



Executive Branch Technology Benefits Report

2023

Submitted September 2024

vita.virginia.gov

BACKGROUND/INTRODUCTION

Pursuant to Virginia Code [§ 2.2-2007\(B\)\(2\)](#), the Virginia Information Technologies Agency (VITA) respectfully submits this report, which provides an annual update on the “use and application of information technology by executive branch agencies to increase economic efficiency, citizen convenience, and public access to state government.” This report summarizes initiatives undertaken by VITA and other agencies in 2023. Technology initiatives begun in 2024 will appear in next year’s report.

The executive branch continues to use technology to enhance efficiency and services to Virginians. This report explores the benefits these initiatives bring to the Commonwealth. When agencies coordinate and work together with each other and vendors, and when resources are invested in technology modernization, we can achieve progress, efficiency, and excellence that benefit Virginians.

REPORT

Deployment of major network modernization across the Commonwealth

Both network capacity and performance improvements have been a top focus for the Commonwealth, which will be covered in detail in this year’s network infrastructure report, due November 1. In summary: the network capacity improvements include deploying software-defined, wide area network (SD-WAN) to over 1000 Commonwealth sites, tripling the number of sites with broadband, reducing overutilized sites by 75%, and increasing network capacity by 1,300% (as of July 2024) and growing. Network performance improvements include eliminating non-essential third-party network traffic and removing duplicate protocol paths and obsolete firewalls.

Executive Branch Messaging Transition

In 2022, the executive branch began a major project to transition to a new Messaging Services provider, NTT Data, and to a new platform for email, collaboration, and other office productivity software and services: Microsoft 365. 85% of agencies had expressed a preference to transition from Google to Microsoft, and, in 2023, the executive branch completed that migration for all agencies.

Successful completion of the Messaging migration product required countless hours from VITA and agency personnel and would not have been possible without a strong partnership between VITA, our customer agencies, and NTT Data. The Messaging

transition exemplifies what can be accomplished when working together, and it also illustrates the importance of investing in modernized software and services.

By May 2023, the project was completed on-time and on-budget, transitioning more than 72,475 user accounts in 31 move events, migrating more than 1.7 billion objects (approximately 736 terabytes) with a 99.907% success rate, and keeping all 69 state agencies' operations moving throughout the duration of the project uninterrupted.

Change requires adjustments, but it also unlocks opportunity. The Microsoft 365 suite of products and services allows agencies to take advantage of improved cybersecurity through integrated technologies such as data loss prevention (DLP); enhanced functions like ediscovery through Microsoft Purview; new data analytics, connection, and app capabilities through Microsoft Power Apps; and new ways to perform old services, such as use of Microsoft Teams calling to replace legacy telecommunications technologies at a lower cost. In future years, we will continue seeking to use the capabilities of the Microsoft platform.

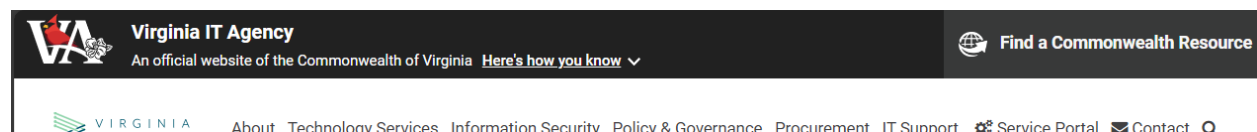
More information about the Microsoft 365 platform and its capabilities is available online from Microsoft. For more information about the Messaging project specifically, contact Chad Wirz at chad.wirz@vita.virginia.gov or VITA Communications at vitacomms@vita.virginia.gov.

Executive Branch Website Modernization Program

[Last year's report](#) provided an initial discussion of the website modernization project, a coordinated effort to help agencies make their websites more secure and accessible, while providing citizens with an improved experience.

Website modernization launched in late 2022 and early 2023, pursuant to direction from the Secretary of Administration and thanks to a General Assembly decision to make some centralized funding available for cybersecurity-related initiatives. The program has delivered important benefits for agencies and the Virginians we serve.

