

MEMORANDUM

April 13, 2012

TO: Government Operations and Fiscal Policy Committee
FROM: Dr. Costis Toregas, Council IT Adviser
SUBJECT: Department of Technology Services

Expected to attend:

Dieter Klinger, Acting CIO
Naeem Mia, OMB

Staff recommendations:

1. **Accept the Executive's recommended budget of \$26,267,806** for FY13, which represents an increase of \$618,366 or 2.4% of the FY12 approved budget.
2. The Executive should provide the Committee, within 90 days, a fully configured cybersecurity plan that covers all aspects of risk management of its digital assets. Such a Plan currently does not exist in a stand alone, comprehensive fashion, even though elements of cybersecurity appear in a variety of places.
3. The Open Government initiative pilot should be reviewed before the end of FY12 and plans for a full deployment be presented to the Committee in July. The continuing costs for Socrata licenses that will enable the continuation of the Open Government websites appear not to be part of the budget. It is important to clarify this point and to ensure the inclusion of the proper licensing investment, so the pilot can be put in full operation if it proves successful.

Background

The DTS budget has been reduced for several years in a row. This is the first year that there is a small increase to make up for the losses over time and to reconstitute a strong work team in this vital County service. The Table below provides detail regarding the total DTS budget figure by year:

	Recommended FY13	Approved FY12	Approved FY11	Approved FY10
Total DTS budget	\$26,267,000	\$25,649,440	26,370,280	31,844,190
Increase (-Decrease)	+2.4%	-2.7%	-17.2%	-5.5%

The Technology Services budget recommendation for FY13 is on © 1-8.

The major trends seen in the progressive IT marketplace (transition to the Cloud, increase in Tablets and smart phones, enterprise-wide applications and business process re-engineering) are closely mapped to the County's own activities. Major projects have been undertaken and completed successfully (MC311, ERP for Financial, Procurement and Financial functions), while new ones are being teed up for launch (HHS Process and Technology Modernization, for example). The Department is challenged to maintain operations and promote new strategies and technologies, and the Executive's small increase request is in step with the order of magnitude of the challenge ahead and required effort.

There were several points raised with the leadership of DTS regarding Cybersecurity, Cloud Computing, and Open Government Data initiatives. The responses to the questions raised are presented on © 9-14, to underscore the importance of the underlying issues. In particular, © 12-14 relate to the DTS budget issues around Cybersecurity, Cloud Computing, and the Open Government pilot.

Technology Services

MISSION STATEMENT

The mission of the Department of Technology Services is to use information technology to enable our employees to provide quality services to our citizens and businesses, deliver information and services to citizens at work, at home, and in the community, and increase the productivity of government and citizens.

BUDGET OVERVIEW

The total recommended FY13 Operating Budget for the Department of Technology Services is \$26,267,806, an increase of \$618,366 or 2.4 percent from the FY12 Approved Budget of \$25,649,440. Personnel Costs comprise 54.4 percent of the budget for 128 full-time positions and two part-time positions for 104.45 FTEs. Operating Expenses and Capital Outlay account for the remaining 45.6 percent of the FY13 budget.

In addition, this department's Capital Improvements Program (CIP) requires Current Revenue funding.

LINKAGE TO COUNTY RESULT AREAS

While this program area supports all eight of the County Result Areas, the following are emphasized:

- ❖ ***A Responsive, Accountable County Government***
- ❖ ***Safe Streets and Secure Neighborhoods***

DEPARTMENT PERFORMANCE MEASURES

Performance measures for this department are included below, with multi-program measures displayed at the front of this section and program-specific measures shown with the relevant program. The FY12 estimates reflect funding based on the FY12 approved budget. The FY13 and FY14 figures are performance targets based on the FY13 recommended budget and funding for comparable service levels in FY14.

ACCOMPLISHMENTS AND INITIATIVES

- ❖ ***Partnered with Socrata for the Open Data Initiative, which publishes datasets for County residents and the general public.***
- ❖ ***- Received seven National Association of Counties (NACo) awards***
 - ***Received three Public Technology Institute (PTI) awards***
 - ***Ranked #3 in the national Digital Counties Survey for the year 2011***
- ❖ ***Provided technical go-live support and assumed operation and system administration responsibilities for: Oracle Enterprise Business Systems (EBS) Financial and HCM Module, PeopleSoft Pension system, iRecruitment, iAsset, and Employee Self-Service.***
- ❖ ***Developed the Snow Map application with linked roadway responsibility and clearing status, with information attached to geo-verified addresses. Developed 17 other new Web applications for County departments to increase the efficiency of business processes.***
- ❖ ***Implemented a new enterprise voicemail system known as Modular Messaging. County employees can now receive and respond to calls and contacts from customers, partners, and coworkers faster and more efficiently, even when working remotely.***
- ❖ ***Completed the \$20.9 million acquisition of 4,850 mobile and portable radios for public safety. The implementation of these radios will allow the County to complete the re-banding effort that is required by the Federal Communications Commission (FCC). The radios have the capability to work on the new planned radio infrastructure implementation.***

