S T A T E O F M A R Y L A N D
DEPARTMENT OF INFORMATION TECHNOLOGY

LARRY HOGAN
Governor

BOYD RUTHERFORD
Lieutenant Governor

DAVID A. GARCIA
Secretary

FISCAL YEAR 2017 OPERATING BUDGET

TESTIMONY OF
David A. Garcia, Secretary

Senate Budget and Taxation Committee
The Honorable Edward J. Kasemeyer, Chair
February 16, 2016

House Appropriations Committee
Subcommittee on Public Safety And Administration
The Honorable Keith E. Haynes, Chair
February 17, 2016

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Good afternoon, Mr. Chairman and members of the committee. I am David Garcia, Secretary of the Maryland Department of Information Technology. I am joined by Luis Estrada, Deputy Secretary, Greg Urban, Chief Operating Officer, and James Appel, Executive Financial Officer. Thank you for giving us the opportunity to provide this testimony to the general assembly.

The Department of Information Technology provides centralized Information Technology services and oversight of IT projects for executive branch and independent agencies. We are the principal procurement unit for the State's IT and telecommunications purchases and lead the development of Maryland's strategic IT direction. As a primarily internal-facing agency, the Department is able to identify and promulgate opportunities for State agencies to become more efficient, reduce costs, maximize the State's investment in IT and telecommunication assets, and better serve the citizens of Maryland.

To best accomplish this, we are implementing an Enterprise Plan for IT services. Maryland's evolution from a federated architecture into a model that provides support for the sharing of IT services enables us to strengthen cybersecurity, improve the efficiency and quality of services, and maximize the value of our IT investments.

The plan divides agencies by size into 3 implementation phases; it began in June 2015 and is estimated to be completed by June 2018. The initial phase of the plan, comprised of the smaller population agencies, was successfully completed on schedule in December 2015. The Department of Information Technology is currently executing the second phase of the plan along with elements of the third phase. It is worth noting that the department now supports over 2,000 State workers in 15 agencies across all 24 jurisdictions of Maryland, up nearly 100% in under one year.

As a service organization we understand our success lies in our commitment to our customers, which are primarily the citizen-facing programs operated by State agencies. The Enterprise Plan will reduce costs and improve capabilities of these programs, which in turn makes these programs more effective and efficient. In the first two years of implementation we will offer superior IT services without increasing the State's overall spend on IT. The cornerstone of the Enterprise plan is the establishment of an Enterprise Service Catalog delivering key IT services to State agencies including:

- cybersecurity
- service desk support
- web services
- procurement services
- Enterprise Project Management Office

Cybersecurity reduces the exposure of State government to potentially severe fiscal and operational crises. We are continuously strengthening our cyber infrastructure to meet increasing demand as more agencies join the Enterprise. Cybersecurity services now include assessments, audits, consulting, and incident response. Our Security as a Service offering consists of a state-of-the-art, next-generation firewall platform and log analytics capability managed from our 24x7 Security Operations Center. Security as a Service is as a requisite part of the Enterprise Model and is available to out-of-scope agencies. In FY17, we will establish a baseline cybersecurity program along with an accreditation process that will allow us to measure progress and programmatically evaluate risk.

Under the Enterprise Plan, we also deliver measurable, outstanding customer service through a consolidated Enterprise Service Desk. Our Maryland Central Service Desk supports multiple agencies with expanded operating hours, and is capable of scaling to support the entire community of 50,000 State workers 24/7. Our ServiceNow customer management platform allows for greater visibility with detailed performance and customer satisfaction metrics.

Our plan provides enhanced web services to all agencies. We are currently hosting over 65 websites and more than 7,000 individual pages for 24 agencies. We established the Maryland State web template and branded 34 agency sites solidifying uniformity and branding. The addition of Google's automated language translation features has also improved overall accessibility.

As the control agency for IT procurement, we share our expertise and lessons learned to maximize the success of all IT purchases. Through standards, training, and procurement reform, the Department improves the overall effectiveness of State IT procurement. In consultation with our Assistant Attorney General, we have modified the State's Terms and Conditions for IT contracts. These changes will increase competition bringing more bidders to the table and driving down overall costs to the State.

