

GO COMMITTEE #1
April 7, 2016

Worksession

MEMORANDUM

April 5, 2016

TO: Government Operations and Fiscal Policy Committee

FROM: Dr. Costis Toregas, Council IT Adviser

SUBJECT: Overview - Agencies' FY17 information technology programs and budgets

The following are expected to attend:

ITPCC CIO Subcommittee Membership:

Henry Mobayeni, Maryland-National Capital Park and Planning Commission (M-NCPPC) (Chair)
Mujib Lodhi, Washington Suburban Sanitary Commission (WSSC)
Carl Whitman, Montgomery College (MC)
Sherwin Collette, Montgomery County Public Schools (MCPS)
Sonny Segal, Montgomery County Government (MCG)
Ian Williams, Housing Opportunities Commission (HOC)

Gary Thomas, ITPCC Staff

Summary of Staff Recommendations

There are no decisions to be made in this worksession; it provides the opportunity for each ITPCC agency to highlight, in a common format, their work effort and priority initiatives. In addition, it provides a chance for the Committee to identify areas where the ITPCC technology platform can be helpful to Committee and Council identified needs, as well as to engage in a dialog with the CIO Subcommittee regarding innovative funding approaches for County-wide projects.

Background

Each of the agency members of the Interagency Technology Policy and Coordination Committee (ITPCC) has provided a uniform program and budget overview from their FY17 budget submissions.

These detailed slides offer an Enterprise-wide IT investment snapshot for the County as a whole and are on ©14-110. Individual agency submissions can be found using the following index:

AGENCY	©
MCG	14
MCPS	30
MC	43
M-NCPPC	55
WSSC	64
HOC	99

Agency Summaries

As in prior years, an effort has been made to provide a sense of scale for the overall investment of the County in technology and provide comparisons across agencies and along a multi-year continuum. Table 1 provides a summary of FY17 dollar investments excerpted from the individual submissions of each agency, and a County-wide (or Enterprise) total of these investments. Both Operating and Capital (for FY17) budget allocations are shown, thus providing an important, integrated view of total County investments. In some instances, comparability among data points may be hindered by the use of different definitions, but the aggregate picture should still provide a sense of an Enterprise-wide IT investment.

Table 1. FY17 Montgomery County Proposed Investment in Technology (in \$m)

	Operating Budget	Capital Budget	Total FY17 proposed
MCG¹	59.4	21.8 ²	81.2
MCPS	26.3	21.4	47.7
MC	27.2	7.2	34.4
M-NCPPC	5.4	0	5.4
WSSC	45.5	0	45.5
HOC³	3.3	1.1	4.4
Totals	167.1	51.5	218.6

Notes:

¹ The totals do not include the investment in IT made by MCG in departments other than DTS. In FY09, that was estimated to be at least \$18.1 million. No estimate is available for other years.

² The Public Safety System Modernization (PSSM) program is included in the estimate.

³ The HOC figures reflect FY16 figures; the FY17 request was not available.

To review the time trend of IT investments across the agencies, Table 2, below, summarizes total resources requested in each of the last five years and compares these numbers to the FY17 requests (Operating Budget combined with CIP allocations for FY17).

Table 2. FY12-16 Total Requests and FY17 Submissions for OB and CIP (where available) in Agency IT Operations (in \$m)

	FY17 Requested	FY16	FY15	FY14	FY13	FY12
MCG^{1,2}	81.2	64.0	74.8	92.7	79.7	52.8
MCPS	47.7	50.2	48.6	48.1	49.1	48.0
MC	34.4	42.7	40.6	38.2	35.9	43.4
M-NCPPC	5.4	5.0	5.3	3.4	3.3	4.9
WSSC	45.5	37.9	40.2	30.0	20.7	19.3
HOC³	4.4	4.4	4.2	4.3	3.1	2.6
Totals	218.6	204.2	213.7	216.7	191.8	171.0

Notes:

¹ The totals do not include the investment in IT made by MCG in departments other than DTS. In FY09, that was estimated to be at least \$18.1 million. No estimate is available for other years.

² Includes TechMod, FiberNet, and Public Safety System Modernization.

³ The HOC figures reflect FY16 figures; the FY17 request was not available.

Table 3 provides a summary of the personnel complement requested by agencies to operate the technology Enterprise for all County agencies. In cases where position information was not available, full-time equivalent figures were used.

Table 3. Position Summaries by Agency

Positions (except where noted)	2017 Requested	2016	2015	2014	2013	2012
MCG	180	168	135	135	130	126
MCPS	190	184	177	182	179	184 FTE
MC	187	212	196	192	197	202
M-NCPPC	24.7	24	24	32	32.6	32.2 WY
WSSC	110	111	111	124	94	73
HOC²	16 ²	16	16	12	12	12
Totals	707.7	715	659	677	644.6	626.2

Notes:

¹ FY17 numbers include contractor positions when available.

² The HOC figures reflect FY16; the FY17 request was not available.

Cross Agency progress

ITPCC has assembled a brief summary of the individual agency program and budget overviews on ©1-13 which identifies important current and future opportunities. In addition, it presents programs developed under the umbrella of the ITPCC. ITPCC representatives will be available to expand on the presentation and respond to questions.

Staff Observations

1. The best practice in progressive private sector major firms with budgets comparable to the County's is to organize IT investments across the Enterprise. Montgomery County does not, choosing instead to allocate IT resources within each of the major entities (MCG, MC, MCPS, etc.). The timing of the agency IT budget displays comes after several of the individual IT budgets have been vetted and incorporated in the agency-wide budgets for the ITPCC agencies. If the Committee wishes to impact technology practices through budget management principles, a **coordinated IT Enterprise budget review** should be **timed earlier in the year** (before agency budgets are reviewed by their cognizant policy bodies) so that there would be time for the **creation of cross-agency strategies**.

To consider the feasibility of such a move, an **Enterprise-wide strategic plan** can be undertaken in 2017, with one of the goals being the exploration of such a potential. The Committee may want to focus on this issue of harmonizing strategic IT plans and budgets across agencies to provide further collaboration platforms in a subsequent summer study session. Several agencies are in the midst of revising their plans, making such an activity timely.

2. Each agency has identified which major systems are "Red" – in other words, prime for replacement. This year, two agencies (M-NCPPC and MC) have no such systems in their 2017 plans -- truly a strong accomplishment.
3. Major common trends include a shift to Cloud computing, increased use of GIS, and heightened attention to cyber security. It is also clear that collaboration using the ITPCC platform is valued and producing results well beyond specific ITPCC projects.

Interagency Technology Policy and Coordination Committee (ITPCC)

Interagency Information Technology Program and Budget Overview

April 7, 2016

Casey Anderson, Chair, ITPCC

Dr. Henry Mobayeni, Chair, CIO Subcommittee

G.L. Thomas, ITPCC Manager

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ITPCC Overview

ITPCC was chartered in 1994 by Montgomery County Council Resolution 12-1758 to promote strategic planning and coordination in the use of information technology among the County agencies.

ITPCC seeks to employ strategies that empower digital citizenship where interagency efforts and information technologies are better aligned to improve how our residents live, work, and learn

ITPCC provides an effective interagency forum for:

- Creation and coordinated implementation of technology policies, interagency projects, and guidelines
- Interagency communications
- Facilitates interagency evaluation and sharing of new technologies; and,
- Advises policy makers on the strategic uses of technology

ITPCC Goals and Strategies

ITPCC seeks to employ strategies that empower digital citizenship where interagency efforts and information technologies are better aligned to improve how our residents live, work, and learn.

- **Digital Citizenship/Digital Montgomery**
 - Improve and expand resident and employee access to data, information, and tools
- **Strengthening IT Infrastructure**
 - Provide a high degree of accessibility, reliability, security, and robustness to meet the long term needs of Digital Montgomery.
- **Sustainable Plan for Managing IT Assets**
 - Maintain the health of major IT Systems, anticipate and plan for replacements and upgrades, enable resource allocation decisions for critical infrastructure that avoid “fix on failure” consequences.
- **Continuity of Operations and Risk Management**
 - Strengthen preparedness and ability to respond to ever evolving risks
- **Strategic Visioning and Planning**
 - Engage in long range visioning, establish where we are, and want to be; determine what is needed to reach our goals; and develop implementation strategies to get there.

ITPCC Principals and CIO Subcommittee

<u>Agency</u>	<u>Principals</u>	<u>CIO/CTO/Other</u>
Maryland National Capital Parks and Planning Commission	Casey Anderson Planning Board Chair; and ITPCC Chair	Dr. Henry Mobayeni, CTO; and CIO Subcommittee Chair
Washington Suburban Sanitary Commission	Carla Reid, General Manager	Mujib Lodhi, CIO
Montgomery College	Dr. DeRionne P. Pollard, President	Carl Whitman, CIO
Montgomery County Public Schools	Larry Bowers, Interim Superintendent [thru 6/30/16]; Dr. Jack Smith, Superintendent [effective 7/1/16]	Sherwin Collette, CTO
Montgomery County Government	Timothy Firestine, Chief Administrative Officer	Harash (Sonny) Segal, CIO
Housing Opportunities Commission	Stacy Spann, Executive Director	Ian Williams, CTO
County Council	Steve Farber, Council Administrator	Costis Toregas, Council IT Advisor

Interagency IT Program and Budget Overviews

- Maryland National Parks and Planning Commission (MNCPPC)
- Washington Suburban Sanitary Commission (WSSC)
- Montgomery College (MC)
- Montgomery County Public Schools (MCPS)
- Montgomery County General Government (MCG)
- Housing Opportunities Commission (HOC)

Interagency Health of Major IT Systems

- FYs 17-22 SUMMARY by Risk
- Agency Details by Risk
 - Maryland National Capital Parks and Planning Commission [M-NCPPC]
 - Washington Suburban Sanitary Commission [WSSC]
 - Montgomery College [MC]
 - Montgomery County Public Schools [MCPS]
 - Montgomery County Government [MCG]
 - Housing Opportunities Commission [HOC]



FYs17-22--Operational Health and Replacement Priority of Existing Major IT Systems
ITPCC SUMMARY - Health and Replacement Cost for Major IT Systems [3/25/2016]

Priority	Agency Name	Status	Upgrade	FY17	FY18	FY19	FY20	FY21	FY22	Total 6-Yr.	Est. Repl-Cost	NOTES
--	MCPS	Red		4,122,639	14,588,514	9,742,861	5,501,648	4,672,674	4,676,741	43,305,077	41,756,000	
--	MC	Red		0	0	0	0	0	0	0	0	
--	MCG	Red		21,690,548	30,528,561	15,713,602	1,179,672	1,139,000	1,139,000	71,390,383	131,048,000	
--	MNCPPC	Red		0	0	0	0	0	0	0	0	NO REDs
--	WSSC	Red		16,300,000	1,000,000	1,400,000	1,000,000	800,000	1,000,000	21,500,000		
--	HOC	Red								0		NO REDs
		Red								0		
<hr/>												
--	MCPS	Yellow		4,689,750	5,327,111	4,662,513	4,672,143	4,790,214	4,838,825	28,980,556	40,672,796	
--	MC	Yellow		6,935,000	6,935,000	5,035,000	3,135,000	3,135,000		25,175,000	0	
--	MCG	Yellow		7,944,557	12,151,567	8,091,557	8,001,557	7,219,000	7,146,000	50,554,238	107,783,000	
--	MNCPPC	Yellow		0	0	0	0	0	0	0	0	NO YELLOWS
--	WSSC	Yellow		0	400,000	100,000	100,000	600,000	100,000	1,300,000	0	
--	HOC	Yellow		50,000	50,000	50,000	50,000	50,000	50,000	300,000	120,000	
		Yellow								0		
<hr/>												
--	MCPS	Green		2,323,933	3,573,408	2,223,766	2,435,630	3,060,183	2,440,812	16,057,732	21,488,340	
--	MC	Green		7,628,000	8,230,000	8,232,000	8,234,000	8,236,000	8,238,000	48,798,000		
--	MCG	Green		6,286,559	5,713,020	5,660,671	5,689,568	5,549,823	5,527,182	34,426,823	140,829,108	
--	MNCPPC	Green		369,000	377,000	385,000	393,000	401,000	401,000	2,326,000	6,937,311	
--	WSSC	Green		1,900,000	1,000,000	1,200,000	800,000	600,000	800,000	6,300,000		
--	HOC	Green		635,200	695,200	635,200	695,200	635,200	695,200	3,991,200		

SUMMARY Multi-year Cost Projections by Risk Categories

	FY17	FY18	FY19	FY20	FY21	FY22	Total 6-Yr.	Est. Repl-Cost
RED	42,113,187	46,117,075	26,856,463	7,681,320	6,611,674	6,815,741	136,195,460	172,804,000
Yellow	19,619,307	24,863,678	17,939,070	15,958,700	15,794,214	12,134,825	106,309,794	148,575,796
GREEN	19,142,692	19,588,628	18,336,637	18,247,398	18,482,206	18,102,194	111,899,755	169,254,759
TOTAL	80,875,186	90,569,381	63,132,170	41,887,418	40,888,094	37,052,760	354,405,009	490,634,555

Risk Key

- Red= Obsolete or vulnerable critical systems/applications in immediate risk of failure
- Yellow= Aging or vulnerable critical systems likely to need major upgrade or replacement in the next 2-6 years
- Green= Stable systems expected to require only routine maintenance or minor upgrade over the next 3-6 year

-Move to Cloud and hybrid Cloud strategies is pronounced and increasing
 -Major ERP systems allows decommission of multiple stand alone systems
 -Multiyear trend shows decline of RED systems, and increase in GREEN Systems

ITPCC FYs15-16 Work Program

The following projects were selected and implemented consistent with the goals and strategies of the ITPCC mission, and work program approved by ITPCC on August 8, 2014.

FYs 15-16 Projects

Sponsor	Project	Description	Status
MCG-DTS	Interagency Open Data Program [Pilot]	Extend MCG Open Data capabilities to ITPCC agencies, providing them with the ability to publish their open data sets to the MCG Socrata site, leveraging the utility of the MCG tool to citizen and employee access to data.	<u>Completed.</u> Interagency capability to publish open data sets to MCG Socrata OpenMontgomery site now enabled. https://data.montgomerycountymd.gov
MCG-DTS	Interagency Web Search Capability [Pilot]	This project successfully developed and tested a Google search solution for searching across agency websites rather than searching each site separately, thus presenting the digital citizen with a more comprehensive view of information they are seeking.	<u>Completed.</u> A <i>Web Content Search and Discovery Guide</i> was created for site administrators. Fully operational interagency search capability available at: www.montgomerycountymd.gov
MNCPPC	Interagency GIS Data Portal	A web-based GIS portal to host interagency GIS data and applications using ESRI ArcGIS Online (AGO) cloud services. Provides a central location from which GIS data and web GIS applications from County agencies can be found and used. Dramatically expands citizen and employee access to GIS data, applications, and tools.	<u>Completed.</u> The portal currently contains 85 different map services comprising over 200 different mapping layers; 25 different web applications have also been registered to the portal. The <i>gisMontgomery Guide to Best Practices for Publishing Content to ArcGIS Online</i> documentation for County users was developed and disseminated. Site is fully operational and available at: http://gisMontgomery.maps.arcgis.com/home/
MCG-DTS	FiberNet II Buildout	Perform the FY15-16 FiberNet CIP program; implement NOC solution; complete HUB configurations; add new sites; finalize SLA, CONOPS, and SA details for each agency. Develop FYs17-18 FiberNet work plan; obtain CIO and ITPCC approval.	Most ARRA funded MCPS and HOC sites now lit; NOC IOC achieved 10/1/2015 per DTS; SLA, CONOPS, and SA's-- final editing underway; HUB re-configuration continues; 3 DWDM sites to pilot FiberNet III currently underway ; 8 HUBs to be DWDM enabled by end of FY17. ITPCC approved the FiberNet FYs17-18 work plan on 2/2/2016.
MCG/CIO Subcommittee	FiberNet Configuration Change Control Board [CCB]	The CCB is established to control, manage, evaluate, prioritize, approve, plan, integrate Change Requests and Major Network Event (MNE) fixes into the baselined FiberNet network, and maintain a permanent archive of change documentation for the FiberNet system.	<u>Completed.</u> FiberNet Change Control Board [CCB] Charter approved by ITPCC 2/2/2016. Next steps require a formal CCB Kickoff with CCB training to be conducted. CCB operationalization pending DTS implementation of automated CCBMS, or alternate solution by DTS.