- ❖ **Continue the County's radio upgrade effort through the Public Safety System Modernization project.**
- ❖ **Continue upgrading the information technology infrastructure in order to support the growing demands resulting from Enterprise Resource Planning (ERP) and other IT systems.**
- ❖ **Restart and continue desktop computer replacements and began roll-out of the Microsoft Windows 7 operating system.**
- ❖ **Initiate and continue a major re-design of the County website, including adding support for mobile web devices.**
- ❖ **Productivity Improvements**
 - **Completed a major upgrade of the County's remote access Virtual Private Network solution. Among other new features, this new release provides improved client support, including support for Windows 7, and common handheld mobile devices.**
 - **Implemented the mandatory user enrollment in Password self-service solution to allow County employees to efficiently and quickly change security passwords.**
 - **Integrated the County's Image and Document Management System with the Enterprise Resource Planning (ERP) Accounts Payable and Journal Entry / General Ledger voucher functions. Expanded the Document Management System to Records Management functions to manage enterprise archived records and allow for legal hold.**
 - **Continued to manage the networking of over 1,000 devices on FiberNet, providing connections to 423 sites and adding another 138 into the construction pipeline. In addition, 22 new sites were added to the FiberNet solution, with 11 completed and ready to place on-net.**
 - **Provided project management, development, application engineering, systems engineering, and quality assurance support for the Integrated Justice Information System (IJIS) program. IJIS includes the State's Attorney's Office's Case Management System (CMS) and the Department of Correction and Rehabilitation's Corrections Rehabilitation Information Management System (CRIMS). The completed work resulted in enhanced solution functionality to the end-users, improving both productivity and critical data usage outcomes.**

PROGRAM CONTACTS

Contact Helen Ni of the Department of Technology Services at 240.777.2807 or Naeem Mia of the Office of Management and Budget at 240.777.2782 for more information regarding this department's operating budget.

PROGRAM DESCRIPTIONS

Enterprise Systems and Operations (ESOD)

This program designs, implements and maintains a secure and reliable computer-based hardware, software, and data infrastructure for County business systems and County staff. The Division manages enterprise-wide systems including Enterprise Resource Planning (ERP), MC311, MCTime, enterprise messaging system, enterprise directory system, enterprise file and print system, enterprise image archiving, enterprise anti-malware systems, mainframe system, and hundreds of enterprise servers (web, application, database). ESOD manages and provides support for the Public Safety Data System. ESOD also operates the enterprise data center, a 24-hour-a-day service supporting enterprise and department servers, the mainframe and network control center equipment.

Program Performance Measures	Actual FY10	Actual FY11	Estimated FY12	Target FY13	Target FY14
Number of Unscheduled Minutes that Identified Information Technology Systems are Out of Service ¹	2,294	4,137	700	700	700
Number of Email Messages Sent and Received by County Email Account Holders (in millions) ²	76.3	81.2	85.0	90.0	95.0
Number of Email Messages Filtered or Blocked from Entering County Email Account Holders Inboxes (in millions) ³	286.0	64.1	70.0	75.0	80.0

¹ Two major power outages occurred in FY10 and FY11, which contributed to the higher numbers of out-of-service minutes for actual FY10 and actual FY11.

² Number of messages sent versus received is approximately the same and the ratio has not changed with growth of messages

³ Differences between Actual FY10 and Actual FY11 are due to a change in the monitoring, categorization, and reporting software. Trend analysis should be restricted to FY11 and forward.

