitors by providing them convenience and choices when interacting with local government.

The objectives presented in this strategic plan challenge county departments to modernize, collaborate, and focus on customer service when evaluating their technology investments. This plan also continues Information Technology's commitment to securing the County's critical technology infrastructure as well as strengthening the qualifications and capabilities of our workforce.

Working together, we can utilize technology to empower the Marion County Board of County Commissioners Departments to better serve our community and deliver results in an efficient and fiscally responsible manner.

Sincerely,

Tom Northey
Information Technology Director

Who We Serve

Marion County Information Technology (IT) delivers and supports secure, reliable, and innovative technological solutions in a cost-effective manner to the Board of County Commissioners, its departments, and other local governmental agencies to help them serve the citizens of Marion County. The Information Technology Department serves three main customer groups:

- **Internal Departments** – There are 26 departments and offices under the Board of County Commissioners. These departments are geographically dispersed throughout the county.
- **External Agencies** – Several external agencies such as the Clerk of the Court, State Attorney, Public Defender, and Health Department receive partial support while other agencies such as District 5 Medical Examiner's Office (MEO), located in Leesburg, receive full technical support services.
- **External Customers** – Citizens, businesses, and visitors of Marion County are served through many of the services offered on the County's website and the supporting technology throughout the organization.

Each of these customer groups have unique needs and requirements that IT continues to address and prioritize. IT supports everything from network architecture and design, to managing and supporting servers, computers, telephones, mobile, video production, web, printers, and many other technologies.

Customer List	Systems	Servers	Network	Phones	Applications	GIS
County Commissioners	✓	✓	✓	✓	✓	✓
County Departments	✓	✓	✓	✓	✓	✓
Clerk of the Courts				✓	O	
Court Administration				✓		
External Customers					O	O
Guardian Ad Litem				✓		
Health Department	O		O	✓	O	
Medical Examiner	✓	✓	✓	✓	✓	
Ocala Fire Department	O	O	O		O	
Public Defender				✓		
Sheriff's Office		O	O			O
State Attorney				✓		

✓ Full Support O Partial Support

What We Support

1,573 User Accounts
1,485 Computers
79 Million Emails
12 Million Files

140 Windows Servers
161 Routers and Switches
2,136 Phones
408 Mobile Devices

173 Network Printers
160 TB Storage Area Network

Stakeholders

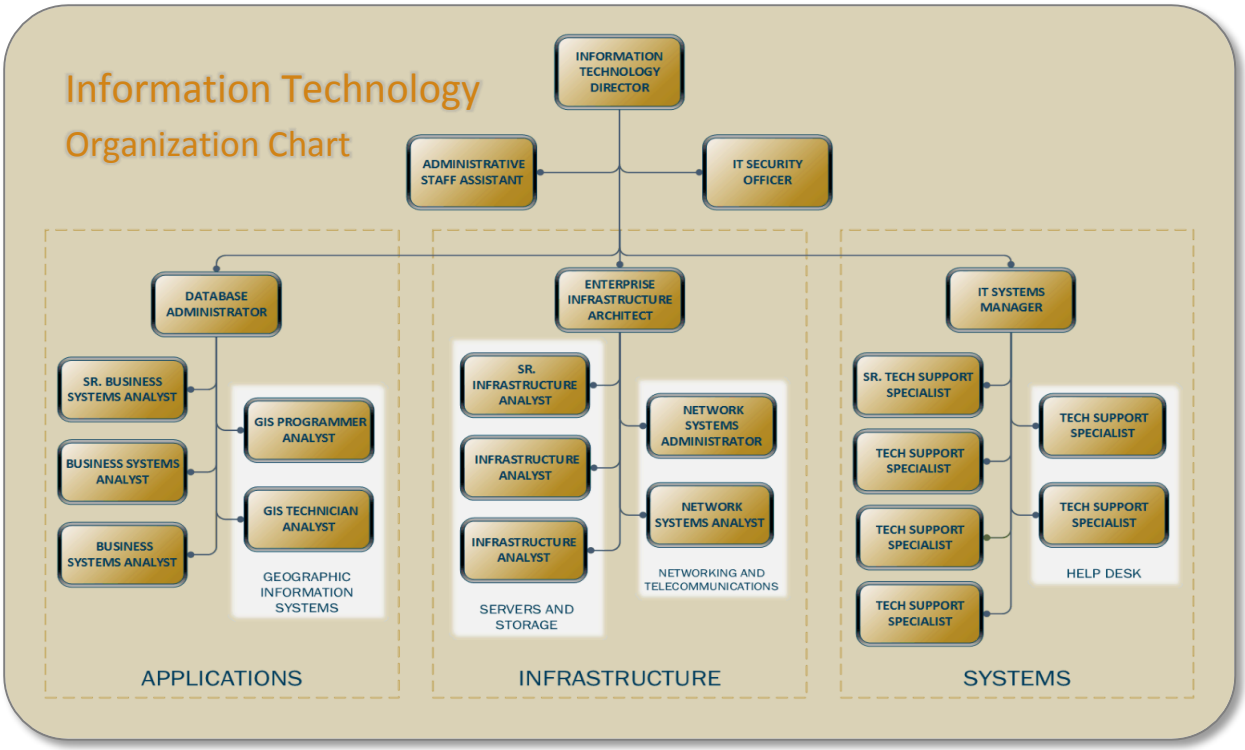
County Commissioners
County Departments
Clerk of the Courts
Court Administration
External Customers
Guardian Ad Litem
Health Department
Medical Examiner's Office
Ocala Fire Department
Public Defender
Sheriff's Office
State Attorney

Preferred Vendors

Adobe
APC
Apple
Avaya
Cartegraph
CenturyLink
Chameleon
Cisco
Dell
Document Technologies
Envisionware
ESRI
FireHouse
Florida Fiber Networks
Fuel Master
Lucity
Microsoft
Ocala Electric
Panasonic
PC Scales
Perconti
SIRE
Sirsi Dynix
TriTech
Verizon
VMware
Windstream
Zoll

Who We Are

Information Technology is comprised of four teams: Administration, Applications, Infrastructure and Systems. Each of these teams provides specialized products and services to our customers. Collectively, the IT staff bring --- years of experience and institutional knowledge to the organization.



Administration Team

The Administration Team consists of the Administrative Staff Assistant and the IT Security Officer, both of whom report directly to the Information Technology Director.

The Administrative Staff Assistant is responsible for hardware and software management, purchasing, inventory control, payroll, contracts, and other administrative duties. This position works closely with the other Marion County departments to determine their technology needs each budget cycle, and throughout the year, to ensure a seamless workflow throughout the organization.

The IT Security Officer supports network and computer security, including managing the suite of Next-Generation firewalls. This position is responsible for protecting the security, privacy, confidentiality, and integrity of information throughout the organization, by understanding, managing, and mitigating the risks associated with modern information systems and networks. The IT Security Officer manages and updates the policies and procedures for the Information Technology Department, develops a comprehensive, integrated security architecture, and serves as the administrator for of the Security Awareness Training for the organization.

This position also serves as the LASO (Local Agency Security Officer) and acts as the liaison between the Marion County Sheriff's Office and the Board of County Commissioner to ensure the privacy, confidentiality, and integrity of CJIS data and information.

Application Team

The Applications Team is responsible for providing database administration, applications support, custom report writing, and data analysis services. This team assists end-users in the management and maintenance of the software applications they use in their day-to-day business processes.

The Applications Team also provides services that include the design and maintenance of the County's public website as well as the County's internal intranet SharePoint site.

The Applications Team also includes two dedicated Geographic Information Systems (GIS) staff who are responsible for the creation, management, and maintenance of the County's Enterprise GIS. These individuals provide customer support to the County's GIS users, maintain the County's Interactive Mapping applications, and provide spatial data analysis to assist in decision making processes.

Infrastructure Team

The Servers and Storage division is responsible for the management and maintenance of the servers and storage systems that run the County's mission critical applications, including the County's website, Microsoft Exchange email system, CDPlus Permitting, Firehouse, SQL Server Databases, file and print functions, and all of the associated Windows Server Operating Systems.

