

**GOVERNMENT OF THE DISTRICT OF COLUMBIA**  
**Office of the Chief Technology Officer**



**Fiscal Year 2018 Budget Oversight Hearing**

Testimony of

**Archana Vemulapalli**  
Chief Technology Officer  
Office of the Chief Technology Officer

Before the

Committee on Government Operations  
The Honorable Brandon T. Todd, Chairperson

Tuesday, May 9, 2017  
Room 500  
John A. Wilson Building  
1350 Pennsylvania Avenue, NW  
Washington, DC 20004



**STATEMENT OF ARCHANA VEMULAPALLI,  
CHIEF TECHNOLOGY OFFICER,  
BEFORE THE COMMITTEE ON GOVERNMENT OPERATIONS,  
DISTRICT OF COLUMBIA COUNCIL  
Tuesday, May 9, 2017**

**Introduction**

Good morning Chairperson Todd and members of the Committee. I am Archana Vemulapalli, Chief Technology Officer for the District of Columbia. I am pleased to provide testimony on Mayor Bowser's Fiscal Year 2018 budget entitled, "DC Values in Action, a Roadmap to Inclusive Prosperity."

Our local economy and our ability to deliver city services depends on the reliable functioning of critical systems and infrastructure. Critical systems are those systems and assets which would have a debilitating impact on public safety, public health, and our businesses' and resident's well-being. We have been working in FY17 to define our risk tolerance and prioritize which systems need attention.

Cybersecurity is now central to everything we do. We would be remiss if we limited our thinking of cyber security risk to dealing with the issues of malware, viruses, denial of service attacks, social engineering, botnets or any of the other tactics used. We need to think about attack vectors – adversaries who plan and execute cyber-attacks and breaches. Especially where critical infrastructure is concerned, our adversaries are constantly studying us, probing networks, paying attention to the defenses we put up, and searching for the weakest link in the chain – even tracking any of our audit reports or public efforts to promote security. We are seeing an unprecedented rise

worldwide in nation-state sponsored cyber terrorism, sophisticated cyber-crime and the toughest one to ever prepare for – insider threats.

The Office of the Chief Technology Officer’s (“OCTO”) proposed FY18 budget reflects our commitment to reinforce and strengthen disaster recovery and continuity of operations for the District’s critical systems, upgrade end of life systems, and further build out our cyber defenses. The allocated FY18-22 capital budget for technology recognizes the increasing risk of relying on legacy infrastructure and addresses the financial and reputational risk that our city will incur due to deferrals in IT investments.

### **FY18 Budget Summary**

**The Mayor’s FY18 proposed budget for OCTO includes \$114.2 million in operating funds and \$8.7 million in local capital funds.**

Changes in these budget components from FY17 are as follows:

*Table 1: FY18 Local Funds Increase*

The proposed FY18 local funds of \$69.9 million represent an increase of about \$4.3 million over the FY17 local budget. This increase breaks down as follows:	
\$940,000 increase	CPI adjustment in non-personal services
\$2.1 million increase	Adjustment to fund critical security improvements across three programs: Security Operations, Network Monitoring and Identity Management
\$2.3 million increase	Technical adjustment in the citywide IT assessment to reflect service enhancements in operations monitoring, enterprise applications services, web maintenance, enterprise human resource application, cloud services, enterprise data integration and business intelligence services
\$750,000 decrease	Removal of one-time increase in FY17 of \$750,000 for a DSLBD infrastructure upgrade project to support their new Customer Relationship Management Portal
\$220,00 decrease	Agency wide IT consultant spending reductions

*Table 2: FY18 Special Purpose Revenue Funds Decrease*

The proposed FY18 Special Purpose Revenue funds are \$8.4 million

\$3.7 million decrease	Decrease of budget authority to align with historical revenue collections
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*Table 3: FY18 Federal Grant Funds Decrease*

The proposed FY18 Federal Grant funds are \$32,000	
\$16,000 decrease	Remaining funding of grant expires in January 2018

*Table 4: FY18 Intra District Funds Increase*

The proposed FY18 Intra-District funds are \$35.9 million	
\$3.6 million increase	Expanded requests for services offered by OCTO

