



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS  
**DEPARTMENT OF ADMINISTRATION**

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January 31, 2020

The Honorable Gina M. Raimondo  
Governor  
State of Rhode Island  
State House - Room 115  
Providence, Rhode Island 02903

Re: Enterprise Technology Strategy and Services ["ETSS"] Annual Report

Dear Governor Raimondo:

Pursuant to Rhode Island General Laws § 42-11-2.8 (c), the Department of Administration hereby submits the attached ETSS Annual Report.

Sincerely,

Brett Smiley  
Director  
Department of Administration

BS/bk

Enclosures

c. The Honorable Dominick J. Ruggerio, President of the Senate  
The Honorable Nicholas A. Mattiello, Speaker of the House of Representatives



# ENTERPRISE TECHNOLOGY STRATEGY AND SERVICES (ETSS) ANNUAL REPORT 2019

State of Rhode Island, Department of Administration

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## About

The Enterprise Technology Strategy and Services (ETSS) formally includes the Division of Information Technology (DoIT) and the Office of Library and Information Services (OLIS) (Figure 1). DoIT is organized into six towers that help drive its strategic goals and improve agency service levels. OLIS is responsible for developing programs that support and advance library services in the State.

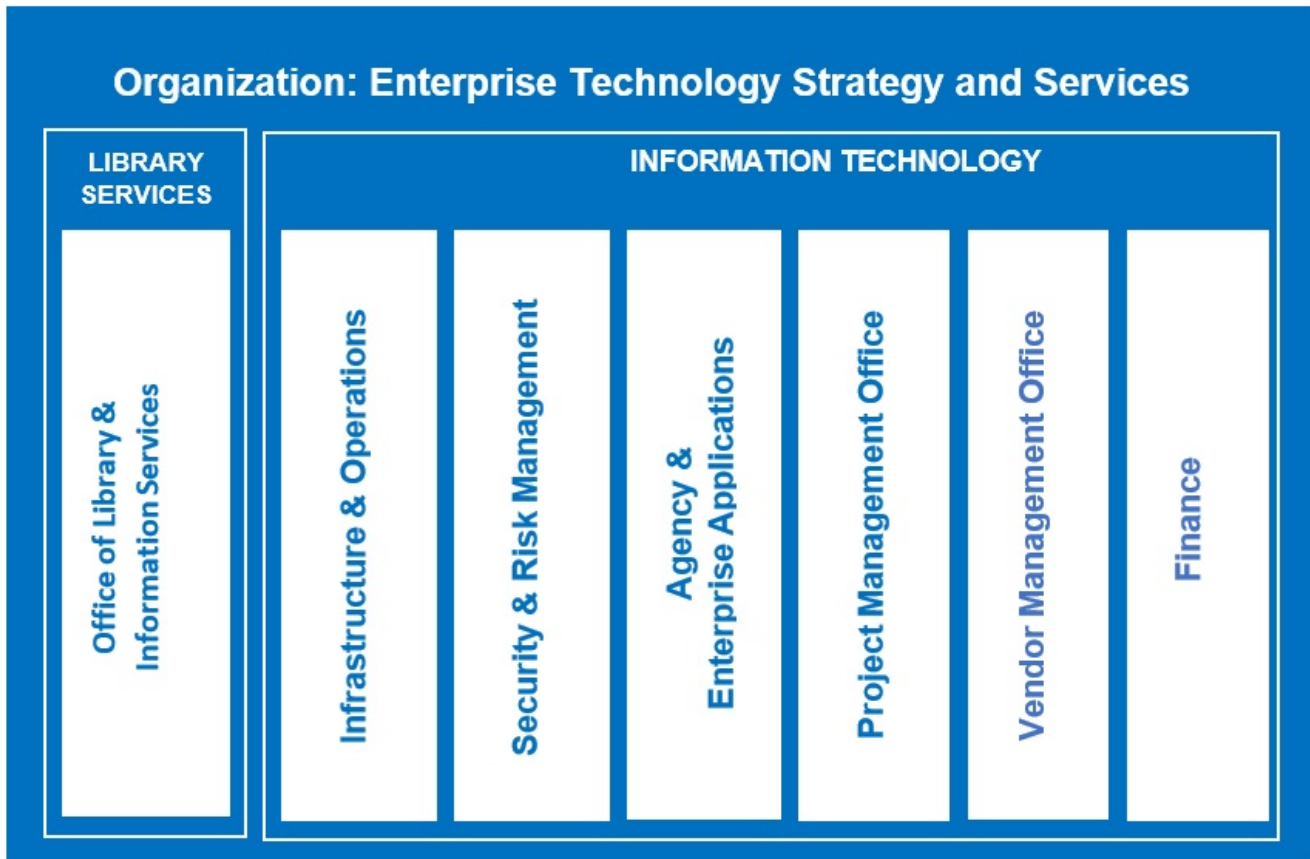


Figure 1: ETSS Organization

Bijay Kumar, the State's Chief Information Officer (CIO) and Chief Digital Officer (CDO), joined the State in July 2017. A continued focus on people, processes and technology have empowered the Division to better address the technology challenges facing the State. This leadership energy and renewed focus continues to manifest itself in improvements to DoIT's organizational structure and strategic assessments of State applications and technologies. The CIO/CDO continues to conduct ETSS all-hands meetings, quarterly leadership offsites and structured weekly meetings. This enables the organization to maintain a shared structure and vision, improve team morale and continue making advancements.

ETSS is critical to the functions of State government. It includes managing IT projects for the Executive Branch and the day-to-day technical support, software installations, system security and

computer upgrades for State employees. ETSS is also responsible for ensuring that our technology and infrastructure are stable. In addition to these functions, the past few years have seen a steady increase in agency requests for new technology.

The Project Management Office (PMO) was established in 2017 and has implemented a standardized reporting platform to track all IT projects. The IT Governance process which evaluates, prioritizes and funds projects has been streamlined and unified.

The Vendor Management Office was established in February 2018. It reviews and negotiates both existing and new contracts and has saved the State millions of dollars since inception.

A Chief of Enterprise Applications and Agencies was hired in March 2018 whose responsibilities include strengthening IT centralization, with major focuses on enhancing partnerships with the State’s agencies and digitalization.

A Chief Financial Officer for the Division who was hired in 2018, has allowed us to monitor, track and account for all expenses and work proactively with agency chief financial officers to provide enhanced financial transparency.

With 197 employees in all, DoIT is tackling technology challenges with a smaller workforce than our neighboring states (as indicated in the chart below). This is measured on both a per-capita basis and as a proportion of overall State IT workers, making it important to strive for sustainable, enterprise solutions.

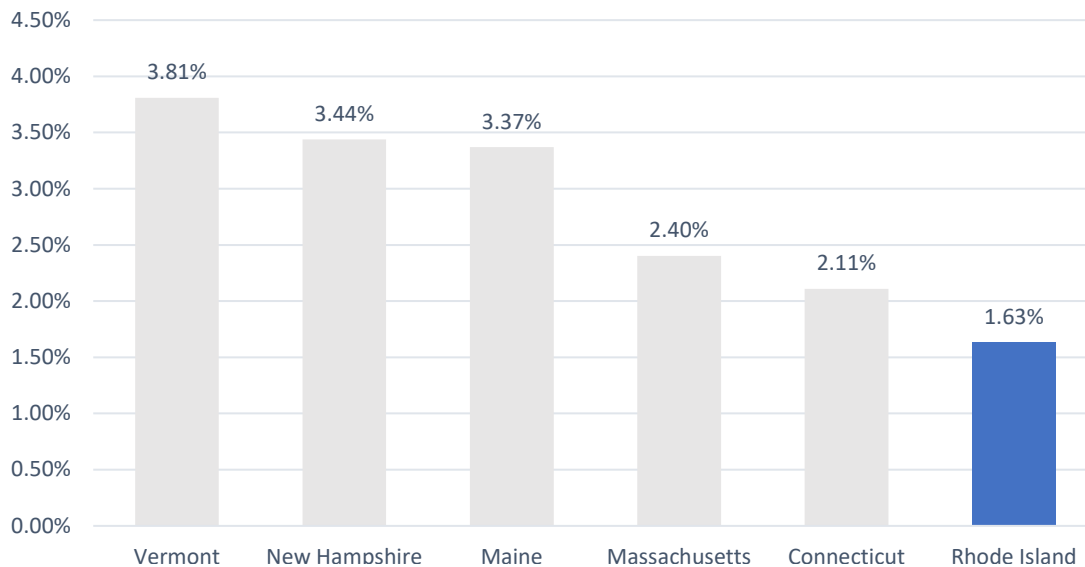


Figure 1 - IT Staff as % of Per-Total State Government Employees

DoIT has had to adapt and deliver scalable technology solutions that meet the demand for modern direct services. These solutions enable employees to better manage resident data, replace paper with digitized services, and communicate more effectively. DoIT is committed to incorporating lessons learned from prior projects and investing in the solutions that improve the lives of residents.

The following table lists the agencies supported and assisted by DoIT. “Agencies Supported” denotes agencies that have a DoIT Agency IT Manager (AIM) and technical staff that directly support their applications and employees. “Agencies Assisted” denotes non-Executive Branch agencies (Secretary of State, Lieutenant Governor’s Office, etc.), independent Executive Branch agencies (Executive Office of Commerce) and independent agencies (Board of Elections, Ethics Commission) who use the State’s technology infrastructure and occasionally receive direct IT support from DoIT Staff.

**AGENCIES SUPPORTED BY DoIT**

1. Department of Administration
2. Department of Behavioral Healthcare, Developmental Disabilities and Hospitals
3. Department of Business Regulations
4. Department of Children, Youth, and Families
5. Department of Corrections
6. Department of Environmental Management
7. Department of Health
8. Department of Human Services
9. Department of Labor and Training
10. Department of Revenue
  - Division of Taxation/Revenue Analysis
  - Division of Municipal Finance
  - Division of Motor Vehicles
  - Central Collections Unit
11. Department of Transportation (DOT)
12. Executive Office of Health & Human Services (EOHHS)
13. Governor’s Office

**AGENCIES ASSISTED BY DoIT**

1. Board of Elections
2. Coastal Resource Management Council
3. Commission on Deaf and Hard of Hearing
4. Commission on Disabilities
5. Department of Revenue - Lottery
6. Division of the Public Utility Commissioner
7. Ethics Commission
8. Executive Office of Commerce
9. Human Rights Commission
10. Lieutenant Governor's Office
11. Office of the Child Advocate
12. Office of the Health Insurance Commissioner
13. Secretary of State's Office

## Digital Government

Rapid technological advances have raised our residents’ expectations. They want the same convenient, personalized experience from government that they receive when planning a trip or shopping online.

Digital Transformation refers to resident-driven strategic government transformation that requires cross-cutting organizational change as well as the implementation of digital technologies.

