

# (TOO) OFFICE OF THE CHIEF TECHNOLOGY OFFICER

## **MISSION**

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

## **Background**

As the central technology organization for the Government of the District of Columbia, OCTO provides technology services and support for District agencies to improve services to businesses, residents, and visitors. OCTO's goal is to establish the technology systems, policies, and standards that allow over 100 agencies to operate as one government. A typical workday includes the following:

- Detect and prevent 4.8 million cyberattacks.
- Connect over 650 government buildings with a 100 gigabit network.
- Provide 40,000 WiFi connections.
- Support 36 call centers that handle close to 5,000 phone calls.
- Offer 1,000 datasets available to the public.
- Process over 2 million emails.
- Host over 100 District agency websites, which receive over 68,000 visits.
- Operate over 3,900 servers and hundreds of applications for over 87 agencies.

Manage enterprise systems that make running the government possible, including the Human Resources system, which manages over 37,000 employment records, and the District's citywide procurement system, which conducts over 2,000 procurement transactions

## **PROGRAM OBJECTIVES**

**Objective #1:** Provide a secure and trusted information technology environment

**Objective #2:** Enhance the quality, availability and delivery of information services to the residents, employees, business and government

**Objective #3:** Implement an enterprise approach to information technology infrastructure and common administrative systems that will foster innovation and collaboration

**Objective #4:** Enable and improve the availability of and integration of information

**Objective #5:** Achieve excellence in information technology management practices

## **RECENT ACCOMPLISHMENTS**

- Administered the E-Invoicing project, including migrating 87 agencies to the new platform.
- Released the District's first Enterprise Dataset Inventory (EDI).
- Launched the E-Risk Platform to manage payments to DC workers injured on the job as the first phase of the District's Enterprise Risk Management System (ERMS) in support of the Office of Risk Management.
- Readied 27,314 District of Columbia Public School laptops for the first day of school.
- Developed a cloud-based system in support of the certification of business enterprises by the Department of Small Local Disadvantaged Businesses.
- Hosted two All Hands on Tech Events, which provided residents with free technical support for their laptops and other technology devices.
- Helped 19 agencies launch new, cloud-based intranet sites.
- Processed raises and retroactive payment for DC teachers per new union agreement.
- Completed 8 weekend Kids Ride Free (KRF) SmarTrip distribution events

**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 project sheet 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 Through FY 2024 :** Represents the lifetime budget authority, including the 6-year budget authority for FY 2019 through FY 2024.
  - › **FY 2019 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 Through FY 2024 :** This is the total 6-year authority for FY 2019 through FY 2024 including changes from the current fiscal year.
  - › **Budget Authority Request Through FY 2025 :** Represents the 6-year budget authority for FY 2020 through FY 2025.
  - › **Increase (Decrease) :** This is the change in 6-year budget requested for FY 2020 - FY 2025 (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						Approved Funding						6 Yr Total
	Allotments	Spent	Enc/ID-Adv	Pre-Enc	Balance	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025		
(01) Design	113,686	112,478	197	0	1,011	0	0	0	0	0	0	0	0
(02) SITE	4,352	4,350	0	0	2	0	0	0	0	0	0	0	0
(03) Project Management	153,454	153,397	0	0	57	0	0	0	0	0	0	0	0
(04) Construction	185,219	185,125	30	0	63	0	0	0	0	0	0	0	0
(05) Equipment	411,713	408,134	1,302	49	2,229	0	0	0	0	0	0	0	0
(06) IT Requirements Development/Systems Design	78,324	39,229	4,668	1,479	32,949	8,902	6,917	2,370	4,720	6,500	0	29,409	
(07) IT Development & Testing	35,499	35,264	198	0	37	3,788	2,532	1,550	0	0	0	7,870	
(08) IT Deployment & Turnover	11,656	9,740	744	0	1,173	0	0	0	0	0	0	0	
<b>TOTALS</b>	<b>993,903</b>	<b>947,716</b>	<b>7,139</b>	<b>1,528</b>	<b>37,521</b>	<b>12,689</b>	<b>9,450</b>	<b>3,920</b>	<b>4,720</b>	<b>6,500</b>	<b>0</b>	<b>37,279</b>	

Source	Funding By Source - Prior Funding						Approved Funding						6 Yr Total
	Allotments	Spent	Enc/ID-Adv	Pre-Enc	Balance	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025		
GO Bonds - New (0300)	685,660	682,965	601	0	2,093	538	82	0	0	0	0	620	
Pay Go (0301)	19,490	18,759	730	0	0	0	0	0	0	6,500	0	6,500	
Equipment Lease (0302)	119,724	119,724	0	0	0	0	0	0	0	0	0	0	
Alternative Financing (0303)	21,867	21,864	0	0	3	0	0	0	0	0	0	0	
Short-Term Bonds – (0304)	59,167	16,726	5,807	1,528	35,106	12,152	9,367	3,920	4,720	0	0	30,159	
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	
Cap Fund - Fed Pmt (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>993,903</b>	<b>947,716</b>	<b>7,139</b>	<b>1,528</b>	<b>37,521</b>	<b>12,689</b>	<b>9,450</b>	<b>3,920</b>	<b>4,720</b>	<b>6,500</b>	<b>0</b>	<b>37,279</b>	

