



ENTERPRISE TECHNOLOGY STRATEGY AND SERVICES (ETSS) ANNUAL REPORT 2020

State of Rhode Island, Department of Administration

CONTENTS

| | |
|--|----|
| About | 3 |
| COVID-19 Information Technology Enablement and Response | 6 |
| Digital Government | 14 |
| Information Technology Strategic Drivers | 15 |
| 1. Digital Web Services | 15 |
| 2. Innovation and Transformation through Technology | 21 |
| 4. Key Digital Initiatives at Agencies | 23 |
| 5. Collaboration Technologies | 31 |
| 6. Cybersecurity and Risk Management | 31 |
| 7. ITSM Program/Support Services | 32 |
| 8. Cloud Services | 33 |
| 9. IT Consolidation and Optimization | 34 |
| 10. Disaster Recovery and Business Continuity | 35 |
| 11. Networking, Telecommunications and Wireless Connectivity | 35 |
| 12. Mail Operations | 36 |
| 13. Enterprise IT Governance | 37 |
| 14. Project and Portfolio Management | 37 |
| 15. Vendor Management | 38 |
| 16. Budget Cost Control and Fiscal Management | 40 |
| 17. IT Funding | 41 |
| 18. Office of Library Services | 45 |
| APPENDIX A | 48 |
| APPENDIX B | 49 |

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 has been organized into major functional areas that help drive its strategic goals, improve agency service levels, and align functional responsibilities. OLIS is responsible for developing programs that support and advance library services in the state.

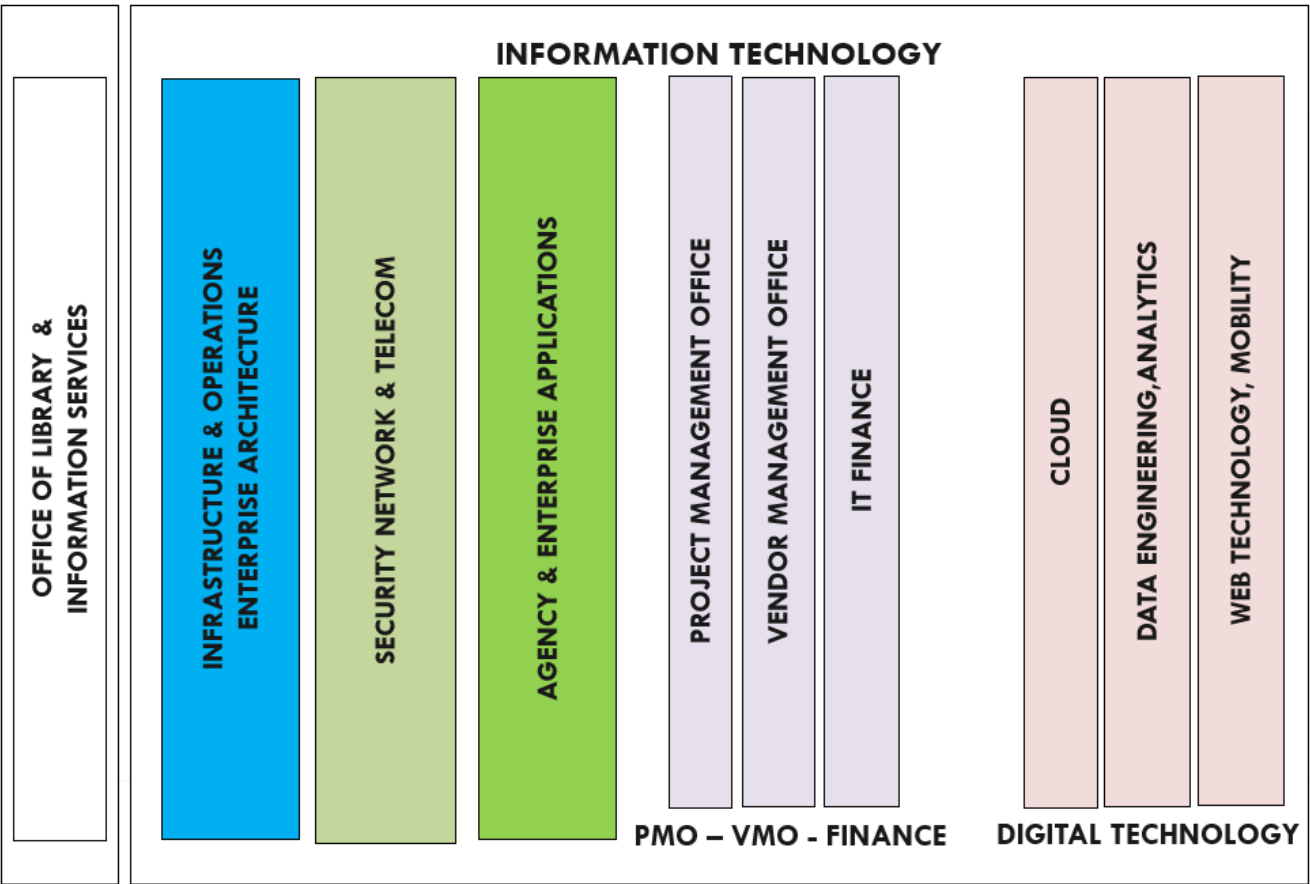


Figure 1: ETSS Organization

Under the leadership of Bijay Kumar, the State’s Chief Information Officer (CIO) and Chief Digital Officer (CDO), ETSS successfully met the unique technology challenges of this past year with a continued focus on people, process, and technology. The energy of these efforts continues to manifest itself in continuous improvements to DoIT’s organizational structure, IT processes and strategic assessments of State applications and technologies. The CIO/CDO continues to conduct (albeit virtual in 2020-2021), ETSS all-hands meetings, quarterly leadership offsites and structured weekly/monthly meetings. This defined cadence enables the organization to maintain a shared structure and vision, improve team morale and continue driving advancements.

ETSS is critical to the functions of State government. Core ETSS responsibilities include management of IT projects for the Executive Branch and the day-to-day technical support, software installations, information system security and information system upgrades for State employees. ETSS is also responsible for ensuring stable and resilient infrastructure and technology. The ability to deliver on these functions has resulted in an increased appetite for technology advancement within the agencies.

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. To ensure consistent execution of the established IT and project governance, the Vendor Management Office (VMO) and the finance and budget function for ETSS operate within the PMO. In 2018, the VMO was established to review and negotiate both existing and new contracts, resulting in millions of dollars of negotiated savings for the State. 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.

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

With 197 employees, DoIT is tackling technology challenges with a relatively small workforce in comparison to most neighboring states. This is measured on both a per-capita basis and as a proportion of overall state IT workers, making it even more important to strive for sustainable, enterprise solutions. DoIT has had to adapt and deliver scalable technology solutions that meet the demand for modern direct services. These solutions enable State employees to better manage resident data, replace paper processes 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, Office of the Lieutenant Governor, 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
12. Executive Office of Health & Human Services
13. Governor’s Office
14. Office of Energy Resources

AGENCIES ASSISTED BY DoIT

1. Health Source Rhode Island
2. Board of Elections
3. Coastal Resource Management Council
4. Commission on Deaf and Hard of Hearing
5. Commission on Disabilities
6. Department of Revenue - Lottery
7. Division of the Public Utility Commissioner
8. Ethics Commission
9. Executive Office of Commerce
10. Human Rights Commission
11. Office of the Lieutenant Governor
12. Office of the Child Advocate
13. Office of the Health Insurance Commissioner
14. Secretary of State
15. State Police
16. RI National Guard
17. RI Emergency Management

Table 1: Supported Agencies

COVID-19 Information Technology Enablement and Response

With the emergence of the global pandemic, the State of Rhode Island faced unprecedented challenges in 2020, with the first COVID-19 cases in Rhode Island reported in March. As we continue to battle the pandemic, Rhode Island's response has been exemplary, ultimately enabled through the rapid implementation of technology by ETSS and vendor partners. The challenges specific to COVID-19 response have included:

Enabling the State Workforce to Work Remotely

When the pandemic began affecting areas of the United States, the DoIT team began a proactive review of the existing remote work and business continuity capabilities for Executive Branch operations. The result of this review, combined with existing lines of effort, allowed the State to effectively and immediately transition to fully functional remote work for many employees. Planning and execution of activities to support a fully remote workforce immediately commenced through:

- Ordering and deployment of over 2,400 laptops for critical personnel.
- Enablement of collaboration tools (Microsoft 365) for the State workforce.
- Implementation of multi-factor authentication (MFA) for secure remote-user authentication.
- Configuration and implementation of secure virtual private network (VPN) accounts for authorized remote users.
- Ordering and deployment of cellular phones to authorized users.
- Configuration and deployment of large-scale call-center operations.

As the footprint of remote pandemic support activities increased, so did the demand on the core IT network, web and security infrastructure. The legacy network architecture soon began experiencing capacity and performance issues, necessitating an immediate response by the DoIT enterprise IT team to:

- Increase network capacity by 10x.
- Introduce a second internet point of presence for redundancy and resiliency.
- Load balancing of website traffic for the most frequently visited State websites to ensure uptime and usability.
- Review and configuration of existing network architecture to eliminate single points of failure.

Additionally, the increased footprint of the remote workforce required an immediate review of the existing information and infrastructure security, resulting in the implementation of additional in-depth security controls such as:

- Advanced endpoint threat detection (AETD) for remote hosts.
- Information security continuous monitoring (ISCM) for 24/7 security monitoring of the enterprise environment.
- Conditional access controls for Microsoft 365 collaboration tools.
- Adoption of artificial intelligence to identify and flag fraudulent unemployment insurance claims.

Innovating New Platforms to Address Fast-changing Pandemic Requirements

In addition to the remote workforce enablement activities executed by DoIT, efforts to support pandemic response through technology enablement were executed and continue, which include:

- Creating a pandemic response platform/system (vision-production in under four weeks (March-April 2020) on Salesforce (health cloud, lightning scheduler).
- Alerts and notifications through Salesforce digital engagement.
- Test scheduling portals including self-test scheduling and physician test scheduling.
- Case investigation and contact tracing modules.
- Quarantine/isolation monitoring – integrating daily surveys/automated alerts to notify the support team (211) to help Rhode Islanders in need during quarantine/isolation with food and housing supports.
- Automated test lab results integration (using Talend), reducing the start time for positive case tracing.
- Secure test result lookup portal, one of the first of its kind in the country.
- Outbreak detection and exposed places analysis.
- Self-symptom monitoring application.

Building a Privacy-first Mobile App: CRUSH COVID RI

- The public-facing mobile app is available in English, Portuguese and Spanish, with features such as location and symptom recording, contact history recording, access screening and notification. The app also consolidates all COVID-19 resources in one convenient place.

Building COVID-19 Complaints and Inspections Management System

- The newly created online system accepts questions and complaints related to Department of Health guidelines and makes it easy for the Department of Business Regulations Task Force to rapidly assign specialist inspectors from State agencies to investigate possible areas of concern. The inspectors can gather several important data points that give context to future complaints, track adherence to reopening regulations and levy fines against repeat offenders. The data can also be rolled up to track various compliance metrics by city and town.
- The system tracks internal performance metrics, such as inquiry-to-response duration, inquiry-to-resolution duration and inspection-to-enforcement duration. In all, the system allows Rhode Island to be responsive to the concerns of residents, data-driven in dealing with inspections, and efficient in resolving potential public health concerns. As of mid-December, over 18,000 inspections have been performed.