With this in mind, DoIT has engaged in a wide range of resident-centered digital transformation efforts. The foundation of this process was to define digital themes for the State and focus efforts across enterprise and agency initiatives around the themes.

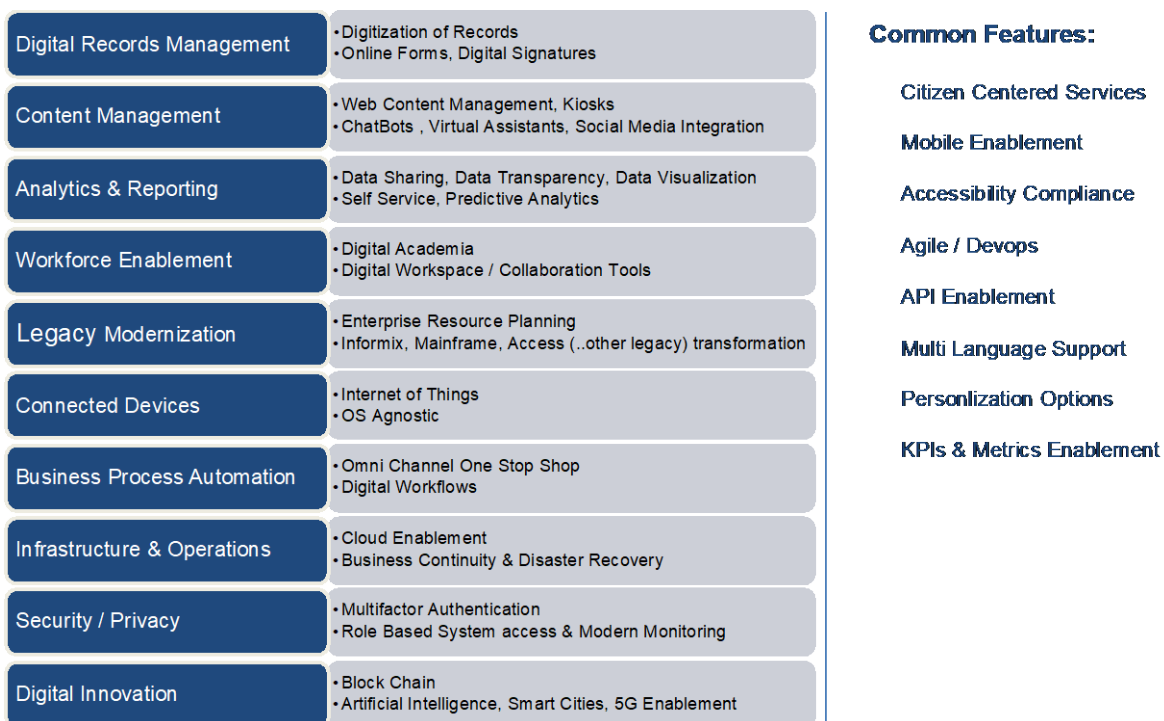


Figure 3: Digital Themes

## Strategic Drivers

The National Association of State Chief Information Officers (NASCIO) conducts an annual survey of every state technology leader in the U.S. to identify the top policy and technology issues facing governments. Priorities rise and fall every year. For example, networking has steadily fallen as a priority over the last decade as states have implemented redundant high-speed connections and wireless access for employee and residential customers.

Similarly, as states have deployed more digital services, the capabilities and interest of malignant actors seeking to disrupt these services and steal data have increased, as well. As a result,

security and risk management has been on the priority list of national chief information officers for last several years and topped the list in 2019.

ETSS actively follows national trends to inform its overall strategic drivers. In 2019, our strategic priorities were aligned with those of other states. A discussion of those priorities and drivers and the work done to address them are described below.

## 1. Digital Web Services

The State of Rhode Island webserver (SORIWEB) hosts approximately 90 active websites that serve a variety of agencies, offices, departments and other government entities. Websites affiliated with RI.gov are the digital front door of State agencies. As such, these sites provide valuable information to residents regarding each agency's overall mission and accomplishments. Also, they present relevant and timely information to a wide range of audiences.

The Web Services Team is responsible for supporting the agencies' legacy websites, the Learning Management System (LMS), and proprietary applications, such as Dreamweaver, Wufoo, Tableau and Google Analytics.

### *Website Launches*

Created with the new Rhode Island Brand and Style Guidelines, the following ADA/Section 508-compliant websites were launched in 2019:

- **DCYF** – <http://www.dcyf.ri.gov> - Provides a wide range of resources to support the Department's mission of partnering with families and communities to raise safe and healthy children and youth in a caring environment.
- **Ocean State Procures** – <https://www.ridop.ri.gov> - Ocean State Procures is the State's new eProcurement system that delivers a full "procure-to-payment" process.
- **Apply RI** – <http://apply.ri.gov> - The new site is ADA compliant and adheres to the State's new Digital Brand Guidelines. In addition, the site leverages a robust social media sharing toolkit and provides direct promotional opportunities via Facebook, LinkedIn and Twitter.
- **DoIT** – <http://www.doit.ri.gov> - The complete redesign of the website provides information on the State's ongoing investments in software, networks and services. Specific information includes the DoIT mission statement, details regarding the six DoIT towers and general contact information. The website also highlights DoIT's initiatives with State agencies and work for the general public.



- **State of Rhode Island Employee Handbook** – <http://www.employeehandbook.ri.gov>
- **State Properties Committee** – <http://www.statepropertiescommittee.ri.gov/> - The new website promotes the activities of the Committee and provides increased visibility of its initiatives, regulations and data in a format that is ADA/Section 508 (Title II) compatible.

### Multi-Agency/Vendor Partnerships



Figure 4: RI Children's Cabinet website

The Rhode Island Children's Cabinet – <http://kids.ri.gov> - Governor Gina M. Raimondo announced on October 28 that kids.ri.gov had been redesigned as a parent-focused website, providing resources on early childhood education and development from prenatal to Pre-K. The enhanced website was made possible through a one-year federal preschool development grant. The entire grant provided more than \$4.19 million in 2019 to strengthen Rhode Island's birth–5 system.

### Web Development Projects Underway and Priorities for 2020:

- Department of Environmental Management/University of Rhode Island migration of RI Stormwater Solutions website
- Department of Corrections (DOC) redesign
- DOC Correctional Industries Site redesign
- EOHHS.RI.GOV migration from current DotNetNuke CMS to SORIWEB
- Executive Office of Health and Human Services – No Wrong Door (NWD) initiative

- Accessibility audit and review for redesigned exceed.ri.gov
- Office of Healthy Aging (OHA) redesign
- Department of Behavioral Healthcare, Development Disabilities and Hospitals redesign
- Office of Energy Resources – Community Solar Market Place
- Board of Elections redesign
- State Offices/Weather & Closings site

### *Microsites/Services*

In 2019, the Web Services Team completed dozens of site enhancements and Microservice initiatives. Samples include:

- **REAL ID Informational Site** – <http://www.dmv.ri.gov/realid/>
- **GIS-based Freight Finder App** – <http://www.planning.ri.gov/ri-freight-finder/?#home>
- **Analytics Initiative** - Google Analytics/Tag Manager integration
- **Dynamic Forms via Wufoo**

### *Service and Support*

Along with the creation of the public-facing websites above, the Web Services Team completed an average of 76 service requests per month. These tactical, time-sensitive service requests and complex web-based initiatives included:

- Creating robust contact and registration forms with secure administrative interfaces which allow agencies to intuitively review and download data.
- Publishing monthly UHIP Status Reports on <http://www.transparency.ri.gov>.
- Completing 1,052 content updates on over 40 State websites.
- Offering 24/7 availability for time-sensitive updates to Governor Raimondo’s website (<http://www.governor.ri.gov>) and posting severe weather/closing information, and personnel matters (<http://www.hr.ri.gov> and <http://www.admin.ri.gov> )
- Designing and implementing logos, images and other digital media.
- Organizing and conducting web design and development training to agency content authors to ensure clear digital objectives, content integrity and rapid delivery of website enhancements.
- Supporting products and applications used by State agencies and providing consulting services.

### *Rhode Island Interactive Partnership*

**Rhode Island Streamlined Sales Tax (SST):** The “Wayfair Case” allows states to realize sales tax revenue from companies that may not have a physical location in the State. In order to collect this tax revenue, states must comply with standards set by the Streamlined Sales Tax Governing Board. These technical standards allow companies to remit their sales tax filing information and payments electronically via a webservice. The Division of Taxation launched the State’s new SST filing system in January, ensuring that the State can realize this vital stream of tax revenue.

**Unclaimed Property Payment System Launches:** In February, Rhode Island Interactive partnered with the Office of the General Treasurer to provide online payment processing for the new Unclaimed Property Platform offered by a third-party vendor, Kelmar Associates. Transaction information is sent to our secure common checkout pages which collect and process payment details. After a successful payment, the user is directed back to the platform and is emailed a receipt, completing a seamless user experience. Custom reports were also created that will be used to update the platform and assist the Office in reconciliation.

**New Central Collections Unit:** The Department of Revenue recently created the Central Collections Unit (CCU), which is exclusively charged with collecting unpaid debt on behalf of all Executive Branch agencies and departments. In April, Rhode Island Interactive utilized the NIC AppEngine service to rapidly facilitate an online payment option for CCU and an over-the-counter payment solution.

**Online Retest Payments:** Licensed professionals can go online to view their scores on the many regulatory tests necessary to gain or maintain a license. If a user did not pass a test, they can immediately register to take the test again and pay the retest fee online. The system complements the growing functionality of the Department of Labor and Training’s professional license portal that already accommodates fast and easy renewals for licenses.

**Mandatory Online Tank Renewals:** For more than five years, owners of facilities with underground storage tanks (USTs) had the option of renewing their tank permits online. Due to the enhanced access fees necessary to underwrite the cost of credit card payments, the service was vastly underutilized. Only a fraction of the State’s nearly 1,500 tanks were being renewed through the service. In order to gain the efficiencies associated with online transactions, the Department of Environmental Management (DEM) offered to underwrite the per-transaction added cost of each renewal. The Department then instituted new rules requiring tank owners to use the online service. The revamped service launched in late August.