FY13 Recommended Changes	Expenditures	FTEs
FY12 Approved	11,040,570	28.00
Enhance: Technology Modernization - Upgrades to Council Office Building Data Network	125,000	0.00
Increase Cost: Public Safety Communications System - Computer-Aided Dispatch Software Maintenance	27,000	0.00
Increase Cost: Public Safety Communications System - Mobile Cop Software Maintenance	20,300	0.00
Increase Cost: Public Safety Communications System - E-justice Software Maintenance	15,000	0.00
Decrease Cost: Reduce Purchase of Paper Forms	-10,000	0.00
Decrease Cost: Retirement of Legacy Public Safety Hardware Maintenance	-20,620	0.00
Reduce: Mainframe Hardware Maintenance (7x24 to 5x9)	-22,660	0.00
Shift: Municipal Information Systems (MUNIS) Tax Billing Software Maintenance Costs	-110,000	0.00
Decrease Cost: Eliminate FY12 One-Time Cost of Kronos Workforce Timekeeper Software Upgrade	-191,000	0.00
Decrease Cost: Maintenance for the Public Safety Packet Writer Field Reporting System	-233,000	0.00
Multi-program adjustments, including negotiated compensation changes, employee benefit changes, changes due to staff turnover, reorganizations, and other budget changes affecting multiple programs. Other large variances are related to the transition from the previous mainframe budgeting system to Hyperion.	424,044	3.00
FY13 CE Recommended	11,064,634	31.00

Enterprise Telecommunications and Services (ETSD)

This program provides reliable, modern, and integrated communications services to enable network data, voice and other solutions for County Government departments and Agencies. PBX Telecommunications Services is responsible for the programming, operation and maintenance of the County's PBX telephone network and all associated adjuncts, i.e., Voicemail, IVR, and Cabling infrastructure. Radio Communications Services is responsible for the operation and maintenance of the County's 800 MHZ radio and mobile communications systems which predominantly supports public safety agencies. Network Services is responsible for providing Wide Area Network (WAN) management and design services to County government, FiberNet connectivity to other agencies, and wireless connectivity. Some costs associated with FiberNet/WAN are charged to the Cable Fund in accordance with the cable franchise provision to support installation, construction, operations, and maintenance of the County's FiberNet and associated network equipment.

Program Performance Measures	Actual FY10	Actual FY11	Estimated FY12	Target FY13	Target FY14
Average Number of Workdays to Complete Telecom Requests (in workdays)	7.7	11.2	9.0	9.0	9.0

FY13 Recommended Changes	Expenditures	FTEs
FY12 Approved	4,090,670	12.00
Enhance: Continued Maintenance for Public Safety Radios After Manufacturer's Warranty Expires	253,000	0.00
Increase Cost: Network Software License/Maintenance	100,000	0.00
Increase Cost: Private Branch Exchange (PBX) Platform Maintenance	22,760	0.00
Shift: FiberNet Staff Costs to Cable Fund	-122,790	-0.75
Multi-program adjustments, including negotiated compensation changes, employee benefit changes, changes due to staff turnover, reorganizations, and other budget changes affecting multiple programs. Other large variances are related to the transition from the previous mainframe budgeting system to Hyperion.	1,012,732	8.80
FY13 CE Recommended	5,356,372	20.05

Enterprise Applications and Solutions (EASD)

This program delivers and maintains solutions through core business, web-based applications, and geographic information services; and provides oversight for the Desktop Computer Modernization (DCM) program and the County's Help Desk. The Application Development and Integration team supports the County's electronic government initiative to include website management. Electronic government seeks to provide cost-effective services at greater convenience to residents and employees through the use of modern web technologies. The Enterprise System Services team is responsible for supporting the enterprise software applications which are used throughout the County Government (e.g. ERP, BPREP, Tax Assessment). This includes applications maintenance, upgrades, phase out and replacement; and ensuring applications are adapted to conform to changes in the County's hardware and software environment. The Geographic Information Systems team designs and implements applications for County departments, designs and develops custom maps and web-based mapping applications, maintains the accuracy and currency of the Montgomery County Street Centerlines database and the Geographic Base Files (GBF/DIME) and related data layers, and participates in the development and maintenance of the enterprise planimetric and property databases. The Information Technology Help Desk Services team provides IT support directly to departments and employees.

Program Performance Measures	Actual FY10	Actual FY11	Estimated FY12	Target FY13	Target FY14
Average Number of Seconds to Serve a Web Page (in seconds)	0.47	0.49	0.44	0.44	0.44

	Actual FY10	Actual FY11	Estimated FY12	Target FY13	Target FY14
Percent of DTS Help Desk Requests that are Resolved on the First Call (%)	94.1	97.4	95.5	95.5	95.5

FY13 Recommended Changes	Expenditures	FTEs
FY12 Approved	4,924,180	34.30
Increase Cost: eSubscription Enterprise Newsletters	20,000	0.00
Increase Cost: ESS-SAS Mainframe Maintenance for Preserving Archived Data	11,780	0.00
Increase Cost: Geographic Information Systems (GIS) Computer Supplies	6,500	0.00
Shift: Transfer Senior Information Technology Specialist Position from DTS to Office of Management and Budget	-119,250	-1.00
Multi-program adjustments, including negotiated compensation changes, employee benefit changes, changes due to staff turnover, reorganizations, and other budget changes affecting multiple programs. Other large variances are related to the transition from the previous mainframe budgeting system to Hyperion.	88,687	-1.00
FY13 CE Recommended	4,931,897	32.30