Addressing the Unemployment Insurance Challenges

- **Unemployment Insurance (UI)** – The COVID-19 pandemic resulted in many changes to the legacy UI system and added modern components to handle the influx of UI and Pandemic Unemployment Assistance claims. A temporary Hotline Call Center was established within DLT to provide staff with additional phones and hardware. The UI Business Center Staff was enabled to work remotely for the first time. Changes were made to UI programs and reports to support:
 - \$600 stimulus payment – April
 - Fraud initiatives and deterrents including Lexis Nexis and artificial intelligence – April
 - The Pandemic Extended Unemployment Assistance program was implemented to extend federally-funded benefits for an additional 13 weeks – May
 - \$300 Lost Wages Assistance program – September
 - \$200 state stimulus payments – December
- **Pandemic Unemployment Assistance (PUA)** – The Department of Labor and Training partnered with DoIT, Rhode Island Policy Lab (RIPL) and Amazon Web Services (AWS) to stand up an online application to process PUA claims for a new set of claimants (contractors and independent/gig workers). Launched on April 7, the cloud-hosted

web application accepted and processed 10,910 applications in one 24-hour period (peak usage), and Rhode Island was the first state in the nation to effectively roll out this federally funded program.

- **Modernization of UI Certification System** – To handle the influx of claims and the weekly certifications required to pay UI and PUA, the legacy UI Integrated Voice Response (IVR) and Integrated Web Response (IWR) were migrated to the AWS cloud environment. This allowed us to process more than 75,000 claims in a 24-hour period. Along with the ability to quickly process claims, the new certification system made it easier for claimants to certify and obtain payments.
- **Back to Work RI** – In October, phase 1 of the RI Virtual Career Center was launched. Partnering with Google and RIPL, this website provides Rhode Islanders with a virtual career center that includes a Chat Bot, “Rhody,” which uses data to connect them to career paths and re-skilling opportunities. Rhode Island was the first state in the nation to use artificial intelligence to deploy a job search platform.

Providing Online Tools to Reduce In-Person State Department Visits

- **Created and implemented a custom entry screening system** for government facilities to ensure everyone granted access was not experiencing symptoms related to COVID-19, had been a close contact of a positive case, or had traveled to a location with a high test positivity rate.
- **Moving DMV transactions online** – The Division of Motor Vehicles’ (DMV) multi-year strategic plan identified 14 services that were not available online and accounted for 500,000-plus transactions in 2019. The new online services project was initiated in June to reduce on-site customer visits to DMV branches and AAA locations, improve on-site wait times and enable staff to process more credential transactions. Seven new services have been deployed through the end of 2020, including Duplicate License, CDL and Identification Card, Reinstatement of Failure to Pay or Appear, and Duplicate Registration.

Launch of Enterprise Platforms

- Rhode Island launched the first version the **Legal Case Management System** (LCMS) on September 30. The cloud-based, enterprise-wide, mobile-friendly solution for Executive Branch attorneys and support staff allows centralization of docketing and

documents, and organization of all legal matters across the various agencies. The solution allows for standardization, streamlined entry and robust reporting.

- The launch of the first site on the new **Enterprise Content Management System** (eCMS) platform was covid.ri.gov. Based on Drupal 9 and hosted with Acquia Cloud Enterprise, this platform will not only consolidate all Executive Branch agency static websites, but also empower State employees to provide quality digital services and content. Over the past six months, the eCMS team worked closely with agencies to determine their detailed and unique business needs. Throughout this process, one of the main goals was to guarantee the best user experience and visual design based on modern techniques, thorough research and expertise. Toward that end, the eCMS team worked in conjunction with the Governor's Office and the Executive Office of Commerce to develop a new brand guideline named QUAHOG – a multi-colored brand that provides the underlying styling for the eCMS and can be implemented across all digital assets. Visitors of the eCMS-hosted RI.gov websites will be presented with an impressive digital experience in a secure and reliable environment. The eCMS delivers informative and relevant content in a mobile-friendly manner, exceeds all accessibility (Section 508/ADA) requirements and offers translations at the touch of a button. From an administrative perspective, agency content authors can now maintain their websites in a stable, secure and scalable cloud-based platform. Through a convenient and intuitive interface, which requires no knowledge of programming or complex technologies, staff can ensure content integrity through effective publishing workflows, measure success with detailed analytics and rapidly deploy a wide range of digital services. In short, the creation of new websites, which once took months to complete, can now be deployed within a matter of days (*if not hours*).

Ensuring Benefits through RIBridges

- **RIBridges** was able to effectively respond to the COVID-19 pandemic, in large part, due to the degree of system stability that has been achieved and the governance processes implemented. This resulted in Rhode Island being the first state in the nation to deliver Pandemic EBT (P-EBT) benefits to its citizens while also implementing many other mitigations to ensure continued timely access to benefits.
- **HealthyRhode** is a mobile application that provides an additional way for customers to access select customer portal functionality to increase self-service, improve case

processing times and reduce call center volume. The application, which was released in early October and is available in the Apple and Google Play stores, enables users to check the status of their benefits as well as their EBT card balances (SNAP and TANF). In addition, users can view a list of pending case documents and directly upload requested documents through their phone. Lastly, users can reset account passwords. The app can be viewed in one of three possible languages (English, Portuguese and Spanish).

Ensuring COVID-19 Transparency

- The State of Rhode Island's COVID-19 Transparency Portal (<http://www.transparency.ri.gov/COVID-19/>) was launched in June 2020.
- COVID-19 related expenditure/encumbrance data is provided, as well as detailed payee information, including the agency/department making the expenditure, the category of the expenditure, payee name, paid date and expenditure amount. The **National Governors Association shared the State of Rhode Island COVID-19 Transparency Portal as a model** to the federal funding leads in all other governor's offices.
- Rhode Island State agencies are using federal funds to protect the health and welfare of Rhode Islanders and continue to provide critical services. Under the Coronavirus Aid, Relief, and Economic Security (CARES) Act, Rhode Island received \$1.25 billion through the Coronavirus Relief Fund.
- The State also strengthened its data driven government. The emergency response to COVID-19 was enabled by the formation of a Data Workstream, tasked with defining data sources required for reporting, forecasting models, and support plans for decision and policymaking. This was enabled by setting up new integrated systems for testing, case investigation, contact tracing, quarantine/isolation, and necessary key data parameters (race, ethnicity, location, reason for being tested, etc.).

Systems for Vaccine Distribution

- Vaccine distribution poses a new challenge to the ongoing pandemic response, with different types of vaccines requiring different dosage schedules, etc. The data collection requirement for analysis is also stringent. The systems vary from provider registration, ordering, disbursement, central immunization records and digital notifications.

- DoIT and the Department of Health worked tirelessly to set up the systems and prepare them for phase 1 rollout. Two new IT systems were launched, and two existing systems were modified to support the COVID-19 vaccination efforts. The two new systems enable providers to register to administer vaccines (**COVIDReadi**) and enable the operation of mass vaccination clinics (**PrepMod**). Modifications to existing systems (ordering system [OSMOSSIS] and immunization registry [RICAIR]) allow for reporting of adult immunization history and tweaks to handle the unique nature of COVID-19 vaccines.

Extending IT Expertise and Support to Municipalities

The ETSS team not only enabled pandemic response for state agencies with technology, but extended their expertise and assistance to municipalities through:

- Collaboration tool licenses were obtained for distribution to and use by municipalities and small businesses.
- Surplus laptops were provided to Commerce and the Department of Education for distribution to businesses and schools for remote enablement.
- Cell data connectivity was enabled through the **Take It Outside** campaign that made it possible for companies to conduct normal business operations in designated outdoor workspaces.
- IT best practices and lessons learned for secure, remote operations were shared with multiple partners.

Library Services during COVID-19 Response and Recovery

- **Guidance to libraries** – Starting in February, OLIS fielded calls about how to handle materials. On March 15, the Department of Health recommended the closure of public library buildings, though most libraries continued to offer virtual services. In collaboration with Ocean State Libraries (the public library consortium), OLIS began holding weekly online meetings to provide updates to and respond to questions from library directors. OLIS staff also conducted trainings on running online programs, learning digital technology and responding to coronavirus that were attended by 2,449 individuals through May 30. On May 7, OLIS launched [Reopening RI Libraries](#), a plan to reopen library buildings that was aligned with [Reopening RI](#) and approved by the Government Readiness Team and the Department of Health. In addition, OLIS launched a website with resources to support libraries as they reopened. OLIS

provided direct support to libraries as they expanded from curbside delivery to opening buildings for limited service in June. By the end of the summer, nearly all libraries were offering in-building service. Due to this elaborate collaboration with libraries throughout the state, Rhode Island was the only state in New England where all library buildings were open throughout the fall. OLIS continues to offer guidance and support to libraries.

- **Services to the public** – On March 17, OLIS published [Online Learning and Enrichment Resources for All Ages](#), a guide to free online resources to support distance learning, remote workers and families. The guide included resources from OLIS' [AskRI](#) statewide databases and additional resources that OLIS secured from vendors at no cost. Through November, the resource has been visited over 12,000 times. OLIS also created a [RI Library Calendar](#) of virtual programs at libraries around the state; over 2,000 programs have been posted since March, with a peak of 378 in April.
- **CARES Act grants** – The Institute of Museum and Library Services awarded \$95,722 to OLIS through which OLIS provided grants to 46 public libraries for reopening expenses, from mitigating virus spread to adapting services for safe operation, during the pandemic. Grants were also awarded to support online reading tracking tools that promoted participation in reading programs. The tool facilitated engagement with reading, enabling readers to track progress while discovering new books.
- **Digitalization** – OLIS transitioned all grant application and certification programs to digital processes. An online tool was developed for the CARES Act grant program, providing a virtual process for applying for funds and uploading documentation required by the federal granting authority. The State Aid to Libraries program became a completely digital process, transitioning a hybrid process of online data reporting for the Public Library Annual Survey and paper grant applications into a seamless, online transaction utilizing DocuSign eSignatures. The Library of Rhode Island certification for membership in the statewide delivery system was similarly transformed, adding the certification process to the existing Public Library Annual Survey for public libraries or as a standalone process for academic, school, and special libraries, and utilizing eSignatures for the final certification. The transformation of these processes enables OLIS to engage with constituents more effectively and efficiently.

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.

In the most recent biennial Digital States Survey produced by the Center for Digital Government, Rhode Island was named the ***Most Improved State – rising from a C to a B+***. The Digital States Survey evaluates states' use of technology to improve service delivery, increase capacity, streamline operations and reach policy goals. It assigns each state a grade based on quantifiable results. ***Rhode Island also ranked #1 for Data Governance Transparency***, by using mechanisms to ensure data quality (complete, consistent, and accurate) and privacy protection. <https://www.govtech.com/cdg/digital-states/Digital-States-Survey-2020-Results-Announced.html>
<https://www.govtech.com/computing/Digital-States-Survey-2020-Cloud-Is-More-Critical-Than-Ever.html>

DoIT continues to engage 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.