*Service Deployments*

<b>Project</b>	<b>Launch Date</b>	<b>Types</b>
Hunting & Fishing Self-Service Trapping License and Fur Harvest Reporting	10/29	ENHANCEMENT
SI-1 Lienholder Batch & Vehicle Make List Updates	9/17	ENHANCEMENT
Underground Storage Tanks Fee Modification & Other Changes	9/11	ENHANCEMENT
Change of Address - Removal of Plate Design	9/9	ENHANCEMENT
DLT Retest Payments	8/29	NEW
Business Tax Payments: Hard- to-Dispose Rate Change	8/15	ENHANCEMENT
Driver's License Renewal Change Request	7/31	ENHANCEMENT
Burrillville Vital Records	7/29	OTC/VR
New Subscriber Portal Page	7/25	ENHANCEMENT
DMV Online Services Tech Fee	7/21	ENHANCEMENT
Hunting & Fishing Voided Order Report	7/10	NEW
Registration Renewal Change Request	7/8	ENHANCEMENT
Hopkinton Waterline Payments	6/5	NEW
Tax Portal Web Service	6/3	NEW
Vanity Plate - Antique Plate Addition	4/25	ENHANCEMENT
Central Collections Unit Online Debt Payments	4/24	NEW

SOS Point-of-Sale Voucher Updates	4/24	ENHANCEMENT
Hunting & Fishing Custom Reports	4/10	ENHANCEMENT
Treasury Unclaimed Property Payment Processing	3/25	NEW
URI Campus & Commuter Plan Request Forms	3/19	ENHANCEMENT
Hunting & Fishing SSMA Permit	2/20	ENHANCEMENT
Westerly Vital Records	1/18	OTC/VR
SST Tax Web Service	1/18	NEW
DOC Training Application	1/9	ENHANCEMENT
Ethics Filings Online 2019 Changes	1/1	ENHANCEMENT

### *Key Activities in Progress*

#### **Enterprise Content Management**

The State is in the process of reviewing an open, scalable, intuitive, accessible, responsive and user-centered enterprise Content Management System (eCMS) that will not only consolidate all Executive Branch agency static websites, but also empower State employees to provide quality digital services and content.

### *Completed*

#### **Agency Outreach**

- Introduced eCMS and its benefits/capabilities to all Executive Branch agencies.
- Created a preliminary list of pilot agency candidates.
- Continued to foster enthusiasm and buy-in for eCMS.
- Prepared agencies to determine their site goals, functional requirements and content review process.

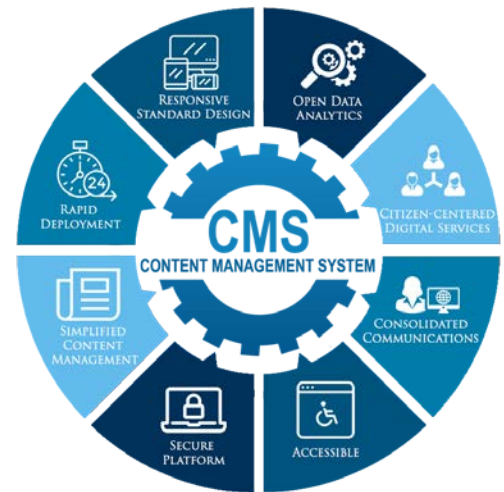
### *Underway*

#### **Executive Branch Agency Content Audit Initiative**

The Web Services Team is providing all State agencies with detailed site maps and offering content audit training to remove content that is deemed redundant, obsolete or trivial (ROT); audit functional elements; ensure content quality; and evaluate analytics. The primary goals of the Executive Branch agency content audit initiative are to prepare agencies to shift to eCMS, complete an inventory of agency pages and documents, calculate bandwidth needs, and generate a list of common functional needs.

### *Advantages of eCMS*

- Exceed resident technological expectations
- Build resident engagement and trust
- Improve content integrity and reliability
- Consolidate multi-channel messaging
- Improve search engine optimization and analytics
- Provide rapid deployment
- Foster interagency digital collaboration
- Facilitate rapid, reliable and effective customer support
- Better connect Rhode Islanders to government services
- Deliver world-class digital services with limited State resources



## 2. Data Management and Analytics

DoIT partners and works with the Executive Office of Health and Human Services on an Integrated Data System called EcoSystem. State agencies maintain significant and complex data; however, analyzing real-life issues requires an integrated view of data.

DoIT spent significant time on data governance around usage, sharing and technology to streamline data acquisition, consumption and analytics in a secure manner. Data is integrated and curated at the State's EcoSystem warehouse in the State Data Center. Self-service Business Intelligence (BI) tools and analytic products give users a powerful interface to view data. PowerBI is a tool used for dashboards, data exploration and SQL table access for advanced queries.

Completed projects include:

1. MAT Enrollment: Completed study on factors influencing enrollment in life-saving treatment for opioid use disorder; moving to national publication.

2. Three Active Contract Management Projects: Medicaid (AEs and MCOs), developmental disabilities consent decree and DCYF group homes and prevention providers.
3. Developed powerful, new dashboard for DCYF to track youth in placement.
4. Ecosystem data supported DOH's risk tiering for birth screening.
5. Budget initiative analysis and revenue estimation.
6. Youth inpatient psychiatric analysis with Medicaid and Policy Lab at Brown University.
7. Refreshed and revised Medicaid key performance indicators metrics.
8. Analysis of the Temporary Assistance for Needy Families/Rhode Island Works (RIW) members with the Department of Human Services.
9. Breast cancer screening effectiveness analysis with DOH.
10. Evaluation of Preschool Development Grant (PDG) Year 1 and evaluation lead for PDG Phase II

Legal: Developed a new suite of legal documents to cover statewide internal and external data sharing.

#### Analytics

- Introduced machine learning approaches to studies.
- Added formal statistical evaluation and research capacity.
- Initiated data sharing with external partners (Policy Lab at Brown University, Boston Federal Reserve).

#### Integrated data sets

- 2.2 million unique individuals; 5.3 million records across data sets.
- Expanded outside the Executive Office of Health and Human Services by adding Department of Labor and Training data back to 2010
- Added new Department of Children, Youth and Families case management and intake data.

#### Technical accomplishments

- Automated person matching algorithm and reduced total run time from eight hours to 30 minutes.
- Improved accuracy of person matching algorithm through refined matching and ID persistence.

- Reduced full monthly EcoSystem load time from four days to two days.
- Completed security risk assessment.

#### APCD

- Main data source for Governor's Cost Trends/Total Spending Benchmark group (funded by the Peterson Foundation).
- Dozens of ad-hoc analyses and several new external users of individual-level data.

#### Team

- Established a community SharePoint site with key materials available.
- Added key skillsets
  - Data engineer
  - Statistical developer
  - Developer
  - Architect
  - DBA
  - Deputy Director

### 3. Key Digital Initiatives at Agencies

ETSS undertook significant efforts in 2019 related to legacy modernization. DoIT improved several of the State's systems by transitioning them to new applications. They include:

#### *Division of Motor Vehicles: State to State Enhancements*

Launched on June 3, State to State is an American Association of Motor Vehicle Administrators (AAMVA) initiative to electronically enforce one driver license or identification card per person. The State to State Verification Service is one of the Department of Homeland Security's requirements for Rhode Island to become REAL ID compliant. The Division of Motor Vehicles (DMV) has issued over 120,000 REAL ID credentials since December 2018.

#### *DMV: Free customer WiFi access*

The DMV began offering free WiFi access at its Cranston location in September. The connection page immediately takes the customer to our available online services. Additionally, the



free WiFi will keep customers engaged during extended wait times. In the first two months of use, there were 6,000-plus unique devices connected to the service.

#### *Division of Taxation: BI Reporting*

Completed in June, the Business Intelligence (BI) Reporting displays data from the State Tax Administration and Revenue System (STAARS) via dashboards for Division leadership. Revenue-estimating reports that had required programming were generated with the dashboards and reports this year.

#### *Division of Taxation: Tax Payer Portal*

The Tax Payer Portal went live in June, providing taxpayers with the ability to file most returns electronically, make payments, apply for Letters of Good Standing, perform compliance checks, review payment history and renew licenses. To date, over 4,700 business are registered to utilize the portal, and over \$9.3 million has been collected via the portal.

#### *Department of Labor and Training: Imaging Systems and Transition to Digital*

In April, the Department of Labor and Training's imaging system was upgraded and allows additional divisions to eliminate hard-copy forms. The immediate benefits are the elimination of manual tasks, simplification of overall business processes, streamlined and automated separation and classification of documents, removal of data entry, and integration between the lines of business at DLT.

Two additional projects have improved Temporary Disability Insurance (TDI) processes. The first is TDI Paperless eFax routing which automates workflow processes and eliminates paper documents. The second is eAlert which automatically sends email notifications to clients about the status of their claim, decreasing the amount of phone calls to the call center.

#### *Department of Health: Childhood Lead Poisoning & Asbestos Surveillance System*

DoIT transitioned the childhood Lead Poisoning and Asbestos Surveillance System from software to a web-based application.

#### *Department of Health: National Electronic Diseases Surveillance System*

The system helps public health agencies accept electronic data exchanges from healthcare systems and enables health departments to create and send standards-based case notifications to the Centers for Disease Control and Prevention (CDC) for National Notifiable Diseases Surveillance System (NNDSS). Currently, jurisdictions can send case notifications by using different standards to the CDC. This data is utilized by the Department of Health's Division of Preparedness, Response, Infectious Disease and Emergency Services and CDC.

#### *Department of Health: Implementation of a Traumatic Brain Injury Registry*

The Division of Community Health and Equity monitors traumatic brain injuries reported to all area hospitals. The registry supports DOH's requirements to monitor and report TBIs, track the prevalence of traumatic brain injury in the State, identify survivors of TBIs and connect them with community-based services and support, promote prevention, and inform policy.

#### *Department of Human Services: Rhode Island Veterans Home*

This project will implement full electronic medical record capability at the Veterans Home. This will involve enhancing the current system with electronic medical administration reports, treatment tracking, certified nursing assistant charting, vital signs, immunization records, infection control, rehabilitation records, skin condition and full electronic document management. DoIT has completed the planning and analysis phase and will begin project execution in the first quarter of 2020.

#### *Department of Human Services: RIBridges*

The RIBridges to Internal Revenue Service (IRS) interface was designed to enable a monthly data exchange with the IRS to collect unearned income data. This, in turn, can be used for eligibility determination. The interface and accompanying processing were activated in September.

#### *Department of Human Services: Office of Healthy Aging's Adult Protective Services*

A major expansion to the Office of Healthy Aging senior assist management system has enhanced the workflow of the Adult Protective Services unit; enable compliance with federal reporting requirements; and allowed for better tracking and reporting on the client population enable it to meet federal reporting requirements and allow the APS unit to better track, serve and report on client population. The project went live on October 30.

### *Department of Children, Youth and Families: Foster Child Care Licensing*

The application process for a foster care license was all paper-based, and the approval process for foster or adoptive parents could take months. [Binti](#) is a next generation suite of technology solutions designed to help foster care professionals do their job more effectively and efficiently. The process can now be done online, allowing for faster turnaround of applications. The project is in flight.

### *Department of Children, Youth and Families: Rhode Island Children's Information System (RICHIST)*

Web-enabled RICHIST successfully launched in September, with staff using laptops in the field. This allows staff to look up information in the field, input information during site visits and work more efficiently by having information at their fingertips. DCYF is currently distributing more laptops to field staff who will utilize the web-enabled RICHIST.

