

# (TOO) OFFICE OF THE CHIEF TECHNOLOGY OFFICER

## **MISSION**

The Office of the Chief Technology Officer (OCTO) is to direct the strategy, deployment, and management of D.C. Government technology with an unwavering commitment to IT excellence, efficiency, and value for government, residents, businesses, and visitors.

## **SCOPE**

OCTO provides a secure computing environment for voice and data services for over 75 Mayoral agencies and the Office of the Mayor, and the Council. OCTO oversees over 500 miles of fiber network, 2,500 routers and switches, 30,855 desktops and laptops, 30,000 Voice over Internet Protocol (VOIP) and digital phone lines, 13,000 cellular devices, 3,800 aircards, 2 mainframes, and over 2,000 servers with the ability to provide nearly 2 Petabytes of storage for the District Government's use. In addition, 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.

## **PROGRAM OBJECTIVES**

**Objective 1:** Provide strategic IT leadership & fuel technology innovation for the District government, to enhance the delivery of services and adoption for the city's residents, businesses, and visitors.

**Objective 2:** Provide & maintain a ubiquitous, reliable, & secure computing environment to ensure continuity of government operations & safeguarding the District's equipment, facilities, & information.

**Objective 3:** Improve service delivery & drive Innovation through Open Government.

**Objective 4:** Manage IT initiatives, programs & assets strategically, efficiently & economically to lower the cost of government operations.

**Objective 5:** Promote digital literacy, broadband access, & technology inclusion in underserved areas, & to enable the District Government to better support constituencies using technology resulting in a modern city model for the global economy.

## **RECENT ACCOMPLISHMENTS**

### **Objective 1:**

- . Migrated a total of 93 DC.Gov agency websites to the District's new open source web system.
- . Selected as a finalist in the 2013 Best of the Web Awards for City Portals by the Center for Digital Government.

### **Objective 2:**

- . Migrated & consolidated additon two District agencies (Metropolitan Police Department & District of Columbia Public Library) to the OCTO data centers, resulting in lower operational & maintenance costs.

### **Objective 3:**

- . Created Healthcare Services Locator Mapping Application for the Department of Health's Community Health Administration (CHA) to assist DC residents to find available healthcare services. Functionalities includes:

- a) Search by Address, Search by Distance, Search by Service or Care
- b) Retrieve additional information about Primary Care sites

### **Objective 4:**

- . Upgraded the District's procurement system, PASS to version 9r1 & integrated it with the District's financial system (SOAR) via Oracle SOA platform
- . Developed a data warehouse for the District of Columbia Taxicab Commission (DCTC), & designed Tableau Report workbooks to provide reporting services for DCTC electronic trip data.

### **Objective 5:**

- . Increased the number of public WiFi hotspots to 531 by the end of FY13.

**Elements on this page of the Agency Summary include:**

- **Funding Tables:** Past budget allotments show the allotment balance, calculated as allotments received to date less all obligations (the sum of expenditures, encumbrances, intra-District advances and pre-encumbrances). Agencies are allowed to encumber and pre-encumber funds up to the limit of a capital project’s budget authority, which might be higher than allotments received to date. For this reason, a negative balance on a projectsheet does not necessarily indicate overspending or an anti-deficiency violation. A negative balance is permitted in this calculation of remaining allotment authority.
- **Additional Appropriations Data (\$000):** Provides a summary of the budget authority over the life of the project. The table can be read as follows:
  - › **Original 6-Year Budget Authority:** Represents the authority from the fiscal year in which budget was first appropriated through the next 5 years.
  - › **Budget Authority Thru FY 2021 :** Represents the lifetime budget authority, including the 6 year budget authority for FY 2016 through 2021
  - › **FY 2016 Budget Authority Revisions:** Represents the changes to the budget authority as a result of reprogramming, redirections and rescissions (also reflected in Appendix F) for the current fiscal year.
  - › **6-Year Budget Authority Thru 2021 :** This is the total 6-year authority for FY 2016 through FY 2021 including changes from the current fiscal year.
  - › **Budget Authority Request for 2017 through 2022 :** Represents the 6 year budget authority for 2017 through 2022
  - › **Increase (Decrease) :** This is the change in 6 year budget requested for FY 2017 - FY 2022 (change in budget authority is shown in Appendix A).
- **Estimated Operating Impact:** If a project has operating impacts that the agency has quantified, the effects are summarized in the respective year of impact
- **FTE Data (Total budget in FTE Table might differ from actual budget due to rounding):** Provides the number for Full Time Equivalent (FTE) employees approved as eligible to be charged to capital projects by, or on behalf of, the agency. Additionally it provides the total budget for these employees (Personal Services), the non personnel portion of the budget in the agency’s capital plan and, the percentage of the agency CIP budget from either expense category.
- **Facility Location Map:** For those agencies with facilities projects, a map reflecting projects and their geographic location within the District of Columbia.