This team safeguards the County's data by applying critical security patches, virus and spam protection, daily backups, and the replication of data to off-site locations for disaster recovery.

The Networking and Telecommunications division supports the County's phone systems – both wired and wireless, switching equipment, WAN connections, and wireless access points. This team works closely with all related vendors regarding the contracts and billing for telecommunications services.

In addition, this team works closely with the Facilities Management Department on new construction and building remodeling to ensure compliance with appropriate networking and cabling standards and cost effectiveness.

Systems Team

This team provides front line support for end users including the deployment, repair, and disposition of computer hardware and software, on-call after hours support services for Public Safety and Hazmat, and assistance in the use of desktop productivity software.

The Systems Team also includes the Help Desk which provides services to end users through telephone and remote desktop support. The Help Desk also creates and routes IT work orders to the appropriate staff to ensure a timely resolution of customer concerns.

The Systems Team establishes the appropriate computer standards for the County and provides recommendations to County Departments based on their needs and current technology best practices.

Our Mission

The mission of the Information Technology Department is to provide high-quality customer service by delivering secure, reliable, and innovative technological solutions in the most cost-effective manner to the Board of County Commissioners, its departments, and other local governmental agencies to better serve the citizens of Marion County.

Our Vision

Our vision is to continue to provide innovative technologies and services fundamental to the support of Marion County government; this will increase overall efficiency, reduce paperwork and ensure that the computing infrastructure remains highly available and secure. This vision is driven by working in partnership with the County departments as they continue to streamline business processes to meet changing needs and priorities. Information Technology values strong relationships with its customers by delivering prompt, courteous, high-quality services that emphasize customer satisfaction and security.

Our Goals

Continue to enhance security to protect the integrity and availability of County data using advanced technologies, security best practices and heighten employee security awareness. Enhance the current disaster recovery plan and infrastructure to improve business continuity. Continue to improve service levels and provide high-quality customer service to enable departments to better serve the citizens of Marion County. Analyze current and emerging technologies in order to make recommendations for improving and streamlining County services. Increase awareness of available County data and technologies and transform business practices to utilize the benefits of automation.

A Look Back Over the Years

The Marion County Information Technology Department has continued to evolve over the previous two decades to keep up with the rapidly changing pace of technology and business needs of the County.

1995

The Data Processing Department, today known as IT, utilized a "mainframe" operating on a 10BASE5 network. Within a short time, the department was retitled to Information Systems (IS) and began the transition to a client server network.

1996

The client server network was comprised of Novell Servers and Windows NT 4 workstations. Dell was selected as the standard hardware manufacturer. Corel Word Perfect Office Suite was established as the standard for word processing and spreadsheet needs.

1997

Oracle was chosen as the enterprise database platform and Delphi as the standardized programming language. Compatible departmental applications were selected such as Alliance for HR. ESRI was selected as the standardized GIS software platform.

1998

The Applications Development Group was formed for in-house programming. Parks Reservation Application was developed by the group. CD-Plus was evaluated and selected for community development needs.

1999

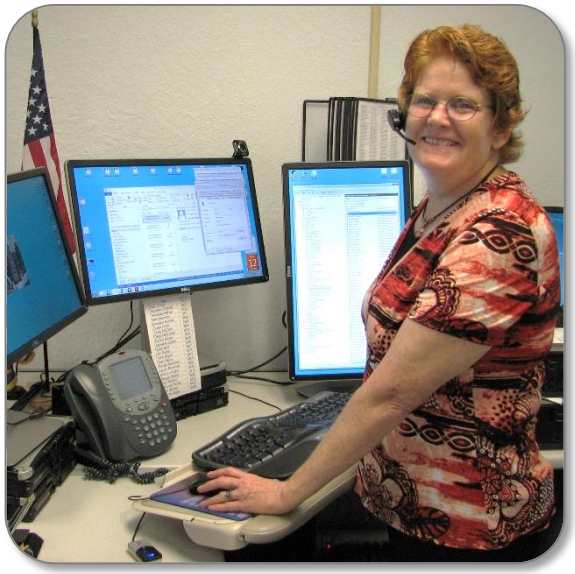
IS worked around the clock in preparation for the new millennium. Efforts were successful and Y2K did not stop operations.

2000

Several in-house custom developed applications such as REBA, MCDTS and MSTU were created for many County Departments. The County's website was established.

2001

A Private Branch Exchange (PBX) phone system was installed for the County. This implementation allowed for communication cost savings while providing better service and additional features.



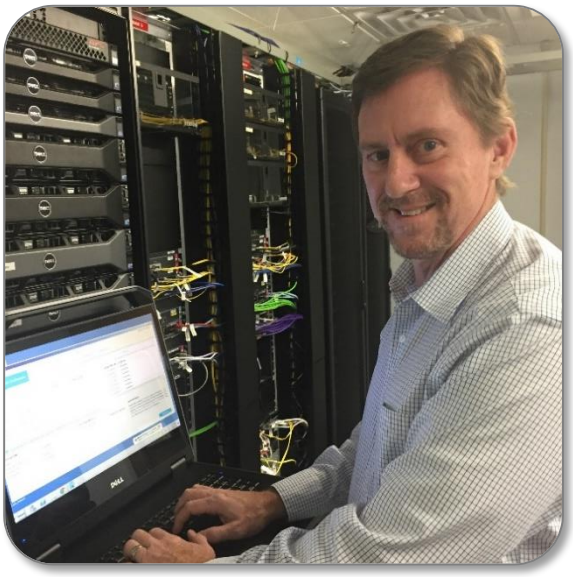
2002

A decision was made to move to a homogeneous Microsoft platform for servers, databases, workstations, and office suite. The County entered into a Microsoft

Enterprise Agreement. Additionally, Citrix was selected to host server based applications across bandwidth challenged remote connections.

2003

Information Systems continued moving to Microsoft technologies with the installation of SQL for databases, Exchange for email, and SharePoint for the Intranet. The decision was made to use more off-the-shelf applications and less custom developed in-house applications. With this decision, the Applications Development Group was disbanded. An on-call technician was established to improve customer service.



2004

IS assumed the support role for the Library's technology needs. Today, the Library has 433 computers comprising 29% of the County's total computer inventory.

2005

The County's email system added the ability to sync emails and calendars remotely to mobile devices. Also, to comply with Florida Public Records requirements, Information Systems implemented an email archive system.

2006

On call coverage was expanded to provide first responder support for the Fire Rescue Hazardous Materials Team deployments and the Mobile Command Center. IS assumed the support role for the Court House security office and surveillance system servers.

2007

Marion County Information Systems assumed the computer support service role for the District 5 Medical Examiner's Office (MEO) located in Leesburg, FL.

2008

EMSA was disbanded and IS assumed the support role for ambulance technologies. A public wireless network was established for the Library patrons.

2009

Information Systems title was changed to Information Technology (IT). IT installed the first virtual host, running two servers as a proof of concept.

2010

SIRE was installed as the County's Agenda System with live video streaming. Wireless technologies were upgraded and expanded to include a second non-library public Wi-Fi. IT conducted an extensive security evaluation with a bonded security firm.

2011

IT assumed technological support for the Public Safety Communications Center. The Library public access computers were migrated to an On Demand Desktop Streaming (ODDS) technology. iPads were deployed to several senior staff and some select field personnel.

2012

IT began the construction of a robust on premise private cloud using state-of-the-art virtualization technology. An electronic Pay-for-Performance system was developed in-house. ePlans was installed for on-line plan submittals.

