CHARLES D. BAKER
Governor

Curtis M. Wood
Secretary

KARYN E. POLITO
Lieutenant Governor

June 30, 2021

The Honorable Suzanne Bump
State Auditor
State House, Room 230
Boston, MA 02133

Chair Aaron Michlewitz
House Committee on Ways and Means
State House, Room 243
Boston, MA 02133

Chair Antonio Cabral
Joint Committee on State Administration
and Regulatory Oversight
State House, Room 466
Boston, MA 02133

Chair Michael Rodrigues
Senate Committee on Ways and Means
State House, Room 212
Boston, MA 02133

Chair Marc Pacheco
Joint Committee on State Administration
and Regulatory Oversight
State House, Room 312B
Boston, MA 02133

Dear Auditor Bump, Chair Michlewitz, Chair Rodrigues, Chair Cabral, and Chair Pacheco:

Pursuant to Chapter 227 of the Acts of 2020, the Executive Office of Technology Services and Security (EOTSS) is pleased to provide you with the enclosed report detailing an account of IT-related project expenditures over the previous 12-month period.

Due to the June 30th reporting deadline, amounts reported in the enclosed report are actuals through May 14th and forecasts through June 30th since final FY20 numbers will not be known with certainty until after the MMARS Accounts Payable period at the end of August.

In FY21, there were 80 active IT projects across the Commonwealth, compared with 67 in the prior year. In total $359M was invested in IT projects in FY21.   Almost $220M was invested in the same period last year.

Executive Office	FY21			FY20		
	Number of projects	Investment ($000s)	% of Total projects	Number of projects	Investment ($000s)	% of Total projects
Health and Human Services	10	$192,910	54%	8	$101,118	46%
Technology Services and Security	7	$52,072	14%	9	$38,455	18%
Labor and Workforce Development	6	$43,294	12%	9	$10,805	5%
Public Safety and Security	12	$19,662	5%	9	$7,472	3%
Transportation	28	$19,092	5%	19	$32,149	15%
Education	5	$16,369	5%	3	$15,978	7%
Administration and Finance	7	$10,843	3%	5	$9,445	4%
Energy and Environmental Affairs	5	$4,998	1%	4	$3,738	2%
Housing and Economic Development	0	$0	0%	1	$430	0%
	80	$359,240	100%	67	$219,590	100%

FY21 Investment activity (projects >$250K)

EOHHS and EOTSS remain the principal investors in IT, accounting for 69% of investments in FY21 compared with 64% in FY20.

I am grateful for your continued partnership with EOTSS. Please feel free to contact Scott Ahern at scott.m.ahern@mass.gov should you have any questions about this report.

Sincerely,

Curtis M. Wood
Secretary, Executive Office of Technology Services and Security

Executive Office of Technology Services and Security

FY21 $250K+ IT Projects Report

June 2021

Executive Office of Health and Human Services	**$192,910,550**

MMIS Modernization $29,142,442

MMIS Modernization seeks to improve services for vulnerable populations (such as Long-Term Services & Support and Behavioral Health) and improve member and provider experience through mobile applications, online self-service options and a provider portal. The project automates current manual processes to improve service delivery and make it more efficient and responsive. It continues the MassHealth Payment Reform (ACO full implementation), which will improve health care quality for the Medicaid population and reduce costs by converting the FFS based structure to one of the three types of ACO models and enhance collaboration between traditional health providers and behavioral health providers through the Community Partners program. The project implements the LTSS Data Repository and Behavioral Health Redesign, which will improve services to vulnerable and under-served populations. The technological enhancements to MMIS are following both industry and CMS guidance to leverage existing resources or implement modular resources that are system agnostic.

Health Insurance Exchange (HIX) Integrated Eligibility System (IES) $145,710,104

The HIX/IES system provides the eligibility determination foundation both for Massachusetts' state-based marketplace (the "Connector") as well as MassHealth's MAGI Medicaid population, under the provisions of the Affordable Care Act. The benefit to the Commonwealth includes more accurate and timely determination of eligibility for Health Connector and MassHealth programs, continued compliance with federal and state policy and regulation, reduced operational and administrative burden on staff, enhanced capacity for program integrity assessments and audits, and overall improvement in programmatic efficiency. Ultimately this results in better and more cost-effective provision of health insurance benefits to residents of the Commonwealth.

Transformed Medicaid Statistical Information System (T-MSIS) - Phase II $6,436,163

Commonwealth T-MSIS data will support in-depth CMS Medicaid analysis of cost and population metrics and provide timely feedback to CMS on Medicaid quality, cost and usage patterns. This information will be used in developing Medicaid program related delivery enhancements to constituents of the Commonwealth. Complete, accurate and timely information reported by T-MSIS to CMS and the Commonwealth's Data Warehouse will be provided to make better decisions and determinations regarding Medicaid costs and services statewide. Data stored in the EOHHS Data Warehouse and reported by TMSIS to CMS is used by MassHealth, Commonwealth Constituents, CMS and states nationwide to reduce Medicaid costs and improve services. Experience gained from the T-MSIS project will be leveraged to implement 837 Post Adjudicated Medicaid Encounter Claims transactions. The project satisfied compliance with federal mandate and allows continued access to federal funds for operating the MassHealth program.