Significant modifications were made to the RICHIST system to support a change in child welfare practices by using new assessment tool. The assessments were built into the system and has changed the way the agency looks at family risks/needs.

### *Department of Behavioral Healthcare, Developmental Disabilities and Hospitals: Remote Location Network Upgrades*

In 2019, DoIT upgraded the network connects at 26 group homes and to Eleanor Slater Hospital – Zambarano Unit. The improved network speed was needed to implement new applications and productivity software.

### *Department of Behavioral Healthcare, Developmental Disabilities and Hospitals: Behavioral Health Online Data*

BHOLD 2.0 is a data collection system used by Division of Behavioral Healthcare providers to input encounter and assessment data for mandated federal reporting. The project included legacy data migration, provider bulk upload capability and reporting.

### *Department of Behavioral Healthcare, Developmental Disabilities and Hospitals: Incident Management System*

The legacy incident management system, called the Occurrence Reporting System, was decommissioned. A new SaaS incident management system called the Therap General Event Reporting (GER) system was procured. The new system records and tracks reportable incidents

involving individuals who receive services from BHDDH's Division of Development Disabilities (DDD) and Division of Behavioral Healthcare (DBH). All DDD and DBH providers have been trained and are using the new Therap system.

### *Department of Behavioral Healthcare Developmental Disabilities and Hospitals: Case Management System*

BHDDH is replacing its legacy DDD Admissions and Financial Informix systems with a new SaaS case management system from Therap. The new system was procured using the State's Request for Proposals process. The first phase of the project, which was completed in 2019, included demographics, eligibility, referrals, case notes, assessments, priority lists and secure in-system communications. The second phase of the project includes individual service plans, budgets, service authorizations (over 200 million authorizations annually), purchase orders, service data collection and provider claims.

### *Building Moves*

In 2019, we closed the Pinel building and moved computers and networking equipment to the Adolf Meyers (AM) building. Most of the office move time in 2019 was spent planning for the Hazard to Simpson Hall and Barry Hall move; the Regan building renovation; and the new satellite office at Landmark.

### *Eleanor Slater Hospital: Omnicell Automated Dispensing Cabinets*

The primary objectives of implementing the Omnicell cabinets were to improve patient safety, improve workflow efficiencies, provide greater security and accountability for all medications dispensed, and manage medication inventory more efficiently. Post-implementation meetings with nursing and pharmacy staff have confirmed that these objectives have been met. There is universal agreement that processes have been improved with the implementation of the Omnicell cabinets.

### *Eleanor Slater Hospital: Anywhere RN*

The Omnicell Anywhere RN software allows nurses to remotely make order requests, return medications and document any necessary medication overrides before they withdraw medications from the cabinet. This enables a faster, simpler, safer process for removing and dispensing. Using Anywhere RN allows nurses to perform their medication management tasks away from the cabinet via their computer workstations.

### *Eleanor Slater Hospital: 3M Online Coding*

The project allowed for electronic medical procedure code lookups used in medical billing and documentation. It reduces manual procedures and increases efficiency.

### *Eleanor Slater Hospital: Asset Tracking Software*

This project replaced an end-of-life bar code system to comply with the Joint Commission on Accreditation of Healthcare Organizations' requirement for monitoring fire extinguishers and other safety-related assets within the hospital.

### *Department of Environmental Management: Unified Hunting and Fishing Licenses*

In 2018, the hunting and fishing license systems were a disparate combination of online services and paper-based systems. A new system in 2018 combined all license types and tags and stamps into one online system that is available to customers and vendors. Customers now are able to consolidate multiple licenses, permits, tags and stamps on one document that is accessible online. From 2017 to 2018, DEM saw a 33% increase in license applications.

### *Department of Administration: Ocean State Procures*

Rollout of the new eProcurement system continued through 2019. In the fall, vendor registration was brought online which provides a central registration portal for vendors. As part of order management, the State will begin the process of paperless invoicing to streamline operations and improve efficiencies.

### *Department of Administration: Data Migration of Legacy Workers Compensation System to Third Party Administrator*

DoIT and the Workers' Compensation Division migrated the data from a legacy application to a third-party administrator, who is handling workers' compensation claims for the State.

### *Department of Transportation: Oracle Financial Management System Upgrade*

The Department's Oracle ERP System upgraded its system to the latest supported version of 12.2.8. The Department utilizes the following modules: Oracle Grants Management, Oracle Inventory, Oracle HRMS, Oracle Time and Labor, Oracle Accounts Receivable, Oracle Purchasing, Oracle Account Payable and Oracle General Ledger.

### *Department of Transportation: Oracle Financial Management System– Equal Employment Opportunity Compliance Report*

A comprehensive, streamlined process was implemented for the financial management system for the Office of the Civil Rights to deliver required Equal Employment Opportunity reports to the Federal Highway Administration. Previously, the Office of Civil Rights used a manual process to collect data from multiple data sources, such as Excel files, NeoGov reports and financial management system data. This data had to be reconciled to identify and monitor the workforce composition, agency utilization and progress towards Equal Employment Opportunity compliance goals before creating the federally required report. The new process reduces months of data and reconciliation.

### *Department of Transportation: Truck Tolling*

The Office of Performance Management received a database to store truck tolling data. Tableau is the analytical platform to review and analyze data.

### *Department of Transportation: Project Management Portal Enhancements*

Three major project management portal enhancements were implemented to improve processes, system efficiencies and digitization.

- Attachment feature implemented to allow documents to be uploaded anywhere within the Construction Management Module (CMS).
- Business approval processes for Request of Change (ROCs) and Request for Information (RFI) within (CMS) were changed which required a change in (CMS) reports.
- Project finalization forms were created to eliminate the paper-based process of closing out projects. Online (PDF) forms were introduced.

### *Department of Business Regulation: Medical Marijuana*

Enhancements to the medical marijuana platform continue to evolve. This year the digitization of homegrown tags, licensing for hemp and MMJ testing labs, and law enforcement inquiry capability went live.

### *Department of Business Regulation: Blockchain Technology*

An RFP was issued inviting the blockchain industry to submit proofs of concept applying this technology to improve or enhance State government operations. Forty-eight responses were received from 32 vendors. The review team has selected ideas from multiple vendors to provide the State with demos on solutions that include DMV titling and registration, public finance, digital identity, business registration and licensing and MMJ product labeling. A few of these ideas will be selected to stand up their solution and allow State agencies to experience and work with blockchain in testing environments.

### *Department of Business Regulation: ePermitting*

Rhode Island continued to expand the Statewide ePermitting Platform in 2019. The platform is now live in 30 municipalities and three State agencies. The Department of Transportation, Coastal Resources Management Council, and four additional municipalities will introduce the ePermitting platform in the next six months.

In addition, the Department of Business Regulation used the platform to implement the statewide mobile food establishment registrations. The registrations allow food truck operators to get inspected once by the State Fire Marshal instead of having to be registered in each municipality in which they want to operate.

### *Department of Corrections: Inmate Phone System*

The goal of procuring an inmate phone vendor is to provide effective communications tools for inmates, control inmate telephone use and limit the use of the telephone system for fraudulent activities. The Department of Corrections implemented the new system on May 31. This new updated system allowed for voice-over IP, video visitation, special phones for disabled inmates, a better voice-recording system for investigations and ease of use.

### *Department of Corrections: Integrated Library System*

The Adult Correctional Institutions' Central Library provides comprehensive library services to the inmate population. For the Central Library to optimize administrative and operational procedures, it was imperative that the Department of Corrections initiate a fully integrated library system, automate daily operations and streamline electronic cataloging of the Central Library Office. Each facility has completed its inventory and barcoded all materials.

### *Department of Corrections: Central Distribution Center Inventory, Warehouse Management System*

The Central Distribution Center (CDC) is responsible for the purchase of food and janitorial items and other supplies to warehouse and redistribute/sell to State agencies and school districts. The new system reduced a lot of manual tasks and allows employees to focus on other tasks.

### *Unified Health Infrastructure Project (UHIP)*

In 2011, the UHIP project was launched in order to establish Rhode Island's exchange (health insurance marketplace) under the Affordable Care Act. After launching the exchange, the UHIP project was expanded to establish a single integrated eligibility system (RIBridges) for virtually all public assistance programs in Rhode Island.

RIBridges encountered significant challenges at go-live resulting in the launch of turnaround and stabilization efforts. As of 2018, significant progress had been made toward establishing project governance and stabilizing the system.

In 2019, the RIBridges system underwent significant defect fixing and enhancement to stabilize the system and complete functionality that was missing at the initial launch. The program management team implemented mature governance processes to ensure efficient and safe delivery of these system fixes and changes. As a result, the following accomplishments have been reached in 2019:

- The system incident backlog has been reduced by more than 90% since February 2018, from almost 6,000 to approximately 300.
- The system defect backlog has been reduced by more than 50% since January 2019, from approximately 1,000 to approximately 500.
- The system has undergone significant infrastructure upgrades, including migration to a newer version of Linux (server operating system) and completion of network segregation for significant system-enhanced security.
- For the first time since go-live, the State's IV&V vendor indicated that the overall UHIP project health was "green" in August. By September, all project health indicators were "green."

## **4. Enterprise Applications Strategic Planning**

The State of Rhode Island contracted with Accenture through an RFP for an 18-week engagement (Aug. 5 – Dec. 11) to develop an Enterprise Applications Strategic plan and business case to upgrade its current enterprise applications. These applications consist of the following:



- HRIS/HCM Applications including time and attendance
- Payroll
- Finance (enterprise financial applications including Grants Management)
- Applications supporting the enterprise applications

“Enterprise Applications” refer to technology-enabled tools that support business processes common across State agencies. In certain cases, institutions of higher education, municipalities and non-Executive Branches of government also use these applications.

The Enterprise Applications Strategic Plan is the foundation for Rhode Island’s multi-year effort to transform its enterprise technology and business processes to better meet the needs of the State, its residents and its partners. The State wants to improve efficiencies, integrate multiple systems, automate manual processes, increase the quality and timeliness of data, and replace and modernize its current enterprise technologies.

Rhode Island is among 12 states that do not have a modern Enterprise Applications system. Of those, six have active modernization Enterprise Applications projects underway. The objectives of modernizing obsolete Enterprise Applications will:

- Reduce risk
- Enable new capabilities
- Address audit findings

New and modernized Enterprise Applications will deliver top quality services for our residents.

## 5. Collaboration Technologies

The ability to collaborate effectively in the workplace and remotely enables the State to efficiently execute projects and meet deadlines. In 2019, ETSS partnered with the Microsoft 365 Success Team to deploy and enable innovative and industry-leading Microsoft 365 productivity tools. That partnership and the dedicated efforts of the ETSS staff have resulted in the enablement of over 8,500 Skype for business user accounts, over 900 OneDrive user accounts, and the adoption of over 136 SharePoint sites to date.