2013

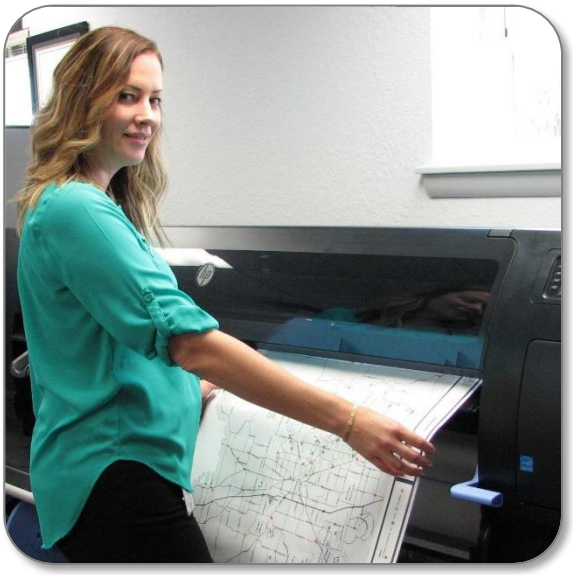
Commvault was selected as a single enterprise solution to replace the County's end-of-life backup and email archive systems. Additionally, a second Triennial IT Security Evaluation was conducted and the migration from Windows XP to Windows 7 was completed.

2014

IT installed state-of-the-art Next Generation Firewalls, advanced VPN, and email security services to replace aging technologies. IT built an on-site datacenter for the Utilities Department in Belleview. County wide security awareness on-line training was required for all employees. Also, the County's website was redesigned, based on feedback from citizen surveys and the County's on-line interactive mapping system was updated to a modern and user friendly interface.

2015

The IT Department underwent a re-organization and consolidation under new leadership. Additionally, private cloud and virtualization efforts were expanded to include the Medical Examiner's Office servers.



2016

IT modernized the BCC Auditorium AV technology to include HD TVs and HD streaming video with a touch enabled computerized presentation podium. An updated electronic patient care reporting system, ZOLL, went live for Fire Rescue. Current and innovative efforts underway, include the development of a mobile Citizen Service Request App, creation of a "Public Safety Private Cloud", eForms with workflows, and CD Plus mobile.

SWOT Analysis

Strengths:

- ✓ Customer Service Driven
- ✓ Implementation of Innovative Technology
- ✓ Experienced and Dedicated Staff
- ✓ Standardization of Technology *(Hardware, Operating Systems, Productivity Tools)*
- ✓ Staff Leads in Agency Comparisons *(High Computer to Tech Ratio)*
- ✓ Pro-Active with Security

Weaknesses:

- ✓ Staff Reaching Retirement
- ✓ Funding Limitations
- ✓ Limited Staff Resources
- ✓ Competitive Recruitment and Retention

Opportunities:

- ✓ Consolidation and Modernization of Departmental Applications
- ✓ Technology Evolving
- ✓ Increase Staff Training and Certifications
- ✓ Continue to Increase Security Awareness Training
- ✓ Documentation
- ✓ Policy Enforcement
- ✓ Knowledge Transfer and Succession Planning
- ✓ Collaboration with Constitutional Offices and Agencies

Threats:

- ✓ Budget Constraints
- ✓ Rapid Technology Evolution
- ✓ Rising Malware and Ransomware
- ✓ Social Engineering
- ✓ Loss of Institutional Knowledge
- ✓ Legacy and Unsupported Software

The Planning Process Overview

The strategic plan for Information Technology will serve as a guide for providing necessary services to the County Departments, our partner agencies, and the public. A team of senior staff from each division was assembled to review the overall operations of Information Technology. The team discussed the structure of the plan and vetted the following elements:

- ✓ Identify Stakeholders and Partner Agencies
- ✓ Identify Strengths and Opportunities
- ✓ Define Current Situation
- ✓ Define Vision
- ✓ Develop Strategic Objectives to Meet Vision
- ✓ Develop Implementation Program to Reach Strategic Objectives

This team consists of the following staff members:

- ✓ Tom Northey, Information Technology Director
- ✓ John Meza, IT Systems Manager
- ✓ Jim Saullo, Database Administrator
- ✓ Bret Macolino, Enterprise Infrastructure Architect
- ✓ Craig McDade, IT Security Officer
- ✓ Laurie Brummel, Administrative Staff Assistant

STRATEGIC OBJECTIVE 1

Mobile Government

Mobile Apps to Engage Citizens

Lead with technology by implementing mobile solutions that benefit our citizens by conveniently offering services through mobile devices.

Citizen Service Request Mobile App		
Allow real-time reporting of needed county services.		
FY 2016	180 Days*	$5K + Internal**

Permit Inspection Mobile App		
Allow scheduling of permit inspections from contractors and citizens.		
FY 2017	180 Days*	$11K**

Mobile Workforce Empowerment

Working with field staff to develop in-house solutions or assist in the integration of third party software solutions that increase field staff productivity.

Collector Apps are solutions for collecting field data to improve operational efficiencies. The following solutions can be developed in-house using existing GIS technology. Similar applications for future needs can be provided as opportunities are identified.

Fire Hydrant Inspections Mobile App		
Allows real-time data asset management for hydrants.		
FY 2017	90 Days*	Internal **

Search and Rescue Mobile App		
Allows real-time field data collection to aid missing person searches.		
FY 2017	90 Days*	Internal **

Asset Management Apps

Assist with updating, replacing, and/or integrating newer technology into existing solutions utilized by field technicians. Cartegraph is utilized by Office of the County Engineer, Parks and Recreation, and Facilities.

Cartegraph Operations Management System Upgrade		
Integrates GIS and GPS technology to make work requests and asset management real-time and accurate.		
FY 2017	180 Days*	$200K **

* Estimated time required to implement proposed solution. ** Estimated budget required

STRATEGIC OBJECTIVE 2

Leadership and Collaboration

Build Strong Alliances

Resource and knowledge sharing across agencies to complement each other's strengths and weaknesses. Increase buying power by partnering to leverage better price points when purchasing technology. Develop strategies to address challenges to our community and implement innovative technologies.

Working Together		
Build a strong working relationship with the IT Groups from the Clerk of the Courts, Court Administration, City of Ocala, Health Department, Property Appraiser, Supervisor of Elections, and Tax Collector. Facilitate regular meetings to share information and collaborate.		
FY 2017 - 2020	Ongoing*	Internal**

Internal Consulting and Analysis

Be the "go to" resource for all the County's technology needs. Provide expertise in the analysis of software, hardware, and system needs combined with excellence in customer service.

View technology opportunities from an organizational level and present enterprise solutions that encompass as many departments as possible. Guide Departments to adopt innovative technologies and share resources. Eliminating redundant software systems from multiple vendors simplifies the organization, lowers the total cost of ownership (TCO) and increases efficiency.

Partner Strategic Initiatives		
Meet with departments annually to discover and align strategic initiatives. Update the IT Strategic Plan annually based upon agreed strategies.		
FY 2017 - 2020	Annually*	Internal**

Adopt Innovative Technologies		
Guide Departments to adopt innovative technologies and share resources. Track benefits annually.		
FY 2017 - 2020	Annually*	Internal**

* Estimated time required to implement proposed solution. ** Estimated budget required

STRATEGIC OBJECTIVE 3

Efficient and Reliable Infrastructure

Private "Marion Cloud" Services

Marion County Information Technology has built a robust on premise Private Cloud with disaster recovery capabilities using state-of-the-art technology. The "Marion Cloud" currently hosts 74% of the County's servers and data requirements. This is accomplished using virtualization technology that has elasticity and fault tolerance to provide high availability and up time.

Enterprise Databases		
Virtualize and consolidate the County's enterprise database servers using the Marion Cloud. This reduces hardware and licensing costs while increasing efficiency and disaster recovery capabilities.		
FY 2016 - 2017	18 Months*	Internal**

Private "Marion Public Safety Cloud" Services

Build a segregated "Marion Public Safety Cloud" to host (18) 9-1-1 Computer Aided Dispatch (CAD) and mobile interface servers. The cloud will comply with Criminal Justice Information Services (CJIS) requirements, reduce hardware costs, and increase fault tolerance capabilities. The cloud began construction in FY 2016 using a phased approach. The "Marion Public Safety Cloud" is scheduled for completion in FY 2018 pending budget approvals.

Public Safety Private Cloud		
Build a segregated "Marion Public Safety Cloud" to host (18) 9-1-1 Computer Aided Dispatch (CAD) and mobile interface servers.		
FY 2016 - 2018	3 Years*	$131K**

Optimize Mix of On Premise and Hosted Solutions

Utilizing on premise and hosted solutions is key to optimizing the way Information Technology provides data and reporting capabilities to the employees and citizens served. Each solution is analyzed for security requirements, pricing, features, and benefits. Based on the findings the optimal solution is selected. This is an ongoing effort for new and existing technologies.