Additional Appropriation Data	
First Appropriation FY	1998
Original 6-Year Budget Authority	761,256
Budget Authority Through FY 2024	1,018,540
FY 2019 Budget Authority Changes	
Capital Reprogrammings FY 2019 YTD	-800
6-Year Budget Authority Through FY 2024	1,017,740
Budget Authority Request Through FY 2025	1,031,182
Increase (Decrease)	13,442

Estimated Operating Impact Summary							
Expenditure (+) or Cost Reduction (-)	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	6 Year Total
Contractual Services	0	3,380	0	100	550	0	4,030
IT	0	220	90	90	90	90	580
<b>TOTAL</b>	<b>0</b>	<b>3,600</b>	<b>90</b>	<b>190</b>	<b>640</b>	<b>90</b>	<b>4,610</b>

Full Time Equivalent Data			
Object	FTE	FY 2020 Budget	% of Project
Personal Services	0.0	0	0.0
Non Personal Services	0.0	12,689	100.0

# TO0-N2518-DATA CENTER RELOCATION

**Agency:** OFFICE OF THE CHIEF TECHNOLOGY OFFICER (TO0)  
**Implementing Agency:** OFFICE OF THE CHIEF TECHNOLOGY OFFICER (TO0)  
**Project No:** N2518  
**Ward:**  
**Location:** DISTRICT-WIDE  
**Facility Name or Identifier:** DATA CENTER  
**Status:** Ongoing Subprojects  
**Useful Life of the Project:** 7  
**Estimated Full Funding Cost:** \$40,000,000

## Description:

The District of Columbia has two production data centers housing mission-critical data, voice, video, wireless, and Internet services in hardened and highly available facilities: in the heart of the city (ODC1 - 3919 Benning Road NE) and on the outskirts (ODC3). These facilities ensure access to the most critical aspects of the District's network infrastructure along with all agency mission critical applications and services. They have the capability to support increasing demands in city-wide application growth.

The District's data centers serve and operate as a critical network node for the District's fiber optic network and all voice and data services. They are the home for soft-switches that support approximately 40,000 voice users and house the core network electronics that provide connectivity to the Internet, via several Internet Service Providers (ISP's), supporting the District's information needs and those of the DC Public Schools, Libraries and all Public Safety agencies.

The data center facilities also serve as termination points for voice services (SIP or Session Initiated Protocol trunks) to allow telephone calls to be placed to points other than within only the District's offices; the hand-off to other carriers for "local" area calls and "long-distance" calls to neighboring states and other parts of the country. The data centers serve as a primary hand-off point to other carriers for District data traffic as well as a connectivity point for the Federal customers using the District's fiber network.

## Justification:

This project will maintain continuous, secure and redundant data storage and operations of critical services while relocating DC government's primary data center pursuant to the agreed-upon terms with the owner of the current location.

## Progress Assessment:

To support increasing demands in city-wide application growth

## Related Projects:

N2503C-Data Center Relocation and  
DR018C-Disaster Recovery & Coop Implementation

(Dollars in Thousands)

Phase	Funding By Phase - Prior Funding					Approved Funding						
	Allotments	Spent	Enc/ID-Adv	Pre-Enc	Balance	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	6 Yr Total
(06) IT Requirements Development/Systems Design	28,500	711	1,634	1,003	25,152	0	0	0	3,500	6,500	0	10,000
<b>TOTALS</b>	<b>28,500</b>	<b>711</b>	<b>1,634</b>	<b>1,003</b>	<b>25,152</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3,500</b>	<b>6,500</b>	<b>0</b>	<b>10,000</b>

Source	Funding By Source - Prior Funding					Approved Funding						
	Allotments	Spent	Enc/ID-Adv	Pre-Enc	Balance	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	6 Yr Total
Pay Go (0301)	0	0	0	0	0	0	0	0	0	6,500	0	6,500
Short-Term Bonds - (0304)	28,500	711	1,634	1,003	25,152	0	0	0	3,500	0	0	3,500
<b>TOTALS</b>	<b>28,500</b>	<b>711</b>	<b>1,634</b>	<b>1,003</b>	<b>25,152</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3,500</b>	<b>6,500</b>	<b>0</b>	<b>10,000</b>