We have established an Information Technology Vendor Outreach program and will soon be implementing a monthly Small, Minority and Veteran-owned Businesses "procurement help clinic". These events allow vendors to directly interact with our own internal procurement professionals and our MBE liaison to learn and provide feedback about Maryland procurement practices and upcoming plans within the Department. We also offer guidance and training for IT procurements to State agencies, including classes for those authoring or evaluating State procurements.

Our Telecommunications Access of Maryland division administers the Maryland Relay and Accessible Telecommunications programs allowing over 20,000 speech and hearing impaired citizens to effectively communicate with the hearing community reducing the number of Marylanders needing to go into assisted living by allowing them continued communication and independence.

Additionally, we operate Maryland's award winning e-Gov program, the central hub for online citizen engagement. In 2015 over 25 million online transactions were processed through this program which provides over 60 online services to Maryland's citizens. The Department's authority over Major IT Development Projects mandates we provide oversight and guidance to ensure project success and efficient uses of State resources. As a result, the Major IT Development Fund makes up a large portion of our budget. Detailed accomplishments and project success are submitted as part of our written testimony.

The Department of Information Technology remains committed to providing outstanding cost-effective IT services to State agencies maximizing the tax dollars entrusted to us by the citizens of Maryland.

On behalf of Governor Larry Hogan, I thank you for your time and welcome any additional questions from the committee.

Agency Response to DLS Questions, Issues, and Recommendations

Issues

Statewide Consolidation of Information Technology Support Operations: A major initiative is for DoIT to adopt an "enterprise model" for day-to-day agency IT operations. The objective is for DoIT to provide these services for all cabinet-level agencies. The DoIT expectation is that this will reduce costs and improve services. DoIT provided these services for some agencies prior to when this new initiative begun. At the end of fiscal 2015, approximately 1,300 positions were served by DoIT. This increases to 10,900 at the end of fiscal 2017. **The department should be prepared to brief the budget committees on its initiative to expand the support services that it is offering to State agencies. DLS also recommends that the General Assembly adopt language requiring DoIT to report on the progress of its initiative to expand the number of agencies to whom the department provides IT support services.**

Department of Information Technology is implementing an Enterprise Plan for IT services. Our evolution from a federated architecture into a model that provides support for the sharing of commodity IT services enables us to strengthen our Cybersecurity posture, improve the efficiency and quality of services to State users, and maximize the value of our IT investments across the State.

The plan divides agencies by size into 3 implementation phases; beginning in June 2015 and estimated to complete by June 2018. The initial phase of the plan, comprised of the smaller population agencies, was successfully completed on schedule in December 2015. The Department of Information Technology is currently executing the second phase of the plan along with elements of the third phase. It is worth noting that the department now supports over 2,000 State workers in 15 agencies across all 24 jurisdictions of Maryland, up nearly 100% in under one year. At this time we support and services for:

- Department of Aging
- Department of Agriculture
- Department of Assessment and Taxation
- Department of Budget and Management
- Department of Disabilities
- Department of General Services
- Department of Information Technology
- Department of Veterans Affairs
- Board of Contract Appeals
- Executive Office of the Governor
- Governor's Coordinating Offices
- Maryland Energy Administration
- Maryland Higher Education Commission
- Maryland Emergency Management Agency
- Office of the Secretary of State
- Office of the State Prosecutor

As a service organization we understand our success lies in our commitment to our customers, which are primarily the citizen facing programs operated by State agencies. The Enterprise Plan will reduce costs and improve capabilities of these programs, which in turn makes these programs more effective and efficient. In the first two years of implementation we will offer more and better services without increasing the State's overall spend on IT, ultimately leading to savings as the Enterprise Plan reaches completion. Capabilities are improved through the establishment of an Enterprise Service Catalog delivering key IT services including cybersecurity, service desk, procurement services, and the Enterprise Project Management Office (EPMO).

Highlights of the Enterprise Service Catalog include:

Security Services

We are continuously strengthening our cyber infrastructure to meet increasing demand as more agencies join the Enterprise.

- Cybersecurity services now include assessments, audits, consulting, and incident response.
- Our Security as a Service (SECaaS) offering consists of a next-generation firewall platform and log analytics capability managed from our 24x7 Security Operations Center (SOC). It was recently enhanced to include remote access services.
- SECaaS is as a requisite part of the Enterprise Model and is available to out-of-scope agencies.
- In FY17, we will establish a baseline cybersecurity program along with an accreditation process that will allow us to measure progress and evaluate risk.