FYs 15-16 Projects

Sponsor	Project	Description	Status
WSSC	Agency Project Coordination (APC) project--[Interagency mobile application dev./coordination]	The Agency Project Coordination system (APC), a cloud-based solution administered by WSSC, allows “near real-time” data sharing, analysis, and reporting capabilities that is critical to planning, coordination and management of infrastructure projects within the public Rights-of-Way. APC promotes consistency and transparency in the management of public planned infrastructure improvement activities through near real-time information among Counties and Utilities on planned and on-going construction projects in County Rights-of-Way; prevention of unnecessary pavement cuts; and the ability to have a Geographical view of projects with visual detection of conflicts between construction projects.	<u>Completed.</u> This project demonstrates the improved service delivery to ratepayers and taxpayers that may be achieved through a multi-agency, integrated, and coordinated effort.
ITPCC	Major IT Systems-Health and Replacement Priority	Each agency reports the health and replacement priority of their major IT systems, categorized as ‘red’, ‘yellow’, ‘green’ reflecting urgency to act and risk, and avoid a ‘fix on fail’ default position. Results are summarized into an Interagency view.	<u>Completed.</u> FY16 status completed 3/24/2016.
MCG-DTS	Cyber Security, Continuity of Operations, and Risk Management	The CEB (Corporate Executive Board) Security Controls Maturity Benchmarking Service provided the participating ITPCC agencies with the capability to assess and map individual agency security maturity levels as measured against a common standard security reference model (NIST 800-53). Additionally, CEB created an interagency analysis intended to identify those areas that could potentially yield best return on investment. This is first interagency security maturity risk assessment against a standard reference model.	<u>Completed.</u> ITPCC Executive briefing completed on 2/2/2016.

FYs 15-16 Projects

Sponsor	Project	Description	Status
MNCPPC	CIO IT Retreat	Plan and conduct the second CIO IT Strategic Planning Retreat. FY16 retreat planning initiated.	Completed FY15. Planning discussions underway with CIO Chair for a possible FY16/17 CIO retreat.
MCG-DTS	FiberNet Strategic Plan	Commission a FiberNet participating agency focused strategic plan; select project team; define goals, Project Scope, timeline, and deliverables; select a consultant to assist in creating the plan, and design decisions. Focused on estimated long range agency FiberNet III requirements through 2025. Fund within FiberNet project with Cable Fund revenue.	Feasibility discussions actively underway. Formal project initiation phase anticipated for late FY16; project execution and completion in FY17.
ITPCC	Interagency Enterprise IT Strategic Plan	Explore feasibility and interest in developing an interagency enterprise IT Strategic Plan/Roadmap.	<u>Deferred</u> until all agencies complete individual IT Strategic Plans. WSSC and MCPS are completed; MNCPPC estimated for June 2016; MCG and MC later in 2016.
HOC	Interagency Social Media Communications Pilot	Test several social media options to enhance interagency virtual collaboration and reduce need for face to face communications.	Initially deferred at sponsor's request; <u>cancelled</u> when lead Project Manager left the agency. May reconsider for FYs17-18.

Conclusion

- The FYs17-18 ITPCC Work Plan is under development and subject to CIO and ITPCC approval
- GO Committee Review of the ITPCC work program is anticipated on April 19, 2016
- Questions and Comments?

FY17 IT Budget Overview

Presentation to the GO Committee

April 7, 2016, 9:30 a.m., 7-CHR

- Enterprise Model and Approach
- Priorities and Key Initiatives
- Accomplishments
- Awards
- DTS Organization
- Budget Summary
- Major Enterprise IT Systems Report
- FiberNet – Existing & Future Benefits

Enterprise Model and Approach

- Enterprise Technology Strategic Plan (ETSP) to guide technology direction with business requirements
- Cyber Security Strategic Plan (CSSP) to help manage risk for enterprise and business operations
- Enterprise Architecture (EA) to detail common information technology infrastructure design and architecture
- Metrics to monitor Enterprise IT service delivery effectiveness
- Support ongoing enterprise projects (including capital projects)
- Leverage innovative approaches and technologies to improve information security, workforce productivity and service delivery

Priorities and Key Initiatives

- Cyber Security
 - Monitoring, Patching and Remediation
 - E-mail encryption, Data Loss Prevention, Office software upgrades
 - Security Awareness Training
- FiberNet
 - Network Operations Center (NOC)
 - FiberNet III
 - WiFi expansion
- Public Safety System Modernization (PSSM)
- Integrated Justice Information System (IJIS)
- Cloud Collaboration (Office 365)
- ERP & MC311
- ultraMontgomery
- openMontgomery

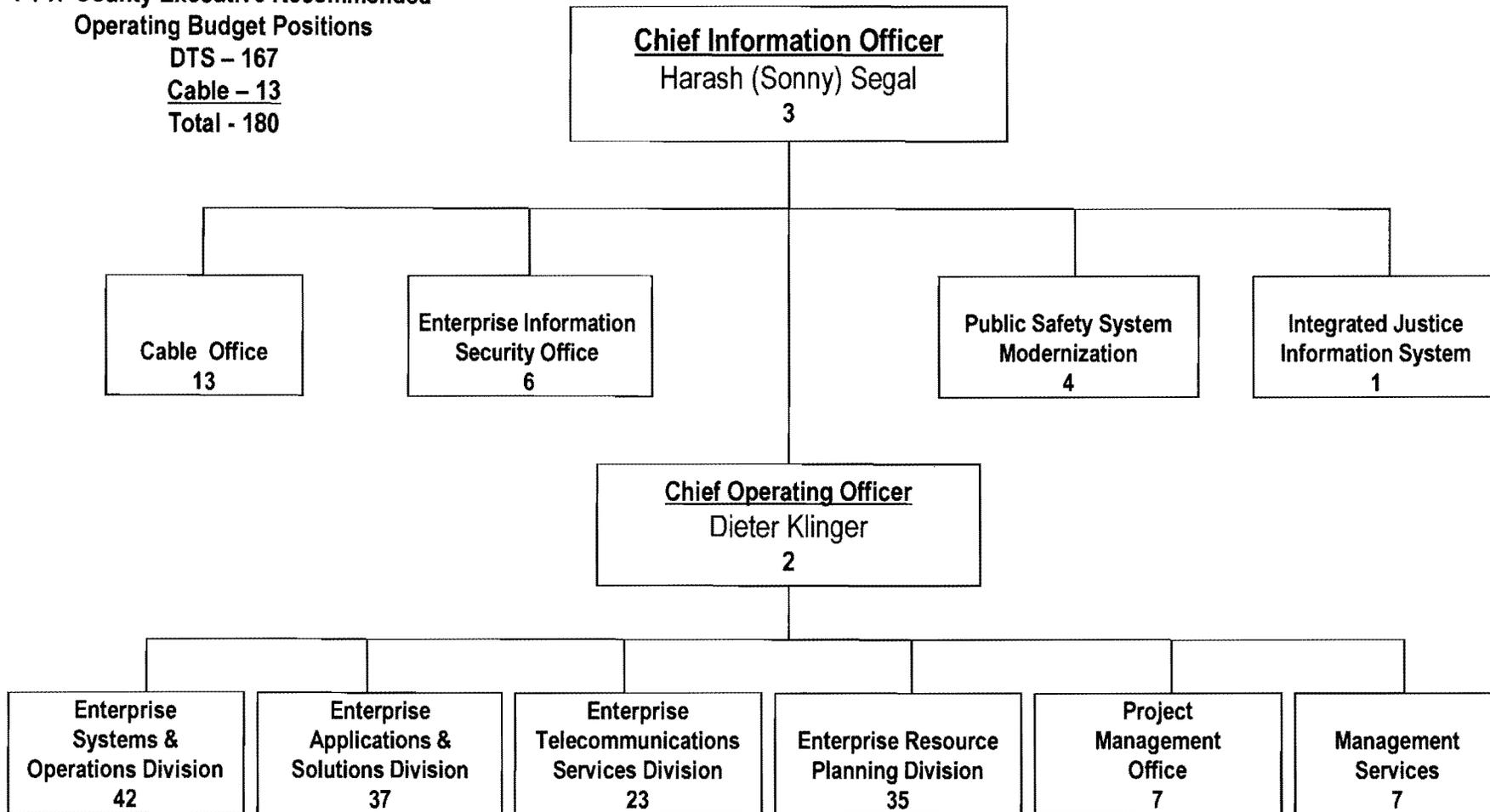
- Developed a national model for financial transparency in partnership with the Coun’s open data vendor including budgetMontgomery, spendingMontgomery, online Budget Book Publication and new data-driven CountyStat Performance Dashboard. In partnership with Public Libraries and using public input, developed a more clear way to categorize data and streamline access to the data.
- Published 54 new datasets as part of the County’s Open Data Implementation Plan.
- Expanded FiberNet to 42 new locations and completed upgrading facilities in 3 FiberNet hub sites.
- Implemented the FiberNet Network Operations Center (NOC) providing 24x7 support for FiberNet serving all County agencies.
- Provided technology infrastructure and led the transition of technology services for numerous new County facilities including the new Silver Spring Library.
- Launched an update to the County’s web portal, <http://montgomerycountymd.gov>. The new responsive design makes it easier to use for mobile device users, includes a new cross-agency web search feature called SearchMontgomery and has many navigation improvements requested by County constituents.

- Implemented eTravel, the County's new centralized non-local travel authorization and expense reporting system. Travel records will be published on dataMontgomery.
- Configured and deployed a new enterprise software distribution, configuration management, and endpoint protection software suite resulting in marked improvements in the County's overall Cyber Security posture, specifically in the areas of vulnerability/patch management.
- Implemented an eDiscovery solution to allow the Office of Public Defenders and private defense attorney's to electronically retrieve discovery data and documents for Montgomery County court cases.
- Deployed the Go-To-Court application, alerting MCPD officers of upcoming court cases on their mobile devices, increasing police appearances at court hearings and reducing case dismissals.
- Deployed the automated District Court traffic feed eliminating the manual data entry of thousands of cases and human data entry errors.
- Implemented financial, procurement, and warehouse management modules for the Department of Liquor Control (DLC).

- Implemented ERP integration for the Department of Recreation, Department of Finance, and Maryland-National Capital Park and Planning Commission implementation of a unified cloud-based registration system.
- Developing and deploying Oracle EBS Property Management module to manage property portfolios, space allocation which will integrate with the Accounts Payable and Accounts Receivable financial modules.
- Collaborated with MC311 and the Department of Liquor Control to establish a Customer Service Center utilizing Oracle EBS, Siebel and Avaya to track customer calls.
- Developed and implemented Assemble-to-Order (ATO) for DLC Special Orders and enhanced DLC Customer Ordering System (iStore).
- Providing project management, development, application engineering, systems engineering and quality assurance support for the Public Safety System Modernization (PSSM) program. The new Computer-Aided Dispatch implementation is slated to go live in early FY17.
- Enhance planning, outreach, and coordination support for the UltraMontgomery Initiative in FY17.

- National Association of Counties – 2015 Achievement Awards
 - Tax Assessment System
 - GIS Web Portal
 - Moving to the Cloud – Montgomery County’s Transition to Office 365
- The Center for Digital Government
 - Montgomery County ranks 2nd overall best Digital Counties Survey in the United States
- Public Technology Institute
 - GIS Web Portal
 - Criminal Justice Case Management System
 - Financial Transparency Suite
- GFOA Award of Excellence
 - Government Finance for its financial information: transformation, transparency and easy access – largely supported by the budgetMontgomery and spendingMontgomery applications

FY17 County Executive Recommended
Operating Budget Positions
DTS – 167
Cable – 13
Total - 180





Major Enterprise IT Systems Report

FY17--Operational Health and Replacement Priority of Existing Major IT Systems										
Priority	System Name	Status	Life	Age	Upgraded	Total 6-Yr	>6-Yr	Full Repl-Cost	CIP PDF #	NOTES
1	Public Safety Modernization	--	--	--	2010	\$58,919,000		\$110,816,000	P340901	Full Repl-Cost includes prior FYs
--	(MCG) CAD	Red	10	15	2001					Part of PSSM
--	(MCG) PS Radio System	Red	12	14	2002					Part of PSSM
--	(FRS) Station Alerting System	Red	10	34	1982					Part of PSSM
2	(MCG) PBX System	Red	20	17	2006	\$6,600,000	\$7,000,000	\$5,000,000		Telephone System
3	(OHR) Occ. Health Mgt.	Red	3	14	2002	\$0		\$275,000		
4	(CCT) Case Management	Red	15	32	2002	\$4,500,000		\$6,200,000		Part of IJIS, awaiting State system
5	(MCPD) IDMS Digital Imaging	Red	5	11	2005	\$240,000		\$240,000		
6	(DOT) Crew Day Card	Red	10	18	2000	\$150,000		\$150,000		Replacement timing is TBD.
7	(DOT) Highway Inventory	Red	10	18	2000	\$130,000		\$150,000		Replacement timing is TBD.
8	(DOT) Tree Manager	Red	8	15	2001	\$495,000	\$3,000,000	\$365,000		Replacement timing is TBD.
9	(DOT) Transit CAD AVL	Red	9	8	2008	\$200,000	\$7,600,000	\$7,600,000		
10	(DLC) Trace	Red	4	14	2002	\$156,383	\$84,759	\$250,000		Replacement Underway
Estimate Only. Not a formal budget plan.										

FY17--Operational Health and Replacement Priority of Existing Major IT Systems										
Priority	System Name	Status	Life	Age	Upgraded	Total 6-Yr	>6-Yr	Full Repl-Cost	CIP PDF #	NOTES
1	Public Safety Modernization	--	--	--	2011					
--	(MCPD) Field Reporting	Yellow	7	10	2006					Potential replacement in PSSM
--	(MCPD/SHF) Records Mgt	Yellow	7	9	2008					Potential replacement in PSSM
2	(MCG) Fibernet	Yellow	20	9	2007	\$25,238,000		\$79,003,000	P509651	PSSM dependant on upgrade of capacity
3	(REC/CUPF) Permit/Registration	Yellow	--	--	2014	\$2,406,228		\$4,000,000		Full replacement cost is estimated
--	(CUPF) CLASS - Fac Schedule	Yellow	12	18	2012					Moving to cloud in 2016.
4	(FIN) ACH Payment System	Yellow	10	8	2015	\$0		n/a		
5a	(MCG) PS Mobile replacement	Yellow	4	11	2008	\$9,600,000		\$9,600,000		Reflects 25% replacement annually.
5b	(MCG) Network Infrastructure	Yellow	10	14	2008	\$3,000,000		\$3,000,000		Reflects 5% - 10% replacement annually.
5c	(MCG) Servers/Storage	Yellow	5	12	2008	\$6,000,000		\$7,600,000		Reflects 15% - 20% replacement annually.
5d	(MCG) MS Windows	Yellow	5	13	2003	\$300,000	\$1,000,000	\$550,000		25% annual replacement
6a	(MCG) ePayment Systems	Yellow	5	14	2009	\$1,000,000		\$1,000,000		Replacement timing is TBD.
6b	(MCG) Legally Mandated Apps	Yellow	5	11	2009	\$750,000		\$750,000		Replacement timing is TBD.
6c	(MCG) Intranet / SharePoint	Yellow	5	11	2009	\$450,000		n/a		Start move to Office 365 in FY16
7	(FRS) Firehouse Software	Yellow	8	12	2008	n/a		n/a		Replacement timing is TBD.
8	(MCPD) Webboard	Yellow	8	15	2000	\$60,000		\$60,000		
9a	(ECM) Financial Disclosure	Yellow	10	12	2004	\$200,000		\$200,000		Replacement timing is TBD.
9b	(FRS) Core Business Systems	Yellow	5	11	2010	\$1,500,000		\$1,500,000		Replacement timing is TBD.
9c	(PIO) Public Information Center	Yellow	3	10	2008	\$500,000		\$500,000		Replacement timing is TBD.
10	(OHR) IVR	Yellow	3	13	2003	\$0		n/a		
Estimate Only. Not a formal budget plan.										