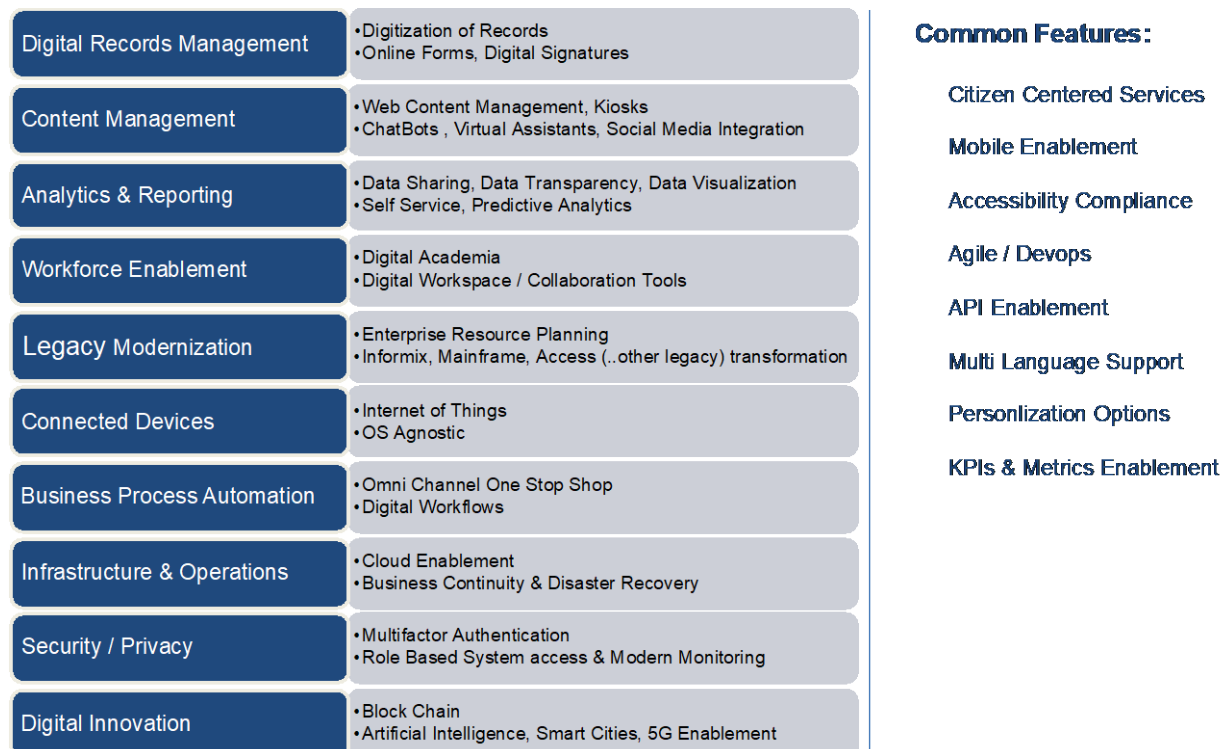


Figure 2: Digital Themes

Information Technology Strategic Drivers

DoIT activities were heavily focused on pandemic response activities this past year; however, DoIT has continued to actively follow national trends to inform its overall strategic drivers. Annually, the National Association of State Chief Information Officers (NASCIO) conducts a survey of every state technology leader in the nation to identify the top policy and technology issues facing state governments.

This survey captures the top ten strategic drivers that help state CIOs measure their IT organization's maturity at the national level. The strategic drivers that were identified this year align with existing ETSS priorities and reflect the growing reliance on secure, constituent-focused digital transformation at the state level.

This year, as states increasingly deployed digital services in support of pandemic response activities, the capabilities and interest of malignant actors seeking to disrupt these services and steal data increased, as well. As a result, cybersecurity and risk management remain on the priority list of national CIOs and top the list again in 2020.

1. Digital Web Services

The Web Services Team is committed to providing professional, courteous, innovative, and collaborative support with State agencies and their affiliates to ensure the timely delivery of quality digital resources that conform to ETSS standards, policies, and best practices. The Web Services Team supports State agencies as design, development and content consultants for legacy websites, the Enterprise Content Management System (eCMS), the Learning Management System (LMS) and proprietary applications, such as Dreamweaver, Wufoo, Tableau, YouTube, and Google Analytics.

2020 Web Services Accomplishments

Websites Completed

- Office of Healthy Aging redesign – <http://www.oha.ri.gov>
- Department of Environmental Management/University of Rhode Island migration of RI Stormwater Solutions website
- Department of Corrections redesign – <http://www.doc.ri.gov>
- Department of Corrections Correctional Industries Site redesign – <http://correctionalindustries.doc.ri.gov>
- Board of Elections redesign – <http://www.elections.ri.gov>

- Office of Energy Resources – Community Solar Market Place
- Official YouTube channels for Division of Purchases, Office of Employee Benefits and the Historical Preservation & Heritage Commission

Service and Support

General Support

- The Web Services Team completes an average of 112 service requests per month.

Consultation Services

- Web design/development, graphic design, social media, accessibility, digital transformation and RFP support.

Program/Application Support

- LMS, Tableau, Wufoo, NeoGov, Adobe CC (Dreamweaver, Photoshop, etc.), Acrobat DC, Google Analytics and YouTube.

24/7 Support

- Provided to Governor's Office, the Department of Administration and the Division of Human Resources for critical, time-sensitive issues.

COVID-19 Response

- Provided 24/7 support to agencies for crisis communications.
- American Sign Language (ASL) COVID-19 resource for Commission on the Deaf and Hard of Hearing.
- Created <http://www.RIDelivers.com>/<http://www.RIHavens.com> with COVID-19 response branding.
- Department of Health PPE donation/manufacturing forms
- PAUSE RI – <http://BHDDH.RI.GOV/pauseri>
- COVID-19 State Employee Toolkit – <http://employeehandbook.ri.gov/#COVID>
- COVID-19 Employee Self-Screening Portal – <https://selfscreening.ri.gov>
- COVID-19 Transparency Portal – <http://www.transparency.ri.gov/COVID-19/>

Enterprise Initiatives

- **Learning Management System** – The Learning Management Software (LMS) solution specializes in the administration, documentation, tracking, reporting and delivery of educational courses and training programs. This service provides learning opportunities to over 11,000 State employees. During summer 2020, we successfully migrated the LMS to a new platform.

- **Selfscreening.ri.gov** – This application allows the State to provide a self-screening tool to employees, vendors, and members of the public to check for symptoms of COVID-19. The self-screening form generates an approval, denial or tentative entry response for individuals attempting to gain access to a state facility. New reporting features are now available to HR to ensure compliance.
- **Enterprise Content Management System** – The State is implementing an open, scalable, intuitive, accessible, responsive and user-centered Enterprise Content Management System (eCMS) that will not only consolidate all Executive Branch agency legacy websites, but also empower State employees to provide quality digital services and content.

eCMS Software: Drupal 9

Hosting Provider: Acquia Cloud Enterprise

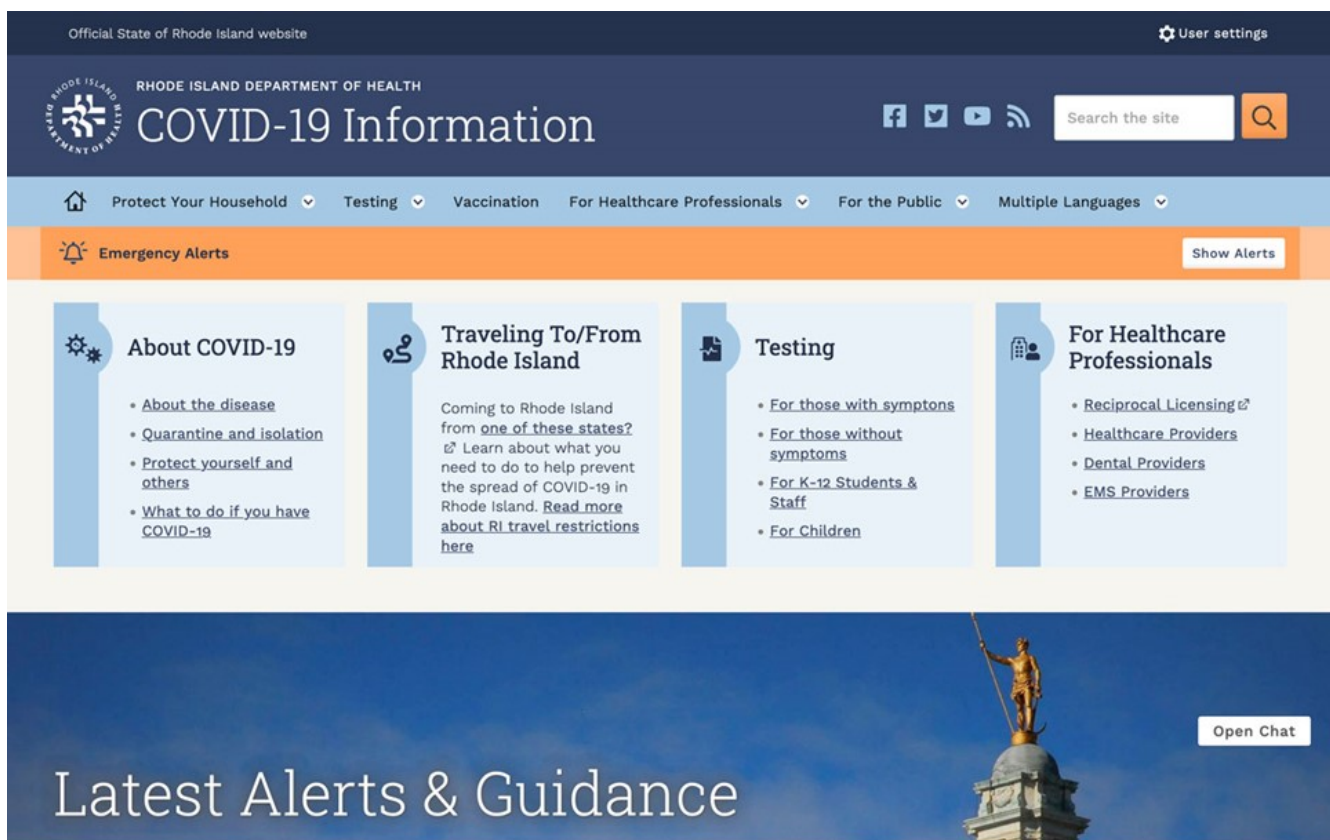


Figure 3: eCMS

Front End

- Consistent branding
- Fully responsive (Readable on any device)
- Offers modern functionality
- Accessibility compliance (ADA/Section 508)
- Global alert bars
- Dynamic forms
- Page translations
- Secure and reliable HTTPS-enabled environment
- Rapid download times

Back End

- Stable, secure and scalable cloud-based platform
- Rapidly deploy digital services through Acquia Site Factory
- Convenient and intuitive interface
- Ensure content integrity via publishing workflows
- Wide range of ready-made tools for content authors
- Measure success through robust analytics
- Strict security protocols
- Leverage Patternlab to change design in seconds

NIC Rhode Island Partnership

- **New trucking permit system** – In March, Rhode Island launched a revamped and reimagined online permitting system for oversized, overweight trucking (**OSOW**). This past year, the General Assembly shifted the regulatory responsibility for OSOW permitting from the Division of Motor Vehicles and the Department of Transportation to solely the Department of Transportation. Along with a complete facelift and an improved user experience, the new system allows users to purchase Annual Divisible Load permits – an option that was not available in the legacy system. The OSOW system also accommodates the issuance of five-day trip permits and annual construction vehicle blanket permits. In its first active month, the system processed 5,046 permits, with gross revenues of \$1.52 million.
- **AppEngine service assists Department of Health in COVID-19 crisis** – The DoIT enterprise application team quickly developed an online form using AppEngine to collect applications for entities requiring personal protective equipment. **In less than a week, the online service had processed applications for 142,144 face shields, respirators, and surgical masks; 145,855 pairs of gloves; and nearly 70,000 medical**

gowns. NIC also assisted several municipalities in implementing new online payment services while municipal offices remained closed.

- **Rhode Island channels resources in to new and improved DMV services** – With limitations on public-facing services due to the pandemic, more development and project management resources were channeled in to new and improved DMV services. By the close of the year, the State had launched a recoded and improved registration renewal service. Rhode Islanders can order duplicate licenses, request a duplicate registration, cancel their current registration and pay to reinstate their operator licenses. Additionally, the ability to renew State-issued identification cards and commercial driver’s licenses were added to the renewal system.
- **Rhode Island team ensures state name change executive order is a success** – Governor Gina Raimondo issued an executive order in June 2020, shortening the state’s name for use on all government documents and websites to “The State of Rhode Island.” To assist the Governor in this important effort, team members worked rapidly to scour both the State’s official portal and hundreds of online services to make updates where needed.
- **Success with the Board of Elections** – Despite a record number of mail-in ballots and the addition of a separate emergency ballot tally, the service performed perfectly – offering real-time results and official data to the news media. Additionally, the Board of Elections announced the eight finalists of its “I Voted” sticker design contest from the 120 entries submitted online through a service created by the NIC Rhode Island. To collect votes to determine the contest winner, the business unit again used AppEngine to display the eight designs and allow for residents to vote for their favorite. Voting closed on May 31, with a total of 7,565 votes.

