



2022 Annual Report

Agency of Digital Services

3 V.S.A. § 3303

Submitted by

John Quinn, Secretary and State CIO

Shawn Nailor, Deputy Secretary

Date

January 18, 2022



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Executive Summary

The Agency of Digital Services (ADS) is responsible for supporting the Administration's goals of growing the economy, making Vermont more affordable, and protecting the most vulnerable. To meet these goals, the Agency is committed to proactively providing enterprise-wide cost-effective, customer-focused information technology (IT) services and solutions in a secure, reliable and up-to date manner.

The Agency of Digital Services brings together technical and business professionals from across the Executive Branch to support the ongoing, statewide transition to digital government. Examples of this work include continuous evaluation and improvement of systems which deliver support to Vermonters and state employees. For example, turning Vermonters feedback into improved and enhanced experiences with government interactions. ADS also manages strategic investments in technology and manages the timing and pace of digital government enhancements.

In alignment with Governor Scott's priorities, the Agency of Digital Services identified the following four goals:

- **By 2024**, increase the automation and reliability of services delivered to Vermonters through modern technology.
- **By 2024**, increase accuracy of reporting and support creation of a comprehensive Executive Branch information technology (IT) budget by reviewing and categorizing all financial transactions related to technology spending.
- **Continuously** defend the state data network and raise employee and citizen awareness of risks in cyberspace to reduce the likelihood of unauthorized access and misuse of Vermont data.
- **By 2025**, improve Vermonters' experience with government by increasing online interaction.

Agency Statutory Language

In the 2019 Legislative Session, statutory language referencing the roles and responsibilities of the Department of Information and Innovation (DII) was replaced with the Agency of Digital Services (ADS). With the passage of Act 49 of the 2019 session, ADS now assumes the responsibility of being the single entity created to provide information technology services and solutions in State government. The legislation also updated reporting requirements for the Agency. ADS is now responsible for providing an annual report each year and an updated strategic plan biennially.

Our Successes in 2021

The information included in our 2022 Annual Report submission highlights our successes from calendar year 2021. When ADS was created in April 2017, we made it our mission to keep our IT staff embedded in the agencies they support. This model has created many positive outcomes for our partner agencies. We have highlighted some of those successes in this report. In addition, we have highlighted the major successes achieved this year in each of our ADS Divisions. The wide range of successes across all agencies and departments indicate that the entire Executive Branch benefitting from centralized IT.

Partner Agency Support Model

The establishment of the Agency of Digital Services has created the opportunity for centralization and modernization of IT needs in the State. In addition, by continuing to house ADS staff resources in the physical locations of State Agencies, we can provide better

coordination, communication and prioritization of IT needs to leadership and staff. Listed below are a few of the successes we have achieved in supporting our partner agencies.

Increased Collaboration with Partner Agency Leadership

While consolidation can present challenges as employees and leadership adjust to having changes in the IT reporting structure, it can also foster a more inclusive, road mapping process. In a number of agencies and departments across state government, IT leadership finds increased and earlier engagement with business leadership in the planning and discussion of technical solutions aimed at helping the business. The elevation of ADS to Agency status has enabled this collaboration to exist by reducing the number of IT “bubbles” across state government.

Increased Collaboration and Support Across IT Professionals

A success experienced through the consolidation in reporting structures across IT professionals, is the increased collaboration across agencies and departments. With a reduction of the barriers between IT professionals we find those who have a skill set which is needed in other locations can more readily assist. For example, the Division of Shared Services was able to assist the Agency of Commerce and Community Development with Microsoft Dynamics. While these opportunities have always existed, the weekly in-person communication between IT leaders has allowed the challenges to be discussed and solutions be implemented by the technical staff in a more expeditious manner.

Increased Visibility of Enterprise Offerings

One success experienced through the improved communication and collaboration at the Agency IT leader level is an increased awareness of the capability, technical maturity, and resource availability around the enterprise regarding IT offerings. While centralized IT has consistently made efforts to procure and make available enterprise offerings, the increased communication opportunities between the Chief Technology Office and Agency IT Leaders have created opportunities for discussions on suitability to occur prior to commitments being made and projects being scoped for incompatible technologies.

Enterprise Architecture Division

Enterprise Customer Relationship Management

2020-2021 has been exciting for the Salesforce Platform. The ADS team of technologists supporting this platform doubled this year due to demand. We went from 3 live salesforce business applications prior to COVID to 26 applications in 14 months with 3 additional major efforts underway for the Child Development Information System, Dept of Liquor & Lottery Licensing system, and the 1-stop VT Business Registration Portal. Our Salesforce environment has been configured and audited to support the highest IRS and HIPAA data standards. The Salesforce Platform was the technical backbone of the Pandemic Response. The Platform in partnership with vendors stepped up and was able to get applications out in record time to support Vermonters. In between keeping the lights on and supporting inflight projects the team is working toward documenting the Platform Governance and Best Practices. As a leader in the Government Salesforce community, Vermont has defined a State-gov specific data model that is in the process implemented and back-ported to our current applications. This data model allows non-duplicative, single-source of truth Vermonter data to live in our Salesforce org while applying agency, department, and program-level confidentiality to simultaneously allow sharing across state government of the 360degree needs of Vermonters, while not sharing details that are regulated or require privacy protections within programs. To protect against future security

needs we are moving our applications to the new Salesforce FedRamp-High certified cloud. We will migrate all existing apps to this new Org to complete the Data Model effort in 2022. Automation of application release management has been an overall success with the introduction of the Copado application. We have completed over 90 application promotions to Production since July. The learning curve has been steep, but we are improving with each release. The story for the Platform for 2022 is Governance and Best Practices. We now have multiple vendors working between our org and governance and best practices are our number one priority. We provided Salesforce and Release training to ADS staff in 2021 and 2022 will also bring more internal development. In 2021 we saw the internal development of the ADS Business Office Inventory application and the Special Education customer engagement system for the Agency of Education. We look forward to documenting best practices and procuring tools to automate security scanning to aid in our governance and quality of the Platform as it continues to grow and evolve.