## Additional Appropriation Data

First Appropriation FY	2018
Original 6-Year Budget Authority	78,500
Budget Authority Through FY 2024	38,500
FY 2019 Budget Authority Changes	0
6-Year Budget Authority Through FY 2024	38,500
Budget Authority Request Through FY 2025	38,500
Increase (Decrease)	0

## Estimated Operating Impact Summary

Expenditure (+) or Cost Reduction (-)	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	6 Yr Total
No estimated operating impact							

## Milestone Data

	Projected	Actual
Environmental Approvals		
Design Start (FY)	10/1/2019	
Design Complete (FY)	03/30/2019	
Construction Start (FY)	04/1/2019	
Construction Complete (FY)	09/30/2021	
Closeout (FY)	09/30/2022	

## Full Time Equivalent Data

Object	FTE	FY 2020 Budget	% of Project
Personal Services	0.0	0	0.0
Non Personal Services	0.0	0	0.0

# TO0-DPA20-DATA PRIVACY & ANONYMIZATION

**Agency:** OFFICE OF THE CHIEF TECHNOLOGY OFFICER (TO0)  
**Implementing Agency:** OFFICE OF THE CHIEF TECHNOLOGY OFFICER (TO0)  
**Project No:** DPA20  
**Ward:**  
**Location:** DISTRICT-WIDE  
**Facility Name or Identifier:** INFORMATION TECHNOLOGY  
**Status:** New  
**Useful Life of the Project:** 7  
**Estimated Full Funding Cost:** \$620,000

**Description:**

A project to develop, purchase, and implement a suite of data privacy tools for use in data storage and interagency data sharing. These tools will provide encryption, access control, anonymization, de-identification for agency data stored on the DC Data Lake.

**Justification:**

As captured in the Chief Data Officer’s 2018 Enterprise Data Inventory, there are numerous data sources managed throughout District, each classified by the security level. OCTO is building the DC Data Lake as a place to store such data sets securely. The Lab @ DC and a number of key agencies such as DHS and CFSA have a need to perform high-end analysis on data containing Personally Identifiable Information (PII). OCTO has engaged these key stakeholders via presentations to Data Science DC, the Data Privacy Working Group, and bilateral discussions between The Lab and OCTO on Data Governance and Anonymization.

However, considerable work is needed to address Data Privacy and Anonymization at levels that satisfy privacy restrictions across multiple data regulations including HIPAA and FERPA. Beyond these requirements, there is much public concern over personal data ownership. There are reforms ongoing and on the horizon, like the Europe’s General Data Protection Regulation (GDPR). GDPR compliance is onerous and has become a top data protection priority and expense, with a majority of impacted CIOs spending over a \$1 million, and often more (ref 1). This project will introduce a proactive approach to help control these costs within the complex, distributed nature of the District’s data operations.

Providing shared privacy tools can help DC lay the foundation for good data privacy handling. According to a Pew research study, over half of Americans do not have confidence that government will keep their records “private and secure” (ref 2). For the citizens of the District of Columbia, we need to build tools that protect their privacy and prevent data breach, while maintaining transparency. The fragmented, distributed, ungoverned nature of District data management leaves it vulnerable to breach, and mishandling for privacy. We propose to purchase an array of individual tools and share them centrally, using custom development to enhance usability.

**Progress Assessment:**

New project

**Related Projects:**

None

(Dollars in Thousands)

Funding By Phase - Prior Funding						Approved Funding						
Phase	Allotments	Spent	Enc/ID-Adv	Pre-Enc	Balance	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	6 Yr Total
(07) IT Development & Testing	0	0	0	0	0	538	82	0	0	0	0	620
<b>TOTALS</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>538</b>	<b>82</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>620</b>

  

Funding By Source - Prior Funding						Approved Funding						
Source	Allotments	Spent	Enc/ID-Adv	Pre-Enc	Balance	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	6 Yr Total
GO Bonds - New (0300)	0	0	0	0	0	538	82	0	0	0	0	620
<b>TOTALS</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>538</b>	<b>82</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>620</b>

Additional Appropriation Data	
First Appropriation FY	
Original 6-Year Budget Authority	0
Budget Authority Through FY 2024	0
FY 2019 Budget Authority Changes	0
6-Year Budget Authority Through FY 2024	0
Budget Authority Request Through FY 2025	620
Increase (Decrease)	620

Estimated Operating Impact Summary							
Expenditure (+) or Cost Reduction (-)	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	6 Year Total
IT	0	130	0	0	0	0	130
<b>TOTAL</b>	<b>0</b>	<b>130</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>130</b>

Milestone Data	Projected	Actual
Environmental Approvals		
Design Start (FY)		
Design Complete (FY)		
Construction Start (FY)		
Construction Complete (FY)		
Closeout (FY)		

Full Time Equivalent Data			
Object	FTE	FY 2020 Budget	% of Project
Personal Services	0.0	0	0.0
Non Personal Services	0.0	538	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:** In multiple phases  
**Useful Life of the Project:** 5+  
**Estimated Full Funding Cost:** \$15,110,000

**Description:**

The purpose of this project is to support the District vision for Enterprise Cybersecurity services delivered by OCTO on behalf of the Mayoral and Non-Mayoral Agencies.