(Dollars in Thousands)

Phase	Funding By Phase - Prior Funding					Proposed Funding						6 Yr Total
	Allotments	Spent	Enc/ID-Adv	Pre-Enc	Balance	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	
(01) Design	114,284	101,414	800	1,422	10,647	0	0	0	0	0	0	0
(02) SITE	4,352	4,350	0	0	2	0	0	0	0	0	0	0
(03) Project Management	153,458	153,393	0	0	65	0	0	0	0	0	0	0
(04) Construction	184,919	183,315	272	218	1,113	0	0	0	0	0	0	0
(05) Equipment	403,926	396,546	1,097	241	6,042	0	0	0	0	0	0	0
(06) IT Requirements Development/Systems Design	27,521	22,741	140	313	4,328	2,940	0	0	0	0	0	2,940
(07) IT Development & Testing	35,576	31,277	500	917	2,882	0	0	0	0	0	0	0
(08) IT Deployment & Turnover	9,271	6,694	468	580	1,528	0	0	0	0	0	0	0
<b>TOTALS</b>	<b>933,305</b>	<b>899,730</b>	<b>3,277</b>	<b>3,692</b>	<b>26,607</b>	<b>2,940</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,940</b>

Source	Funding By Source - Prior Funding					Proposed Funding						6 Yr Total
	Allotments	Spent	Enc/ID-Adv	Pre-Enc	Balance	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	
GO Bonds - New (0300)	678,724	655,862	2,628	2,818	17,416	2,940	0	0	0	0	0	2,940
Pay Go (0301)	18,309	14,946	1	0	3,362	0	0	0	0	0	0	0
Equipment Lease (0302)	126,406	119,379	647	874	5,506	0	0	0	0	0	0	0
Alternative Financing (0303)	21,868	21,864	0	0	4	0	0	0	0	0	0	0
Certificate of Participation (0340)	61,634	61,634	0	0	0	0	0	0	0	0	0	0
Federal Payments (0353)	1,450	1,450	0	0	0	0	0	0	0	0	0	0
Capital Fund - Federal Payment (0355)	7,455	7,136	0	0	319	0	0	0	0	0	0	0
ARRA (0356)	17,458	17,458	0	0	0	0	0	0	0	0	0	0
<b>TOTALS</b>	<b>933,305</b>	<b>899,730</b>	<b>3,277</b>	<b>3,692</b>	<b>26,607</b>	<b>2,940</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,940</b>

Additional Appropriation Data	
First Appropriation FY	1998
Original 6-Year Budget Authority	625,913
Budget Authority Thru FY 2016	951,774
FY 2016 Budget Authority Changes	
ABC Fund Transfers	-172
Capital Reprogrammings FY 2016 YTD	1,180
Current FY 2016 Budget Authority	952,783
Budget Authority Request for FY 2017	936,245
Increase (Decrease)	-16,538

Estimated Operating Impact Summary							
Expenditure (+) or Cost Reduction (-)	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	6 Year Total
Personnel Services	0	942	140	0	0	0	1,082
Contractual Services	0	360	0	0	0	0	360
IT	0	87	0	0	0	0	87
<b>TOTAL</b>	<b>0</b>	<b>1,389</b>	<b>140</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,529</b>

Full Time Equivalent Data			
Object	FTE	FY 2017 Budget	% of Project
Personal Services	0.0	0	0.0
Non Personal Services	0.0	2,940	100.0

# TO0-N9101-DC GOVERNMENT CITYWIDE IT SECURITY PROGRAM

**Agency:** OFFICE OF THE CHIEF TECHNOLOGY OFFICER (TO0)  
**Implementing Agency:** OFFICE OF THE CHIEF TECHNOLOGY OFFICER (TO0)  
**Project No:** N9101  
**Ward:**  
**Location:** DISTRICT-WIDE  
**Facility Name or Identifier:** INFORMATION TECHNOLOGY  
**Status:** Ongoing Subprojects  
**Useful Life of the Project:** 5  
**Estimated Full Funding Cost:**\$9,320,000

**Description:**

This IT Security project includes the SOC Managed Security Provider (MSSP) build-out, self-contained HIPAA network solution, Trusted Internet Connection (Security for Cloud Services), MPDC network security upgrade, and Physical Security at critical DC-NET Facilities.

**Justification:**

to defending information from unauthorized access, use, disclosure, disruption, modification, perusal, inspection, recording or destruction

**Progress Assessment:**

This is an on-going project.

