2024 - 2026 IT Strategic Plan

Agency:	501 Department of Transportation (VDOT)
Date:	3/29/2024

Current IT State

In this section, describe the high-level strategy the agency will use to manage existing operational IT investments over the next year to 5 years. This section should align with identified Business Requirements for Existing Technology (BReTs). At minimum, please address the following questions in your description of your agency's strategy for managing existing operational IT investments:

Are there existing IT investments that will require additional funding over the next year to 5 years, such as license renewals, re-competition of current IT contracts, or system enhancements required by the Agency Strategic Plan?

If there are systems that will no longer support the agency's business needs, either through poor performance or excessive cost, how does IT leadership in the agency plan to address the issues?

If the agency does not have the staff or funding to meet increasing demand for IT services, how will IT leadership fulfill the requests?

- Vision:
  VDOT IT strives to be recognized as an industry leader, leveraging technology to drive value for our transportation stakeholders and the travelling public. Our people, processes and practices aspire to be world class.

  Mission:
  We build a "Circle of Trust" with our business stakeholders so that we may be come proactive partners with a common goal of providing technology solutions which serve as a force multiplier for their work. We focus on agility, transparency, and improved communications.

  Summary:
  VDOT IT supports VDOT's business goals through efficient program execution with a constant eye toward continuous process improvement and innovation. Through closely monitoring operational metrics maintained on an IT Score card, staff focus on efficiency, speed to delivery and fiscal responsibility. IT staff also seek to introduce innovations such as robotic process automations and infrastructure compute elasticity which may help achieve these goals. The goal of VDOT IT is to support VDOT staff in working seamlessly at anytime from anywhere. Data and processes are digital and are delivered reliably and accurately in a timely manner. VDOT applications and storage are provisioned through a hybrid cloud. Work is automated and complemented with artificial intelligence. VDOT will continue to optimize existing software licensing and hardware investments introducing an application rationalization approach. Our Enterprise architecture program allows for monitoring of our data, application and technology portfolios for technical obsolescence and definition of an annual maintenance plan focused on risk mitigation. Strategic technology investments are prioritized by a Strategic Technology Board (STB) who look at risk, value, return on investment and cost for each project request. VDOT IT is a source of innovation, inspiration and a force multiplier for VDOT and the Commonwealth.
  The IT Division (ITD) is staffed by state employees, private sector consultants, and service providers who support over 200 applications. All are charged with delivering high quality, cost effective, and timely IT solutions and services. As the demand for IT services continues to grow, so does the need for a robust and disciplined approach to project, resource, and budget management. To provide the necessary tools for managing these demands, ITD has implemented Microsoft Project Server. The

system tracks both new applications as well as enhancements to existing applications; and assists with the planning and controlling of the IT budget and expenditures while providing a more robust reporting capability to decision makers. Service metrics related to incidents, requests and procurements are tracked in an IT Asset Management System and monitored by VDOT Executives through an IT Score Card. The efforts listed above have resulted in improvements in delivering traditional IT functions, freeing up capacity to focus on VDOT strategic drivers.

VDOT IT has identified the following operational focus areas for the upcoming biennium:

* Improve network management and monitoring and reduce network latency - Increase network performance and sustainability by implementing secondary broadband circuits along with SDWAN.

* Provide network management and monitoring capabilities to maintain and maximize performance.

* Provide Audit Management capabilities (via Splunk) with the goal to gain more visibility into our data with security monitoring, automation and predictive analytics. Increase infrastructure monitoring, increasing efficiency in our DevOps environment.

* Move pre-production environments to Azure to provide infrastructure elasticity, enhance DEVSEC Ops and reduce costs.

* Shift from projects to product lines focused on VDOT's core business capabilities and which are supported by fusion teams of IT and business staff who engage in continuous delivery of technology solutions.

Define a new governance framework for Agile project delivery using measures such as estimates based on epics, fixed capacity teams, quarterly program deliverables and commitment reliability rather than scope, schedule, cost.

- Implement a program focused on Data as an Asset.
- Implement succession planning in order to maintain a highly-skilled workforce
- Enable business users to meet their own productivity needs through the Power App platform while ensuring that COV and VDOT security standards are met through a strong governance framework

VDOT Information Technology will continue to employ state-of-the-art technologies to develop and support IT applications and special projects, using innovative development methodologies, industry-standard best practices, and agency-wide project management tools and measures. Management oversight will ensure compliance with all accountability mandates.

Factors Impacting the Current IT

In this section, the agency will describe the changes in their business environment that will require or mandate changes to the agency's current IT investments. These are requirements and mandates from external sources, such as other agencies or business partners, the agency's customer base, product and service providers, or new federal or state legislation or regulations. The agency must identify the business value of the change, any important deadlines that must be met, and the consequences if the deadlines are not met. In your discussion, be sure to note whether the proposed enhancements are funded or not. If the agency's existing current IT investments will not need enhancement due to requirements or mandates from external sources in the foreseeable future, the agency should enter the following text rather than leave the Factors Impacting the Current IT section blank

For each mandated change, summarize your agency's response from your Agency Strategic Plan, and is

it the opinion of agency IT leadership that the IT portion of the response is adequately funded?

Do the mandated changes effect IT in other Commonwealth agencies, or in other states? If so, how?

- Increasing demand for information technology solutions requires innovation and obsolescence management that balances portfolio management of modern business solutions, supported by reliable technical platforms, with inevitable funding and resource constraints. This balance requires a renewed analysis of the agency's capacity to manage, execute and provide new technology solutions to meet changing business needs and processes. VDOT's Strategic Technology Investment Board (STB) evaluates all IT project requests annually. Historically, each project request stood alone and was evaluated on a cost, return on investment (ROI) basis. The STB is now piloting a new investment decision rubric which evaluates risks and value (e.g. Strategic alignment and process improvement focus) in addition to the traditional cost and ROI factors. This rubric allows for comparative analysis of all IT investment requests. VDOT has a strong Enterprise Architecture framework which supports obsolescence management. Technologies are tracked by level of vendor support. Each year, VDOT identifies end of life applications/technologies and executes an annual plan for mitigating those technologies.
  As VDOT business units and processes change, IT must respond accordingly. VDOT IT works closely with the VDOT Process engineering team to plan for both anticipated and unanticipated processes changes. Each IT investment request is accompanied by a process and value assessment.
  Ability to attract highly skilled applicants is a constant challenge. In order to deliver as promised according to the Division's mission, it is crucial that a highly skilled workforce be maintained. The agency's strategy has been to maintain a smaller staff of technology FTEs augmenting that staff with technical contractors. This allows onboarding of individuals with the correct skills sets to match the needs of the ever-changing technology landscape. Succession planning for key FTE technology positions began this year and will continue throughout the biennium.

  VDOT encounters the following constraints and challenges and would like to work with VITA over the next biennium to address these:

  * Workflow and SLA for registration of applications with the Okta SSO enterprise solution needs improvement. The current process is overly cumbersome and slow for what should be a straightforward technical implementation: As third party "cloud" hosted solutions become more prevalent within the industry, the need for a standard service offering increases.

  * Re-enabling AA accounts and extending the duration of AA accounts is a frequent occurrence at VDOT – it takes a lot of time for these adjustments to be made when going through VITA processes. It would be more efficient to the agency if the ISO were able to complete these tasks directly through the ARS product and without increased risk. VDOT currently has this functionality for non-AA accounts but would like to request it to include AA accounts.

  * VITA has improved the issuance of accounts for small agencies, but VDOT has not seen an improvement in that area. VITA should develop a process for supporting batch requests for accounts with the same level of urgency and speed to delivery which is now enjoyed by smaller agencies.

  * VITA should publish the escalation path for each type of request. VDOT is finding that most projects are requiring a PGR because they exceed the current $250k limit. VITA should consider an increase in the current limit to at least $500k to allow for current economic conditions.

  * Direct billing from cell provider to the agency would allow for easier tracking of orders and disputes.

  * There is a lack of specificity from VITA security and project management office on governance controls that apply to low code no code power platforms.

  Implement tools/reporting on infrastructure access (e.g. server admins, Azure Tenant admins, workstation admins, etc.) These reports were used to ensure compliance with administrative access

policy requirements (primarily for servers and workstations). These reports are no longer available and obtaining reports through a ticket does not always result in an accurate and timely report. This also does not take into account the additional layers of permissions available through the Microsoft Azure service offering.

* Improve DLP and authentication and security monitoring capabilities for third party applications The technical operation of Okta and authentication to third party hosted systems (KSE, Microsoft, Agency "ECOS" applications,) makes it trivial to login from personal (BYOD) devices and access/download data. Improved authentication (e.g., MFA token, non-SMS OTP), monitoring, and DLP capability for these use cases would help improve overall security while maintaining the operational efficiency of using these.

