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STATEMENT OF ARCHANA VEMULAPALLI,
ACTING CHIEF TECHNOLOGY OFFICER,
BEFORE THE COMMITTEE OF THE WHOLE, DISTRICT OF COLUMBIA COUNCIL
Monday, March 7, 2016

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Good afternoon, Chairman Mendelson and members of the Committee of the Whole. I am Archana Vemulapalli, Acting Chief Technology Officer (CTO) of the District of Columbia. I am pleased to be here to testify on the Office of the Chief Technology Officer's (OCTO) performance in FY15 and FY16 to date.

Introduction

Before discussing OCTO's past performance and accomplishments, I want to briefly share my background. I have spent my whole career in technology. I have served as a technology strategy consultant at global consulting firms such as Booz Allen Hamilton and Deloitte Consulting. I most recently was CTO for a rapidly growing start-up facilities management firm and also owned a technology and strategy consulting practice here in the District. Since much of my experience has been in the private sector, I bring a private-sector sense of urgency to OCTO—which combines with my dedication to serve the public in the city that has been my home for more than a decade. I am honored to be entrusted to serve as the District's CTO and am prepared to serve as OCTO's leader to help make the District one of the most innovative cities in the country. Like roads, water, and electricity, our digital infrastructure is a critical resource. District agencies, employees, schools, residents, visitors, and businesses benefit from the OCTO-managed technologies. Our services comprise five broad areas— infrastructure, enterprise applications, technology policy/governance, services for agencies, and services for residents, businesses, and visitors. Briefly, here is what we do in each area.

Infrastructure

OCTO's infrastructure consists of integrated hardware and operating software assets that form the technology foundation for all operations of the District government. We manage DC-

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Net, the city's 650-plus-mile fiber-optic network that delivers broadband voice, video and data services through more than 110,000 network ports to 614 buildings including government facilities, schools, libraries, recreation centers, senior centers, police and fire/EMS stations.

We manage the District's data centers and over 3,000 physical and virtual servers that support over 80 agencies and host hundreds of applications. Our email infrastructure maintains over 40,000 email accounts, carries over 80 million emails every year, and stores over 4 billion emails to facilitate government operations and transparency. We provide, service, and maintain desktop computers for the District's workforce, support over 47,000 desktops, and handled over 195,000 service requests in FY15 alone through our OCTOHelps team. We manage the District's $32 million telecommunications program, supplying and supporting over 60,000 devices per year. Examples of OCTO's infrastructure support in FY15-16include the following:

- *School modernization*: In FY15 and continuing this year, OCTO is supporting school modernization by upgrading the network infrastructure at DC Public Schools (DCPS) to meet the ever-increasing demands for voice, data, video and wireless. In FY15, we upgraded 31 DCPS sites. In FY16, we will upgrade the IT infrastructure at an additional 29 DCPS priority schools.

- *Smart City corridor:* In FY16, OCTO is collaborating with DDOT on a pilot program to create a "smart" interconnected corridor along Pennsylvania Avenue. The deployment will provide free, high-availability public wireless access, the capability to determine power usage, potentially monitor parking and traffic patterns, and support Smart Parking applications.

- *Mobile device management:* In FY15, we successfully piloted anew Mobile Device Management (MDM) software that greatly enhances provisioning, management, and security of mobile devices. MDM provides inventory status, quick set-up and

decommissioning, device lock-down and data deletion when necessary, and advanced cyber threat protection. This technology ensures that the District's mobility deployment is secure and District information has end-to-end protection encompassing users, devices, applications, content, data, email and networks. In FY16, we moved the system into production and will expand MDM to other major agencies. Currently MDM is installed for 1,800 users at 10 agencies including OCTO, CFSA, MPD, DBH, PSC, OAG, DHS, DOES, DGS, and DISB.