Major Enterprise IT Systems Report

FY17--Operational Health and Replacement Priority of Existing Major IT Systems										
Priority	System Name	Status	Life	Age	Upgraded	Total 6-Yr.	>6-Yr.	Full Repl-Cost	CIP PDF #	NOTES
--	JIS Program	--	--	--	2013	\$0	--	\$15,567,000	340200	Full Repl-Cost includes prior FYs
--	(DOCR) CRIMS / CJCMS	Green	12	5	2013	--	--	--		
--	(MCG) Juvenile Justice - JJIS	Green	8	13	2009	--	--	--		
--	(SAO) Case Management	Green	10	5	2013	--	--	--		
--	(MCG) Office 365	Green	--	--	2014	\$6,000,000	--	--		
--	(MCG) MS Office/Outlook	Green	5	2	2014	--	--	--		
--	(MCG) MS Exchange	Green	5	2	2014	--	--	--		
--	(MCG) SCCM	Green	5	2	2014	--	--	--		
--	(MCG) ERP	Green	20	5	2010					Enterprise Financial System
--	(MCG) CRM / Siebel	Green	20	5	2010					Enterprise CRM System for MC311
--	(MCG) Mctime	Green	20	9	2012			\$1,200,000		Enterprise Time & Attendance System
--	(MCG) Telestaff	Green	10	7	2014			\$750,000		Public Safety Scheduling System
--	(MCG) Enterprise GIS	Green	5	10	2006		\$640,000	\$1,000,000		
--	(MCG) Modular Messaging	Green	15	5	2011		\$7,000,000	\$850,000		Voicemail system moved to Avaya in 2011.
--	(MCG) eGov Web Portal	Green	5	4	2012		\$3,000,000	\$3,000,000		
--	(MCG) Content Mgt Sys	Green	5	13	2003		\$1,000,000	\$1,000,000		
--	(MCG) RemedyForce	Green	10	3	2013	\$720,000		\$750,000		
--	(OMB) BASIS	Green	10	21	2003					New .NET version in development
--	(OMB) eBudget	Green	10	2	2014			\$50,000		Content Management System (WordPress)
--	(FIN) Tax Assessment	Green	10	2	2014			\$1,000,000		
--	(FIN) MUNIS	Green	8	17	2015	\$1,595,710		\$1,034,108		Target SaaS conversion in 2017
--	(DHHS) AVATAR	Green	15	12	2008					Potential replacement by ERP system
--	(DOT) Bus Scheduling	Green	10	7	2009	\$160,000		\$250,000		Legacy replacement completed in 2009
--	(DOT) ATMS	Green	9	12	2004	\$12,048,000		\$63,249,000	P509399	Full Repl-Cost includes prior FYs
--	(DOT) Traffic Signal System Mod	Green	12	4	2012	\$8,028,000		\$40,849,000	P500704	Full Repl-Cost includes prior FYs
--	(DOT) Storm Operations Map	Green	10	11	2011			\$50,000		
--	(DPS) Permit System	Green	21	4	2012			\$1,000,000		Major system upgrade completed in 2012.
--	(DPS) ePlans System	Green	5	2	2014			\$1,000,000		Electronic plan review system
--	(DPS) ePermits System	Green	5	3	2013			\$750,000		Apply online (apply, pay, issue permits)
--	(LIB) Integrated Lib System	Green	12	17	2007		\$4,000,000	\$50,000		
--	(LIB) Internet Session Mgt	Green	8	12	2007		\$175,000	\$50,000		
--	(ECM) Lobbying Registration	Green	10	3	2013			\$50,000		
--	(DGS) FASTER System	Green	20	13	2011			\$500,000		



Major Enterprise IT Systems Report

--	(DHHS) Homeless Mgt	Green	15	10	2010	\$276,000		\$50,000		(Service Point system)
--	(DHHS) Client Record System	Green	15	13	2010			\$50,000		
--	(MCPD) In-Car Video	Green	5	7	2014			\$50,000		Hardware upgrade in 2014.
--	(MCPD) E-Tix	Green	5	7	2011			\$50,000		Hardware upgrade in 2011.
--	(MCPD) RAFIS	Green	7	9	2012		\$1,200,000	\$50,000		Update in 2015 via grant funding.
--	(MCPD) Evidence System	Green	5	10	2013			\$50,000		Upgrade to web based
--	(MCPD) LPR System	Green	5	6	2011			\$50,000		Upgrade due, grant funded
--	(MCPD) Executive Dashboard IBI	Green	7	6	2014	\$240,000		\$50,000		IBI Web Focused Dedicated Server & Dev
--	(MCPD) Cry Wolfe	Green	10	3	2015			\$220,000		False Alarm Reporting 2015
--	(MCPD) BODE-DNA	Green	10	4	2013			\$25,000		DNA Case Management
--	(MCPD) CODIS	Green	10	3	2014			\$60,000		Combined DNA Index System
--	(MCPD) IAPRO-Blueteam	Green	10	4	2014			\$60,000		Internal Affairs Tracking System
--	(MCPD) SafeSpeed	Green	10	5	2012			\$1,000,000		Red light and Speed Reduction
--	(MCPD) Chameleon	Green	10	12	2014	\$60,000		\$60,000		Animal Services Management System
--	(MCPD) Shopkeep	Green	7	1	2015	\$24,000				
--	(MCPD) Adore Cloud FTO	Green	8	1	2016					
--	(MCPD) Helpdesk	Green	10	2	2014					
--	(MCPD) Offenderwatch	Green	10	1	2015					
--	(MCPD) ATAC	Green	10	1	2015					
--	(MCPD) Body Worn Camera (BWC)	Green	8	1	2015					
--	(MCPD) Crime INTEL	Green	10	12	2014	\$12,000		\$25,000		Gang Information
--	(MCPD) KOVA Phone Logging	Green	5	0	2016	\$265,770		\$400,000		PSCC Phone Logging
--	(MCPD) E9-1-1 Phone System	Green	10	0	2016	\$4,786,343	\$2,429,087	\$4,000,000		Motorola E9-1-1 Phone System for CAD
--	(FRS) FireApp	Green	TBD	4	2014			\$50,000		
--	(FRS) ePCR	Green	TBD	6	2013			\$50,000		
--	(DLC) POS System	Green	12	5	2010			\$50,000		
--	(REC) Registration, POS, Sched	Green	12	1	2015					Moved to cloud in 2015.
--	(OCA) Case Management System	Green	10	1	2015	\$58,000		\$165,000		New system installed in 2015
--	(DHCA) Code Enforcement	Green	10	1	2015	\$30,000		\$50,000		Upgraded to .NET technology.
--	(DHCA) OLTA	Green	10	0	2016	\$12,000		\$30,000		Upgraded to .NET technology.
--	(DHCA) eProperty	Green	10	0	2016	\$6,000		\$10,000		Upgraded to .NET technology.
--	(DHCA) Multifamily House Loans	Green	10	0	2016	\$30,000		\$50,000		Upgraded to .NET technology.
--	(DHCA) Licensing & Registration	Green	10	0	2016	\$45,000		\$75,000		Upgraded to .NET technology.
--	(DHCA) MPDU	Green	10	1	2015	\$30,000		\$50,000		Upgraded to .NET technology.

Estimate Only. Not a formal budget plan.

FiberNet – Existing Benefits

- Higher Capacity enabling high band applications (i.e., security cameras, WiFi)
- Increased network redundancy and more reliable connections (less outages)
- Reduction of leased line costs
- Increased COOP capabilities
- Improved Disaster Recovery capabilities
- Telephone services for the County, including MC311
- Backhaul for public safety radio communications
- Extensive video services for the court (internal communications, communications with the State and video arraignment)
- DOT traffic management, signal monitoring and traffic camera feeds
- Video transmission between local cable stations and live television transmission capability from all FiberNet locations
- HHS access to State DMHS databases
- Access to State systems
- NCRNet applications
- Eliminate of low voltage wiring in new construction by utilizing Passive Optical Network (PON) technology (e.g., Multi Agency Service Park)
- High bandwidth Internet access enabling Cloud applications and responsive citizen facing applications
- High bandwidth Internet II access for Montgomery College and other educational institutions
- MCGov/FiberNet Network Operations Center

FiberNet - ITPCC Uses

County-Provided Technology Infrastructure & Services for ITPCC Members	Wide Area Network Connectivity	Internet Access	Disaster Recovery Service	Video Connectivity	Telephony & Wi-Fi	Public Safety Communications	Local Loop Cost Elimination
Housing & Opportunities Commission	✓	✓					✓
Montgomery College	✓	✓		✓			✓
Montgomery County Government	✓	✓	✓		✓	✓	✓
Montgomery County Public Schools	✓	✓	✓	✓	✓		✓
Maryland-National Capital Park & Planning Commission	✓	✓	✓		✓	✓	✓
Washington Suburban Sanitation Commission	✓		✓				

FiberNet – Future Benefits

- Enable economic development by expanding high speed, highly reliable, lower cost Internet access to business parks.
- Ubiquitous WiFi for BYOD, inventory control and specific line-of-business applications.
- Elimination of copper and coaxial wiring costs in future buildings by utilizing fiber and wireless connectivity for provision of computer and telephone services.
- Wi-Fi in economic development areas
- Inter-county video distribution (e.g., statewide town hall meetings and live television coverage of the General Assembly)
- Virtual Computing
- Expanded broadband-based training in libraries and job training center (reducing senior isolation, on-line job application and resumes)
- Bio-tech connectivity between Great Seneca science corridor and medical institutions and universities (e.g., Johns Hopkins in Baltimore)
- Cable television distribution to County, school and Montgomery College offices and classrooms.

Office of the Chief Technology Officer

FY 2015 IT Budget Overview
ITPCC Presentation to MFP Committee

MCPS Mission

Every student will have the academic, creative problem solving, and social emotional skills to be successful in college and career.

Core Competencies:

- Academic Excellence
 - Demonstrate readiness for post-secondary study and/or the workforce so that all students are prepared for success upon high school graduation
- Creative Problem Solving
 - Clearly articulate thoughts, ideas, and information using oral, written, and nonverbal communication
 - Use a variety of instructional resources and technology to enhance learning
- Social Emotional Learning
 - Value and respect diversity and differences
 - Enhance their social awareness, including collaboration, empathy, and relationship-building skills

Office of the Chief Technology Officer Mission

To provide high-quality technology systems and services essential to the success of every student.

Priorities

- ❑ Developing the virtual community center for accessing and sharing digital curriculum, lessons, student performance data, and instructional and professional development resources.
- ❑ Integrating interactive and innovative classroom technologies to transform teaching and learning, and creating teacher learning communities for cultivating their knowledge and proficiencies.
- ❑ Developing and enhancing student progress monitoring and performance—real-time.
- ❑ Modernizing critical human capital and operations management systems in alignment with updated business processes and priorities.
- ❑ Fostering anywhere, anytime collaborative communities.

FY 2015 Information Technology Accomplishments

- ❑ **Engaging Classroom Technology:** conducted more than 600 professional development sessions across 110 different topics. They provided job-embedded professional development for system initiatives and regularly supported collaborative grade-level planning to all elementary schools and content-specific planning at the secondary level.
- ❑ **Real-time Reporting & Analytics :** provided budget data for all stages of the operating budget (requested, adopted, and approved) for inclusion in the districtwide information portal OpenDataMCPS. The portal provides the infrastructure for Montgomery County's open data initiative that facilitates the exchange of information between MCPS and the county.
- ❑ **Data Center:** implemented a new identity management system, which has been deployed and improves the management of user accounts and access to disparate systems throughout the enterprise
- ❑ **Technology Modernization:** replaced approximately 10,000 computers in 54 schools, 2 of which were new or newly renovated. In addition, 13,000 Chromebooks were distributed to these schools, in support of the implementation of the MCPS Strategic Technology Plan.
- ❑ **FiberNet:** Currently all secondary schools are connected to the FiberNet system and 120 of the 133 MCPS elementary schools are connected to the system.



Strategic Perspective:

IT Assessments – Internal and External Environments

Opportunities

- Developing appropriate infrastructure to support greater connectivity to digital resources
- Modernizing critical human capital and financial management systems
- Providing comprehensive knowledge management and analytical support solutions
- Ensuring a safe and secure computing enterprise
- Connecting parents and students in the myMCPS virtual learning community
- Enable a powerful and flexible infrastructure that supports anytime and anywhere access
- Facilitate access to timely and relevant resources to tailor instructional choices for students

Challenges

- Meeting the increasing expectation and demand for IT solutions with decreasing resources
- Managing aging hardware through the 5-year refreshment of technology investment in schools.
- Maintaining current with the changing landscape of technology
- Modernizing enterprise systems to provide effective solutions for network infrastructure and central information management facilities
- Ensuring a secure IT environment that addresses evolving threats both internally and externally
- Engaging staff, students and parents through myMCPS, creating a more engaging community building experience.



Operational and Functional Perspective: Health of Existing IT Systems

Priority	System Name	Status	Life	Age	Upgraded	FY17	FY18	FY19	FY20	FY21	FY22	Total 6-Yr.
1	CATV/ITV	Red	4-6	24	2003	50,000	50,000	50,000	50,000	50,000	50,000	300,000
2	Telephony	Red	7-10	16	2005	3,250,000	3,250,000	3,250,000	3,250,000	3,250,000	3,250,000	19,500,000
3	Budget Management System 7-10	Red	7-10	14	2001	-	700,000	140,000	140,000	140,000	140,000	1,260,000
4	Transportation Information Mgmt Sys	Red	7-10	12	2002	50,000	15,000	15,000	15,000	15,000	15,000	125,000
5	Financial Management System	Red	7-10	8	2013	-	1,744,000	1,544,000	344,000	344,000	344,000	4,320,000
6	Mass Communications (Connect Ed)	Red	4-6	11	2005	311,200	314,312	317,455	320,630	323,836	327,074	1,914,507
7	Human Resources Information System	Red	7-10	13	2015	381,833	8,434,800	4,345,200	1,300,000	467,000	467,000	15,395,833
8	Unicenter Service Desk	Red	3-5	10	2011	79,606	80,402	81,206	82,018	82,838	83,667	489,737



Operational and Functional Perspective: Health of Existing IT Systems

Priority	System Name	Status	Life	Age	Upgraded	FY17	FY18	FY19	FY20	FY21	FY22	Total 6-Yr.
1	WAN / LAN/ISP	Yellow	4-7	9	2007	2,376,162	2,296,984	2,420,083	2,362,524	2,433,400	2,433,400	14,322,552
2	Network Operating System	Yellow	4-6	9	2007	1,561,800	1,752,000	1,366,200	1,426,400	1,469,192	1,513,268	9,088,860
3	Food Services Management System	Yellow	7-10	7	2009	126,788	133,127	139,783	146,772	151,176	155,711	853,356
4	Textbook Manager (Destiny/Follett)	Yellow	7-10	3	2013	-	520,000	111,447	111,447	111,447	111,447	965,788
5	Student Information System	Yellow	7-10	9	2007	150,000	150,000	150,000	150,000	150,000	150,000	900,000
6	Human Resources Online (HRO)	Yellow	4-6	6	2010	175,000	175,000	175,000	175,000	175,000	175,000	1,050,000

