



## Office of the Chief Technology Officer OCTO (TO)

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### MISSION

The mission of the Office of the Chief Technology Officer (OCTO) is to leverage the power of technology to improve service delivery, drive innovation and bridge the digital divide to build a world-class city.

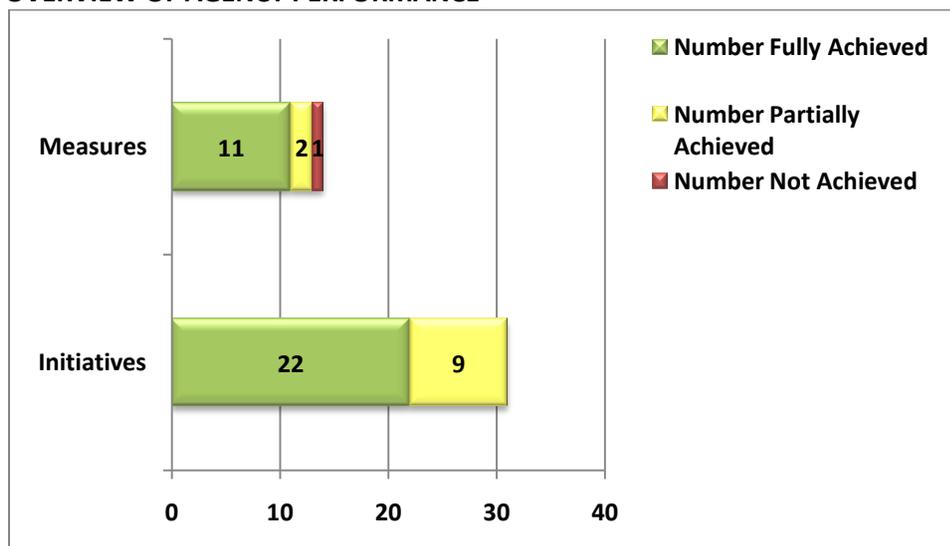
### SUMMARY OF SERVICES

OCTO is the central technology organization of the District of Columbia Government. OCTO develops, implements, and maintains the District's technology infrastructure; develops and implements major enterprise applications; establishes and oversees technology policies and standards for the District; provides technology services and support for District agencies, and develops technology solutions to improve services to businesses, residents, and visitors in all areas of District government. Combining these services into a customer-centered mission-driven organization is the responsibility of OCTO. Department performance expectations in FY10 are listed by functional division.

### ACCOMPLISHMENTS

- ✓ Expanded DC-Net's (District's fiber optic telecommunications network) capability to serve federal government agencies, universities and non-profits and signed a \$13 million multi-year contract with the US Office of Personnel Management (OPM).
- ✓ Coordinated the award to the District of Columbia of more than \$27 million in American Recovery and Reinvestment Act (ARRA) funding for broadband delivery to community anchor institutions such as charter schools, health clinics and public housing, citywide network of computer education centers, and computer training programs for underserved residents in Wards 5, 7, 8.
- ✓ Built and launched the public version of TrackDC (<http://track.dc.gov/>), a dashboard that provides the public with easy access to agency profiles, budgets, personnel summaries, KPIs, and news.

### OVERVIEW OF AGENCY PERFORMANCE





## Performance Initiatives – Assessment Details

### Performance Assessment Key:

-  Fully achieved     Partially achieved     Not achieved     Data not reported

### OFFICE OF THE DIRECTOR

**OBJECTIVE 1: Provide and maintain a ubiquitous, reliable, and secure computing environment for the government as well as residents, businesses, and visitors.**

- INITIATIVE 1.1: Ensure that the District is compliant with District and federal Health Insurance Portability and Accountability Act (HIPAA) Regulations by performing annual HIPAA Security Assessments for the District's covered (e.g. doctors, nurses, insurance companies, etc.) and hybrid entities (District government agencies).**  
The Health Information Portability and Accountability Act (HIPAA) addresses, among other things, privacy and security concerns in the use and disclosure handling and of personally identifiable health information. The HIPAA Security Assessment, initiated in 2003, is intended to identify all critical systems that process electronic Private Health Information (ePHI) or other sensitive business/patient/client information, document the purpose of these systems and document the flow of information. In FY10, OCTO completed HIPAA Phase II assessments for 8 covered entities (OoA, MPD, DOC, DHCF, DDS, DYRS, FEMS, and CFSA). The remaining agency Phase II assessments (DCPS, DHS, DMH, OUC, DOH, OCTO) will be completed by the first two quarters on FY2011.