Enhanced Analytics $8,811,858

The Enhanced Analytics project will provide improved and more timely reporting to enable Accountable Care Organizations (ACO) to forecast financials, improve population health management and be accountable for quality outcomes. ACOs directly impact 1.2M MassHealth members and their access to health and welfare programs. This project will replace outdated and end-of-life data servers, which will dramatically improve capacity, availability and performance and enable the Data Warehouse to insource many data, analytic and reporting functions.

Registry of Vital Records and Statistics Digital System Upgrade $458,230

This project provides essential improvements to the outdated and vulnerable technology environment. The scope and costs provide for a fully electronic, inter- and intra-operable Vital Registration and Statistics System (VRSS), electronic document management system, central data base, customer service kiosks and client relations management system that will support the core functions in a cost-effective, secure and customer service friendly manner while reducing redundancies, enhancing workflows, and improving data accuracy and timely reporting.

Integrated Eligibility & Enrollment Readiness   **$1,138,716**

The goal of the Integrated Eligibility and Enrollment (IE&E) initiative is to improve the overall client experience and enhance integration and interoperability among in-scope programs and enhance integration & interoperability between departments. In 2019, the Commonwealth identified five benefit programs: MassHealth/MAGI, Department of Transitional Assistance (DTA), Department of Public Health, Department of Housing and Community Development and the Department of Early Education and Care as needing updating. In December 2019, these stakeholders had prioritized the goal of improving client communications through the Common Noticing Initiative. The IE&E Steering Committee determined that the development of a Common Noticing Solution to improve client communications to be the first priority of the IE&E and for it to support DTA and MH/CCA/HIX.

OneMRC (Massachusetts Rehabilitation Commission Systems Modernization)   **$70,000**

This project is focused on replacing current MRC systems with a consolidated solution, particularly in functional areas such as eligibility, enrollment, case management/coordination, financial management, and internal controls. It provides for a single integrated system for managing MRC client data across all state and federally funded programs such as vocational rehabilitation, state head injury and traumatic brain injury programs. It will produce better data for federal reporting and agency operational management needs.

Department of Transitional Assistance (DTA) Notice Engine Re-platform   **$394,637**

A project to improve the overall client experience and enhance integration and interoperability among the in-scope programs and enhance integration and interoperability between departments.

Virtual Gateway Migration to AWS   **$243,638**

This is the migration of EOHHS Virtual Gateway infrastructure and the over 50 applications it hosts from a private cloud vendor to AWS. The project eliminates significant cost increases (~$2M) from maintaining infrastructure in a private cloud beyond November 2021 and moves applications and infrastructure from aging and difficult to support infrastructure to the AWS. This will facilitate more streamlined maintenance and support for these applications and will result in potential savings of operating costs.

Public Health EMR   **$504,762**

Electronic Medical Records (EMR) Solution for DMH and DPH hospitals to streamline care and operations. This project completes a detailed business process assessment and technology analysis for DPH/DMH EMR. The Electronic Health Record (EHR) in use at DMH and DPH Hospitals need modernization. Since the implementation of MediTech over a decade ago and Meta Healthcare more recently, EHR technology has changed significantly. Today DPH and DMH Hospitals and SOPS face significant challenges related to the age of the Meditech EHR and the stability of Meta Healthcare. The challenges include significant downtime on the Meta Healthcare side which potentially affects patient safety, the lack of interoperability especially with Computerized Physician Order Entry/Electronic Medication Administration Record (cPOE/eMAR), and outcome reporting.

Executive Office of Technology Services and Security   **$52,072,000**

Commonwealth Cybersecurity Investment Program   **$12,238,000**

This is the first half of a 24-month program to enhance the security and resiliency of the Commonwealth and its 351 cities and towns as government operates in a more decentralized manner. It continues to build out the capacity and service catalogue of the Security Operations Center (SOC) and its Security Incident Event Management (SIEM) system. In FY21 internet scanning to identify vulnerabilities and provide end action plans from discovery to remediation were implemented, with further implementations planned for FY22. Multi Factor Authentication was rolled out early in FY21 to strengthen security as most of our workforce became remote, this also allowed for the retirement of the legacy authentication process. The program expanded threat detection to DOT (in FY22 it will be expanded to all executive branch secretariats) and developed threat monitoring dashboards and reporting processes to support information sharing and an expansion of situational awareness. Web filtering was implemented to eliminate spam and phishing threats.