On Premise and Hosted Solutions Analysis		
Explore on premise and hosted solutions to find the most cost effective and beneficial solutions. Track findings annually.		
FY 2016 - 2020	Ongoing*	Internal **

* Estimated time required to implement proposed solution. ** Estimated budget required

STRATEGIC OBJECTIVE 4

Modernize Existing Technologies

Operating Systems

Computer operating systems must be maintained with a current supported version to receive security updates and bug fixes. The County's nearly 1,500 computers are currently standardized on Windows 7 (released Oct 22, 2009) which is under extended support until January 14, 2020. Windows 8 was not adopted by the County due to significant user interface challenges. Windows 10 has overcome these concerns and the County is ready to move forward pending compatibility testing of all the County software and peripherals. The operating system upgrades are included as part of the Microsoft Enterprise Agreement. Maintaining up-to-date departmental software, hardware, and peripherals for operating system upgrade compatibility remains an ongoing challenge.

Windows 10 Enterprise		
Update approximately 1,500 computers to Windows 10 Enterprise.		
FY 2017 - 2019	3 Years*	Internal **

Telecommunications Services

The County's Avaya PBX Phone System supports over 2,100 phones for the Board of County Commissioners, Judicial Center, Health Department, and Medical Examiner's Office. The 15-year-old phone system has entered a limited "best effort support" from the manufacturer.

The County has reached a critical decision point whether to spend significant funding to update or replace the phone system. Several customer service and productivity enhancements are available in modern systems including: call centers, unified communications (voice, video and IM), Microsoft Outlook integration, Interactive Voice Response (IVR), and real-time communications for computers and mobile devices.

IT is currently conducting research and exploring options. A needs assessment will be conducted to match product features with user and customer requirements. The return on investment and total cost of ownership over a 10-year period will be analyzed. Preliminary findings indicate a new system with an approximate cost of $1.2M.

Enhance Telecommunications Services		
Update or replace the enterprise phone system nearing end-of-life.		
FY 2016 – FY 2017	2 Years*	TBD**

* Estimated time required to implement proposed solution. ** Estimated budget required

STRATEGIC OBJECTIVE 5

Operational Efficiency

Team Collaboration Software

SharePoint is an enterprise team collaboration software platform that "empowers individuals, teams, and organizations to intelligently discover, share, and collaborate on content from anywhere and on any device" (Microsoft, 2016).

The SharePoint 2016 structure includes improved team sites for collaboration and document sharing, Wikis, notifications, automation of workflow processes, individual "My Sites", mobile technologies, and more. Promoting SharePoint as the central hub for County employees will increase efficiencies across the organization and encourage a mobile workforce.

Upgrade SharePoint 2010 to 2016		
The proposed FY 2017 budget includes $20K for Professional Services to recruit a Microsoft Business Partner to assist with the upgrade planning and server farm design.		
FY 2017 - 2018	18 Months*	$20K + Internal **

eForms with Workflow Automation

Electronic forms (eForms) provide digital templates for data entry and reporting. This technology can improve the workflow process through automation, one-step reporting, and online access. Information Technology developed an electronic Travel Form in FY 2016 using InfoPath and SharePoint.

In addition to SharePoint, there are specific enterprise systems with eForm offerings. For example, Kronos offers an absence request eForm with work flow automation and electronic approvals.

eForms with Workflow Automation		
IT is refining the development process through lessons learned and is planning to release four standardized forms per year over the next three years (12 eForms total).		
FY 2017 - 2019	3 Years*	TBD **

* Estimated time required to implement proposed solution. ** Estimated budget required

STRATEGIC OBJECTIVE 6

Managing Risks

Disaster Recovery Plan

IT has spent the past several years building a robust private cloud with advanced disaster recovery capabilities. A comprehensive plan needs to be developed by working with County Departments to address the organization's mission critical technology systems in regards to service level agreements and priority levels. This plan must be tested annually with Departments to ensure that critical County systems are operational and available during and after a disaster.

Disaster Recovery Plan		
Develop, implement and test the IT Disaster Recovery Plan.		
FY 2017	1 Year*	Internal **

Security Awareness

The most secure systems are prone to failure if employees are not educated on security risks and follow best practices. Information Technology's top priority is to keep the County's systems and data secure at all times. To achieve this goal, the organization's senior management must help promote an employee-centric security strategy that focuses on user accountability.

Security Awareness Training		
Require all employees who utilize County technology to complete the IT Security Awareness Training on an annual basis.		
FY 2016 - 2020	Annually*	$8K Triennial**

Security Informational Campaign		
Create and maintain a security information campaign using a central SharePoint portal site with employee news alerts.		
FY 2017 - 2020	Ongoing*	Internal**

Security Policies

Update and maintain enforceable administrative IT security policies to comply with regulatory requirements and generally accepted best practices. Establish guidelines to properly track, document, and report incidents to appropriate agency officials and/or authorities.

IT Security Policies Handbook		
Review and update as appropriate the IT Security Policies Handbook Annually. Present updates to the County Administrator for review and adoption as Administrative Policy.		
FY 2017 - 2020	Annually*	Internal **

* Estimated time required to implement proposed solution. ** Estimated budget required

STRATEGIC OBJECTIVE 6

Managing Risks (Continued)

Expand Next Generation Firewall Technology

The County has invested in the latest "Next Generation Firewall" technology to protect the Local Area Network (LAN). This technology needs to be expanded to replace aging firewalls at remote sites across the Metropolitan Area Network (MAN). Utilizing advanced firewall intelligence will prevent potential threats to the MAN and comply with regulatory requirements.

Expand Next Generation Firewall Technology		
The proposed FY 2017 IT and Utilities budget include a combined $34K to replace ageing firewalls at 27 remote sites.		
FY 2017 - 2018	2 Years*	$34K**

Network segregation

Network segregation is an audit recommendation to enhance security of the internal network. This will ensure that systems processing sensitive and confidential information such as CJIS, SCADA, PCI, and HIPAA are inaccessible to unauthorized personnel. Due to the complexity and size of the County's network, this project will undertake a significant amount of work and network redesign.

Internal Network Segregation		
Redesign the County's network to segregate all the various segments.		
FY 2017 - 2019	3 Years*	Internal**

* Estimated time required to implement proposed solution. ** Estimated budget required

STRATEGIC OBJECTIVE 7

Capable Workforce

Continuing Education Plan

Technology is changing at an astonishing rate. Continuing education and up-to-date certifications are key to maintaining a cutting-edge workforce in the IT profession. During the recession, and in recent years, training budgets have been drastically reduced. IT training courses range from $1,500 to $3,000 not including certification exams. Information Technology recommends adding additional funding to the IT budget under the Training and Education account.

Continuing Education Plan		
Establish additional funding for employee continuing education. Beginning in FY 2018 budget $1,000 per employee for training and certification exams per year and slowly increase this annually to achieve $1,500 per employee by FY 2020.		
FY 2018 - 2020	Ongoing*	$22K - $33K Annually**

Training and Certification Requirements Plan

Information Technology recommends developing a minimum training and certification requirements plan. Staff who achieve and maintain up-to-date annual requirements would be eligible for a $50 monthly compensation ($600 annually per employee). Additionally, this would be a retention and recruitment point and help us compete with other agencies.

Training and Certification Requirements Plan		
Implement training and certification requirements plan in FY 2018.		
FY 2018 - 2020	Ongoing *	$12,600 Annually **

Elevate County Employee Technical Awareness

Create “How To” manuals and short videos hosted on the “Inside” portal to elevate employee proficiency with County technologies. Spearhead user groups for specialized applications where knowledge can be shared for the greater good of the organization.