Enterprise Integration Platform

In 2022, the state's use of the Data and Application Integration Platform (Mulesoft) will continue to grow, allowing the state to modernize our integrations between platforms, which will make them easier to manage and maintain for our IT staff. Rather than the legacy jumble of point-to-point code and traffic between our systems. Mulesoft connects itself to each of our systems (Salesforce, Vision, Mainframe, etc) and then orchestrates any data or application needs across those platforms. The platform forms the backbone of integrations for the new Child Development Division Information System which is scheduled to go live in Jan 2022. In the first quarter of 2022, MuleSoft will serve as an integration engine for the Department of Liquor and Lottery Licensing and Enforcement solution. The platform will also serve as the replacement of the state's aging system for the Vermont Department of Health (Rhapsody). The state has trained ADS staff as developers on the solution and their skillsets continue to grow with this new technology, ready to support the future Platform strategy.

Enterprise Resource Planning

The State is accelerating towards modernization of Human, Financial and Physical capital management functions to an ADS-manager Enterprise Resource Planning (ERP) system. We currently maintain a myriad of expensive and cumbersome solutions across the state. As with other critical business capabilities in our portfolio (Case Management, Document Management, etc.) we are moving towards a shared and easily integrated enterprise solution.

- The best option for the operating model as determined by ADS is to be a SaaS Cloud-based software and infrastructure. The State believes Workday is the best offering available on the market today to help support the operations of the Department of Human Resources, Department of Finance and Management, and the Finance Budget Group. This operating model which includes application, infrastructure (servers and networks), and operating system applications would be maintained through subscription to cloud services rather than SOV capital expense on servers and software. The vendor would be responsible for the establishment of a new operating model that best serves the State. The State of Vermont would not be responsible for the maintenance and hosting of the Financial and HCM applications with this solution.
- The solution will be built as a single system with a single source for data, a single security model, and a single user experience, it offers organizations a cloud-based system that evolves to meet changing business objectives in a changing world.
- The solution must be based on a flexible, business-oriented framework that bundles employees into groups based on cost centers, job specifications, reporting hierarchy, using low-code user-friendly interfaces.

- Satisfies the needs of the Department of Human Resources, Finance, and Management, Budget Group along with the specialized ERPs in use at the Department of Transportation and the Department of Labor.
- The State of Vermont has chosen the SaaS application Workday because it satisfies the following criteria: (1) sold on subscription, (2) hosted and managed by the application software vendor, and (3) delivered in a multitenant model, which ensures that virtually all customers are using the latest version of the software. Workday only offers SaaS.

MyVermont.gov (Okta)

For the myVermont.gov single sign-on, account management platform for Vermonters, a substantial amount of progress was made during the second half of 2021 to connect the States Salesforce presence to Okta. This will launch at the beginning of 2022 with the Child Development Information System going live followed by the Secretary of State 1-stop Business Registration Portal and the Dept of Liquor and Lottery Licensing system. Other Salesforce and non-salesforce applications are expected to follow including at the Agency of Transportation, Department of Public Safety, and Agency on Education. We expect to have more than 100k myVermont.gov Okta accounts in use by the end of 2022. This volume of traffic is expected to produce positive network effects by increasing the value for agencies and users of joining the SSO environment, and by reducing the per-unit cost to each agency. With each new app we bring on, it is expected to become both technically, administratively, and financially simpler to bring on the next.

For Vermonters, myVermont.gov serves as a modern hub for users containing a dashboard with Mulesoft extracted state data that is most relevant to them and links to the Okta connected applications for which they are provisioned. A mobile app where users can connect to myVermont apps and receive push notifications is also in development. ADS is also working with the Department of Labor to create an identity proofing platform that can be used statewide to streamline the process confirming that users are who they claim to be. With these changes in place, we expect to reduce time spent troubleshooting for customers, increase the value of joining myVermont and make it easy for customers to discover and leverage services throughout the state.

Azure Cloud Migration

At the end of 2021, the State has moved 200+ new workloads to Azure Commercial and Azure Government clouds. The Agency of Human Services will complete its migration to Azure in the first quarter of 2022. A second project to move at least 6 additional Agencies & Departments from on-premises infrastructure to Azure is planned for this year. Also, we plan to move a large amount of local file storage to Azure file storage and other Microsoft cloud solutions such as SharePoint and OneDrive. These migration efforts are expected to reduce the need to buy additional infrastructure to support on-premise virtual computing this year and allow the State to close several data centers. The current cloud-first strategy is expected to keep on-premises growth to a minimum, further reducing the need to purchase additional infrastructure.

Cybersecurity and Networking Division

State Partnership with NUARI

ADS Security has continued to deepen and refine our operational capability in the cybersecurity environment. The partnership with the Norwich University Applied Research Institutes (NUARI) adds to our incident analysis and trend analysis as they investigate logs at a level that State staff had rarely had the time to do. Their assistance with table-top exercises (TTX) has allowed us to design better processes, test those processes, and refine as deficiencies are recognized. NUARI also increases our supply chain security by analyzing new software before that software is authorized for installation into our enterprise environment. Our CrowdStrike implementation has also been a resounding success. ADS has much deeper visibility into the status of our computers and servers with a wide array of metrics for numbers of incidents detected, computers tracked, and average time to resolve an incident, to name a few. Improvements in virtual private network (VPN) software, multifactor authentication (MFA), and device logging have all contributed to the refinement of our operational capability.

