



County of Frederick

Information Technologies

Scott Varner

Director

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To: Board of Supervisors
From: Scott Varner, IT Director
Date: January 10, 2017
Subject: Information Technologies Committee Report

The Information Technologies Committee met in the First Floor Conference Room at 107 N Kent Street at 8:15 a.m. on Tuesday January 10, 2017. Present were Gary Lofton, Board of Supervisors IT Chairman; Judith McCann-Slaughter, Board of Supervisors IT Member, and Todd Robertson, IT Citizen Member. Absent were Quaiser Absar, IT Citizen Member, and Lorin Sutton, IT Citizen Member. Others present were: Scott Varner, IT Director, Patrick Fly, Deputy GIS Manager, Michelle Nugent, Network Operations Manager, and Alisa Scott, Administrative Assistant.

*****Items Not Requiring Action*****


1. Update on IT Department
 - a. Focus on training for recruitment and retention
 - b. Virtual stack is 100% operational
 - c. Reorganization: The IT department is working with Human Resources to reclassify the IT Systems Analyst to Network Administrator and Network Technician to Database Administrator.
 - d. Career Tracks: The IT department is working with Human Resources to institute career progression tracks for each position.
 - e. Wireless: creation and added security for a Frederick County Guest Wi-Fi
 - f. PEG funds for Board Room presentation hardware
 - g. 3 Year Strategic Plan: technology organization, project prioritization, and architecture and infrastructure implementation.
2. Discussion of IT and MIS FY18 budget and feedback
 - a. Maintenance Service Contracts for hardware and software

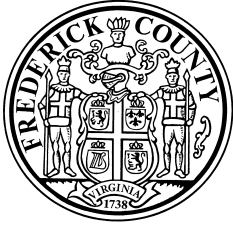
107 North Kent Street, Winchester, Virginia 22601

- b. Office365 as an enterprise tool to address growing IT management requirements
 - c. Pictometry to benefit various County agencies, including Public Safety, Real Estate Assessment, and Building Inspections and Code Enforcement.
 - d. PC Refresh for EMS tablets
3. No action items determined

Respectfully Submitted,

Information Technologies Committee
Gary Lofton, Chairman
Judith McCann-Slaughter
Quaiser Absar
Lorin Sutton
Todd Robertson

By: 
Scott Varner
IT Director



County of Frederick

Information Technologies

Scott Varner

Director

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To: Information Technologies Committee

From: Scott Varner, IT Director

Date: December 19, 2016

Subject: January 2017 Committee Meeting

An Information Technologies Committee meeting will be held in the First Floor Conference Room at 107 N Kent Street on Tuesday, January 10th, 2017 at 8:15 a.m. The agenda for the meeting is as follows:

1. Update on IT Department
2. Discussion on IT and MIS FY18 budgets and feedback
3. Determine any Action Items

107 North Kent Street, Winchester, Virginia 22601

Frederick County Department of Information Technology and MIS
107 N. Kent Street, Winchester, VA, 22601
Tel 540-722-8261
<http://www.fcva.us>

BUDGET PLAN REQUEST

FY 18

The Frederick County Department of Information Technology and MIS is dedicated to providing and supporting reliable technologies and technology-based services in a timely, high-quality, cost-effective manner to all clients of County Government.

TABLE OF CONTENTS

Contents

Letter of Transmittal_____	1
Department Summary Information _____	3
Program Plans_____	5
Program Summary Financial Data_____	7
Personnel Supplement Data_____	8
Performance Measures _____	9
Expenditure Data _____	10
Supporting Documentation _____	12

Letter of Transmittal

The Department of Information Technology and MIS (ITMIS) works to improve County technology through commitment to best practices based upon total cost of ownership and return on investment analyses. ITMIS is replacing or upgrading numerous major County systems over the next three years. The Department will focus on several key areas in the upcoming fiscal year.

- Facilitating better broadband access to citizens and businesses
- Migrate on premise email and office applications to Microsoft Office 365 (O365)
- Departmental file share migration to Microsoft Office 365 (O365) SharePoint
- Implement departmental collaboration sites through (O365)
- Revitalize the GIS advisory committee to steer new ArcGIS projects with input from departmental stakeholders, citizens, and businesses.

The main focus of ITMIS in FY18 will be migrating the on premise email system, email archive, standalone Microsoft Office licenses, and on premise SharePoint sites to Microsoft Office 365. In preparation for the FY18 budget, ITMIS looked at reducing the total cost of ownership (TCO) for our email and office productivity systems over a six year period. Microsoft Office 365 is a Software as a Service (SaaS) platform which allows the County to purchase only what we need with the flexibility to scale up or scale down with a predictable cost structure. The County will no longer have to replace hardware and will not suffer the waterfall effect of new operating systems and application software, not to mention costs associated with disaster recovery. This migration will also allow the department to keep staffing at its present level with the gains in reduced oversight and management of the email system and archiving, mobile device management, Microsoft Office Professional upgrades, SharePoint, and disaster recovery.

The GIS team will focus on working with Pictometry, our aerial imagery vendor, to increase the geographic areas that are imaged in the high resolution format. Currently 25% of the County is imaged at the high resolution rate. Increasing that percentage to 100% will increase the usefulness of Pictometry for Real Estate Assessment, Public Safety, Planning and Development, and citizen services.

This budget and departmental priorities continue to support the Frederick County Strategic Plan. In that effort, line items have increased for tuition assistance and technical training. The department has several gaps in technical knowledge that need to be addressed as we move forward. Although ITMIS affects almost every focus area of the strategic plan, ITMIS will concentrate on **Well Planned Infrastructure** by continuing to explore and promote broadband options for citizens and businesses and provide the tools and consulting necessary to support **Communication and Citizen Engagement**. ITMIS will pursue technological solutions to make citizen and business participation in government convenient and meaningful and promote further governmental transparency through system automation.