Commonwealth Network Infrastructure Program   **$12,598.000**

This investment, again part of a 24-month program to compel the One Network vision that achieves our continuity and resiliency objectives and provides a standardized Enterprise Voice approach and solution for executive branch agencies. It will achieve a more secure IT infrastructure by moving to a singular, modern, secure network for all executive branch agencies. This further supports our ability to deliver government services, including supporting remote work locations across the executive branch, by implementing Office 365, improving the desktop support service infrastructure and processes, and standardizing the procurement of end user hardware. During FY21 we designed and procured equipment for the One Network Core. EOLWD, ANF and EOPSS were migrated to a consolidated Enterprise Voice platform, and we established a pilot program to leverage MS TEAMS Voice capabilities going forward. We successfully completed the implementation of the application that provides the secure transfer of data in an efficient and reliable manner (MoveIT) and decommissioned the aging and end of life legacy system. Also, in FY21 this program decommissioned a range of MITC mainframe components (Computer Associates) to save ~$3M in annual operating expense over the next three years.

Commonwealth Data Infrastructure Program   **$6,436,000**

This program supports the continued transition to Infrastructure as a Service/Cloud (data and storage) that achieves our full *continuity* and *resiliency* objectives and retires state-owned and operated data centers. During FY21 we migrated 41 additional Commonwealth systems to the cloud, (including the state payroll system HR/CMS) and we continue to work with our agency partners to identify and prioritize opportunities for further cloud migrations (349 applications migrated so far). EOTSS released an Applications Inventory and Migration tool to the Secretariats to identify all business applications (active and inactive) and to create migration/mitigation strategies. Five additional HHS projects to support COVID-19 response were migrated and dashboards were established on Mass.gov. In FY22, we will continue to migrate selected applications (including the CIW data warehouse) out of state operated data centers. HHS will transfer (up to 100 business applications) from its current data center (Equinix) to Amazon Web Services, saving the Commonwealth significant hosting costs. EOTSS will continue to work with EOE to transition their aging Malden data center to a cloud hosted environment, again saving operating costs. The EOPSS data center migration will be completed.

Modern Workplace Program $14,700,000

This investment supports the Commonwealth's remote/hybrid workforce by ensuring all Executive Branch employees are equipped with modern hardware and software that allows for work mobility and meaningful collaboration. It provides the ability to deliver government services from remote work locations. In FY21 the program developed plans for the deployment of devices, and software deployments through self service automation to relieve pressure on Help Desks. TEAMS video conferencing was rolled out to more that 25,000 remote users. We began the migration of personal and shared work files to OneDrive and SharePoint, and the e-mail and archive migrations also began. OneDrive-Group File Share migrations began at ANF, HED, TSS and EEA. 11,032 devices were rolled out to remote locations, with a further 16,000 to be rolled out in FY22. Due to COVID-19 re-prioritizations, device requirements identification and unique technical challenges, this program will continue into FY22. The program is scheduled to be completed in October 2021.

Digital Transformations $500,000

This project ensures that enterprise workflow utilities such as document printing, data digitization - scanning and indexing are updated to better serve new work environments. The project funds integration services for print modernization and planning services for data digitization.

Digital Services $4,100,000

Investments in digital services and systems improve the user experience of government services for the residents, businesses, and visitors of the Commonwealth. This program funds *My Mass.gov*, the concept of the public being able to register and maintain one user account for access to state services. This is an evolving concept across the US, driving towards a more personal experience in which government services are easier to access and improve customer fulfillment. It expands *Mass.gov communication* enhancements, which includes the introduction of AI/ChatBots, voice recognition services such as Siri and Alexa, messaging subscription services, such as SMS and other media. Also includes a *Unified Business Portal* where businesses who need to interact with the state (licensing, incorporations, taxes, education, training) can go–also known as *Business One-Stop.* Also, during FY21 the program leveraged a Data Office to help MassHealth, DTA, EEC, HED, and Mass.gov support the COVID communications program, including the development of the *AlertsMA messaging* application to push notifications to constituents. We have a municipal cyber training program underway. In FY21 EOTSS rolled out a successful vaccination pre-registration site.

Standard Operating Model $1,500,000

In FY21 TSS developed an I*nformation Governance* standard and established the *Risk Management Office*. The program funded the creation of a *Customer Service capability* to proactively manage service delivery expectations across the Executive Branch, including an up-to-date digital *Service Catalogue* to identify all the services provided by EOTSS along with the tools necessary to engage the delivery of those services. We will continue to improve information governance and risk management processes going forward.

Executive Office of Labor and Workforce Development $43,294,775

IT Infrastructure for Department of Family and Medical Leave $39,943,746

Initial setup for Paid Family and Medical Leave infrastructure and staffing for project initiation and stand up of IT and communications applications. Funds procurement of core systems from Fineos Corp, Call Center development and integration and application interfaces development.