Risk Assessment

Risk assessment and risk tracking have been major efforts this year. With the help of Covid Relief Funds (CRF), we have conducted two separate risk assessments to identify shortcomings in both our platforms and applications. Conducting these assessments is particularly vital with our shift to a largely remote workforce as the identification of risks allows us to better shift resources and protective systems to areas of higher risk created by moving our staff outside of our firewalls and security perimeter onto residential internet connections. One of the major outcomes from the assessments was identifying that the complexity of our systems lent to serious gaps in our risk tracking capability. We remedied this by procuring and developing governance, risk, and compliance platform that we are designing specifically to track risk and allow executives to make decisions related to system upgrades and replacements, based on the risk of the systems, not just factors like age. An offshoot of this work has been the development of a risk-ranked application inventory that will continue to be part of ADS' communication with other State Agencies toward prioritization of modernization and a better protective posture.

Security and Network Consolidation

ADS has consolidated our Security and Network teams into one division. This is a major shift in functionality as the move begins a lengthy process of fully integrating cybersecurity into the underpinnings of our network architecture and communications. The differing priorities of the two teams had, at times, led to poor integration of technology platforms and divergent skill sets between the two teams. Consolidation means unification of those technologies, first through cross-leveling expertise and training opportunities, and second, by building in the efficiencies of a single vendor approach to the switching and routing of internet communications and also the inspection and protection of those communications.

Finance Division

Communications & Information Technology Fund from a deficit to a surplus

In-State Fiscal Year 2021, the Agency was able to increase the net position of the Communications & Information Technology Fund from a deficit to a surplus, by \$4,099,164. This leaves the fund in a surplus position of \$3,948,292. This reversal from deficit to surplus is attributed to the Agency actively working to collect aged receivables, increased demand in services provided by the Agency during the pandemic, streamlining business processes to

ensure accuracy and increase timeliness of billing to Agencies, as well as the continued efforts to achieve Statewide transparency on technology spend.

Voice Over Internet Protocol (VoIP) Billings

ADS has successfully transitioned Voice Over Internet Protocol (VoIP) billings from a manual internal process to a streamlined billing process administered by a third-party vendor. The selection of a third-party vendor has been a long and arduous process that ended with the selection of NWN Corporation, the State's Voice over IP telephony provider. Included as a requirement of an RFP issued by ADS for Voice over IP telephony services, NWN will be providing all customary VOIP Telephony services currently being used by the Executive and Judicial Branches and now will also provide the billing and collections for each user for the service directly, rather than go through the bill-back method currently managed by the ADS Finance Division. The transition is seen as a way to increase the VOIP Telephony billing efficiency for all Agencies and Departments of the State, as well as free up internal resources that could be put into effective use for other purposes.

Supply Chain Demand Constraints

Over the past year, ADS has battled to provide top service to our customers due to supply chain demand constraints. Due to the Covid Pandemic, standard equipment, such as laptops, docking stations, monitors and printers have been consistently hard to receive. In some instances, docks that were being purchased were already outdated and not compatible with the available laptops, so they needed to be returned. ADS has had wait times on equipment of over 8 months to be able to receive all equipment needed to issue out to our customers. Since the beginning of the pandemic, the Agency of Digital Services has experienced supply chain constraints that have severely hindered our ability to provide IT hardware to our customers throughout the state. The Agency has struggled to procure stock equipment such as laptops, monitors, docking stations, printers, cell phones, and more. As an example, there are pending orders for docking stations ordered back in March 2021. Due to the lengthy delays, some of the items ordered have been replaced by a newer generation. This mid-order change in model can and has caused compatibility issues with accessories procured for those items. For example, we placed an order for laptops and corresponding docks; the docks were received first, and the laptops came second. The manufacturer implemented a generational change on all machines making the docks incompatible with any new hardware the Agency would be receiving. The Agency ended up returning 200 docks and has yet to receive the replacement to those returned due to the constraints. Most of these constraints are in large part due to the chip shortage, but also because of the high demand the pandemic has caused.

The Agency of Digital Services has worked hard to find alternative solutions, such as a less popular docking station for most standard laptops (which work more like an adapter as the machines have to receive power through their power adapter). Contact is made weekly to our vendor community seeking alternatives. At times during this pandemic, vendors have been able to get us similar products in different brands. We do have strong relationships with several vendors, and when they hear that they will get stock of a like item or our typical requested item, they reach out and let us know. They will place temporary holds until a purchase order can be provided, this has worked out very well and has allowed us to fulfill most priority requests in a timely fashion.

The likelihood of the supply chain constraints slowing down is slim. Currently, we have estimated delivery dates for some items as far out as April 2022. This will likely be pushed out further as we approach April.

Shared Services Division

COVID19 Response – Remote Worker

Throughout 2021 the Shared Services Division has been instrumental in the State's COVID-19 response. The Desktop Support Team has deployed over 1,500 laptops this year to support remote workers. As employees return to the office and hybrid meetings are becoming commonplace, Desktop Support is deploying video conferencing systems in conference rooms across the state. In 2021 approximately fifty systems were set up, and plans are underway to add close to two hundred more in 2022.

Virtual desktops are another strategy that is being used to enable remote workers, especially when data security is paramount. The Shared Services division built new Windows Virtual Desktop farms for the Agency of Administration, Agency of Human Services, Agency of Transportation, and Department of Labor. As we wrap up 2021, the Agency of Administration has been fully transitioned to Windows Virtual Desktop, while the AHS, AOT, and DOL deployments are in various stages of refinement, and on their way to going live. In many cases, we are also realizing cost savings as these deployments are replacing more expensive Citrix solutions that have been in place for some time.