How To Manuals		
Create a minimum of four “How To” manuals or videos per year.		
FY 2017 - 2020	On Going *	Internal **

Technical User Groups		
Create a minimum of three user groups that meet on a regular basis.		
FY 2017 - 2020	On Going *	Internal **

* Estimated time required to implement proposed solution. ** Estimated budget required

STRATEGIC OBJECTIVE 8

Customer Relations

Deliver the "WOW" experience

IT strives to provide excellence in customer service. This is done by addressing each customer's needs thoughtfully and in unexpected ways. Taking a pro-active approach, adapting quickly to changing needs, and understating each customer is unique and part of Information Technology's daily practices. In order to better gauge our customers' satisfaction, IT will revamp the work order survey to include a grading matrix. This will allow us to fine tune our processes and provide constructive feedback to the IT staff.

Revise the IT Work Order Survey		
Revise the IT customer survey to include grading matrix.		
FY 2017	90 days *	Internal **

Service Level Agreements (SLAs)

Evaluate SLAs to realign delivery of services with the current expectations and business requirements of our customers. With customer service being the primary focus; define, document, agree, monitor, measure, report, and review the level of IT services provided and adjust SLAs as appropriate. Ensure all parties understand and agree to the level of service being delivered.

Revise Service Level Agreements (SLAs)		
Revise SLAs to meet current business requirements.		
FY 2017	90 days *	Internal **

Establish Key Performance Indicators (KPIs)

Establish KPIs to evaluate the success of the department. Consider strategic objectives, security measures, system uptime, and customer satisfaction. Revise as necessary when the needs of the organization evolve.

Establish Key Performance Indicators (KPIs)		
Establish KPIs and track performance annually.		
FY 2017 - 2020	Annually *	Internal **

* Estimated time required to implement proposed solution. ** Estimated budget required

STRATEGIC OBJECTIVE 9

GIS Consolidation

GIS Consolidation

The Information Technology Department has been tasked by County Administration to lead a GIS Steering Committee to identify ways to improve efficiencies in customer service using GIS technologies through consolidation, modernization and streamlining processes.

The committee is currently exploring ways to consolidate GIS positions throughout the organization to a central GIS group within the Information Technology Department.

GIS Consolidation		
Consolidate GIS positions to central group within IT Department.		
TBD	Ongoing*	TBD**

GIS Coordinator

Establish a GIS Coordinator position to provide direction of Countywide GIS activities, GIS application development, GIS database development and administration, and staff training.

GIS Coordinator Position		
Provides overall direction of countywide GIS activities.		
TBD	TBD*	$65K**

Establish Countywide Data Standards		
Provides a consistent framework for GIS Data.		
FY 2017	180 Days*	Internal**

Workforce Empowerment

Establish a GIS training program to provide staff with opportunities to increase their skill-level and familiarity with GIS and the associated software.

Instructor-Led GIS Training		
Provides training of ESRI software from certified instructors.		
TBD	Ongoing*	$15K**

Informational GIS Workshops		
Allows staff to learn about GIS and how to apply this technology to their positions.		
FY 2017	90 Days*	Internal **

* Estimated time required to implement proposed solution. ** Estimated budget required

STRATEGIC OBJECTIVE 9

GIS Consolidation (continued)

Parcel Layer Management

Develop a strong working relationship with the Marion County Property Appraiser's Office to create a system to update and manage the parcel layer.

A parcel fabric would allow for a connected editing environment within the parcel network and the associated layers such as Future Land Use, Zoning, Street Centerlines, and the like.

Parcel Fabric Creation		
Create and maintain a parcel fabric system to manage and maintain the parcels and the associated GIS data.		
TBD	1 Year*	$75K **

* Estimated time required to implement proposed solution. ** Estimated budget required

Financial Projections, Performance Measures, Benchmarks

Expenditures

	FY 2015 Actual	FY 2016 Adopted	FY 2017 Proposed	FY 2018 Projected	FY 2019 Projected	FY 2020 Projected
Personnel	$1,408,621	$1,477,153	$1,461,900	$1,482,184	$1,504,492	$1,529,044
Operating	$1,013,758	$1,152,914	$1,198,016	$1,147,186	$1,122,948	$1,244,565
Capital	$483,444	$237,885	$219,434	$268,051	$326,407	$234,441
Debt Services	$139,458	$142,946	$139,460	$45,220	$45,220	-
Total	**$3,045,281**	**$3,010,898**	**$3,018,810**	**$2,942,641**	**$2,999,067**	**$3,008,050**

Performance Measurers and Benchmarks

	FY 2014 Actual	FY 2015 Actual	FY 2016 Adopted	FY 2017 Proposed	FY 2018 Projected	FY 2019 Projected	FY 2020 Projected
Number of PBX Phones	2,112	2,136	2,115	2,150	2,175	2,200	2,225
Number of Physical Servers	43	35	40	30	35	35	35
Number of Virtual Servers	91	103	95	135	140	150	160
Number of Workstations	1,456	1,485	1,465	1,500	1,510	1,520	1,530
Workstations per Field Technician	365	372	367	375	378	380	383