Division of Apprentice Standards database re-design Project $452,000

The Division of Apprentice Standards (DAS) is responsible for promoting, developing, and servicing registered apprenticeship programs in the Commonwealth of Massachusetts. This project is to re-design DAS databases and migrate workflows from end-of-life MS-Access and Win7 technologies and to stand up the new licensing application.

Department of Career Services Longitudinal tracking database   **$250,000**

National Longitudinal Surveys (NLS) are a set of surveys designed to gather information at multiple points in time on the labor market activities and other significant life events of several groups of men and women. NLS data have served as an important tool for economists, sociologists, and other researchers for more than 50 years. This project supports the creation of a longitudinal data base for the Massachusetts Department of Career Services.

DUA/DCS Modernization   **$1,162,970**

Initiate a comprehensive transformation and modernization of the unemployment and re-employment operations for Massachusetts. This funding begins the process of planning to create a public workforce system that supports the entire life cycle of "Job-loss to job-gain" for all constituents. This initiative will result in the replacement of the UI Online System and the DCS MOSES application.

DCS Virtual Pathway   **$350,000**

This project funds enhancements to the Massachusetts Department of Career Services JobQuest application to support job seekers' post-pandemic activity.

DIA CMA Application Cloud Enhancements   **$424,000**

Funds third party consultants engaged to support and assist with the Department of Industrial Accidents to migrate workflow application to cloud environments. This will improve performance and resiliency and reduce support costs.

EOLWD's Application Performance Monitoring Tool   **$711,059**

Funds the implementation of an application performance monitoring tool to provide alerting dashboards across all EOLWD Applications. This tool will monitor all vendor service level agreements and provide alerts of "early warning" of application issues.

Executive Office of Public Safety and Security   **$19,661,811**

Public Safety Mass Voice Migration   **$3,000,000**

The infrastructure and telecom systems at the Public Safety locations are in need of replacing. This project updates the infrastructure (cabling) within the facilities and allows for moving the telecommunications services, as provided today, from a capital renewal plan to an operational expense model by moving to the MassVoice cloud environment. This project is being driven and managed by the Secretariat in line with the Article 87 directive of standardizing systems and migrating enterprise-wide systems to the center.

Criminal Justice Reform - Inmate Data   **$1,333,626**

The purpose of this project is to achieve compliance with the operational and data reporting requirements mandated by the Criminal Justice Reform Law (2018). The Criminal Justice Reform Inmate Data project will preserve and upgrade the Configurable Off The Shelf (COTS) solution investments made to date to meet the additional and significant operational and reporting requirements in the new law. The project will build a centralized warehouse of inmate data extracted from Sheriffs, Department of Corrections and the Parole Board databases for analytical reporting required by the law.

Health Check: Centralized Data Collection and Reporting   **$548,000**

The purpose of this project is to achieve compliance with the operational and data reporting requirements mandated by the Criminal Justice Reform Law (2018) and identify a roadmap for the Commonwealth to implement a centralized data collection and reporting system to meet the requirements of the law. An external vendor has been engaged to conduct a project health check of the centralized data collection and reporting project. The health check was conducted over twelve weeks in four stages: Data Discovery; Document Target State; Definition of a Proof of Concept; and the provision of a detailed roadmap and implementation plan.

MSP Electronic File System   **$359,990**
This investment is to purchase an electronic file system for the storage of fingerprint cards at the Massachusetts State Police State Identification Section in Sudbury. This new electronic storage system will allow all the fingerprint cards to be stored in the same location as the Identification technicians. Having the fingerprint cards easily accessible where the technicians are located will improve the speed and accuracy of the processing of criminal arrests and civilian background checks.

Records and Data System Improvements - AFIS Upgrade   **$1,042,105**
This is the upgrade of the Automated Fingerprint Identification System (AFIS) to support a computerized criminal history system (CCH). AFIS, associated hardware and software, will comply with the National CJIS Security Standards and will improve the accuracy and completeness of the state and FBI criminal history record information to be shared with municipal, county, state, federal, and national partners. The project provides real-time information sharing for municipal, county, state, federal and national criminal justice stakeholders in support of the Commonwealth's public safety and homeland security mission.

Public Safety Records and Data System Improvements - OneMatch   **$253,800**
OneMATCH provides criminal record management functionality required by state and federal statute and regulations, including record sealing, record expungement, disposition reporting, and record synchronization for MA State Police. OneMATCH will positively impact all Massachusetts residents and visitors with its enhanced criminal history systems supporting employers' ability to hire, landlords and housing, protecting vulnerable populations and law enforcement/criminal justice services. The system supports over 2 million non-criminal justice background checks annually, while also serving over 600 in-state law enforcement/justice agencies and over 18,000 agencies across the nation.

eSORi   **$833,000**
The Electronic Sex Offender Registry Information (eSORI) system is a service that provides Level 2 and Level 3 sex offender information to state agencies (DYS, DHCD, DPL), community-based organizations (YMCA), employers serving vulnerable populations, and victims/survivors of crimes. This project replaces a manual/multi-system process that provides responses to large organizations and individual requestors with a digital solution.