Migration to VSMS Domain

The Shared Services Division continues to migrate agencies from legacy domains to the unified VSMS domain. These migrations include user accounts, computer accounts, moving file services to SharePoint Online, OneDrive for Business, and line-of-business application services. Migrated users and applications can take advantage of the enterprise-level security offerings installed and configured by default for all VSMS users. In 2021 we completed the migration of the Department of Education, Secretary of State, Attorney Generals' Office, and many smaller organizations.

Expanded Voice over Internet Protocol (VoIP) Telephone

The Shared Services Division is in the middle of a project to expand the use of Voice over Internet Protocol (VoIP) telephone, which will reduce costs by allowing us to move off more expensive legacy phone services. Part of this project addresses E9-1-1 compliance. Changes were made to the Cisco VoIP service to allow remote workers to update their 9-1-1 location – This was done by installing Sentry Gatekeeper on all machines with softphones. This 3rd party software, provided by NWN detects changes to address at sign-on and prompts for an updated location. This means that if a softphone is used to dial 9-1-1 then the correct address is conveyed. This software will be used when we move to Jabber this year.

Onbase System Upgrade

Other significant accomplishments in 2021 include an upgrade of the OnBase system to the current version; this impacted approximately 1000 users. The OnBase platform manages document, image and video content. In addition to storing and retrieving files, OnBase securely manages workflows and business processes, granting access only to those who need access. The upgrade allows the State to further leverage its Enterprise Platform Architecture to maximize usage of Salesforce, Okta, Mulesoft, and Workday

Enterprise Project Management Office

The Enterprise Project Management Office is responsible for maintaining the records of all information technology projects across State government. Highlighted below is a list of information technology projects completed by the Agency of Digital Services this year.

Agency of Education (AOE) State Report Card Project

The State Report Card Project implemented a User-friendly system that contains dashboards that are easily interpreted by a varying audience, including public access for required transparency and role-based access to education stakeholders with a legal educational right to view unsuppressed information. This system also fulfills requirements associated with Every Student Succeeds Act. The project schedule was extended several times, however, the project finished approximately \$51,000 under the approved budget.

Department of Labor Unemployment Insurance Pandemic Unemployment Assistance Project

This project migrated Pandemic Unemployment Assistance (PUA) user documents from the PUA application into a more sustainable document management solution, OnBase. The project schedule was expedited to comply with Coronavirus Relief Fund (CRF) expenditure guidelines and while there were delays due to some OnBase configurations that required additional support, the project finished with the required timeframe and about \$150,000 under the original baselined budget.

E911 Next Generation 911 System

The e911 Next Generation 911 System Project implemented a fully hosted and redundant Next Generation 911 System that provides all the equipment and functional elements to deliver, answer, call back and conference 911 calls in the Vermont PSAPs. There was a change request that added scope to the project which resulted in a schedule extension. The five-year cost model that was estimated for the project ended up approximately \$1.1M under budget, even though the implementation costs were slightly more than estimated.

Green Mountain Care Board (GMCB) VHCURES 3.0

This project upgraded the VHCURES database, with the existing vendor Onpoint Health Data, to support additional analytic capabilities and new requirements, including those for the Vermont All-Payer ACO Model. The VHCURES database was upgraded to align with anticipated state data needs, to enrich VHCURES as an analytic data set, and to expand access to VHCURES. The project was successful, finishing within the baselined schedule and budget as well as achieving the expected business outcomes.

Dept. Of Vermont Health Access, Integrated Eligibility & Enrollment (IEE) Customer Portal Phase 2-Online Application

The Online Application project is phase 2 of the IE&E Customer Portal initiative. Phase 2 developed an online application for the Medicaid Aged, Blind, and Disabled (MABD) population. The project performed a pilot of the application internally with the Maximus call center. Phase 2 also included Authentication, which creates a secure, single-sign-on for users for the MABD online application, MyBenefits, and the Document Uploader. The authentication effort allows for the consolidation of 2 sign-on for MyBenefits and the Document Uploader down to one which simplifies the experience for Vermonters. Authentication on the Document Uploader also now brings the uploader into compliance to allow for its use by Medicaid and QHP customers which provides them with another avenue for submitting their supporting documentation.

Dept. Of Vermont Health Access, Integrated Eligibility & Enrollment (IEE) Business Intelligence Oracle Business Intelligence Enterprise (OBIEE) into the Oracle environment (OFE)

The OBIEE into OFE project's goal was to move Oracle's Business Intelligence reporting tool (OBIEE - Oracle Business Intelligence Enterprise) into the new Oracle environment (OFE) to ensure that VHC can generate the needed operational reports. This project was a contingency effort related to the original Business Intelligence (BI) project.

Agency of Transportation DMV Online Scheduler

The successful implementation of the online scheduler enabled DMV to safely return to serving the public during this pandemic and furthered the DMV's vision to have modern and customer-friendly online services.

Agency of Transportation Bridge Inspection Software (InspectX)

The implementation of a single bridge asset/management product that allows for field collection, reporting of NBI & NBE data, support load rating, ad hoc querying, photo editing, support links to plans/historical information, and federal submittal creation. This allowed for a more cost-efficient & streamlined process that will eliminate confusion & allow better access to bridge inspection information.

Agency of Transportation Vermont Asset Management Information System (VAMIS) Phase 1

The completion of Phase 1 advances the Agency's objective to efficiently decide, track and be accountable for its transportation asset investment portfolio. As a result of the project, the Agency gained efficiencies by reducing the number of information sources that the user must access (e.g. bridge management system, pavement management system, etc). The user can simply access the VAMIS and have access to multiple systems and assets across the Agency. The project reduces duplication of effort between business groups and reduces one-time data collection efforts.