The included sections of the ITMIS budget will provide a more in depth picture of the overall budget, operational areas, key performance indicators, and measured outcomes for the department. Several items were moved from the MIS budget to the Information Technology budget to better reflect where those items should be paid from. Although you will see a reduction in the MIS budget, those amounts will increase the Information Technology budget. Changes were also made to combine several GIS line items into similar Information Technology line items in an effort to make the budget more straight forward and apparent. Technology is in a constant state of change and department focus needs to be flexible in order to bend with the change and apply necessary business logic to adapt performance measures in order to maintain high

benchmarks for service and support. I look forward to the opportunity to discuss my budget further with the Administrative Budget Team.

Allen Scott Varner
Director of Information Technology and MIS
November 2, 2016

Department Summary Information

The Frederick County Department of Information Technology and GIS (ITMIS) is dedicated to providing and supporting reliable technologies and technology-based services in a timely, high-quality, cost-effective manner to all clients of county government. In the process of contributing to an efficient and productive County government, the department has established the following guiding principles in order to provide focus for the delivery of this mission.

ALIGN IT AND GIS WITH ORGANIZATION GOALS

Information Technology has become a vital component in every department's service delivery methods. As strategic plans are developed for each facet of County government, Information Technology will play a key role in ensuring the advancement of the overall organizational goals. The adoption of new technology will be driven by this organizational need and the necessity to provide public service that is dramatically more effective.

INCREASE USEFUL SERVICE LEVELS

Information Technology's role in County government is to serve as internal consultants providing high-quality responsive service. The very nature of technology being a core component of each department's mission demands superior service and reliability. Attention will be given to the effective use of customer service methodologies to promote the effective use of technology.

DELIVER APPROPRIATE TECHNOLOGY

County government needs to exploit new technologies to improve service without incurring research-and-development costs. Budget limitations demand that the implementation of new technologies be done using best practices methods. Aligning IT with organizational goals will ensure that projects are performed to promote service and not for technical acclaim.

SIMPLIFY TECHNICAL WORKING ENVIRONMENT

The industry-wide technical environment is growing in breadth and complexity every day. Serving a diverse organization with multiple objectives can easily lead to the creation of separate islands of information and technology. Standardization of the technical environment is essential in providing appropriate solutions and support. Again, aligning IT with the overall goals of the organization will provide a focus on installed technology and support.

CAPITALIZE ON EXISTING SOLUTIONS TO ENHANCE PRODUCTIVITY

Many solutions exist today for County government applications that were not available just a short time ago. Information Technology will work to determine the known best practices to improve the effectiveness of each department's technical solutions.

REALIZE EFFECTIVE RETURN ON TECHNOLOGY INVESTMENTS

Constant attention must be given to technology trends and cycles to get the most value for the investment placed in technology. Increased use and complexity of technology has not always resulted in an increase in funding. Continual budget planning will guarantee that the investment is worthwhile while keeping the technology current and effective.

REFINE RAW MATERIALS INTO A SUPERIOR SERVICE ORGANIZATION

The product of an effective service organization is the infrastructure of personnel and equipment that supports the operation. Increased funding for personnel and equipment has provided the foundation. Emphasis on service delivery and an increased value on staff, clients, and vendors will provide the opportunity to maintain and promote the IT workforce as a superior service organization.

In order to provide a manageable level of service and the ability to correlate performance indicators, ITMIS has organized service delivery into the following programmatic/priority areas:

IT OPERATIONAL AREAS

Infrastructure Services

Help Desk

Application Services

Communication Services

Interagency Services

GIS OPERATIONAL AREAS

Addressing Services

Mapping Services

GIS Application Services

Help Desk

Expanded cyber-security threats, limited notification of end-of-support systems and changing mandates lead to unpredictability in the information technology industry. With budgetary cycles requiring identification of fiscal needs a year in advance of deployment and the rate of industry advancement, ITMIS finds itself frequently adjusting fiscal needs and priorities to keep up with the industry.

As the commercial industry expands mobile access to data, the expectation for mobility within the County enterprise expands. Additionally, County agencies have recognized the benefits of digitizing data, which can lead to better access, more productivity and expanded efficiencies. ITMIS's challenge is to balance these accessibility options against the need to protect County data from expanding cyber-security threats and other forms of data loss.

Program Plans

INFORMATION TECHNOLOGY

Infrastructure services

Provides organizational computer, server, and network design, engineering, maintenance, repair and

Network (LAN & WLAN)	Servers	Voice over Internet Protocol (VOIP) and Fax
User Devices (Hardware)	Email	

support services. Supports the following technical areas:

Help desk

Provides technology customer support for Tier 1 and 2 issues to include network account management, PC software and hardware support, and voicemail account support. Supports the following technical areas:

Application Support	PC Support (Software)	Training
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Application services

Analyzes, develops, tests, integrates, manages, and supports organizational mission critical business systems and applications. Supports the following technical areas:

Custom Applications (Development and Support)	Import & Export Routines	Business Intelligence Reporting
Database Administration and Programming Services	3 rd Part Application Support	

Communication services

Supports and governs the County mission to provide timely communication to staff and citizens by utilizing current communication methods used in today's mobile and desktop environment. Supports the following technical areas:

Social Media Governance	Surveys	Cable Franchise Support
Emergency Notifications	Website (Internal & External)	

Interagency services

Support agencies outside the County organization chart as part of state mandates and interagency support of critical County functions. State Agencies include the Social Services Department, various court units, Pretrial and Probation, and the Health Department. Supports the following technical areas:

Frederick County Sheriff's Office	State Agencies
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GEOGRAPHIC INFORMATION SYSTEMS (GIS)

Addressing Services

Responsible for addressing of all structures and parcels in Frederick County and maintaining addressing database to ensure proper distribution of address numbers in accordance with GIS policy.