NIC Service Deployments 2020

| Project | Launch Date | Type |
|--|--------------|-----------------|
| DMV Duplicate Registration | Mid-Dec Est. | NEW |
| Cumberland Dog Licensing | 11/30 | NEW |
| DMV License Renewal Enhancement | 11/18 | ENHANCEMENT/NEW |
| Election Results - General Election | 11/3 | ENHANCEMENT |
| Mail Ballot Status Lookup | 10/27 | NEW |
| License Reinstatement (Failure to Pay/Appeal) | 10/20 | NEW |
| Military Family Relief Fund Donations Form | 10/20 | NEW |
| East Providence Vital Records | 10/2 | NEW |
| Cumberland Vital Records | 9/29 | NEW |
| SST SER Filing Automation | 9/20 | NEW |
| EOHHS Medicaid Pediatric Primary Care Rate Supplement Quality Report | 9/18 | NEW |
| DOH Temporary Child Care License | 9/17 | NEW |
| Vehicle Registration Renewal Enhancements | 9/15 | ENHANCEMENT |
| Cancel Registration | 8/18 | NEW |
| Employee Co-share Payments | 8/11 | NEW |
| Duplicate License Request | 8/5 | NEW |
| EOHHS PPE Request Form | 7/24 | NEW |
| CMRC OTC | 7/21 | NEW |
| Early Intervention Provider Relief Program Application | 7/18 | NEW |
| Children's Services Provider Relief Program Application | 7/18 | NEW |
| Berthing & Land Lease Accounts Receivables & Payments System | 7/8 | NEW |
| Vehicle Registration Renewal | 7/8 | NEW |
| COVID-19 LTSS Resiliency Program: Nursing Facility Support Form | 7/3 | NEW |
| Pediatric Primary Care Relief Program Application | 7/3 | NEW |
| Change of Address Rewrite | 6/23 | ENHANCEMENT |
| Kent County Water Authority Fee Absorption | 6/5 | ENHANCEMENT |
| Stormwater & Water Quality Permit Search | 6/3 | NEW |
| Vehicle Registration Renewal: New Plate Type and <MiscFee> Calculation | 5/31 | ENHANCEMENT |
| "I Voted" Sticker Design Voting Form | 5/20 | NEW |
| Congregate Care Assistance Team (CCAT) Feedback Form | 5/1 | NEW |
| Congregate Setting Support Team (CSST) Request Form | 4/15 | NEW |
| Personal Protective Equipment (PPE) Critical Request Form | 4/15 | NEW |
| Pawtucket Miscellaneous Payments (OTC Online) | 4/9 | NEW |
| Personal Protective Equipment (PPE) Request Form | 3/24 | NEW |
| Bristol Parks & Recreation OTC | 3/13 | NEW |
| Paystub RI Optimization | 3/13 | ENHANCEMENT |
| Oversize & Overweight Permits | 3/4 | NEW |
| "I Voted" Sticker Design Submission Form | 3/1 | NEW |
| Liquor Payment Portal Updates | 1/21 | ENHANCEMENT |
| Business Tax Annual Reconciliation and Withholding 2020 Changes | 1/13 | ENHANCEMENT |
| Ethics Filings Online 2020 Changes | 1/2 | ENHANCEMENT |

Table 2: Deployed Services

2. Innovation and Transformation through Technology

Innovative Technology Enablement

As March 2020 ended, states were confronting the reality of COVID-19. The models showed that case investigation and contact tracing infrastructure would be overwhelmed. Yet, State leadership knew that these public health functions were critical to slowing the spread. Rhode Island needed to rapidly deploy technology to automate parts of these processes and ensure consistency in the work effort and documentation as hundreds of personnel were brought on board to assist. The systems put in place, as explained in earlier sections, is a testament to DoIT's innovative spirit.

Blockchain Digital Identity

To match citizens' rising expectations for convenient and personalized experience when interacting with government departments or agencies, governments around the world are adopting new paradigms of digital technologies. The aim is to rapidly provide citizen-centric services in a decentralized manner. As part of digital government transformation initiative, the State continues to enable its departments and agencies to better manage its residents' data, replace paper processes with digitized ones, and communicate more effectively and transparently. Blockchain can foster trust among government departments, private organizations and public users by facilitating a secure and trusted exchange of information.

After an extensive evaluation of over 60 proposals, the State finalized a joint idea with a partner on a proof of concept for a digital identity and professional licensing on a blockchain platform. DoIT came up with the idea of building on the traditional Real ID verification concept to issue a digital identity to an individual. This digital identity and its use through a personalized wallet allows an individual to apply and be approved for a CPA license online. The project was a great success, allowing the State to gain technical and business experience with blockchain technology solutions. With the help of ETSS solution architects, the blockchain application resides on the State's AWS platform and is built on dominant blockchain platform technologies, Hyperledger Indy and Aries.

The solution created:

- A prototype **blockchain-powered identity and credentials management solution** covering CPA licensing, practice unit licensing and employment credentials.
- A publicly verifiable **State Credential Registry** where residents/any potential client can verify the authenticity of a CPA license or a practice unit license.

3. Data Management and Analytics

In 2020, DoIT established a **Cloud Center of Excellence** for strategic cloud enablement for data management and analytics. The cloud strategy included main four components:

1. Vision and assessment: Goals and Objectives, and Organizational Readiness.
2. Risk Management: Technology, Security and Performance.
3. Deployment and Operations: Implementation, Architecture and Quality Assurance.
4. Policies and Decision Framework: Model, Security and Compliance Framework.

A common methodological framework was used in developing the cloud strategy, where six actions – why, what, who for scoping strategy, where, when, and how – were assessed for implementation strategy. In this strategy, N-level iterations at six-month intervals were made to improvise the approach based on constant measuring techniques.

DoIT spent significant time assessing all four abovementioned components while completing the foundational work for cloud enablement. By the middle of 2020, several projects leveraged the permanent “Amazon Landing Zone” cloud infrastructure, with multiple organizational units and accounts getting established.

An **Enterprise Data Lake** (EDL) built with hub-and-spoke architecture was initiated in 2020. In this approach, individual Agency-specific “Data Lakes” will be built and delivered with the agency owning the process, with automated metadata and data shared to the central Enterprise Data Lake. This approach enables simplified security management and self-service analytics.

Adoption of cloud services that required a new operating model focused on scalable data solutions delivers value at a reduced cost. Cloud data projects that are currently deployed and works-in-progress, utilizing “Amazon Landing Zones” with infrastructure platform, security and network support provided by DoIT, are:

- Executive Office of Health and Human Services’ Ecosystem Data Warehouse from on-site to cloud transition.
- Enterprise State Archive files migration.
- Research Data Lake migration from temporary RIPL location.
- Department of Health case investigation and contact tracing with data from Salesforce.

Apart from this list, several data projects are in the architectural review phase for cloud transition, including those for the Department of Transportation and Department of Corrections.

4. Key Digital Initiatives at Agencies

ETSS undertook significant efforts in 2020 related to legacy modernization. DoIT improved several of the State's systems by transitioning them to new applications.

Department of Transportation

Storm Manager Winter Operations Management System – A fully hosted Winter Operations Management System using mobile apps was implemented to track vendor plowing. Each plowing contractor's equipment and rate have been logged in the new system. The Department of Transportation will use Storm Manager to activate and track their resources. After a storm, the Department of Transportation will use Storm Manager to approve vendor charges and identify FEMA reimbursement when applicable.

e-Construction – The Department's pilot in 2019 proved to be very successful. A full delivery process of construction projects is scheduled to be completed in the first quarter of 2021. This implementation increases the efficiency of current inspection and construction processes by eliminating paper documentation at the field office level, including daily reports, daily diaries, printed plans and specifications, and printed submittals. This will be replaced with a searchable set of documents with integrated photos and quantities that can be sorted or searched to retrieve vital information. Future integrations with the on-premise Construction Management System (PMP) are under way and will be fully implemented in 2021.

Oracle financial management system upgrade – The Department's Oracle ERP System upgraded its system to the latest supported version of 12.2.9 and its database to 19c. 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.

Over-Sized over-weight permitting system – The Department assumed full regulatory authority over the permits. It moved away from a paper-based process to an online hosted System. Annual divisible load permits and online subscriber payments were added to the system.

Microsoft 365 collaboration tools – Microsoft collaboration tools and features were enabled for all employees to remotely access files and collaborate with other users. A Departmental SharePoint site was created to replace its outdated intranet site. Several Team and SharePoint sites have been created to offer file sharing and full collaboration, both internally and externally. Data from the Construction Management System now interfaces to the PMO SharePoint site.

Application Development

Many internal custom enhancements were implemented to improve processes, system efficiencies and digitization. They include:

- Truck tolling data loading in SQL server, including Power BI analytics.
- Software licensing tracker for managing application software renewals.
- A Transportation Improvement Plan system, a custom system for program management and reporting.
- Automated daily and weekly programming tasks through scheduled jobs.
- Migrated all applications to new servers.
- Migrated IT documentation libraries over to SharePoint.
- Timecard COVID-19 and Workshare Program updates.

Department of Environmental Management

Produce safety inspection – The Division of Agriculture is responsible for inspecting farms to ensure public health and safety by minimizing risk of foodborne illnesses associated with the consumption of raw produce. Software allows Division of Agriculture staff to efficiently create and maintain a comprehensive farm inventory and share this information with the FDA. The inspection module guides inspectors through the inspection process. With the increased emphasis on encouraging citizens to head outdoors and buy local due to COVID-19, this software allowed inspectors to conduct their inspections more efficiently and then for farms to transport their produce to grocers, farmers markets and farm stands more quickly.

Coastal resource berthing and land lease management system modernization – The Division of Coastal Resources is responsible for managing the land leases in Galilee in Narragansett, as well as the berthing of all vessels in Galilee and Pier #9 in Newport. Commercial vessel berthing is assigned on permanent, temporary, or transient bases, dependent on availability and seniority. Billing also differs between vessels. Management of State land leases, billing and the supporting documents for these leases in Galilee were held in paper file folders and are not easily referenced or updated. The new coastal berthing management system provides a comprehensive work platform to properly track late payments and billing, house digital files of important documents, manage berthing positions and allow for on-site data entry and updates to all files. The system also allows customers to view their accounts online and pay fees using a credit card or ACH and enables coastal office staff to accept credit card payments from walk-in customers.

Food truck reservation system – The Division of Parks and Recreation is responsible for managing the concessions at all State parks, beaches and campgrounds. The infrastructure at many of the sites does not allow for food concessions. The Department of Environmental Management recognized that access to food would enhance the visitor experience while providing an opportunity for local businesses. The food truck program includes scheduling, invoicing and the capability to accept online payments.

Golf course – tee time reservation and pro shop point of sale system – The Division of Parks and Recreation is responsible for managing the golf course at Goddard Memorial State Park. In response to the COVID-19 crisis, new procedures needed to be implemented to ensure the safety of patrons and staff. This system allows tee times to be scheduled in advance, which was necessary to limit the number of patrons in accordance with safety regulations, and for credit card payments.