Last year's report discussed 100% implementation of the Commonwealth branding bar, which provides a consistent and easy way to identify official websites, an important step in a world replete with phishing and questionable online sources of information:



The program has also delivered improved accessibility. Agency websites' compliance with accessibility standards has risen from 44% to 88%, and VITA rolled out (and then further updated) a [Web System Standard](#). Not only does this work enhance services for Virginians, but it positions the Commonwealth for required compliance. The federal government has [announced final regulations](#) concerning web content and compliance with Title II of the Americans with Disabilities Act (with a deadline of April 24, 2026), so state and local government must continue prioritizing and investing in accessibility.

Behind the scenes, these improvements were possible because of partnership among VITA, agencies, and vendors (including Accenture) and because program resources enabled VITA to provide agencies with Siteimprove for accessibility scanning and web traffic monitoring, a custom Accessible Virginia training program, and contract vehicles for web hosting, design, and content management services. Over the past year, security tool rollout and training associated with this program have resulted in an 80% decrease in late (over 30 days) critical and high vulnerability remediation.

StateScoop recently recognized the efforts of all involved in the program, awarding it a StateScoop 50 Innovation of the Year award.

For more information on the website modernization program, see VITA's website at <https://www.vita.virginia.gov/websitemodernization/>

Virginia Permit Transparency Project (Multiple Agencies)

In 2022, Executive Order #19 established the Office of Regulatory Management (ORM) within the Office of the Governor to provide transparency, streamline regulatory management and reduce regulatory burdens (with an overall goal of a 25% reduction). Currently the Commonwealth of Virginia has 92 permitting system being used by 30 + state agencies. ORM assessed five (5) agencies within the Commonwealth that manage permits, and VITA worked with ORM and those agencies to create a new permit tracking system and website.

That web-based tracking system is now known as Virginia Permit Transparency (VPT) and is available at permits.virginia.gov. VPT currently features six agencies – the Virginia Marine Resources Commission and the Virginia Departments of Conservation and Recreation (DCR), Environmental Quality (DEQ), Energy, Health (VDH), and Transportation (VDOT) – and more agencies are expected to join over time. VPT

already covers over 100 kinds of permits and has data for more than 100,000 permit applications.

VPT helps Virginians navigate and understand the state's permitting processes with less burden. Creating VPT required business process improvement related to tracking of permits and centralizing data and reporting to help provide the transparency needed for Virginians to understand permit processes and the steps toward timely decisions. This cloud-based, citizen-facing website and application displays permitting status for citizen lookup using the participating agencies' workflows, data and timeframes.

The improvement efforts related to VPT have also enabled agencies to achieve faster permit processing times. DEQ managed to reduce its average permit processing time by over 70%, for example.

For more information, see the VPT website or contact Melinda Stewart at VITA at melinda.stewart@vita.virginia.gov.

Microsoft Power Platform implementation

The Microsoft Power Platform is a transformative suite of tools designed to simplify and innovate the process of low-code application development and automation. Tailored for citizen developers, business analysts, IT administrators, and professional developers alike, this platform empowers users to automate processes, construct solutions, analyze data, and create virtual agents. In July 2023, VITA introduced its Low-Code Application Platform (LCAP) Power Platform managed service to facilitate the adoption process for Commonwealth of Virginia (COV) agencies by streamlining licensing, procurement, governance, and support procedures associated with the platform. At launch, COV personnel, including employees and contractors, had already leveraged Microsoft Power Platform tools to develop over 3,000 custom applications and automate 6,000 workflows. To nurture collaboration among COV agencies and promote effective governance, VITA established a Power Platform Community of Practice (CoP). Utilizing Microsoft Teams as its central hub, VITA has created dedicated channels for each agency to engage across agencies. VITA facilitates monthly CoP meetings to share information, discuss best practices, and spotlight platform-related initiatives at individual COV agencies. The CoP has rapidly expanded, boasting a membership of over 1,300 members since its inception with just 50 initial participants.