* Implement tools that allow Agencies to monitor network performance at all levels of the OSI. CISCO Thousand eyes which allows the level of visibility required for all layers of a system, not just network response time should continue to be provided.

Proposed IT Solutions

In this section, describe the high-level strategy the agency will use to initiate new IT investments over the next year to 5 years in support of the agency strategic objectives documented in your Agency Strategic Plan. The agency does not need to consider specific technologies at this time, however, the strategy should identify how the IT implementation will provide business value to the organization. This section should align with identified Business Requirements for New Technology (BRnTs). At minimum, please address the following questions in your description of your agencys strategy for initiating new IT investments:

What are the most important solutions, based on the priority assigned to the requirements by the business sponsors in your agency, and what is the approach to achieving these priority solutions?

If any new IT initiatives will be started in the upcoming budget biennium, is it the opinion of agency IT leadership that it is adequately funded?

Does the agency's current IT staff have the appropriate skill set needed to support future agency technologies? If not, what skill sets need to be acquired?

If the agency will be engaged in multiple new IT initiatives, how will agency IT staff and agency subject matter experts be used across the initiatives?

- The Agency's highest service area objective is to improve highway safety for the traveling public. An integral part of improving highway safety is more efficient and effective turnaround of IT projects to both serve VDOT and the traveling public. It is important that IT react to requests for service in a timely manner and as promised to the business. The following new strategic business requests will be added to the existing project portfolio in the 24-26 biennium:

  * Coleman Bridge Toll System - The current toll system has multiple components that are nearing (or at) end of life/end of support. Parts are becoming difficult to source, VDOT to engage in a competitive procurement to allow for better value for the money, newer - more effective technology, and increased life span of the facility.

  * Pavement Maintenance Scheduling - PMSS is an internally developed application that facilitates the planning of annual statewide pavement contracts. It is used by and impacts various stakeholders including Environmental, Right of Way, Traffic Engineering, Construction, Districts, and Residencies. The system is designed to interface with various other systems including the Pavement Management System

(PMS) and the Road Network System (RNS) to facilitate pavement planning, cost estimation, and reporting.

* CSOD to Oracle Learning - Human Resources manages the programs to support training and other workplace requirements. The current Learning Management System (LMS) system, Cornerstone On Demand (CSOD) is standalone and does not integrate with other systems fully, provide the data connections and reporting holistically with other HCM data. This effort is to implement the Oracle Learning module and migrate the learning functionality from Cornerstone On Demand to our integrated Oracle HCM. This allows for a single place for all HCM related activities and data streamlining. It will increase efficiency, decrease hours, allow for increased automation and financial savings through licensing.

* Federal Program Management Application - The STIP database within the Integrated Six-Year Program (iSYP) suite is fragile, unstable and prone to outages. According to the business area, when the STIP database was developed it initially only met some of the department's needs and has never reached the full potential desired by BFMD or its predecessor divisions. The Federal Strategy database was built using an MS-Access database and is outdated and unreliable. The patchwork of systems lacks transparency, is not conducive to implementing federal requirement changes, and results in a myriad of standalone spreadsheets used to perform the associated project analyses. Incomplete and inadequate reporting functionality means, in some cases, manual report manipulation and/or generation and reliance on division technical experts to run many reports. The current applications do not allow for multi-year planning in an integrated way despite the fact that the business needs of the department dictate the need for multi-year planning and the ability to develop a true Federal Strategy. A lack of integration among the many federal, VDOT and BFMD systems creates many unwelcome opportunities for duplication of effort and rework among the BFMD teams and their stakeholders.

* MITS PLAID Add in New Test Data - There is currently not a central location or database for the test results for the new Balanced Mix Design (BMD) performance tests. The current MITS/PLAID system does not house the new data fields for these new tests and currently the BMD results are being stored offline in spreadsheets. VDOT is working towards implementing these new performance tests for asphalt mixes and would like to begin incorporating these results into the system. The request is to add the new data fields into the current system in order to have all test data/results in one location.

* WebVjust Develop a web-based tool that integrates/augments the current Excel-based VJust tool to be used by VDOT users who oversee the VDOT traffic engineering/analysis program and have rights to make global changes to the default values and other elements of the tool as applicable.

* PSPO Portals Database to provide a single repository for all contract data and market pay rates - DataVerse, provide analysis automation - Power Automate, provide a web interface for firms to input roster and pay rate information, streamline communication and facilitate the collection and analysis of contract invoice data to include consultant personnel and hours billed to each contract.

IT Strategic Plan Budget Tables

Agency:	501 Department of Transportation (VDOT)
Date:	3/29/2024

Current IT Services				
	Costs Year 1		**Costs Year 2**	
Category	**GF**	**NGF**	**GF**	**NGF**
Projected Service Fees		$52,359,988.76		$53,930,788.43
VITA Infrastructure Changes				
Estimated VITA Infrastructure	$0.00	$52,359,988.76	$0.00	$53,930,788.43
Specialized Infrastructure				
Agency IT Staff		$15,043,165.00		$15,494,460.00
Non-agency IT Staff		$56,351,512.70		$61,986,664.00
Cloud Computing Service				
Other Application Costs				
Total:	$0.00	$123,754,666.46	$0.00	$131,411,912.43

Proposed IT Investments				
	Costs Year 1		**Costs Year 2**	
Category	**GF**	**NGF**	**GF**	**NGF**
Major IT Projects:		$9,434,181.00		$4,238,732.00
Non-Major IT Projects:		$6,250.00		
Agency-Level IT Projects:				
Major Stand Alone IT Procurements:		$72,213,452.76		$76,077,093.50
Non-Major Stand Alone IT Procurements:		$1,294,083.00		$477,768.30
Agency-Level Stand Alone IT Procurements:				
Procurement Adjustment:		($56,351,512.70)		($61,986,664.00)
Total:	$0.00	$26,596,454.06	$0.00	$18,806,929.80

Projected Total IT Budget

		Costs Year 1		Costs Year 2	
Category		**GF**	**NGF**	**GF**	**NGF**
Current IT Services		$0.00	$123,754,666.46	$0.00	$131,411,912.43
Proposed IT Investments		$0.00	$26,596,454.06	$0.00	$18,806,929.80
Total		$0.00	$150,351,120.52	$0.00	$150,218,842.23

Business Requirements For Technology

Agency:	501 Department of Transportation
Date:	3/29/2024
BReT 501 VDOT 2024-26 ITSP	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	3/6/2024
Mandate:	Yes
Mission Critical:	Yes
Description:	
As a part of the 2024-26 ITSP, VDOT will be addressing the Risk Compliance Grade as assigned in the “Prescriptive Input to the Information Technologies Plan for VDOT” (PIITP). A plan is in place to address the items mentioned in the PIITP for VDOT by the end of FY24. To remain in compliance moving forward, a roadmap is in development to mitigate the Risk Compliance concerns noted in the PIITP.	
BReT AASHTOWare Bridge Management Cloud Migration	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	
Mandate:	Yes
Mission Critical:	No
Description:	
In our efforts to improve our processes and better align resources, we would like to explore options to have Mayvue cloud host and maintain the AASHTOWARE Bridge Management (BrM) System. Structure and Bridge (S&B) is requesting to launch a discovery to identify the benefits to both S&B and ITD and enable our divisions collectively to move forward on a solution that maximizes upon the determined benefits. The objective is to identify the path forward to enable S&B to meet immediate, intermediate, and long term business needs in a cost effective manner that balances resources, better aligns subject matter expertise, and limits the constraint on ITD’s resources.	
BReT AASHTOWare License Renewal	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	7/1/2021

Mandate:	No
Mission Critical:	No
Description:	
Software and license renewal including additional service units for AASHTOWare products, including but not limited to AASHTOWare Bridge Management; AASHTOWare Pavement & AASHTOWare Project Estimator.	
BReT AASHTOWare Service Credits	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	
Mandate:	No
Mission Critical:	No
Description:	
We are purchasing 21 service credits to be used for AASHTOWare Project Civil Rights & Labor™ (CRL) support activities. AASHTOWare Project is used to support the agency's preconstruction and construction management processes. This system is also used document contract work performed and to create vouchers for payment based on bid proposal estimates. These service credits will be used for modifying functionality within the application by making modifications to the Civil Rights module, adding additional reports, subcontract payment upload capabilities, training and support.	
BReT ArcGIS Software Upgrade	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	
Mandate:	No
Mission Critical:	No
Description:	
The version of ArcGIS Server on the Roadway Network System (RNS) is retired and no longer supported by the vendor. The information managed within RNS is critical to the operations of VDOT. Operating on retired software is a risk and upgrading ensures that the software can be supported. VDOT already owns the latest version of the software as part of an existing licensing agreement and needs to apply the new software to the RNS environment.	
BReT Asset Management Budget Transfer 2.0 PROJ	
BRT Type:	Business Requirement for Existing Technology