**OBJECTIVE 2: Lower the cost of government operations and enhance service through innovative technologies.**

- INITIATIVE 2.1: Improve OCTO's customer service score by ensuring that all employees are compliant with District policies and standards.**  
In FY09, OCTO's score fell because of non-compliance with customer service policies. To increase the score in FY10, OCTO implemented quarterly audits on front desk staff program knowledge, employee voicemail greetings and employee email responsiveness. The voicemail audit revealed the upgrade to Unified Messaging to be a large factor in the reduction of OCTO's customer service score in the early quarters of FY10 because the upgrade did not transfer pre-recorded messages over. OCTO has addressed this issue and consequently scored 100% on EOM's voicemail audit.
- INITIATIVE 2.2: Migrate from end-to-end paper processes to end-to-end digital processes.**  
OCTO Facilities & Support Services Group has created an accountable central receiving process for technology equipment utilizing existing District-owned space. This group piloted a central receiving process at OCTO and expanded it to include other District agencies, including OCP, DCRA, DCPS, OCFO, and OSSE. In addition, the OCTO program financial management (PFM) team integrated into the central receiving process, a process for the receipt of virtual goods in PASS, including software applications, licenses, and software



maintenance agreements.

- **INITIATIVE 2.3: Develop and retain full-time employees as well as establish and maintain a highly-effective workforce.**

In FY10, OCTO Human Resources mandated and enforced mid-year performance evaluations of full-time employees to keep them informed of their progress. OCTO HR also regularly informed employees of opportunities for training and development through the Center for Workforce Development (CWD).

- **INITIATIVE 2.4: Enhance Media Relations to garner broad public involvement and support for OCTO programs.**

OCTO developed and implemented an ongoing broadband outreach campaign that included the inauguration of a bi-annual broadband summit, participation in the DC Digital Capital Week, and the development of the District's Broadband Outreach Campaign. Promotion of initiatives included distributing press releases and using social media outlets, including the Digital Inclusion Facebook Group to announce each component of the campaigns. The CTO also attended a number of ANC meetings to promote OCTO initiatives.

- **INITIATIVE 2.5 Develop improved audit functions to bring OCTO into compliance with Quick Payment Act.**

Previously, only OCTO's year-end processes include a systematic review of purchase orders to identify outstanding payments to vendors and potential availability of funds. Beginning in Fall 2009, OCTO's program financial management (PFM) team conducted monthly audits of purchase orders to immediately identify outstanding invoices and reconcile invoices with receiving documentation and purchase order. The monthly audits also helped program managers in identification of cost savings and potential overages, allowing for better budgeting and easier reconciliation of project costs. The PFM team also tracked ongoing invoices weekly and worked proactively with vendors to prevent aging. In addition, OCTO has streamlined the invoice receiving process. These efforts led to an 80% reduction in aging invoices (compared to FY09) by the third quarter of FY10.

- **INITIATIVE 2.7 Centralize invoice receipt and provide timely information to vendors of payment status and purchase order funding status.**

OCTO has partnered with OFRM to centralize the invoice receipt process where all invoices are centrally received by OFRM Accounts Payable. Upon receipt, invoices are immediately matched with receiving information and all discrepancies are forwarded to OCTO PFM staff for immediate research and reconciliation. Vendors are no longer sending invoices directly to OCTO program staff and OCTO has partnered with OCFO Accounts Payable to turn around invoices requiring research within 3 business days. In addition, OCTO completed E-Invoicing pilot with 2 vendors to eliminate paper process and keep the vendors informed of their invoice status.