Enterprise Service Desk Services

Under the Enterprise Plan, we deliver measurable, outstanding customer service through a consolidated Enterprise Service Desk.

- Created multi-Agency service desk with expanded operating hours.
- Deployed the Maryland ServiceNow Central Help Desk service, capable of scaling to support the community of 50,000 State workers 24/7.
- Delivered greater visibility with detailed performance and customer satisfaction metrics made available by our ServiceNow platform.

Web Services

The Department broadens the availability of enhanced web services to all agencies through the Enterprise Plan.

- Currently hosting over 65 websites and approximately +7,000 individual pages for 24 agencies.
- Established the Maryland State web template and branded 34 agency sites.
- Created and centralized the scheduling request system and appointments system used by the Governor's Office and integrated it with the IQ system.
- Added Google's automated language translation features to State web sites.

Cybersecurity Audits Detect Weaknesses: Cybersecurity is a major concern for the State. The media is routinely reporting cybersecurity breaches, and many incidents are unreported. Audits have found weaknesses in State procedures. Chapter 358 of 2015 established the Maryland Cybersecurity Council to work with federal agencies, businesses, and cybersecurity experts to improve the State's response to cybersecurity threats. **The department should be prepared to brief the committees on its role in the Maryland Cybersecurity Council.**

The Secretary of the Department of Information Technology is a member of the Council, and chairs the cyber operations incident response subcommittee which is responsible for:

- Making recommendations to monitor and assess cyber threat environment and response thereto.
- Establish a front line of defense against cyber attacks by creating or enhancing shared situational awareness of cyber vulnerabilities, threats, and incidents within the State.
- Incident Response - Recommend a comprehensive State strategic plan to ensure a coordinated and quickly adaptable response to and recovery from cyber attacks and incidents.

In recent years, the department has made efforts to identify weaknesses and make improvements. In spite of all the training, increased resources, and improved policies, audits still reveal critical security weaknesses. The department should brief the committees on how it plans to address these weaknesses.

Cybersecurity is an ongoing campaign on a battlefield that that is continually changing. The State has, in aggregate, historically underinvested in this area and has only recently established tangible initiatives to address the risk on a broad scale. The root cause of findings such as those identified in the analysis is often caused by procedural weaknesses. The more distributed the operational teams responsible for security, the more challenging the task to ensure appropriate operational controls are in place to secure data and systems. As such, the Enterprise Plan establishes consistent operating procedures that will improve cyber security. Agencies in the Enterprise will benefit from the ubiquitous deployment of a layered security model that encompasses border to endpoint protection.

Secondly, the most common and dangerous cybersecurity risk vector is phishing attacks targeting State workers. Educating the users is the most effective line of cyber defense and The Department of IT will continue this very successful program for State employees.

The Department of IT continues to increase capabilities and resources available to State agencies, including the centralized 24/7/365 Security Operations Center (SOC) that was established in FY2016. The SOC is the hub of incident management and communication for cyber events, and is a central point of monitoring, assessment, and defense for agencies within the Enterprise. With improved visibility through the SOC and Security as a Service platforms, the Department has increased situational awareness of the State's security posture.

We will continue to work with all State agencies, whether inside or outside the Enterprise model, to provide relevant policies, expertise, assessments, and response capabilities to maximize the effectiveness of cyber security investments.

Election System – Changing Plans: The State Board of Elections (SBE) is developing a new voting system that should be operational for the 2016 elections. On Thursday, February 4, 2016, the board unanimously voted to use paper ballots instead of the election machines at the April 2016 primary election. The DoIT mission is to assist agencies as they develop major IT projects so that projects are on time and on budget. **The department should be prepared to brief the committees on its role in supporting the SBE voting system project. This should include a discussion of problems identified and actions taken to fix problems.**

The Department provides oversight as part of our Major IT Development Project role and we are working closely with the State Board of Elections project management staff on all aspects of implementation. The Department provides close support to the SBE with general guidance and with a dedicated Oversight Project Manager. We maintain frequent contact with SBE leadership to provide resource loaded scheduling and tracking all actions including critical path elements which are vital to ensuring a successful completion.

Responses to the Recommended Actions

Recommended Action 1: Delete implementation funds for the Department of Human Resources' Automated Financial System major information technology project

The Department does not concur with this recommendation. The Department believes the budget as submitted provides the optimal schedule for implementation. The planning phase was completed in January 2016 and the project is ready to move into the implementation phase. There was significant savings during the planning phase and this savings has been considered in our recommendation.