OCTO CWITS team provides Enterprise Cybersecurity services for all Mayoral and Non-Mayoral Agencies and deploys technologies/tools that will be used by CWITS Enterprise Cybersecurity Engineers and the Enterprise Security Operations Center. Both of these groups operate and maintain Enterprise IT Tools/Technologies.

The Capital Request is comprised of two components:

1. Deployment of new technology/tools to protect against newly discovered next generation cyber-security threats.
2. Re-deployment and replacement for end-of-life technology/tools that are no longer capable of performing the original task. OCTO follows the industry best-practices for Hardware Lifecycle Management (HLM); it is anticipated that each of the major Enterprise devices will require replacement within 5-8 years.

**Justification:**

OCTO uses the enterprise security tools purchased via this capital project to identify, protect, detect, respond to and recover from cybersecurity threats. These technologies/tools also ensure the District's ability to maintain regulatory compliance.

**Progress Assessment:**

Progressing in multi-phases

**Related Projects:**

DR018C-Disaster Recovery & Coop Implementation, N1715C-Cyber Security Modernization, N8005C-DCPS IT Infrastructure Upgrade, NPR15C-IT Infrastructure DPR

(Dollars in Thousands)

Phase	Funding By Phase - Prior Funding					Approved Funding						
	Allotments	Spent	Enc/ID-Adv	Pre-Enc	Balance	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	6 Yr Total
(06) IT Requirements Development/Systems Design	9,711	7,280	64	0	2,367	4,000	1,400	0	0	0	0	5,400
<b>TOTALS</b>	<b>9,711</b>	<b>7,280</b>	<b>64</b>	<b>0</b>	<b>2,367</b>	<b>4,000</b>	<b>1,400</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5,400</b>

Source	Funding By Source - Prior Funding					Approved Funding						
	Allotments	Spent	Enc/ID-Adv	Pre-Enc	Balance	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	6 Yr Total
GO Bonds - New (0300)	4,350	4,350	0	0	0	0	0	0	0	0	0	0
Pay Go (0301)	861	861	0	0	0	0	0	0	0	0	0	0
Short-Term Bonds - (0304)	4,500	2,069	64	0	2,367	4,000	1,400	0	0	0	0	5,400
<b>TOTALS</b>	<b>9,711</b>	<b>7,280</b>	<b>64</b>	<b>0</b>	<b>2,367</b>	<b>4,000</b>	<b>1,400</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5,400</b>

Additional Appropriation Data	
First Appropriation FY	2015
Original 6-Year Budget Authority	8,041
Budget Authority Through FY 2024	13,711
FY 2019 Budget Authority Changes	0
6-Year Budget Authority Through FY 2024	13,711
Budget Authority Request Through FY 2025	15,111
Increase (Decrease)	1,400

Estimated Operating Impact Summary							
Expenditure (+) or Cost Reduction (-)	FY 2020						6 Year Total
	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Contractual Services	0	550	0	100	0	0	650
<b>TOTAL</b>	<b>0</b>	<b>550</b>	<b>0</b>	<b>100</b>	<b>0</b>	<b>0</b>	<b>650</b>

Milestone Data	Projected	Actual
Environmental Approvals		
Design Start (FY)		10/1/2018
Design Complete (FY)		
Construction Start (FY)		
Construction Complete (FY)		
Closeout (FY)	09/30/2023	

Full Time Equivalent Data			
Object	FTE	FY 2020 Budget	% of Project
Personal Services	0.0	0	0.0
Non Personal Services	0.0	4,000	100.0

# TO0-DSM20-DIRECTORY SERVICES MODERNIZATION

**Agency:** OFFICE OF THE CHIEF TECHNOLOGY OFFICER (TO0)  
**Implementing Agency:** OFFICE OF THE CHIEF TECHNOLOGY OFFICER (TO0)  
**Project No:** DSM20  
**Ward:**  
**Location:** DISTRICT-WIDE  
**Facility Name or Identifier:** INFORMATION TECHNOLOGY  
**Status:** New  
**Useful Life of the Project:** 5-9  
**Estimated Full Funding Cost:** \$5,575,000

## Description:

The goal of this project is to implement a modernized consolidated Active Directory environment that can be used to authenticate any device and/or user that access the District's enterprise-wide Information Technology and Communications network. A consolidated Active Directory environment enables user mobility, common user provisioning processes, consolidated reporting, and unified management of machines as well as Single Sign-On (SSO). As part of the Directory Services Modernization effort a modernized Identity Management System (IDMS) will be implemented that can be used to authenticate any device and/or user that access the District's enterprise-wide Information Technology and Communications network. The identity management system will also be leveraged to provide DC residents with access to government facilities and programs by improving authentication for systems such as DC One card.