Mapping Services

Provide professional services for creating parcels by metes and bounds to fully digitize the entire county map. As requested, create custom maps for internal departments as well as external agencies and citizens. Supports the following technical areas:

Parcel Mapping	Custom Map Creation	Map Books for Public Safety
Analysis Projects		

GIS Application Services

Promote and support the use of GIS applications and services to enhance County business processes and land based needs. Supports the following technical areas:

ArcGIS Support	Database Administration	Pictometry
3 rd Part Software Support	ArcGIS Integration Support	Reporting Services
Training	Dispatch	Laserfiche

Help desk

Provides technology customer support for Tier 1 and 2 issues to include GIS/Laserfiche hardware and software support. Supports the following technical areas:

Application Support	Training
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Program Summary Financial Data

IT

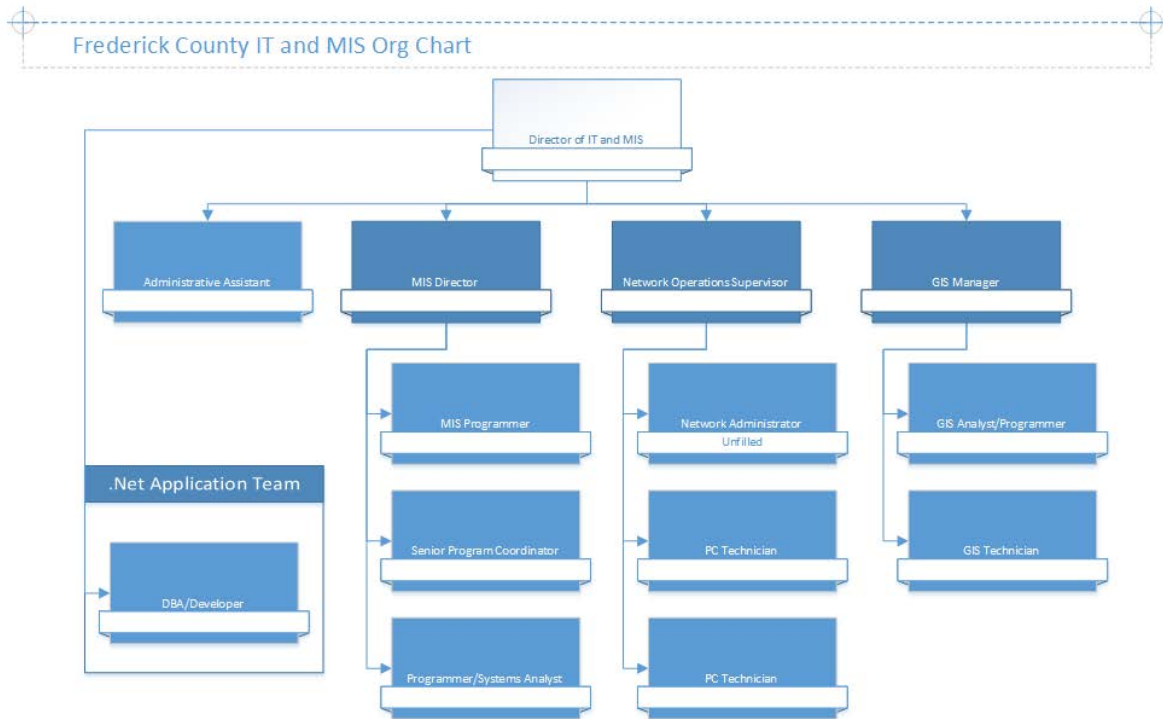
Program/Operational Area	Director	Network Operations Manager	IT Specialist	IT Specialist	Database Admin.	Admin. Assist.	Pers. Program Total
	FTE	FTE	FTE	FTE	FTE	FTE	
Infrastructure Services	20%	50%	45%	25%	0%	0%	
Help Desk	10%	10%	45%	30%	25%	60%	
Application Services	25%	5%	0%	35%	50%	0%	
Communication Services	10%	20%	0%	0%	25%	0%	
Interagency Services	5%	15%	10%	10%	0%	10%	

GIS

Program/Operational Area	Manager	GIS Analyst	GIS Technician	Pers. Program Total
	FTE	FTE	FTE	
Addressing Services	5%	5%	80%	
Mapping Services	30%	25%	10%	
GIS Application Services	35%	50%	5%	
Help Desk	10%	10%	5%	

Personnel Supplement Data

Organizational Chart



November 28, 2016

Position Allocation

IT - 10 FTE

MIS - 4 FTE

Performance Measures

IT Objectives/Performance Measures

Objective/Performance Measure	Unit	Annual Target	Actual FY16	Estimated FY17	Projected FY18
Customer					
Network Availability	%	99.8	95	98	99.8
Disaster Recovery	Hours	3.0	6	4	3
Tickets Completed	#	-	3336	3600	3600
Ticket Resolution Time (48 hours)	%	95	75	85	90
Customer Satisfaction	%	98	No Data	No Data	90
Website Hits	#	-	2,583,599	2,600,000	2,650,000

GIS Objectives/Performance Measures

Objective/Performance Measure	Unit	Annual Target	Actual FY16	Estimated FY17	Projected FY18
Customer					
Tickets Completed	#	-	883	700	750
Ticket Resolution Time (2 weeks)	%	-	No Data	No Data	No Data
Customer Satisfaction	%	-	No Data	No Data	90
ArcGIS Server Availability	%	99.8	No Data	98	99.8
GIS Web Hits	#	-	66,766	70,000	75,000

