

**Worksession**

**MEMORANDUM**

November 27, 2013

TO: Government Operations and Fiscal Policy Committee  
FROM: Dr. Costis Toregas, Council IT Adviser  
SUBJECT: Update – Technology Modernization (TechMod) Fiscal Reviews

**Expected to attend:**

Jennifer Hughes, Director, Office of Management and Budget  
Joe Beach, Director, Department of Finance  
Joe Adler, Director, Office of Human Resources  
Uma Ahluwalia, Director, Department of Health and Human Services  
George Griffin, Director, Department of Liquor Control  
Sonny Segal, Director, Department of Technology Services  
Karen Plucinski, ERP Program Director  
Michael Ferrara, TechMod and PSSM Program Director

**Staff Recommendations:**

1. Receive financial report on ©6 and provide input to next stage of TechMod evolution and upcoming CIP investments.
2. Ensure that user feedback from ERP end users reflects Council and Council staff perceptions of ERP ease of use and accuracy.

**Background**

The Technology Modernization project is a Capital Improvements Program (CIP) project that allows a multi-year approach to plan for, launch, and implement complex computer systems that have the ability to streamline and significantly improve the basic operations of County government. The Project Description Form (PDF) for this project from the FY13-18 CIP program as modified on May 2, 2013 is on ©1-2.

Since the first appropriation in FY08, the project has invested more than \$113 million in these complex projects, and with good results. Unlike many jurisdictions where either the budget or the quality of the implementation suffered under the strain of multiple stresses, Montgomery County has been almost unique in its history of successful progress.

Several projects make up the TechMod “portfolio”:

- ERP, which integrates financial, HR, and Procurement systems into a single effective approach;
- MC311, which has consolidated multiple call centers into a single, effective place for residents to look for information and assistance;
- MCTime, which has automated the cumbersome and error-prone time record system for all departments;
- Infrastructure, which provides the technology underpinnings (servers, routers, cabling, major common systems, etc.) for all projects;
- P-TechMod, which stands for Process Technology Modernization of the multiple HHS systems into a single unified enterprise-wide way to serve clients; and
- A project involving Liquor Control’s asset management that, while funded from non-tax revenues, has been incorporated within TechMod.

A reminder is in order to emphasize the importance of new enterprise projects being added to TechMod. Note on ©3 that a new Loan/Lease Management element requested by DHCA is being evaluated through the CIP process. The TechMod element of the CIP will therefore always be there, but with changing projects and a firm coordination management effort to oversee their efficient implementation. Including new major efforts within TechMod ensures benefits of both efficiency and effectiveness for the County. Efficiency benefits come about since the same governance and oversight structure is used, and because the licensing, programming support, and long-term maintenance costs are standardized around the same technology and vendor contracting platforms. Effectiveness is ensured because the synergies and interoperability benefits rising from coordinated use of similar processes and resources will allow for better citizen support and faster internal workflows. The Executive branch should be prepared to highlight how these benefits of efficiency and effectiveness are actually being captured within the TechMod management framework.

As new projects are added, completed projects also drop off. This is the case for MCTime and MC311, which have completed their developmental cycle and have been transitioned into the Operating Budget as mature on-going processes. They will probably not appear in the next cycle of CIP information documents.

The Committee reviews progress of these projects periodically. However, the Committee has also requested that a fiscal review of the TechMod project be undertaken periodically, given the magnitude of investment and complexity of tasks. The last such review was conducted on March 19, 2013.

### **Executive Branch Submission**

To assist the fiscal update dialogue with the Committee, Council staff prepared a series of questions for the Executive branch. The questions and answers provided are on ©3-6.

This worksession is concentrating on the fiscal side of evaluating progress made against stated goals and adequacy of resources to proceed in an adequate manner. The impending CIP submission from the

Executive on January 15, 2014 will provide needed texture for the continued investment needed to deploy the TechMod systems.

An important initiative to benefit from the ERP deployment by exploring the feasibility of a centralized Accounts Payable function on ©4 should be highlighted and further discussed. If such an initiative were found feasible, it would open the door for many other similar centralization functions foreshadowed by an early OLO report on centralized business functions for County operations, and provide important return on investment on the major investments made in ERP up to today.

The Committee has also asked the Executive for a status report on user feedback from end users currently using the ERP system. This report is provided as answer to Question 4 on ©4-5. It shows a commitment to a process of listening and responding to user concerns (which includes the Council and its staff).