Requested Start:	2/16/2024
Mandate:	No
Mission Critical:	No
Description:	
This project is to address urgent business concerns caused by limited SharePoint capacity & functionality no longer meeting business needs. Removal of SharePoint structural wrappers, security and business logic will be replaced with a new App framework, security, and business logic	
BReT Automated Fuel Management Program Software Up	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	
Mandate:	No
Mission Critical:	No
Description:	
Monthly software support and upgrade services are required to maintain the Automated Fuel Management Program (AFMP). Procurement of new and upgraded hardware and on site services is required to maintain VDOT's existing EJ Ward Fueling equipment.	
BRET AxeMonitor Annual Renewal PROC	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	7/3/2023
Mandate:	No
Mission Critical:	No
Description:	
Application support ends 7/31/2023. We are legally required to stay 508 Compliant and without this approval for renewal of the AxeMonitor software license we will be unable to maintain 508 Compliance.	
BReT Bentley Enterprise Public Sector 365 (EPS365)	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	4/1/2024
Mandate:	No
Mission Critical:	No

Description:
Bentley is the sole source to renew the Enterprise Public Sector 365 (EPS365) Subscription for VDOT. No other vendors can perform the specific functions required by VDOT. Bentley is the prime contractor and is responsible for maintenance of all Bentley supplied software. Bentley provides a comprehensive software support program through its Bentley SELECT Program, as well as enhanced licensing through its Enterprise Public Sector 365 (EPS365) Subscription. The attached supporting documentation shows the Resident Engineer at an initial 1-year cost of $285,000.00. However, the Resident Engineer is scheduled for 5 years totaling $1,425,000.00. The resident engineer 5 year total in addition to the total annual amount creates the grand total estimated of $12,751,362.00. Additional information internal to VDOT is R:117152

BReT Bridge Data Mart	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	5/6/2021
Mandate:	No
Mission Critical:	Yes
Description:	
There is a business need to have better data analytics to provide predictive guidance for the Structure & Bridge (S&B) Division management. Currently there is not good access to data for analytics and trend analysis, and it is difficult to support individual data requests. The S&B Division does a lot of manual work to collect data for its bridge management, program oversight, and reporting needs. The objective of this effort is to use a vendor team to add a data mart for S&B into the current VDOT enterprise data warehouse that will serve as a central repository for S&B Division's analytics and reporting needs.	

BReT CEDAR Upgrade	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	
Mandate:	Yes
Mission Critical:	Yes
Description:	
The Comprehensive Environmental Data and Reporting (CEDAR) System is in need of a major investment to modernize the application for responsiveness to agency needs and to provide continual support for changing regulatory requirements.	

BReT Closed Circuit TV Traffic Camera Replacement	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	
Mandate:	No
Mission Critical:	Yes
Description:	
VDOT would like a contractor to furnish all labor, supervision, equipment, vehicles, traffic control, tools, cameras, cable, materials, fasteners, attachments and any ancillary items to remove and install CCTV camera, equipment and cabling at 150 VDOT Traffic Camera Locations. The new IP CCTV cameras shall be installed in accordance with the most current edition of the VDOT Road and Bridge Specifications, Section 803.03 and 803.04. The Contractor shall install the new IP CCTV cameras utilizing existing infrastructure, i.e., CCTV camera poles, mounts, lowering devices, conduits, and cabinets. Services to be performed on Interstates, Primary and Secondary roads in VDOT's Northern Virginia Region to include Residencies within the counties of Arlington, Fairfax, Loudoun, Prince William, Spotsylvania and Stafford.	

BReT Coleman Bridge Toll System	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	4/1/2024
Mandate:	No
Mission Critical:	No
Description:	
The current toll system has multiple components that are nearing (or at) end of life/end of support. Parts are becoming difficult to source, VDOT to engage in a competitive procurement to allow for better value for the money, newer - more effective technology, and increased life span of the facility.	

BReT Construction Data Mart	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	3/19/2021
Mandate:	No
Mission Critical:	No
Description:	
There is a business need to have better data analytics to provide predictive guidance for VDOT Construction management. Currently there isn't good access to data for analytics and trend analysis, and it is difficult to support individual data requests. The Construction Division does a lot of manual work to collect data for its construction management, program oversight and reporting needs. The	

objective of this effort is to use a vendor team to add a data mart for Construction into the current VDOT enterprise data warehouse that will serve as a central repository for the Construction Division's analytics and reporting needs.	
BReT Contract Management Solution PROJ	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	2/19/2024
Mandate:	No
Mission Critical:	No
Description:	
Custom development of a single solution for managing and monitoring the entire lifecycle of contracts for professional architecture and engineering services that are critical to successful project delivery.	
BReT Crown Peak Subscription Renewal Procurement	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	
Mandate:	No
Mission Critical:	No
Description:	
Crown Peak Content Management Services provides the tools and support for VDOT Public Affairs staff to manage the agency's external web site. The Crown Peak solution provides the necessary tools to improve productivity and content timeliness.	
BReT CSC Photo Transfer to HMMS	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	5/11/2021
Mandate:	No
Mission Critical:	No
Description:	
Customers frequently submit photos to the Customer Service Center related to their service requests. Currently, HMMS cannot receive those photos to allow them to be shared with field partners. Sharing the photos with HMMS would allow field partners to see the problem being described before driving to	

the location, which will increase their situational awareness; saving time, better allowing them to prioritize the work, and better understand what tools may be needed to fix the problem. Sharing photos could decrease customer frustration that occurs when they send in photos and are then told that they cannot be passed onto the field offices.	
BReT CSOD to Oracle Learning - ITSP - FY24	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	1/31/2024
Mandate:	No
Mission Critical:	No
Description:	
Human Resources manages the programs to support training and other workplace requirements. The current Learning Management System (LMS) system, Cornerstone On Demand (CSOD) is standalone and does not integrate with other systems fully, provide the data connections and reporting holistically with other HCM data. This effort is to implement the Oracle Learning module and migrate the learning functionality from Cornerstone On Demand to our integrated Oracle HCM. This allows for a single place for all HCM related activities and data streamlining. It will increase efficiency, decrease hours, allow for increased automation and financial savings through licensing.	
BReT Data Query Tool	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	5/10/2021
Mandate:	No
Mission Critical:	No
Description:	
The existing query tool was developed over a decade ago on an antiquated system; as a result, updating it is extremely difficult. This request will migrate data flow and use data from the data warehouse. This query tool will use data from the Construction Division and the Structure and Bridge Division, as well as iPM, Falcon and other applications.	
BReT Data Stage Upgrade	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	
Mandate:	Yes

Mission Critical:	No
Description:	
This procurement will - migrate DataStage to the QTS data center in compliance with Executive Order 19, - upgrade DataStage from v11.5 to v11.7, - modernize DataStage scripts, - and implement the IBM Information Server Components (IGC) in accordance with existing VDOT assets and policies.	
BReT Dynamics CE Support PROC	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	2/13/2024
Mandate:	No
Mission Critical:	No
Description:	
Microsoft support resource hours to support existing and new Dynamics 365 and Power Platform business solutions.	
BReT EBB Content Player Subscription Renewal	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	
Mandate:	No
Mission Critical:	No
Description:	
To improve agency communications to field level staff that do not have regular access to VDOT computers in the course of their daily work assignments. The field staff is isolated and does not feel like they are part of the team/family. There is a need to provide HR, Safety, and Training content directly to these field staff in an expedient manner and provide continuous operations capabilities in adverse weather situations directly to these staff in an expedient manner. Hardware to support the FourWinds application is installed in 290 buildings across the state.	
BReT EBB Licensing Subscription Renewal Procuremen	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	7/7/2022

Mandate:	No
Mission Critical:	No
Description:	
VDOT has increased the number of EBB units in the field from 250 to 315. Moving to Enterprise Licenses will save the agency money and will continue to improve agency communications to field level staff that do not have regular access to VDOT computers.	
BReT ESRI Enterprise License Renewal	
BRT Type:	Business Requirement for New Technology
Requested Start:	7/26/2021
Mandate:	No
Mission Critical:	Yes
Description:	
VDOT utilizes ESRI ArcGIS products as its GIS platform supporting the business and citizen needs. This procurement will extend the current contract and product support.	
BReT Federal Program Management Application	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	1/1/2025
Mandate:	No
Mission Critical:	No
Description:	
The STIP database within the Integrated Six-Year Program (iSYP) suite is fragile, unstable and prone to outages. According to the business area, when the STIP database was developed it initially only met some of the department's needs and has never reached the full potential desired by BFMD or its predecessor divisions. the Federal Strategy database was built using an MS-Access database and is outdated and unreliable. The patchwork of systems lacks transparency, is not conducive to implementing federal requirement changes, and results in a myriad of standalone spreadsheets used to perform the associated project analyses. Incomplete and inadequate reporting functionality means, in some cases, manual report manipulation and/or generation and reliance on division technical experts to run many reports. The current applications do not allow for multi-year planning in an integrated way despite the fact that the business needs of the department dictate the need for multi-year planning and the ability to develop a true Federal Strategy. A lack of integration among the many federal, VDOT and BFMD systems creates many unwelcome opportunities for duplication of effort and rework among the BFMD teams and their stakeholders	