Expenditure Data

EXPENDITURE LINE ITEM	DESCRIPTION	AMOUNT
012200-1000-000-000	PERSONNEL SERVICES	
012200-1001-000-003	DIRECTOR	131,580
012200-1001-000-021	DATABASE ADMINISTRATOR/DEVELOPER	55,000
012200-1001-000-022	WEB MANAGER	
012200-1001-000-023	NETWORK OPERATIONS MANAGER	79,793
012200-1001-000-024	GIS ANALYST PROGRAMMER	59,112
012200-1001-000-025	NETWORK ADMINISTRATOR	65,500
012200-1001-000-026	PC TECHNICIAN	33,575
012200-1001-000-027	PC TECHNICIAN	33,764
012200-1001-000-032	ADMINISTRATIVE ASSISTANT	48,195
012200-1001-000-054	GIS ANALYST	
012200-1001-000-055	DEPUTY GIS MANAGER	82,388
012200-1001-000-056	IT ANALYST/PROGRAMMER	
012200-1001-000-057	GIS TECHNICIAN	45,217
012200-1001-000-058	BUSINESS ANALYST	
012200-1005-000-000	OVERTIME	
012200-1009-000-000	MERIT RESERVE	
012200-2000-000-000	FRINGE BENEFITS	
012200-2001-000-000	F. I. C. A.	47,645
012200-2002-000-000	RETIREMENT - V. R. S.	58,339
012200-2005-000-000	HOSPITAL/MEDICAL PLANS	112,800
012200-2006-000-000	GROUP INSURANCE	8,307
012200-2008-000-000	SHORT & LONG TERM DISABILITY	1,200
012200-2011-000-000	WORKER'S COMPENSATION	5,345
012200-2013-000-000	EDUCATION - TUITION ASSISTANCE	
012200-2013-000-001	EDUCATION/TUITION - NETWORK	
012200-2013-000-002	EDUCATION/TUITION-GIS	
012200-2013-000-003	EDUCATION/TUITION-NETWORK	
012200-3000-000-000	CONTRACTUAL SERVICES * Microsoft O365	160,000
012200-3002-000-000	PROFESSIONAL SERVICES-OTHER	7,300
012200-3002-000-001	PROFESSIONAL SVCS.-MIS	
012200-3004-000-000	REPAIR & MAINT. - VEHICLE	
012200-3004-000-001	REPAIR & MAINT. - MIS EQUIP.	
012200-3004-000-002	REPAIR & MAINTENANCE-GIS EQUIP	
012200-3004-000-003	REPAIR & MAINT.-NETWORK EQUIP	
012200-3004-000-004	REPAIR & MAINT. - NETWORK EQUI	
012200-3005-000-000	MAINTENANCE SERVICE CONTRACTS	185,384
012200-3005-000-001	MAINT. SERVICE CONTRACTS-MIS	
012200-3005-000-002	MAINTENANCE SERVICE CONTRACTS-	
012200-3006-000-000	PRINTING/BINDING	
012200-3006-000-002	PRINTING/BINDING-GIS	
012200-3007-000-000	ADVERTISING	
EXPENDITURE LINE	DESCRIPTION	AMOUNT

ITEM		
012200-3007-000-001	ADVERTISING-MIS	
012200-3010-000-000	OTHER CONTRACTUAL SERVICES	
012200-4000-000-000	INTERNAL SERVICES	
012200-4003-000-001	CENTRAL STORES-COPIES-MIS	
012200-4003-000-002	CENTRAL STORES - GASOLINE	350
012200-5200-000-000	COMMUNICATION	
012200-5204-000-000	POSTAGE AND TELEPHONE	7,400
012200-5299-000-000	INTERNET ACCESS	25,000
012200-5305-000-000	MOTOR VEHICLE INSURANCE	
012200-5306-000-000	SURETY BONDS	100
012200-5400-000-000	MATERIALS AND SUPPLIES	
012200-5401-000-000	OFFICE SUPPLIES	15,000
012200-5401-000-001	OFFICE SUPPLIES-MIS	
012200-5401-000-002	OFFICE SUPPLIES-GIS	3,360
012200-5401-000-003	OFFICE SUPPLIES - NETWORK	1,000
012200-5401-000-004	OFFICE SUPPLIES - REFRESH PROG	65,000
012200-5411-000-000	BOOKS AND SUBSCRIPTIONS	250
012200-5411-000-001	BOOKS & SUBSCRIPTIONS - MIS	
012200-5411-000-002	BOOKS & SUBSCRIPTIONS - GIS	250
012200-5411-000-003	BOOKS & SUBSCRIPTIONS-NETWORK	
012200-5413-000-000	OTHER OPERATING SUPPLIES	
012200-5413-000-001	OTHER OPERATING SUPPLIES-MIS	
012200-5413-000-002	OTHER OPERATING SUPPLIES-GIS	
012200-5413-000-003	OTHER OPERATING SUPPLIES-NETWO	4,000
012200-5506-000-000	TRAVEL	
012200-5506-000-001	TRAVEL - MIS	
012200-5506-000-002	TRAVEL - GIS	
012200-5506-000-003	TRAVEL - NETWORK	
012200-5800-000-000	MISCELLANEOUS	
012200-5801-000-000	DUES AND ASSOC. MEMBERSHIPS	700
012200-5801-000-002	DUES & ASSOC. MEMBERSHIPS-GIS	
012200-8000-000-000	LEASES AND RENTALS	
012200-8001-000-000	LEASE/RENT OF EQUIPMENT	
012200-8002-000-000	FURNITURE AND FIXTURES	
012200-8005-000-000	MOTOR VEHICLES AND EQUIPMENT	
012200-8007-000-000	INTEGRATED TECH. EQUIP.	
012200-8007-000-001	INTEGRATED TECH. EQUIP.-MIS	
012200-8007-000-002	INTEGRATED TECH. EQUIP.-GIS	118,604
012200-8007-000-003	INTEG.TECH.EQUIP.-NETWORK	
012200-9001-000-000	LEASE/RENT OF EQUIPMENT	107,794
012200-9001-000-001	LEASE/RENT OF EQUIP.-MIS	