*Table 5: FY18 Capital Budget Allotment*

The proposed FY18 Capital Budget allotment is \$8.7 million for critical time-sensitive projects	
\$5.0 million	Disaster Recovery & Coop Implementation (DR018)
\$1.2 million	Enterprise Network Monitoring Modernization (NMM17C)
\$970,000	Identity Access Management End of Life Enhancement and migration
\$1.4 million	Procurement Systems End of Life Enhancement

Overall, the budget structure for FY18 and the changes from FY17 reflect one key driving objective – to improve our infrastructure resiliency to support the District in any eventuality.

**Status of Key FY16-17 Initiatives discussed in the FY17 OCTO Budget Testimony**

FY16 Testimony	Status Report
<ul style="list-style-type: none"> <li>✓ Modernizing, maintaining and securing the District's network infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>✓ Core network infrastructure upgrade underway (Phase I: Significant investments have been made. By the end of FY17 approximately 76% of all schools will be at 1GB connectivity (this represents an incredibly momentous ten-fold increase in speeds; the remaining 24% of schools will be completed by summer of FY18.</li> <li>✓ Rolling out Network Access Control</li> <li>✓ Moved DC.GOV to Cloud and increased security</li> </ul>

FY16 Testimony	Status Report
	<ul style="list-style-type: none"> <li>✓ All OCTO policies reviewed and updated annually</li> <li>✓ Expanded Security Team, hired Chief Information Security Officer (“CISO”), Established Governance, Risk and Compliance Team</li> </ul>
Disaster Recovery	<ul style="list-style-type: none"> <li>✓ Built a citywide critical applications COOP/DR (“Disaster Recovery”) Dashboard</li> <li>✓ Completed an assessment to drive outer year investment for core systems</li> <li>✓ Successfully completed DR/failover testing for all OCTO managed critical systems</li> <li>✓ Initiated and funded DGS’ project to provide generator backup to primary data center and to the Security Operations Center</li> </ul>
Citywide Data Strategy	<ul style="list-style-type: none"> <li>✓ Hired a Chief Data Officer</li> <li>✓ Mayor’s Order outlining the most comprehensive Data Policy was issued April 27, 2017</li> <li>✓ Established the Inter-Agency Data Team</li> <li>✓ Launched new <a href="http://opendata.dc.gov">opendata.dc.gov</a> portal</li> </ul>
OCTO’s District Engagement	<ul style="list-style-type: none"> <li>✓ One OCTO Service Day at Capital Area Food Bank (Face Hunger Program)</li> <li>✓ Four Speaker Series</li> <li>✓ Working with DOES to build an internship pipeline for District residents interested in IT. Expected rollout in FY18</li> </ul>
Resident Experience Strategy	<ul style="list-style-type: none"> <li>✓ Implemented Text to 311</li> <li>✓ Built New Crime Map with resident input</li> </ul>

FY16 Testimony	Status Report
Agency Assessments and Performance Dashboards	<ul style="list-style-type: none"> <li>✓ Conducted Smart Cities Ideation Workshop</li> <li>✓ Scheduling regular resident engagement and ideation series to focus on different topics</li> <li>✓ OCTO IT Service Catalog published</li> <li>✓ Agency IT Dashboard built and provided to Agency Chief Information Officers (“CIO”)</li> <li>✓ Agency Security and System Risk Dashboard built</li> </ul>
Recruitment	<ul style="list-style-type: none"> <li>✓ Hired 87 FTEs serving in operational roles</li> <li>✓ All critical leadership positions filled</li> </ul>
DC Resident Services	<ul style="list-style-type: none"> <li>✓ 120+ events to train residents using our Mobile Tech Lab (FY16-17)</li> <li>✓ Inclusive Innovation Incubator launched</li> <li>✓ Project Reboot opens a location in the District</li> <li>✓ Piloted e-invoicing in FY17</li> <li>✓ Developed Information Technology (IT) Solicitations Mobile Application</li> </ul>
Smarter DC	<ul style="list-style-type: none"> <li>✓ Established Citywide Tiger Team</li> <li>✓ Tracking 20+ pilots citywide</li> <li>✓ Launched PA2040</li> <li>✓ Held citywide Smarter DC Summit and four (4) Industry Days</li> <li>✓ Co-lead Council of Global City CIOs</li> <li>✓ Built smarter.dc.gov</li> </ul>