### **OBJECTIVE 3: Ensure high quality service delivery of technology projects and enforce architectural standard**

- **INITIATIVE 3.1: Host agency-level TechStat sessions for adherence to enterprise standards and ensure timely project delivery.**  
TechStat performance management sessions provide the CTO, OCTO program managers, and agency directors with the necessary information about IT spending and industry best practices to ensure that taxpayer dollars are being effectively managed, outcomes are delivered according to project plans, and quality products and services are delivered. In FY10, OCTO hosted 14 TechStat to ensure (1) streamlined IT operations (2) efficient project planning, spending, and execution (3) enhanced visibility into project risks and (4) adherence to District enterprise standards.
- **INITIATIVE 3.2: Ensure that the District of Columbia's IT assets, resources and personal data are secure by establishment and enforcement of Information Security Policies and Procedures.**  
OCTO created an independent Information Security Program within the agency that focuses on developing policies and procedures and ensuring compliance with those policies. In FY10, 8 baseline policies were created by this program and approved by the CTO. These policies established the framework for information security programs and the designation of security officers for all mayoral agencies.
- **INITIATIVE 3.3: Implement an annual Certification and Accreditation Process.**  
In FY10, OCTO developed and implement a certification and accreditation process for all mission critical applications based on federal standards. The process includes defining each component of an IT system, performing vulnerability assessments of applications, and performing quarterly assessments to ensure that appropriate security protections remain in place.

### **APPLICATION SOLUTIONS**

#### **OBJECTIVE 1: Provide and maintain a ubiquitous, reliable, and secure computing environment for the government as well as residents, businesses, and visitors.**

- **INITIATIVE 1.1: Upgrade and maintain technology for DC Public Schools.**  
In FY08, OCTO extended the secure computing environment of the District to DCPS and upgraded the DCPS technology infrastructure to match current standards. In FY09, OCTO supported over 6,300 computers with 24x7x365 live tech support, upgraded the human resources system for payroll and benefits successfully and introduced one-port access to voice, video and data communications to the 4 high-tech campuses. In FY10, OCTO continued to provide technology support to DCPS including school openings and closings, approximately 21,000 computers with 24x7x365 live tech support, and application solutions to meet the school's needs. Some of the applications included Out of Boundary Lottery, OFP Grants Database, DCPS Online Menu, DCPS WebScorecard as well as numerous DCPS Quickbase applications. OCTO Human Resources Service Group also rolled out eTime to DCPS central staff, supported OPRS and DCPS in production of WTU Teachers Union retroactive pay increases, and mass hiring during summer of FY10.



- **INITIATIVE 1.2: Migrate from end-to-end paper processes to end-to-end digital processes.**  
OCTO fully digitized and automated the District's procurement process by eliminating paper solicitations and enabling the District to leverage its purchasing power to source large commodity contracts, speeding the acquisition of commodities and reducing costs. OCTO also upgraded the District's electronic human resources management system to the current version of the product (release 9.0). This newer version allows employees to enter applications for leave online. In addition, the OCTO scan center continued document digitization efforts for key agencies including DCHR, CFSA, DOH, and OEM. The scan center digitized a total of over 3MM documents.
- **INITIATIVE 1.3: Provide better access to government services for residents, businesses, and visitors by continuing to upgrade DC.gov.**  
In FY10, OCTO successfully launched 35 websites for 31 agencies including the DC.GOV home page with the District's new content management system. The DC.Gov mobile platform, whose development is mostly complete, is scheduled to be tested and launched in the beginning of FY11. The new websites are now in compliance with Section 508 of the Rehabilitation Act. In addition, the new DCPS website won first place in the 2010 Digital Education Achievement Awards (DEAA), Best of the Web Awards from the Center for Digital Education and Converge as well as Top City Government Website from Juggle.com. OCTO will continue to coordinate with multiple agencies to update content, provide consultation and/or training on information architecture, migration mapping, content rewrites, web writing, 508 accessibility, content management system, and overall project consultation to make this project a success.

**OBJECTIVE 2: Lower the cost of government operations and enhance service through innovative technologies.**

- **INITIATIVE 2.1: Leverage consumer and open source technologies to transform government operations.**  
OCTO is decreasing costs and increasing service quality through open source and cloud computing tools, which utilize free or less expensive, versatile, internet-based technology solutions instead of developing customized solutions in-house. OCTO is using open source and cloud computing to develop new websites, create business applications, enable real-time document collaboration, and enhance communications. In FY10, OCTO developed approximately 330 applications using open source or cloud-based solutions. Some of the applications included Open311 API, YammerFall, and numerous Quickbase applications for DCPS and OCA related projects. Remedy was also evaluated for a cloud-based replacement but it was determined that the current configuration is a better fit for the District's needs.