Supporting Documentation

MAINTENANCE SERVICE CONTRACTS – 012200-3005-000-000

Vendor Name	Product Description	TOTAL Amount
Trebron Edgewave IPRISM 150G Appliance	Internet Proxy Software - Wireless	\$6,550.00
Dell	Service Tag: 61KXKM1 FCBDC2012	\$1,130.63
Emerson * Moved from MIS Budget	PSB Whole Battery Backup System	\$10,000.00
DISYS Solutions	SmartNet for Cisco Infrastructure	\$40,536.00
Bridge Communications	Phone Switchboard	\$600.00
Singlewire	Phone Paging	\$3,878.10
Trebron Edgewave IPRISM 105H Appliance	Internet Proxy Software - LAN	\$3,682.00
At Comm	Phone Reporting	\$3,383.00
Webex	Web Conferencing	\$468.00
Teamwork - \$24	Online Collaboration	\$240.00
Konica Minolta DSI Support - \$80	IT Copier	\$960.00
ZOHO ADSelfService	Remote Account Changes	\$1,495.00
Dell	Service Tag: 2BFWHX1 FCVIRTBK	\$795.36
Virtual Graffiti licenses (780 licenses)	Email Archiving Software	\$756.00
Sequentur (AVG Cloud Care) (925 licenses)	Remote Management Anti-Virus	\$2,052.00
Spamtitan	E-mail Spam Blocker	\$2,420.00
Dell	Dell Kace Help Desk Software	\$5,500.00
Dell	Service Tag: DVNLDZ1 ANI/ALI	\$500.00
Dell	Service Tag: 5V42XL1 PICTOMETRY	\$739.80
Dell - KENT SAN	Service Tag: 3WDTFZ1 KENT	\$500.00
GoDaddy	couragetocare.net	\$104.33
Dell - ISCSI Switches	Service Tag: D0797M1 KENT	\$433.00
Dell - ISCSI Switches	Service Tag: 9X597M1 PSB	\$433.00
Dell - ISCSI Switches	Service Tag: HQ597M1 KENT	\$433.00
Dell - ISCSI Switches	Service Tag: 8X597M1 PSB	\$433.00
Dell - PSB SAN	Service Tag: 9F3DJS1 PSB	\$2,372.93
Dell	Service Tag: 53XSVN1 APPASSURE2	\$2,230.00
Dell - KENT SAN	Service Tag: CXCBSJ1 KENT	\$2,366.47
DOT.GOV.GOV Domains	frederickcountyva.gov	\$400.00
Symantec	Backup and recovery for physical servers	\$600.00
GoDaddy	taxes.co.frederick.va.us	\$210.00
JAMF	Mobile device management software	\$450.00

Vendor Name	Product Description	TOTAL Amount
GoDaddy	coremr.nradc.com	\$210.00
Carasoft	VMWare licensing	\$17,594.00
GoDaddy	parkfdb2008.co.frederick.va.us	\$210.00
GoDaddy	fredweb.co.frederick.va.us	\$210.00
Dell/STI	Service Tag: CXFRV12 FREDARCH2012	\$400.00
Dell via Quest	Rapid Recovery Software for Servers	\$4,023.00
Dell	Service Tag: FJ5CF42 STORAGE2012	\$1,321.61
Dell - ISCSI Switches	Service Tag: HSMR9T1CJIS	\$543.48
Dell - ISCSI Switches	Service Tag: 1TMR9T1 CJIS	\$543.48
Dell	Service Tag: BY2XFX1 CJIS	\$850.32
Dell	Service Tag: BY2WFX1 CJIS	\$850.32
Dell - PSB SAN	Service Tag: 3DLWGX1 PSB CJIS	\$4,717.88
Bomgar	Remote desktop management software	\$1,200.00
ESRI * Moved from GIS Maintenance	Enterprise GIS	\$50,500.00
Unity – Laserfische * Moved from GIS Maintenance	Document Management	\$34,680.00
Cryptzone * Moved from GIS Maintenance	Email and file encryption software	\$1,224.00
TDC Group * Moved from GIS Maintenance	Web Application	\$1,500.00
Docunav * Moved from GIS Maintenance	Document management integration software	\$3,126.00
Dropbox * Moved from GIS Maintenance	File sharing application	\$99.00
GoDaddy * Moved from GIS Maintenance	SSL certificate for ArcGIS web server	\$210.00
	Total	\$220,664.71

PROFESSIONAL SERVICES – 012200-3002-000-000

Type of Service	Justification	Amount
GIS Consultation	GIS Application Monitoring	\$15,000.00
Website Host - Vision	Hosting and Design for County website	\$7,300.00
	Total	\$22,300.00

DUES AND MEMBERSHIPS - 012200-5801-000-000

Organization	Description	Amount
VAMLIS	Virginia GIS Professional Group	\$350
PMI	Project Management Institute	\$340
	Total	\$690

EDUCATION/TUITION ASSISTANCE - 012200-2013-000-000

Name of Employee	Class Name	Description	Amount
Alisa Scott	FINC600 - Corporate Finance	This course is a study of the major corporate finance and financial management theory, strategy, processes, functions, and other issues. Topics include the finance function, concepts of sources and uses of funds, analysis and estimation of need for funds (short- and long-term), short-term sources, working capital management policy, long-term sources, capital structure policy and implementation, capital budgeting and the cost of capital.	\$1,050.00
Alisa Scott	MKTG600 - Marketing Management	This course is designed to illustrate development, implementation, and reformulation of business strategy, with both domestic and international implications. Emphasis is placed on the need for, awareness of, and accommodation to changes in an organization's internal and external environments. Generic types of business strategies and techniques for analyzing strategies are also covered	\$1,050.00
Alisa Scott	BUSN631 - Technology and Innovation	This course will investigate and demonstrate the planning and implementation of strategies that help organizations improve productivity, satisfaction, and responsiveness to the environment. The course views management from the perspective of human systems and organizational development, technological innovation, and strategic management.	\$1,050.00
Alisa Scott	HRMT - Strategic Human Resource Management	The course examines the techniques, policies, processes, strategies, and practices used by companies and managers to leverage effectively and efficiently their human capital. Students will evaluate how HR practices are aligned with organizational objectives. Additional special topics include workforce planning, diversity management, and succession planning.	\$1,050.00
Patrick Fly	ECON 600 - Managerial Economics	Course is designed to use economic analysis to enhance business decision-making within private businesses, not-for-profit institutions, and public agencies. Economic concepts covered include demand analysis, production and cost analysis, linear programming applications, pricing policies and regulation.	\$1,050.00