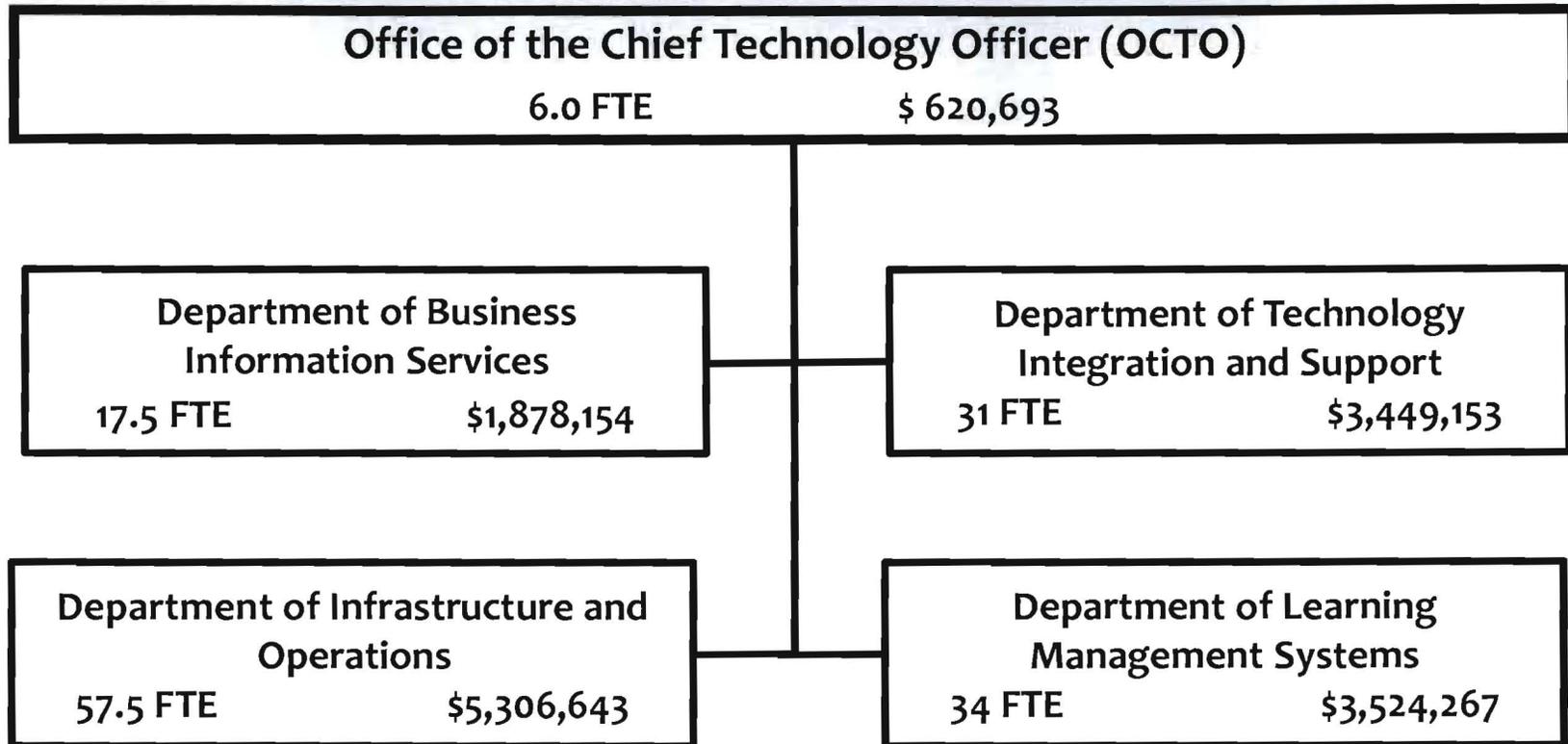


Operational and Functional Perspective: Health of Existing IT Systems

Priority	System Name	Status	Life	Age	Upgraded	FY13	FY14	FY15	FY16	FY17	FY18	Total 6-Yr.
1	Evaluation & Selection Database	Green	4-6	7	2009	10,000	10,000	200,000	10,000	10,000	10,000	250,000
2	Library Circulation System	Green	7-10	4	2012	96,628	96,628	96,628	96,628	96,628	96,628	579,768
3	Pinnacle Electronic Gradebook	Green	4-6	5	2011	108,000	108,000	108,000	108,000	108,000	108,000	648,000
4	Data Warehouse	Green	4-6	2	2014	130,000	130,000	130,000	130,000	130,000	130,000	780,000
5	ATS-Applicant Tracking System	Green	4-6	4	2012	203,000	203,000	223,300	223,300	223,300	223,300	1,299,200
6	Enterprise Backup System	Yellow	7	7	2014	260,399	260,399	260,399	268,211	268,211	268,211	1,585,830
7	Identity Manager	Green	4-6	8	2013	124,500	77,175	81,033	85,085	87,638	90,267	545,697
8	Data Center Infrastructure	Green	10	4	2012	768,973	1,443,773	501,973	891,973	891,973	891,973	5,390,638
9	IT Perimeter Security	Green	3-5	13	2012	-	622,000	-	-	622,000	-	1,244,000
10	Scheduling System	Green	4-6	3	2013	247,000	247,000	247,000	247,000	247,000	247,000	1,482,000
11	Retirement System	Green	3-5	3	2013	354,000	354,000	354,000	354,000	354,000	354,000	2,124,000
12	Request Processing System	Green	7-10	1	2016	21,433	21,433	21,433	21,433	21,433	21,433	128,598



OPERATIONAL AND FUNCTIONAL PERSPECTIVE



Operating Budget: 146.0 FTE
 CIP: 34.5 FTE
 Retirement Fund: 0.5 FTE
TOTAL: 181.0 FTE
 Contractual/Termed: 9 FTE
 Part Time Staff: 19 xx



BUDGET REQUEST PERSPECTIVE

FY 2017 IT Budget Summary

- The FY 2017 Operating Budget request for IT is \$26,357,311 or 1.04% of the total MCPS budget request.
- The FY 2017 Requested Capital Improvement Program budget for Technology Modernization is \$21,358,000.



BUDGET REQUEST PERSPECTIVE

FY 2017 Information Technology Budget Overview

AGENCY IT BUDGET OVERVIEW Details FY 2017

Montgomery County Public Schools	FY17	FY16
\$ Operating Budget	26,357,311	26,702,909
\$ CIP	21,358,000	23,538,000
\$ TOTAL	47,715,311	50,240,909
WYs-FULL TIME	181	174
WYs-Part-time	19	50
FTEs-Contractual	9	10
WYs TOTAL	209	234

BUDGET REQUEST PERSPECTIVE

FY 2011 – FY 2016 REDUCTIONS

FISCAL YEAR	REDUCTION
2011	\$1,119,967
2012	\$1,941,749
2013	\$1,434,727
2014	\$592,870
2015	\$457,828
2016	\$503,926
2017	\$446,962
TOTAL REDUCTION	\$6,498,029



Current Benefits of FiberNet

- Improve teaching and learning through the effective integration of technology.
- Develop and expand virtual communities and online learning to connect classrooms, cultivate relationships, and encourage resource sharing between and among students, teachers, staff, parents/guardians, and community partners.
- Expand the integration of management and analytic systems to support continuous improvement in learning outcomes, strengthening customer service delivery and user experiences.
- Expand partnerships and organize internal resources to ensure equitable access and participation in the MCPS digital community.

MONTGOMERY COLLEGE

ITPCC Program & Budget Overview

**Presentation to the
Government Operations and Fiscal Policy Committee
March 15, 2016**

Montgomery College

Mission, Vision, Values

Our Mission

We empower our students to change their lives, and we enrich the life of our community. We are accountable for our results.

Our Vision

With a sense of urgency for the future, Montgomery College will be a national model of educational excellence, opportunity, and student success. Our organization will be characterized by agility and relevance as it meets the dynamic challenges facing our students and community.

Our Values

Excellence * Integrity * Innovation * Diversity * Stewardship * Sustainability

Montgomery College

IT Vision and Goals

IT Vision

The Office of Information Technology will advance the College's mission by enabling innovative uses of technology for instructional, administrative, community outreach, and social purposes in harmony with the overall mission and shared values of the College. It will act as a careful and thoughtful steward of significant institutional resources, and provide access to knowledge that individuals can use to transform society as well as themselves.

IT Goals

Montgomery College will use information technology resources to:

- support teaching and learning to facilitate student success
- effectively and efficiently operate the College
- support development, growth and community initiatives



Montgomery College

FY16 Initiatives & Accomplishments

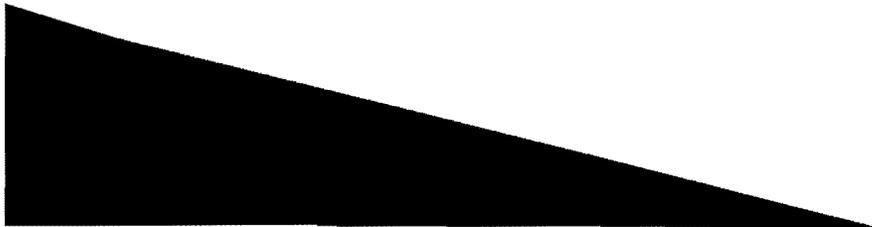
- Implementing “**cloud-first**” strategy for new services whenever possible, moving from builders to providers of IT services.
- Joined the **Internet2 (I2)** consortium. As the first stand-alone community college to become a full member of I2, MC’s membership brings benefits to our academic programs as well as enhanced IT infrastructure services.
- Joined the **Mid-Atlantic Crossroads (MAX)** consortium which serves the academic, research, government, scientific, and business communities within the Mid-Atlantic region. MC partnered with the county FiberNet team, as well as the grant-funded Inter-County Broadband Network (ICBN) fiber, to connect to MAX.



Montgomery College

FY16 Initiatives & Accomplishments

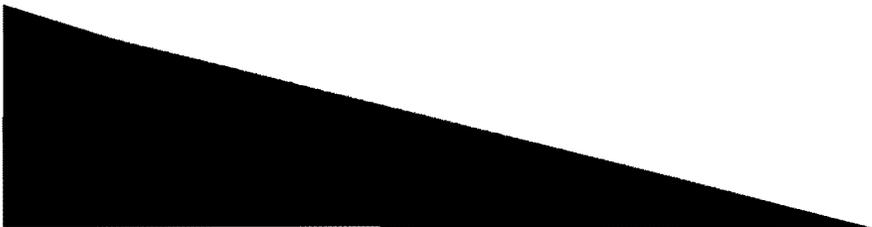
- In partnership with the county, helped to develop the **FiberNet III** pilot program to test new Dense Wave Division Multiplexing core network hardware that will support all county agency broadband needs for the foreseeable future.
- Initiated a project to **improve wireless access** as part of an overall wireless strategy. The overall goal is to provide reliable cellular coverage for our faculty, students, staff, and visitors as well as address the needs of public safety officers and first responders.



Montgomery College

FY16 Initiatives & Accomplishments

- Implementing a multiphase **redesign of MC's public-facing website** - first phase to launch in July. The website will reflect a more modern layout, a mobile-friendly responsive design optimized for mobile devices, and updated content focused on helping users find their best paths to success at MC.
- Launched a **new mobile app** that will help users obtain information about the College, handle administrative functions, and receive important notifications.
- Improved security posture through use of "**PhishMe**" software to provide MC employees with enhanced training regarding how to detect and report suspected phishing e-mails and to increase awareness about the intent and consequences of phishing e-mail attacks.



Montgomery College

FY16 Initiatives & Accomplishments

- Launched **Microsoft Office 365** cloud-based collaboration and productivity services for students. Services include e-mail, calendar, contacts, instant messaging, online conferencing, individual file storage, and online versions of the Microsoft Office suite of products including Word, Excel, PowerPoint, etc. MC employees will be migrated to Office 365 later in the year.
- Initiated a plan to **replace the College's 20-year old enterprise resource planning (ERP) system** with a cloud-based “software as a service” approach to enhance administrative efficiencies and to reduce costs.



Montgomery College

FY16 Initiatives & Accomplishments

- Maintained on-going enhancement of academic instructional facilities, including:
 - Computer and software upgrades in multiple academic labs
 - Expanded use of virtual desktop infrastructure in labs to increase access for students
 - Installed new classroom audio / visual control, scheduling, and monitoring systems to improve ease of use and reliability while reducing staff work requirements
 - Installed six “One Button Studio” video recording systems to make it easier for students and faculty to create video presentations
 - Replaced aging video projection and audio systems on the Rockville Campus at two large venues to provide a contemporary theater-style viewing experience for College and public events.

Montgomery College Strengths and Challenges

Strengths

- College leadership committed to using innovative technology to support teaching, learning and administrative effectiveness
- Long-standing County commitment to providing financial support for maintaining College technology and encouraging new initiatives
- Forward looking strategic vision which leverages thoughtful technology investments and a “cloud-first” strategy to move IT from *making things work* to *making a difference*
- Highly centralized and integrated IT services and support
- Partnerships with county, state and other higher educational institutions

Challenges

- Attracting and retaining a skilled workforce, knowledgeable in current and emerging technologies
- Managing institutional change brought on by the rapid introduction of new systems and changing expectations of the role of technology in education
- Maintaining an effective and responsive IT security program

Montgomery College

Operational and Functional Perspective

FYs17-22--Operational Health and Replacement Priority of Existing Major IT Systems
 Agency Name: MONTGOMERY COLLEGE

Priority	System Name	Status	Life	Age	Upgraded	FY17	FY18	FY19	FY20	FY21	FY22	Total 6-Yr.	NOTES
1		Red										0	
1	Academic Student Appls.	Yellow	Varies	Varies	Ongoing	1,200	1,200	1,200	1,200	1,200	1,200	7,200	
2	Network Infrastructure	Yellow	Varies	Varies	Ongoing	1,200	1,200	1,200	1,200	1,200	1,200	7,200	
3	Systems Software	Yellow	5	Varies	Ongoing	600	600	600	600	600	600	3,600	
4	E-mail System	Yellow	8	11	2015	135	135	135	135	135	135	810	Being migrated to Cloud
5	ERP, HR, SIS, Finance, Alum (Mnt)	Yellow	8	20		3,800	3,800	3,800	1,900			13,300	Cloud migration planned
--	Library System	Green	8	New	2016	128	130	132	134	136	138	798	Cloud migration 2016
--	E-mail System	Green		New	2016		100	100	100	100	100	500	Cloud migration 2016
--	ERP, HR, SIS, Finance, Alum (Mnt)	Green		New	2016	1,500	2,000	2,000	2,000	2,000	2,000	16,200	Cloud migration begins in 2016
--	Disaster Recovery	Green			Ongoing	1,000	1,000	1,000	1,000	1,000	1,000	6,000	Redundant systems
--	Network Operating Center (Data Centers)	Green	3-7	Varies	Ongoing	1,000	1,000	1,000	1,000	1,000	1,000	6,000	Cloud migration is being planned
--	Desktop Computer Repl/Upgrades	Green	4	Varies	Ongoing	1,000	1,000	1,000	1,000	1,000	1,000	6,000	
--	Instructional System Repl/Upgrades	Green	4	Varies	Ongoing	3,000	3,000	3,000	3,000	3,000	3,000	18,000	

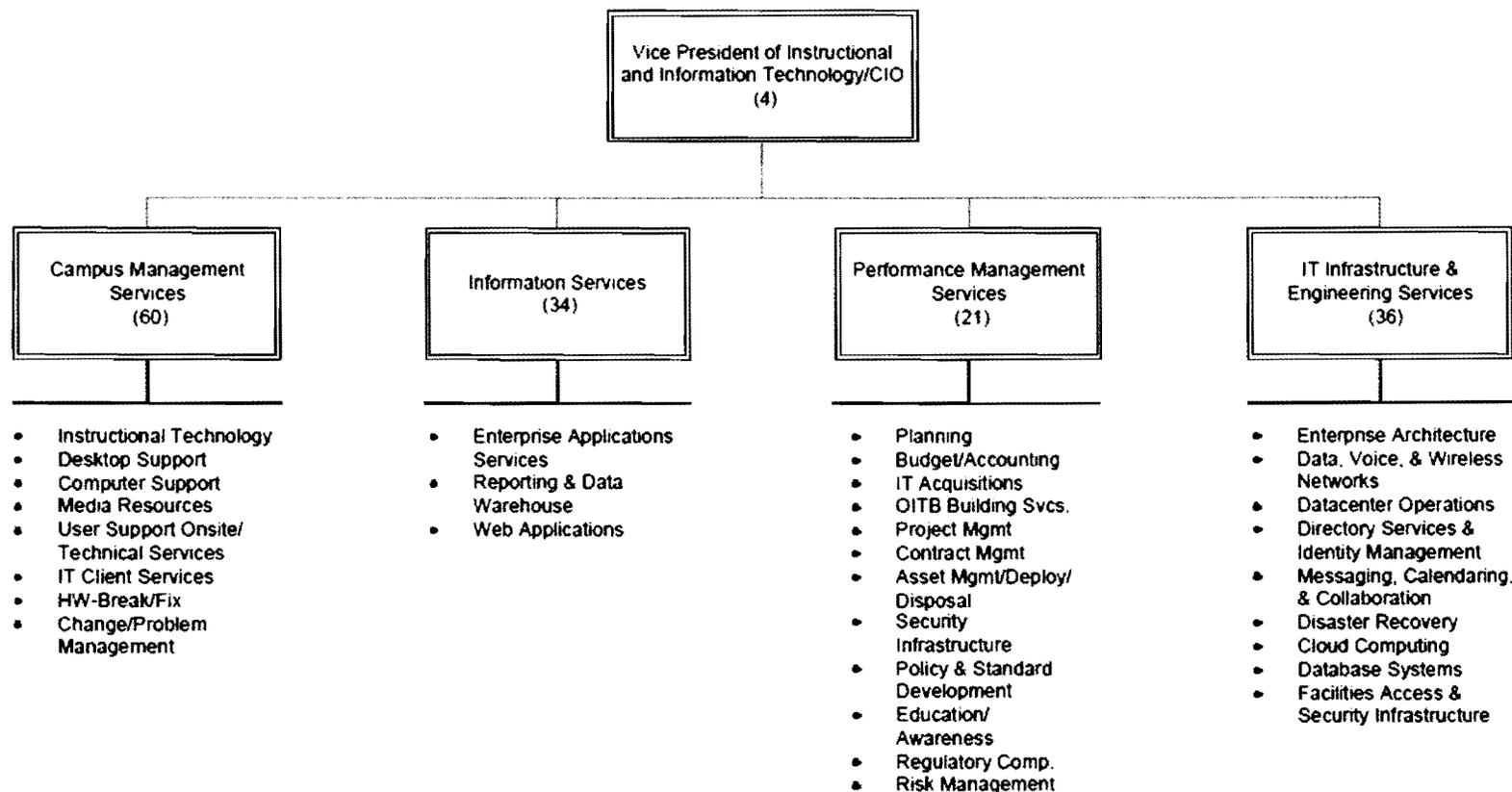
SUMMARY Multi-year Cost Projections by Risk Categories