BReT Fleet Cross Subscription Services	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	
Mandate:	No
Mission Critical:	No
Description:	
Motor Fleet Cross system is designed to offer VDOT an indexed data based that links our specific service and parts manuals to the VDOT Asset Key Identifier (Asset Number) The service provides a proprietary DocViewer interface that allows fast, electronic linked navigation through the VDOT stored inventory of manuals. The VDOT parts supplier (Mancon) access this data base to verify part numbers for ordering of replacement parts. This service is widely used to compress the requirements of stored physical manuals and fast retrieval of critical information for repair of equipment assets. The solution does not store any VDOT Data or VDOT asset information.	
BReT Fuel Hardware and Software Replacement	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	5/11/2021
Mandate:	No
Mission Critical:	No
Description:	
Replace existing fuel hardware in the field and on vehicles and software to replace existing EJ Ward system	
BReT GALA General Assembly Bill Tracking Upgrade	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	3/6/2023
Mandate:	No
Mission Critical:	No
Description:	
The Governance and Legislative Affairs (GALA) Division provides oversight for VDOT's Freedom of Information Act (FOIA), Regulatory, Legislative, and Governance functions and provides guidance and support to all divisions and districts relating to non-ASD (Administrative Services Division) contracts/agreements and complex statutory/policy issues for the purposes of ensuring and promoting compliance with state, federal, and other requirements. BRT includes: 1. Replacing the current MS	

Access General Assembly Bill Tracking Tool, 2. Improving the process by adding enhanced functionality and workflow, and 3. Automating the extraction of bill data from Virginia's Legislative Information System (LIS) website.	
BReT Gartner Membership Renewal	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	3/1/2021
Mandate:	No
Mission Critical:	No
Description:	
Gartner Membership Renewal which will include the following license subscriptions: Research Executive Programs Leadership Team Plus, Technical Professionals (Enterprise) membership and IT News and Insight. Licenses will be used by IT resources for research, analysis, and professional assistance.	
BReT Geospatial Migration Services	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	
Mandate:	Yes
Mission Critical:	No
Description:	
The mandate to migrate VDOT's system portfolio to the cloud in accordance with EO19 requires a highly specialized technical effort to effectively plan and execute the transition. In particular, most of VDOT's interconnected enterprise systems have mapping components that require thorough vetting to confirm the depth of geospatial integrations and associated infrastructure requirements, as well as to determine how best to sequence and schedule the migrations. This effort will focus initially on the Enterprise GIS Environment, starting with the Integrator, RNS, and CEDAR platforms, through multiple SOWs.	
BReT Inrix Data MOU	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	
Mandate:	No

Mission Critical:	Yes
Description:	
VDOT will issue a MOU to the University of Maryland (UMD) to obtain a data subscription from INRIX (a transportation data analytics company) to support performance measures, congestion management and traveler information efforts throughout the state. Specifically, as VDOT plans to disseminate travel time information statewide, this service will provide raw data and input to the travel time engine on key roadways for this program, and serve as a validation source to assess the quality of travel times obtained from VDOT sensors. This will be a one-year MOU.	
BReT iSYP Suite Technology Upgrade	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	
Mandate:	Yes
Mission Critical:	Yes
Description:	
VDOT annually publishes its Six Year Program (SYP) which details construction projects on-going or planned to start within a six-year horizon. As part of managing these programs, VDOT tracks the status of projects from initial request through to construction completion. The Integrated Six Year Program (iSYP) suite of systems was built to support these processes, mostly between 2000 and 2011. The infrastructure of the systems is aged, fragile and difficult to maintain. The project objectives are to: - Upgrade operating systems to current standards; - Update application code and integrations as necessitated by the operating system upgrades; - Add REST endpoints for backward and forward compatibility for cloud enabled applications; - Make it mobile friendly by upgrading clients to use Angular; - Address security concerns by moving the dbo objects into separate schemas and remove embedded SQL Commands; - Increase resiliency and maintainability of the suite.	
BReT Maintenance and Support of Advanced Revenue C	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	
Mandate:	No
Mission Critical:	No
Description:	

This is a new contract covering equipment and program maintenance & support of the Advanced Revenue Collection System (ARCS) at the Coleman Toll Facility.	
BReT MetroQuest	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	6/25/2021
Mandate:	No
Mission Critical:	Yes
Description:	
MetroQuest will be the primary survey tool used in VDOT's public engagement and virtual public involvement (VPI) efforts for transportation planning projects in support of the SMART SCALE project pipeline, as outlined in the current VDOT Business Plan.	
BReT Microsoft Dynamics365 Cloud Licenses	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	
Mandate:	Yes
Mission Critical:	Yes
Description:	
VDOT currently uses Microsoft Dynamics OnPrem and is converting to cloud based in order to support EO-19. VDOT's current enterprise agreement for OnPrem licenses expires on 2-28-2021. Cloud licenses will provide both OnPrem and cloud entitlements.	
BReT Microsoft Enterprise Agreement	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	
Mandate:	No
Mission Critical:	No
Description:	
VDOT has reached the end of its three year Enterprise Agreement with Microsoft. In order to stay compliant with licensing and avoid interruption of critical infrastructure and application software, we are required to renew our Microsoft Enterprise Agreement.	

BReT MITS PLAID Add in New Test Data	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	6/28/2023
Mandate:	No
Mission Critical:	No
Description:	
One of the responsibilities of VDOT'S Material Division is the assessment of highway construction materials which is performed by the analysis, review and approval of asphalt sample tests conducted in their laboratories. The Materials Division currently uses a system called 'Materials Information Tracking System / Producer Laboratory Analysis and Information Details' (MITS/PLAID for short) to record their test results, store the information, review/report analysis, and approve test results. This system also allows test results to be recorded, viewed, and submitted by pavement vendors via the PLAID user interface. There is a new measurement being required by VDOT called Balanced Mix Design (BMD). Whereas the current existing testing recorded in the system relate to the physical properties of the asphalt samples, the new BMD tests relate to their performance properties. There is currently not a central location or database for the test results for the new BMD performance tests. The current MITS/PLAID system does not house the new data fields for these new tests and currently the BMD results are being stored offline in spreadsheets. VDOT is working towards implementing these new performance tests for asphalt mixes and would like to begin incorporating these results into the system. The request is to add the new data fields into the current system in order to have all test data/results in one location.	
BReT Network Operations Maintenance support	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	2/28/2023
Mandate:	No
Mission Critical:	Yes
Description:	
This support services request is to help maintain consistent service across our Statewide Network. To do so, under this contract Skyline will be responsible for maintaining physical equipment spares as well as assist with any issues on configuration of the network from a logical side.	
BReT NOVA Cisco TOC Equipment	

BRT Type:	Business Requirement for Existing Technology
Requested Start:	4/23/2021
Mandate:	No
Mission Critical:	No
Description:	
Address obsolescence by replacing older CISCO equipment. With this equipment, we will establish a testing environment to avoid unintended/unexpected negative impacts to critical systems by testing new versions, capabilities and features prior to deployment to production environments.	
BReT OIPI Data Trust	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	
Mandate:	No
Mission Critical:	No
Description:	
Support the need for improved transportation safety data and analytics by adding data sets to the VDOT Data Lake for use by the Office of Intermodal Planning and Investments (OIPI) and the Commonwealth Data Trust.	
BReT Oracle Licenses and Support	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	8/13/2021
Mandate:	No
Mission Critical:	No
Description:	
This BRT is being submitted to purchase Oracle licenses, upgraded licenses, new support, and migrated support/backsupport under the terms and conditions of the VITA Contract.	
BReT Pavement Maintenance Scheduling System - ITSP	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	10/1/2023
Mandate:	No