Patrick Fly	BUSN 625 - Applied Decision Making	This course investigates the advanced analysis methods and techniques used to solve modern business problems. The course emphasizes the most successful methods from business statistics, production and operations management, management science, and operations research fields of study. Students will be required to synthesize material from several major fields of study in order to apply it in this course. The capabilities of Microsoft Office will be used extensively throughout the course to illustrate the application of these methods and techniques to the analysis and solution of modern business problems. The course will first investigate the types of problems faced by businesses in the both the production and service areas. Methods of analysis will be investigated to solve these type problems including probability concepts and their applications, statistical quality control, process design, forecasting, inventory control, waiting line models, transportation and assignment methods, decision analysis, and simulation modeling.	\$1,050.00
Patrick Fly	Busn 620 - Strategic Management	This course is a culmination of the business functions to incorporate them into a coherent, profitable, sustainable business strategy. This course includes strategy information, decisions, and techniques of industry leaders.	\$1,050.00
		Total	\$7,350.00

TRAVEL - 012200-5506-000-000

Name of Employee	Training Course Name	Description	Amount
Kyle Schwizer	Developing Web App with ArcGIS API for Javascript	Web Development (web based class)	\$ 1,695.00
Robin Cummings	Intro to Geoprocessing Scripts using Python	Data processing automation (web based class)	\$ 1,695.00
Evan Pangle	ICND2	Cisco Routing and Switching Part 2	\$ 3,500.00
Jose Trujillo	HTML5 W/JavaScript & CSS3	HTML5 W/JavaScript & CSS3	\$ 3,100.00
Patrick Fly	SQL Database Management	SQL Database Management	\$ 3,000.00
GIS Staff (3 members)	ESRI Fed UC	GIS Conference	\$ 2,500.00
Brett Farmer	SQL Database Management	SQL Database Management	\$ 3,000.00
Andrew Farrar	Building Web Applications with ASP.NET MVC	Building Web Applications with ASP.NET MVC	\$ 3,000.00
		Total	\$ 21,490.00

INTERNET ACCESS - 012200-5299-000-000

Type of Service	Name of Provider	Frequency of Payment	Amount	Total
Metro E 100 MG Pipe	Comcast	Monthly	\$1,770.00	\$21,240.00
Internet	Comcast	Monthly	\$73.00	\$876.00
ComCast 10GB Link Between Buildings * Moved from MIS budget	Comcast	Monthly	\$983.33	\$11,800.00
			Total	\$33,916.00

POSTAGE AND TELEPHONE - 012200-5204-000-000

Type of Service	Name of Provider	Frequency of Payment	Amount	Total
Telephone	Verizon	Monthly	\$ 49.00	\$ 588.00
Telephone	Comcast	Monthly	\$ 51.00	\$ 612.00
Wireless	Verizon	Monthly	\$ 500.00	\$ 6,000.00
Postage	USPS	Monthly	\$ 15.00	\$ 200.00
			Total	\$ 7,400.00

9/26/2016 COUNTY OF FREDERICK		- B U D G E T -		E X P E N S E		ACCOUNTING PERIOD 2016/09	
FUND #-010 GENERAL OPERATING FUND							
		Prior Years FY/2015	Prior Years FY/2016	Amended Budget	Actual On 2016/09	Dept Request FY/2018	Notes
012200 -000-000	INFORMATION TECHNOLOGY						
012200-1000-000-000	PERSONNEL SERVICES						
012200-1001-000-003	DIRECTOR	126,280	107,710	129,753	26,875	131,580	
012200-1001-000-021	DATABASE ADMINISTRATOR/DEVELOPER	41,413	46,258	47,090	9,811	55,000	
012200-1001-000-022	WEB MANAGER	50,784	8,807				
012200-1001-000-023	NETWORK OPERATIONS MANAGER	71,901	76,845	78,228	16,298	79,793	
012200-1001-000-024	GIS ANALYST PROGRAMMER	54,492	57,452	59,278	12,073	59,112	
012200-1001-000-025	NETWORK ADMINISTRATOR	63,967	57,137	65,677		65,500	
012200-1001-000-026	PC TECHNICIAN	30,843	25,729	32,916	6,858	33,575	
012200-1001-000-027	PC TECHNICIAN	23,913	31,875	33,102	6,896	33,764	
012200-1001-000-032	ADMINISTRATIVE ASSISTANT	39,979	46,106	47,250	9,844	48,195	
012200-1001-000-054	GIS ANALYST						
012200-1001-000-055	DEPUTY GIS MANAGER	75,294	81,949	80,773	16,828	82,388	
012200-1001-000-056	IT ANALYST/PROGRAMMER						
012200-1001-000-057	GIS TECHNICIAN	40,722	37,196	41,945	9,235	45,217	
012200-1001-000-058	BUSINESS ANALYST						
012200-1005-000-000	OVERTIME	385					
012200-1009-000-000	MERIT RESERVE						
	PERSONAL SERVICE	619,973	577,064	616,012	114,718	634,124	
012200-2000-000-000	FRINGE BENEFITS						
012200-2001-000-000	F. I. C. A.	45,052	41,442	46,426	8,218	47,645	
012200-2002-000-000	RETIREMENT - V. R. S.	64,222	56,954	65,414	10,554	58,339	
012200-2005-000-000	HOSPITAL/MEDICAL PLANS	89,303	82,899	98,000	21,051	112,800	
012200-2006-000-000	GROUP INSURANCE	7,203	6,388	8,069	1,503	8,307	
012200-2008-000-000	SHORT & LONG TERM DISABILITY	271	742	500	207	1,200	
012200-2011-000-000	WORKER'S COMPENSATION	4,405	1,432	615	103	5,345	
012200-2013-000-000	EDUCATION - TUITION ASSISTANCE					7,350	See Budget Plan for Detail of Tuition Assistance
012200-2013-000-001	EDUCATION/TUITION - NETWORK						
012200-2013-000-002	EDUCATION/TUITION-GIS						
012200-2013-000-003	EDUCATION/TUITION-NETWORK						
	FRINGE BENEFITS	210,456	189,857	219,024	41,636	240,986	
012200-3000-000-000	CONTRACTUAL SERVICES					160,000	Microsoft Office 365
012200-3002-000-000	PROFESSIONAL SERVICES-OTHER	38,444	27,200	50,750	6,946	22,300	
012200-3002-000-001	PROFESSIONAL SVCS.-MIS						
012200-3004-000-000	REPAIR & MAINT. - VEHICLE						
012200-3004-000-001	REPAIR & MAINT. - MIS EQUIP.						
012200-3004-000-002	REPAIR & MAINTENANCE-GIS EQUIP	1,137		1,000			
012200-3004-000-003	REPAIR & MAINT.-NETWORK EQUIP			6,000			
012200-3004-000-004	REPAIR & MAINT. - NETWORK EQUI						