	FY17	FY18	FY19	FY20	FY21	FY22	Total 6-Yr.
RED	0	0	0	0	0	0	0
YELLOW	6935	6935	6935	5035	3135	3135	32110
GREEN	7628	8230	8232	8234	8236	8238	48798
TOTAL	14563	15165	15167	13269	11371	11373	80908

Risk Key

- Red= Obsolete or vulnerable critical systems/applications in immediate risk of failure
- Yellow= Aging or vulnerable critical systems likely to need major upgrade or replacement in the next 2-6 years
- Green= Stable systems expected to require only routine maintenance or minor upgrade over the next 3-6 year

Montgomery College Operational and Functional Perspective



Total Number of Positions: 155 (F/T=152; P/T=3)

Number of Contractors: 32 (includes OIT, 2 academic labs, and 2 for OMB)

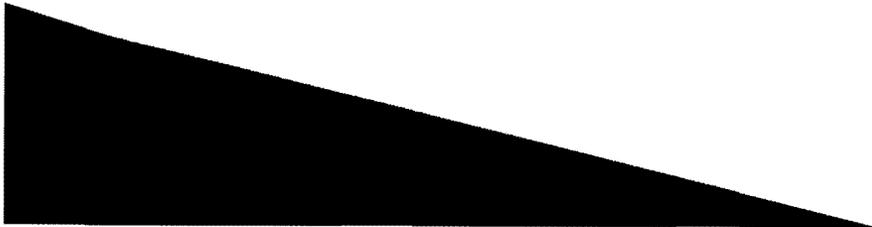
Montgomery College Budget Request

IT Budget Summary

	FY16 Approved	FY17 Requested
Total Operating Salaries & Expenses	\$26,846,804	\$27,214,541
<i>Operating Salaries*</i>	\$14,738,394	\$14,738,394
Total Capital Salaries & Expenses	\$12,570,000	\$7,200,000
<i>Capital Salaries*</i>	\$ 2,102,274	\$2,102,274
Total	\$39,416,804	\$34,414,541

IT budget includes: Network Infrastructure, Hardware and Software, ERP and Applications, Classrooms and Labs, Web and Portals, IT Planning and PMO, Computer Support, Telecommunications, Operations, Media Resources, Cyber Security

*Note: Salary figures include benefits package



FY 2017 IT BUDGET OVERVIEW

Maryland-National Capital Park & Planning Commission

Montgomery County Planning and Parks Departments

Mission Statement

Planning Department

The Department endeavors to balance economic development opportunities with community needs and stewardship of natural, cultural, and historic resources consistent with the General Plan and in concert with planned public facilities and infrastructure.

Department of Parks

Protect and interpret our valuable natural and cultural resources; balance the demand for recreation with the need for conservation; offer a variety of enjoyable recreational activities that encourage healthy lifestyles; and provide clean, safe, and accessible places for leisure-time activities.

ITI Mission:

The mission of the Information Technology & Innovation Division (ITI) is to provide high quality infrastructure, applications, communications, support, and innovation by delivering IT products and services that enable the Planning Department and the Department of Parks to achieve their missions.

Strategic Assessments

Opportunities

- Inter-agency collaboration in IT arena improves ability of M-NCPPC and other agencies to provide services to County citizens.
- Utilize the Montgomery College Data Center as a data recovery site for Montgomery Parks and Montgomery Planning.
- FiberNet: high-speed connectivity among facilities and County agencies improves productivity and is cost effective.
- The web site redesign initiative, currently underway, will improve the customer experience and meet ADA compliance requirements.
- Leveraging IT resources across both Departments to achieve cost savings and efficiencies.

Challenges

- Network security, virus protection, and disaster avoidance/recovery measures are complex have the potential to slow throughput.
- Maintaining core competency of IT/IS staff and dealing effectively with succession planning.
- Budget constraints require balancing the following:
 - Supporting aging installed base.
 - Replacing obsolete technology
 - Planning for innovative technology.

IT Accomplishments FY 2016

Technology Enhancements

- The ProjectDox and Hansen regulatory systems were upgraded to the latest versions, eliminating the former browser limitations, and enabling online-payment capability. In addition, record plat reviews were added to ProjectDox.
- Launched Development Database - a collaborative project between the Montgomery County Executive Office, Maryland-National Capital Park & Planning Commission, and the Montgomery Business Development Corporation. This application leverages the Hansen and ProjectDox systems. It combines information from multiple regulatory plans into a single link on a map. This application provides project information from the DAIC, including marketing narratives and photographs, populated recently by the Department of Economic Development.
- Launched upgraded ArcGIS server (10.3.1) - this latest server includes new webservice capabilities which enabled the public feedback commenting threads used on our recent cycle master plan feedback tool: <http://mcatlas.org/cyclingconcerns>
- SmartParks Park asset data is now being integrated into GIS. Soon, the GIS web services will be able to inform the new data-driven Parks web site and other web maps with Park asset data.
- Virtualization. Continue to migrate remaining older servers to the virtualized environment, and virtualize all new servers; results include improved performance, efficiency, and cost savings.
- Improved network security by implementing the latest version of Malware Bytes.

IT Accomplishments FY 2016

Training and Customer Support

- Refreshing the IT Strategic Plan will position the Departments to meet new demand through innovative technology.
- Offering online training in the latest Microsoft Suite for just-in-time training through videos that demonstrate a feature including video, audio, and keyboard/mouse movements, step by step.
- Providing GIS computer-based-training for staff in both Parks and Planning in specialized topics.
- Providing continued technical training for IT and IS/GIS staff.
- Continued successful outsourcing for our IT Help Desk, riding Montgomery County's contract for desktop support services.



Strategic Directions for FY 2017

Themes

Embracing the latest technologies for improved service:

- GIS: publishing the GIS layers online using ESRI's latest Cloud technology, ArcGIS Online in support of the County and State Open Data initiatives.
- Virtualization. Embracing desktop virtualization as a new standard for many end users to achieve cost savings and improved performance.
- Mobility. Utilizing latest technology allows users to easily access IT resources regardless of location or time of day.

Enhanced Outreach:

- Enhance customer outreach with Social Media platform such as Facebook, Twitter, and YouTube integrated with our website.
- Ability to launch web apps to address public demand for hot topics in Parks and in Planning.
- Cross-Departmental website redesign underway to enhance user ability to access information quickly and easily, incorporating increased opportunities for user engagement such as commenting and rating and integration with GIS mapping, multimedia and other technology.

Strategic Directions for FY 2017

Maximizing Our Technology

- Empowering the staff of Montgomery Parks and Montgomery Planning to use the ArcGIS web platform for creating websites displaying their subject matter expertise to the public.
- Utilizing our upgraded SAN to ensure continuous operation and data replication.
- Migrating remaining legacy servers to virtualized environment to achieve efficiency and reduce costs.
- Launching desktop virtualization project to reduce PC and laptop replacement costs and improve mobile computing.
- Leveraging the latest Microsoft Office Suite, including new tools such as Skype for Business and OneDrive, to enable users to communicate and collaborate any time from anywhere.

**Proposed FY 2017
– Budget as Submitted by Commission**

Technology	Planning	Parks
Personnel Services	\$2,080,477	\$944,623
Supplies & Materials	\$248,291	\$224,400
Other Svcs & Charges	\$857,475	\$1,097,280
Capital Outlay	0	0
Chargebacks	0	-58,200
Total Expenditures	\$3,186,243	\$2,208,103
Workyears*	16	8.7

* Workyear totals are before Chargebacks





**Washington Suburban
Sanitary Commission**

Interagency Perspectives: FY17 Program & Budget Overview

March 2016



Carla A. Reid
GM/CEO
Tom Street
DGM
Mujib U. Lodhi
CIO

Strategic Perspective

WSSC Mission:

We are entrusted by our community to provide safe and reliable water, life's most precious resource, and return clean water to our environment, all in an ethically and financially responsible manner.



WSSC Vision:

- We will become the world class provider of safe, reliable water/wastewater services that protect the health, safety and quality of life for our community.
- Customers are delighted with our excellent products and services.
- Relationships with our customers, employees and business partners surpass expectations.
- Protect the environment through our efforts.
- Quality...always.

Strategic Perspective

Commission Strategic Priorities



NOTE:

The Technology Priority was combined into the Infrastructure Priority.

The Regulatory Environment Priority was combined into the Communications and Stakeholder Relationships Priority.

Under the direction of the WSSC Strategic Plan and guidance of the General Manager, we will:

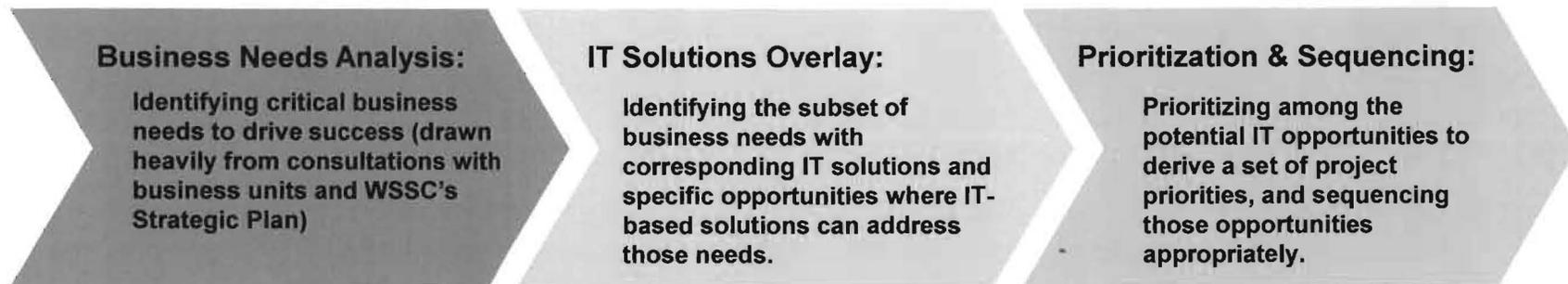
- Rise to a position of absolute leadership among public utilities in the creative use and application of IT, and leverage this investment to dramatically improve the customer service and organizational performance.
- Serve as a Change Agent to support redefinition of business processes so as to more effectively serve our customers.
- Strive to create new business value through innovative IT solutions to build a **Smart Utility**.



IT Strategic Plan: Planning Methodology

In FY13, lead by the General Manager and CIO, with the approval of the Commissioners, WSSC developed a 5-Year Strategic Plan.

- A business-driven plan, this Strategy hones in on specific opportunities where IT-based solutions can unlock the greatest business value.
- The planning approach can be summarized as follows:



Strategic Themes Underlying Our IT Strategic Approach:

- **Invest in IT as Mission-Critical Infrastructure**
 - Upgrade “orphaned” & mainframe-based “legacy” systems
 - Mitigate system performance risks
 - Streamline business processes prior to automation
 - Leverage mobile & online techs to increase efficiency & connectivity
 - Leverage online technologies to better serve & engage stakeholders
 - Improve info accuracy & transparency for customers

■ Work Smarter

- Develop integrated tech solutions that cut across functional units
- Enhance 2-way info flows w/real-time technologies
- Harness the power of info w/business intelligence & predictive analytics
- Leverage IT for better tracking of business performance

■ Effectively Steward IT Resources

- Leverage “off the shelf” technologies, where appropriate
- Optimize existing systems, end-to-end
- Employ bridge solutions to alleviate “pain-points”, where appropriate

IT Project Portfolio & Sequencing

Low

IMPLEMENTATION INTENSITY

Platform Ongoing, multi-year
<ul style="list-style-type: none">▪ Docs & Business Process Management▪ Dashboards▪ Mobile Workforce▪ GIS▪ Contact Center Enhancements▪ Master Data Management (MDM)

Short Term <2 years
<ul style="list-style-type: none">▪ HRIS Enhancements▪ Construction Ops Management▪ CIP Budget Management▪ CIP Decision Support▪ Retiree Payments Management▪ Financial Reporting▪ Fixed Assets▪ Safety Management▪ Stakeholder Management

Complex, multi-year 2++ years
<ul style="list-style-type: none">▪ CSIS▪ AMI▪ Asset Management: Production▪ Asset Management: Infrastructure▪ AP / Purchasing / Inventory / Contracts▪ Leak Detection▪ Permitting

IT Strategy– Project Sequencing

		2012		2013				2014				2015				2016				2017		
		Jul	Oct	Jan	Apr	Jul	Oct	Jan	Apr	Jul	Oct	Jan	Apr	Jul	Oct	Jan	Apr	Jul	Oct	Jan	Apr	
		FY 2013				FY 2014				FY 2015				FY 2016				FY 2017				Beyond...
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Multi-Year	AM: Production	3	P	P	R	R																
	Permitting	2.75	P	P	R	R																
	AM: Infrastructure	3			P	P	R	R	R													
	CSIS	3						P	P	P	R	R	R									
	AP/PO/Inventory/CM	2.25								P	R	R										
	AMI	5 to 6													P	P	P					thru 2022
	Leak Detection	3																	P	R		
		<p>P = Planning & Acquisition R = Detailed Requirements</p> <p>Note: Project timeline starts at contract execution</p>																				
Short-Term	Construction Ops Mgmt	2																				
	CIP Decision Support	2																				
	Financial Reports	1.25																				
	Fixed Asset	0.5																				
	CIP Budget Mgmt	1.25																				
	HRIS Enhancements	1																				
	Stakeholder Mgmt	0.75																				
	Retirement Payments	1																				
	Safety Mgmt	1																				
Platform	Doc/Records/KM	ongoing																				
	Dashboard	ongoing																				
	Mobile Workfce	ongoing																				
	Contact Ctr BPR/ENH	ongoing																				
	MDM	ongoing																				
	GIS	ongoing																				