**Related Projects:**

N1715C-Cyber Security Modernization, N8005C-DCPS IT Infrastructure Upgrade, NPR15C-IT Infrastructure DPR

(Dollars in Thousands)

Phase	Funding By Phase - Prior Funding					Proposed Funding						
	Allotments	Spent	Enc/ID-Adv	Pre-Enc	Balance	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	6 Yr Total
(06) IT Requirements Development/Systems Design	3,361	0	0	0	3,361	1,850	0	0	0	0	0	1,850
<b>TOTALS</b>	<b>3,361</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3,361</b>	<b>1,850</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,850</b>

Source	Funding By Source - Prior Funding					Proposed Funding						
	Allotments	Spent	Enc/ID-Adv	Pre-Enc	Balance	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	6 Yr Total
GO Bonds - New (0300)	2,500	0	0	0	2,500	1,850	0	0	0	0	0	1,850
Pay Go (0301)	861	0	0	0	861	0	0	0	0	0	0	0
<b>TOTALS</b>	<b>3,361</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3,361</b>	<b>1,850</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,850</b>

Additional Appropriation Data	
First Appropriation FY	2015
Original 6-Year Budget Authority	2,041
Budget Authority Thru FY 2016	9,361
FY 2016 Budget Authority Changes	0
Current FY 2016 Budget Authority	9,361
Budget Authority Request for FY 2017	5,211
Increase (Decrease)	-4,150

Estimated Operating Impact Summary							
Expenditure (+) or Cost Reduction (-)	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	6 Yr Total
No estimated operating impact							

Milestone Data	Projected	Actual
Environmental Approvals		
Design Start (FY)	10/01/2014	
Design Complete (FY)		
Construction Start (FY)		
Construction Complete (FY)		
Closeout (FY)	09/30/2017	

Full Time Equivalent Data			
Object	FTE	FY 2017 Budget	% of Project
Personal Services	0.0	0	0.0
Non Personal Services	0.0	1,850	100.0

# TO0-NMM17-ENTERPRISE NETWORK MONITORING MODERNIZATION

**Agency:** OFFICE OF THE CHIEF TECHNOLOGY OFFICER (TO0)  
**Implementing Agency:** OFFICE OF THE CHIEF TECHNOLOGY OFFICER (TO0)  
**Project No:** NMM17  
**Ward:** 2  
**Location:** 200 I STREET SW  
**Facility Name or Identifier:** NETWORK OPERATIONS  
**Status:** New  
**Useful Life of the Project:** 5  
**Estimated Full Funding Cost:**\$2,200,000

## Description:

The purpose of this project is to monitor against cyber-security risks by identifying all points that are vulnerable to attack. OCTO must understand and gather all vulnerability data from servers, endpoints, mobile devices and web assets by deploying threat exposure management software. With the increase of “bad actors” utilizing the latest technology, the District must also deploy modern technologies that can find zero day exploits and reduce our risk to external threats. Additionally, OCTO must increase capability to perform real-time penetration testing on DC Government websites to decrease vulnerability to web-based cyber-attacks. Modernizing OCTO network monitoring systems will further augment and enhance security at the District facilities housing critical public safety communications equipment.

## Justification:

Managing the security risk of OCTO IT networks involves identifying all points that are vulnerable to cyber attack. OCTO must understand and gather all vulnerability data from servers, endpoints, mobile devices and web assets by deploying threat exposure management software. Additionally, OCTO must increase capability to perform real-time penetration testing on DC Government websites to decrease vulnerability to web-based cyber-attacks. Modernizing our network monitoring systems will further augment and enhance security at the District facilities housing critical public safety communications equipment.

## Progress Assessment:

N/A

## Related Projects:

N9101C - DC GOVERNMENT CITYWIDE IT SECURITY PROGRAM

(Dollars in Thousands)

Phase	Funding By Phase - Prior Funding					Proposed Funding						
	Allotments	Spent	Enc/ID-Adv	Pre-Enc	Balance	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	6 Yr Total
(06) IT Requirements Development/Systems Design	0	0	0	0	0	1,090	0	0	0	0	0	1,090
<b>TOTALS</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,090</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,090</b>

Source	Funding By Source - Prior Funding					Proposed Funding						
	Allotments	Spent	Enc/ID-Adv	Pre-Enc	Balance	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	6 Yr Total
GO Bonds - New (0300)	0	0	0	0	0	1,090	0	0	0	0	0	1,090
<b>TOTALS</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,090</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,090</b>

Additional Appropriation Data	
First Appropriation FY	
Original 6-Year Budget Authority	0
Budget Authority Thru FY 2016	0
FY 2016 Budget Authority Changes	0
Current FY 2016 Budget Authority	0
Budget Authority Request for FY 2017	1,090
Increase (Decrease)	1,090

Estimated Operating Impact Summary							
Expenditure (+) or Cost Reduction (-)	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	6 Yr Total
No estimated operating impact							

Milestone Data	Projected	Actual
Environmental Approvals		
Design Start (FY)	10/01/2016	
Design Complete (FY)	09/30/2017	
Construction Start (FY)		
Construction Complete (FY)		
Closeout (FY)		

Full Time Equivalent Data		
Object	FTE	FY 2017 Budget
Personal Services	0.0	0
Non Personal Services	0.0	1,090
		% of Project
		100.0