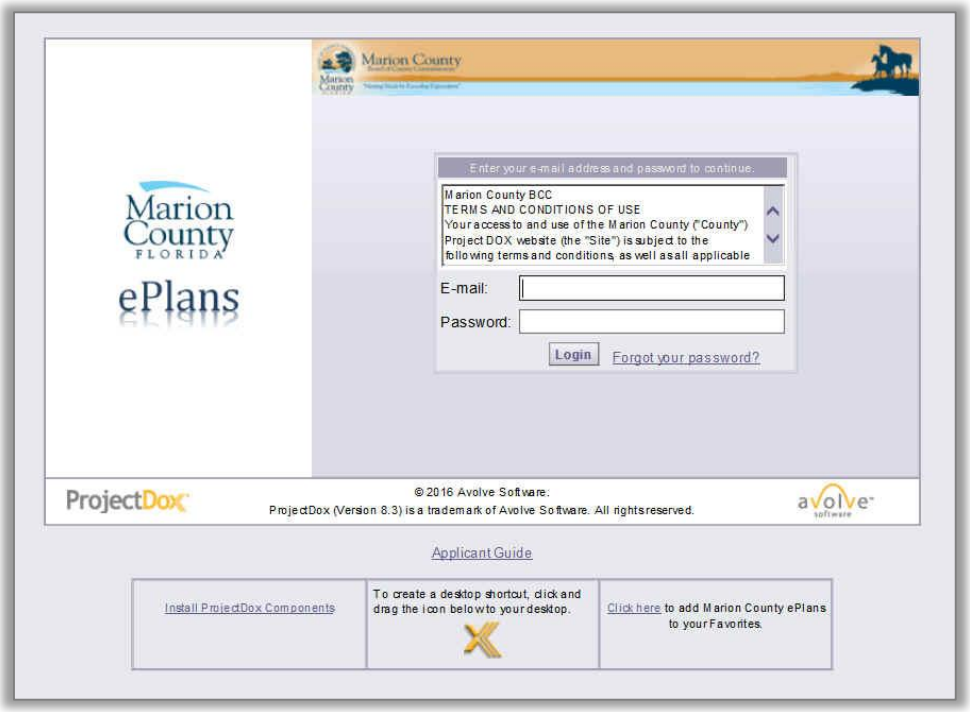
Appendices

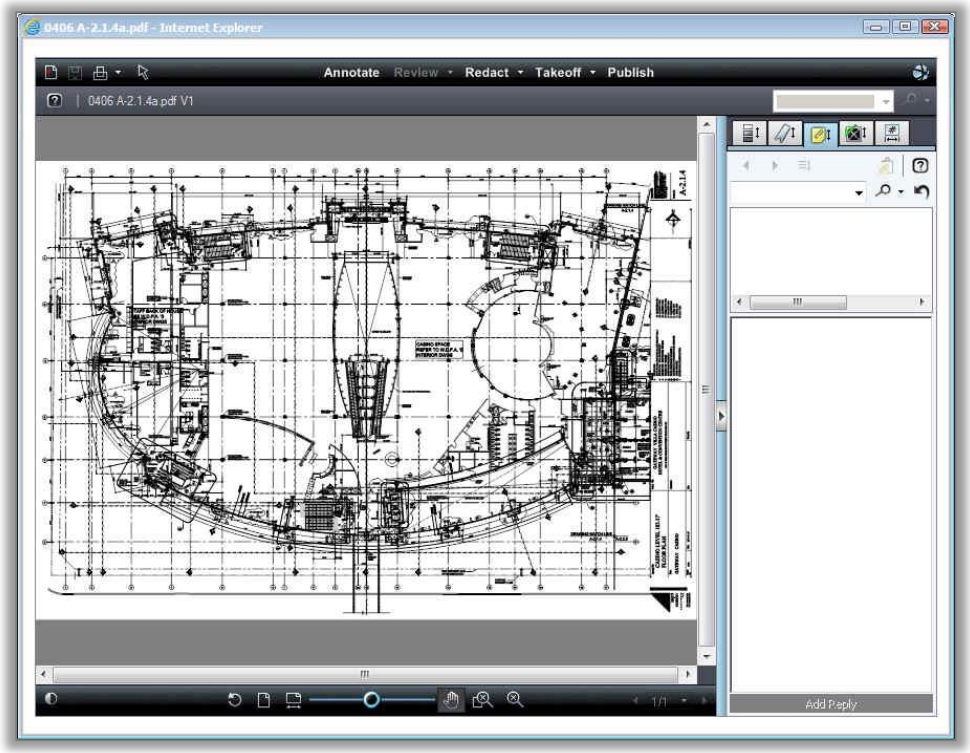
In-House Application Development

Information Technology has produced several online applications for internal and external customers. Some examples include, the Online Job Application and Employee Pay for Performance.

ePlans (Electronic Plans) Submittal and Review

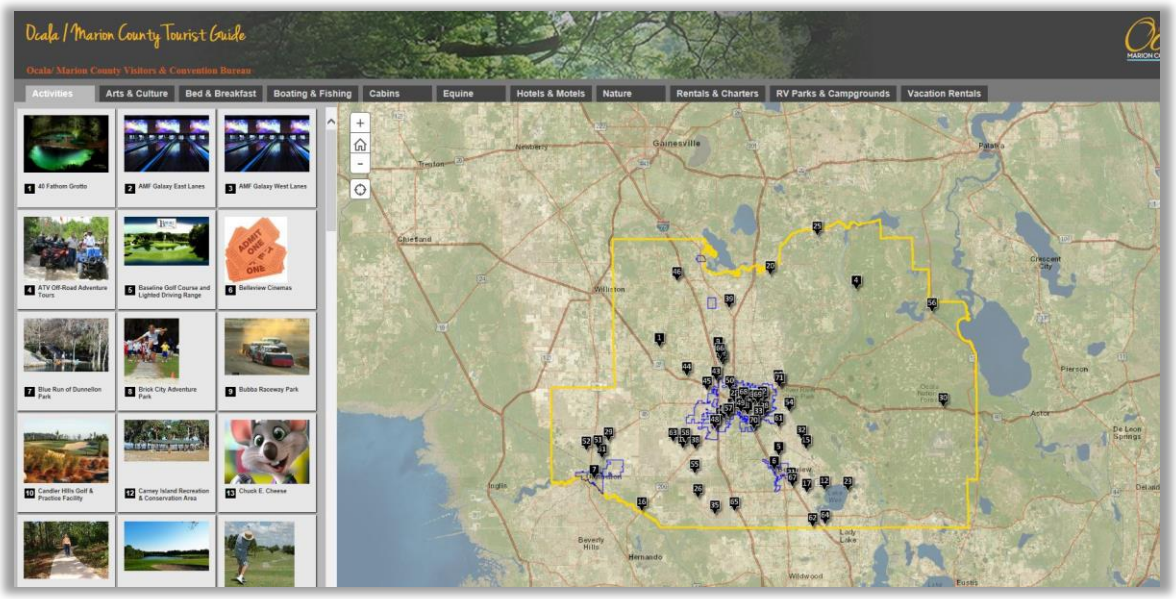
External portal for viewing commercial and residential building plans.

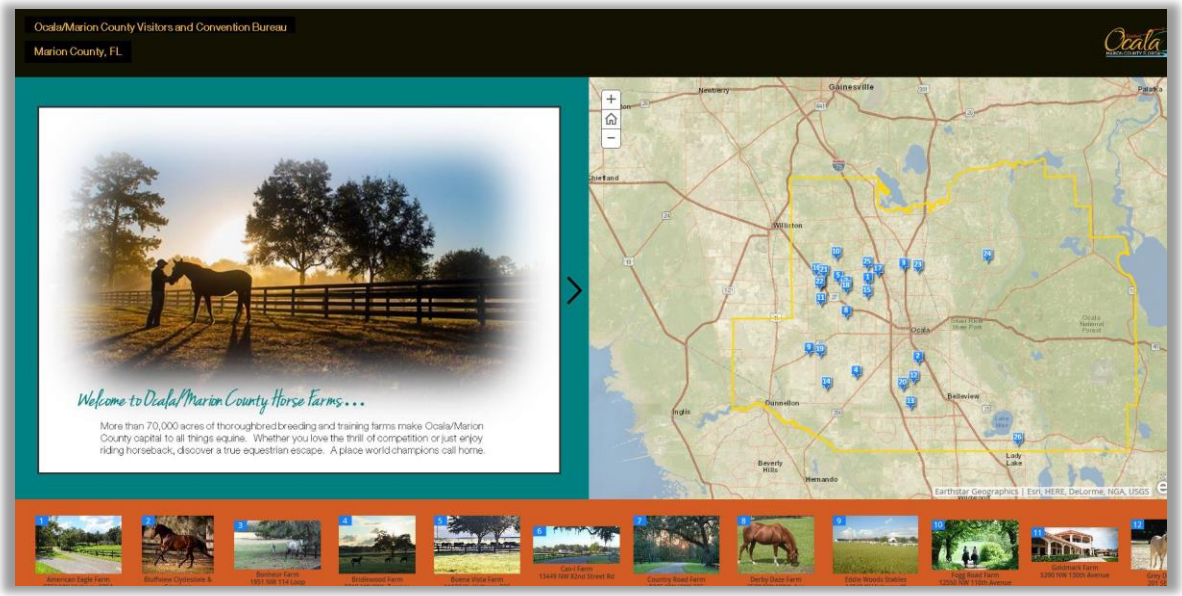




Story Maps

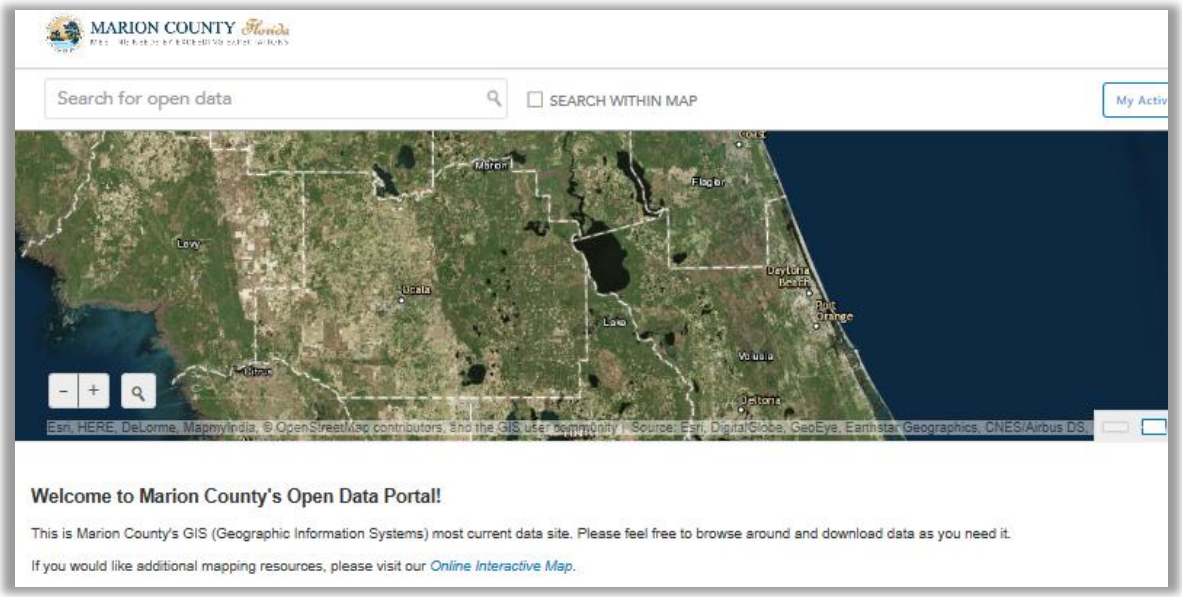
Information Technology GIS staff work closely with County Departments and external agencies for spatial analysis and mapping needs. One example is the interactive story maps produced for the Ocala/Marion County Visitors and Convention Bureau. These story maps showcase various attraction locations and horse farms within our community.