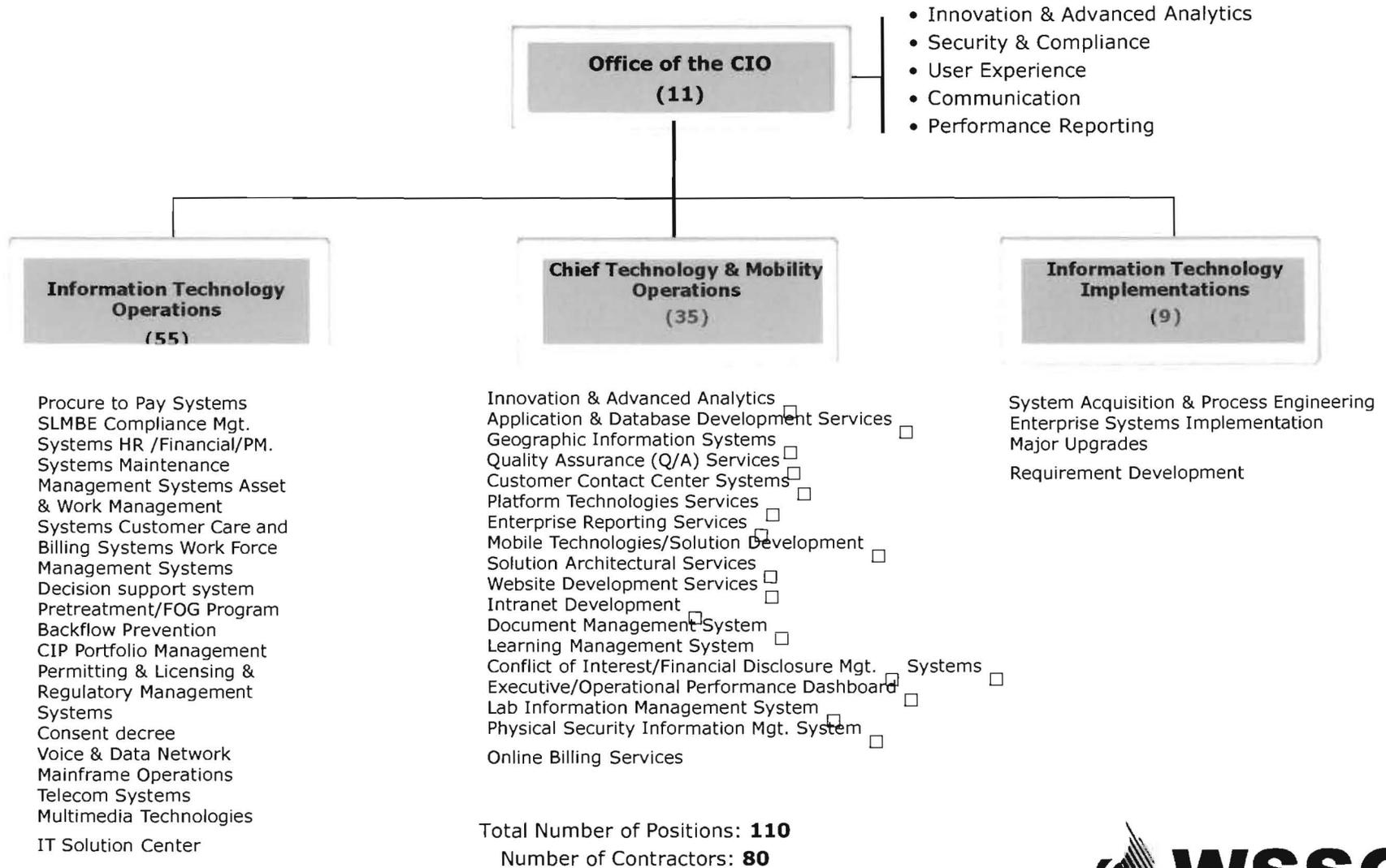
Implementation Approach

- Refine the system implementation approach to align with best practices
- Implement structures, processes and controls to ensure delivery readiness
- Retool an enterprise-wide, integrated IT Team to deliver on these objectives.
- Invest in our people resources through recruitment, skills development and performance management

Implementation Approach (continued)

- Institute a formalized governance structure to provide ongoing IT portfolio and project-level guidance
- Upgrade out IT infrastructure to keep pace with new technologies
- Accelerate technical and policy collaboration with County technology leaders

Implementation Approach: Integrated IT



FY15 - Update: Multi-Year Projects

Key IT Projects: 5-Year IT Strategic Plan Initiatives

		FY2013				FY2014				FY2015				FY2016				FY2017				Status
		Q1	Q2	Q3	Q4																	
Asset Management - Production	MULT-YEAR	P	P																			●
Permitting		P	P																			●
Asset Management - Linear				P		P																●
CSIS										P	P	P										●
AP/PO/Inventory/CM										P												●
Construction Operations Mgmt	SHORT TERM																					●
CIP Decision Support																						●
Financial Reporting																						●
Fixed Assets																						●
CIP Budget Management																					●	
HRIS Enhancements	PLATFORM																					●
Dashboard																						●
Mobile Workforce (MWM)																						●
Contact Ctr BPR/Enhancements																						●
Master Data Management (MDM)																						●
GIS - Geographical Info Systems																					●	

● On Track ● Watch List ● Behind Schedule
 --- Planned ■ Actual % Percent of total planned work for multi-year & short-term projects; Percent of annual planned work for platform initiatives.
 Note: Master Data Management (MDM) initiative has been deferred until the baseline COTS data architecture is implemented for the major systems. This will ensure that WSSC's MDM design integrates consistently with the newly installed systems (thus lessening the risk of rework).
Multi-Year projects are complex and intensive, with expected implementation of two years or more. **Short-term** projects are less complex and narrower in scope, with expected implementation of less than two years. **Platform** projects provide for the development and maintenance of technology platforms upon which vertical solutions are constructed. These are low intensity, multi-year projects, often implemented in modules. They are dynamic and open-ended by nature

Recent Accomplishments

Sampling of Recent Accomplishments & Benefits Realized

Recent Accomplishments (by Strategic Priority)

Customer Service

- Interactive Voice Response System (IVRS)
- ePlan Review
- Online Bill Payment
- Customer Contact Center
- WSSC Mobile App
- Next Generation Phone System
- Field Service Management
- **Customer Connect Contact Center Analytics**

Environmental Stewardship

- Facilities Information Tool (FIT)
- Industrial Discharge Control System
- CIP Portfolio Manager / Consent Decree Management System
- Bay Restoration Fees

Security & Safety

- HyLo Hydrant Locator App
- **Electronic Security System (ESS)**
- Security Incident Management System Upgrade

Infrastructure

- TEAMS – Asset Management
- Decision Support System
- Records Retention Schedule
- Cross Connection Management System (CCMS)
- Firebook Hydrant Inspection App
- **Valve Exercise Program***
- **Asset Management Analytics***
- **CIP Analytics***

Financial Stability

- Intelligent Mail Barcode
- Delinquency Reporting
- Revenue Remittance System
- Watershed Permits
- **Financial Analytics***

Communications & Stakeholder Relations

- Live Video Broadcasting
- eBoardroom Solution
- Outage Management
- **Customer Notification System (CNS)**
- Agency Project Coordination(APC) System

Supply Chain Mgmt & Supply Diversity

- SLMBE Compliance System
- P-Card Reporting & Analytics
- **Procurement Spend Analytics**

Workforce Management

- Employee Self-Service
- Applicant Tracking System
- **HR. Position Control**
- Performance Management System
- **HR. Analytics**
- Learning Management System

Achievements: Mobile Initiatives

■ Fire Hydrant Inspection System

- Increased process efficiency by 25-40% to overall process.
- Real time status of the inspection process.
- Elimination of the need for paper copies of the Firebook.
- Visual representation of the fire hydrant inspection process.
- Support for data integrity by allowing supervisors to verify location at time of inspection.

■ HyLo – Hydrant Locator

- Supports public safety through quicker decision-making for County firefighters

■ Mobile App Enhancements

- Reduced call volume and call-handling times within call center.
- Potentially faster repairs, dollars saved, & better service for the community.
- Reduced carbon footprint – less printing and travel costs
- Improved customer service, by providing more services through mobile devices.



TEAMS Asset Management – Production: TEAMS Mobile



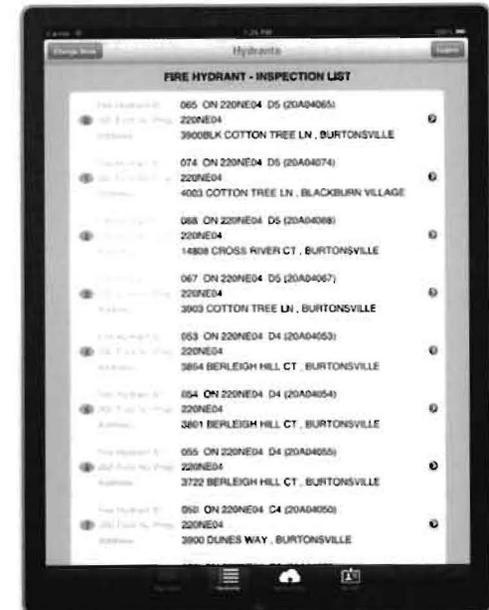
Key Benefits:

- ▶ **Real time Operational Systems Access for field services personnel**
- ▶ **Enables direct and immediate changes to work orders and other critical business systems**
- ▶ **Results immediately visible to customer via app and/or presence of redirected workforce in the field.**

Firebook Hydrant Inspection System

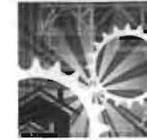
Key Benefits:

- Supports public safety by assisting firefighters in Prince George's and Montgomery counties making quicker informed decisions about which hydrants to use when responding to fires.
- Transmits exact position of hydrants, side of road they are located, size of water main, and whether the hydrant is in service.
- Improved end-to-end process efficiency by 25%
- Eliminates manual process and printing.
- Real time inspection status and visual representation (map) of inspections.



Since Jun. 2014
38,000 hydrant
e-inspections....

Permitting Management System:



WSSC
ePlan Review

Key Benefits:

- ▶ Saves engineers over a month's time waiting for reviews (reduces processing time from 8-10 weeks to 2 weeks)
- ▶ 24/7 Access to Review Status: Engineers and applicants can go online anytime to check on review status themselves – no calling or emailing!
- ▶ Monumental Environmental Savings, by reducing paper, printing, travel, and the time and costs associated with them.

**For Every
100 Site
Utility Plan
Submitted
Online, We
Save:**



80,000
Paper Drawing Sheets



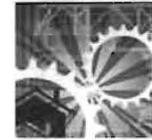
5
Tons of Paper



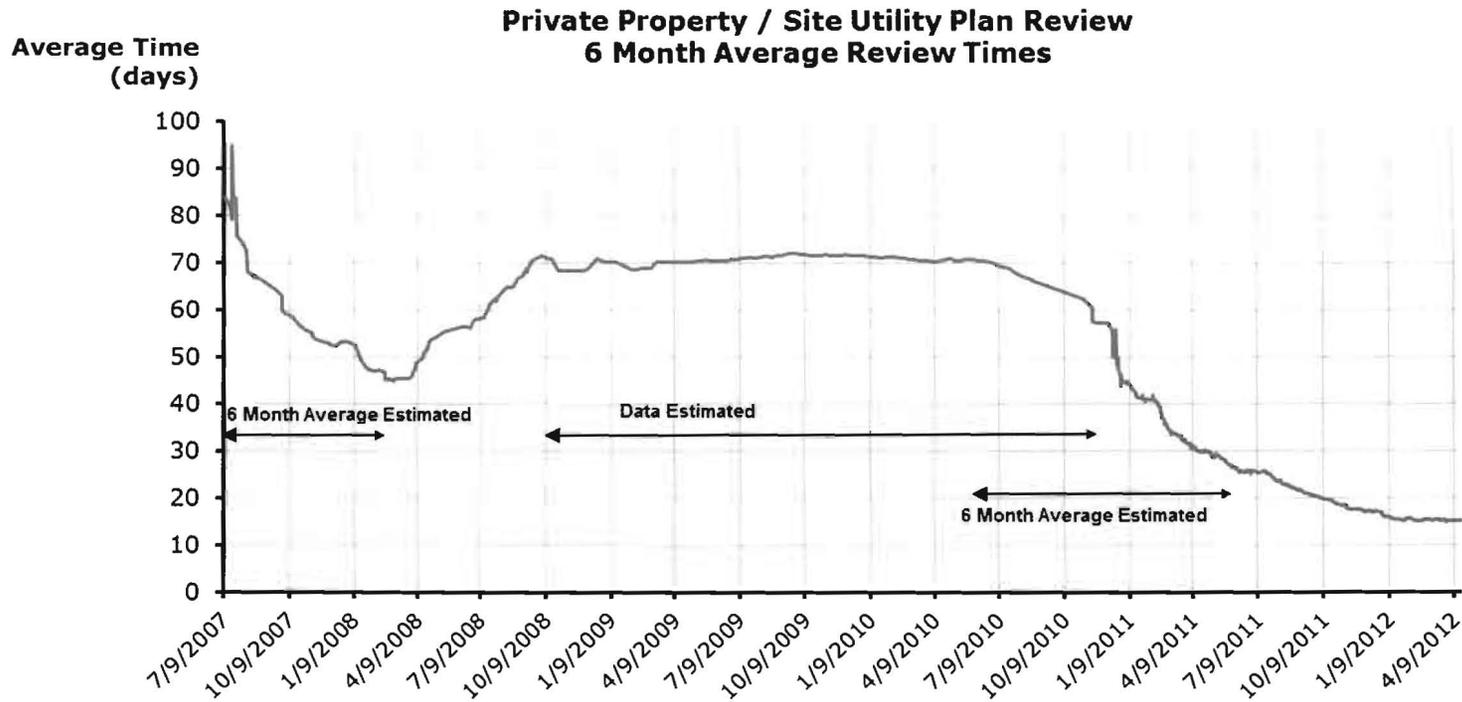
13
Trees



Permitting Management System:



WSSC
ePlan Review

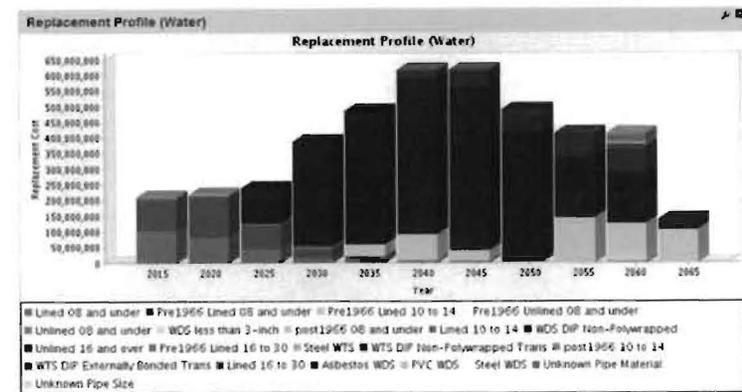
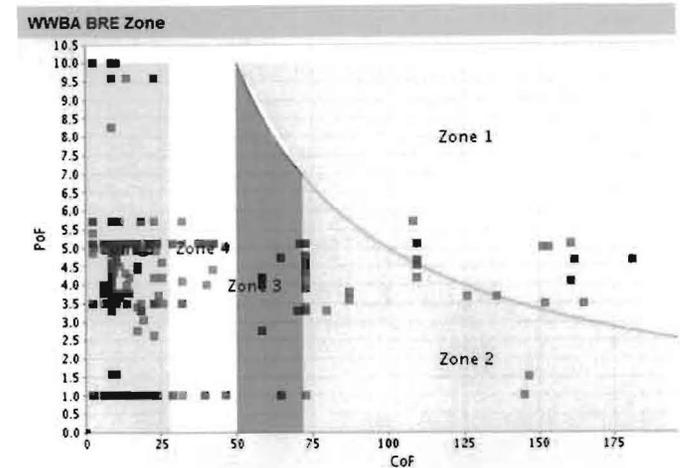


Note: data before July 2010 was extrapolated

CIP Decision Support System

Key Benefits:

- ▶ More effective planning/managing of asset replacement strategies and more effective capital investment decisions
- ▶ Lifecycle modeling, renewal and replacement forecasting, financial forecasting, project scheduling, and capital planning.
- ▶ A better means of assessing assets' health & predicting replacement timeframes
- ▶ Establishment of a single data repository for reporting
- ▶ Ability for asset management plans to be developed in-house





Customer Contact Center Optimization

” Delivering Excellent Customer Service”