Enterprise Services and Strategic Planning Office (ES&SPO)

This Office provides leadership and strategies for the development and delivery of County technology solution planning and implementation for both County staff and residents. The Office acts as the first step to improving project return on investment (ROI) and fosters a successful project outcome through the establishment and use of a strong Project Management Methodology (PMM). The Office manages both Enterprise Architecture and Enterprise Strategic Planning to ensure cost-effective Countywide IT investment. The Project Management Office (PMO) is responsible for reviewing and prioritizing new project requests for the Department, reviewing all technology funding requests for County Departments, maintaining the IT Initiative Dashboard of technology projects, developing and maintaining the project management standards across projects, and providing contract management support services for the Department. Additionally, project managers in this Office are responsible for managing major multi-million dollar cross-departmental projects (including Technology Modernization, Integrated Justice, and numerous Department initiatives). Project Management certification is encouraged to promote continuous growth and demonstration of project management best practices.

Program Performance Measures	Actual FY10	Actual FY11	Estimated FY12	Target FY13	Target FY14
Project Budget Performance (% over baseline)	-1.9	-0.2	0	0	0
Project Schedule Performance (average days past baseline)	4.8	11.8	5.0	5.0	5.0

FY13 Recommended Changes	Expenditures	FTEs
FY12 Approved	2,302,960	9.40
Multi-program adjustments, including negotiated compensation changes, employee benefit changes, changes due to staff turnover, reorganizations, and other budget changes affecting multiple programs. Other large variances are related to the transition from the previous mainframe budgeting system to Hyperion.	-204,440	-2.40
FY13 CE Recommended	2,098,520	7.00

Office of the Chief Information Officer (CIO)

This Office provides technology leadership, allocation of resources, setting policy, and guiding all programs of the Department and the County government's Information Technology initiatives, including the Technology Modernization Program (Tech Mod) and Public Safety Systems Modernization (PSSM) program. The Office is responsible for assisting Departments with creating process efficiencies and aligning their information technology needs with the overall County enterprise strategy.

Management Services is responsible for centralized administrative support functions in the areas of budgeting and financial processing, human resources management, procurement, facilities management, front desk support and event planning.

The Enterprise Information Security Office (EISO) provides enterprise risk assessments, data security consulting, policy/procedure development, and sensitive data architecture design to the County government. These services also include identifying and managing the tools required to protect the County from data security threats provide security training to County employees through an Enterprise Security Awareness Training program, and rapidly respond to incidents that may affect the confidentiality, integrity, and/or availability of the County's information assets and data. Additionally, the EISO is responsible for oversight in various enterprise information security compliance mandates, such as the Health Insurance Portability and Accountability Act (HIPAA) of 1996 and the Payment Card Industry Data Security Standards (PCI DSS).

Program Performance Measures	Actual FY10	Actual FY11	Estimated FY12	Target FY13	Target FY14
Average Security Vulnerabilities per Device	36	52	45	28	15

	Actual FY10	Actual FY11	Estimated FY12	Target FY13	Target FY14
Internet Browse Time - Hours By Risk Class - Business Usage	1,542,752	4,473,311	5,000,000	5,500,000	5,750,000
Internet Browse Time - Hours By Risk Class - Potential Personal Use	1,273,891	1,363,600	1,500,000	1,650,000	1,900,000
Internet Browse Time - Hours By Risk Class - Bandwidth Loss	394,968	472,757	600,000	750,000	950,000
Internet Browse Time - Hours By Risk Class - Security Risk ¹	62,464	1,415	1,400	1,300	1,250
Internet Browse Time - Hours By Risk Class - Legal Liability	208	253	250	260	260

¹ Differences between Actual FY10 and Actual FY11 are due to a change in the monitoring, categorization, and reporting software. Trend analysis should be restricted to FY11 and forward.