Currently the District does not have a consolidated Active Directory, but instead has multiple Active Directory forests and domains. The current environment consists of 11 disparate forests and over 20 child domains. A simplified Active Directory environment will improve security and reduce compliance risks, particularly as the District has adopted multiple cloud-enabled applications such as Office 365, Salesforce and QuickBase, which heavily rely on Active Directory to provide authentication and authorization.

## Justification:

- Consolidation of Active Directories
  - o Consolidated AD model is a more elegant approach to district wide user management.
  - o Results in user portability, shared GAL (Global Address List) and consolidated reporting enhance productivity
  - o Enables multi-factor authentication
    - Greatly reduce the risk of successful phishing attacks against the District.
    - Enable the use of single sign-on while reducing the risk that a single stolen password unlocks multiple District applications
- Allow the District to operate as one government
  - o Facilitates role-based security and governance (policies/procedures)
  - o Facilitate secure interagency application and data sharing such accessing sensitive data in the new data lake
- Unlock the potential for better integration with the District physical security systems (DGS) and credentialing system (DCHR)

## Progress Assessment:

New project

## Related Projects:

None

(Dollars in Thousands)

Funding By Phase - Prior Funding						Approved Funding						
Phase	Allotments	Spent	Enc/ID-Adv	Pre-Enc	Balance	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	6 Yr Total
(07) IT Development & Testing	0	0	0	0	0	1,575	2,450	1,550	0	0	0	5,575
<b>TOTALS</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,575</b>	<b>2,450</b>	<b>1,550</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5,575</b>

  

Funding By Source - Prior Funding						Approved Funding						
Source	Allotments	Spent	Enc/ID-Adv	Pre-Enc	Balance	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	6 Yr Total
Short-Term Bonds - (0304)	0	0	0	0	0	1,575	2,450	1,550	0	0	0	5,575
<b>TOTALS</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,575</b>	<b>2,450</b>	<b>1,550</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5,575</b>

## Additional Appropriation Data

First Appropriation FY	
Original 6-Year Budget Authority	0
Budget Authority Through FY 2024	0
FY 2019 Budget Authority Changes	0
6-Year Budget Authority Through FY 2024	0
Budget Authority Request Through FY 2025	5,575
Increase (Decrease)	5,575

## Estimated Operating Impact Summary

Expenditure (+) or Cost Reduction (-)	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	6 Year Total
Contractual Services	0	1,980	0	0	0	0	1,980
<b>TOTAL</b>	<b>0</b>	<b>1,980</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,980</b>

## Milestone Data

	Projected	Actual
Environmental Approvals		
Design Start (FY)		
Design Complete (FY)		
Construction Start (FY)		
Construction Complete (FY)		
Closeout (FY)		

## Full Time Equivalent Data

Object	FTE	FY 2020 Budget	% of Project
Personal Services	0.0	0	0.0
Non Personal Services	0.0	1,575	100.0

# TO0-DR018-DISASTER RECOVERY & COOP IMPLEMENTATION

**Agency:** OFFICE OF THE CHIEF TECHNOLOGY OFFICER (TO0)  
**Implementing Agency:** OFFICE OF THE CHIEF TECHNOLOGY OFFICER (TO0)  
**Project No:** DR018  
**Ward:**  
**Location:** DISTRICT-WIDE  
**Facility Name or Identifier:** INFORMATION TECHNOLOGY  
**Status:** In multiple phases  
**Useful Life of the Project:** 5+  
**Estimated Full Funding Cost:** \$18,590,000

## Description:

The purpose of this project is to deploy a redundant and highly available infrastructure to host the failover systems for all the District's critical applications, to include those associated with public safety. The OCTO team will conduct a detailed analysis of all agencies and work with them to make every critical application fully redundant, creating resilient public safety functions that that will directly benefit citizens.

The project will deploy dedicated server virtualization platforms to run critical public safety applications for each agency. The dedicated platforms will be separated logically and physically to comply with local, state or federal security access requirements

## Justification:

Currently, public safety agencies, as well as District agencies that provide critical services, do not have a redundant failover environment. The result is that these agencies are unable to seamlessly and quickly failover their systems to an alternate data center or deploy their applications in an architecture which would result in uninterrupted or minimal impact to critical services. This project will help to avoid extended service impact and downtime, enhancing public safety.