## Technology Modernization -- MCG (P150701)

Category General Government  
 Sub Category County Offices and Other Improvements  
 Administering Agency County Executive (AAGE03)  
 Planning Area Countywide

Date Last Modified 5/2/13  
 Required Adequate Public Facility No  
 Relocation Impact None  
 Status Ongoing

	Total	Thru FY12	Rem FY12	Total 6 Years	FY 13	FY 14	FY 15	FY 16	FY 17	FY 18	Beyond 6 Yrs
<b>EXPENDITURE SCHEDULE (\$000s)</b>											
Planning, Design and Supervision	113,565	74,625	5,031	33,909	13,688	11,104	8,667	450	0	0	0
Land	0	0	0	0	0	0	0	0	0	0	0
Site Improvements and Utilities	0	0	0	0	0	0	0	0	0	0	0
Construction	0	0	0	0	0	0	0	0	0	0	0
Other	56	0	56	0	0	0	0	0	0	0	0
<b>Total</b>	<b>113,621</b>	<b>74,625</b>	<b>5,087</b>	<b>33,909</b>	<b>13,688</b>	<b>11,104</b>	<b>8,667</b>	<b>450</b>	<b>0</b>	<b>0</b>	<b>0</b>

	Total	Thru FY12	Rem FY12	Total 6 Years	FY 13	FY 14	FY 15	FY 16	FY 17	FY 18	Beyond 6 Yrs
<b>FUNDING SCHEDULE (\$000s)</b>											
Current Revenue: General	62,517	39,737	1,852	20,928	8,955	5,338	6,635	0	0	0	0
Federal Aid	1,059	0	0	1,059	352	389	264	54	0	0	0
Land Sale	2,634	2,634	0	0	0	0	0	0	0	0	0
Recordation Tax Premium	2,623	0	0	2,623	0	2,623	0	0	0	0	0
Short-Term Financing	44,788	32,254	3,235	9,299	4,381	2,754	1,768	396	0	0	0
<b>Total</b>	<b>113,621</b>	<b>74,625</b>	<b>5,087</b>	<b>33,909</b>	<b>13,688</b>	<b>11,104</b>	<b>8,667</b>	<b>450</b>	<b>0</b>	<b>0</b>	<b>0</b>

	Total	Thru FY12	Rem FY12	Total 6 Years	FY 13	FY 14	FY 15	FY 16	FY 17	FY 18	Beyond 6 Yrs
<b>OPERATING BUDGET IMPACT (\$000s)</b>											
Maintenance				33,786	225	2,015	3,037	9,503	9,503	9,503	
Productivity Improvements				-3,782	-33	-33	-929	-929	-929	-929	
<b>Net Impact</b>				<b>30,004</b>	<b>192</b>	<b>1,982</b>	<b>2,108</b>	<b>8,574</b>	<b>8,574</b>	<b>8,574</b>	

### APPROPRIATION AND EXPENDITURE DATA (000s)

Appropriation Request	FY 14	11,104
Supplemental Appropriation Request		0
Transfer		0
Cumulative Appropriation		93,400
Expenditure / Encumbrances		81,983
Unencumbered Balance		11,417

Date First Appropriation	FY 07
First Cost Estimate	
Current Scope	FY 13 113,621
Last FY's Cost Estimate	113,621