FY13 Recommended Changes	Expenditures	FTEs
FY12 Approved	3,291,060	17.90
Shift: Transfer Public Safety Systems Modernization Program-Related Staff Costs to Capital Improvement Program	-65,480	-0.50
Multi-program adjustments, including negotiated compensation changes, employee benefit changes, changes due to staff turnover, reorganizations, and other budget changes affecting multiple programs. Other large variances are related to the transition from the previous mainframe budgeting system to Hyperion.	-409,197	-3.30
FY13 CE Recommended	2,816,383	14.10

BUDGET SUMMARY

	Actual FY11	Budget FY12	Estimated FY12	Recommended FY13	% Chg Bud/Rec
COUNTY GENERAL FUND					
EXPENDITURES					
Salaries and Wages	11,400,303	10,744,190	11,334,277	10,760,087	0.1%
Employee Benefits	3,536,952	2,972,090	3,293,500	3,525,269	18.6%
County General Fund Personnel Costs	14,937,255	13,716,280	14,627,777	14,285,356	4.1%
Operating Expenses	11,022,892	11,812,860	11,464,417	11,862,150	0.4%
Capital Outlay	0	120,300	0	120,300	—
County General Fund Expenditures	25,960,147	25,649,440	26,092,194	26,267,806	2.4%
PERSONNEL					
Full-Time	138	128	128	128	—
Part-Time	2	2	2	2	—
FTEs	106.50	101.60	101.60	104.45	2.8%
GRANT FUND MCG					
EXPENDITURES					
Salaries and Wages	0	0	0	0	—
Employee Benefits	0	0	0	0	—
Grant Fund MCG Personnel Costs	0	0	0	0	—
Operating Expenses	6,619	0	0	0	—
Capital Outlay	0	0	0	0	—
Grant Fund MCG Expenditures	6,619	0	0	0	—
PERSONNEL					
Full-Time	0	0	0	0	—
Part-Time	0	0	0	0	—
FTEs	0.00	0.00	0.00	0.00	—
REVENUES					
Federal Grants	6,619	0	0	0	—
Grant Fund MCG Revenues	6,619	0	0	0	—
DEPARTMENT TOTALS					
Total Expenditures	25,966,766	25,649,440	26,092,194	26,267,806	2.4%
Total Full-Time Positions	138	128	128	128	—
Total Part-Time Positions	2	2	2	2	—
Total FTEs	106.50	101.60	101.60	104.45	2.8%
Total Revenues	6,619	0	0	0	—

FY13 RECOMMENDED CHANGES

	Expenditures	FTEs
COUNTY GENERAL FUND		
FY12 ORIGINAL APPROPRIATION	25,649,440	101.60
<u>Changes (with service impacts)</u>		
Enhance: Continued Maintenance for Public Safety Radios After Manufacturer's Warranty Expires [Enterprise Telecommunications and Services (ETSD)]	253,000	0.00
Enhance: Technology Modernization - Upgrades to Council Office Building Data Network [Enterprise Systems and Operations (ESOD)]	125,000	0.00
Reduce: Mainframe Hardware Maintenance (7x24 to 5x9) [Enterprise Systems and Operations (ESOD)]	-22,660	0.00
<u>Other Adjustments (with no service impacts)</u>		
Increase Cost: Retirement Adjustment	415,728	0.00
Increase Cost: Lump Sum Wage Adjustment	229,978	0.00
Increase Cost: Group Insurance Adjustment	208,136	0.00
Increase Cost: Network Software License/Maintenance [Enterprise Telecommunications and Services (ETSD)]	100,000	0.00
Increase Cost: Motor Pool Rate Adjustment	35,830	0.00
Increase Cost: Public Safety Communications System - Computer-Aided Dispatch Software Maintenance [Enterprise Systems and Operations (ESOD)]	27,000	0.00
Increase Cost: Private Branch Exchange (PBX) Platform Maintenance [Enterprise Telecommunications and Services (ETSD)]	22,760	0.00
Increase Cost: Longevity Adjustment	22,754	0.00
Increase Cost: Public Safety Communications System - Mobile Cop Software Maintenance [Enterprise Systems and Operations (ESOD)]	20,300	0.00
Increase Cost: eSubscription Enterprise Newsletters [Enterprise Applications and Solutions (EASD)]	20,000	0.00
Increase Cost: Public Safety Communications System - E-justice Software Maintenance [Enterprise Systems and Operations (ESOD)]	15,000	0.00
Increase Cost: ESS-SAS Mainframe Maintenance for Preserving Archived Data [Enterprise Applications and Solutions (EASD)]	11,780	0.00
Increase Cost: Geographic Information Systems (GIS) Computer Supplies [Enterprise Applications and Solutions (EASD)]	6,500	0.00
Technical Adj: Conversion of WYs to FTEs in the New Hyperion Budgeting System; FTEs are No Longer Measured for Overtime and Lapse	0	5.10
Decrease Cost: Printing and Mail Adjustment	-600	0.00
Decrease Cost: Reduce Purchase of Paper Forms [Enterprise Systems and Operations (ESOD)]	-10,000	0.00
Decrease Cost: Retirement of Legacy Public Safety Hardware Maintenance [Enterprise Systems and Operations (ESOD)]	-20,620	0.00
Shift: Transfer Public Safety Systems Modernization Program-Related Staff Costs to Capital Improvement Program [Office of the Chief Information Officer (CIO)]	-65,480	-0.50
Shift: Municipal Information Systems (MUNIS) Tax Billing Software Maintenance Costs [Enterprise Systems and Operations (ESOD)]	-110,000	0.00
Shift: Transfer Senior Information Technology Specialist Position from DTS to Office of Management and Budget [Enterprise Applications and Solutions (EASD)]	-119,250	-1.00
Shift: FiberNet Staff Costs to Cable Fund [Enterprise Telecommunications and Services (ETSD)]	-122,790	-0.75
Decrease Cost: Eliminate FY12 One-Time Cost of Kronos Workforce Timekeeper Software Upgrade [Enterprise Systems and Operations (ESOD)]	-191,000	0.00
Decrease Cost: Maintenance for the Public Safety Packet Writer Field Reporting System [Enterprise Systems and Operations (ESOD)]	-233,000	0.00
FY13 RECOMMENDED:	26,267,806	104.45