Stormwater and water quality certification online site search – The Office of Water Resources requires a Water Quality Certification or Stormwater Construction Permit for certain construction activity. Certifications and permits are used to preserve and protect the state's water resources. This service enables permit recipients, design engineers and operators to obtain real-time permit history, status and downloadable documents online. It also allows for improved coordination with municipalities by providing 24/7 access to critical information needed for issuing permits or making decisions at the local level. By providing downloadable documents, it reduces the amount of time applicants spend waiting for approvals and provides historic information to be used as a resource for future applications and reduces staff time responding to calls requesting this information.

Department of Administration

Ocean State Procures – Ocean State Procures (OSP) is the State's new eProcurement system that delivers a full procure-to-payment process. The system is in the initial pilot phase at select state agencies with full rollout scheduled later this year. The following elements have been migrated from the existing procurement system to OSP:

- Contracts – approximately 300 active contracts
- Solicitations – 36 solicitations
- Invoices – 3
- Requests (requisitions) – 18/Purchase orders – 12
- Vendors – approximately 2,800 approved vendors and approximately 3,000 pending

Enterprise Applications Strategic Plan – In 2019, the State developed an Enterprise Applications Strategic Plan and business case to upgrade its current enterprise applications. In 2020, DoIT revised the plan with detailed budgeting. While the program awaits final funding, the team has readied the strategy for product and services procurement.

The 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 Branch entities 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 under way. The objectives of modernizing obsolete enterprise applications are:

- Reducing risk.
- Enabling new capabilities.
- Addressing audit findings

Executive Office of Health and Human Services

Online application forms to support COVID-19 initiatives – To allow secure online submittal of applications for various grant programs and other COVID-19 response initiatives, the Rhode Island Interactive AppEngine was leveraged. Seven applications were rolled out for the Office, including the Workforce Stabilization Loan Program, Congregate Settings Support Team, Pediatric Provider Payment Program, Children’s Services and Early Intervention Provider Relief Program, Long Term Services and Supports Resiliency Program, Medicaid Pediatric Rate Supplement, and Provider Relief Access Program. Most applications were set up in less than two weeks, with some taking only a few days.

Department of Humans Services

Online applications for child care COVID-19 initiatives – To allow the secure online submittal of applications to ensure compliance with COVID-19 related requirements, the Rhode Island Interactive AppEngine was leveraged. Two applications were rolled out for the Department’s Summer Camp Program, which went live in June, and Transitional School Age Child Care, which went live in September.

Call center enhancements to support COVID-19 response – Several enhancements were made to support increased demand and telework capabilities for the Department’s call center, including an increase from 250 to 400 ports in March, installation of an additional PRI for Pawtucket in March, and the addition of call recording beginning in April.

Child support enhancements to support COVID-19 response – The RIKidsBridge system was enhanced to adjust to new business processes necessary to respond to COVID-19 requirements. Changes were initiated beginning in March, including suspension of enforcement processing, daily matches provided to the Department of Labor and Training for unemployment insurance matches, suspension of credit bureau reporting, enhancements to the voice response system welcome letters, modifications to forms, constable service and notifications related to court dates transitioned to virtual WebEx or in-person hearings.

Child care consumer search website transition to support COVID-19 impacts – Work began to transition the child care consumer website currently supported by the Department of Education to Department of Human Services, using Stonewall Solutions. This aligns with child care licensing now residing under the Department of Human Service and allows for ongoing management by the Department to ensure federal compliance and responsiveness during events such as the pandemic.

Department of Children, Youth and Families

Major enhancement to RICHIST – Foster care redesign phase I was completed. The first new payroll was completed in September.

Private agency foster parent payroll – Implemented new windows in RICHIST to provide functionality to move 450 private entity foster homes onto the Department’s foster home payroll. Phase II is a fully automated foster care redesign.

COX Unified Communications (UC) for Call Floor – The COX UC app was installed successfully. This allows staff on the call floors to be answer calls to the office lines remotely.

Department of Behavioral Healthcare, Developmental Disabilities and Hospitals

Case management phase I – Case management implementation of SaaS platform to manage all DDD workflow processes. The Therap platform implementation is an end-to-end web-based platform that can manage caseloads from the perspective of the State and providers. The project was broken into two phases – the initial system setup and legacy data migration and also non-financial processes including eligibility, referrals, case notes, assessments, individual service plans, priority list, incidents and secure in-system communications, which was completed in 2/2020.

Phase II is the financial processes, including expansion of the individual service plans, service authorizations, purchase orders, vendor payment system, provider claims and sunset of the legacy system. The ISP program data and provider billing have been moved due to COVID-19 and providers asking to be placed on hold.

Eleanor Slater Hospital – ePrescribe opioid outpatient clinic – Federal law mandates that all prescribing of opioid drugs must be done electronically. To accommodate this mandate, the RXNT electronic prescribing solution was purchased. It is a standalone SAAS application and will be used by four to six providers for outpatient prescriptions to commercial pharmacies. Implementation started in July.

Eleanor Slater Hospital – clinical training kiosks – Thirteen kiosk computers were placed among the four buildings for Eleanor Slater Hospital, which will enable employees to execute mandatory online training requirements.

Barry and Simpson Hall move – This was a large-scale move of several divisions within the Department into Barry and Simpson Hall from the Hazard Building and Building 61. The DoIT team ensured that the network infrastructure and wiring were in place to support the computers, printers and network devices.

Bed registry system – This project was in collaboration with the Rhode Island Quality Institute to develop a public-facing bed registry for open hospital psychiatric beds. This also includes bed-based substance use treatment facility services in the future. Manual entry of data went live in July and ADT feeds were completed by December.

Department of Health

Childhood lead poisoning and asbestos surveillance system – DoIT completed the transition and full training of Department users for the childhood lead poisoning and asbestos surveillance system from software to a web-based application.

eWIC Crossroads MIS EBT implementation – This effort converted RI WIC to the new end-to-end eWIC system for documentation, care coordination, banking connectivity and federal reporting capabilities. This enabled the ability to provide EBT cards for WIC rather than paper checks and vouchers. This also ensured the RI WIC meets federal requirements.

Department of Corrections

Central distribution center inventory, warehouse management system – barcode scanning – The cloud-based inventory SaaS system for inventory/warehouse management was customized for barcode scanning for received items and calling up the purchase order for all received items. This allows the warehouse workers a more efficient way to receive items simply by scanning and not having a paper purchase and manual receipt to check all items.

Enhancements to INFACIS (Inmate Facility Tracking System) – Discipline hearings occur when an offender has not followed the rules or guidelines and is booked for the incident. Offenders have a right to a hearing, or they can waive it. Previously, all discipline hearings were recorded on cassettes/dictation machines. After the hearing, transcriptions would be typed from the audio recordings. Now, the proceedings are recorded via a microphone attached a laptop, and the code has been placed in the system, so that the entire hearing is recorded. This eliminates the need for a typed transcription and provides for a more accurate record.

Automated logbook (app engine) – A new application was built using app engine, which allows officers to enter incident/event information into a system, with a pilot phase focused on the high-security facility. Staff in the other facilities are still logging information in a notebook. This new system will be leveraged by all facilities in 2021. This will also allow reports to be pulled by incidents, dates, times or even officer more quickly and efficiently for court cases or grievances.

Department of Labor and Training

COVID-19 response – DoIT's focus centered on the COVID-19 response through multiple initiatives related to unemployment insurance, pandemic unemployment assistance, unemployment insurance fraud prevention, modernization of the unemployment insurance certification system and Back to Work RI.

Department of Business Regulation

ePermitting – Rhode Island continued to expand the statewide ePermitting platform in 2020. The platform is now live in 30 municipalities and five State agencies. We hope the remaining municipalities and several State agencies will launch additional applications online in the coming year and that current users expand its uses.

Department of Revenue – Division of Taxation

CARES Act grant program for restaurants/bars with liquor licenses – The Division of Taxation issued grants to each licensee who remitted sales tax and meals and beverage tax to the Division for the months of July through September and were adversely affected by the early closing hours that took effect on November 8. An online application utilizing Survey Monkey was used to gather application data. The existing State Tax Administration and Revenue system is issuing checks to businesses.

Unified Health Infrastructure Project (UHIP)

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.

As of 2020, the system was completely stable and reported green on all parameters through independent validation and verification for 18-plus months. **Since October 2017, the backlog of system incidents has decreased by 98% from a high of 6,634 down to 104 in 2020. The weekly inflow of incidents has also continued to trend well below the steady state target of 220-270 incidents, declining by 78% percent since last year.**

Continuous advancements on RIBridges functionality in 2020 resulted in the following:

- 226 production maintenance activities and 47 production HW/SW patches completed, keeping the system technically current and secure.
- **HealthyRhode** is a new mobile app that gives customers an additional way of accessing select customer portal functionality in order to increase self-service, improve case processing times and reduce call center volume.
- SNAP and expedited timeliness met or exceeded 96% every month until the onset of the COVID-19 mitigations.
- SNAP Federal Poverty Limit (FPL) auto-processing rates increased from 64% to 78%.
- CCAP Federal Poverty Limit (FPL) auto-processing rates increased from 5% to 72%.
- Manual CCAP dis-enrollments decreased by 99%.
- CCAP provider enrollments increased from 225 to 289.
- Cost-of-Living Adjustment (COLA) auto-processing rates increased from 92% to 95.6%.
- Accuracy of Medicaid enrollment transactions increased from 95% to 98%.

- LTSS patient information is now 94% synced between RIBridges and the Medicaid Management Information System (MMIS); this population's automatic enrollment transaction processing increased to 99.9%.
- 91% of customers were able to auto-renew their Qualified Health Plans (QHPs) for 2020.
- 61% increase in new customer portal accounts created.
- 30% increase in submitted DHS applications via the customer portal.
- 208% increase in submitted DHS renewals via the customer portal.

5. Collaboration Technologies

An existing line of effort that was expedited in response to COVID-19 remote work capabilities was the deployment of the Microsoft 365 collaboration suite of tools across State government. Leveraging this toolset to enable a more efficient, collaborative workforce proved crucial to the State's ability to execute its normal business functions, both on-premises and working from home. The adoption of these tools to their fullest potential was important to ensure the full return on investment, while also improving the user experience and increasing productivity. Over the past year, we have fully activated Teams, SharePoint, One Drive for Business and Microsoft multi-factor authentication (MFA). In addition, DoIT partnered with an external vendor to provide training on the toolset to licensed users on the enterprise network. Users have access to an online library with hundreds of training videos that empower employees to reap the full benefits of Microsoft 365.

6. Cybersecurity and Risk Management

The posture of the cybersecurity and risk management function within DoIT continues to mature, with the ongoing implementation of a defined cybersecurity defense in-depth program. This program is built upon the NIST Cybersecurity Framework, which catalogs and ranks IT risk across the enterprise IT environment for prioritization of mitigation. This approach has resulted in a consistent and measurable reduction in the overall IT risk in the enterprise environment. Cybersecurity efforts this year focused greatly on the security of the remote workforce; with the adoption of a suite of tools and processes targeted at ensuring the confidentiality, integrity and availability of State data and information systems. New tools and processes were also implemented to ensure the security of State data housed in cloud environments.

The information security awareness and training program continued to grow this year, with the successful completion of the training modules by over 73% of the user population. Additionally,

the monthly phishing awareness campaigns resulted in a marked increase in the number of correctly identified “phishing” emails as well as a total of over 8,200 suspected suspicious emails by users. The success of this program is well communicated and has resulted in the adoption of the program by non-Executive Branch agencies.

IT project governance was critically important to the cybersecurity of constituent data regarding the technology response to COVID-19. Active governance ensured the appropriate level of scrutiny was applied to information systems, applications and vendors that were deployed specific to the pandemic. Integration of VMO, legal and PMO IT governance ensures vendors adhere to any applicable regulatory and security requirements, as well as the State’s established cybersecurity control requirements. This scrutiny also includes the execution of application and web penetration testing to validate that security controls are implemented correctly.