9/26/2016 COUNTY OF FREDERICK		- B U D G E T -		E X P E N S E		ACCOUNTING PERIOD 2016/09	
FUND #-010 GENERAL OPERATING FUND							
		Prior Years FY/2015	Prior Years FY/2016	Amended Budget	Actual On 2016/09	Dept Request FY/2018	Notes
012200-3005-000-000	MAINTENANCE SERVICE CONTRACTS	90,230	88,669	125,144	58,520	220,664	Combined IT and GIS Maintenance, Moved 10,000 from MIS Budget
012200-3005-000-001	MAINT. SERVICE CONTRACTS-MIS						
012200-3005-000-002	MAINTENANCE SERVICE CONTRACTS-	83,785	122,202	132,100	83,726		
012200-3006-000-000	PRINTING/BINDING	132		480			
012200-3006-000-002	PRINTING/BINDING-GIS						
012200-3007-000-000	ADVERTISING						
012200-3007-000-001	ADVERTISING-MIS						
012200-3010-000-000	OTHER CONTRACTUAL SERVICES		8,307				
	PURCHASED SERVICES	213,728	246,378	315,474	149,192	402,964	
012200-4000-000-000	INTERNAL SERVICES						
012200-4003-000-001	CENTRAL STORES-COPIES-MIS						
012200-4003-000-002	CENTRAL STORES - GASOLINE	412	306			350	
	INTERNAL SERVICES	412	306			350	
012200-5200-000-000	COMMUNICATION						
012200-5204-000-000	POSTAGE AND TELEPHONE	1,996	1,834	250	1,693	7,400	Moved 6,000 from MIS Budget
012200-5299-000-000	INTERNET ACCESS	21,503	21,856	25,000	1,913	35,000	Moved 11,800 from MIS Budget
012200-5305-000-000	MOTOR VEHICLE INSURANCE						
012200-5306-000-000	SURETY BONDS	80	78	100	81	100	
012200-5400-000-000	MATERIALS AND SUPPLIES						
012200-5401-000-000	OFFICE SUPPLIES	9,003	22,698	21,150	1,219	15,000	
012200-5401-000-001	OFFICE SUPPLIES-MIS						
012200-5401-000-002	OFFICE SUPPLIES-GIS	333	1,473	3,360	111	3,360	
012200-5401-000-003	OFFICE SUPPLIES - NETWORK	1,561	1,201	1,000	125	1,000	
012200-5401-000-004	OFFICE SUPPLIES - REFRESH PROG					65,000	Fire and Rescue
012200-5411-000-000	BOOKS AND SUBSCRIPTIONS	523	229	250		250	
012200-5411-000-001	BOOKS & SUBSCRIPTIONS - MIS		179	250			
012200-5411-000-002	BOOKS & SUBSCRIPTIONS - GIS	108		250		250	
012200-5411-000-003	BOOKS & SUBSCRIPTIONS-NETWORK	258	156				
012200-5413-000-000	OTHER OPERATING SUPPLIES	8,099	7,025		3,804		
012200-5413-000-001	OTHER OPERATING SUPPLIES-MIS						
012200-5413-000-002	OTHER OPERATING SUPPLIES-GIS	4,057	681	12,200			
012200-5413-000-003	OTHER OPERATING SUPPLIES-NETWO	5,803	1,060	3,200	4,864	4,000	
012200-5506-000-000	TRAVEL	10,685	420			21,490	See Budget Plan for Detail of Training
012200-5506-000-001	TRAVEL - MIS						
012200-5506-000-002	TRAVEL - GIS	6,357	4,610	5,500			
012200-5506-000-003	TRAVEL - NETWORK	3,876	5,473	3,000	183		