The footprint of this collaboration will continue to grow as work is being finalized on vendor-supported deployment, training and an adoption plan for full enablement of the Microsoft 365 suite for Executive Branch agencies by the end of the first quarter 2020. Remote accessibility of this suite will be configured and managed by the ETSS security and operations teams, providing authorized users the ability to work and collaborate on-the-go without compromising security. The integration

of these innovative tools into the State's business processes will undoubtedly transform and maximize workforce productivity and efficiency.

## 6. Customer Relationship Management and Service Management

In 2019, we continued fostering customer trust through frequent engagement and improved communication. Regular meeting cadences with agency directors and leadership staffs were executed. These meetings ranged from weekly status and monthly strategic meetings to quarterly meetings that include the State's Chief Information Officer. This collaboration has led to better financial planning, short- and long-term project goals and roadmaps that include the agencies' visions for the future.

DoIT also implemented ServiceNow, a service delivery tool and ITSM-based solution. The first phase, which was deployed in November, included the following:

- Transitioning of the incident management process from Cherwell over to ServiceNow.
- Implementing a change management process, targeted to minimize disruptions to IT services by providing a systematic approach to control the life cycle of all changes.
- Introducing the self-serve portal, providing users with the freedom to request services anytime, from any device and get automated status updates to ensure expectations are met.

The second phase of the ServiceNow implementation will focus on establishing baseline operational service level metrics and the implementation of a service catalog. The IT service catalog is a list of products and services provided by DoIT to our agencies/users. It includes requests for IT-related hardware, software and applications currently in use. These services will be made available to our users via the self-serve portal.

In 2019, DoIT resolved approximately 65,500 service desk tickets across all supported agencies. Through ServiceNow, DoIT will be able to further improve customer satisfaction and relations.

## 7. Security and Risk Management

Security and risk management achieved measurable progress in 2019. With full commitment from State leadership, ETSS committed resources to ensure that the data processed by the IT infrastructure is appropriately protected by assuming a risk-based security posture. The development and execution of a security defense-in-depth strategy has resulted in measured improvements across the enterprise. For example, the user and awareness training program realized

a 37% increase in the rate of user participation. This program trained users on the correct methods to identify and report suspected phishing emails, resulting in over 7,250 user-reported emails.

IT security infrastructure improvements continued in support of the State's defense-in-depth strategy. Security tools and methodologies, such as multifactor authentication, web-application firewall, information security continuous monitoring, security incident and event monitoring, and network access control continue in their implementation to better protect the State's data and IT infrastructure. Through collaboration with the ETSS vendor management office, security and risk management are now a staple in the IT vendor selection and contract process, ensuring vendor accountability. Risk is also mitigated Statewide through proactive lifecycle replacement of unsupported IT infrastructure, operating systems and software, such as the upgrade of over 4,700 Windows 10 workstations.

ETSS continues to support the State Cybersecurity Strategy published in 2019 through active and collaborative participation in the Joint Cyber Task Force (JCTF). The JCTF and ETSS security team continue training, advising and assisting State and local entities in cyber-hygiene best practices, as well as serving as the primary cyber incident responders for the State.

## **8. Identity and Access Management**

With the progression of application modernization and the enablement of a more agile and mobile workforce, identity and access management are required as an integral component of ensuring that only authorized users can authenticate to their networked resources. To this point, ETSS is leveraging our current investments in Microsoft to enable identity and access management in our established Microsoft 365 tenant. This effort will lead to enhanced capabilities, such as conditional access, enhanced user auditing, and single sign on. In a major improvement to our remote access security posture, multifactor authentication is enabled for State VPN users. These enhancements not only enable seamless user accessibility, but also provides layered security to the user authentication process to access the State network and its resources.

## **9. Infrastructure Consolidation and Optimization**

We are still fully operating under the IT consolidation, integration and coordination mandate of Executive Order 04-06. Every Executive Branch agency we support leverages the ETSS enterprise virtual platform to host their most critical applications in production, with now over 1,100 individual virtual servers in operation. Built on VMware's industry-leading hypervisor vSphere, this

virtualization platform allows production workloads to achieve high availability and fault tolerance. In 2019, we realized the goal of having full active directory forest consolidation of every ETSS-supported agency in the Executive Branch. In addition, the last of the individual agency Data Centers was migrated to the Enterprise Operations Center, further advancing the IT consolidation efforts.

Entities, such as the University of Rhode Island, Community College of Rhode Island, Turnpike and Bridge Authority, Department of Education, State Police, Office of the Secretary of State, Office of the General Treasurer, and others, now leverage the ETSS Enterprise Operations Center (EOC) for their systems as a co-location, or fail-over site. In 2019, those agencies' footprints have increased at the EOC.

## 10. Cloud Services

The EOC is the State's premier data center and holds a Tier II designation. We continue to heavily leverage this investment for most Executive Branch production system workloads. It serves as the backbone of our private cloud infrastructure. In 2019, the ETSS infrastructure and operations team made significant investments in hardware and software for our centralized on-premises infrastructure.

Consisting of over 140 individual server hosts, enterprise-class IP networking and storage area networking, this private cloud architecture enables the virtualization platform leveraged by critical Executive Branch applications. It will allow the expansion of our private cloud offering into a hybrid cloud (private/public) or extended data center model. The benefits of this model of cloud operations include reducing risk by providing high availability and disaster avoidance, increased reliability, scalability, and reduced time-to-market for systems and services. The State is also leveraging external cloud services (Secure Government Tenant-based) for certain enterprise applications. These applications include the full Microsoft Office 365 Productivity Suite, the Division of Purchases' eProcurement system, the online Learning Management System, the ServiceNow ITSM Tool and others.

In 2020, the State will continue its digitization journey with a "Cloud Smart" focus and strategy that will position us and all the agencies we support to leverage the most efficient applications and service delivery methods.

## 11. Disaster Recovery and Business Continuity

In 2019, the Enterprise Operating Center (EOC) and agency support teams expanded the scope of the previous year's disaster recovery test, adding two more agencies. Once again, the team was able to successfully recover all in-scope systems along with our Enterprise Base Operating Virtual Platform that is leveraged by over 95% of all production systems supported by DoIT. This resilient platform provides assurance to agencies that their designated Tier 1-hosted applications, systems and services within the EOC Private Cloud Infrastructure can be restored in the event of a disaster within their stated recovery time objectives. A complete redesign of our disaster recovery methodology is planned for 2020, which will allow the recovery platform to become more agile and capable, as our digital footprint has been expanding exponentially to meet customer IT needs and demands.

## 12. Networking and Telecommunications

The backbone of modern enterprise IT infrastructure is a robust, resilient and redundant data and telecommunications network. The ETSS network and telecommunication team has worked to build the State network to ensure that resident business is executed with little to no interruption. In support of this effort in 2019, over 81 network distribution switches were installed or upgraded, and more than 22 network routers were installed or replaced. Additionally, ETSS supported Statewide efficiency efforts by supporting the migration of network and telephone infrastructure and services of 10 agency locations, and installed network and telecommunications infrastructure and services to operationalize 12 new agency locations. Two major initiatives are ongoing to modernize the telephone and data infrastructure: a Statewide telephone replacement vendor evaluation and selection, and a core network switch replacement project. These projects will result in a more stable and efficient network and telephone infrastructure that are ready to support the State in implementing next generation business technologies and processes.

The network and telecommunication team continues to pursue innovative solutions to the modern challenges of delivering services to a networked workforce. An example of this is the delivery of State data and voice services to the geographically challenging locations of Prudence Island and the Carolina fish hatchery using a device that securely routes data over the commercial cellular network.

### **13. Broadband/Wireless Connectivity**

As demand for mobile workforce enablement grows, ETSS continues to evaluate workspaces and demand capacity, resulting in the configuration and installation of 109 secure, wireless access points within multiple State offices in 2019. Work to upgrade the wireless hardware infrastructure has begun, ensuring the infrastructure required to support the growing mobile demand is robust and resilient. The ETSS team continues to partner with strategic vendors to explore innovative ways to leverage broadband and wireless technologies, such as 5G, to expand the State's mobile data, voice and first responder capabilities. With an eye on mobile-capable applications, work is ongoing to ensure that State-procured mobile devices are modern and managed with robust mobile device management tools. Continuous network bandwidth and wireless consumption analysis is performed to ensure that the increased mobile presence is supported with a resilient network backbone.

### **14. Mail Operations**

All U.S. Mail received from the Enterprise Messaging Center, the Computer Center, various State entities and some municipalities are processed by the Enterprise Mail Facility. It is barcode sorted and sent to the USPS (all on average) below the cost of a regular piece of first-class mail. Proper mail piece design by the mailroom decreases the postal operation costs to the State. In 2019, savings totaled \$720,728.25. A barcode sorter enables application of all postal discounts afforded to a large mailer. On average, 1 million pieces of mail a month are processed at this facility.

Enterprise Messaging Center couriers support various State agencies by delivering interdepartmental correspondence and processing outgoing U.S. Mail. Approximately 2,000 mail items are processed daily, including incoming USPS mail for One Capitol Hill. This activity presents cost savings to the State by forgoing the normal mailing of these packages, which, on average, would cost \$1 each.

### **15. Enterprise IT Governance**

A defined security governance framework was implemented. An update of the enterprise policy library is underway for alignment with the selected NIST Cyber Security Framework in order to accurately document policy, procedures and operational guidelines. The Audit Working Group consisting of representatives from Executive Branch agencies meets regularly.

An approved IT project approval policy was implemented, which defines the governance process for all IT projects. This includes the Project Review Board, the Architecture Review Board and the IT Governance Council. All have clear guidelines and requirements, including tracking and reporting (Appendix A).

## 16. Project and Portfolio Management

Since its establishment, the Project Management Office (PMO) has improved IT governance processes, tracked all IT projects and completed weekly status reports for each active project. The PMO has maintained an average of 50 projects throughout the year and has completed 26 projects. A breakdown on completed projects by agency can be found below in Figure 5.