Virginia Department of Transportation

Digitize Bridge Inspection Reports Project

VDOT's Structure and Bridge Division required a modern automated inspection software tool that efficiently captures data, automates workflows, integrates data across systems, and accelerates the development of reports and analysis. The implemented solution automates scheduling and the workflow requirements to include electronic notifications of inspections, which are sent to the bridge inspection managers and their field staff, who conduct inspections and produce initial reports.

Electronic notifications are configurable and use email or other routing solutions to notify one or more inspectors and/or supervisors that an inspection is due. A configurable dashboard is required to maintain and display pending inspections, completed inspections, pending inspection reports, completed inspection reports, and the status of other assignments. The dashboard will allow managers at the district and central office levels to drill down and gain a perspective of pending task(s), completed work, and associated comments or issues.

The solution eliminates manual report creation and paper storage by automating report generation and providing commercial cloud storage.

For more information, contact VDOT CIO Lynn Hadden (Theresa.Hadden@vdot.virginia.gov).

Facilities Maintenance Management System Project

Capital Outlay Division provides oversight, guidance and support for VDOT's Facility Management Program. The Facility Management Program serves a supportive role in VDOT's mission to "provide tools (i.e., technology, equipment, buildings, etc.), policies and efficient processes to ensure success for those who plan, deliver, operate and maintain the transportation system."

This project focused on improving the processes, used by the Capital Outlay Division, to manage daily operations and provide services needed to maintain and protect VDOT facilities by implementing a centralized Facility Management system. The overall goal of this project was to implement a centralized Facility Management System (FMS) within VDOT.

This centralized facility management system provides for process standardization for work orders, space planning, maintenance reserve project planning, facility condition assessments, and routine preventative and responsive maintenance assessments. It

also serves as a foundation for Capital Project Planning. This project implemented a software-as-a-service (SaaS) centralized cloud-based Facility Maintenance Management System, to allow for the tracking and reporting of work orders and projects from initiation to completion, capture expenditures and inventory, provide enhanced and aggregate reporting, provide for more transparent project prioritization and budget allocation and allow for more accurate budget planning and maintenance schedule.

For more information, contact VDOT CIO Lynn Hadden (Theresa.Hadden@vdot.virginia.gov).

Department of Education

Software Requisition Request

The DOE leveraged the Power Apps platform to digitize its software requisition process and guide process steps through multiple layers of approvals. This process previously had to be manually documented through email.

The software requisition request application is used to ensure the VDOE Office of Technology is aware of all software purchases throughout the agency, and that the request software abides by Virginia Commonwealth and VDOE IT security standards. It is one of the most used Power Apps in the Agency.

Software Requisition Request Form

Who will be using this software? * <input type="text" value="Enter User Name"/>	Is this software being requested for more than 5 users? * <input type="text" value="Select choice from drop down"/>	What department are they in? * <input type="text" value="Select a choice from drop down"/>
Where is the user physically located? * <input type="text" value="Select a location from drop down"/>	What is the product name of the software? * <input type="text" value="Enter name of the software"/>	Please enter the VITA computer tag number where the software is being installed <input type="text"/>
What company produces this software? * <input type="text" value="Enter required details"/>	Please select the price range for this product * <input type="text" value="Select a choice from drop down"/>	Attachment There is no file. <input type="button" value="Upload file"/>
Has this software already been approved by Technology/Information Security? * <input type="text" value="Select choice from drop down"/>	What is the business justification for this piece of software? * <input type="text"/>	
Notes/Comments <input style="width: 100%; height: 40px;" type="text"/>		