Through active collaboration with members of the Joint Cyber Task Force (JCTF), ETSS continues to support the State Cybersecurity Strategy that was published in 2019. In 2020, DoIT actively participated in numerous cybersecurity workshops for municipalities regarding secure, remote work. DoIT’s leadership was instrumental in the execution of a cybersecurity review of the State election infrastructure leading up to the 2020 elections. DoIT participated in a joint tabletop election exercise conducted with the Secretary of State, the Rhode Island National Guard, the Rhode Island State Police and other members of the JCTF to ensure coordinated efforts in securing Rhode Island’s election infrastructure.

7. ITSM Program/Support Services

A key state IT initiative for fiscal 2020 was to work on a next-generation service delivery strategy and take IT services to the next level. We started by creating an ITSM program and adopting the ITIL best practices. We hired an ITSM program manager to ensure the program had proper leadership, governance and oversight.

Our approach was to create a plan and leverage the ITSM and ITIL best practices to guide us on our journey. The following accomplishments in the ITSM and ITIL space have positioned DoIT to better serve our agencies and user community.

Our Focus on People, Process and Technology

People: We trained our IT resources on the ITIL foundations and ensure that at all levels everyone spoke the same language. We trained our IT Service Desk agents, our techs, our platform engineers and managers to ensure a shared vision for service delivery.

Process: We identified our key processes and services, and created a service and process improvement plan.

Technology: We procured and implemented Service Now as our service delivery tool with ITSM and ITIL integration.

Critical Services Improved

The IT Service Desk – The first point of contact for our users. Our goal has been to increase first call resolution to ensure most tickets are resolved at first contact. We also **deployed the Service Now front-end portal** so users could open and check status on their tickets with the alternate goal of reducing the number of calls coming to the Service Desk. In early 2021, we will introduce chat, chatbot, Knowledgebase, request management and a service catalog to allow for further self-service capabilities.

Desktop Support Services – The second area of focus has been the Desktop Support Service organization, which provides on-site support to our agencies. Leveraging Service Now triaging and reporting capabilities has allowed our agency tech teams to collaborate and share ticket information seamlessly. Our techs can leverage the Service Now mobile app capabilities to better manage tickets from anywhere. In the coming months, we will be working on a shift-left strategy to create a more centralized level two support model. This model will allow our field technicians to troubleshoot remotely from a central location and be cross-trained to support all agencies.

Critical Processes Improved

Major Incident Management Process – Using the Service Now workflow capabilities, we created and implemented a new IS Major Incident Management Process. We are now more effectively managing, documenting and tracking major incidents.

Change Management Process – A Change Management Process was implemented to ensure changes are approved by a Change Advisory Board before execution. This has reduced the number of incidents and is helping us maintain a more resilient infrastructure. We are now focusing on implementing additional processes such as Problem Management, Asset Management and Configuration Management Database (CMDB).

8. Cloud Services

The technology challenges of 2020 resulted in the selection of **Amazon Web Services (AWS) as the cloud provider of choice for the State of Rhode Island**. This designation propelled rapid enablement of critical systems improvement, such as the Department of Labor and Training Unemployment Insurance IVR/IWR capabilities. The adoption of AWS provided more efficient and

secure unemployment insurance claims processing, driving constituent satisfaction. The State will continue its cloud 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. In addition to growing a great new cloud program featuring AWS, we will also focus on a critical datacenter modernization to address end of life equipment and provide a modern on-premises footprint for our agencies to leverage. This will allow for DoIT to be a broker to all the agencies under our care, putting the requested applications in the right platform that will best fit their needs, both now, and in the future.

The Enterprise Operations Center is the State’s premier data center and holds a desirable 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 2020, the ETSS infrastructure and operations team made continuing investments to maintain the aging hardware and software for our centralized on-premises infrastructure.

Consisting of over 200 individual server hosts, enterprise-class IP networking and storage area networking, this private cloud architecture enables the virtualization platform leveraged by most all critical Executive Branch applications. It will allow for 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 365 collaboration suite, the Division of Purchases’ eProcurement system, the online Learning Management System, the Service Now ITSM Tool and others.

9. IT Consolidation and Optimization

DoIT adheres to and operates in accordance with 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 1,200 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 2020, we realized the benefits of having full active directory forest consolidation of every ETSS-supported agency in the Executive Branch with great advances in endpoint creation and management, making our entire fleet more secure and compliant. In addition,

the last of the individual agency data centers, which had several high-risk components for the agency, was fully migrated to the Enterprise Operations Center, further advancing the IT consolidation efforts.

DoIT supported and unsupported 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, the State's vendor-maintained RIBridges environment and others, now leverage the ETSS Enterprise Operations Center (EOC) for their systems as a co-location, or fail-over site. In 2020, those agencies' footprints have continued to grow at the EOC.

10. Disaster Recovery and Business Continuity

In 2020, the Enterprise Operating Center (EOC) and agency support teams refined the methodology used to recovery Tier I applications for the participating agencies to adjust for a drastically changing landscape due to the pandemic response across all agencies. We were able to eliminate most all-manual and tape-based backups as well, with all agencies we support now primarily leveraging our disk-based automated platform to its fullest. We held the annual EOC DR test in October 2020, and once again the team was able to successfully recover the data for 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 recovery platform provides assurance to agencies that their designated Tier I-hosted applications, systems, and services within the EOC private cloud infrastructure can be restored in the event of a disaster. A complete redesign of our disaster recovery methodology is planned for 2021 along with our datacenter modernization efforts, 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.

11. Networking, Telecommunications and Wireless Connectivity

As the State's cloud and digital footprint continues to grow, the need for resilient and redundant network access and connectivity has grown. In response to the State's rapidly growing demand for network capacity, DoIT vastly improved enterprise network performance and capacity through the implementation of redundant internet service provider connectivity for risk tolerance at the primary internet point of demarcation. Additionally, enterprise risk was greatly mitigated through the implementation of a second internet point of demarcation for the State's network in order to load balance the State's wide area network, as well as provide for full network failover

capabilities. This new redundant and resilient network provides for full web filtering, load balancing, VPN and IDS/IPS capabilities, regardless of which path to and from the internet that State data and information systems are routed from.

This new resilient and redundant network is also architected to support modern network protocols – to include voice over IP. This modern architecture has laid the groundwork for a modern telephone infrastructure, which is being implemented across State agency locations. This modern telephone infrastructure provides for more cost-efficient telephone operations, as well as providing for remote phone and call center capabilities for the State workforce.

DoIT's pandemic response activities required the ability to rapidly expand the enterprise network footprint at new locations in a very short amount of time. The innovative use of point-to-point, secure cellular connectivity was leveraged as an interim solution to these remote requirements, providing the needed data and voice connectivity for COVID-19 response activities. Wireless network capacity expanded across the enterprise as State buildings were refreshed; providing a mobile work experience both in the office and when working remote. The adoption of a variety of broadband voice and data interim solutions afforded DoIT the ability to rapidly support the immediate demands of our customers as well as the time required to plan and architect for the implementation of long-term data and voice solutions.

12. Mail Operations

All U.S. mail received from the Enterprise Messaging Center, the Computer Center, State entities and some municipalities are processed by the Enterprise Mail Facility. It is barcode sorted and sent to the USPS below the cost (all on average) of a regular piece of first-class mail. Proper mail piece design by the mailroom decreases postal operation costs to the State. In 2020, savings totaled \$690,156.84. A barcode sorter enables application of all postal discounts afforded to a large mailer. On average, 1,500,000 pieces of mail per month are processed at this facility.

Enterprise Messaging Center couriers support State agencies by delivering interdepartmental correspondence and processing outgoing U.S. mail. Couriers internally distribute approximately 2,000 mail items 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.

In 2020, a holistic disaster recovery process was put in place for Mail Operations that corrected previous shortcomings. This new process allows for the complete remote enablement of mail operations if the existing facility were destroyed or deemed inaccessible.

13. Enterprise IT Governance

IT Governance across the enterprise and agencies has vastly improved over the past several years. A defined IT project governance has been established and has driven the successful oversight and completion of a wide array of IT projects of varying scope and budget. The adoption of a defined security governance framework has enabled a more strategic approach toward the implementation of a cybersecurity defense in-depth architecture. An update of the enterprise policy library for alignment with the selected NIST Cyber Security Framework was executed in order to accurately document policy, procedures and operational guidelines. The Audit Working Group consisting of representatives from Executive Branch agencies meets regularly to identify and mitigate audit findings across the enterprise and agencies.

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 clearly defined guidelines and requirements, including tracking and reporting (Appendix A).

14. Project and Portfolio Management

Since its establishment, the Project Management Office (PMO) has implemented and continuously improved the IT governance processes, tracked all IT projects and completed weekly status reports for each active project. This year, PMO saw a noted increase in demand as a result of COVID-19 response efforts. The PMO implemented a LEAN governance process in response to the speed to which COVID-19 technology enablement required to be executed. Many of those projects remain in a dynamic and ongoing state of implementation. The PMO tracked 22 projects to completion in 2020; this does not reflect agency level projects that do not require a PMO level project management. A breakdown on completed projects by agency can be found below in Figure 4.



Figure 4: 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), resulting in projects being delivered on time and on budget. 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 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 52 active projects, 11 of which are for DoIT, with the remaining 41 projects spread across 12 agencies, as identified in Figure 6 below. A full list of active projects by name can be found in Appendix B.

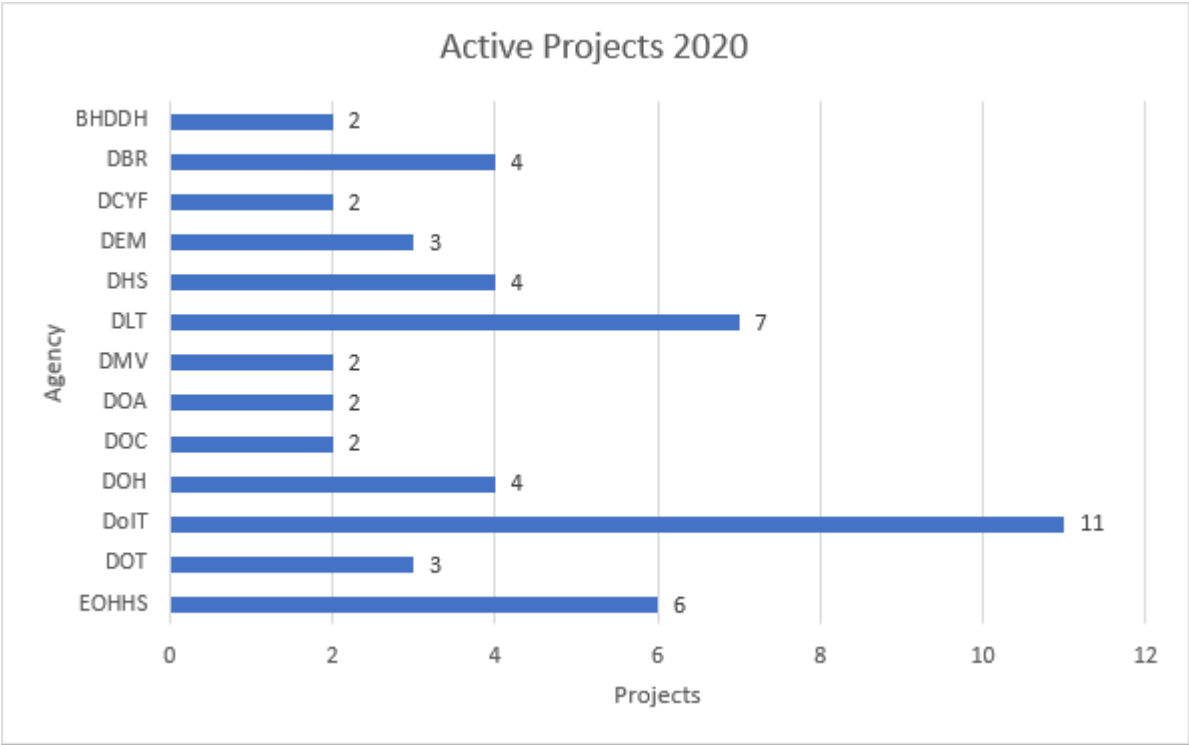


Figure 5: Active Projects

15. Vendor Management

The IT Vendor Management Office (VMO) was established in 2018 to enable efficient and effective procurement of IT third-party products and services. The IT VMO, as part of IT Leadership Team, proactively partners with IT and, as needed, with State agencies in procurement of IT services, hardware, software and telecom. VMO prioritizes sourcing demands and delivers RFP and contract services. As part of continuous improvement, VMO relies on its purchasing and sourcing processes, updating agreement templates and best practices. Operational vendor management allows the VMO

to engage and understand IT projects, enhance solution marketplace and deliver contracts in a timelier manner.