Agency of Transportation DMV Roadside Inspection/CVIEW

The implementation of the Roadside Inspection and Commercial Vehicle Exchange Window (CVIEW) increased the amount of real-time information available to officers at roadside and reduced requirements to access multiple systems and complete duplicative data entry. The result has been time savings for staff and carriers under inspection. The project was implemented under budget and, as a result of ITD core compliance, the State can leverage future ITD funding from FMCSA for other ITD projects.

Agency of Human Services VDH COVID Testing Registration

Testing Clinic and Vaccination Clinic Registration System to allow the public to register for clinics and securely receive test results. Enhanced COVID19 testing resulted in a large backlog of negative test results that were sent via USPS or phoned to the recipient. There was a need for a more streamlined process to handle test clinic registration and lab test results. In anticipation of future vaccine clinics, the solution has to be extendable. This project successfully delivered an online and call center-supported testing registration system. The emergency nature of the need demanded the project be accomplished as soon as viable and was done so at a cost that fell within the funding available.

Data Division

Open and Accessible Map Data

It's coming up on 30 years since the creation of Vermont's Geographic Information System (GIS) and it would have been hard to imagine in 1992 how many people would be accessing geospatial data in Vermont today. At the time, there were 10 websites in the entire world and ADS's GIS had slightly over 100 customers – trained professionals who would mail-order floppy disks of data. Today, open and immediate access to geospatial data, like tax parcel boundaries and natural resource information, has become an expected government service accessed by anyone with an internet connection. 2021 saw about a 30% increase in traffic, from 385 million server requests to a mind boggling 500 million requests. In a typical month, we now see over 40,000 unique users accessing Vermont's geospatial data (and if you include pandemic related data this number balloons to several hundred thousand.) The growth and success of GIS in Vermont can largely be attributed to the collaboration of over 20 different partner agencies, regional planning commissions, and others outside of government contributing to over 1000 datasets to the Open Geodata Portal.

Pandemic Response

The COVID-19 in Vermont case and the Vermont Vaccine Data dashboards continued to be wildly popular, with over 13 million visits since the beginning of the pandemic. Vermonters curious about town vaccination trends or where to get their shot were able to consult the new COVID-19 Vaccinations Town Map and COVID-19 Vaccination Clinics apps. Rounding out the COVID-19 space, the team also helped launch a COVID-19 Testing Facilities app to help Vermonters locate a convenient testing site. Beyond pandemic related work, staff also helped the Health Department's Cyanobacteria program Mosquito Surveillance program create user friendly public reporting applications.

Online Property Parcel Information and Land Surveys

While COVID-19 data took the top-spot for most visits, property parcel data took second place – with a growing number of Vermonter's using the VT Parcel Viewer and other applications to gather information about property ownership. Among the new applications is the Renter Rebate SPAN lookup app, created with the Tax Department to assist renters identify property SPAN numbers this tax filing season. The newly created Land Survey Library (Act 38) also finished the year with 917 digital survey submissions, helping to make sure parcel data will stay fresh. The National States Geographic Information Council recognized the parcel program with a Geospatial Excellence Award at their annual conference.

2020 Census

The 2020 Census results were published, showing that Vermont's population grew to 643,077, roughly 19,000 more people than had been estimated by the American Community Survey in 2019. This follows the efforts of ADS staff to collect and process data from eight different agencies and departments and submit address locations that would increase the Census residential address database file by over 2%, accounting for a number very close to the actual results. By preventing an undercount, the State of Vermont will save over \$400 million dollars in federal assistance over the next decade.

Redistricting & Strengthening Elections

ADS processed and published Census data results for use by the Legislative Apportionment Board, creating maps and applications to help the Board develop their redistricting proposal and

making it easier for the public to visualize changes proposed for their towns. The Agency also partnered with the Secretary of State's Office, the National States Geographic Information Council, and Maricopa County in Arizona in a GeoEnabled Election Pilot project to help modernize election tasks and take steps to further ensure election security measures.

Awards Received in 2021

In 2021, the State of Vermont was nominated and won several awards for applications that made access to government services easier, improved Vermonter's quality of life, and incentivized new Vermonter's to relocate to our beautiful State. Below is a few of the awards the State of Vermont was recognized for in 2021.

Vermont Outdoors Mobile App

- 2021 MarCom Award (Gold)
- 2021 W3 Awards (Gold)
- 2021 dotCOMM Awards (Gold)
- 2021 Hermes Creative Awards (Gold)

DMV Learner's Permit Application

- 2021 Dacey Awards (Silver)
- 2021 W3 Awards (Silver)
- 2021 dotCOMM Awards (Honorable Mention)

ACCD New Worker Relocation Grant Program

- 2021 AVA Digital Awards (Gold)

DEC Let's Scrap Food Waste

- 2021 AVA Digital Awards (Gold)

Statutory Requirements

The Agency of Digital Services is statutorily required by 3 V.S.A. § 3303 to provide the following data. The data collected helps our Agency, the Legislature and others to understand the importance of coordination and investment in information technology for the State.