PROGRAM SUMMARY

Program Name	FY12 Approved		FY13 Recommended	
	Expenditures	FTEs	Expenditures	FTEs
Enterprise Systems and Operations (ESOD)	11,040,570	28.00	11,064,634	31.00
Enterprise Telecommunications and Services (ETSD)	4,090,670	12.00	5,356,372	20.05
Enterprise Applications and Solutions (EASD)	4,924,180	34.30	4,931,897	32.30
Enterprise Services and Strategic Planning Office (ES&SPO)	2,302,960	9.40	2,098,520	7.00
Office of the Chief Information Officer (CIO)	3,291,060	17.90	2,816,383	14.10
Total	25,649,440	101.60	26,267,806	104.45

CHARGES TO OTHER DEPARTMENTS

Charged Department	Charged Fund	FY12		FY13	
		Totals	FTEs	Totals	FTEs
COUNTY GENERAL FUND					
Cable Television	Cable Television	1,155,620	1.60	1,654,249	4.35
CIP	CIP	2,904,950	21.00	2,616,277	20.50
Total		4,060,570	22.60	4,270,526	24.85

FUTURE FISCAL IMPACTS

Title	CE REC.			(\$000's)			
	FY13	FY14	FY15	FY16	FY17	FY18	
This table is intended to present significant future fiscal impacts of the department's programs.							
COUNTY GENERAL FUND							
Expenditures							
FY13 Recommended	26,268	26,268	26,268	26,268	26,268	26,268	
No inflation or compensation change is included in outyear projections.							
Elimination of One-Time Lump Sum Wage Adjustment	0	-230	-230	-230	-230	-230	
This represents the elimination of the one-time lump sum wage increases paid in FY13.							
Fibernet	0	-944	-996	-1,084	-1,060	-1,039	
These figures represent the impacts on the Operating Budget of projects included in the FY13-18 Recommended Capital Improvements Program.							
Integrated Justice Information System	0	300	300	300	300	300	
These figures represent the impacts on the Operating Budget of projects included in the FY13-18 Recommended Capital Improvements Program.							
Longevity Adjustment	0	2	2	2	2	2	
This represents the annualization of longevity wage increments paid during FY13.							
Public Safety System Modernization	0	30	1,060	2,100	2,100	2,811	
These figures represent the impacts on the Operating Budget of projects included in the FY13-18 Recommended Capital Improvements Program.							
Subtotal Expenditures	26,268	25,426	26,404	27,356	27,380	28,112	



DEPARTMENT OF TECHNOLOGY SERVICES

Isiah Leggett
County Executive

Dieter Klinger
Acting Chief Information Officer

MEMORANDUM

April 10, 2012

TO: Dr. Costis Toregas
Council IT Advisor

FROM: Dieter Klinger, Acting Chief Information Officer *Dieter Klinger*
Department of Technology Services

SUBJECT: Government Operations & Fiscal Policy Committee – FY13 DTS and DCM
Operating Budget Work session

Pursuant to the discussion on April 4, 2012, relative to questions about the proposed budgets for DTS and DCM for the upcoming Government Operations Committee meeting on Monday, April 16, 2012, the Executive Branch is pleased to provide the detailed information to be included in the packet and discussed at the session.

If there are any additional questions or clarification required, please don't hesitate to ask.

cc: Naeem Mia, Office of Management and Budget
Alex Espinosa, Office of Management and Budget
Helen Ni, Department of Technology Services

DCM

For FY13, the County Executive recommends continuing the scheduled replacement of desktop computers. At the start of FY13 44% of County Government PC's and laptops will be 4 years old or older, and 15% will be 5 years old or older. These units are at the end of their useful life and catastrophic device failures will increase, with visible negative impacts to both county employees and residents.