Enterprise Applications

Riding on this extensive infrastructure are critical citywide applications that OCTO develops, installs, tests, and maintains. For example, we maintain the District's citywide Human Resources system that manages over 30,000 employment records, time and attendance, payroll, benefits, performance management, e-learning, and other functions for the District's entire workforce. We maintain the District's citywide procurement system that conducts nearly 520,000 procurement transactions worth over $3 billion each year. OCTO's Geographic Information System (GIS) system provides District agencies and the public a 'one-stop shop' for geospatial data and enterprise applications. Our GIS team coordinates the citywide DC GIS Steering Group.

We maintain and update DC.gov, housing over 100 District agency websites, offering a wealth of information and online services. DC.gov receives over 25 million visits a year from District residents, businesses, and visitors. We rapidly deploy event-specific sites for major events like snow.dc.gov, inauguration.dc.gov, and pope.dc.gov.

Examples of OCTO's enterprise applications development work in FY 15-16 includes:

- *Responsive design*: In FY 2014, OCTO launched an enterprise initiative to implement responsive design across all DC.gov agency websites. Responsive design technology

automatically resizes content to fit the device—for example, desktop, tablet or smartphone. Already, 35 percent of all web traffic is from mobile devices. Responsive design has become imperative in today's world of ubiquitous mobile devices. OCTO made significant progress on this initiative in FY15 and will complete responsive design for all agency sites in FY16.

- *Next-gen GIS*: OCTO is also modernizing our geospatial applications to a next-generation version of OCTO's GIS development platform. The platform provides centralized, reusable mapping tools that enable District agency staff to build map-based web and mobile web applications without the need of a developer. The new platform will make geospatial applications mobile-friendly, reduce maintenance costs through reusable templates, and deliver large economies of scale.

Services for Agencies

In addition to providing enterprise applications that support users across the District, we also provide key technology services for single agencies. We develop, maintain, and enhance the DMV system that supports in-person, on-line, and now mobile DMV services such as vehicle registration, driver's licenses, insurance verification, residential parking permits, adjudication, and law enforcement. We serve as the Technology Department for DCPS, providing network infrastructure and desktop support for all schools, and developing major applications such as the DCPS Profiles school comparison tool and the highly popular MySchoolsDC (formerly the Out-of-Bounds lottery). MySchoolsDC includes both DCPS and public charter schools.

We host the District's Health Benefits Exchange system, ensuring high performance and consistent availability. We develop specialized applications for agencies such as the DPW Drug and Alcohol Testing tracking database, the Boards and Commissions Term tracking application,

and the DC Taxi Commission Licensing and Permitting Portal. We provide IT project management services to help agencies accomplish technology projects on time and on budget.

Here are two examples of the key services we provide to District agencies.

- *Crime Map:* In FY14, we developed the city's Crime Map and in FY16, OCTO is working with MPD and the Deputy Mayor for Public Safety to modernize and update this application. The Crime Map application is OCTO's highest traffic single-theme mapping application. The current design enables the public to search for and download crime incident data based on location. The next version of the application will be more user-centric and will incorporate mobile design, analytics, dashboards, and integration with Open Data sites.

- *Procurement Dashboard:* In FY16, OCTO will create a new Procurement Dashboard/analytics tool to help OCP and 90 percent of the city's agencies better manage and scrutinize the 43,000 transactions per year in the District procurement system. The dashboard will provide insight into agencies' procurement activity, status, and the workloads of procurement staff. It will enable data-driven decision-making for OCP and agencies and will enhance transparency and accountability in District procurements.