## Progress Assessment:

On-going subproject

## Related Projects:

NMM17C-Enterprise Network Monitoring Modernization, N2503C-Data Center Relocation, N2518C-Data Center Relocation, N9101C-DC Government Citywide IT Security, N1715C-Cyber Security Modernization, N8005C-DCPS IT Infrastructure Upgrade, NPR15C-IT Infrastructure DPR, UCC project UC304C-Radio Critical Infrastructure, MPD project EP120C-MPD Disaster Recovery

(Dollars in Thousands)

Funding By Phase - Prior Funding						Approved Funding						
Phase	Allotments	Spent	Enc/ID-Adv	Pre-Enc	Balance	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	6 Yr Total
(06) IT Requirements Development/Systems Design	8,410	6,123	346	253	1,687	3,370	3,220	2,370	1,220	0	0	10,180
<b>TOTALS</b>	<b>8,410</b>	<b>6,123</b>	<b>346</b>	<b>253</b>	<b>1,687</b>	<b>3,370</b>	<b>3,220</b>	<b>2,370</b>	<b>1,220</b>	<b>0</b>	<b>0</b>	<b>10,180</b>

Funding By Source - Prior Funding						Approved Funding						
Source	Allotments	Spent	Enc/ID-Adv	Pre-Enc	Balance	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	6 Yr Total
Short-Term Bonds -- (0304)	8,410	6,123	346	253	1,687	3,370	3,220	2,370	1,220	0	0	10,180
<b>TOTALS</b>	<b>8,410</b>	<b>6,123</b>	<b>346</b>	<b>253</b>	<b>1,687</b>	<b>3,370</b>	<b>3,220</b>	<b>2,370</b>	<b>1,220</b>	<b>0</b>	<b>0</b>	<b>10,180</b>

## Additional Appropriation Data

First Appropriation FY	2018
Original 6-Year Budget Authority	16,766
Budget Authority Through FY 2024	14,766
FY 2019 Budget Authority Changes	
Capital Reprogrammings FY 2019 YTD	-356
6-Year Budget Authority Through FY 2024	14,410
Budget Authority Request Through FY 2025	18,590
Increase (Decrease)	4,180

## Estimated Operating Impact Summary

Expenditure (+) or Cost Reduction (-)	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	6 Year Total
Contractual Services	0	550	0	0	550	0	1,100
<b>TOTAL</b>	<b>0</b>	<b>550</b>	<b>0</b>	<b>0</b>	<b>550</b>	<b>0</b>	<b>1,100</b>

## Milestone Data

	Projected	Actual
Environmental Approvals		
Design Start (FY)		10/1/2018
Design Complete (FY)	06/30/2019	
Construction Start (FY)	07/1/2019	
Construction Complete (FY)	09/30/2023	
Closeout (FY)	09/30/2024	

## Full Time Equivalent Data

Object	FTE	FY 2020 Budget	% of Project
Personal Services	0.0	0	0.0
Non Personal Services	0.0	3,370	100.0

# TO0-EES20-ENHANCED EMAIL SECURITY AND HYGIENE

**Agency:** OFFICE OF THE CHIEF TECHNOLOGY OFFICER (TO0)  
**Implementing Agency:** OFFICE OF THE CHIEF TECHNOLOGY OFFICER (TO0)  
**Project No:** EES20  
**Ward:**  
**Location:** DISTRICT-WIDE  
**Facility Name or Identifier:** INFORMATION TECHNOLOGY  
**Status:** New  
**Useful Life of the Project:** 5  
**Estimated Full Funding Cost:** \$925,000

**Description:**

The goal of this project is to greatly increase the security posture of the current email platform. 95% of cyber-attacks and data breaches involve spear phishing and 100% of spear phishing attacks involve identity deception. In the last year alone, we have seen a 30% uptick in email spear phishing attacks against DC Government staff. As part of this initiative, we are looking to acquire enhanced email security products to help protect against spear phishing attacks and identity deception email attacks. At the same time we are looking to deploy enhanced email domain security platform to prevent spoofing of DC Government emails externally outside of our network.

Enhanced Email Security Hygiene Protection further augments sender authentication and Business Email Compromise detection capabilities already available in our existing email security platform. It integrates machine learning that combines local identity and relationship modeling with behavior analytics to protect against identity deception-based threats. It models trusted email behavior, within organizations and between individuals. This identity intelligence continuously adapts to drive a real-time understanding of senders and prevent costly breaches.

DC Government today relies on many internal and third party email senders for numerous DC Government communications. This can lead to attackers using the DC Government email domain {dc.gov} to breach our customers and partners making them vulnerable to attacks. This impacts the District’s ability to easily communicate with our customers and partners. The most effective way to mitigate this vulnerability is to use the DMARC standard to authorize and authenticate all systems and applications that send emails on behalf of DC Government. DMARC is a technology that makes it easier for email senders and receivers to determine if a message is from a legitimate sender. Identifying all legitimate senders can be challenging because of the complexity of the DC Government email ecosystem, which relies on multiple external partners to send emails using the {dc.gov} email domain to both DC Government employees, constituents and partners. The list of these external applications is growing rapidly, with Salesforce, Oracle, Microsoft and Inuit, just to name a few of the applications that currently send out emails as @dc.gov.