Costs Saved/Avoided as a Result of Technology Optimization

This requirement tasks our Agency with documenting costs saved or avoided through technology optimization for the last fiscal year. In this table, we have identified where our Agency saved or avoided costs due to technology modernization. The table below indicates the partner agency or department where savings occurred, the name of the initiative, the total amount and frequency of the savings or cost avoidance.

| Agency/Department | Initiative | Amount | Frequency |
|-------------------|--|-----------|-----------|
| ADS AOT | Cancel 19 G3 Licenses and change 14 others from G3 to F1 | \$ 92,119 | Annual |
| ADS AOA | Retirement of Footprints Server - Migration to Ivanti | \$ 4,385 | Annual |

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|-----------------------------|---|---------------|----------|
| ADS/VDOL | Citrix Licensing - Removal of 50 | \$ 9,250 | Annual |
| AOT | Switching CVO Compute to AZG Reserved Instances | \$ 62,656 | Annual |
| AOE | Migrated Oracle databases to archive and SQL environment | \$ 45,918 | Annual |
| AOE | shutting down file servers with Sharepoint migration/VSMS | \$ 33,505 | Annual |
| AOE | Ivanti for new computer deployment | \$ 1,890 | Annual |
| DPS | Retire 5 Servers | \$ 29,047 | Annual |
| DPS | Implementation of Electronic Warrants | \$ 880,000 | Annual |
| AOT | Removal of 7 Partner G3 accounts. | \$ 2,296 | Annual |
| AOT | Switched 9 AOT O365 from G1 to F3 | \$ 174 | Annual |
| ADS Shared Services | Migration to Windows Virtual Desktop non renewal of CAL's | \$ 40,000 | One Time |
| ADS Shared Services | Migration to Windows Virtual Desktop non renewal of Citrix support | \$ 40,000 | One Time |
| ADS AHS | Negotiated free work by Quisitive for Microsoft server migration | \$ 152,500 | Annual |
| ADS | Reduction of Staff Augmentation Costs in the DVHA Portfolio | \$ 280,800 | Annual |
| ADS | Reduction of Staff Augmentation Costs in the DVHA Portfolio | \$ 280,800 | Annual |
| VDOL | Removal of ACD (Automated Call Distribution Environment) | \$ 46,893 | One Time |
| ADS CDO | Design and Implementation of Salesforce Data Model | \$ 1,700,000 | One Time |
| ADS AOT | Cancel SAS licenses due to part of CMS going online | \$ 11,124 | One Time |
| ADS AOT | Cancel AASHTOWare Project FieldManager Suite License | \$ 3,750 | One Time |
| ADS AOT | Decommissioning of 31 VM's | \$ 192,443 | One Time |
| ADS AOT CTO | Migration off RWIS SAN and subsequent shutdown | \$ 3,300 | Annual |
| AOE | Consolidation of SQL Analysis and EDE environments - decommission sql analysis server | \$ 7,050 | Annual |
| ADS AHS | Care Management R3 Certification (ADS/AHS achieved R3, as a first in nation, certification that increase federal match) | \$ 412,500.00 | Annual |
| ADS Enterprise Architecture | VHC Migration to Onbase (eliminate Optum hosting) | \$ 300,000.00 | Annual |

| | | | |
|-------------|---|--------------|--------|
| ADS EPMO | Recruitment | \$93,600.00 | Annual |
| ADS EPMO | Resource Assignments | \$553,280.00 | Annual |
| ADS EPMO | Resource Assignments | \$349,440.00 | Annual |
| ADS EPMO | Resource Assignments | \$249,600.00 | Annual |
| ADS EPMO | Resource Assignments | \$114,000.00 | Annual |
| ADS EPMO | Resource Assignments | \$94,000.00 | Annual |
| ADS EPMO | Resource Removal | \$300,000.00 | Annual |
| ADS VDOL | Cancel IBM Service no longer needed with Move to Blue Hill | \$33,189.00 | Annual |
| ADS VDOL | Cancel Flex-ES System no longer needed with move to Blue Hill -FLEX-ES support maintenance for a 34 MIPS tServer. 7 x 24 x 365 support includes v7 FLEX-ES, SUSE Linux, Custom-Configured hot-synch software, Faketape, and one PCA-1 single port Parallel Channel Adapter. | \$23,300.00 | Annual |
| ADS/AGR | Upgraded licensing and registration system to allow online self service renewals and accept credit cards and ACH transactions | \$40,000.00 | Annual |
| ADS/AGR | Adobe InDesign/Acrobat License Savings | \$572.04 | Annual |
| AOE | Cancelling Sifter Software License | \$588.00 | Annual |
| AOE | Switching from Open Voice to Skype for Business Audio Conferencing | \$600.00 | Annual |
| ADS/CTO | Virtual Firewalls, M&O Savings | \$358,400.00 | Annual |
| ADS/CTO | Optum Hosting Reduction | \$100,000.00 | Annual |
| ADS/CTO | VMWare Upgrade | \$433,000.00 | Annual |
| ADS CTO | Mulesoft Maintenance Costs - ADS negotiated savings of this amount AFTER the business had received a "final" offer from the vendor. | \$30,000.00 | Annual |
| ADS CTO | Pfsense rollout (open-source) for load-balancing (replacement of F5 @\$5k/ea) | \$50,000.00 | Annual |
| ADS CTO | Pfsense rollout (open-source) for FW (replacement of vshield @\$2k/ea) | \$140,000.00 | Annual |
| ADS CTO/AOT | AOT IDIQ (Contracts Management) Salesforce project | | Annual |
| ADS/CTO | Rubrik Backup Solution (replacing NetBackups) | \$240,000.00 | Annual |
| ADS/DOL | Transition to LANDesk/Ivanti | \$6,000.00 | Annual |
| ADS/DOL | UI Backup Check Printer SN#JPCL5C700M - Discontinued Support | \$1,308.09 | Annual |
| ADS/DOL | Citrix Concurrent Licenses - Dropped 98 licenses | \$18,130.00 | Annual |
| ADS/DOL | Symquest Scanner Maintenance - Discontinued Support | \$9,015.64 | Annual |
| ADS/DOL | Labor ACD Calling Center Support Renewal | \$10,000.00 | Annual |
| ADS/DOL | Symantec Endpoint Protection for Labor Domain | \$4,665.00 | Annual |
| ADS/DOL | SEP for Dettics Call Center | \$1,091.00 | Annual |
| ADS/DPS | Replace MaaS360 MDM with Microsoft Products | \$30,000.00 | Annual |