Services for Residents, Businesses, and Visitors

In addition to our rich web portal that allows an average of 65,000 people to experience the DC Government online every day, OCTO provides other key technology services for the public. We built and maintain the District's Data Warehouse and opendata.dc.gov, which collect, analyze, and publish government data for easy consumption by both government and the public, and have made the District a nationally recognized jurisdiction in government transparency. We provide an integrated, citywide free wireless network comprising over 8,000 access points and hundreds of hotspots, helping over 40,000 users per day access the Internet

whenever and wherever they want, free of charge. Through our DC-CAN public-access broadband network and our Digital Inclusion program, we partner with key stakeholders for free or low-cost Internet access, computer training, and computers to help District residents in underserved areas communicate, learn, and find housing and jobs. We actively fulfill our commitment to support the Mayor's Summer Youth Employment Program (SYEP) by hosting an average of 65 summer interns each year in jobs designed to be useful, meaningful, and create a groundwork for possible technology careers. Our DC One Card program provides resident access credentials for all DC Government facilities, IDs for students, and, via our partnership with DDOT, free transportation to get students to school, jobs, recreation centers, and home. OCTO will continue to develop innovative programs and services that connect us with the community we serve. Here are a few examples:

- ***Connect.DC***: In FY15, OCTO's Digital Inclusion program (Connect.DC) brought digital resources to underserved residents. Connect.DC distributed 97 free computers and tablets to low-income residents, provided subsidized broadband for 58 residents, enabled 349 new broadband subscriptions, delivered computer training to over 150 residents, added 3,646 new residents to its text messaging platform (bringing the total to 4,187), and renovated the Mobile Tech Lab that travels the city delivering digital training and assistance. In FY16, Connect.DC is continuing to deliver training on the Mobile Tech Lab, to offer subsidized hardware and/or Internet service to residents who successfully complete training, and to offer computer training and job placement assistance through a partnership with Byte Back. Connect.DC will also continue to inform District residents about District technology services and resources through door-to-door canvassing and public awareness campaigns using transit media, social media, newspapers, and radio.

- *Wireless hotspots:* In FY15 and FY16, OCTO expanded technology services for residents by increasing indoor and outdoor wireless hotspots, especially in schools. Our total is now 656 hotspots citywide. All city-managed swimming pools have outdoor Wi-Fi for residents.

- *Open Government and Open Data*: In FY 15, OCTO lead the development of the new opendata.dc.gov website; supported the launch of an Open Government Advisory Group, and published 237 new datasets. In FY16, OCTO collaborated with DDOT and MPD to release data records for over 100,000 crashes and more than 17 million parking and moving violations. OCTO published a draft Open Data Policy and is actively coordinating feedback.

Policy and Governance

OCTO issues technology policies and standards to guide agencies in acquiring and using technology consistent with best practices. Through our CIO Certification program, we help agencies advance the skills and professionalism of their technology leadership and disseminate technology best practices citywide.

In order to continue providing technology leadership for the District, in FY16 we are focusing on:

- *Security Awareness Training:* OCTO will strengthen the District's information security governance by requiring staff to complete online training to ensure that they understand their role in protecting the District's IT environment. The training will provide security guidance based on industry standards and federal guidelines. The training will also standardize and improve security practices throughout District government.

- *Change Management:* In FY16, OCTO has upgraded its Change Management system to better govern infrastructure and application changes for the District. The new Change Management system is on a cloud-based Federal Risk and Authorization Management

Program (FedRAMP) compliant application. The new application enhances OCTO's

governance of IT system changes by providing robust tracking of all changes to the

District's infrastructure and critical applications.

Looking Forward

OCTO will improve technology services for the District by emphasizing three

principles—**Innovation, Inclusion,** and **Impact**. OCTO will continue its proud history of

innovation and national leadership in many areas such as online services, data transparency,

community applications, municipal networks, and more. We will continue and strengthen our

Digital Inclusion program by conducting broadband outreach through more channels and

expanding our partnerships with successful non-profits like ByteBack to deliver computers,

computer training, and free-or low-cost Internet subscriptions. To drive efficiency and value, we

will prioritize initiatives and technologies that deliver the most impact for the agencies and the

District as a whole.

In order to carry out my duties to the Mayor and the District of Columbia, I am

committed to managing my agency with a commitment to **transparency, efficiency, security,**

accountability and **value** that will guide all areas of OCTO operations.

Conclusion

Mr. Chairman, this completes my presentation to the Committee. I am prepared to

answer your questions.