**Justification:**

As part of this project, DC Government would deploy a Email Doman Protection platform to automate the DMARC email authentication process and give Citywide Messaging and Citywide Security visibility into our own internal as well as third-party email senders using the {dc.gov} email domain. The Email Doman Protection platform automatically correlates information into an easy-to-read report that lists who is sending email on our behalf and whether they are DMARC compliant. For those senders who are not DMARC compliant, the Email Domain Protection platform identifies and eliminate sources of illegitimate email to prevent phishing attacks impersonating DC Government systems.

**Progress Assessment:**

New project

**Related Projects:**

None

(Dollars in Thousands)

Funding By Phase - Prior Funding						Approved Funding						
Phase	Allotments	Spent	Enc/ID-Adv	Pre-Enc	Balance	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	6 Yr Total
(07) IT Development & Testing	0	0	0	0	0	925	0	0	0	0	0	925
<b>TOTALS</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>925</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>925</b>

Funding By Source - Prior Funding						Approved Funding						
Source	Allotments	Spent	Enc/ID-Adv	Pre-Enc	Balance	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	6 Yr Total
Short-Term Bonds – (0304)	0	0	0	0	0	925	0	0	0	0	0	925
<b>TOTALS</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>925</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>925</b>

Additional Appropriation Data	
First Appropriation FY	
Original 6-Year Budget Authority	0
Budget Authority Through FY 2024	0
FY 2019 Budget Authority Changes	0
6-Year Budget Authority Through FY 2024	0
Budget Authority Request Through FY 2025	925
Increase (Decrease)	925

Estimated Operating Impact Summary							
Expenditure (+) or Cost Reduction (-)	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	6 Year Total
Contractual Services	0	300	0	0	0	0	300
<b>TOTAL</b>	<b>0</b>	<b>300</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>300</b>

Milestone Data		
	Projected	Actual
Environmental Approvals		
Design Start (FY)		
Design Complete (FY)		
Construction Start (FY)		
Construction Complete (FY)		
Closeout (FY)		

Full Time Equivalent Data			
Object	FTE	FY 2020 Budget	% of Project
Personal Services	0.0	0	0.0
Non Personal Services	0.0	925	100.0



# TO0-CNU00-MP - CORE INFRASTR. NETWORK UPGRADE

**Agency:** OFFICE OF THE CHIEF TECHNOLOGY OFFICER (TO0)  
**Implementing Agency:** OFFICE OF THE CHIEF TECHNOLOGY OFFICER (TO0)  
**Project No:** CNU00  
**Ward:**  
**Location:** DISTRICT-WIDE  
**Facility Name or Identifier:** INFORMATION TECHNOLOGY  
**Status:** In multiple phases  
**Useful Life of the Project:** 7  
**Estimated Full Funding Cost:** \$5,419,000

## Description:

OCTO is committed to extending public Wi-Fi coverage in the District in meaningful ways that maximize the benefit of this no-cost service to residents, visitors, and businesses to enhance quality of life and opportunities for growth. Expanding public Wi-Fi will strengthen the District’s commitment to realizing the Mayor’s vision to enhance quality of life, drive digital inclusion, and build pathways to the middle class by creating a technologically integrated city with digitally enhanced public services.

## Justification:

Wai-Fi provides many benefits to the public: it helps foster city economic development, enhances tourist experience, supports public safety efforts, and helps bridge the Digital Divide by augmenting public access to the Internet near buildings such as schools, libraries, parks, public housing sites, and other community spaces. This capital funding request will expand wireless connectivity in critical parts of the District – supporting the Great Streets/Main Streets and Business Improvement District efforts – along with critical District facilities that directly support public safety and government operations.