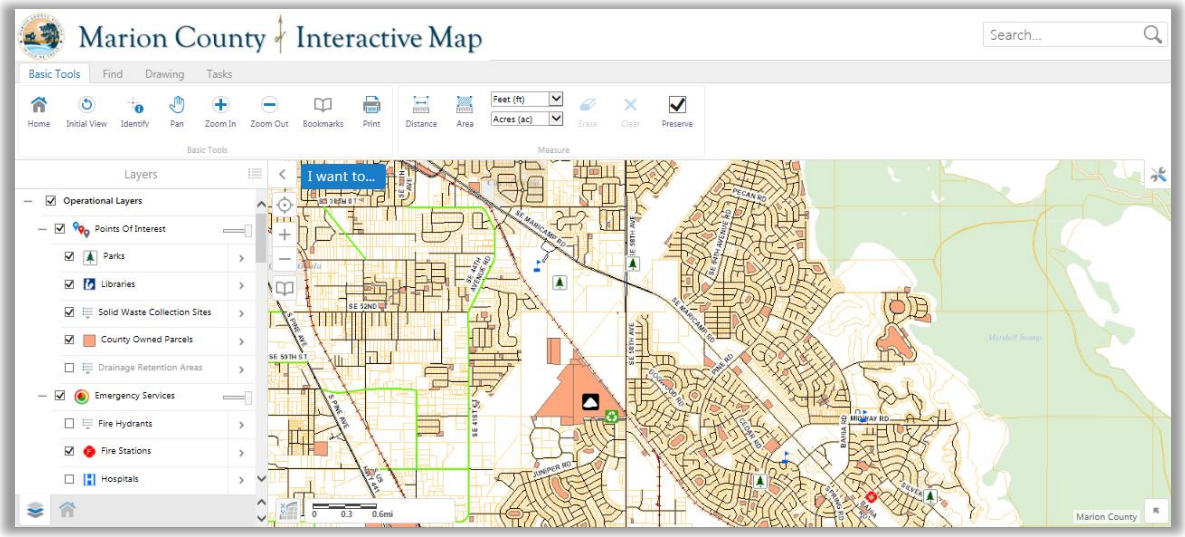
Open Data Portal

The Marion County Open Data Portal is a public facing website created to share current GIS Data with the Citizens of Marion County, FL.



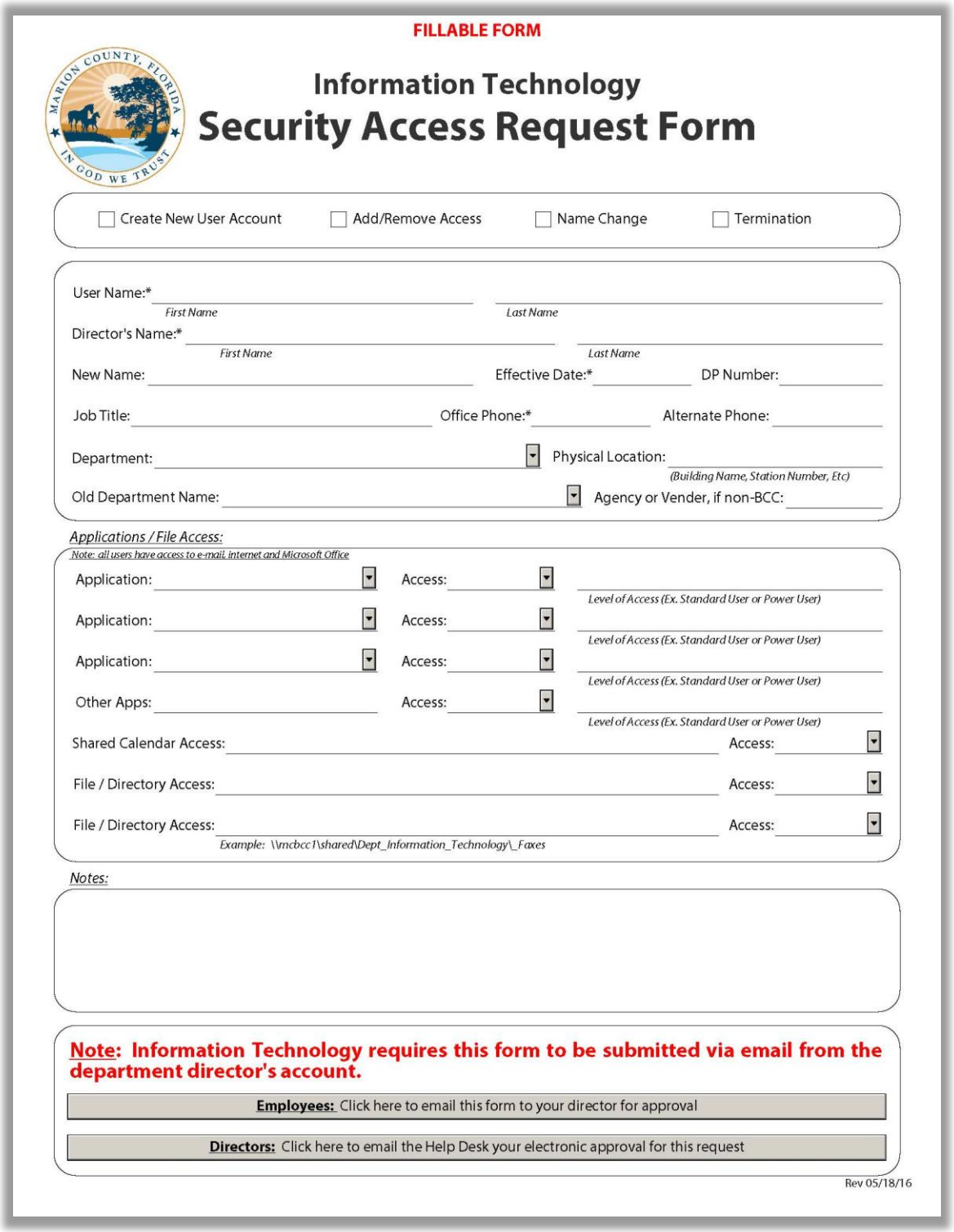
Online Interactive Map

Online interactive mapping website available to the public and county employees.



Information Technology Security Access Request Form

This form is used to request a new user account, name change, an employee termination and/or to add or remove access of an employee.



FILLABLE FORM

Information Technology
Security Access Request Form

☐ Create New User Account ☐ Add/Remove Access ☐ Name Change ☐ Termination

User Name:* _____ _____
First Name Last Name

Director's Name:* _____ _____
First Name Last Name

New Name: _____ Effective Date:* _____ DP Number: _____

Job Title: _____ Office Phone:* _____ Alternate Phone: _____

Department: _____ Physical Location: _____
(Building Name, Station Number, Etc)

Old Department Name: _____ Agency or Vender, if non-BCC: _____

Applications / File Access:

Note: all users have access to e-mail, internet and Microsoft Office

Application: _____ Access: _____ _____
Level of Access (Ex. Standard User or Power User)

Application: _____ Access: _____ _____
Level of Access (Ex. Standard User or Power User)

Application: _____ Access: _____ _____
Level of Access (Ex. Standard User or Power User)

Other Apps: _____ Access: _____ _____
Level of Access (Ex. Standard User or Power User)

Shared Calendar Access: _____ Access: _____

File / Directory Access: _____ Access: _____

File / Directory Access: _____ Access: _____
Example: \\mcbcc1\shared\Dept_Information_Technology_Faxes

Notes:

Note: Information Technology requires this form to be submitted via email from the department director's account.