Mission Critical:	No
Description:	
PMSS is an internally developed application that facilitates the planning of annual statewide pavement contracts. It is used by and impacts various stakeholders including Environmental, Right of Way, Traffic Engineering, Construction, Districts, and Residencies. The system is designed to interface with various other systems including the Pavement Management System (PMS) and the Road Network System (RNS) to facilitate pavement planning, cost estimation, and reporting.	
BReT PPE Lane and Software Upgrade	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	1/26/2022
Mandate:	No
Mission Critical:	No
Description:	
New multi-protocol tag readers, and software upgrades to bring the legacy installations for toll violations, and back-office integration modules for VDOT to meet the new EZPass interface requirements that are anticipated to be in place E-ZPass wide this coming calendar year. (PPE stands for Powhite Parkway Extension)	
BReT Pre-Advertisement Information Tracker PROJ	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	2/16/2024
Mandate:	No
Mission Critical:	No
Description:	
Custom development of a modernized Pre-Advertisement Information Tracker (PAPIT or PAPI) application that facilitates the tracking of projects through the pre-advertisement, bid letting, and bid award process.	
BReT RITIS, VPP Suite and XD Archive Data Service	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	
Mandate:	No

Mission Critical:	Yes
Description:	
VDOT will issue an MOU to the University of Maryland (UMD) using the I-95 Corridor Coalition contract to obtain access to the Regional Integrated Transportation Information System (RITIS) and its Vehicle Probe Project (VPP) Suite data application. UMD will also archive XD data for VDOT through the contract. RITIS and VPP suite provide performance measures tools used to analyze and present Archived Operations Data. VDOT will have access to the UMD Center for Advanced Transportation Technology(CATT) Lab data to perform/develop analytics to support several VDOT operational programs. Inrix, through its network of GPS-enabled vehicle probes, is able to provide real-time XD-Data, decision-quality speed and congestion information in the area. Data is being provided for 1566 centerline miles of freeways and 5,827 centerline miles statewide. This will be a one-year MOU.	
BReT Severe Weather Application System 2.0 rewrite	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	4/4/2023
Mandate:	No
Mission Critical:	Yes
Description:	
The Severe Weather Application System (SWAS) allows real-time mobilization and monitoring of Contractor and State Work Force Equipment. This effort enhances the existing application in the areas of mobile technology and integrating data among systems both internal and external to VDOT.	
BReT SingleStone for MS Dynamics CRM Platform	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	
Mandate:	No
Mission Critical:	Yes
Description:	
This procurement is for a statement of work (SOW) for support of a suite of applications developed in the Microsoft Dynamics CRM (Customer Relationship Management) platform. The suite was developed by the vendor who will be the named source on the SOW.	
BReT Skillsoft Online Courseware and Library Licen	

BRT Type:	Business Requirement for Existing Technology
Requested Start:	
Mandate:	No
Mission Critical:	No
Description:	
This BRT is for the purchase of Skillsoft licenses which will provide access to their learning management system software and content services. The products and/or services include but are not limited to the following: BUSINESS COURSEWARE COLLECTION COMPLIANCE LIBRARY LICENSE: DESKTOP & IT VIDEOS DESKTOP & IT COURSEWARE COLLECTION LEADERSHIP COLLECTION LEGAL COMPLIANCE SKILLSOFT BOOKS SUMMARIES	
BReT SMART Portal Enhancements	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	
Mandate:	Yes
Mission Critical:	Yes
Description:	
The scope of the SMART Portal 2022 Project is to deliver new and enhanced functionality within the SMART Portal web application allowing for program pre-application submission, new application submission to multiple programs, enhancements to the validation/screening/ scoring processes and to improve the user interface to update decisions online.	
BReT SmartScale	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	
Mandate:	No
Mission Critical:	Yes
Description:	
Under the direction of the Commonwealth Transportation Board (CTB), VDOT is required to enhance the existing SmartScale portal. The purpose of the portal is to develop a simple way for eligible entities to request funding using a web-based application process and automate preparation of a data file for	

further analysis to support project screening, scoring, and selection decisions as part of the SYIP update process. Development of an electronic data intake process to resubmit applications or submit new applications is necessary in order to meet the CTB's criteria, accommodate the several hundred project requests that may be submitted or re-submitted from the previous years, for funding through multiple grant funding programs.	
BReT Software Support for TransCore Toll System	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	
Mandate:	No
Mission Critical:	Yes
Description:	
The toll collection system currently in use at the Powhite Parkway Extension facility is a proprietary toll system software product that is highly integrated with coin machines, violation enforcement, reporting / audit systems and many other lane sensors and devices necessary to efficiently collect toll payments. This tolling solution is functioning at a very high level and is fully meeting the needs of VDOT and is far from end-of-life.	
BReT Statewide Bid Tab Modernization	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	3/7/2023
Mandate:	No
Mission Critical:	No
Description:	
The Bid Tab Query database uses MS Access and has consistently increased its user base 115 percent per year. Value has been proven, but the database is currently only accessible to COV users. VDOT partners access the data via a pdf document, which is updated infrequently, resulting in outdated data. This project will leverage a new platform, opening access to all VDOT partners, and allow for parameter updates that will translate across the database rather than performing the process manually. Data incorporated from AASHTOWare will be imported into the database automatically as well.	
BRET Statewide Network Resiliency Expansion PROC	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	1/2/2024
Mandate:	No

Mission Critical:	No
Description:	
Currently VDOT's Statewide Network interconnects its five TOCs in a basic ring configuration, providing access to critical applications that support traffic operations. If the network sustains two or more fiber outages along the fiber ring, a number of TOC's can lose access to these applications. To avoid this and ensure consistent day-to-day operations, VDOT is looking to create a north-south bi-sector across the ring utilizing existing fiber routes. This procurement provides the network gear to activate this bi-sector route.	
BReT Statewide Traffic Signal System	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	
Mandate:	No
Mission Critical:	Yes
Description:	
VDOT operates 3,000+ signals and localities operate 4,300+ signals on the arterial roadway network. This results in substantial congestion, vehicle emissions, and crashes. This project will deliver a modernized statewide signal system to be used across VDOT and optionally by localities through a cooperative procurement managed by VITA.	
BReT StreetLight InSight Travel Metrics Renewal	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	7/20/2023
Mandate:	No
Mission Critical:	No
Description:	
StreetLight Data is the only provider of an online interface that completes immediate customizable transportation analytics, that relies on GPS/cell phone data, in real-time. There are other suppliers of similar software however, it is not offered in real-time and on-demand. Street Light also provides immediate analysis requiring a quick turnaround without significant delays.	
BReT TOC Firewall and Core Switch Replacement	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	10/26/2021

Mandate:	No
Mission Critical:	Yes
Description:	
Firewall, and core switch for continued service to Traffic Operations center connectivity to Commonwealth networks and maintain network security. Current equipment if obsolete, and no longer supported by manufacturer. Additionally new Advanced Traffic Management System (ATMS), and expanding systems require more robust bandwidth to support.	
BReT TOC Video Wall Replacement	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	1/28/2022
Mandate:	No
Mission Critical:	Yes
Description:	
This initiative is to replace legacy equipment no longer supported. Maintenance for the existing equipment is due to expire in March 2022. This equipment is essential to Traffic Operations Center (TOC) operations for control room personnel to be able to manage and view traffic in various sections of the eastern region at the same time.	
BReT Traffic Monitoring System Replacement	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	5/10/2021
Mandate:	No
Mission Critical:	No
Description:	
This request will ensure all traffic count users have reliable access to both raw and summary traffic data. 1. Update technology to ensure sustainability of system 2. Update business user interface to allow more intuitive data query 3. Update end user interface(s) to allow more user 'self-service' 4. Provide download site that allows more powerful query capabilities (Inside and Outside VDOT) 5. Update data input interface to reduce time managing data input while maintaining data quality 6. Ensure all reporting (inside and outside VDOT) is using SSR (master) data	
BReT Traffic Operations Center 10 GB Network Upd	

BRT Type:	Business Requirement for Existing Technology
Requested Start:	3/22/2023
Mandate:	No
Mission Critical:	Yes
Description:	
Currently, VDOT utilizes Cisco equipment to transport information from NOVA-based data centers to its five Traffic Operations Centers (TOCs). This procurement will upgrade components of the Cisco equipment at each TOC. The included ePlus quote provides all the necessary Cisco equipment to meet VDOT's current and projected bandwidth needs.	
BReT Traveler Information Data Sharing Services	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	
Mandate:	No
Mission Critical:	Yes
Description:	

VDOT’s existing 511 traveler information systems have run their course and have reached end of life. Today, these tools provide essential traffic video and data distribution to travelers, internal operators, media members and other service partners. Since its inception in 2011, business requirements, operational needs, traveler expectations and technology have significantly changed making the current offering obsolete. To address the growing demand for VDOT’s data, VDOT has developed several ad hoc tools to provide access to its data for industry and research partners. VDOT is embarking on this enterprise, strategic initiative to retire legacy systems and services, and develop a holistic solution to address the growing need.