## Progress Assessment:

Progressing in multi-phases

## Related Projects:

Related Projects Table

Sub-Project No	Sub-Project Title
AIN20C	CITY-WIDE WIFI EXPANSION
N2504C	ENTERPRISE BACK-UP HARDWARE REPLACE AND INFRASTRUCTURE UPGRADE
N9601C	MAINFRAME INFRASTRUCTURE UPGRADE
NTU02C	UPGRADE END OF LIFE NETWORK ELECTRONICS (500 BUILDINGS) TO SUPPORT AGENCY SMART CITY INITIATIVES

(Dollars in Thousands)

Phase	Funding By Phase - Prior Funding					Approved Funding						
	Allotments	Spent	Enc/ID-Adv	Pre-Enc	Balance	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	6 Yr Total
(06) IT Requirements Development/Systems Design	116	-19	53	0	82	1,532	2,297	0	0	0	0	3,829
<b>TOTALS</b>	<b>116</b>	<b>-19</b>	<b>53</b>	<b>0</b>	<b>82</b>	<b>1,532</b>	<b>2,297</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3,829</b>

Source	Funding By Source - Prior Funding					Approved Funding						
	Allotments	Spent	Enc/ID-Adv	Pre-Enc	Balance	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	6 Yr Total
Short-Term Bonds -- (0304)	116	-19	53	0	82	1,532	2,297	0	0	0	0	3,829
<b>TOTALS</b>	<b>116</b>	<b>-19</b>	<b>53</b>	<b>0</b>	<b>82</b>	<b>1,532</b>	<b>2,297</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3,829</b>

## Additional Appropriation Data

First Appropriation FY	2019
Original 6-Year Budget Authority	3,866
Budget Authority Through FY 2024	3,866
FY 2019 Budget Authority Changes	0
6-Year Budget Authority Through FY 2024	3,866
Budget Authority Request Through FY 2025	3,945
Increase (Decrease)	79

## Estimated Operating Impact Summary

Expenditure (+) or Cost Reduction (-)	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	6 Year Total
	IT	0	90	90	90	90	90
<b>TOTAL</b>	<b>0</b>	<b>90</b>	<b>90</b>	<b>90</b>	<b>90</b>	<b>90</b>	<b>450</b>

## Milestone Data

	Projected	Actual
Environmental Approvals		
Design Start (FY)		
Design Complete (FY)		
Construction Start (FY)		
Construction Complete (FY)		
Closeout (FY)		

## Full Time Equivalent Data

Object	FTE	FY 2020 Budget	% of Project
Personal Services	0.0	0	0.0
Non Personal Services	0.0	1,532	100.0

# TO0-EAP20-PEOPLESOFT ENTERPRISE DATA RECLAMATION

**Agency:** OFFICE OF THE CHIEF TECHNOLOGY OFFICER (TO0)  
**Implementing Agency:** OFFICE OF THE CHIEF TECHNOLOGY OFFICER (TO0)  
**Project No:** EAP20  
**Ward:**  
**Location:** DISTRICT-WIDE  
**Facility Name or Identifier:** INFORMATION TECHNOLOGY  
**Status:** New  
**Useful Life of the Project:** 5+  
**Estimated Full Funding Cost:** \$750,000

**Description:**

The PeopleSoft Enterprise Data Reclamation project aims to examine, sanitize and/or realign the District’s Human Capital Management (HCM) data in the PeopleSoft HCM enterprise system to improve the quality of data that serves as the basis for all Human Resources and Payroll-related records in the District.

The initial phase of this effort focuses on the realignment of organizational department structure to facilitate further enhancements to the “reports to” (supervisory) hierarchy. This in turn will reduce the number of workflow errors and position the HCM system to consume department-level budget information from the successor to the SOAR financial system.

**Justification:**

This project will also examine business rules to ensure that the HCM system is synchronized with the District Personnel Manual (DPM) and labor organization collective bargaining agreements (CBA).

**Progress Assessment:**

New

**Related Projects:**

None

(Dollars in Thousands)

Funding By Phase - Prior Funding						Approved Funding						
Phase	Allotments	Spent	Enc/ID-Adv	Pre-Enc	Balance	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	6 Yr Total
(07) IT Development & Testing	0	0	0	0	0	750	0	0	0	0	0	750
<b>TOTALS</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>750</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>750</b>

Funding By Source - Prior Funding						Approved Funding						
Source	Allotments	Spent	Enc/ID-Adv	Pre-Enc	Balance	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	6 Yr Total
Short-Term Bonds -- (0304)	0	0	0	0	0	750	0	0	0	0	0	750
<b>TOTALS</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>750</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>750</b>

**Additional Appropriation Data**

First Appropriation FY	
Original 6-Year Budget Authority	0
Budget Authority Through FY 2024	0
FY 2019 Budget Authority Changes	0
6-Year Budget Authority Through FY 2024	0
Budget Authority Request Through FY 2025	750
Increase (Decrease)	750

**Estimated Operating Impact Summary**

Expenditure (+) or Cost Reduction (-)	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	6 Yr Total
No estimated operating impact							

**Milestone Data**

	Projected	Actual
Environmental Approvals		
Design Start (FY)		
Design Complete (FY)		
Construction Start (FY)		
Construction Complete (FY)		
Closeout (FY)		

**Full Time Equivalent Data**

Object	FTE	FY 2020 Budget	% of Project
Personal Services	0.0	0	0.0
Non Personal Services	0.0	750	100.0