Further, Microsoft's Windows XP operating system is at the end of its lifecycle and will not be supported beyond April, 2014. Windows 7, Microsoft's current operating system, requires robust hardware to operate correctly. Risk of computer security incidents and compromise will increase, without proactive remediation and modernization. Systems operating Windows XP will not receive any security or product updates when support ends. This makes them highly vulnerable to malicious attacks and presents a security risk to the entire organization as a vulnerability to one system can spread to other systems once inside the County.

2,000 PCs and laptops are being replaced in FY12 and 2,200 replacements are planned in FY13. This includes the move to the Microsoft Windows 7 operating system. A distribution of PCs and laptops by age projected for the start of FY13 and start of FY14 reflecting planned replacements is provided below.

Projected Count of PCs by Type and Age at start of FY13*

	Age (Years)						Total
	0-1	1-2	2-3	3-4	4-5	Over 5	
PCs	1,994	137	1,121	1,132	2,326	1,124	7,834
Laptops	204	89	99	252	333	219	1,196
Total	2,198	226	1,220	1,384	2,659	1,343	9,030
	24%	3%	14%	15%	29%	15%	100%

*after 2000 replacements in FY12

Projected Count of PCs by Type and Age at start of FY14*

	Age (Years)						Total
	0-1	1-2	2-3	3-4	4-5	Over 5	
PCs	1,924	1,994	137	1,121	1,132	1,526	7,834
Laptops	276	204	89	99	252	276	1,196
Total	2,200	2,198	226	1,220	1,384	1,802	9,030
	24%	24%	3%	14%	15%	20%	100%

*after 2200 replacements in FY13

Projected distribution of PCs by Department and Age at start of FY13*

	PCs under 4 years old	PCs 4 Years and older		PCs under 4 years old	PCs 4 Years and older
BIT	50%	50%	FIN	61%	39%
BOE	85%	15%	FRS	53%	47%
CCL	85%	15%	HHS	76%	24%
CCT	57%	43%	HRC	69%	31%
CEC	31%	69%	IGR	33%	67%
CEX	78%	23%	LIB	50%	50%
CUPF	35%	65%	OCA	25%	75%
DED	34%	66%	OCP	84%	16%
DEP	59%	41%	OHR	3%	97%
DGS	50%	50%	OMB	24%	76%
DHCA	35%	65%	PIO	80%	20%
DLC	19%	81%	POL	47%	53%
DOCR	61%	39%	REC	61%	39%
DOT	56%	44%	SAO	92%	8%
DPS	12%	88%	SHF	23%	77%
DTS	63%	37%	Other	41%	59%

Although Enterprise and Public safety servers are not always replaced on a one for one basis like PCs and laptops, they are a critical component of the infrastructure and also have finite life spans. Therefore servers also require ongoing replacements. The following is a distribution of physical servers by current age.

Current distribution of Enterprise and Public Safety servers by Age

	Count	Percent
1-2 years	29	16%
3-4 years	42	23%
5-7 years	60	33%
Over 7 Years	53	29%

The Mobile Computing pilot project currently underway and scheduled to conclude at the end of FY12 has already provided some significant insights, knowledge and experience for the enterprise. One of the most important early findings is that tablets should not be expected to replace laptops or PCs for mainstream business purposes. Rather, they are an additional device to increase mobile productivity. This does not preclude the alternative for certain niche business functions such as field inspections, etc. to be able to move from laptops to tablets as their primary computing device.

Much work has been done in the areas of mobile device support and management. DTS initiated "kiosk" days to promote and make support for mobile devices more accessible to employees. This has included support for both County provided and personal devices. The kiosks have been very well attended and have generated overwhelmingly positive feedback.

DTS and the County Attorney's office have also created user agreements and guidelines for the use of the mobile devices. This has illuminated the need to investigate similar agreements for personal devices used at work. Finally, DTS has enhanced its help desk service to provide support for mobile devices.

DTS is also creating a Mobile Support Web Site to enhance support of mobile devices in the County environment. The site provides user tutorials for mobile devices including informational videos, helpful links, user forums etc.

The pilot and support efforts have made it clear that the old "one PC or laptop assigned to a person" based support model is no longer effective. DTS has started exploring alternatives to move towards a new support model, perhaps "one person with multiple devices"

DTS

Security Strategy

DTS continues to be innovative and proactive in developing Information Technology (IT) security strategies and maintaining / improving the County's IT security infrastructure, policies and processes. The County's security approach is documented in the **Enterprise Technology Strategic Plan** and the **Enterprise Technical Architecture**.