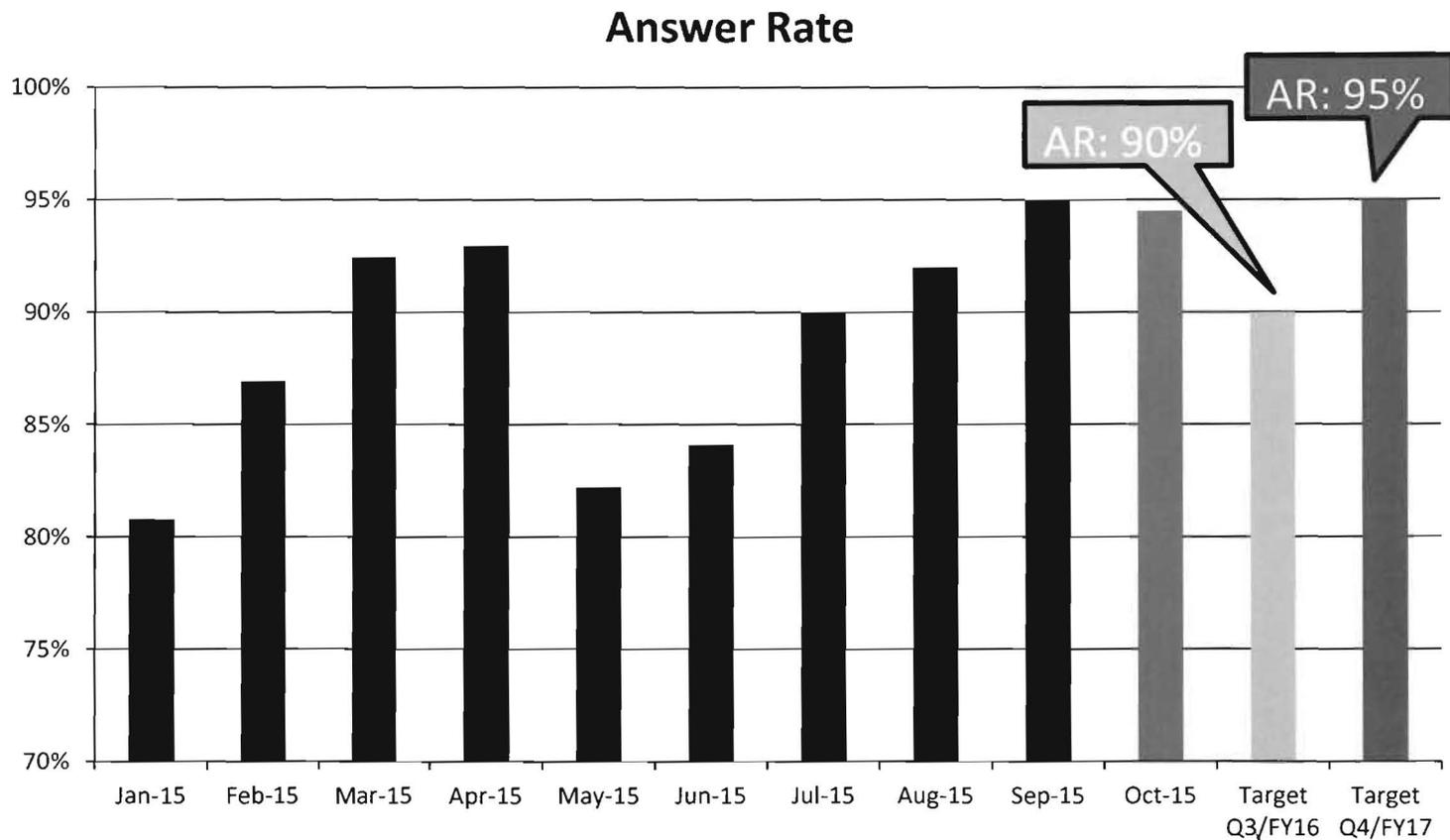
Contact Center Optimization Process in Progress..

Objectives:

- ▶ **Improving Customer Experience.**
- ▶ **Increasing Operating Efficiencies.**
- ▶ **Improving Resource Utilization.**
- ▶ **Enhancing Staffing & Recruiting.**
- ▶ **Streamlining Business Processes.**
- ▶ **Increasing Employee Engagement.**
- ▶ **Reducing Overall Operating Costs.**

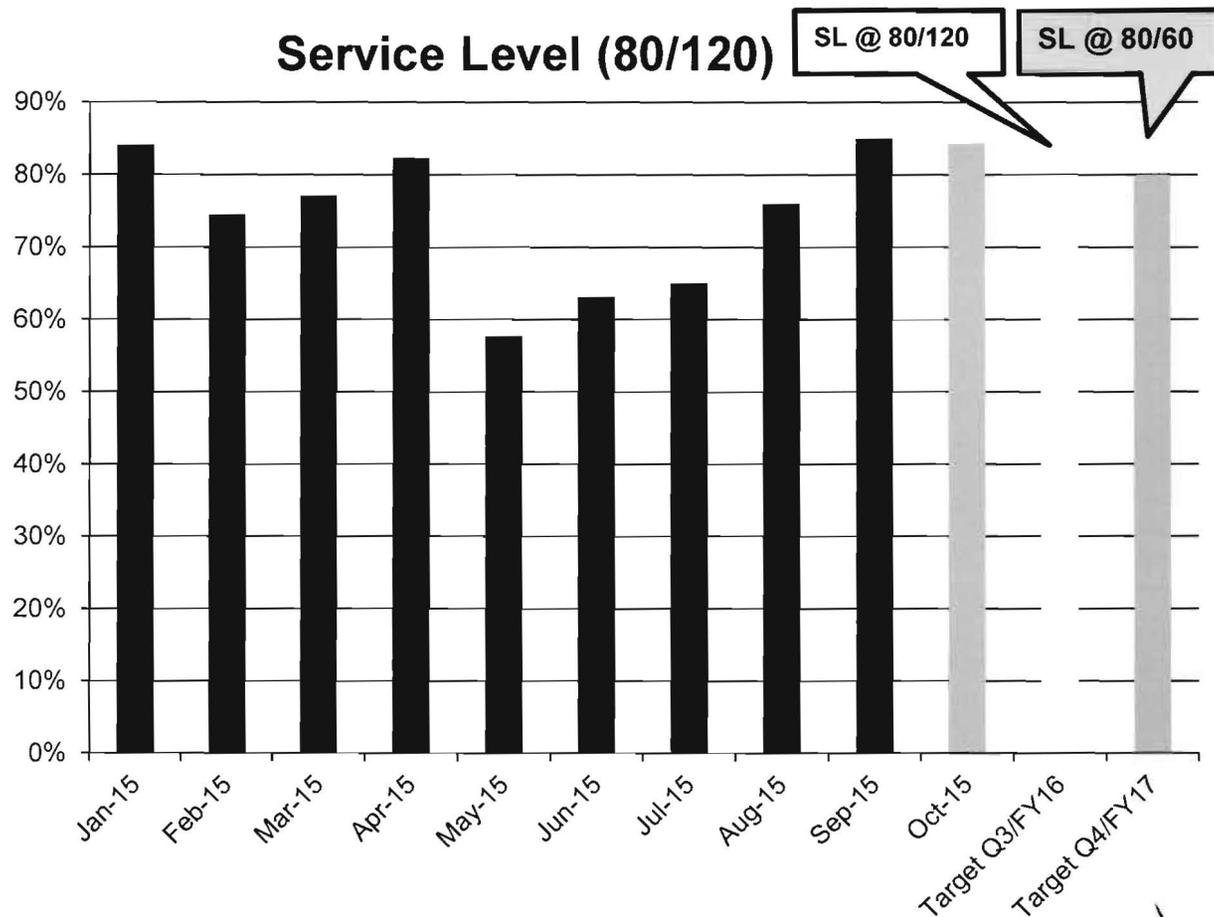
Key Measures of Success

Contact Center Optimization Progress.. Current Status



Key Measures of Success

Contact Center Optimization Progress.. Current Status





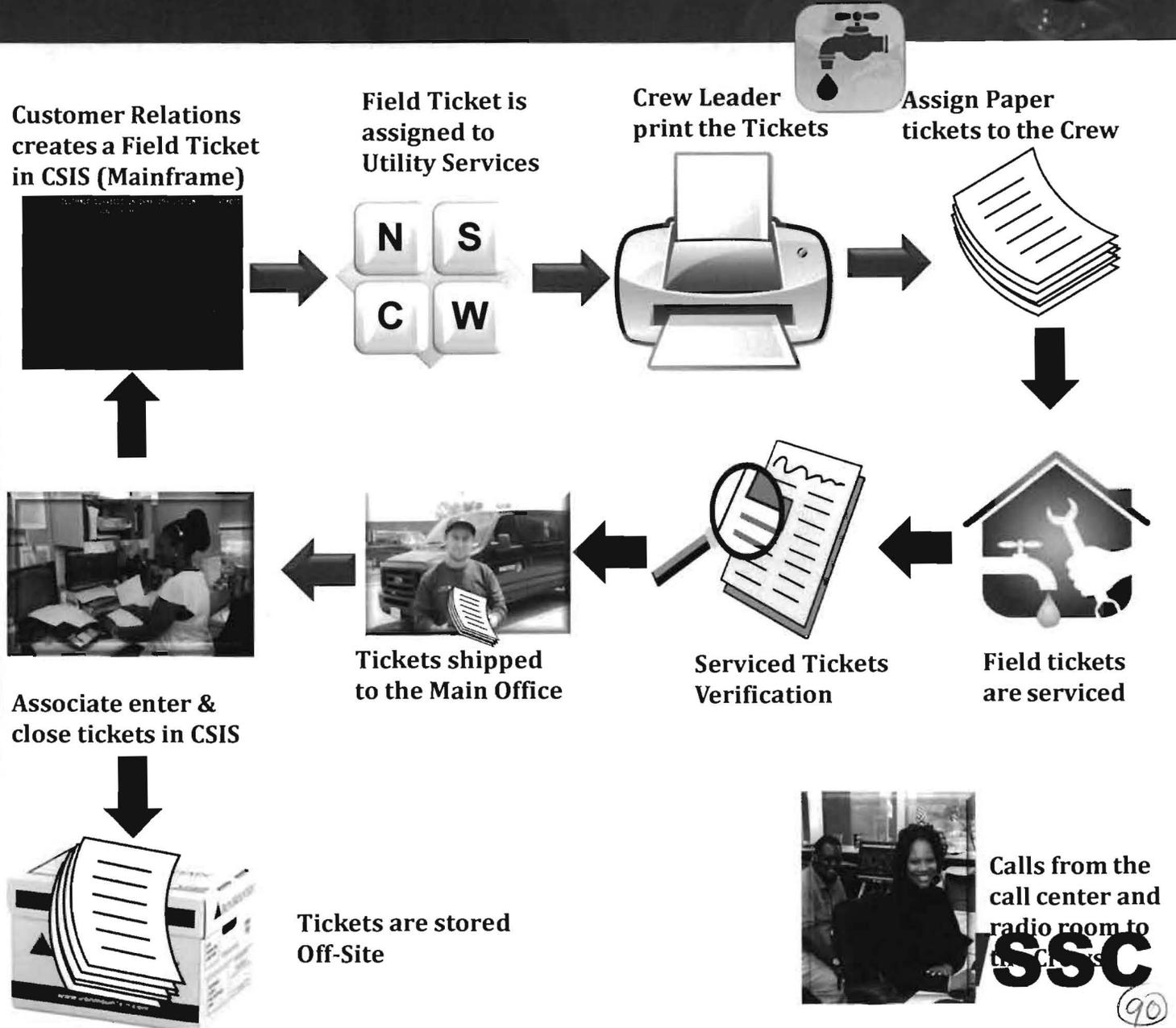
Customer Connect

” To Serve Our Customers Better”



Current Business Process

- Paper Tickets printed per day (all depots) 1200 tickets
- Overall Time to process a paper ticket is 2 weeks
- Associates process 800 tickets with 3 mins processing time per ticket



Key Benefits



Approximately 280K sheets of paper saved per year.



No dispatch travel time required. Tickets are accessible real-time.



No paper and storage cost involved. Ticket history is available online.



Ticket processing time reduced from 2 weeks to 2 hours(excluding actual inspection time).



Improved Customer Service through real-time ticket information and call reduction to the Crews.

Statistics



	Paper Process	Paperless Process
Ticket Printed per day (all depots)	1200 Tickets	Zero Tickets
FSA Tickets processed per day	800 Tickets	> 800 Tickets
FSA Ticket Processing Time	3 Mins/ Ticket	1 Minute per Tickets
Overall Ticket Processing Time	2 Weeks	2 Hours

Since Launch, May, 2015
67,000 e-Tickets....

FY 15/16 Achievements: Small IT Projects

- IT Security Plan
- Disaster Response Plan (DRP)
- Paperless eBilling Option
- Automated Attendant Solution
- Electronic Security System
- Performance Management System
- Apple/Amazon TV Apps
- Network Infrastructure Upgrade
- Telecom Infrastructure Upgrade
- Office 365 (Pilot)



FY17 IT Proposed Portfolio

Multi-Year

Asset Management – Linear / Production Assets
Permitting Management System
CSIS – Customer Billing
Purchasing System
Electronic Security System (ESS)
Advanced Metering Infrastructure (Planning Phase)

Short-term

Stakeholder Management (CRM)
LIMS Upgrade

Platform

Enterprise Reporting Platform
Contact Center Enhancements
Master Data Management
Mobile Workforce Management
Modular Data Center
Records Inventory, Retention Schedule & Policy
IT Security & Compliance Infrastructure & Disaster Response Plan
Network Infrastructure
Microwave Radio Upgrade (*infrastructure*)

Operational & Functional Perspective: Health of Major Existing IT Systems

Priority	System Name	Status	Age of System	Most Recent Upgrade	FY17-22 Total Cost
3	MMIS (Linear Assets)	Critical	45	2008	1,800,000
4	MAPS (PO)	Critical	25	2008	1,700,000
1	CSIS (Customer Billing)	Critical	25	1999	17,600,000
2	Permitting Management System	Critical	25	2007	-
1	Fixed Assets	Vulnerable	15	2011	900,000
1	Fleet Management System	Stable	3	2011	-
3	Employee Payroll	Stable	16	2014	-
4	Retirement Payroll	Stable	21	2008	500,000
5	OTL (Time / Labor)	Stable	5	2012	-
6	General Ledger	Stable	16	2012	-
7	HRIS (Human Resources)	Stable	9	2012	-
8	GIS (Geographic Info System)	Stable	4	2012	1,800,000
9	TEAMS (Plant)	Stable	2	2014	-
10	Financial Reports	Stable	1	2016	-
11	CIP Decision Support	Stable	1	2013	32,00,000
12	MAPS(AP/Inv./CM)	Stable	25	2015	1,200,000

Status Key:

- Red** - Obsolete or vulnerable critical systems in immediate risk of failure.
- Yellow** - Aging/vulnerable critical systems likely to need major upgrade or replacement in the next 3-6 yrs.
- Green** - Stable systems expected to require only routine maintenance or minor upgrade over the next 3-6 yrs.