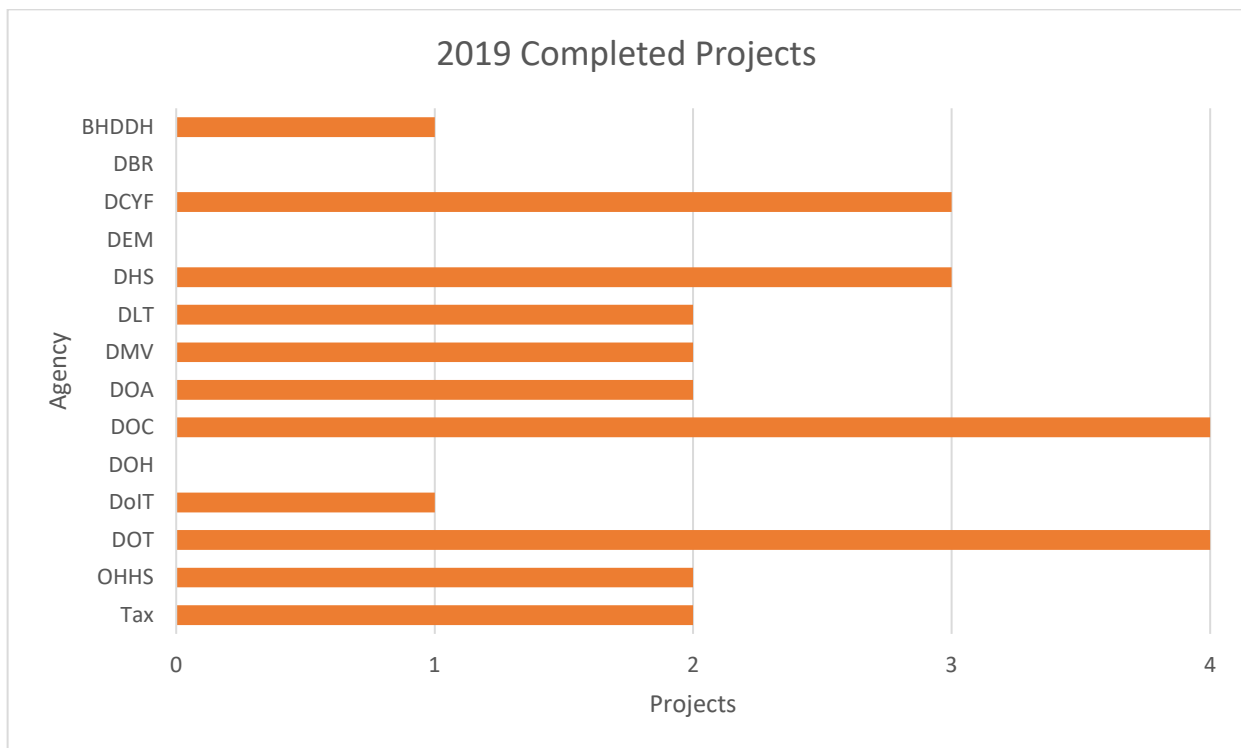


Figure 5: 2019 Completed Projects

Driven by lessons learned from past and existing projects, strategic analysis and agency need, a more structured and formalized project review and approval process has been implemented (Appendix A). The Project Review Board and formal governance process serve to review and prioritize IT projects from across Executive Branch agencies. The purpose of these reviews is to ensure that IT projects comply with standards and policies, are initiated with proper IT staff assigned and are driving strategic enterprise goals. The PMO is currently tracking 36 active projects, nine of which are for DoIT, with the remaining 27 projects spread across 11 agencies. The full list of active projects can be found in Appendix B.

## 17. Vendor Management

The IT Vendor Management Office (VMO) was established in 2018 and is responsible to enable efficient and effective procurement of third-party IT services.

The focus has shifted to speed and execution by improving IT sourcing processes, agreement templates, best practices and better alignment with stakeholder priorities and demands.

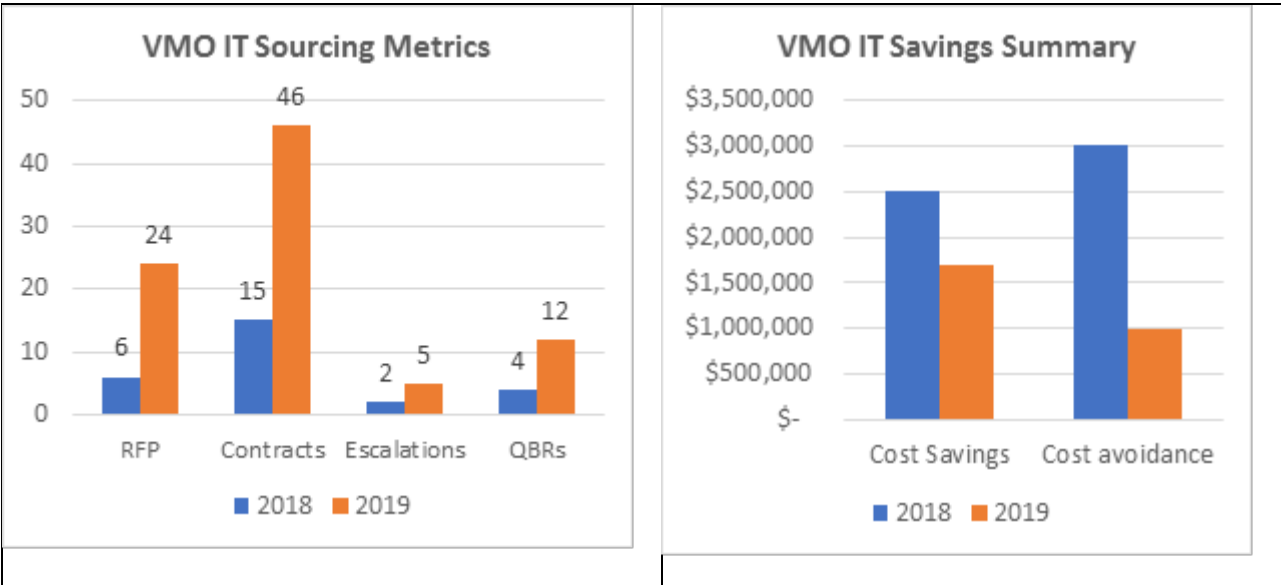
2018	2019
<ul style="list-style-type: none"> <li>• Document current state IT Sourcing assessment - Vendors, Spend, Contracts, Contracting Vehicles, Renewals</li> <li>• Establish IT VMO / Charter</li> <li>• Document RI Sourcing Processes</li> <li>• Establish Stakeholder Alignment</li> <li>• Hire VMO staff</li> <li>• Focus &amp; deliver on Key RFPs, contracts, renewals, escalations</li> <li>• Establish basic Governance</li> </ul>	<ul style="list-style-type: none"> <li>• Documented next 1-2-year plan</li> <li>• Improved RI Sourcing Processes focus on IT Contract Templates, Risk/Insurance and IT Security Requirements</li> <li>• Researched on Contracting Vehicles</li> <li>• Improved Stakeholder Alignment and Prioritization</li> <li>• Proactively managed sourcing demands to deliver on all RFPs / Contracts</li> <li>• Strengthen Vendor Governance on Strategic Vendors</li> </ul>

In 2019, IT sourcing demand for third-party procurements accelerated with several application and security and infrastructure modernization initiatives. Shown below are key RFPs and contracts delivered by VMO in 2019 that are further discussed in next section under “Projects.”

2019 RFPs	2019 Contracts
<ol style="list-style-type: none"> <li>1. GMS [Grants Management]</li> <li>2. eCMS [Content Management]</li> <li>3. Strat Plan - ERP Strategy</li> <li>4. PPCMS [Parole &amp; Case Mgmt]</li> <li>5. Block Chain Proof of Concept</li> <li>6. LCMS Legal Case Management</li> <li>7. UHIP IV&amp;V Validation Services</li> <li>8. Telephone &amp; Call Center Replacement</li> <li>9. ISP RFP [Internet Service backbone]</li> </ol>	<ol style="list-style-type: none"> <li>1. Secure Works</li> <li>2. RICHST renewal</li> <li>3. Service Now NAPSO Cloud</li> <li>4. HW End Points 4700 Negotiation</li> <li>5. PPCMS Award</li> <li>6. RII.Gov renegotiation and renewal</li> <li>7. E-Permitting / View Point</li> <li>8. Strat Plan RFP</li> <li>9. Bell &amp; Howell</li> </ol>



<ul style="list-style-type: none"> <li>10. UHIP M&amp;O RFP</li> <li>11. Vital Records</li> <li>12. Kids Bridge M&amp;O re-procurement</li> <li>13. Digital Strategy Lead</li> <li>14. EA Lead</li> <li>15. Collaboration Services Rollout</li> <li>16. SCCM Engineer</li> </ul>	<ul style="list-style-type: none"> <li>10. Mobile Iron</li> <li>11. Digital Strategy PM</li> <li>12. UHIP IBM [3] Amendments</li> <li>13. UHIP CSG [2] Amendments</li> <li>14. UHIP Deloitte Amendment</li> <li>15. DR SunGard renewal</li> <li>16. Hitachi SAN</li> <li>17. MPA 230 Terminations</li> <li>18. SCCM Engineer</li> </ul>
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The data above shows the increase in output from 2018 to 2019 with the same staffing levels. Overall, VMO continues to focus on reducing the contracting cycle time, while tightening governance, enhancing efficiencies and lowering costs.

*VMO Continues to Focus on*

- Industry best practice on strategic sourcing, contracts management, vendor management and vendor performance and governance
- Demand and delivery management: Planning and executing upcoming RFP/RFI/ contract renewals, vendor escalations, contract negotiation and vendor governance.
- Stakeholder Satisfaction: VMO will serve as the ETSS interface with vendors, the Division of Purchases, DOA and agency legal offices.

## 2019 Sourcing Projects

Single Source awards negotiated and delivered:

1. Network Operations Center (NOC) Services – VMO partnered with CISO to drive Scope of Services and overall contract negotiation to award Dell Secureworks.
2. RDS Foster care Application Tool: Partner with DCYF to deliver contract.

MPA renewals:

3. MPA 299 [Wireless Services] renewed for next 5 years
4. MPA 390 [Cable] renewed
3. MPA 517 – working with Massachusetts [ITS-75] on renewal
4. MPA 308 [Software and Services] – participating in Massachusetts led cooperative

NASPO awards negotiated and delivered:

1. Service Desk: Partner with EOC team to scope, bid and review NASPO vendors to award the vendor **ServiceNow** for cloud and licensing.
2. Hardware Refresh Project: Partner with ECO to scope and document new end point standards; partner with Division of Purchases on the bid process and help negotiate and award resulting in \$600,000 savings.

EOHHS-specific contracts delivered:

1. IBM UHIP Amendments: Throughout the year, IBM staff was reviewed from a performance and staffing quality; gradually, IBM high-end rate resources [average rate \$230 per hour] were replaced with other contractors priced around \$150 per hour.
2. CSG UHIP IVV Amendments: Re-negotiated 2019 extensions resulting in 5% cost reduction.
3. UHIP CA-47 HW S/w Procurement.
4. UHIP RI Bridges M&O RFP has been completed and submitted to Federal Partners for approval.

Probation and Parole Case Management System

The VMO-led procurement efforts by partnering with DoIT and the Department of Corrections resulted in the replacement of a paper-based system for probation and parole officers to manage their caseloads. Journal Technologies was awarded the contract in September, and implementation is currently underway, followed by four years of support.