### Description

This project provides for the replacement, upgrade, and implementation of IT initiatives that will ensure ongoing viability of key processes, replace outdated and vulnerable systems, and produce a high return in terms of customer service and accountability to our residents. Major new IT systems that have been completed through this project include the Enterprise Resource Planning (ERP) Financial and Human Resources modules, foundation phase of the 311/Constituent Relationship Management (CRM), Electronic Time reporting (MCTime), and related Business Process Review (BPR). Planning activities for the Department of Health and Human Services (HHS) technology modernization of key systems and processes are underway. The Budgeting module of the ERP system (Hyperion) and additional selfservice functionality is currently underway and the workforce component of the Hyperion System has been completed. The ERP project was implemented to modernize Core Business Systems to improve the efficiency, effectiveness, and responsiveness of the County Government. The ERP project provided needed upgrades to the County's financial, procurement, human resource, payroll, and budgeting systems and streamlined existing business processes. Additional BPR is needed to continue the alignment of County business processes with the new system and related enterprise impacts and to maximize the return on the County's IT investment. The 311/CRM system combines advanced telephony, internet, and computer technology with constituent-focused business processes. Residents are now able to call one number to access County government services. The 311/CRM system includes built-in tracking and accountability features to assure that every call receives a timely response. In addition, the 311/CRM system produces information on County efficiency and effectiveness in responding to requests for information and service requests. This information is used by the Chief Administrative Officer, CountyStat, and operating departments to track and improve performance and customer service. Completion of Phase I of the current MC311 (CRM) included developing an automated service request processing system for the County's Department of Transportation including converting the systems currently used for leaf pick-up, snow removal, tree issues, and street light outages. Phase II of the project will include modernization of the County's Tax Assessment Billing System. This system is used to annually calculate and bill County residents for County and municipal property taxes, solid waste fees, water quality fees, WSSC fees, and other fees, taxes, and related credits. The HHS technology modernization involves the product identification and modification and implementation of an enterprise Health and Human Services system that includes the following components: intake and eligibility; common client index; document imaging and electronic records; case management and billing capabilities for HHS; a portal for legacy and enterprise systems; and a data warehouse.

### Justification

## Technology Modernization -- MCG (P150701)

According to a 2004 ranking of major existing technology systems based on their current health and relative need for upgrade or replacement, the County's then current core business systems (ADPICS, FAMIS, BPREP, and HRMS) were ranked as Priority #1, which means obsolete or vulnerable critical system in immediate risk of failure. These at-risk systems were replaced with a state of the art ERP system which provides a common database supporting financials, procurement, budget, and HR/payroll, and includes system-wide features for security, workflow, and reporting, and up-to-date technology architecture. Montgomery County seeks to set a national standard for accountability and responsiveness in governance and the delivery of services to its residents and businesses. Tax Assessment Billing System: The current system is over 30 years old, is only internally supported, and is used for the collection of over \$2 billion in revenues annually. Health and Human Services: This technology modernization effort will ensure ongoing viability of key processes, replace outdated and vulnerable systems, create staff operating efficiencies and produce a high return in terms of customer service and accountability to our residents. Related plans and studies include the Information Technology Interagency Funding and Budgeting Committee's report of September 30, 2003, and the Montgomery County Government FY06 IT Budget Overview prepared by Department of Technology Services.

### **Other**

The Technology Modernization - MCG project is intended to serve as an ongoing resource for future IT modernization and related process engineering to the County Government's business systems beyond the currently defined project scope. Future projects may include the following: CRM - Citizen Relationship Management Phase II: This initiative will extend the service to municipalities in the County and other County agencies (e.g. Board of Education, M-NCPPC, Montgomery College). This initiative will proceed based upon interest from these organizations and agreement on funding. Objectives include creation of a Citizen Relationship Management (CRM) program to develop or convert automated capabilities for all appropriate County services including: Case Management Events, Management Field Services, Grants Management, Help Desk Solutions, Point of Sales, Resident Issue Tracking System, Work Order Processing System, ERP - Enterprise Resource Planning, Business Intelligence/Data Warehouse Development, Loan Management, Property Tax Billing and Collection, Public Access to Contractor Payments, Upgrade to Oracle E-Business/Kronos/Siebel, and Enhancements to comply with evolving Payment Card Industry (PCI) mandates.

### **Fiscal Note**

Project funding includes short-term financing for integrator services and software costs. The Operating Budget Impact (OBI) estimates providing the above included the costs associated with supporting the Technology Modernization project after implementation, including staff returning to their home departments from the project office to provide on-going support, knowledge transfer, and to serve as "super users", as well as staff and contractors necessary to support the system, maintenance agreements with software vendors, and costs associated with the Sustaining Organization through FY16-18. The establishment of a sustaining organization is needed post-implementation to resolve problems, facilitate communication across business processes because of the system integration, produce reports, and re-engineer business processes. The Government Finance Officers Association (GFOA) and Gartner (a premier IT consulting organization) both recommend that organizations implementing an ERP also establish an enterprise business support structure (often called a sustaining organization or Enterprise Service Center) after project implementation to maintain, enhance, and focus on: business strategy, functional / technical expertise, software integration, technology, project management and continuous process improvement. Investing in a sustaining organization is key to fully exploiting the capabilities of the new ERP system. Productivity Improvements achieved through this project include absorbing staffing reductions in the Information Technology, Fiscal, Budget, Administration, Clerical, Human Resource, and Financial Occupational classifications (FY08-12); termination of maintenance agreements for legacy systems; termination of the keypunching contract for the manual timesheet process; and other related savings. Total estimated savings related to this project through FY12 are estimated at over \$36 million including the reduction of over 320 full time equivalent positions in the County Government. For FY14, funding schedule reflects a \$2,623,000 increase in Recordation Tax Premium and an offsetting decrease in General Fund Current Revenues.