National Law Enforcement Telecommunications System XML Migration   **$2,000,000**
The new NLETS standardized XML Mandate requires all messages exchanged between the NLETS system and the CTA message broker be fully tagged documents. The work required for the Commonwealth to meet this mandate will be completed in four phases: 1-Switch CJIS Broker and NLETS Communications to NIEM; 2-Generate Body Content Using NIEM XML Specification; 3-EOPSS Enterprise Applications and Systems; and 4-External Clients. Compliance with the XML Mandate will facilitate the exchange of critical information in a more efficient and reliable manner.

Body Worn Cameras   **$6,379,531**
Massachusetts State Police Body Worn Camera Project will provide increased transparency of officer/citizen interactions, quicker resolution of officer complaints and increased professionalism through the use of footage in officer training.

Radio Equipment Upgrade   **$3,233,520**

Project to provide Massachusetts State Police with upgraded radios with increased functionality.

National Guard's Emergency Operations Management System   **$400,000**

This project is to upgrade to Integrated Emergency Operations Management System.   Specific to COVID-19 activations, states are using ISF Inc's National Guard Product to navigate the complexity of tracking and reporting for guardsmen on numerous mission types at the same time.

Computer Aided Dispatch Services Upgrade   **$278,239**

This is an upgrade to the Computer Aided Dispatch services to implement a common agency wide system making regionalization easier and improving communications for Police/EMS/Fire and 911. The North Shore Regional 911 Center communities support migrating to Tritech from the previous vendor. This funding is to migrate the data and to train the Police/EMS/Fire and 911 personnel on how to use this new product.

Executive Office of Transportation $19,092,361

Cyber Security 360 - Development and Management   **$696,238**

This program offers an opportunity to establish a solid foundation for the management of risk in the organization in relation to our compliance requirements and the governance required to maintain DOT processes and policies. Improved cyber security posture, reduced legal liability. Creation of a program to manage risk and compliance.

MassDOT IT FY21 Disaster Recovery Program   **$382,078**

The MassDOT board has requested that MassDOT IT build a disaster recovery capability. This project will create a significant proportion of that capability. Ability to operate key systems in an alternate environment during a disaster situation, leading to reduced risk of downtime, and improved resiliency. In FY21 the disaster recovery plan created in FY20 was refined, and key disaster recovery capabilities for the Atlas and (credential vendor) Idemia Corp platforms were added, along with the implementation of a pilot for a full disaster recovery environment.

Atlas Migration and Disaster Recovery   **$1,630,629**

In conjunction with the FY20/FY21 DR plan key disaster recovery capabilities for the Atlas platform were added. This project will create a significant proportion of requested DR capabilies specific to the RMV Atlas platform.

MassDOT PCI DSS 3.2.1 2021 Audit   **$320,495**

This project tracks the effort and expenses related to the MassDOT PCI DSS 3.2.1 Audit for 2021, including independent cybersecurity experts (Coalfire Corp) for Penetration Test, Risk Assessment and the Audit Report on Compliance. The scope of work will include scans, prep, risk assessment, network diagrams, and remediations. This is required 2021 PCI audits and remediations, risk assessments, updating Policy and Procedures, and if necessary or identified, planning and process for future years.

MassDOT Server Refresh 2020   **$856,376**

This is the upgrade of the end-of-life server infrastructure with up to date, high performance servers and software with more efficient, reliable systems that are compatible with the latest technical environments (Vmware (a product) for example). This will position DOT for the next five years for expected growth while reducing ongoing operational expenses.

Asset Inventory Management   **$456,393**

The primary objectives of the project are to better manage IT asset inventory by providing the ability to scan assets, record and retain them in a database. There is a need to properly track, identify and manage across MassDOT. The project provides a process and procedure to prevent loss or visibility into State owned IT assets. It will provide the ability to assign assets to users, track them during their lifecycle, ultimately off-board them at end-of life, and manage assets not tethered to the MassDOT network by implementing a new method of scanning assets. This will also improve asset governance to ensure accurate reconciliation of real assets to the asset registers.

MassDOT IT State of Good Repair (SGR) Program FY21   **$1,071,318**

This project replaces aging hardware and end of life software and applications while continuing to maintain reliability and security within the DOT. The need is to quickly provide services/equipment to the Commonwealth by maintaining reliable technology standards.

FY21 Laptop Refresh   **$395,207**

This project is to replace of end-of-life laptops and modernize the MassDOT workforce to keep the workforce up to date with laptops that meet and properly support remote working.

ITS Core Switch Upgrade   **$422,469**

Approximately 18 communications switches in the Highway Operations Center are end of life. This project presents the opportunity for the HOC to upgrade to more serviceable and modern switches.