| | | | |
|----------------------|--|---------------------|----------|
| ADS/DPS | Decommissioning, moving divisions to SharePoint, shifting from VMs to Isilon storage | \$29,700.00 | Annual |
| ADS/Shared Services | We are planning to replace our current core WAN wave circuit (TechVault to Waterbury) provided by Fairpoint (\$6000/month) with a FirstLight wave circuit (\$2000/month). This is a \$48,000/year savings; \$144,000 savings over the 3 year commitment for the FirstLight circuit. The commitment to the existing Fairpoint circuit ends at April 30th. | \$48,000.00 | Annual |
| ADS/Shared Services | Microsoft Reseller Competition | \$57,000.00 | Annual |
| ADS/TAX | Transition to LANDesk/Ivanti | \$7,000.00 | Annual |
| Secretary's Office | Active Position and Vacancy Management | \$0.00 | Annual |
| ADS/AHS/DVHA | Discontinue hosting in Optum for Webcenter Content/Capture replaced by Onbase | \$ 301,980.00 | Annual |
| | Child Nutrition Support and Licensing cost negotiation based on completeness on go live | \$ 23,125 | One time |
| ADS/CTO | Oracle contract savings (Peoplesoft, Oracle) | \$ 1,300,000 | One time |
| ADS/CTO | Oracle contract savings (Peoplesoft, Oracle) | \$ 286,982 | Savings |
| Savings Total | | \$ 9,969,965 | |

Financial Report of Revenues and Expenditures for the Current Fiscal Year

The following table highlights the revenues and expenditures of ADS in the current fiscal year. The information is broken down into the description, budget, carry-over, total budget, expenses and revenues. The bottom column on the table indicates the total expenses and revenues from FY21.

| SFY2022 Revenues and Expenditures 07/01/21 - 12/31/21 | | | | | | | | | |
|---|------------------------------|-------|------------------------|------------------------|--------------------------|-------------------------|--------------------------|-------------------------|-------------------------|
| Dept | Descr | Fund | Budget Amt | SFY21 Carry-Over | Excess Receipts Requests | One-Time Appropriations | Total Budget | Expended Amt | Revenue |
| 1105500000 | Comm & Info Technology | 10000 | \$ 174,342.00 | \$ 5,549.45 | \$ - | \$ - | \$ 179,891.45 | \$ 109,455.25 | \$ - |
| 1105500000 | Comm & Info Technology | 21328 | \$ 13,500.00 | \$ 705.60 | \$ - | \$ - | \$ 14,205.60 | \$ - | \$ - |
| 1105500000 | Comm & Info Technology | 21330 | \$ 374,210.00 | \$ 240.92 | \$ - | \$ - | \$ 374,450.92 | \$ 232,591.44 | \$ - |
| 1105500000 | Comm & Info Technology | 21932 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 1105500000 | Comm & Info Technology | 22045 | \$ - | \$ 365,154.28 | \$ 200,000.00 | \$ - | \$ 565,154.28 | \$ 164,351.29 | \$ - |
| 1105500000 | Comm & Info Technology | 58100 | \$ 80,191,291.00 | \$ 7,644,983.05 | \$ 8,863,000.00 | \$ - | \$ 96,699,274.05 | \$ 45,821,891.90 | \$ 25,092,417.76 |
| 1105500000 | Comm & Info Technology | 59300 | \$ 3,163,389.00 | \$ 481,934.21 | \$ - | \$ - | \$ 3,645,323.21 | \$ 1,529,937.20 | \$ - |
| 1105891901 | Firewalls, Data Storage | 10000 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 1105891902 | Network Device Upgrades | 10000 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 1105892101 | ADS-Cybersecurity Risks | 22045 | \$ - | \$ 189,460.40 | \$ - | \$ 801,497.46 | \$ 990,957.86 | \$ 232,690.68 | \$ - |
| 1105892102 | ADS-DMV IT System | 20105 | \$ - | \$ - | \$ - | \$ 900,000.00 | \$ 900,000.00 | \$ - | \$ - |
| 1105892201 | ADS-Cybersecurity Infrastruc | 22047 | \$ - | \$ - | \$ - | \$ 1,500,000.00 | \$ 1,500,000.00 | \$ - | \$ - |
| 1105991901 | Digital Orthophoto Mapping | 31100 | \$ - | \$ - | \$ - | \$ 116,129.47 | \$ 116,129.47 | \$ - | \$ - |
| 1105992001 | ADS - Digital Orthophoto Map | 31100 | \$ - | \$ - | \$ - | \$ 124,920.00 | \$ 124,920.00 | \$ - | \$ - |
| 1105992101 | ADS - Digital Orthophoto Map | 31100 | \$ - | \$ - | \$ - | \$ 123,873.00 | \$ 123,873.00 | \$ - | \$ - |
| Totals | | | \$83,916,732.00 | \$ 8,688,027.91 | \$ 9,063,000.00 | \$ 3,566,419.93 | \$ 105,234,179.84 | \$ 48,090,917.76 | \$ 25,092,417.76 |