- **INITIATIVE 2.2: Democratize access to government data by posting it online for easy, global access.**

The nationally-recognized Citywide Data Warehouse (CityDW) provides a centralized access point for enterprise-wide data with a focus on providing data that enables decision support and government transparency. In FY09, the amount of publicly-available data sets and visualization options increased to 400, including vacant properties, procurement and solicitation data, purchase card transactions, public space permits, and building permits. In FY10, OCTO continued to grow the number of publicly-available data sets to 446 by publishing FOIA requests, basic business licenses information, case data, awarded contracts, and taxicab owner-operator information. OCTO continued to support multiple download formats to encourage residents to download the data sets from the data catalogs. Total downloads in FY10 exceeded 1.8MM, over 4 times the goal of 400,000. In FY10, CityDW also launched internal and external versions of TrackDC and worked with the National Association of State Chief Information Officers (NASCIO) to create national data catalog best practices based on the DC model.

## INFRASTRUCTURE SERVICES

### **OBJECTIVE 1: Provide and maintain a ubiquitous, reliable, and secure computing environment for the government as well as residents, businesses, and visitors.**

- **INITIATIVE 1.1: Upgrade and maintain technology for DC Public Schools.**

In FY08, OCTO extended the secure computing environment of the District to DCPS and upgraded the DCPS technology infrastructure to match current standards. In FY09, OCTO supported over 6,300 computers with 24x7x365 live tech support, upgraded the human resources system for payroll and benefits successfully and introduced one-port access to voice, video and data communications to the four high-tech campuses. In FY10, OCTO continued to manage the Education and Technology Office to provide technology support for DCPS. OCTO completed 60 technology improvement projects for DCPS, including installing an updated technology infrastructure and building-wide Wifi access for every school. In addition, OCTO implemented the new School Attendance and Access system (SAAS) system at 35 schools.

- **INITIATIVE 1.2: Move one of the District's data centers within 65 miles from the District to ensure security and continuity of operations.**

Previously, the District stored the majority of its data at two antiquated data centers within five miles of each other. This exposed the District to operational issues and a loss of data if either or both datacenters became non-operational due to natural or man-made catastrophes. In FY10, OCTO took major steps toward relocating both of the District's data centers, one to a location outside of the District and one to the UCC, to provide appropriate facility security and emergency preparedness for the data stored at these centers. Though the effort was slowed by procurement delays, by the end of FY10, DRES had signed the lease for the colocation site, and OCTO began building out the Universal Computing Platform (UCP) to host new agency hardware and applications.



- **INITIATIVE 1.3: Ensure that the District of Columbia's IT assets, resources and personnel data are secure and minimize the IT risk exposure by performing standardized IT risk assessments on critical systems.**

In FY09, OCTO formed the Information Security Risk Office to assess the security and IT risk posture of the D.C. government. In FY10, the Office implemented requirements that all newly implemented applications undergo a series of security vulnerability assessments based on federal standards. The Office also implemented requirements that all systems be assessed quarterly to ensure that adequate security protections remain in place.

**OBJECTIVE 2: Lower the cost of government operations and enhance service through innovative technologies.**

- **INITIATIVE 2.1: Roll-out citywide video conferencing services to District agencies to promote collaboration from different worksites.**

In FY09, OCTO completed interoperability testing between various network systems to ensure the successful transmission of integrated voice, video and data between systems. In FY10, OCTO enabled high definition video teleconferencing at over 15 locations, including those of DCPS, DYRS, EOM, and HSEMA.

- **INITIATIVE 2.2: Expand benefits and enrollment for DC One Card.**

In FY10, OCTO enabled DRES's Protective Services Division to provide the DC One Card to over 6,000 DC government employees and contractors. OCTO also began providing the cards to the general public and developed the online activation form that allows use of driver's licenses and non-driver identifications to access libraries, parks, and recreation centers.

- **INITIATIVE 2.3: Become an early adopter as technology emerges to enable citizens to contact 911 via a variety of widely-used communication technologies.**

Currently, the 911 emergency response system is designed around landline telephone technology and cannot handle text messages, data, images, and video that are increasingly common in personal communications. In FY10, the start of a multi-year initiative, OCTO collaborated with OUC to enhance the District's telecommunications infrastructure to enable it to support text, data and video.