Active Contract Management

1. Unified Health Infrastructure Project (UHIP): VMO engaged with UHIP stakeholders, including the Executive Office of Health and Human Services' Chief Administrative Officer, on following IT procurements.
2. The VMO negotiated contract amendments for IBM's staff augmentation work, and two for CSG's Independent Verification and Validation (IV&V) Services.
3. To support active contract management efforts, VMO engages with the agency and ETSS stakeholders to align resources and budget to deliver needs. VMO also conducts monthly contract management meetings with IBM and CSG, and bi-monthly internal stakeholder meetings.

#### Staff Augmentation Services using Managed Services Provider (MSP):

VMO partnered with the Division of Purchases to roll out MSP to replace its current MPA-230 vehicle. VMO guided various aspects of the October contractor conversion from MPA 230 to a Managed Services Provider, Knowledge Services (KS). VMO worked with the existing vendor base, KS, and the Department of Administration's Legal Office to migrate 25 vendors and their respective consultants to the new platform. In addition, VMO coordinated training and educated ETSS stakeholders in the MSP's system, dotStaff.

#### *Vendor Governance*

Managing vendors is an area VMO will need to strengthen over the coming year. The following cadence is in place:

- Vendors are classified as strategic, niche and commodity.
- Vendor contacts are identified and maintained.
- Vendor escalations are tracked for lessons learned.
- Quarterly business reviews are held with strategic vendors and a few niche vendors to bring thought leadership and best practices from other states.
- Developed basic sourcing metrics to track and report sourcing requests.

#### *Tools*

VMO partnered with IT to pilot the SharePoint collaboration tool to organize and share relevant aspects of its processes, contracts, RFPs, MPAs, RFP logs, VMO reports, ITLT reports and best practices, which are shared with ITLT and other relevant stakeholders.

## *Process Improvements*

The following tools and processes helped enable repeatable and reusable sourcing artifacts for faster procurement of IT services.

- RFP Contract Renewal Log: A tool to document, prioritize and track sourcing activities.
- RFP checklist is constantly updated and published to help IT managers.
- Established vendor governance model and scheduled quarterly business reviews with strategic vendors.
- Developed service catalog to manage and prioritize sourcing demands.
- Developed basic sourcing metrics to document and report sourcing requests.

Overall, by establishing a regular cadence with IT stakeholders, purchasing and legal, VMO continues to find better ways of procurement.

## **18. Operations Management**

IT operations management focuses on reviewing the initiatives, resourcing and optimization of each of the IT towers. Quarterly reviews of people, processes and technology with the Chiefs of Applications, Infrastructure and Operations, Security, Vendor Management Office and Project Management Office ensure goals are met, resources planning is taking place, and the proper use of technology and tools are effectively being utilized in our processes.

## **19. Budget Cost Control, Fiscal Management**

In FY 2018, an internal service fund was established for DoIT. Under ETSS, there are three separate Internal Services Funds: Mailroom, Telecommunications and DoIT. The Internal Service Fund (ISF) allows DoIT to purchase technology infrastructure centrally and provides a mechanism for paying recurring costs often associated with IT systems. Enabled by the ISF, multiyear plans can be documented and executed in partnership. Expenditures in an ISF directly impacts agency budgets. Statewide in FY 2019, it is expected to have a total IT spend of approximately \$132 million.

Having a finance tower in DoIT has enabled better control over the roughly \$40 million DoIT ISF budget and collaboration with the State agencies for total IT spend. The breakdown of the DoIT budget is depicted below.

<b>Total DoIT FY 2020 Budget</b>	<b>\$ 39,184,248.00</b>
<i>Allocated to:</i>	
RI FANS	\$ 1,737,096.00
Director's Office	\$ 2,077,828.00
Infrastructure & Operations	\$ 22,382,236.00
App/Dev (DMV/DOR/DBR/DLT)	\$ 2,590,267.00
App/Dev (DOA/DEM/DOC/DOT)	\$ 5,118,844.00
App/Dev (DOH/BHDDH/DCYF/DHS)	\$ 3,758,565.00
Project Management Office	\$ 1,519,412.00

Along with comprehensive chargebacks of IT costs, the finance tower has enabled proactive budgeting and escalation of potential issues.

## 20. Office of Library Services

The Office of Library and Information Services (OLIS) is responsible for developing a Statewide plan for library development, interlibrary cooperation and resource sharing to serve the library and information needs of residents. It has the statutory authority and responsibility to administer State and federal funding to develop programs that support and advance library services. OLIS coordinates services and administers programs for public, academic, school and special libraries. Its mission is to strengthen, connect and empower libraries to advance knowledge, connect communities and enrich the lives of all Rhode Islanders.

OLIS directly serves the public through the Talking Books Library, the Statewide Reference Resource Center (AskRI) and online directories to Rhode Island libraries. It administers the Library of Rhode Island, a network of over 200 libraries which make their resources and services available through any Rhode Island library that is a member of the network.

### *Projects*

- 2020 Census: OLIS continues to prepare libraries and connect US Census Bureau and the RI Complete Count Committee with libraries in preparation for the 2020 Census.
- Continuing Education: In FY 2019, OLIS offered 54 programs attended by 904 librarians. Professional development opportunities for librarians include special interest groups for different topics in librarianship and online resources to support these groups.

- **Data and Statistics:** OLIS annually collects public library data on library funding, services and resource-sharing. In 2019, OLIS developed interactive data visualizations for the use of the Statewide delivery service. ([www.olis.ri.gov/lori/data/2019/](http://www.olis.ri.gov/lori/data/2019/))
- **Equity, Diversion and Inclusion:** OLIS convened a summit in August focused on EDI for library services and staff. It included speakers from diverse and marginalized communities and a workshop on implicit bias. The summit launches a yearlong series of workshops focusing on different EDI topics, including, but not limited to, diversity in collections and programming, serving homeless populations and those with mental illness, diversifying staffing and cultural sensitivity training.
- **Library Construction:** The \$21 million Providence Public Library renovation project (\$9 million in State funds) is anticipated to be completed this spring. The Narragansett Library construction project was halted by the Town Council. OLIS continues to work with Jamestown on a proposed project.
- **Library of Rhode Island Grants:** OLIS awarded 15 grants to 14 libraries and the school library consortium. The grants included projects for youth-oriented summer learning programs, innovation in services and programming, and access to library materials and services. A total of \$192,000 in grants came from the Federal Institute of Museum and Library Services under the Library Services and Technology Act.
- **Summer Reading:** Over 14,000 children participated Statewide in the 2019 Summer Reading Program, with an additional 15,000 people attending educational programs coordinated by OLIS at libraries. OLIS also coordinated the 12<sup>th</sup> annual Kids Reading Across RI Statewide for grades 4-6 and continues support the Governor's 3<sup>rd</sup> Grade Reading Challenge and Summer Learning programs.

### *Operations*

- **State Aid to Libraries – Operating:** In FY 2019, \$8.6 million in operating grants were awarded to municipalities to support public library service in accordance with standards established by OLIS.
- **AskRI:** \$700,000 was awarded to the Providence Public Library to provide support for online electronic resources for all Rhode Islanders.
- **Library of Rhode Island (LORI) Delivery:** Two-hundred-and-nine libraries participated in the network, sharing 2.1 million items through LORI delivery.

- Talking Books Library: About 1,600 Rhode Islanders who are blind or visually impaired borrowed or downloaded over 55,000 items from the collection and received support and service from OLIS. Two-hundred-and-twenty new members signed up for service in FY 2019.
- Regulations: OLIS developed and promogulated new regulations that were approved by the Library Board of Rhode Island for the Library of Rhode Island network.
- Reports: OLIS supported the research and analysis of school library services and staffing at Rhode Island public schools as directed by the Library Board of Rhode Island Ad Hoc Committee on School Libraries.

# FUNDING

## *RI.gov Portal Transactions*

Agency	Transactions	Gross Revenue	Remitted to State	Retained by RII
Division of Motor Vehicles	634,599	\$27,165,336.31	\$ 26,170,688.41	\$994,647.90
Division of Taxation	475,024	\$7,484,944.94	\$ 7,137,108.05	\$347,836.89
Dept. of Environmental Management	89,381	\$6,860,147.52	\$ 6,551,267.75	\$308,879.77
Secretary of State	75,405	\$3,829,721.02	\$ 3,626,023.35	\$203,697.67
Dept. of Business Regulation	17,680	\$4,470,714.03	\$ 4,320,349.49	\$150,364.54
Dept. of Human Services	19,456	\$4,071,421.66	\$ 3,953,449.66	\$117,972.00
Municipal	27,534	\$10,195,826.23	\$ 10,087,792.81	\$108,033.42
Univ. of Rhode Island	8,680	\$1,007,363.60	\$ 963,661.00	\$43,702.60
Kent County Water Authority	24,150	\$3,483,294.38	\$ 3,442,743.34	\$40,551.04
Dept. of Labor and Training	6,607	\$957,142.65	\$ 918,059.00	\$39,083.65
Office of the Attorney General	40,150	\$642,272.50	\$ 610,075.00	\$32,197.50
Dept. of Health	129,736	\$7,797,778.00	\$ 7,769,483.82	\$28,294.18
Dept. of Education	3,208	\$698,260.00	\$ 681,119.00	\$17,141.00
Dept. of Administration	395,287	\$19,764.35	\$ -	\$19,764.35
Dept. of Children, Youth and Families	3,649	\$41,963.50	\$ 36,490.00	\$5,473.50
Contractors Registration Board	894	\$190,753.35	\$ 185,230.00	\$5,523.35
Narragansett Bay Commission	4,387	\$548,475.03	\$ 545,233.03	\$3,242.00
Division of Public Utilities and Carriers	-	\$3,228.00	\$ -	\$3,228.00
Ethics Commission	3,755	\$1,877.50	\$ -	\$1,877.50
Office of the General Treasurer	359	\$1,837,264.78	\$ 1,837,254.78	\$10.00
Central Collections Unit	88	\$37,058.98	\$ 36,350.00	\$708.98
	<b>1,960,029</b>	<b>\$ 81,344,608.33</b>	<b>\$ 78,872,378.49</b>	<b>\$ 2,472,229.84</b>

\*Estimate based on actuals through Nov 30, 2019 and Estimated for December 2019

- RI.gov is the official web portal for the State of Rhode Island. Within the portal, residents can perform online transactions, such as renewing licenses and paying taxes. The portal is managed by Rhode Island Interactive and encompasses the projects listed on page 32.
  - In 2018, the RI.gov portal processed 1,900,828 transactions and collected \$91,519,657.77 in statutory funds on behalf of the State entities served. \$89,256,894.26 was remitted to the State to finance agency operations. The difference funded Rhode Island Interactive’s maintenance and development of the portal.

## *Information Technology Investment Fund*

The Information Technology Investment Fund (ITIF) was established in 2013 under R.I. Gen. Laws Section 42-11-2.5 for the purpose of acquiring information technology improvements and services that were not budgeted for in the capital plan and could have a significant positive impact on the operations of an agency or across the enterprise. The ITIF approved 12 projects in 2019 for enterprise-wide solutions, agency-specific needs, and resident-facing initiatives, totaling just under \$7.6 million.