Desktop Refresh for DLID Stations & Idemia DocAuth upgrade 3.5   **$496,118**

The current Driver's License ID workstations including monitors that are located in all the RMV service centers and all AAA centers are end-of-life and out of warranty. This investment is to replace the customer monitor and upgrade the current third-party vendor (Idemia) software installed on the workstations. The Idemia software has not been updated since 2016 hence we are currently not benefiting from several upgrades. Idemia will be responsible for removing the old workstations

QA Automation Environment and Tool Expansion   **$348,143**

Project to procure and migrate from IBM's older Rational RTF platform to SmartBear's Cucumber Studio, both automated functional testing and regression testing tools to support IT initiatives. This will support a dedicated Quality Assurance team and modern toolset that effectively and efficiently review development tasks and outcomes through automation tools.

Document Management/Storage Planning & Execution   **$772,169**

MassDOT is seeking to reduce physical records and paper processes to both reduce cost and risk through more efficient, virtual ways-of-working. A critical component to achieving these goals is the reduction of paper processes and adoption of effective document management processes.

ServiceNow PPM - Upgrade   **$253,544**

The objective of this project is to migrate back to out of the box version of ServiceNow Project Portfolio Management module, and leverage newer configuration capabilities, ensuring a fully updated, supported tool for project managers and business owners to effectively monitor and report on projects. ServiceNow PPM is the primary tool used to manage all MassDOT IT projects.

MassDOT Future of Work Initiatives Program   **$1,164,704**

The objective of this project is to make in-person and remote work effective for MassDOT resources. The goal is to meet the needs of a remote and in-person work environment with a flexible and efficient model from a technology standpoint, to strengthen the work experience, improve Communications, and expand digital tools.

RMV OPMI Dashboard, BI Governance, and Analysis Services $1,548,889

This investment is to create an interactive management dashboard for key RMV performance metrics. During this project a roadmap was developed defining the approach and timelines for a comprehensive Management Dashboard. The objective is to continue with additional features and enhancements to the interactive management dashboard used by Office of Performance Management and Innovation (OPMI) and its partners for key RMV performance metrics.

Enterprise Content Management – Feasibility, Integrations, Governance $1,287,862

Investment to create an electronic file sharing capability for collaboration with our external partners, and to establish a series of procurements related to managing content across MassDOT enterprise resulting in increased storage, electronic signatures and contract specification tools.

VueWorks Phase 4 - Maximo Migration $303,679

A project to migrate Highway Department assets from a legacy asset management system (Maximo – an IBM product) to a more modern platform (such a VueWorks Inc products). Typically, assets include Fleet Management and Highway Inventory Management. Consolidating all Highway assets into one system will reduce cost, and provide improved interfaces, and streamline technical support efforts.

Office of Real Estate and Asset Development Solution Implementation $518,191

This investment supports OREAD's efforts in abstracting and confirming key information and documents for revenue-generating agreements. Contract price adjustments are required to account for market changes in the prices for liquid asphalt, Portland cement, diesel fuel, gasoline, structural steel, and reinforcing steel. Today's process is somewhat manual, using a variety of sources and means.

Highway: Commodity price adjustments $275,108

This is an extension of OREAD's commodity price solution to the Highway Department. This project seeks to automate much of the process to improve efficiency, accuracy, and timeliness of processing commodity items.

iMessaging Implementation $482,545

The objective of this project is to replace current notification systems with the Everbridge platform. The Everbridge solution provides the functionality that is required for normal business operations. The project will meet modernization standards that provides an efficient, effective solution for the Highway Operations Center long term.

Highway: DCD-contract amendments-phase 2 $1,377,295

Update applications to track and maintain records for infrastructure assets across the Commonwealth. Through a series of application enhancements and re-platforming, updated business processes will be enforced electronically resulting in better data collection and leading to efficient data driven decision. The result will be the elimination of a multilayered older technology that is proving to be more and more difficult to support and maintain.

Audit Operations Modernization $875,180

Implementation of external audit application solution and audit operations modernization to create enhanced data analytics and automation of audit and RMV work processes. Automation will improve efficiency, improve reporting, and provide advanced data analytics

Legal Case Management Phase 3 $330,558

The objective of this project is to add enhancements to the Salesforce Legal Case/Matter Management system (LCMS) used by the MassDOT and the MBTA shared Legal services departments. It will provide technology-enabled processes for managing and tracking important legal mail and correspondence within the Legal Case Management System (LCMS). Key benefits include increased timeliness, consistency, and accuracy in responding to reporting needs, improved workload management and increased insight into overall MassDOT and MBTA claim and litigation exposure.

Drone Mission Management Program – Data Lake Enhancement $549,500

The Massachusetts DOT Aeronautics Division Drone Program is currently executing a strategic roadmap to support the use of drones to drive value to the Commonwealth of Massachusetts. This project provides the ability to utilize drone-produced data, imagery, and artifacts across multiple agencies to drive value safely and efficiently. Also extend integration with MassDOT's GIS platform; supports robust search for and access to drone data and imagery; enables the use of tool-based analytics such as PowerBI (an analytical tool) and enhances the drone flight mission planning workflow.