Summary of CY20 Independent Reviews

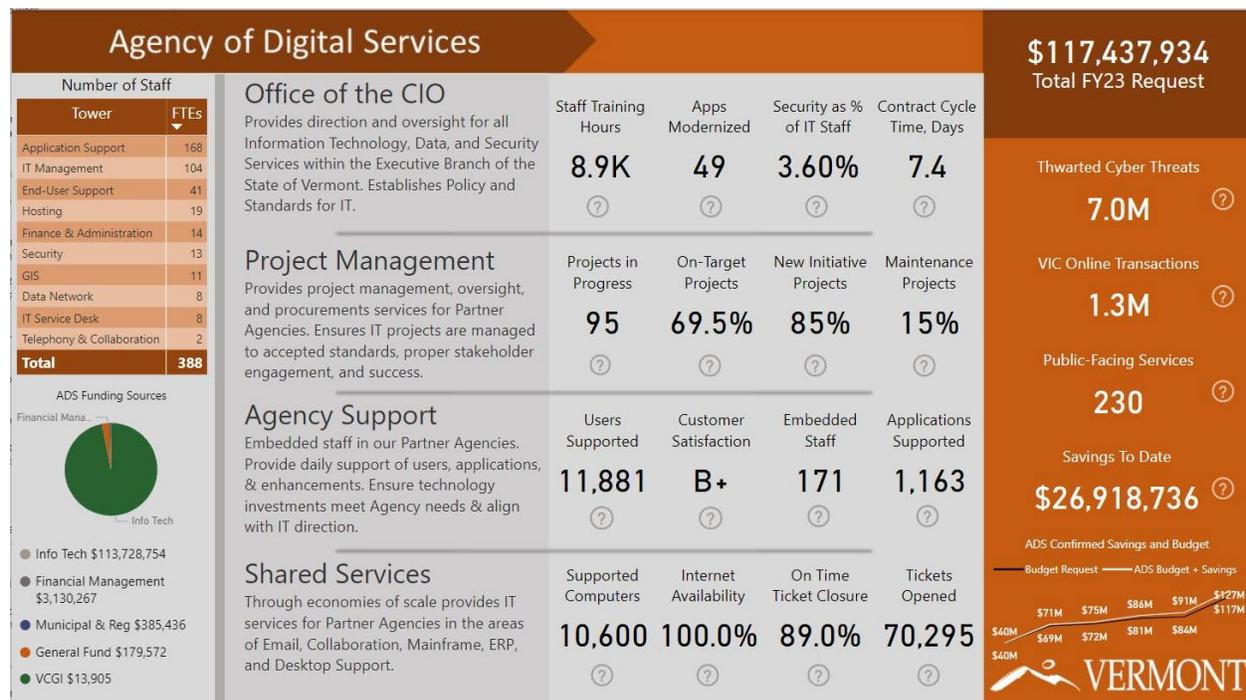
Per statute, ADS is required to hire an independent contractor to conduct an independent review on technology projects with total costs of over \$1 million. Additionally, we must provide summaries of each independent review conducted. The independent reviews must include an acquisition cost assessment; a technology architecture and standards review; an implementation plan assessment; a cost analysis and a model for benefit analysis; an analysis of alternatives; an impact analysis on net operating costs for the agency carrying out the activity; and a security assessment. The Independent Review summaries can be found in the Information Technology Activity Report ([Independent Reviews | Enterprise Project Management Office \(vermont.gov\)](#)).

Outline Summary of IT Projects Over \$500,000.00

The ADS Project Management Office is constantly tracking data on all IT projects. Our agency is required to provide an outline summary of information, including scope, schedule, budget, and status for information technology projects over \$500,000.00. Highlighted in this report are projects which meet the \$500,000.00 threshold, as well as the top 10 IT projects chosen by the CIO. This information can be found in the Information Technology Activity Report ([EPMO Annual Report FY22.pdf \(vermont.gov\)](#)).

Agency Performance Metrics and Trends

To ensure successful Agency performance, our Agency is constantly tracking data and metrics. The data includes baseline and annual measurements for each division of the Agency.



Appendix A

ADS 2021 Awards

| Year | Award Name | Level | Entry | Category |
|------|---------------------------|-------------------|--|--|
| 2021 | MarCom | Gold | Vermont Outdoors | Mobile App |
| 2021 | MarCom | Honorable Mention | DMV Learner's Permit Application | Website: Government |
| 2021 | Davey Awards | Silver | DMV Learner's Permit Application | General Websites-Government - State for Websites |
| 2021 | Davey Awards | Silver | Vermont Outdoors | Mobile/Apps: Maps & Navigation |
| 2021 | W3 Awards | Gold | F&W Vermont Outdoors Mobile Application | Mobile Features-Best User Experience for Mobile |
| 2021 | W3 Awards | Silver | DLL Education Storefront | General Websites-Government - State for Websites |
| 2021 | W3 Awards | Silver | DMV Learner's Permit Application | General Websites-Government - State for Websites |
| 2021 | CDG Government Experience | Winner | DMV Learner's Permit Application | Project Experience: State Government |
| 2021 | dotCOMM Awards | Gold | F&W Vermont Outdoors Mobile Application | Mobile/Apps: Government |
| 2021 | dotCOMM Awards | Gold | DLL Education Storefront | Website: Government |
| 2021 | dotCOMM Awards | Honorable Mention | DMV Learner's Permit Application | Website: Government |
| 2021 | Hermes Creative Awards | Gold | F&W Vermont Outdoors Mobile Application | Mobile App |
| 2021 | Hermes Creative Awards | Honorable Mention | DLL Education Storefront | Government Website Overall |
| 2021 | AVA Digital Awards | Gold | ACCD New Worker Relocation Grant Program | Web-Based Production: Government Website |
| 2021 | AVA Digital Awards | Gold | DEC Let's Scrap Food Waste | Web-Based Production: Government Website |
| 2021 | AVA Digital Awards | Honorable Mention | DMV Learner's Permit Application | Web-Based Production: Government Website |
| 2021 | AVA Digital Awards | Honorable Mention | DMV Vermont Rider Education Program | Web-Based Production: Government Website |