* Please fill all the mandatory fields to enable submit button

Clear Form
Exit
Submit

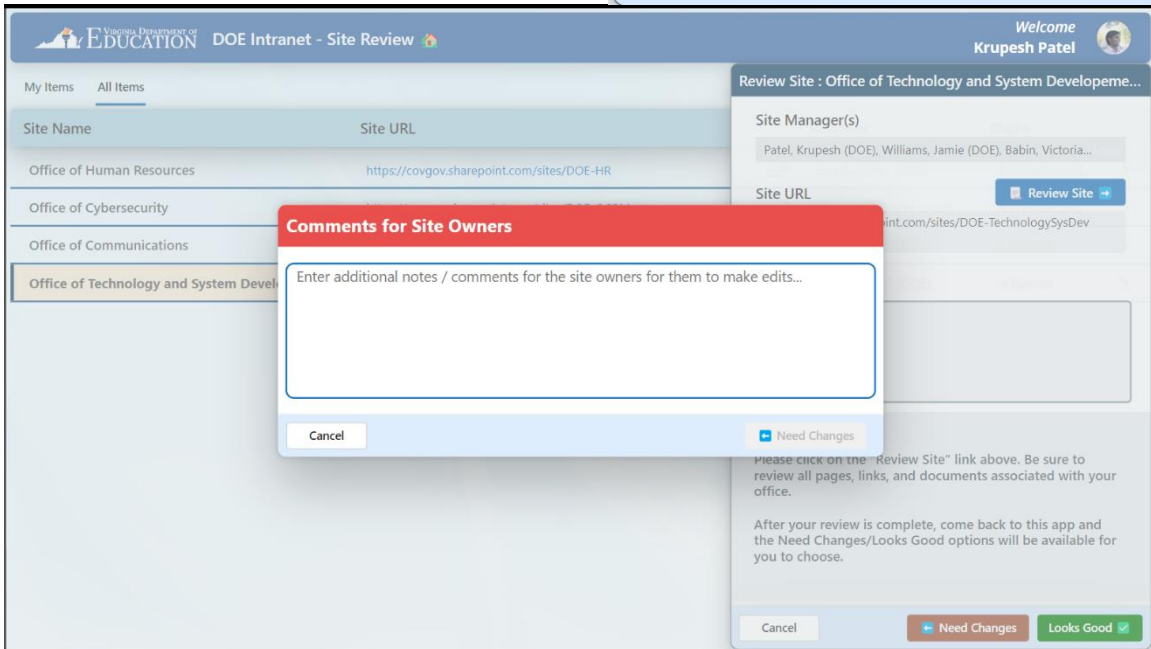
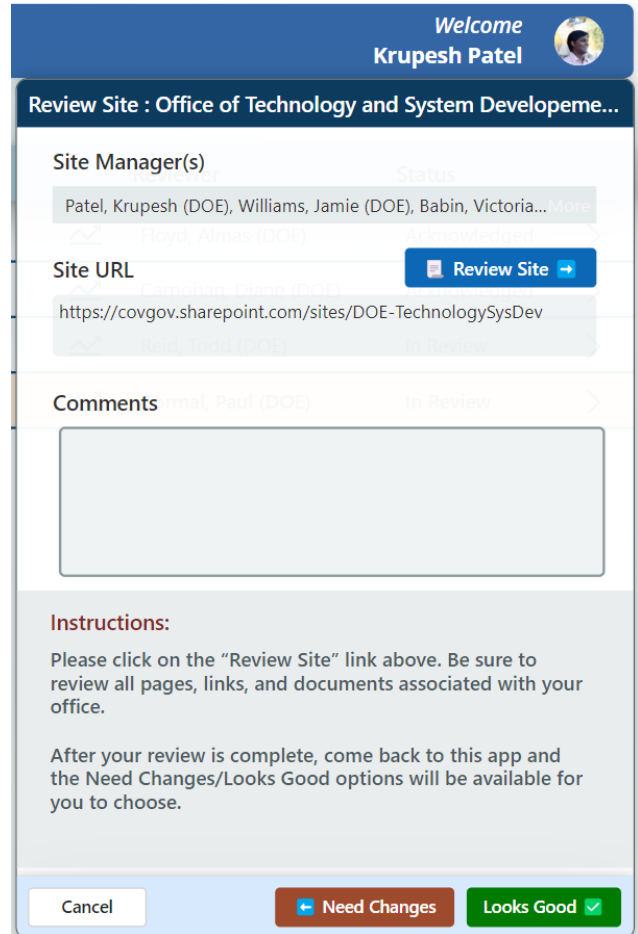
Intranet

The Office of Technology worked with the offices of Human Resources, Cybersecurity, and Communications for an initial launch of the agency's new Intranet. A Hub site with a main landing page and multiple office sites were created to provide DOE users with a wealth of information.