In 2020, the VMO successfully executed business as usual activities and completed numerous major initiatives in support of COVID-19 response activities. IT sourcing demand for third-party procurements accelerated at a pace like no other year, with varied application, telecom, network, security and infrastructure modernization initiatives executed in parallel with COVID-19 sourcing and procurement activities as depicted in Figure 6 below.

Major Contracts and RFPs Delivered by VMO in 2020

| | |
|--|---|
| <p>Application Services Sourcing</p> <ul style="list-style-type: none"> • Vital Records System RFP & Contract • UHIP M&O RFP • KidsBridge M&O RFP and Contract • RICHIST RFI • Learning Management System • OpenGov e-permitting renewal • KIND Medical Marijuana Contract Amendments • Block Chain POC RFP & Contract • Staffing needs via Knowledge Services • MMIS Planning Vendor RFP | <ul style="list-style-type: none"> • Work from home laptop order <p>Infrastructure Services Sourcing</p> <ul style="list-style-type: none"> • Office 365 Collaboration Deployment as a Service • HCI RFQ • SCCM Engineer RFP • EOC Staffing • 2021 License MSFT Reservation & MSFT Unified support • MPA extensions • Mailroom disaster recovery • AWS Carahsoft Managed Services |
| <p>COVID-19 Project Sourcing</p> <ul style="list-style-type: none"> • eCMS Contract • Legal Case Management System • Sales Force Development / Carahsoft Consulting & Licensing • CRUSH COVID, including Self-Screening Apps • Sales Force Maintenance • Vaccination Workstream Resourcing • URI DataSpark Agreement • Resourcing of Sales Force Project Managers | <p>Telecom, Network & Security Sourcing</p> <ul style="list-style-type: none"> • ISP & 2nd Internet • Privileged Access Management RFP • Data Protection & Encryption RFP • Telephone Upgrade & Call Center Replacement RFP • Proof Point RFP • Compass IT CRUSH COVID Assessment • MPA Extensions • Core Switch RFP • ISP security stack procurement |

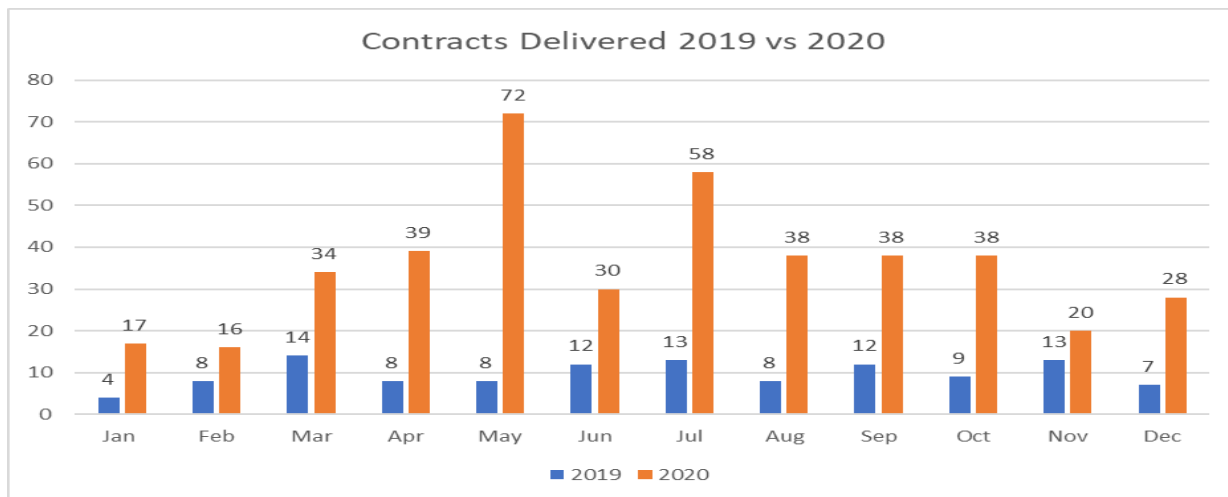


Figure 6: VMO Executed Contracts

Cost Savings and Avoidance Achieved

| Year** [Jan - Dec] | Cost Savings | Cost avoidance | Total Savings |
|--------------------|---------------------|--------------------|---------------------|
| 2018 | \$5,413,965 | \$6,500,000 | \$11,913,965 |
| 2019 | \$2,067,535 | \$672,534 | \$2,740,069 |
| 2020 | \$6,668,692 | \$1,477,870.52 | \$8,146,562.72 |
| TOTAL | \$10,642,460 | \$8,604,494 | \$19,246,954 |

Figure 7: Negotiated Cost Savings and Avoidance

The VMO continues to reduce the contracting cycle time, using repeatable process and templates through active partnership with DOA legal and purchasing. VMO maintains focus on executing in accordance with industry best practices for strategic sourcing, contract management, vendor management, as well as vendor performance and governance.

16. Budget Cost Control and Fiscal Management

DoIT continues to operate within the Internal Service Funds that were established in FY 2018. 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 ISF directly impact agency budgets. Statewide in FY 2021, it is expected to have a total IT spend of approximately \$215 million.

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

| | |
|----------------------------------|-------------------------|
| Total DoIT FY 2021 Budget | \$ 39,636,188.00 |
| <i>Allocated to:</i> | |
| RI FANS | \$ 1,723,721.00 |
| Director's Office | \$ 2,232,863.00 |
| Infrastructure & Operations | \$ 22,599,107.00 |
| App/Dev (DMV/DOR/DBR/DLT) | \$ 2,402,605.00 |
| App/Dev (DOA/DEM/DOC/DOT) | \$ 5,430,366.00 |
| App/Dev (DOH/BHDDH/DCYF/DHS) | \$ 4,029,010.00 |
| Project Management Office | \$ 1,218,516.00 |

Table 3: 2021 Budget

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

17. IT Funding

RI.gov Portal Transactions – 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 NIC Rhode Island (formerly Rhode Island Interactive) and encompasses the projects listed on page 20. In 2020, the RI.gov portal processed 2,128,571 transactions and collected \$105,858,561.92 in statutory funds on behalf of the State entities served. \$102,975,059.12 was remitted to the State to finance agency operations. The difference funded NIC Rhode Island’s maintenance and development of the portal.

| 2020 RI.gov Portal Transactions | | | |
|---------------------------------------|--------------|----------------|-------------------|
| Agency / Department | Transactions | Gross Revenue | Remitted to State |
| Office of the Attorney General | 37,785 | \$778,935.90 | \$745,220.00 |
| Town of Bristol | 3,363 | \$2,357,030.22 | \$2,334,370.17 |
| Town of Burrillville | 192 | \$5,344.00 | \$4,537.00 |
| Central Collections Unit | 320 | \$98,977.82 | \$97,314.33 |
| Contractors Registration Board | 302 | \$63,127.47 | \$61,295.00 |
| Dept. of Business Regulation | 22,422 | \$4,515,940.97 | \$4,360,172.71 |
| Dept. of Children, Youth and Families | 3,403 | \$39,134.50 | \$34,030.00 |
| Dept. of Environmental Management | 95,656 | \$6,127,523.91 | \$5,786,259.46 |

| | | | |
|---|---------|-----------------|-----------------|
| Dept. of Human Services | 26,864 | \$5,780,662.47 | \$5,614,664.30 |
| Dept. of Labor and Training | 7,420 | \$1,054,302.36 | \$1,011,224.25 |
| Division of Motor Vehicles | 750,416 | \$31,836,340.62 | \$30,836,788.25 |
| Dept. of Administration | 392,873 | \$54,456.15 | \$34,385.25 |
| Division of Information Technology | - | \$149,713.00 | - |
| Dept. of Transportation | 10,028 | \$2,624,831.00 | \$2,481,860.00 |
| Division of Public Utilities and Carriers | - | \$2,959.00 | - |
| Ethics Commission | 3,940 | \$1,970.00 | - |
| Town of Exeter | 222 | \$20,858.75 | \$20,232.11 |
| Dept. of Health | 148,532 | \$15,394,876.91 | \$15,368,765.03 |
| Town of Hopkinton | 17 | \$2,846.78 | \$2,783.13 |
| Housing Resources | - | - | - |
| Kent County Water Authority | 29,912 | \$4,370,820.11 | \$4,310,759.28 |
| Lt. Governor | 42 | \$6,614.70 | \$6,485.00 |
| Municipal | 139 | \$4,670.58 | \$4,300.20 |
| Town of Narragansett | 119 | \$5,058.04 | \$4,746.00 |
| City of Newport | 1,200 | \$46,136.00 | \$37,116.00 |
| City of Pawtucket | 15,248 | \$10,826,890.49 | \$10,768,620.47 |
| Town of Richmond | 74 | \$2,039.03 | \$1,926.50 |
| Dept. of Education | 4,086 | \$923,839.00 | \$898,950.00 |
| Secretary of State | 90,406 | \$4,466,418.55 | \$4,238,128.40 |
| Division of Taxation | 479,420 | \$8,967,064.27 | \$8,600,586.97 |
| Office of the General Treasurer | 568 | \$4,852,321.11 | \$4,852,321.11 |
| Univ. of Rhode Island | 2,925 | \$454,264.50 | \$436,447.00 |
| Town of Westerly | 677 | \$22,593.71 | \$20,771.20 |

| | | | |
|---------------|------------------|-------------------------|-------------------------|
| TOTALS | 2,128,571 | \$105,858,561.92 | \$102,975,059.12 |
|---------------|------------------|-------------------------|-------------------------|

PLEASE NOTE: The financial information listed above is based on actuals for January – November 2020. However, in the interest of publishing this document in a timely manner, the figures for December 2020 are estimated and based on December 2019 actuals. For more information, please contact Thomas Viall, President, NIC RI, LLC.

Table 4: Portal Transactions

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 previously 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 projects in 2020 for enterprise-wide initiatives, totaling \$5.1 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, we 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 |
| (Approved in 2016/2017) Subtotal | | \$33,810,794 |

| 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 |
| (Approved in 2018) Subtotal | | \$6,658,190 |

| 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 |
| (Approved in 2019) Subtotal | | \$7,679,425 |

| Approved Projects in 2020 | | |
|-----------------------------|--------------------------------|----------------------------------|
| Department | Project Title | Budget Approved (Multiple Years) |
| DOA/DoIT | Hyper Converged Infrastructure | \$3,300,000 |
| DOA/DoIT | Network Switch Replacement | \$1,800,000 |
| (Approved in 2020) Subtotal | | \$5,100,000 |

Table 5: Projects by Year and Budget

18. Office of Library Services

The Office of Library and Information Services (OLIS) is responsible for developing and implementing a statewide plan for library development, interlibrary cooperation and resource sharing to serve the library and information needs of residents. OLIS has the statutory authority and responsibility to administer state and federal funding to develop programs that support and advance library services statewide and to coordinate services and administer 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 for the Blind and Print Disabled, 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 to all member libraries and their patrons.