- **INITIATIVE 2.4: Continue efforts for cost reduction, savings, and optimization of District telecommunications spending.**

In FY10, OCTO continued to ensure efficient telecom spending. By disconnecting unnecessary air cards and data circuits, eliminating unused insurance, and identifying billing errors and unused inventory, OCTO realized over \$2 MM in savings.

- **INITIATIVE 2.5: Provide annual systematic review and assessment of strategic and tactical emergency planning and coordination of response activities to ensure continuous communications support for emergency events.**

OCTO currently maintains or directs the District's communications infrastructure and assets and provides communication services to government agencies and residents of DC. In FY10, to maximize protection of these assets, OCTO developed a framework for implementing an annual Security Certification and Accreditation program based on federal standards.



#### **OBJECTIVE 4: Bridge the digital divide and enable economic development.**

- **INITIATIVE 4.1: Expansion of wireless hotspots throughout the District.**  
In FY09, OCTO implemented wireless broadband access in a total of 300 government buildings, including schools, public libraries, recreation centers, and through secure connections inside and near government buildings. In FY10, OCTO expanded wireless broadband access to the National Mall and 5 hotspots in the Chinatown/Convention Center area. OCTO also developed and implemented an ongoing broadband outreach campaign as part of the agency's efforts to bridge the digital divide.

#### **PROGRAM MANAGEMENT OFFICE**

#### **OBJECTIVE 1: Provide and maintain a ubiquitous, reliable, and secure computing environment for the government as well as residents, businesses, and visitors.**

- **INITIATIVE 1.1: Upgrade and maintain technology for DC Public Schools.**  
In FY08, OCTO extended the secure computing environment of the District to DCPS and upgraded the DCPS technology infrastructure to match current standards. In FY09, OCTO supported over 6,300 computers with 24x7x365 live tech support, upgraded the human resources system for payroll and benefits successfully and introduced one-port access to voice, video and data communications to the four high-tech campuses. In FY10, OCTO continued to manage the Education and Technology Office to provide technology support for DCPS. OCTO completed 60 technology improvement projects for DCPS, including installing an updated technology infrastructure and building-wide Wifi access for every school. In addition, OCTO implemented the new School Attendance and Access system (SAAS) system at 35 schools.

#### **OBJECTIVE 2: Lower the cost of government operations and enhance service through innovative technologies.**

- **INITIATIVE 2.1: Leverage consumer and open source technologies to transform government operations.**  
OCTO is using free or less expensive, versatile, Internet-based open source and cloud computing to develop new websites, create business applications, enable real-time document collaboration, and enhance communications. In FY10, OCTO developed about 330 applications using these cost-saving solutions. These open-source or cloud-based apps included the Open311 API for city service requests and numerous applications for DCPS and for OCA's CapStat analysis.



- **INITIATIVE 2.2: Provide direct oversight of District-wide IT expenditures.**  
OCTO supports the centralized IT procurement process and monitors all IT requisitions across the District to avoid redundant costs. In FY10, OCTO automated the Project Initiation Form (PIF), as part of the IT requisition process in the District's procurement system, to ensure that project purchases support each project's scope, schedule and resources. OCTO also developed an IT Investment Business Case template to support the new e-PIF. In addition, to foster inter-agency education and collaboration, OCTO compiled a library of IT roadmaps from agencies with major IT initiatives and shared the library with all agency CIOs.
- **INITIATIVE 2.3: Become an early adopter as technology emerges to enable citizens to contact 911 via a variety of widely-used communication technologies.**  
In FY10, the start of a multi-year initiative, OCTO collaborated with OUC to enhance the District's telecommunications infrastructure to enable it to support text, data and video.
- **INITIATIVE 2.4: Review District technology spending for better optimization.**  
In partnership with the Office of Contracts and Procurement (OCP) and Office of the City Administrator (OCA), OCTO is reviewing the terms and conditions of various technology contracts to enforce that the District is receiving the best price and best value for its purchases under the Citywide SMARTbuyer program. In FY09, OCTO expanded the SMARTbuyer program to look at technology spending across the District. By the end of FY10, OCTO validated cost avoidance under this program at \$9.1 MM on a total IT spend of \$110 MM, or 8%.