### **Coordination**

MCG efforts are coordinated with applicable agencies during the project planning, requirements gathering, and requests for proposal (RFP) phases: Offices of the County Executive, Office of the County Council, Department of Finance, Department of Technology Services, Office of Procurement, Office of Human Resources, Office of Management and Budget, Department of Health and Human Services, all MCG Departments and Offices, Maryland Department of Human Resources, Maryland Department of Health and Mental Hygiene

**1. Fiscal review compared to last report (March 14, 2013 GO packet on ©9)**

**a. Where are we on spending?**

See attached chart

**b. Are there new requirements approaching beyond what is shown?**

Through the CIP process; we will evaluate system capability for Loan/Lease Management requested by DHCA.

**c. What happens fiscally after 2015?**

Funding will be part of the CE's FY16 budget request.

We are evaluating options for a Sustaining Organization; determining staffing and resource needs to address governance, system maintenance and upgrades, performance metrics, new functionality, ongoing process improvements, user competence, ongoing training and support. We are currently researching other government models to determine what best fits Montgomery County needs.

**2. Progress on efforts with possible fiscal impact**

**a. HHS TechMod expenditures and accomplishments/challenges**

Through October 2013, HHS has completed requirements definition and detailed system design for the core components of its planned Enterprise Integrated Case Management (EICM) system. We have received the draft Final Report of the readiness Assessment we commissioned from Gartner, identify project risks, suggest effective mitigations, and validate pricing. The CAO has planned a meeting after the Garner study to review the project's status and confirm funding. We see one significant challenge to the project, beyond the risks inherent in any large, complicated systems integration effort: Changes at the federal and state level that would compel changes at the County level. For example, DHR and DHMH have not yet finalized a modernization plan for existing State eligibility determination systems, with which the EICM must integrate. To minimize the impact of this risk, we are tracking State decisions carefully and architecting the EICM to be flexible enough to adapt to changing target system interfaces.

**b. DLC expenditures and accomplishments/challenges**

- Oracle Integrator and approved funding are in line with a February 2014 go live.
- Automated Clearing House (ACH) payment processing for Warehouse deliveries to Licensees. This feature improves the safety of our truck drivers and Licensee Staff. ACH ensures a quicker reconciliation of incidences involving insufficient funds versus checks that may take several days thereby protecting the DLC Business. Challenge – Licensees conducting business banking online.
- ISTORE – Allows Licensees and Sales Reps to place orders and track orders, invoices, payments and returns. This is an internet friendly application available seven days a week to Licensees and

Authorized Sales Representatives to place orders with DLC. This feature is very self intuitive and user friendly. ISTORE is available in addition to a live order call in option for the Licensee.

- ISUPPLIER – Allows DLC suppliers to manage pricing, monitor invoices and payments. This is a interactive internet application that facilitates a Supplier to be informed on Purchase Orders initiated to include changes and be advised on the status of Invoices processed by DLC. In addition, the Supplier utilizes ISUPPLIER to updates prices for their products and facilities a formal process of submission and approval. The primary benefit of the ISUPPLIER is information is available to our key partner – Supplier with minimal communication with our staff.
- The ERP solution provides certain business process efficiencies such as timely communication with Licensees on the status of their orders. The inability to achieve this in the current system has been a major source of dissatisfaction among our Licensees.
- The ERP solution enables DLC to accept orders for stock quantities greater than on hand by providing a future delivery date to the Licensee. This is a fundamental business process that is not available today. This enhancement allows DLC to track all orders and fill all demand.
- The ERP solution provides for a seamless integration of the Warehouse Management system, the retail Point of Sale System and the County's financial tracking system resulting in greater data integrity and quicker preparation of the Comprehensive Annual Financial Reports (CAFR).