VDOT is seeking a supplier to provide and securely manage a cloud-based suite of traffic, travel and road information services and specialized tools through a single platform to serve a variety of stakeholders including:

• Internal VDOT operations centers
• VDOT operators
• VDOT executives
• Public safety partners
• Media members
• Travelers
• Connected and automated vehicle (CAV) community

The supplier will provide distribution services for designated VDOT operations-related transportation video and data generated in transportation operations and traffic engineering functions across VDOT. Distribution methods may include:

• Web • Mobile application (iPhone and Android) • Digital voice assistant • Automated data services or application program interfaces (APIs) of various file types The current service provides a critical connection of field video back to the Statewide ATMS enabling operators to view the video within ATMS application for incident detection and management, as well as situational awareness. The contract resulting from this RFP will replace the existing Statewide Transportation, Video, Data Distribution/Statewide 511 Information Service contract and otherdata sharing portals managed by VDOT or provided by third parties.

BReT Utility Marking Application PROJ	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	2/16/2024
Mandate:	No
Mission Critical:	No
Description:	
Procure or build and deploy a statewide Utility Marking System application including intake process, execution, tracking, and invoicing.	

BReT VDOT Data Provisioning for DMV Automated Rout	
BRT Type:	Business Requirement for New Technology
Requested Start:	
Mandate:	No
Mission Critical:	Yes
Description:	
Currently data is delivered in a fragmented fashion to DMV via many different mechanisms. This effort will consolidate and enhance the delivery through a single channel using industry standard methods versus proprietary protocols, which require a lot of manual intervention to support hauling permit issuance. The data feeds are intended to interface with the new Automated Routing System that DMV is currently looking to procure. The DMV system will need to be identified before this effort can begin.	

BReT VDOT Internal Communications Modernization

BRT Type:	Business Requirement for Existing Technology
Requested Start:	5/9/2023
Mandate:	No
Mission Critical:	No
Description:	
The hardware on the Electronic Bulletin Boards (EBBs) is aging and a solution must be determined to ensure that employees remain engaged and informed. Implementation of the new system will avoid Technical Obsolescence, increase efficiency, decrease errors, and increase automation on interactive devices.	
BReT VDOT IT Contingent Labor	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	7/1/2022
Mandate:	No
Mission Critical:	Yes
Description:	
The VDOT IT Program requires the support of IT contingent labor to meet ongoing agency demands for: * Application Maintenance and Support Services * New Development * System Engineering and Architecture Services * Program Governance, Administration and Oversight * and * Enterprise Data Management Services. The Commonwealth IT contingent labor program contract provides an easy and quick way for public bodies to access quality information technology (IT) labor resources. Resources can be in the form of IT contractors, paid an hourly rate based on their skills, or in the form of a deliverables-based statement of work solution for initiatives totaling less than $2 million. The hourly-based resource solution, also called staff augmentation, covers a broad range of services with fifty IT job titles that are available at varying degrees of experience. Each of these titles has a not-to-exceed hourly rate based on the latest market conditions in two of the major economic zones in the commonwealth. The deliverables-based solution provides fixed price statement of work initiatives in one of the 15 specialty areas currently in and throughout Virginia.	
BReT VDOT Production Center Upgrade	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	
Mandate:	No
Mission Critical:	No
Description:	

The VDOT Production Center provides high-quality printing, scanning, photographic development and large-format reproduction services for the agency. This includes printing books, manuals, presentations, advertising copy, annual reports, contracts and bid documents.
This purchase order is issued under and will be governed by the pricing and terms and conditions of VITA Contract # VA-130405-XERX; for which Xerox will install and support the leased equipment and any software needed to manage the equipment. ITD will not be involved in the implementation, are not providing resources for this, and it will not require VDOT project manager oversight.

This technology will allow the agency to produce better quality documents and support services more efficiently while saving the agency an estimated $13,000 per year.

BReT VDOT Shentel Dark Fiber Leases	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	7/22/2023
Mandate:	No
Mission Critical:	Yes
Description:	
VDOT needs to continue leasing fiber from Shentel between Strasburg to Ashburn to complete the ring architecture of VDOT's Statewide Network until the dark fiber provider (Osprey) completes their phase 1 build along this segment.	

BReT VDOT Tableau licensing	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	5/25/2022
Mandate:	No
Mission Critical:	Yes
Description:	
Annual renewal of Tableau licenses, maintenance, & support. This includes desktop user software licensing, Tableau Report Server licensing for the agency, and a Premium Support agreement so that we can better align our infrastructure to needs and troubleshoot more quickly and effectively when problems arise.	

BReT VDOT Tolling Azure Commit Funding	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	11/27/2023

Mandate:	No
Mission Critical:	Yes
Description:	
This is a request to support the Tolling Azure subscriptions. Azure is the cloud solution used by Tolling to run multiple application, interface with the roadways and other states.	
BReT VDOT Traffic Operations Service Center Staff	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	12/28/2022
Mandate:	Yes
Mission Critical:	Yes
Description:	
The Transportation Operations Service Center (TOSC) will support VDOT's expansion of its asset management and monitoring efforts to include all OT. VDOT is implementing the TOSC to support the OT device availability monitoring, OT network security monitoring and associated device preventive and responsive maintenance activities. VDOT is implementing a comprehensive asset management platform named the Operations Technology Services and Asset Management (OTSaAM). OTSaAM will be a primary resource for the TOSC staff. All edge devices (e.g., traffic signals, highway message signs, highway cameras), cabinets, network switches, firewalls, TOC servers/desktops, etc. and other digital component asset information will be maintained in OTSaAM. The TOSC will serve and support several functions for the OT environment: 1. Manage key OT processes, including: * Asset inventory & attribute management * Asset and network service management * Change & configuration management * Ticketing and resolution management 2. Deliver reporting on all aspects of OT security monitoring The contracts resulting from these procurements will ensure Operations Technology is secure, resilient, and compliant with applicable policies and standards, and will enable VDOT to address and remediate findings identified in the 2018 OT Cybersecurity Assessment.	
BReT VDOT Xerox Printer Services	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	9/1/2022

Mandate:	No
Mission Critical:	No
Description:	
Renewal of the FY23 Printing services with Xerox. PGR to cover FY23 - FY26	
BReT Waypath Customer Relationship Mgmt Support	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	3/30/2022
Mandate:	No
Mission Critical:	No
Description:	
Renew Operations and Maintenance Support - Maintenance Releases - 4 per year - Emergency hotfixes - Ad hoc Support Activities - First level application support provided by Authorized User - Infrastructure support provided by Authorized User - Advanced application software support is provided by Waypath. Issues are escalated to Supplier if they cannot be resolved by Authorized User at first level. This includes support for: - Customer Relationship Mgmt (CRM) basic functions - CRM configurations - Custom application features - Integrations	
BReT WebVjust - ITSP - FY25	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	8/31/2023
Mandate:	No
Mission Critical:	No
Description:	
Develop a web-based tool that integrates/augments the current Excel-based VJust tool to be used by VDOT users who oversee the VDOT traffic engineering/analysis program and have rights to make global changes to the default values and other elements of the tool as applicable.	

BReT Wide Format Plotter Lease	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	
Mandate:	No
Mission Critical:	No
Description:	
VDOT has a need to renew its lease of wide format plotters in support on-going highway maintenance and construction programs.	

BRnT Accounts Payable Automation	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	
Mandate:	No
Mission Critical:	No
Description:	
For FY18, the Accounts Payable Automation project was ranked the highest technology project priority by the VDOT Strategic Technology Board. VDOT seeks to transform how the Agency processes invoices with a digital, comprehensive COTS cloud solution to automate the intake, processing and approvals of invoicing. The solution will be used across the agency by all staff responsible for this business function. In addition, VDOT anticipates other agencies may be able to leverage this solution. VDOT processes for managing invoices are manual, inefficient, time consuming and make it difficult for all vendors to do business with VDOT. VDOT processes over 129,000 invoices each year using numerous channels (mail, email) and destinations (multiple locations vs. a central intake) and passes hardcopy documents to multiple personnel for handling and “wet” signatures, which is inefficient and time-consuming. Each invoice received requires multiple VDOT personnel to: ·Manually enter invoice data twice which provides opportunities for simple, but expensive, errors. Create and store paper copies of invoices, supporting paperwork and AP Vouchers which requires extensive personnel time to properly manage document storage, archive and retrieval. ·Research and respond to vendor inquiries regarding invoice processing status (manual process). In addition to VDOT’s pain points regarding invoices, the vendor community has difficulties submitting invoices to multiple channels and locations, retrieving up-to-date status of submitted invoices and forecasting cash flow. VDOT seeks to transform how the Agency processes invoices with a digital, comprehensive COTS cloud solution to automate the intake, processing and approvals of invoicing. The solution will be used across the agency by all staff responsible for this business function. In addition, VDOT anticipates other agencies may be able to leverage this solution. Substantial productivity savings are expected across the agency with ananticipated ROIof 228% after five years. Characteristics of the solution include: standard implementation /configuration and scalability. This effort will support the COVA Strategic Plan goal to manage and direct the evaluation and adoption of cloud computing to address agency business requirements for a secure, flexible, economical, and rapidly scalable computing environment. In addition, this effort supports the Governor’s priorities to encourage innovation and research, and to make our government accessible and efficiently managed. Multiple options are being exploring,	