Recommended Action 2: Defer funding for the State Board of Elections' Agency Election Management System Modernization Project.

The Department does not concur with this recommendation. The Department believes the funding should remain in the budget. Project timeline constraints to implement the new AEMS system for the 2018 Primary Election will be visible. SBE will only have one year to fully develop, implement and test a new/modernized election management system to interface with the new voting system. The system currently publishes candidate lists, defines ballots, performs election night results reporting, identifies and documents winners, certifies and publishes results, and is a key component to the election cycle. I believe that failure to fund this project now will likely result in the need to continue the existing application and increase costs by as much as 200-300%.

Recommended Action 3: Add language to restrict funds pending a report on the department's statewide information technology consolidation

The Department does not concur with this recommendation. Since the start of my time with the State I have initiated communication with the members of the Legislature. My Department has been prompt and responsive to all inquiries, and knowing the rush of session, I began meeting this summer with members of the Joint Committee on Cybersecurity, Information Technology and Biotechnology to inform them of our plans. I do not believe a restriction is required- I have been and remain available to speak with any of the members of the Legislature.

Other Discussion Topics

DoIT advises that agencies will still be responsible for the content on their websites. The DoIT role will be to develop standards and provide resources for agencies. **The department should brief the committees on the progress made since the transfer of these positions.**

The Department established web standards including the responsive design template for agency web sites. In addition to the accomplishments listed above we will migrate another eight agencies onto our shared services platform in 2016 in conjunction with our Enterprise Plan.

In addition to providing resources for agency websites, the department should direct some of its MFR efforts to developing indicators that measure the quality of State websites.

In addition to the agency templates and guidelines, we have been working with agencies across the State to implement site analytics and surveys which can be used to develop MFR measures. Additionally, our current MFRs, as published on the DBM website, have indicators that reflect the quality of the web sites and applications provided by the Department, including adoption rate of applications and user satisfaction measurements. (http://www.dbm.maryland.gov/Documents/MFR_documents/2017/DepartmentofInformationTechnology.pdf)

Major Information Technology Development Project Highlights

Labor, Licensing and Regulation: Unemployment Insurance Modernization (UIM)

The Department of Labor, Licensing and Regulation's Division of Unemployment Insurance is modernizing the technology associated with its three larger functions: Benefits, Contributions, and Appeals. This program will streamline the unemployment process. It makes it easier for businesses to pay into the unemployment system, for employees to file and collect benefits, and for both parties to handle appeals as necessary.

DHMH's ICD-10

The U.S. Department of Health and Human Services mandated that providers covered by the Health Insurance Portability and Accountability Act must implement ICD-10 for medical coding on October 1, 2015. The ICD-10 project team conducted and completed end to end and regression testing in September 2015. The project team is currently in the process of completing all "go live" activities for the Medicaid Program Implementation. The project is due to complete and close out in Q3 of FY16. This will be on time and on budget.

MDOT SHA CHART R15

The Department of Transportation's State Highway Administration Release 15 of the Coordinated Highways Action Response Team (CHART) Advanced Traffic Management System repairs a security vulnerability in the current Highway Advisory Radio recorder tool. It automatically displays weather related messages on Dynamic Message Signs and HARs and/or activate on/off devices based on readings from weather sensors. R15 will allow scheduled safety message events and special events to open, activate response plans, and close automatically. R15 will provide integration with the CHART Lane Closure Permitting System. This system is making our highways safer for all Marylanders and our visitors.

700 MHz Public Safety Communication System

The 700 MHz Public Safety Communication System eliminates deficiencies such as interoperability between existing systems, inadequate coverage, and transmission capacity.
The system being deployed throughout the State is enabling interoperability between State Agencies, Local Governments, and Public Safety officials with the removal of geographic boundaries and system incompatibilities though system standardization. This year the system was deployed and became operational in Baltimore County, Baltimore City, Carroll County, Harford County, and Cecil County.

The system was tested in Baltimore City during the deployment of the Maryland National Guard, State and local police, and other law enforcement from around the National Capital Region to protect the lives and property of citizens during the civil unrest in April 2015. The system successfully operated as designed and allowed first responders and emergency personnel to reduce response time and increase efficiency.