

BCIT Fiscal Year 2025 Capital Improvement Program

Thursday, January 18, 2024

Mission

Provide sustainable infrastructure and technology to support and enhance City agencies, communities, and businesses, to meet City and mayoral goals.

Vision

Over the next decade engage all City agencies, businesses, and residents to design, build, and implement technology that creates a safe, thriving, and smart City.

Values

- Innovation & Excellence
- Customer Focus
- Accountability & Credibility
- Respect & Inclusion
- Efficiency
- Safety



Public-Facing Services

- 311 call center
- Applications
- Broadband
- CitiWatch CCTV
- Data & Mapping (GIS)
- Digital equity
- Emergency comms & dispatch
- Open Baltimore
- Web services



Core IT Services

- Application development
- Cloud services
- Database management
- Fiber management
- Information security
- Mainframe computing



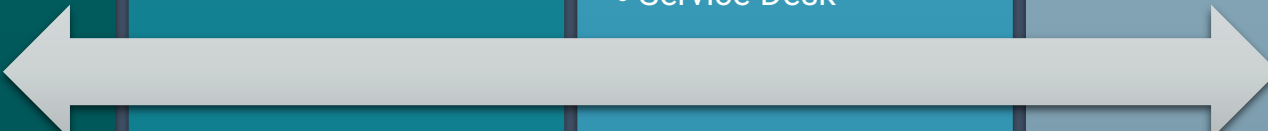
City Employee Services

- Microsoft 365 suite
- Network & wireless access
- PC support & engineering
- Remote & hybrid work support
- Service Desk