Re-Platform ProjectInfo - Phase 1 Discovery $694,807

This project is for requirements gathering and evaluation of existing technology options. The goal is to maximize staff efficiency through effective deployment of state-of-the-art technology and to discover areas where MassDOT IT can deliver projects faster with more reliably, and the ability to support remote work (Future of Work).

Digital Signatures Support $544,260

This investment identifies key paper-based business processes in various MassDOT organizations and develops a plan to transform these processes to leverage digital signature technology. It will identify target processes within each organization and develop a prioritized, actionable roadmap to transform these processes, leverage already existing Commonwealth investment, help retire other operating expenses, and to integrate into existing platforms and apps through Accounts Payable. Adobe Sign purchase and rollout will be a standard tool for enabling electronic signatures across the Secretariat.

MassDOT Crash Data Research and Solution $369,951

The objective of the project is to review, refine, and categorize existing requirements and conduct research in order to find a solution to replace MassDOT's Crash Data application. The research gathered will build high-level priorities and develop parameters to prioritize strategic requirements for a final solution. It will replace a homegrown application with a more modern, out-of-the-box solution that aggregates and provides critical information to the Registry of Motor Vehicles, MassDOT Highway Division, MassDOT leadership, Law Enforcement Agencies (LEAs), Executive Office of Public Safety and Security (EOPSS), state and federal leadership, and citizens on car crashes across the Commonwealth. It will include a complete external and internal solution scan to identify industry leading solutions that not only meet state and federal crash date reporting and analysis requirements but also consider how the solutions align with MassDOT's culture and technology strategy and supports MassDOT's data ecosystem.

Salesforce for Aeronautics Project Management $668,658

The MassDOT Aeronautics Division will replace its current *Aurigo Masterworks* project management system with the more robust Salesforce (a vendor) application. This project will provide a project management database to the Aeronautics Division to effectively manage over 100 projects with over $50M in annual expenses. It will enhance functionality in the Capital Funding Program, Project Management Office, Registration Programs, Badge Security as well as other critical business services.

Executive Office of Education $16,639,413

EOE Background Records Check $5,937,016

This investment implements a system to perform enhanced background checks on all childcare providers. This includes changes to uniform infrastructure and data interfaces to allow each agency that performs background checks to do so quickly and efficiently by leveraging the same data and using streamlined processes and automated workflow.

EOE Integrated Digital Data System   **$4,030,243**

The goal of IDDS is to provide the Commonwealth with a secure and cost effective, standards based educational platform and application portfolio that connects data and user experiences across all education agencies, birth to career. This project funds the development of a secure and modern data repository to provide more timely and useful educational information to educators, administrators, and the public. This is a multi-year project and will be completed by FY25.

Early Education and Care: EEC Quality Account-CCDBG   **$4,850,154**

The Child Care and Development Block Grant (CCDBG) provides subsidies to assist low-income families in obtaining childcare so that parents can work or participate in education or training activities. This project implements new software to upgrade end of life systems to support new federal mandates.

Infrastructure - Virtual server replacements   **$1,002,000**

This investment replaces a unified virtual server (Cisco Unity and EMC Array (products)) with a full solution upgrade and migration services from the existing platform into the new platform solution. This improves security in the Malden data center, where the current leased solution is at end of life. Keeping the equipment up to date allows EOE to comply with the EOTSS security standard.

Public Higher Education Cybersecurity Grants   **$550,000**

This is a five-year program to assist campuses by providing a comprehensive review of cybersecurity protocols across the Commonwealth community colleges and state universities. The purpose of this effort is to develop a coordinated approach to maintaining, monitoring and supporting effective cybersecurity technologies and practices across the public higher education system. It will identify recommendations for addressing the most critical gaps in the short and long term, including opportunities for leveraging campus expertise and capacity through collaborative governance including shared purchasing of key resources and tools, and planning for future vulnerability assessments.

Executive Office of Administration and Finance $10,843,243

DOR COMETS HD   **$6,739,631**

Implementation of DOR's child support enforcement system. This project includes costs for the integrator (Accenture), IT consultants, IV&V services, and the virtual contact center. The funding supports implementation of a secure, user-friendly child support system integrating all child support functions. This investment will support improved performance and customer service; a flexible, secure and stable system, and improved responsiveness to DOR's business needs. The program, which started in October 2012, will be completed by June 2021.

GIC Member Experience Transformation & Modernization   **$1,549,880**

Implementation of Group Insurance Commission's (GIC) Member Experience Transformation Initiative. This project is a result of the GIC's strategic planning process to review the entire range of agency goals and objectives and identify actions to transform and modernize. The project includes costs for implementing Salesforce software and DocuSign products as well as additional configurations/enhancements. It will result in updated and more efficient business processes to support GIC operations; automated processing of current paper-based, manual processes; improved communication tools and customer service to empower members to make informed health and wellness decisions, and an infrastructure to better serve municipalities.