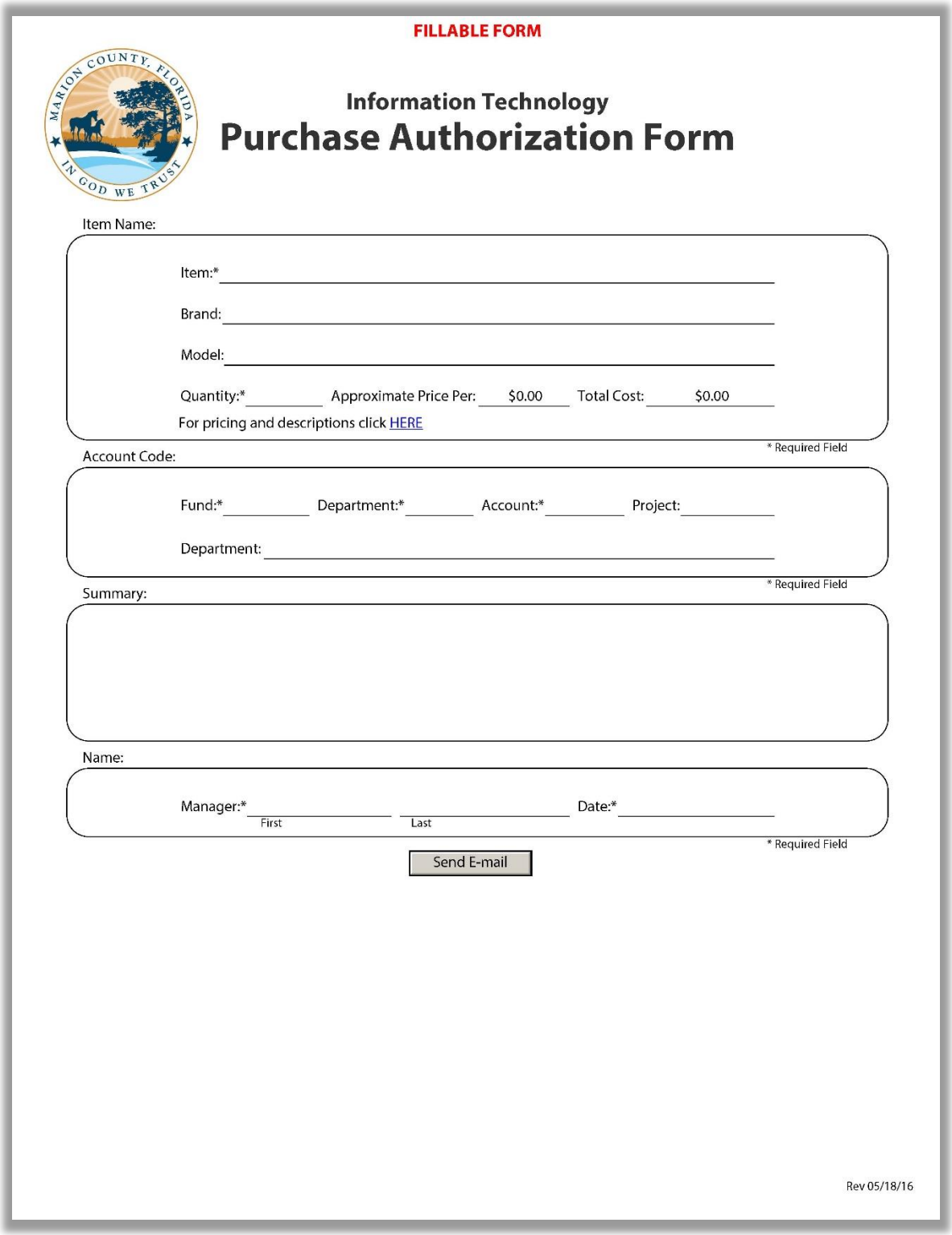
Employees: Click here to email this form to your director for approval

Directors: Click here to email the Help Desk your electronic approval for this request

Rev 05/18/16

Information Purchase Authorization Form

This form is used by departments to request technology related purchases. IT reviews each request to ensure compatibility, alignment with business needs, and cost effective procurement practices are followed.



FILLABLE FORM

Information Technology

Purchase Authorization Form

Item Name:

Item:* _____

Brand: _____

Model: _____

Quantity:* _____ Approximate Price Per: $0.00 Total Cost: $0.00

For pricing and descriptions click HERE

* Required Field

Account Code:

Fund:* _____ Department:* _____ Account:* _____ Project: _____

Department: _____

* Required Field

Summary:

Name:

Manager:* _____ _____ Date:* _____

First Last

* Required Field

Send E-mail

Rev 05/18/16

Key Contracts

The Information Technology Department maintains several key contracts and agreements with many different vendors such as ESRI, Kronos and Cartegraph. Some of the larger agreements include the Microsoft Enterprise Agreement and Cisco. Listed below are a sampling of our key agreements and their benefits.

Microsoft Enterprise Agreement (EA)

The EA agreement is a three-year contract with Microsoft that includes a renewal option. Marion County has been enrolled in the EA since October 2002. The EA provides several benefits to the County and its employees including: deployment services, Microsoft Incidents, training vouchers, Employee Home-Use Program, E-Learning and most importantly Software Assurance "free upgrades". Microsoft continually updates and improves their operating systems, office suites, etc. to enhance productivity and address critical bugs and security threats that arise. Every Microsoft product has a designated lifecycle where they will offer support. It is imperative that Marion County stays current with technology for various reasons ranging from compatibility with other agencies to staying protected with critical security updates. The Microsoft EA allows Marion County to upgrade and stay current with the technologies. If Marion County was to stop the Microsoft EA it would cost upwards of one million dollars to re-enroll and become licensed for the current products.

Cisco

The Cisco Smartnet maintenance agreement gives Marion County coverage against any failure of the firewalls, switches and routers providing secure connectivity and data transport for the entire County. In order to reduce the annual cost, IT scaled back coverage for several devices from 8a to 5p with a next business day response to all requests; and backup switches were purchased. On the core devices, 24x7 coverage with a four hour response to all requests remained in place, since it was not cost effective to have spares of this very costly equipment.

Avaya Telephone System

The Avaya maintenance agreement gives Marion County support on all of the primary telephone network equipment with a four hour response to all requests. Covered under this agreement are 4 servers, 10 equipment cabinets (including all of the digital cards in them), 60 Media Gateways, 1 voicemail server, and any software failures on any of the servers. The phones are not part of the agreement since their failure rate is low and it is more cost effective to purchase replacements directly. The County telephone system is nearing end-of-life and this contract will become void at that time.

Stratus Server

The Stratus Server agreement is critical to the operation of the Marion County 911 Dispatch Center. This agreement provides 24x7 support for all hardware issues that occur with the Stratus server. The Stratus server is the main database server for the 9-1-1 Computer Aided Dispatching system. Another benefit of having this maintenance is that the Stratus is proactive in avoiding

potential problems. The server dials back to Stratus to report any problems with the server's health. If any potential errors are detected, Stratus contacts our department and steps are taken to ensure the issue is addressed in a timely manner.

M.A.R.S. (Managed Asset Recovery Services LLC)

M.A.R.S. is an electronics recycling plant that picks up obsolete and broken computers, printers, monitors, battery backups and other technology for disposal. The recycling is accomplished through a process of disassembly, separation and disposition into proper recycling and waste streams. M.A.R.S recycles or destroys all material employing several recycling or destruction procedures, which comply with all EPA and governmental guidelines. An itemized list of the components is provided to the County for auditing purposes along with a Certificate of Recycling after every pickup.

Dell SonicWALL

The Dell SonicWALL maintenance agreement provides Marion County 24x7 comprehensive support for our suite of security products, which includes our Next-Generation Firewalls, email security appliances, Global Management System (GMS), and our Secure Sockets Layer (SSL) Virtual Private Network (VPN).

Dell EqualLogic

A five year 0% lease agreement for two Dell EqualLogic Storage Area Networks (SANs). These SANs are the storage devices for the County's mission critical server infrastructure. This lease includes five years of maintenance and support.