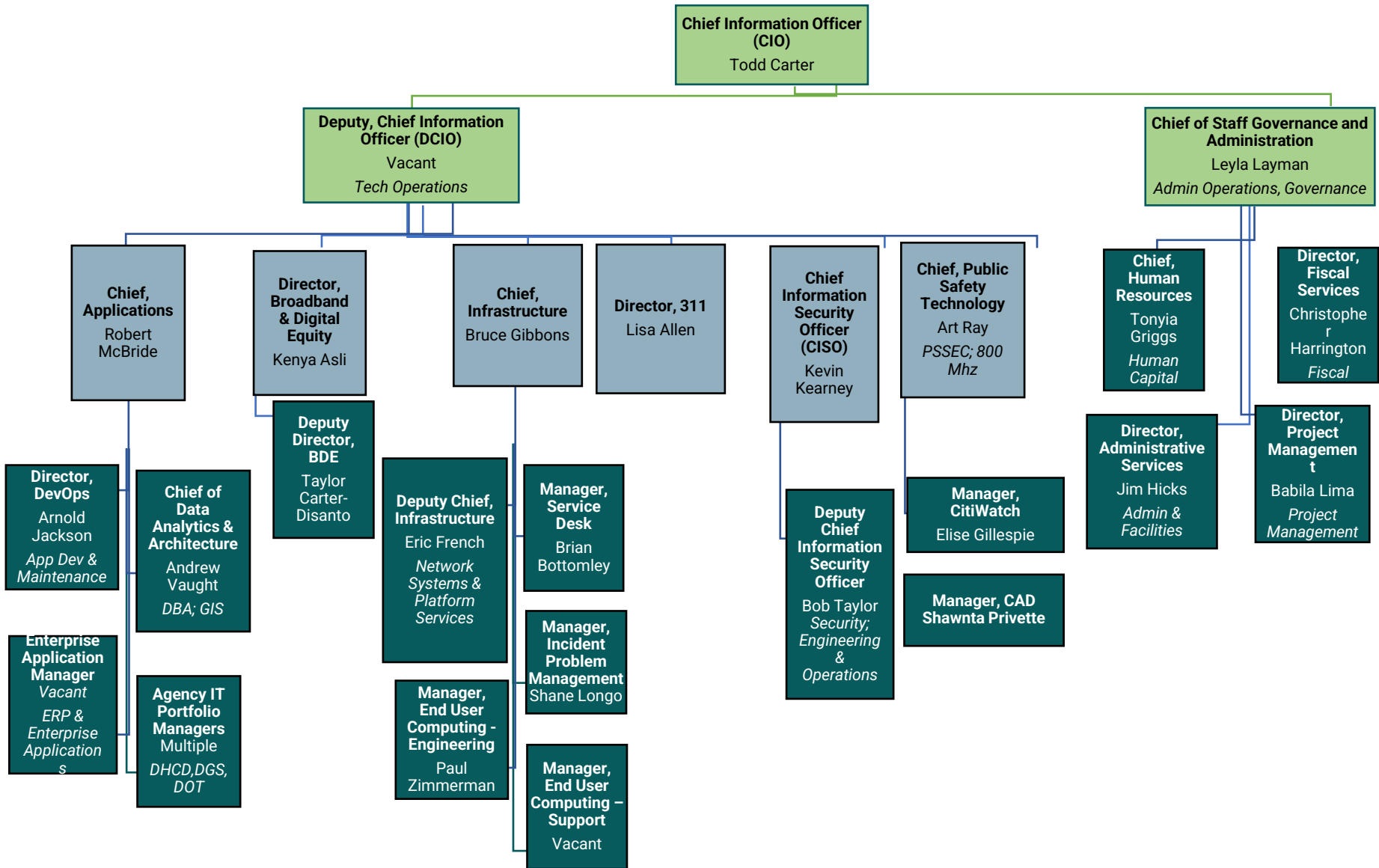


BCIT Administration

- Change management
- Financial management
- Human Resources
- IT contracts
- Staff development
- Project management



Organizational Chart



2023: A Year in Review

11

Baltimore City Recreation Centers connected to BDE fiber

312

CitiWatch cameras replaced

\$4.4M

In savings to customers the result of the replacement of ACI with the new Paymentus system

Service Optimization

Pilot launched with DGS, DHCD and DOT

\$5.4+M

Capital spent upgrading and adding new technology solutions

Open Gov

Implemented 7/1/2022 to manage rental property licensing and permitting

Energy Manager

Application upgraded and reintroduced in Nov 2023

Archibus Application

Upgraded

5

Hybrid public meeting rooms implemented

99.75%

Average critical server uptime

PMO

Implemented new project intake and review process

\$3.1M

MWBE Contracts



Budget Overview

FY24 Capital & Operating Budget Overview

Fund Name		Fiscal 2022 Actual		Fiscal 2023 Actual		Fiscal 2024 Budget	
		Dollars	Positions	Dollars	Positions	Dollars	Positions
802 General		\$3,228,440	16	\$3,492,573	18	\$3,674,526	19
803 General		\$20,251,546	34	\$19,526,663	27	\$18,381,911	33
804 General		\$4,835,251	65	\$5,090,935	63	\$5,174,642	63
873	Federal	\$0	0	\$0	0	\$6,100,000	0
	State	\$0	0	\$0	0	\$10,980,000	0
	Special	\$0	0	\$0	0	\$500,000	0
	ARPA	\$0	0	\$2,500,339	9	-	0
757	General	\$0	0	\$2,548,111	4	\$2,927,701	0
	Special	\$0	0	\$93,560	0	\$0	0
805	General	\$10,690,570	41	\$12,082,079	39	\$16,182,634	39
	Internal Service	\$13,022,354	3	\$10,513,213	4	\$13,951,018	4
	Special	\$0	0	\$0	0	\$200,000	0
	ARPA	\$0	0	\$0	0	\$8,000,000	0
Total Operating		\$52,028,161	159	\$55,847,473	164	\$86,072,432	161
Total Capital Allocation		\$7,000,000	0	\$7,000,000	0	\$12,000,000	0



Agency Asset Overview

What is an IT Asset?

An IT asset includes networking, digital technology, operational technology (OT), supervisory control and data acquisition (SCADA), telephony, digital assets and digital files, hardware, software, web applications, commercial off the shelf (COTs) applications, infrastructure or platform or software as a service (cloud IT), vendor managed IT or applications, workstations, desktops, laptops, tablets, the internet of things (IOT) devices, or information that may be owned, leased, entrusted to or managed by the City hereinafter referred to as IT resources.

Asset Name	Quantity
BCIT Servers	321
BCIT Storage Data	327 TB
BCIT backup Storage Data	699 TB
BCIT AD accounts	278
BCIT Citrix Use	47
BCIT Managed Servers	745
BCIT Managed Storage Data	800 TB
BCIT Managed Backup Storage Data	1.5 PB
BCIT Managed Access Points	655
CitiWatch Cameras	797



Recently Completed Projects

CitiWatch Replacement Camera Cycle



- **Project Number:** PRJ002405
- **Project Scope:** Replaced 312 end-of-life CitiWatch Cameras.
- **Budget:** \$818,000.00
- **Actual:** \$816,774.72
- **Funding Source:** BCIT PAYGO Capital
- **Completion Date:** 4/18/2023