9/26/2016 COUNTY OF FREDERICK		- B U D G E T -		E X P E N S E		ACCOUNTING PERIOD 2016/09	
FUND #-010 GENERAL OPERATING FUND							
		Prior Years FY/2015	Prior Years FY/2016	Amended Budget	Actual On 2016/09	Dept Request FY/2018	Notes
012200-5800-000-000	MISCELLANEOUS						
012200-5801-000-000	DUES AND ASSOC. MEMBERSHIPS	338	519	700	169	700	
012200-5801-000-002	DUES & ASSOC. MEMBERSHIPS-GIS	350		700			
	OTHER CHARGES	74,930	69,492	76,910	14,162	153,550	
012200-8000-000-000	LEASES AND RENTALS						
012200-8001-000-000	LEASE/RENT OF EQUIPMENT						
012200-8002-000-000	FURNITURE AND FIXTURES						
012200-8005-000-000	MOTOR VEHICLES AND EQUIPMENT						
012200-8007-000-000	INTEGRATED TECH. EQUIP.	24,011	8,720				
012200-8007-000-001	INTEGRATED TECH. EQUIP.-MIS						
012200-8007-000-002	INTEGRATED TECH. EQUIP.-GIS	10,742	26,564			118,604	Pictometry increase from 25% to 100% in HD
012200-8007-000-003	INTEG.TECH.EQUIP.-NETWORK	2,100					
	CAPITAL OUTLAY	36,853	35,284			118,604	
012200-9001-000-000	LEASE/RENT OF EQUIPMENT			108,032		107,794	2nd Year Lease Payment for Dell Virtualization Project
012200-9001-000-001	LEASE/RENT OF EQUIP.-MIS						
	OTHER USES OF FUNDS			108,032		107,794	
	TOTAL DEPARTMENT	1,156,352	1,118,381	1,335,452	319,708	1,658,372	

2017-2018 BUDGET INFORMATION - EXPENDITURES

DEPARTMENT	Management Information Systems	DEPARTMENT CODE	012220 -000-000
EXPENDITURE LINE ITEM	DESCRIPTION	DETAIL AMOUNT	TOTAL AMOUNT (PER LINE ITEM)
012220-1000-000-000	PERSONNEL SERVICES		
012220-1001-000-032	DIRECTOR	133,518	
012220-1001-000-055	SENIOR ROGRAM COORDINATOR	79,511	
012220-1001-000-056	MIS PROGRAMMER	90,639	
012220-1001-000-057	PROGRAM COORDINATOR	68,324	
012220-1005-000-000	OVERTIME		
012220-1009-000-000	MERIT RESERVE		
	PERSONNEL SERVICES		371,992
012220-2000-000-000	FRINGE BENEFITS		
012220-2001-000-000	F. I. C. A.	27,991	
012220-2002-000-000	RETIREMENT - V. R. S.	34,223	
012220-2005-000-000	HOSPITAL/MEDICAL PLANS	48,120	
012220-2006-000-000	GROUP INSURANCE	4,873	
012220-2008-000-000	SHORT & LONG TERM DISABILITY	480	
012220-2011-000-000	WORKER'S COMPENSATION	335	
012220-2013-000-000	EDUCATION - TUITION ASSISTANCE		
012200-2013-000-001	EDUCATION/TUITION - NETWORK		
012200-2013-000-002	EDUCATION/TUITION-GIS		
012200-2013-000-003	EDUCATION/TUITION-NETWORK		
	FRINGE BENEFITS		116,022
012220-3000-000-000	CONTRACTUAL SERVICES		
012220-3002-000-000	PROFESSIONAL SERVICES-OTHER		
	Bright & Assoc. Annual Maint.	26,100	
	Software Chanhes & Modifications	4,000	30,100
012220-3004-000-001	REPAIR & MAINT. - MIS EQUIP.	3,000	3,000
012220-3004-000-002	REPAIR & MAINTENANCE-VEHICLE		
012220-3005-000-000	MAINTENANCE SERVICE CONTRACTS		
	ASNA	2,500	
	County Insurance	5,533	
	FileScope	860	
	InPro	750	
	Unity Business Systems	800	
	HelpSyatems Transform	706	
	Telerik	1,200	
	FormSprint	1,200	
	SpoolFlex	800	
	HelpSystems Sequel	2,802	
	Visual RPG (NET)	1,500	18,651
012220-3007-000-000	ADVERTISING		
012220-3010-000-000	OTHER CONTRACTUAL SERVICES		
	CONTRACTUAL SERVICES		51,751

2017-2018 BUDGET INFORMATION - EXPENDITURES

DEPARTMENT	Management Information Systems	DEPARTMENT CODE	012220 -000-000
EXPENDITURE LINE ITEM	DESCRIPTION	DETAIL AMOUNT	TOTAL AMOUNT (PER LINE ITEM)
012220-4000-000-000	INTERNAL SERVICES		
012220-4003-000-001	CENTRAL STORES-COPIES	50	50
012220-4003-000-002	CENTRAL STORES - GASOLINE		
012220-5200-000-000	COMMUNICATION		
012220-5204-000-000	POSTAGE AND TELEPHONE	100	100
012220-5299-000-000	INTERNET ACCESS	1,200	1,200
012220-5305-000-000	MOTOR VEHICLE INSURANCE		
012220-5306-000-000	SURETY BONDS		
012220-5401-000-000	OFFICE SUPPLIES		
	Stock Paper	9,500	
	Laser Paper (Tax Tickets, Delq. Etc.)	17,900	
	Laser Paper (other)	3,700	31,100
012220-5411-000-000	BOOKS AND SUBSCRIPTIONS	200	200
012220-5413-000-000	OTHER OPERATING SUPPLIES		
	Pens, Pencils, Tape, Calanders	120	
	Laser Toner Cartridges	6,500	
	Miscellaneous	300	6,920
012220-5413-000-001	IT SOFTWARE		
012220-5413-000-002	IT SOTFWARE MAINTENANCE	910	910
012220-5506-000-000	TRAVEL	700	700
012220-5801-000-000	DUES AND ASSOC. MEMBERSHIPS		
	OTHER CHARGES		41,180
012220-9001-000-000	LEASE/RENT OF EQUIPMENT	21,100	21,100
	OTHER USES OF FUNDS		21,000
	TOTAL DEPARTMENT	602,045	