To help maintain the site content, the DOE also created a simple app to capture the reviews and Approval from Department Director / Superintendent. Below are screenshots for the Site Review and Approval Power App:

Site Name	Site URL	Reviewer	Status
Office of Human Resources	https://covgov.sharepoint.com/sites/DOE-HR	Floyd, Almas (DOE)	Acknowledged
Office of Cybersecurity	https://covgov.sharepoint.com/sites/DOE-OCRM	Carnohan, Diane (DOE)	Acknowledged
Office of Communications	https://covgov.sharepoint.com/sites/DOE-Intranet/SitePages/CommunicationsHome.aspx	Reid, Todd (DOE)	In Review
Office of Technology and System Development	https://covgov.sharepoint.com/sites/DOE-TechnologySysDev	Cormal, Paul (DOE)	In Review

Review screen (pop open from the Right of the home screen) and Need changes (pop up box) with comments and action:



Ratio Waver Request

The DOE's Early Childhood Care and Education (ECCE) licensing inspectors use this Power App to request a waiver to the current staff-to-child ratio for their facility.

As the result of a legislative directive dated July 1, 2023, early childhood care centers may fill out a paper form (provided outside of this application) and provide to VDOE ECCE licensing inspectors to request a waiver to the current staff-to-child ratio for their facility. This application will allow for submission, tracking, approvals/denials, request for additional information, and notification of the decision on the center's application.

The screenshot shows the 'OCCHS Ratio Waiver Tracker' form with the Virginia Department of Education logo. The form includes several fields: 'Licensing Inspector Name *', 'Region *', 'Licensing Administrator *', 'Date Received *' (with a calendar icon), 'Facility Type *' (dropdown), 'License/Facility ID * Unique ID' (dropdown), 'Facility Name', 'Facility Email', 'Facility Address' (with a pre-filled ', Virginia'), 'Subsidy Vendor', 'Information Correct? *' (dropdown), 'Licensing Inspector Recommendation *' (dropdown), and an 'Attachments *' section with a file upload icon and the text 'There is nothing attached.' At the bottom, there is a red warning message: '* Please fill all the mandatory fields to enable submit button !!' and three buttons: 'Submit', 'Clear Form', and 'Exit'.

ECCE Signature Tracker

The ECCE Signature Tracker App is designed to assist the ECCE team with submitting documents for signature approval from the Director and Deputy Superintendent on several request types, namely:

1. Grant Award/MOU/Contract
2. Letter
3. Request for Payment
4. Travel Approval
5. Travel Reimbursement Request

The solution comprises the following:

- A Power App canvas app which serves as the user interface for uploading documents and submitting for signature approval
- Numerous SharePoint online resources, namely a document library to store uploaded documents and supporting lists to store approval requests and approver information
- Numerous Power Automate workflows that take care of the back-end processes to ensure that the application runs smoothly.

The ECCE Signature Tracker improves the current state of managing approvals using spreadsheets and manually emailing documents for approval, in a time-consuming and error-prone process. Automating approvals, simplifying document management, and providing the ability to digitally sign off on documents simplifies this work for the Directors and Deputy Superintendent. In addition, the application will reduce the amount of time needed to manage the process to ensure integrity of the data being collected.