Historically, ITIF has helped to advance the IT needs of the State. However, as the demand for modernization in government increases at an accelerated rate, the Administration recognizes it must collaborate with the General Assembly to think more creatively about how to fund necessary upgrades and replacements and improve the IT talent pool, processes and technology in the State.

### Active Projects Approved in Prior Years

Department	Project Title	Budget Approved (Multiple Years)
DOH	Active Directory Consolidation	\$520,200
DHS	DHS Terminal Server Project: Remote Desktop	\$15,265
DOR	Reservation System Upgrade	\$282,571
DBR/DOA-DoIT	State E-Permitting Initiative (Phase I & II)	\$1,520,000
DOA-DoIT	Office 365 Migration	\$4,090,580
DOA-DoIT	Telecom Support Technicians (MPA-230)	\$95,760
DOA-OMB	Integrated Budget Development System	\$2,500,000
BHDDH	DDD Case Management System	\$487,500
DLT	OnBase Imaging System Upgrade	\$850,000
EOHHS	Unified Health Infrastructure Project (UHIP)	\$6,623,232
DEM	FoxPro to PLOVER Migration	\$333,400
DOA-DCAMM	Capital Asset Management and Information System	\$417,343
DOA-OMB	Grants Management System	\$1,860,884
DHS-VA	State Veterans Coordinated Care Network	\$300,000
DOA-OER	Utility Bill Analysis and Management Platform	\$300,000
DOC	Probation and Parole Case Management System	\$750,000
DOA-DoIT	Enterprise VMware Upgrade	\$250,000
DOA-DoIT	Enterprise SharePoint Design and Maintenance Solution	\$150,000
DOA-DoIT	Enterprise Service Desk Application Replacement	\$110,000
Board of Elections	Update Electronic Reporting Tracking System (ERTS)	\$350,000
RIC Campus Police	Campus Police Dispatch Console	\$72,359
DOR-DMV	DMV Woonsocket Relocation Project	\$62,500
DOA-DoIT	Mainframe Replacement Project	\$160,000
RIDE	Tableau Reporting Data System	\$221,000
DOR-DMV	DMV RIMS System	\$4,400,000
DOA-HR	Learning Management System	\$241,500
DOR-DMV	DoIT Strategic Plan	\$200,000
Secretary of State	E-Poll Books	\$2,017,960
DOA-Purchasing	E-Procurement	\$1,310,740

DOR-Taxation	Integrated Tax System Customer Portal / Support	\$1,700,000
DOR-Taxation	Integrated Tax System Reporting & Cashiering Enhancements	\$1,600,000
DOA-OMB	Legislative Bill Tracker	\$18,000
<b>(Approved in 2016/2017) Subtotal</b>		<b>\$33,810,794</b>

### Approved Projects in 2018

Department	Project Title	Budget Approved (Multiple Years)
BHDDH	Long Term Care System – Project Manager only approved	\$150,000
DOC	Electronic Medical Record System	\$576,903
RI Commerce	Business Path Website	\$39,000
EOHHS	UHIP System M&O Advisory Services	\$469,600
DOH	Childhood Lead Poisoning	\$511,600
EOHHS/UHIP	Augmented Testing Capacity	\$102,800
DMV	RIMS/REAL ID	\$2,256,312
DOH	Vital Records	\$522,000
CCRI/RIC	Integrated Guided Pathway	\$697,500
DEM	Expansion of Digital Records	\$300,000
DCYF	Child Welfare Information System Modernization	\$303,225
DOA/Purchasing	eProcurement/Civic Initiatives	\$751,250
DEM	Berthing Management Database	\$78,000
<b>(Approved in 2018) Subtotal</b>		<b>\$6,658,190</b>

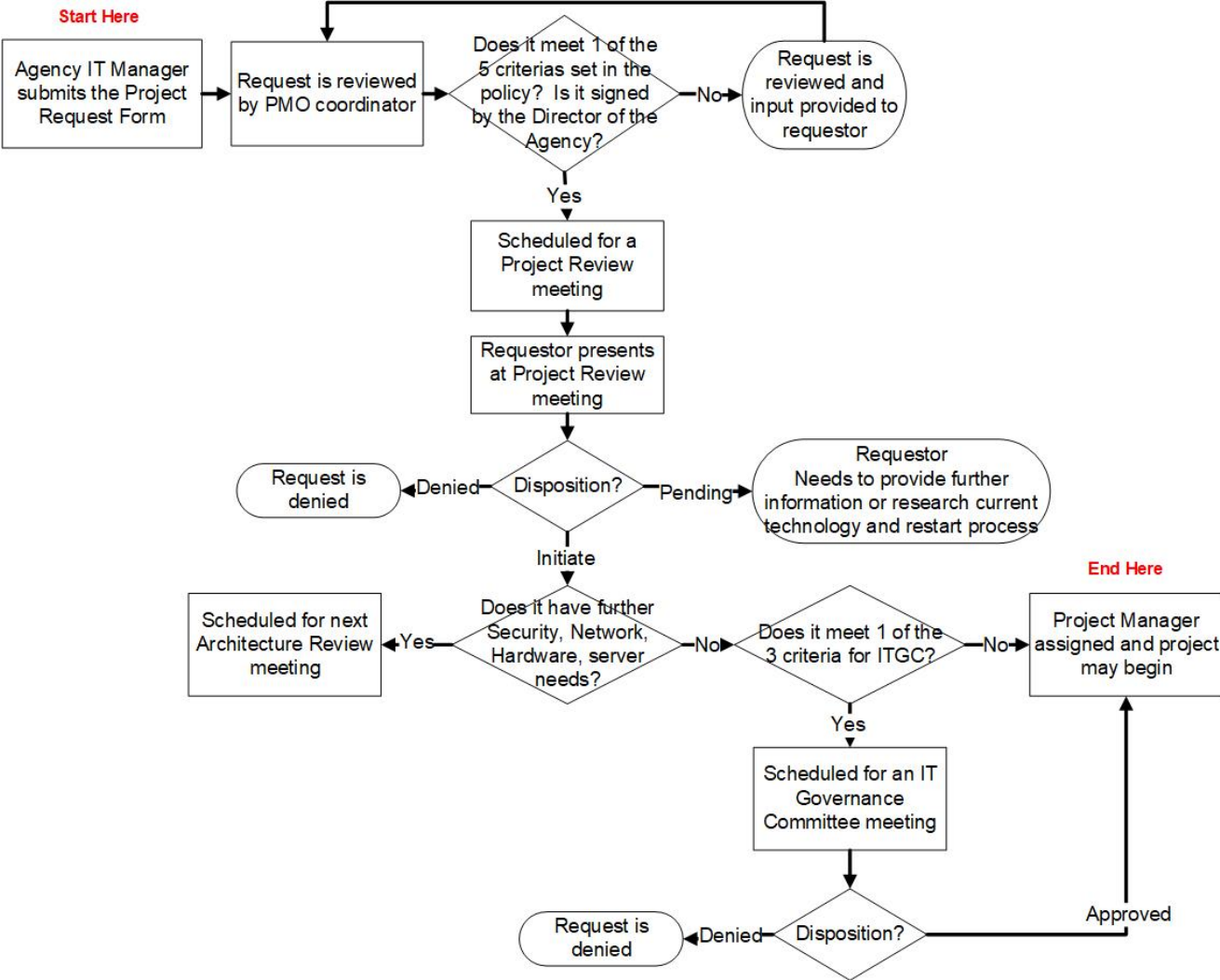
### Approved Projects in 2019

Department	Project Title	Budget Approved (Multiple Years)
DOA	Strategic Plan	\$550,000
DOA	eProcurement	\$150,000
EOHHS	Data EcoSystem	\$277,277
DMV	License Plate Reissuance Programming	\$343,000
DOR	Tax Maintenance	\$2,914,768
OVA	RI Serves Coordinated Care Network	\$153,000
RI Commerce	RI Business Path Website	\$6,000
DOA	Windows 10 Contractor Support	\$270,000
DOA	Enterprise Security	\$1,530,000

DHS	UHIP	\$500,000
DCYF	Field Staff Laptops	\$173,380
DOA	eContent Management System (eCMS)	\$812,000
<b>(Approved in 2019) Subtotal</b>		<b>\$7,679,425</b>

# APPENDIX A

## IT Governance Process



# APPENDIX B

## Active ETSS Projects

PROJECT NAME	AGENCY	STATUS
<b>Initiation</b>		
Bed Registry	BHDDH	ON TRACK
Binti - Foster Care Application	DCYF	ON TRACK
Community Solar Project	DOA	ON TRACK
<b>Planning &amp; Analysis</b>		
Foxpro Modernization	DEM	ON TRACK
eMar	DHS	ON TRACK
Qmatic Customer Texting	DMV	ON TRACK
Probation & Parole Case Management	DOC	ON TRACK
Network Access Control	DoIT	ON TRACK
Core Switches	DoIT	ON TRACK
SQL Licensing	DoIT	ON TRACK
Primavera Unifier	DOT	ON TRACK
Oversize Overweight Permitting	DOT	ON TRACK
<b>Execution</b>		
Case Management Phase 1	BHDDH	ON TRACK
Modernization: Securing of RICHIST Database Infrastructure	DCYF	ON TRACK
Electronic Document Management (OWTS Phase II)	DEM	ON TRACK
eProcurement	DOA	AT RISK
Strategic Plan	DOA	ON TRACK
DOC - Website Redesign	DOC	ON TRACK
Parole Board Scanning	DOC	ON TRACK
Childhood Lead Poisoning and Asbestos Surveillance System	DOH	ON TRACK
Early Childhood E-Referral System	DOH	ON TRACK
DLT Computer Room Move	DoIT	ON TRACK
Collaboration Rollout of Skype, OneDrive, and SharePoint	DoIT	ON TRACK
SORIweb Infrastructure Upgrade	DoIT	ON TRACK
Windows 10 Upgrade	DoIT	ON TRACK
Windows 2008 R2 Server Upgrade	DoIT	AT RISK
MS-2 Transportation Traffic Data Management System	DOT	AT RISK
<b>Implementation &amp; Closeout</b>		
Incident Management	BHDDH	ON TRACK
Medical Marijuana Seed-to-Sale Platform	DBR	OFF TRACK
Statewide ePermitting Platform	DBR	AT RISK
Enterprise Electronic Hunting & Fishing License System	DEM	ON TRACK
OnBase Imaging System Upgrade	DLT	ON TRACK
Reservation System	DMV	ON TRACK
Legal Case Management System	DOA	ON TRACK
CDC Order Management, Inventory, Receivables	DOC	ON TRACK
ITSM Enterprise Service Desk Application Replacement	DoIT	ON TRACK