### **c. ERP Sustaining Organization**

We are evaluating options for a Sustaining Organization; determining staffing and resource needs to address governance, system maintenance and upgrades, performance metrics, new functionality, ongoing process improvements, user competence, ongoing training and support. We are currently researching other government models to determine what best fits Montgomery County needs.

- 3. Now that ERP and MC311 have been operational through a few budget cycles, is there something that can be said about costs across the enterprise? Are there possibilities to consolidate functions or perform other BPR actions, as the Internal Audit report dated June 20, 2013 suggests on p.23?**

The ERP team in collaboration with the Department of Finance and the Office of Human Resources are strategically reviewing the Oracle Financials and HR modules to incrementally make configuration and business process improvements; and to prioritize and allocate resources. In addition, the Department of Finance has recently established a work group to define business requirements and determine the feasibility of centralizing Accounts Payable.

### **4. Status of ERP end user satisfaction survey requested by the Committee**

In July 2012, ERP conducted focus group sessions with two groups of users 1) Administrative Service Coordinator and 2) Departmental HR Liaisons to obtain feedback on what was working well and what challenges they were encountering with ERP. Based on the feedback received, the ERP team identified and prioritized the feedback and developed an action plan.

### **Focus Group feedback highlighted –**

- Financial users; requested robust reporting tools, updated training materials and advance Oracle navigation tips.
- HR Liaisons; requested Payroll, Overtime and Leave reports and felt position transactions had too many steps to complete in Oracle.
- Both Financial users and HR Liaisons requested a user forum to share best practices

### **FY 13 Accomplishments based on user feedback**

All Financial online training was updated

General Navigation for Financials, Accounts Payable, Purchasing, Advanced Purchasing for Buyers, Transaction Approver, Projects and Grants, Project and Grants Miscellaneous Transaction, iExpense (employee reimbursements), General Ledger, Accounts Receivable

All HR training updated along with abbreviated job aids and conducted numerous lab sessions to support HR Liaisons

HR Transactions, Workforce Performance Management, Oracle Learning Management

Business intelligence (BI) Reporting tool - Numerous models were developed

Labor Distribution – Labor Schedules, Bi weekly payroll

Accounts Payable – AP iExpense, AP invoice distribution, Payments distribution

Purchase Orders – PO distribution, PO requisitions, PO Contracts, PO Receiving

Projects and Grants – Expenditure/ Revenue/ Encumbrance/ Budget /Funding/

Funding Pattern Summary

Accounts Receivable – AR transactions, AR transaction aging, AR receipts,

AR Customer

HRMS Legacy data

### **User Feedback plans for FY 14**

Conduct online survey with users

1) November 2013 survey unrepresented financial users and Departmental HR Liaisons

- Analyze data, brief business owners and ERP team
- Debrief results with Departmental Administrative Service Coordinators (Financials) and Department HR Liaisons
- Prioritize, develop Action Plan and provide a summary to all users

2) January 2014 survey represented Financial users and HR Manager Self Service

- Analyze and compare data with unrepresented users
- Brief business owners and ERP team
- Prioritize action plan and provide feedback to all users

### TECH MOD CIP

	Total Appropriation thru FY13	Total Expenditures thru FY13	FY14 Appropriation
ERP	\$65,658,390	\$65,297,800	\$6,004,000
MC311	\$11,874,990	\$11,874,900	
McTime	\$1,992,780	\$2,077,300	
Infrastructure	\$10,638,840	\$9,113,200	\$1,855,000
HHS	\$3,235,000	\$1,834,100	\$3,245,000
<b>TOTAL</b>	<b>\$93,400,000</b>	<b>\$90,197,300</b>	<b>\$11,104,000</b>

*Note: The difference between total appropriation and expenditures through FY13 was carried over into FY14 and has been/will be expended in FY14.*

### DLC ERP

Total Approved DLC/ERP Funding	Total Actual Expenditures FY13	Total Projected Expenditures FY14	Total Actual and Projected through FY14
<b>\$5,032,000</b>	<b>\$2,409,300</b>	<b>\$2,460,000</b>	<b>\$4,869,300</b>

*Note: DLC has annual funding guidelines by debt and principal only. Not shown by appropriation. Remaining amount of \$162,700 to be expended in FY15.*

6-Nov-13

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