seeking to leverage COTS products and Cloud solutions.	
BRnT Advanced Transportation Controllers and Firmw	
BRT Type:	Business Requirement for New Technology
Requested Start:	
Mandate:	No
Mission Critical:	Yes
Description:	
VDOT seeks to procure traffic signal system controller hardware and firmware that are compatible and consistent throughout VDOT's Operations Regions for the purpose of enhancing cross-district interoperability, establishing efficiencies in maintenance, and expanding operations of the statewide signalized arterial roadway network; and prepare for future advances in technology. The plan includes: Phase I – Concept of Operations - Complete Phase II – Procurement of ATC Hardware & Firmware - $4.5M	
BRnT AI and Satellite Imagery Package	
BRT Type:	Business Requirement for New Technology
Requested Start:	8/2/2021
Mandate:	No
Mission Critical:	No
Description:	
The Transportation & Mobility Planning Division has identified a need for more frequent park & ride lot occupancy data to inform statewide multimodal planning and to support other transportation programs. BlackSky's remote sensing and artificial intelligence (AI) package will allow VDOT to more frequently, accurately, and cost effectively monitor Park & Ride lot occupancy and usage for application in a range of transportation planning functions.	
BRnT AI-Based Decision Support System for Enhancin	
BRT Type:	Business Requirement for New Technology
Requested Start:	
Mandate:	No
Mission Critical:	No

Description:	
VDOT is seeking to select a supplier to design and implement the Decision Support System to evaluate the current transportation network conditions, predict the impact of disruptions, and provide coordinated response options to operational agencies to more effectively resolve disruptions that slow travelers down.	
BRnT AutoCad File Conversion	
BRT Type:	Business Requirement for New Technology
Requested Start:	4/17/2023
Mandate:	No
Mission Critical:	No
Description:	
The Virginia Department of Transportation has an estimated 1,139,890 Gross Square Feet of buildings in need of field verification and AiMCAD Drawing creation. The latest versions of all involved software (AutoCAD, AiMCAD, etc.) will be used to create an Inventory of Drawings for all VDOT facilities. The result will be a comprehensive set of drawings that reflect the current conditions of the included space inventory.	
BRnT Automated Vehicle Systems Mapping	
BRT Type:	Business Requirement for New Technology
Requested Start:	12/7/2021
Mandate:	No
Mission Critical:	No
Description:	
Document and deliver detailed system mappings of VDOT systems that will need to ingest Connected and Automated Vehicle (CAV) data and to share VDOT data in support of CAVs and to identify whether the systems are capable of doing so or if adjustments need to be made.	
BRnT CEDAR Upgrade	
BRT Type:	Business Requirement for New Technology
Requested Start:	
Mandate:	Yes
Mission Critical:	No

Description:
This business requirement is to upgrade the CEDAR (Comprehensive Environmental Data and Reporting) application for the following reasons: Technology Obsolescence: It was initially thought a complete rewrite would be needed but further analysis determined a technology upgrade would be feasible. CEDAR was deployed to production in 2003 and is considered aging technology and infrastructure that makes maintenance and future sustainability of the application challenging thereby putting the business operation of the Division at significant risk. For these reasons a technical upgrade is necessary. Technology Consolidation: CEDAR currently is utilizing several different JavaScript libraries as well as different methods for rendering data for the screens. This is understandable due to the age of the project as well as the number of developers involved over the years. This makes maintaining the system as large and complex as CEDAR challenging. Functionality enhancements: It is anticipated that additional functional enhancements will emerge during the effort to review and validate the existing Functional Requirements.

BRnT Construction Prequalification	
BRT Type:	Business Requirement for New Technology
Requested Start:	
Mandate:	No
Mission Critical:	No
Description:	
The desired Construction Prequalification state: - An application allowing electronic submission, - Possessing intelligence that reduces manual data entry - Securely store application information - Reduce effort and error rates - Allow faster preparation of future submissions - Provide a Software as a Service (SaaS) Solution - Integrate with AASHTOWare Project - Integrate with SBSD (Small Business and Supplier Diversity)	

BRnT Customer Relationship Management Upgrade and	
BRT Type:	Business Requirement for New Technology
Requested Start:	
Mandate:	Yes
Mission Critical:	Yes

Description:	
This procurement is for services to migrate the existing on-premise Customer Relationship Management (CRM) Microsoft Dynamics 2013 platform to a tenant in the VITA CRM 365 cloud. This is done in compliance with Executive Order 19 which mandates all COV systems to move out of the current commonwealth data center to a cloud environment by the end of 2021. This will also upgrade the platform to the newest version of Microsoft Dynamics CRM for extended life of the systems it houses. Three separate Virginia Department of Transportation (VDOT) systems are built on the platform: Customer Service Center System, Tort Claims System and the Constituent Tracking System.	
BRnT Data Science Center of Excellence	
BRT Type:	Business Requirement for New Technology
Requested Start:	
Mandate:	No
Mission Critical:	No
Description:	
(VDOT) seeks to form a team of deeply experienced data scientists and data engineers to design, develop, and sustain a Data Science center of excellence (COE).	
BRnT Digitize Bridge Inspection Reports	
BRT Type:	Business Requirement for New Technology
Requested Start:	
Mandate:	No
Mission Critical:	Yes
Description:	
New mobile solution for field bridge inspectors allowing them to enter real-time inspection observations while out in the field via a tablet or other handheld device with workflow and digital approvals/electronic signature capabilities.	
BRnT DWDM Fiber Network Build	
BRT Type:	Business Requirement for New Technology
Requested Start:	4/26/2021
Mandate:	No
Mission Critical:	Yes

Description:	
VDOT is implementing Dense Wave Division Multiplexing technology to connect VDOT fiber in a statewide Operations Technology network.	
BRnT Employee Onboarding	
BRT Type:	Business Requirement for New Technology
Requested Start:	
Mandate:	No
Mission Critical:	No
Description:	
Each year, VDOT on-boards approximately 1000 classified employees (in addition to classified employees we onboard an additional 150-200 wage employees). Of that number approximately 50% are from outside of the agency with 50% transferring to new assignments within the agency. The labor and paperwork associated with this staffing volume is significant and prone to error. New and transferring employees currently fill out manual paper forms as part of this process, which can be a tedious employee experience. Currently, onboarding is managed locally, resulting in inconsistent processes and communications regarding VDOT's mission, values and expectations. The Human Resources (HR) team conducted a Request for Information (RFI) review of the current industry standard employee onboarding tools. HR is interested in purchasing Onboarding SaaS (Software as a Service), which are readily available through commercial vendors to standardize important agency specific communications that new and transferring employees receive, reduce labor associated with onboarding, engage new employees in the onboarding process prior to their first day on the job, reduce the opportunity for error, and to provide a consistent positive employee experience.	
BRnT Ensure Reliable Traffic Monitoring Data	
BRT Type:	Business Requirement for New Technology
Requested Start:	
Mandate:	No
Mission Critical:	No
Description:	
VDOT conducts a program where traffic monitoring data are gathered from sensors in or along streets and highways as well as from other documented sources. Count data in various formats are managed in an end-of-life application that can no longer produce accurate, usable data such as estimates of the Average Vehicle Miles Traveled (VMT), the average annual number of vehicles that traveled each segment of road (AADT), estimates of the percentage of the AADT made up by 6 different vehicle types, ranging from cars to double trailer trucks, Peak Hour and Peak Direction factors used by planners and engineers to formulate design requirements, and numerous other planning, pavement, safety, and	

congestion support calculations.	
BRnT Facilities Maintenance Management	
BRT Type:	Business Requirement for New Technology
Requested Start:	
Mandate:	No
Mission Critical:	No
Description:	
VDOT must ensure orderly and safe operational function (heating, cooling, electrical, and fire suppression systems, etc.) of the 1373 buildings that the agency manages across the state. Currently, VDOT does not have a statewide system for tracking facility requests, costs of maintenance and data needed for capital planning, parts inventory, condition assessments and fulfillment of requests.	
BRnT GIS Cloud Migration Roadmap	
BRT Type:	Business Requirement for New Technology
Requested Start:	
Mandate:	Yes
Mission Critical:	Yes
Description:	
In order to comply with Executive Order 19 requiring COV systems to move to the cloud, VDOT plans to engage a consultant that will analyze and provide a roadmap for migrating four key groups of geospatial information systems at VDOT into the cloud: Geographical Information Systems (GIS), Roadway Network System (RNS), Comprehensive Environmental Data and Reporting System (CEDAR) and GIS Integrator. The output of the analysis will be a roadmap showing the approach to migration and comprehensive documentation of the requirements to execute the roadmap.	
BRnT Hire Vue Interviewing Tool	
BRT Type:	Business Requirement for New Technology
Requested Start:	5/11/2021
Mandate:	No
Mission Critical:	No
Description:	
Hire Vue is a Video Interviewing Tool which will allow potential candidates to submit a one-way video to	

the interviewing panel which contains their answers to pre-selected interview questions. The need for video interviewing has been identified as a way to streamline interviewing, shorten time to fill and to provide a path to better candidates, help evaluate human skills and is a key action item component identified in VoT efforts.