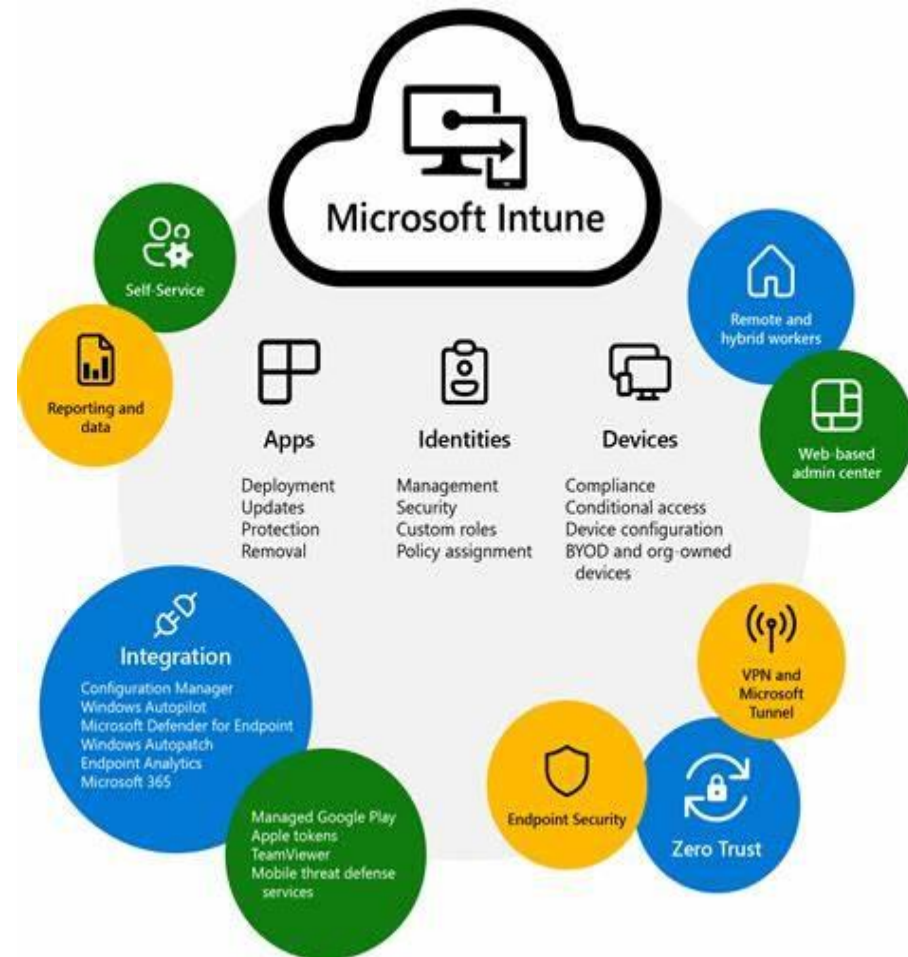
Increase & Upgrade Storage



- **Project Number:** PRJ001954
- **Project Scope:** Upgrade storage capacity
- **Budget:** \$2,442,674.45
- **Actual:** \$2,402,951.64
- **Funding Source:** BCIT PAYGO Capital
- **Completion Date:** 8/15/2023

Microsoft Intune

- **Project Number:** PRJ001516
- **Project Scope:** The purpose of this project is to manage the City's devices to improve security and minimize a cyber threat. Intune lets you manage your workforce's devices and apps and how they access company data.
- **Budget:** \$430,400
- **Actual:** \$272,813.53
- **Funding Source:** BCIT PAYGO Capital
- **Completion Date:** June 2023



Update Network Management



- **Project Number:** PRJ002081
- **Project Scope:** Identification and deployment of switches. There were 73 devices deployed across the city.
- **Budget:** \$478,520.69
- **Actual:** \$478,520.69
- **Funding Source:** BCIT PAYGO Capital
- **Completion Date:** 4/17/2023



Projects in Progress

FY24 CitiWatch Camera Refresh

- **Project Number:** PRJ002405
- **Project Scope:** Replace 229 end-of-life CitiWatch cameras. This is the final phase of the CitiWatch camera refresh program.
- **Budget:** \$618,787.81
- **Spend to date:** \$527,033.01
- **Funding Source:** BCIT PAYGO Capital
- **Status:** Deployment



CitiWatch Genetec Clearance

- **Project Number:** PRJ002406
- **Project Scope:** Genetec Clearance is a digital evidence management system streamlines the organization of evidence and case files. This sync tool will keep both the City registry and Genetec Clearance up to date.
 - A registry of City Cameras owned and operated by business and homeowners.
 - A cloud-based repository of Camera records collected based on a specific incident.
- **Budget:** \$50,000.00
- **Actual:** \$0
- **Funding Source:** BCIT PAYGO Capital
- **Status:** Deployment

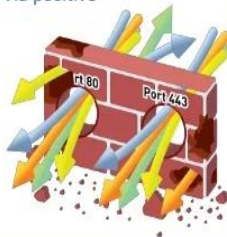


Palo Alto Adaptive Security Appliance & Firewall Upgrade

Applications Have Changed; Firewalls Have Not

The firewall is the right place
to enforce policy control

- Sees all traffic
- Defines trust boundary
Enables access via positive
control



BUT...applications have changed

- Ports ≠ Applications
- IP Addresses ≠ Users
- Packets ≠ Content

Need to restore visibility and control in the firewall



- **Project Number:** PRJ002082
- **Project Scope:** Replace security hardware to improve security and performance for remote users of City applications.
- **Budget:** \$350,000.00
- **Actual:** \$288,947.09
- **Funding Source:** BCIT PAYGO Capital
- **Status:** Deployment