The following section outlines core initiatives that OCTO's Proposed FY2018 Budget will continue to prioritize and focus on:

**Secure DC:** OCTO has begun development of an overarching IT Security Program (Secure DC). Understanding that agencies face unique business requirements, the challenge has been to develop an IT Security Program that allowed for both compliance and flexibility. OCTO has been working closely with the agency CIOs through the CIO Council to update security policies and drive compliance. End of life systems are being upgraded in FY18. A disaster recovery task force will be established to focus on critical systems.

**IT Consolidation and Shared Infrastructure:** A key strategy for securing our environment is the sharing and reuse of common, standards-based IT infrastructure. In the broadest sense, infrastructure can be viewed as a sharable IT investment that can be secured, leveraged and standardized across an enterprise to prevent duplicate efforts, to leverage common investments, to standardize training and operational processes, and to lower IT cost.

**Cloud based communications and Collaboration:** Email is a mission-critical infrastructure component in business environments throughout the government. Because e-mail servers are aggregation points for data and are critical to the day-to-day operations of most government agencies, security is of the utmost interest. E-mail has become the most common vehicle for virus infections, and was the means of entry in most virus incidents this past year. OCTO executed an enterprise agreement with Microsoft to migrate all District employees over to Office 365 in FY17. In FY18, multi-factor authentication (a mechanism in which a user is granted

access after presenting two separate pieces of evidence to authenticate his identity) will be rolled out District-wide.

**Smarter DC:** The Smarter DC team engages District agencies and external stakeholders including the federal government, BIDs, universities, technology communities of interest, business industry, and the public to address city challenges through smart city efforts across the key focus areas of transportation, energy and environment, public safety, healthcare, urban planning, infrastructure and economic development. Under OCTO's leadership, Smarter DC is:

- Defining the use of enterprise connectivity services and the approach of leveraging shared resources across city agencies and public utilities.
- Providing a citywide guidance framework and standards for application deployment that will maximize interoperability and capability sharing across the enterprise environment.
- More efficiently prioritizing, coordinating, designing, and delivering smart city initiatives that are achievable, cost effective, sustainable, and aligned with public needs.

**Data Analytics:** Most data problems result from an initial failure to plan, followed by a failure to address the proliferation of data. And unclear data ownership, lack of a common business language, siloed thinking and a focus on short term projects and gimmicky solutions compound an already complex environment. The District is centralizing investments in data analytics tools and data platforms. The Chief Data Officer ("CDO") is overseeing an inter-agency DC Data Team comprised of data analysts at any/all agencies to ensure a common architecture/framework and a standard toolset is leveraged. Data protection is a key focus area. The CDO is working closely with the CISO to ensure that our data is available in a well-governed environment.



**Resident Services:** The District government website, DC.GOV, has not been redesigned since it was built over a decade ago (2006-2007). We need to refresh our website and cannot delay this anymore. The nation's capital needs a more modern, streamlined, citizen-centric site. With the Mayor's support, OCTO's proposed FY18 budget will allow for the agency to begin this redesign. We need to re-engineer our business processes so that residents can access, transact, and interact easily with the District government online. We will continue to advocate and help bridge the digital divide by partnering with city non-profits and applying for grant opportunities and partnerships with industry to ensure that connectivity, training and devices are more easily available to District residents. We will expand our free Wi-Fi program from the current 17% to 25% of the District, focusing on areas with the greatest need.

### **Conclusion**

Chairperson Todd and members of the Committee, the proposed FY18 budget is adequate and appropriate for OCTO to continue to strengthen our citywide critical infrastructure, reduce our legacy footprint and responsibly invest in innovative technologies that will drive impact. We will be mindful of our commitment to efficiency, transparency, accountability, security, and value. I look forward to the Council's support of OCTO's FY18 budget. Thank you for the opportunity to testify. I am happy to answer any questions.