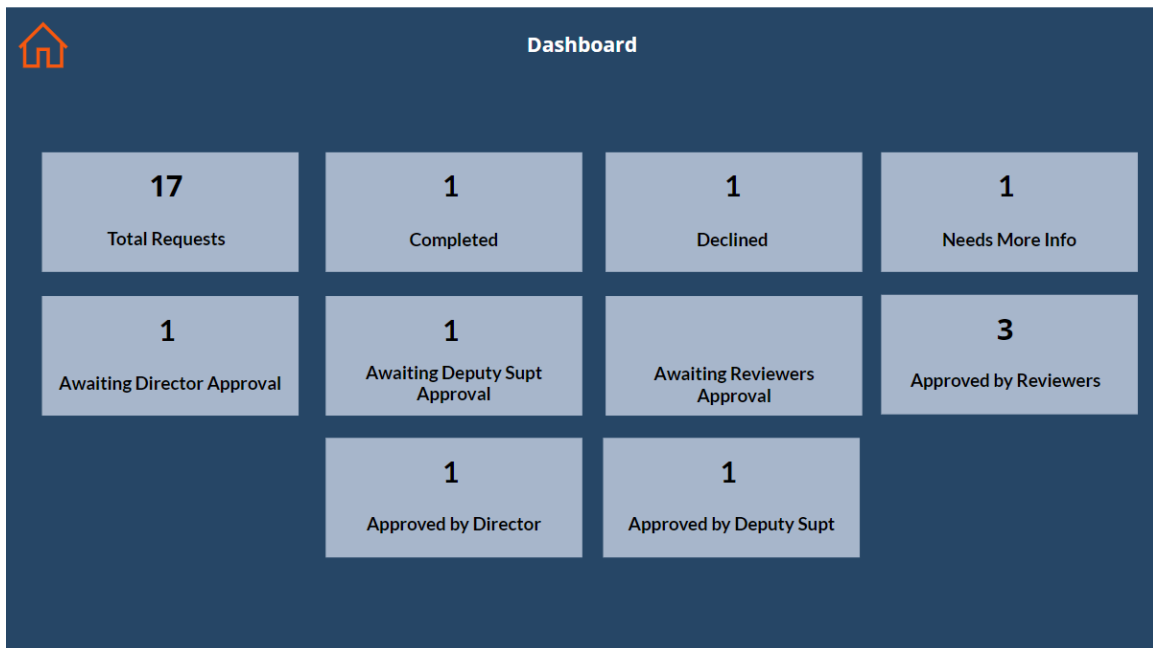
ECCE home screen:



ECCE view all requests:

View All Requests							Open Filters	
Request ID	Submitted Date	Due Date	Requester	Request Title	Approval Status	Request Type		
ECCE_031420240844	03/14/2024	03/27/2024	Marais, Donovan (DOE)	Title Sixteen	Uploaded	Director	>	
ECCE_031420240844	03/13/2024	03/21/2024	Marais, Donovan (DOE)	Title Six	Uploaded	Director	>	
ECCE_031320242019	03/13/2024	04/10/2024	Marais, Donovan (DOE)	Title Fourteen	Approved by Director	Deputy Supt	>	
ECCE_031320242018	03/13/2024	04/12/2024	Marais, Donovan (DOE)	Title Thirteen	Awaiting Reviewer 3 Ap...	Director	>	
ECCE_031320242017	03/13/2024	04/29/2024	Marais, Donovan (DOE)	Title Twelve	Approved by Reviewer 2	Deputy Supt	>	
ECCE_031320242017	03/13/2024	04/17/2024	Marais, Donovan (DOE)	Title Eleven	Submitted	Deputy Supt	>	
ECCE_031320242015	03/13/2024	04/27/2024	Marais, Donovan (DOE)	Title Ten	Awaiting Reviewer 1 Ap...	Director	>	
ECCE_031320242014	03/13/2024	04/16/2024	Marais, Donovan (DOE)	Title Nine	Approved by Deputy Supt	Director	>	
ECCE_031320242013	03/13/2024	04/19/2024	Marais, Donovan (DOE)	Title Eight	Uploaded	Director	>	
ECCE_031320242012	03/13/2024	04/03/2024	Marais, Donovan (DOE)	Title Seven	Awaiting Deputy Supt A...	Director	>	
ECCE_031320242010	03/13/2024	03/18/2024	Marais, Donovan (DOE)	Note Five	Declined	Director	>	

ECCE dashboard:



Payment Expenditure Request

Payment Expenditure Request (PER) uses PowerApps to simplify and eliminate manual processes to request and approve payment processing. Power Automate workflows will send email notifications and reminders for actions needed on each request.