DTS has been actively working to address the increase of mobile devices, both County provided and personal, that are connecting to the County IT infrastructure.

Given the consumer nature of most devices, the fast pace of change in the devices, and the lack of mature enterprise management tools, connection to the County IT infrastructure is limited to two paths. First, the Virtual Private Network connections already available for PCs and laptops located outside County facilities are now also available to tablets and smart phones. Second, connections to the County's e-mail system are allowed, with the County's infrastructure automatically enforcing timeout, password, and remote wipe security features on the mobile devices.

The mobility support site being developed as part of the Tablet initiative will have a collaborative component for employees to document how they utilize their personal device to accomplish County business. This will provide information DTS to better understanding potential risks of these technologies and develop approaches to maximize the security for these devices.

The current initiative to increase Wi-Fi access in County buildings for mobile devices will also enable enforcement of better security through the planned containment of unauthorized open wireless access points that are inside the County's network. The current tablet pilot (detailed in the DCM response) is contributing to the efforts establish user guidelines and user agreements. DTS has also started to investigate Mobile Device Management solutions. This market is very new and volatile and DTS will be following advancements to determine when solutions become mature and advantageous for the enterprise.

Another security focus area is developing an enterprise identity management approach for use of Montgomery County IT systems, including employees, volunteers, business partners, and constituents. DTS is actively working on a project in concert with Tech Mod to implement an

enterprise identity management solution that will be rolled out in phases over the next year. The identity management solution will allow the County to collaborate with anyone while maintaining strict controls over its sensitive data.

Finally, DTS is looking to cloud solutions as a component to address mobility and security challenges that are emerging. DTS has piloted and has been using cloud services for some time. Some current cloud pilots are described in the next response.

While it is a never ending battle against security attacks and improvements can and should be made, the County's IT architecture and IT project processes have provided the County protection against these attacks. In summary, the architecture provides for multiple layers of security and protection. The IT project review process has an explicit security evaluation and scoring component. The IT review process also includes a recommendation to departments to consider software as a service (SaaS) cloud alternatives. Security assessments are performed on new and existing systems.

Two security focus areas for FY13 will be updating and conducting the County's computer based security awareness training, and developing policies for personal computing devices used at work, also known as bring your own device (BYOD) to protect the County's information resources.

DTS is also continuing to streamline security operations through automation and system integration, including the implementation of a new incident tracking system to track security incidents. This incident tracking system will integrate and automate information from multiple security systems.

Cloud and Open Government Data Initiatives

DTS is engaged in several cloud and open data initiatives that we expect will have significant potential future impact on County business operations and IT infrastructure.

Recently initiated, the Open Government Data pilot will provide constituents access to a broad range of data in a format that enables constituents to display and analyze data in ways never before possible. The data will also enable private sector development and commercialization of Apps, only limited by the creativity of County citizens.

The project is well underway with an approved project charter and data governance process. The initial data sets have been published and soft launch of the site started March 2012. The data governance process, modeled after other successful open data projects, will ensure a smooth and efficient process, including the appropriate management and legal reviews to get data published. To date, eight (8) data sets have been published, two (2) data sets are in process, and five (5) candidate data sets have been identified. We expect to make a public announcement of the site within the next 2 months.

The plan for FY13 includes reaching out to County departments to identify data sets and build the processes for publishing the data on a sustainable basis. DTS plans to leverage the existing Enterprise Services Bus (ESB) to automate the data publishing process wherever possible. The goal is have at least 60 datasets published by the end of FY13.

DTS is also working on two cloud services pilots. One that has been ongoing on limited scale for an extended period is a Google Apps pilot. The other that was initiated recently is a Microsoft Office 365 pilot. Both pilots are intended to evaluate cloud based e-mail, calendaring, basic office tools and collaboration, to determine how they can fit into the existing enterprise and how they can be leveraged and managed to meet emerging business needs.

Google Apps has been used by select DTS staff for an extended period for both e-mail and office productivity. Over past several months, the County web re-design project has successfully used this platform for collaboration among the participants that include both County and non-County personnel. A wider County pilot is planned as technical challenges are resolved that currently prevent seamless interaction with other County users.

Work on a Microsoft Office 365 pilot started last fall. DTS has been working directly with Microsoft to establish the infrastructure to ensure seamless interaction with other County users. Departments will be invited to participate in the pilot when DTS has completed integration and testing of the cloud solution.

The goal of the two cloud services pilots is to collect enough information in time to plan and budget for possible production deployment in FY14.