Mass Budgeting Application Cloud Migration   **$383,821**

Implementation of A&F's cloud instance of its Mass Budgeting Application (MBA). The MBA supports a web-enabled annual spending plan and next-year budget development process for 156 agencies. This project includes costs for software and implementation. Upon completion, the project will reduce IT costs; improve scalability and business continuity; increase inter-agency collaboration and provide access to automatic software updates.

DCAMM New Program Management Information Solution   **$332,147**

Implementation of DCAMM's e-Builder solution, which is a cloud-based, construction Program Management Information Solution. DCAMM's PMIS will collect and use project information to help project managers plan, execute and close their projects. This project includes costs for software and implementation. Its benefits include centralized project information; web-accessible reporting; streamlined communication to support collaboration amongst project teams, and a progress audit trail for stakeholders.

State Library Digitization   **$652,640**

The State Library staff continue to digitize Commonwealth documents, reports and legislative material, adding to the existing electronic repository (*DSpace*). *DSpace* is open-source software provided by MIT. This project will continue until all documents have been digitized. The goal is to increase user self-service (24/7 online access to Library resources means users no longer must travel for conducting research); increase efficiency (by reducing the volume of calls for assistance, while allowing staff to focus on more complex inquiries); reducing preservation costs because staff will no longer have to handle original documents, which are mostly in manuscript form.

Replacing end of life "Load Balancers"   **$685,127**

Load Balancers are computer devices that distribute IT tasks over a set of resources with the aim of making their overall processing more efficient. Load balancing can optimize the response time and avoid unevenly overloading some compute nodes while other compute nodes are left idle.   A&F IT is replacing end-of-life load balancers with new F5 load balancers. This will improve network traffic across services, enhance processing performance and customer service. Operational cost can be reduced while achieving business efficiency gains.

Department of Revenue "Data Lake"   **$499,997**

A Data Lake is a system or repository of data stored in its natural/raw format, usually object blobs or files. A&F IT and DOR are conducting a cloud implementation of an enterprise data lake in Amazon Web Services. This will create the ability to store and process vast amounts of data at low costs to enhance data mining and business intelligence capabilities.

Executive Office of Energy and Environmental Affairs   **$4,998,097**

EIPAS - Environmental Information and Public Access System   **$830,000**

The Energy and Environmental Affairs (EEA) Information and Public Access System (EIPAS) is a Secretariat-wide Information technology modernization project which enables EEA to be more flexible and agile in providing capabilities to drive better public access, information gathering, improved organizational effectiveness and centralized business intelligence, reporting and analytics through the design and development of EEA's next generation technology platform.

Electronic Permit & Licensing   **$2,188,607**

This program stems from the directive for an ePermitting solution using an enterprise application platform. Through EEA's alignment to this strategy, this multi-year initiative will consolidate new business processes and retire hundreds of paper forms and associated manual processes and reduce overall operating costs. The result enables an online permitting solution supporting all Secretariat business units with a quicker speed to market for constituent engagement.

Network Modernization   **$338,157**

This multi-year program, closing in FY21, establishes a standard technology architecture to modernize and secure EEA managed data assets and improve network/telecommunication services across hundreds of EEA locations. The Network Modernization capital project has been EEA's initiative for moving sites that are off MAGNet onto MAGNet - the secured, EOTSS-managed network.

Application Rationalization and Innovation Strategy $1,052,755

This program aims to identify the EEA critical legacy end-of life application footprint and strategically align applications to accomplish agency goals. Along with the application rationalization, this program aims at improving upon our agencies' business processes in support of increased efficiency and improved citizen engagement. These data-centric application solutions will operate on industry-standard and supportable platforms that enable EEA to manage permitting, licensing, compliance, and enforcement activities. The key benefit of this program centers around the retirement of legacy technology debt through the development of new solutions within configurable and available technology platforms. This undertaking, as planned, lowers the cost of operating legacy applications, and improves EEA staff capability to serve citizen needs through improved processes and application technology.

PFAS Program $588,578

In order to comply with the regulations around Per- and Polyfluoroalkyl Substances (PFAS), an emerging contaminant, the Commonwealth has increased the requirements for both public and private water supplies for PFAS sampling, testing, and reporting in public and private drinking water supplies. Several of EEA's drinking water data systems will require modifications to meet the new reporting requirements and to properly respond to the emerging public health concern. This program aims to make required changes to eDEP forms and back-end systems to support emerging drinking water testing rules for PFAS and other unregulated contaminants, and to allow labs that now submit Drinking Water Testing results to also submit testing results for unregulated contaminants, including PFAS via eDEP. Additionally, this project will address the need for Wastewater and residuals data to be submitted electronically to MassDEP.