DOE personnel use the cumulative filtering on the dashboard to easily find and view requests.

The screenshot shows the 'Payment Expenditure Request' dashboard. At the top left, there is a '+ Submit New Request' button. The main header is 'Payment Expenditure Request' with a hamburger menu icon on the right. Below the header is a table with columns: Request ID, Requestor, Division, Event Date, and Submitter. Two requests are visible:

Request ID	Requestor	Division	Event Date	Submitter
PER_01032024092833	Ludwig, Todd (DOE)	Policy & Communication	1/4/2024	1/3/2024
PER_01022024124709	Ludwig, Todd (DOE)	Finance	1/2/2024	1/2/2024

On the left side, there is a navigation menu with the following items:

- All Requests
- My Requests
- 11 All
- 11 In Progress
- 0 Completed
- 0 Declined
- 0 Canceled
- 8 My Tasks

On the right side, there is a 'Refine By:' sidebar with the following filters:

- Clear All Filters
- Requestor or Request ID: [Search Box]
- Division: [Clear Division] [2 items]
- Payee Type: [Clear Type] [Group]

The Virginia Department of Education logo is visible in the bottom left corner.

The screenshot shows the 'Payment Expenditure Request' details page. At the top left, there is a 'Return to Dashboard' link. The main header is 'Payment Expenditure Request' with the Virginia Department of Education logo on the right. Below the header, there are three tabs: 'Request Details' (active), 'Approval Summary', and 'Request History'. A 'View Requestor Updates' button is located on the right side of the tab bar.

The 'Request Details' tab contains the following information:

Role	Responsibility	Approval Status	Date & Time
Fiscal Service	Ludwig, Todd (DOE)	[Dropdown Menu]	3/15/2024 3:00 PM

Below the table, there is a 'Comments:' section with a text input field and an 'Update' button.

On the right side, there is a 'Summary' section with the following details:

- Request ID:** PER_01022024124709
- Request Status:** Awaiting Fiscal Approval
- First Approver Status:** Approved
- Second Approver Status:** Not Applicable
- Fiscal Service Status:** [Not specified]

DMV website redesign

The Virginia Department of Motor Vehicles (DMV) is one of the Commonwealth's most public-facing agencies, offering customers multiple digital services and experiences. DMV completed a technical re-build and re-hosting of its main website – formerly dmvNOW.com but now www.dmv.virginia.gov – which is a critical connection point that helps 350,000 residents and drivers complete 7.8 million transactions per year.

To complete the work, the contractor (Forum One) was hired to build the new Virginia DMV website on the Drupal 9 content management system (CMS), hosted within Acquia's Drupal Cloud environment. Hosting and security services are included as part of the scope. The new Drupal 9 CMS provided through this project includes:

- Support for fully responsive design, ensuring that DMV's content is accessible and engaging across a range of devices and screen sizes.
- Flexible page templates, giving content creators control over page layouts and the ability to create beautiful and intuitive online experiences.
- Powerful editorial tools to support your team, including publishing workflows, scheduled publishing, file management, and versioning.
- A robust API and ability to create and consume XML or JSON Feeds to ensure that the site can integrate with the agency's Oracle database and other external systems, and that content can be syndicated elsewhere online.
- Powerful and intuitive search capabilities to help users easily find, browse, and discover relevant content via Acquia's Search product.
- A robust account and permissions system that supports Permissions-Based Access that can be configured on an individual or per-role basis.
- Support for group-based access that will allow site administrators to quickly and easily create spaces within the site and grant access to specific groups of users.
- An extensible taxonomy system for the classification and organization of website content, making it easier for users to quickly find the resources they need.

Conclusion

In today's world, achieving business objectives requires making effective use of technology. Effective use of technology requires applications and systems that are secure, efficient, and user-friendly. Modernization of state IT systems is a critical need that can deliver those important features and the associated benefits for agencies and Virginians – especially when agencies collaborate, and government is able to think, plan, and act in a cohesive and strategic way. VITA appreciates the opportunity to report on the improvements and developments in executive branch technology.