Budget Perspective

- **FY'17 Budget Overview**
 - In FY'17, the IT budget is 6% of the total WSSC operating budget of 735.5 million.
 - The FY'16 Proposed IT Budget is \$7,143,900, or approximately 19%, more than the FY'16 Approved Budget.
 - The FY'17 requested budget for the Information Technology Team is \$45.5M which is a increase of 9% (\$7.1M) over the FY16 budget of \$38.1M. This increase is primarily due to consulting services initiatives outlined in the Five-Year IT Strategic Plan. The main focus being: 1)New Customer and Billing Information System; and 2)Electronic Security System (ESS).
 - The FY'17 budget is allocated as follows:
 - **Critical and/or Strategic Initiatives** \$ **15,963,000 (35%)**
 - **Operational Baseline** \$ **29,960,500 (65%)**
- * **Baseline** refers to all costs associated with on-going, operational, maintenance, staff augmentation, and end-user support.
- * **Critical/Strategic Initiatives** refers to all costs associated with business projects and WSSC Annual Action Item priorities

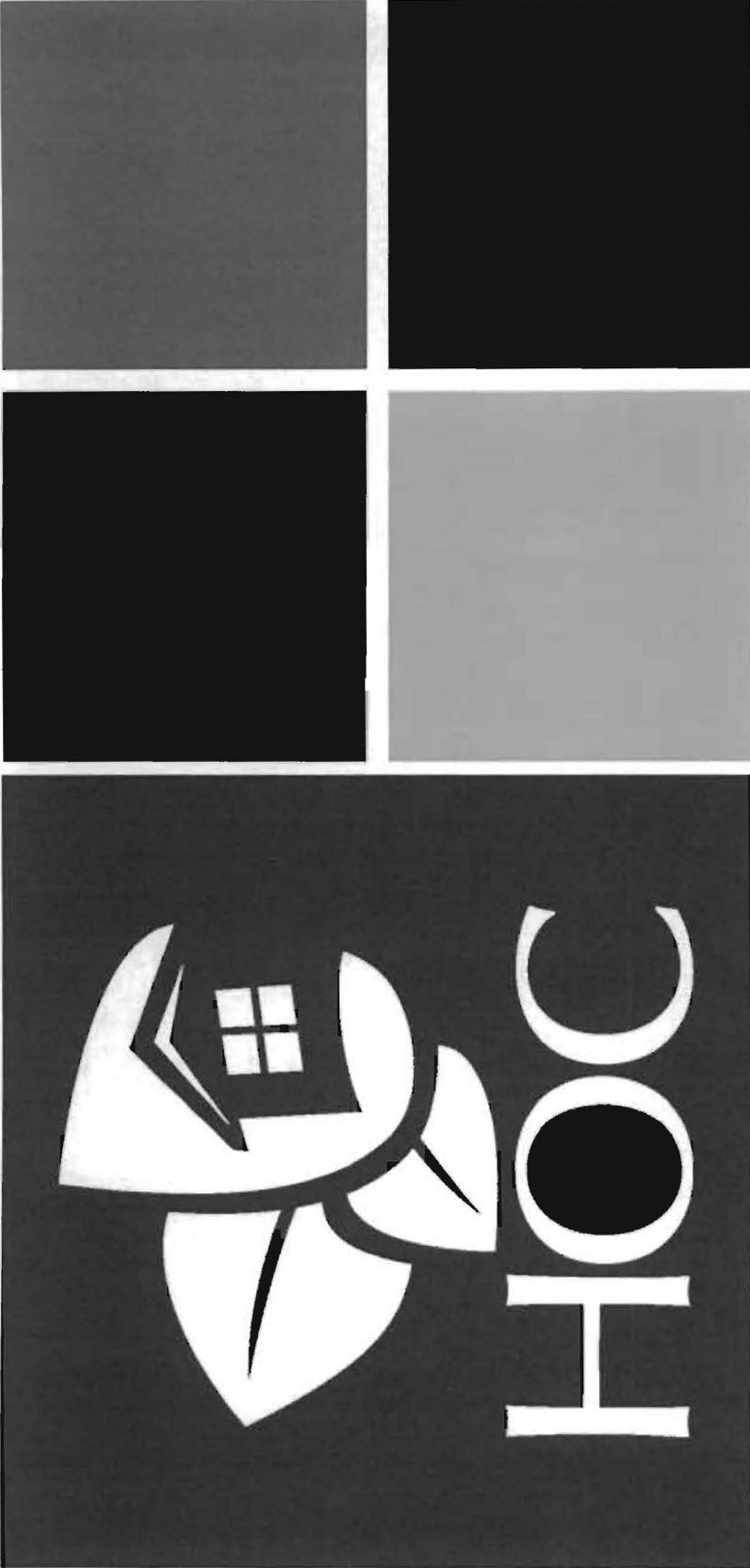
Budget Perspective

FY' 14 – FY' 16 Budget Breakdown

	<u>FY15 Actual</u>	<u>FY16 Budget</u>	<u>FY17 Requested</u>
Salaries & Wages	\$9,385,855	\$11,690,200	\$12,045,200
Services By Others	\$13,961,915	\$12,080,500	\$11,112,500
Professional Services	\$11,850,217	\$11,079,800	\$18,754,800
Telephone & Comm. Expenses(*)	\$2,345,748	\$2,085,700	\$2,565,700
Computer Equipment & Materials	\$460,622	\$560,900	\$359,100
Training	\$274,237	\$420,000	\$420,000
<u>Other (Travel, Supplies, etc.)</u>	<u>\$574,150</u>	<u>\$231,800</u>	<u>\$281,600</u>
TOTAL	\$38,852,744	\$38,148,900	\$45,538,900

- Covers organization-wide telephone, wireless, internet and related communication expenses.

Note: Budget figures reflect ERP/Enterprise Technology Initiatives funding.



FY16 Budget Review



Housing Opportunities Commission Mission Statement

The mission of the Housing Opportunities Commission is to provide affordable housing and supportive housing services that enhance the lives of low and moderate income families and individuals throughout Montgomery County, Maryland, so that:

- No one in Montgomery County is living in substandard housing;
- We strengthen families and communities as good neighbors;
- We establish an efficient and productive environment that fosters trust, open communication and mutual respect.
- We work with advocates, providers and community members to maintain support for all the work of the Commission

Housing Opportunities Commission IT Mission Statement

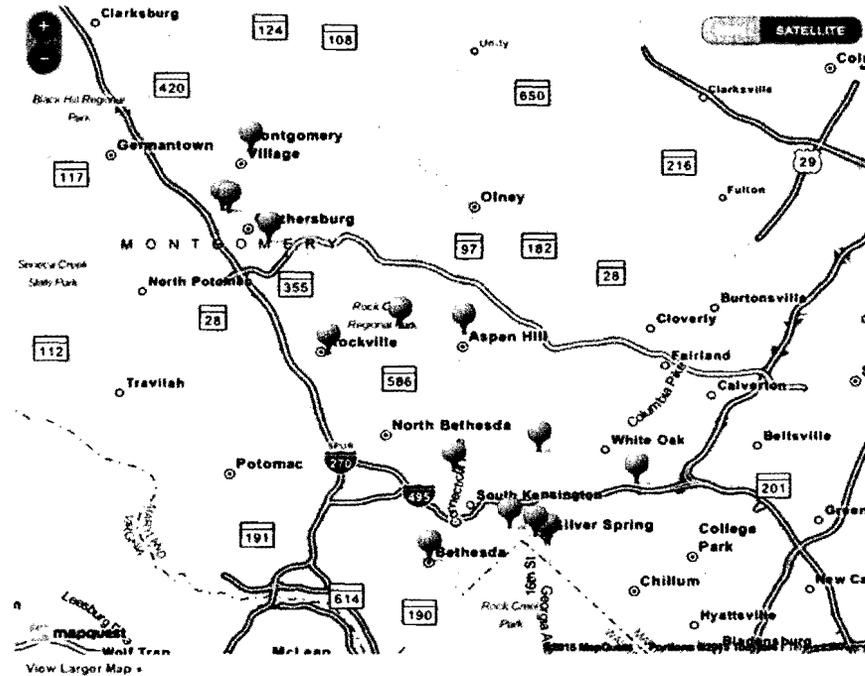
- The mission of Information Technology Division at the Housing Opportunities Commission is to connect staff effectively and responsibly to reliable information, computing, and telecommunications technologies in support of the Housing Opportunities Commission core mission.

Housing Opportunities Commission

IT Accomplishments in FY15

- Implemented HOC@ccess (free Wi-Fi access for residents and visitors in common areas) at over fifteen HOC locations.
- Built new housing waiting list software product that will be launched in early FY16.
- Provided initial dataset for publication on dataMontgomery.
- Approved over 100 new technology products for employees through HOC's Technology Employee Purchase Program.
- Completed infrastructure enhancements improving network capabilities.
- Implemented new network security systems providing a more secure technology environment.
- Transitioned HOC properties to FiberNet providing improved connectivity for more than fifteen HOC resident computer centers throughout Montgomery County

Housing Opportunities Commission HOC@CCESS



Arcola 1135 University Boulevard Silver Spring, MD 20902

Bauer Park 14635 Bauer Drive Rockville, MD 20853

East Deer Park 231 East Deer Park Dr., Gaithersburg, MD 20877

Elizabeth House 1400 Fenwick Avenue Silver Spring, MD 20910

Forest Oak Tower 101 Odendhal Avenue Gaithersburg, MD 20877

Gaithersburg Customer Service Center 101 Lakeforest Blvd., Gaithersburg, MD 20877

Georgian Court 3600 Bel Pre Road Silver Spring, MD 20906

Hoc Main Office 10400 Detrick Avenue, Kensington MD 20895

Holly Hall 10110 New Hampshire Avenue Silver Spring, MD 20903

Paddington Square 8800 Lanier Drive Silver Spring, MD 20910

Silver Spring Customer Service Center 8241 Georgia Avenue, Silver Spring, MD 20910

Stewarttown Homes 9311 Merust Ln, Gaithersburg, MD 20879

Town Center Rockville 90 Monroe Street Rockville, MD 20850

Waverly House 4521 E. West Highway Bethesda, MD 20814

April 1, 2016



Housing Opportunities Commission Information Technology Awards

- National Association of Housing and Redevelopment Officials (NAHRO)
 - 2014 National Award of Merit: Community Cloud Based Computer Centers
 - 2014 National Award of Merit: Technology Employee Purchase Program

Housing Opportunities Commission Strategic Directions for FY16

- Open the HOC housing waiting list on the new software platform developed in FY15. This waiting list will remain open to applicants 24/7/365.
- Implement telecommunications enhancements to the HOC unified communications environment
- Utilize FiberNet as a backup service to reduce current telecommunications costs.
- Expand cloud telecommunication systems to all HOC properties.
- Continued expansion of HOC@ccess providing free Wi-Fi services to HOC clients in property common areas.

Housing Opportunities Commission Strategic Directions for FY16

- Expansion of HOC Connects to provide more opportunities to get technology resources in the hands of HOC clients.
- Development of a new mobile work order system that integrates with our core housing software platform.
- Redesign and improve technology around disaster recovery systems
- Upgrade necessary core business systems.
- Continued improvements to network security systems in order to best protect HOC's technology investments.

Housing Opportunities Commission

IT Assessments – Internal and External Environments

Opportunities

- Opportunity to use HOC as a resource to narrow the Digital Divide;
- Utilization of “Cloud” services to shift ongoing Capital costs to Operating funds and improve budgeting analysis by business unit;
- Enable flexible and secure infrastructure that supports remote access for HOC employees ;

Challenges

- HUD’s electronic reporting requirements place ongoing burdens on the agency to modify software, hardware and business processes;
- Staff turnover and ever changing technology creates ongoing training requirements;
- Reductions in federal, State or local funding threaten Information Technology initiatives;

Housing Opportunities Commission Operational and Functional Perspective

FYs15-20--Operational Health and Replacement Priority of Existing Major IT Systems
Housing Opportunities Commission

Priorit	System Name	Status	Lif	Age	Upgrade	FY16	FY17	FY18	FY19	FY20	FY20	Total 6-Yr.	Est. Repl-Cost	CIP PDF #	NOTES
1		Red										0			
2		Red										0			
3		Red										0			
4		Red										0			
5		Red										0			
6		Red										0			
7		Red										0			
8		Red										0			
9		Red										0			
10		Red										0			
1	E-Mail	Yellow	5	2	2014	80,000	50,000	50,000	50,000	50,000	50,000	330,000	120,000		migrating to
2		Yellow										0			
3		Yellow										0			
4		Yellow										0			
5		Yellow										0			
6		Yellow										0			
7		Yellow										0			
8		Yellow										0			
9		Yellow										0			
10		Yellow										0			
--	Housing / Financial	Green	15	11	2014	335,000	335,000	335,000	335,000	335,000	335,000	2,010,000	750,000		by our vendor
--	Mortgage Finance	Green	10	5	2013	5,000	5,000	5,000	5,000	5,000	5,000	30,000	200,000		
--	Document Imaging	Green	8	4	2013	27,000	27,000	27,000	27,000	27,000	27,000	162,000	250,000		
--	Virtualization System	Green	10	0	2014	60,000	60,000	60,000	60,000	60,000	60,000	360,000	200,000		
--	Telecommunications	Green	1	0	2014	180,000	180,000	180,000	180,000	180,000	180,000	1,080,000	400,000		service is provided
--	Fleet Management	Green	8	1	2014	16,200	16,200	16,200	16,200	16,200	16,200	97,200	50,000		new hardware for
--	Website	Green	5	3	2014	12,000	12,000	12,000	12,000	12,000	12,000	72,000	50,000		
--	Physical Servers	Green	3	0	2019	0	60,000	0	60,000	0	60,000	180,000	250,000		

Notes:

SUMMARY Multi-year Cost Projections by Risk Categories

	FY15	FY16	FY17	FY18	FY19	FY20	Total 6-Yr.	Est. Repl-Cost
RED	0	0	0	0	0	0	0	0
YELLOW	80,000	50,000	50,000	50,000	50,000	50,000	330,000	120,000
GREEN	635,200	635,200	635,200	635,200	635,200	635,200	3,991,200	2,150,000
TOTAL	715,200	745,200	685,200	745,200	685,200	745,200	4,321,200	2,270,000

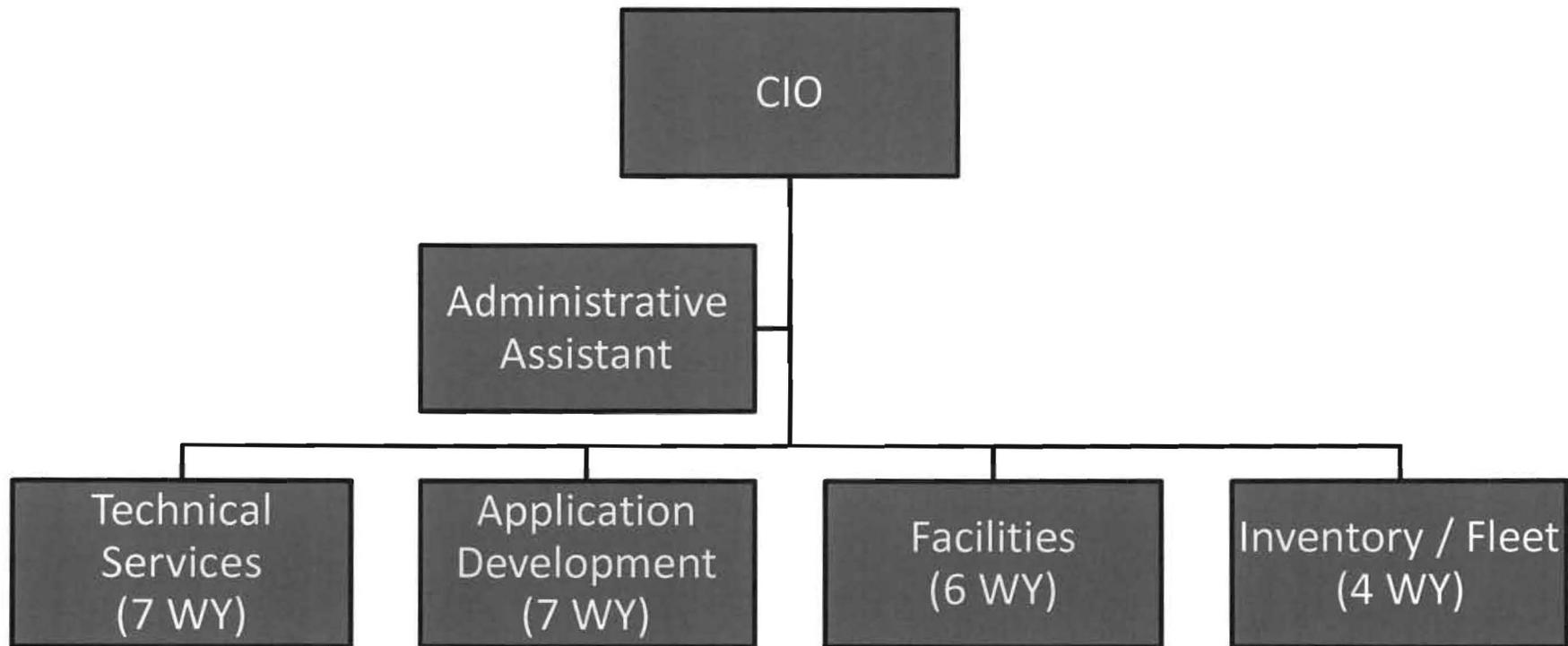
Risk Key

- Red= Obsolete or vulnerable critical systems/applications in immediate risk of failure
- Yellow= Aging or vulnerable critical systems likely to need major upgrade or replacement in the next 2-6 years
- Green= Stable systems expected to require only routine maintenance or minor upgrade over the next 3-6 year



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Housing Opportunities Commission Information Technology & Facilities Services Division Organization Chart



Information Technology: 15.5 WY

Housing Opportunities Commission Budget Request Perspective

- The FY16 requested budget for the Information Technology Departments is \$4.47 million dollars. This request has not been approved by the HOC Board of Commissioners on the date of this presentation.

	FY13	FY14	FY15	FY16
Operating Budget	2.50m	2.68m	2.92m	3.34m
	0.60m	1.58m	1.31m	1.13m
Total Budget	3.10m	4.26m	4.23m	4.47m