FY25 Requests & Other Projects

Enterprise Implementation of Unifier

- **Description:** Consolidation of environments for DPW, DOT, and DGS, integration with Workday, enterprise reports and Data migration from legacy applications.
- **Benefits:**
 - Shared services to gain economies of scale
 - Enterprise integration functionality
 - Top-down visibility at City and Agency level
- **Estimated Total Cost:** \$6.5M
- **Funding Source:** Capital, operating & utility funds
- **Status:** Testing
- **Target Go Live:** 3/1/2024



Permitting

- **Description:** The City of Baltimore, Department of Housing and Community Development (DHCD) is implementing a system to replace current permitting, inspection, code enforcement and service request management/311 functions. This will replace the legacy CHIP (permitting and supporting 311 calls) and CCE (permitting) systems.
- **Benefits:**
 - ✓ The solution saves time, increases productivity, and connects government agencies to the businesses, professionals, and citizens they serve.
 - ✓ It will move all functions online; removing paper, manual steps and errors, dramatically cutting the time and cost of permit processing so agencies can easily facilitate growth in the communities they serve.
- **Estimated Total Cost:** \$9,750,417
- **Funding Source:** BCIT Capital, agency operating & ARPA
- **Status:** Requirements
- **Target Go Live:** 12/20/2024

Tax Modernization

- **Description:** Consolidation of tax management throughout the City.
- **Benefits:**
 - Transition from an aging and costly infrastructure.
 - Upgrade to a modern SaaS solution that is easier to scale.
- **Estimated Total Cost:** \$17,172,644
- **Funding Source:** Capital and ARPA
- **Project Status:** Requirements
- **Target Go Live:** TBD



CAD Replacement



- **Description:** This project will replace the existing CAD system. Enhancements for the existing system are no longer being developed by the manufacturer. Therefore, a sunseting schedule is forthcoming as the project was originally introduced almost 20 years ago.
- **Benefits:**
 - ✓ Ability to integrate with changing technology.
 - ✓ Improved data communication between emergency communications centers (ECCs) and first responders, and across jurisdictions.
 - ✓ Allows for efficient dispatch operations, ensuring the responding units have access to critical information, making responders safer and the community better protected.
- **Estimated Total Cost:** \$10M
- **Funding Source:** TBD
- **Status:** Requirements
- **Target Go Live:** TBD



Conclusion

Critical Issues Facing BCIT

Lack of continuous IT funding leads to the realization of operational, security, and customer service risks. Continuous investment in IT significantly reduces the City's vulnerability to cyber-attacks and ability to recover, and provides cost-saving opportunities, process improvements and efficiencies for Baltimore City residents.

NEEDS	IMPACT	EXAMPLE
Protection against cyber security-related threats	Mitigates against destructive malware from stopping or halting city services and/or data.	SolarWinds supply chain hack; phishing schemes targeting sensitive information or funds
Updating unsupported infrastructure & aging applications	Updates allow the city to provide timely and accurate critical services to city residents. Unsupported infrastructure & software increases vulnerabilities, which increases our operational risk.	End of Life Systems; cash processing; dispatching of City work crews and first responders
Investments in emerging technologies to leverage efficiencies, cost savings and better services for City residents	Residents and employees benefit from more efficient software systems and increased availability of critical services.	Paymentus online payment system, Web & 311 Chatbot
Better understanding of our data and processes	Minimizes redundancy and streamlines the delivery of services to the citizens.	Tax modernization, permitting & Unifier



Appendix

Technology Translation



People = **DATA**



Planes = **APPLICATIONS**

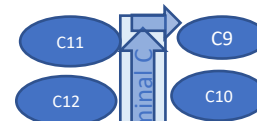


Information Security

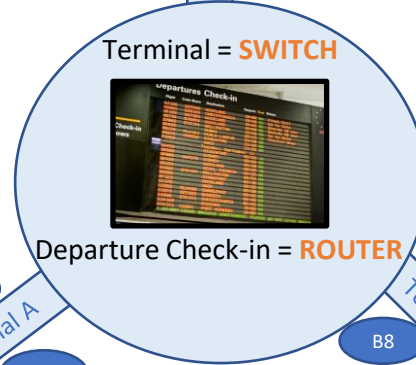
TSA Checkpoint = **FIREWALL**



Gate = **HUB**



Terminal = **SWITCH**



Departure Check-in = **ROUTER**

Infrastructure