OLIS started 2020 with a full agenda of ongoing programs and projects, but in March pivoted to address the impact of the pandemic on libraries and to guide them in revisioning services. The actions taken enabled nearly uninterrupted delivery of library and information services to Rhode Islanders, though channels transformed from physical services to a robust hybrid of physical and virtual services. Throughout the pandemic, OLIS continued to offer its regular services and programs with limited interruption; some special projects and partner initiatives have been delayed, focusing on pandemic response and recovery.

Ongoing Projects

2020 Census – OLIS continued to work with the Census Bureau and the RI Complete Count Committee to engage libraries and increase participation in the 2020 Census.

Continuing education – In 2020, OLIS offered 135 programs attended by 4,400 library staff, resulting in a 150% increase in programming and a 387% increase in attendance over 2019. COVID-19-related programs accounted for 71 programs and attracting 3,494 attendees; general programs accounted for 64 programs and 912 attendees. Ongoing professional development opportunities for librarians include special interest groups for different topics in librarianship and online resources to support these groups, along with specialized COVID-19 sessions focused on reopening and adapting services for different age groups and populations.

Data and statistics – OLIS annually collects public library data on library funding, services and resource-sharing. In 2020, OLIS fully digitized all processes.

Equity, diversion and inclusion – OLIS continued to offer programs to cultivate more inclusive programming and services at libraries, with a more limited schedule than initially planned, focusing programming this year on homeless and disabled populations. OLIS partnered with the RI Library Association to develop a year-long program of training for library staff on EDI topics that will be launched in January 2021.

Library of Rhode Island Learning Grants – OLIS awarded eight grants to nine libraries for youth-oriented summer learning programs. A total of \$14,000 in grants were funded using federal Library Services and Technology Act funding from the Institute of Museum and Library Services. With OLIS assistance, grants approved in January 2020 were adapted as virtual programs.

Summer reading – Over 7,500 children participated in the 2020 Summer Reading Program, a decrease of 46% from 2019 due to COVID-19. Roughly 3,400 children and families attended in-person educational programs at libraries, a decrease of 77% from 2019. OLIS also supported the Governor’s April Reading Challenge for K-12 students by coordinating book distribution at libraries in the spring while library buildings were closed.

Operations

State aid to libraries – operating – In FY 2020, \$8.6 million in operating grants were awarded to municipalities to support public library service in accordance with state statutes and regulations.

State aid to libraries – capital – The \$21 million Providence Public Library renovation project (\$9 million in State funds) was completed in late March. Referenda on library construction projects were approved in Jamestown and Narragansett; libraries are expected to apply for construction reimbursement funding in 2021.

Statewide Reference Resource Center – AskRI – \$700,000 was awarded to the Providence Public Library to provide support for online electronic resources for all Rhode Islanders. In 2020, OLIS added Udemy, which includes thousands of online tutorials in business and especially in information technology, to support workforce skills and expand resources on [AskRI](#).

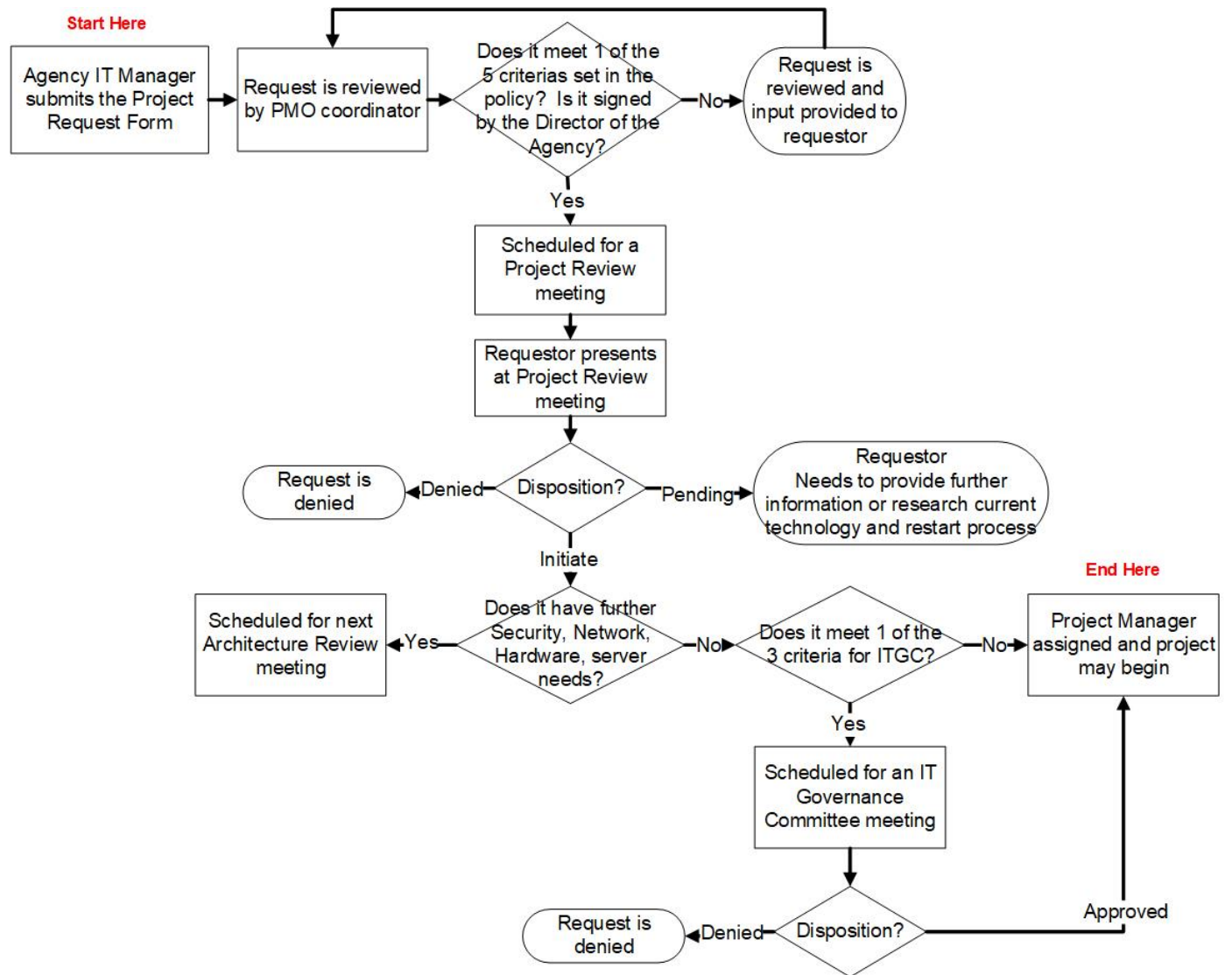
Library of Rhode Island (LORI) delivery – 209 libraries participated in the network to facilitate sharing of the over 10 million items available in Rhode Island’s public, academic, school, and special libraries. OLIS suspended interlibrary delivery on March 16 in response to the closure of library buildings and uncertainty about how the virus might spread via library materials. Delivery resumed temporarily from April 24 through May 4 and was resumed on a limited basis starting May 18, with recommendations to quarantine materials for 72 hours based on scientific studies focused on library

materials. Full delivery was resumed during Phase III (July), though quarantine recommendations remain in effect. Delivery volume at year's end is around 80% of pre-pandemic levels.

Talking Books Library – Over 1,500 Rhode Islanders who are blind or visually impaired borrowed or downloaded over 48,000 items from the collection and received support and service from OLIS. Annual circulation decreased 13% due to physical service limitations in April and May, though downloads increased 6% and items borrowed from other regions less impacted by COVID-19 in the spring increased 65%; with 171 new members added, a 21% decrease of new members over the previous year due to decreased outreach.

APPENDIX A

IT Project Governance Process



APPENDIX B

Active ETSS Projects (as of 1/27/2021)

| Project Name | Agency | Status |
|--|--------|----------|
| Planning Phase | | |
| Medical Marijuana Seed-to-Sale | DBR | ON TRACK |
| FoxPro Modernization | DEM | ON TRACK |
| RIVH MAS Nurse Scheduling | DHS | ON TRACK |
| CCAP Consumer Website MVP for COVID-19 | DHS | AT RISK |
| eMar | DHS | ON TRACK |
| DLT Request for Data Lake to host AS400 Data Extracts | DLT | ON TRACK |
| AWS DLT RIPL-GOOGLE Back to Work RI | DLT | ON TRACK |
| Unemployment Insurance Phase 2 | DLT | ON TRACK |
| Expanding Online Services to Improve Customer Satisfaction | DMV | ON TRACK |
| KnowledgeLake | DMV | ON TRACK |
| HCI | DoIT | ON TRACK |
| Telephone and Call Center Upgrade | DoIT | ON TRACK |
| Network Access Control | DoIT | ON TRACK |
| Primavera Unifier | DOT | ON TRACK |
| Extension of Electronic Visit Verification Services | EOHHS | ON TRACK |
| Extension of MMIS Services | EOHHS | ON TRACK |
| EOHHS Community Resource Platform | EOHHS | ON TRACK |
| SUD Measure-based Care SaaS Platform | EOHHS | ON TRACK |
| MES Planning Vendor Procurement | EOHHS | AT RISK |
| Execution & Control Phase | | |
| Case Management Phase 2 | BHDDH | ON TRACK |
| DBR Medical Marijuana | DBR | ON TRACK |
| Statewide ePermitting Platform | DBR | AT RISK |
| Early Intervention Electronic Referrals | DCYF | ON TRACK |
| RICHIST Support and Enhancement Contract | DCYF | ON TRACK |

| | | |
|--|-------|----------|
| Enterprise Electronic Hunting & Fishing License System | DEM | ON TRACK |
| Electronic Document Management (OWTS Phase II) | DEM | ON TRACK |
| eBT Processing RFP | DHS | ON TRACK |
| Cloud AWS DLT PUA Application Migration to AMS-LZ | DLT | ON TRACK |
| Cloud AWS DLT IVR/IWR/Attestation Migration to AMS-LZ | DLT | ON TRACK |
| Cloud AWS DLT Research Data Migration to AMS-LZ | DLT | ON TRACK |
| OnBase Imaging System Upgrade | DLT | ON TRACK |
| Legal Case Management System Implementation | DOA | ON TRACK |
| eProcurement | DOA | AT RISK |
| Probation and Parole Case Management | DOC | ON TRACK |
| Parole Board Scanning | DOC | ON TRACK |
| Crush Covid RI App | DOH | ON TRACK |
| Covid Response System | DOH | ON TRACK |
| My License Office (MLO) Upgrade | DOH | ON TRACK |
| OneDrive Migrations | DoIT | ON TRACK |
| Database Encryption | DoIT | ON TRACK |
| Privileged Access Management | DoIT | ON TRACK |
| i5 to i9 Server Migration | DoIT | AT RISK |
| Enterprise Content Management System | DoIT | ON TRACK |
| Network Redundancy and Resiliency | DoIT | ON TRACK |
| Windows Server Upgrade - POAM items | DoIT | ON TRACK |
| eConstruction Phase II (Headlight Software) | DOT | ON TRACK |
| Storm Manager Pilot | DOT | ON TRACK |
| EOHHS Ecosystem SQL Server Migration to AWS Cloud | EOHHS | ON TRACK |
| Closeout Phase | | |
| Blockchain POC | DBR | ON TRACK |