**OBJECTIVE 3: Ensure high quality service delivery of technology projects and enforce architectural standards.**

- **INITIATIVE 3.1: Ensure accountability and transparency for IT investments.**  
In FY10, OCTO worked with all agencies responsible for capital IT projects to ensure that all IT capital projects are captured in a Quickbase application, and all IT project plans are stored in MicroSoft Project, for centralized analysis and oversight.
- **INITIATIVE 3.2: Lead IT Investment Boards for public education, public safety, and healthcare.**  
IT Investment Boards are intended to provide deeper technology oversight across the agency clusters of public education, public safety and healthcare to set the priorities for initiation of new IT projects, enforce use of common technology infrastructure services, and centralize procurements for optimal efficiency. In FY10, this initiative was discontinued and replaced by a combination of the oversight tools described above and the DC CIO Council, a board composed of all District agency CIOs, whose mission is to provide a forum that improves agency practices related to the design, acquisition, development, modernization, use, sharing, and performance of District government information resources.



## Key Performance Indicators – Details

**Performance Assessment Key:**

● Fully achieved   
 ● Partially achieved   
 ● Not achieved   
 ● Data not reported   
 ● Workload Measure

|                                | Measure Name   | FY2009 YE Actual | FY2010 YE Target | FY2010 YE Actual | FY2010 YE Rating | Budget Program   |
|--------------------------------|--|------------------|------------------|------------------|------------------|--|
| <b>APPLICATION SOLUTIONS</b>   |  |                  |                  |                  |                  |  |
| ●                              | 1.1 % uptime for all OCTO-supported applications and infrastructure              | 99.99%           | 99.95%           | 99.74%           | 99.79%           | Applications Quality Assurance & Applications Support        |
| ●                              | 1.2 # of records/documents digitized District-wide better                        | 39,127,447       | 45,000,000       | 43,494,743       | 96.65%           | Document Digitization  |
| ●                              | 2.1 # of applications deployed using open source or cloud computing technologies | 132              | 200              | 471              | 235.50%          | Application Implementation & Business Process Re-Engineering |
| ●                              | 2.2 # of data downloads from public data catalogs                                | N/A              | 400,000          | 1,945,555        | 486.39%          | Data Transparency & Accountability                           |
| <b>INFRASTRUCTURE SERVICES</b> |  |                  |                  |                  |                  |  |
| ●                              | 1.1 % uptime for all OCTO-supported applications and infrastructure              | 99.99%           | 99.95%           | 100%             | 100.05%          | Data Center Operations                                       |
| ●                              | 1.2 % of desktop issue tickets resolved within 4 hours                           | 96.06%           | 96%              | 97.03%           | 101.07%          | ITServUs   |
| ●                              | 1.3 Cost per unit for desktop support services                                   | \$500            | \$500            | \$300            | 166.67%          | ITServUs   |
| ●                              | 2.1 Landlines Added / Landlines Disconnected                                     | .75              | .80              | .45              | 56.02%           | Telecom  |
| ●                              | 2.2 Wireless Devices Added / Wireless Devices Disconnected                       | .75              | .80              | 1.86             | 232.01%          | Telecom  |



|                                  |     |   |             |             |             |         |  |
|----------------------------------|-----|---|-------------|-------------|-------------|---------|--|
| ●                                | 1.6 | # of public WiFi hotspots   | 218         | 300         | 230         | 76.67%  | DC-Net   |
| <b>PROGRAM MANAGEMENT OFFICE</b> |     |   |             |             |             |         |  |
| ●                                | 2.1 | # of applications deployed using open source and cloud computing technologies               | 132         | 200         | 471         | 235.50% | Application Implementation & Business Process Re-Engineering |
| ●                                | 2.2 | \$ saved through SMARTbuyer program   | \$1,000,000 | \$2,000,000 | \$1,498,000 | 74.90%  | PMO  |
| ●                                | 2.3 | % of IT Staff Augmentation (ITSA) awarded to District Certified Business Enterprises (CBEs) | 0           | 95%         | 97.62%      | 102.76% | PMO  |
| ●                                | 3.1 | % of capital IT projects in project and portfolio management tool                           | 0           | 100%        | 100%        | 100%    | PMO  |