BRnT Human Capital Management Cloud Implementation	
BRT Type:	Business Requirement for New Technology
Requested Start:	
Mandate:	Yes
Mission Critical:	Yes
Description:	
VDOT must maximize human resource service delivery for all VDOT employees and prospective candidates. This is characterized by: * Streamlined HR processes will alleviate administrative burdens of the recruiting, onboarding, talent management, and compensation management processes; * Improved communication and collaboration between VDOT employees, prospective candidates, and VDOT management which will be reflected in reduced voluntary employee separation, reduction in average time to fill open positions, and improvement in associate satisfaction scores; * Solution built on cloud infrastructure that will improve VDOT's scalability, availability, reliability and employee ease of use; * Accelerated implementation of future HR business changes by eliminating costly custom development and using a system that is easily configured and maintained; * Management communication that is open and effective and highly collaborative in nature and invites input and feedback from employees; * Managers and senior executives eliminating barriers, providing feedback and inspiring confidence; and, * A solution that equips managers to develop the next generation of organizational leaders.	

BRnT I-64 Express Lanes Expansion	
BRT Type:	Business Requirement for New Technology
Requested Start:	
Mandate:	No
Mission Critical:	No
Description:	
This request is to procure a tolling solution via an RFP "as a service" that will operate the next immediate segment as well as include options for the whole 45 mile network.	

BRnT ICM Data Store and Decision Support	
BRT Type:	Business Requirement for New Technology
Requested Start:	
Mandate:	No
Mission Critical:	Yes
Description:	
A Northern Virginia Multi-modal Mobility Data Store & Decision Support System is needed to: 1) Optimize performance of the existing infrastructure, 2) Enhance travel time reliability, 3) Support on-demand, multi-modal trip options for travelers. VDOT will implement one of the nation's first unified, regional, real-time, predictive, transportation services for all agencies to make transportation management decisions collectively and to make transportation more reliable and seamless for users. The solution will provide end-to-end connected intermodal transportation service data in a 'live' cloud-based mobility data store for private sector/media to distribute to consumers. This project will be implemented in three phases: Mobility Data Store, Data Store Expansion and Decision Support	

BRnT IdeaScale Innovation Platform	
BRT Type:	Business Requirement for New Technology
Requested Start:	
Mandate:	No
Mission Critical:	No
Description:	
Lack of platform to solicit problem solving innovative ideas across VDOT organization and leverage collective knowledge and creativity of workforce. Need to foster and cultivate creative innovative workforce and environment of innovation. IdeaScale will help find implementable, effective ideas, without overreaching budget. It will help maintain high levels of employee satisfaction by engaging employees through IdeaScale. Give VDOT employees a straight-forward, easily accessed platform to share their knowledge. Make the most of the insight, experience, and knowledge within VDOT. IdeaScale will bring transparency, collaboration and management to the process of innovation at VDOT. The system allows to do challenges and allows the executives to solicit input from targeted groups on specific topics.	

BRnT Internal Talent Opportunity Marketplace	
BRT Type:	Business Requirement for New Technology
Requested Start:	5/10/2021

Mandate:	No
Mission Critical:	No
Description:	
Provide managers access to the entire scope of the VDOT's talents, not just those of their own employees, while ensuring we can better utilize the existing resources of VDOT and provide employees more opportunity for growth and development.	
BRnT Joint Safety Operations Center Conference Roo	
BRT Type:	Business Requirement for New Technology
Requested Start:	
Mandate:	No
Mission Critical:	Yes
Description:	
Newly constructed 3 story building that is a joint venture between the Virginia State Police, VDOT Traffic Operation Center and VDOT Richmond District Office. This is a contract for all the Audio Visual equipment and installation throughout the building for VDOT to include VTC for Conference Rooms and full AV setup in our Situation Room and Multipurpose Room	
BRnT Land Use Outdoor Advertising Permit	
BRT Type:	Business Requirement for New Technology
Requested Start:	1/1/2000
Mandate:	Yes
Mission Critical:	Yes
Description:	
The Office of Land Use and Outdoor Advertising (OA) utilize 3 systems for permitting: The Land Use Permit System (LUPS) is used to issue and track land use permits as well as collect sureties and fees; The Online Application allows citizens, localities, corporations, and utility companies to submit permit applications and pay the fees; and the Outdoor Advertising, an MS Access database in conjunction with GIS and a GIS plugin to manage their day to day business of issuing and controlling sign permits. The permitting process between LU and OA are similar, however, it is the desire of the business to find a single solution that will address the needs of both groups.	
BRnT Locality Assistance	
BRT Type:	Business Requirement for New Technology

Requested Start:	
Mandate:	No
Mission Critical:	No
Description:	
Localities no longer have access to VDOT systems directly. The purpose of this project is to understand the processes, touch points, pain points, and requirements for localities as they administer their projects. The vision is to create and implement a solution that will improve the communication between the localities and VDOT and to provide a way for the localities to provide and receive up to date, accurate, and complete information via a self-help system.	
BRnT Managed Print Services	
BRT Type:	Business Requirement for New Technology
Requested Start:	
Mandate:	No
Mission Critical:	No
Description:	
VDOT is entering into a Managed Print Services relationship with Xerox. MPS procurement encompasses the following areas; all networked printers, all high-speed multi-function devices, all color printing devices and supplies for the printers.	
BRnT Mountain Tunnels SCADA Replacement	
BRT Type:	Business Requirement for New Technology
Requested Start:	
Mandate:	No
Mission Critical:	Yes
Description:	
VDOT requires an industrial sized SCADA system solution to be installed at BWMT and ERMT providing a long term solution that will improve reliability, reduce risk or operator error, and can accommodate future fire life and safety projects. Features of the solution must include, but not limited to the following: · Hot Standby PLC · Remote Input Output Rack (RIO Rack) · Uninterruptible Power Supply · Human Machine Interface (HMI) Hardware and Software Workstations	

BRnT Multimodal Mobility Enhancement via Dynamic I	
BRT Type:	Business Requirement for New Technology
Requested Start:	
Mandate:	No
Mission Critical:	No
Description:	
VDOT is seeking to select a supplier to design and implement a Dynamic Incentivization (DI) system that will offer incentives to the traveling public that encourage travelers to change their departure time, route, or mode to maximize the efficiency of the transportation network. Example incentive could include discounted transit rides, which is a typical travel demand management strategy.	
BRnT Occupational Health Tracking System	
BRT Type:	Business Requirement for New Technology
Requested Start:	5/10/2021
Mandate:	No
Mission Critical:	No
Description:	
To improve current process of completing multiple spreadsheets in numerous related systems by creating an easy-to-use tracking system where program managers, managers and employees can be monitored and report on compliance with occupational health programs and services.	
BRnT OT Security Network Detection and Response	
BRT Type:	Business Requirement for New Technology
Requested Start:	9/8/2021
Mandate:	No
Mission Critical:	Yes
Description:	
VDOT is implementing a Traffic Operations Support Center that will include a Security Operations Center (SOC) component. The SOC will use various tools to monitor/identify/mitigate the cybersecurity incidents in the Operations Technology Environment. Forescout is the technology that will be used for network detection and response.	

BRnT OT SIEM Implementation	
BRT Type:	Business Requirement for New Technology
Requested Start:	2/8/2022
Mandate:	No
Mission Critical:	Yes
Description:	
The VDOT Operations Technology and Security teams require Security Information and Event Management (SIEM) tools in place so as to capture, identify, detect, and respond to network security threats anywhere in the OT network in near-real-time.	
BRnT PlanGrid Software	
BRT Type:	Business Requirement for New Technology
Requested Start:	
Mandate:	No
Mission Critical:	No
Description:	
Tablet based inspection is the deployment of mobile devices such as iPads to provide construction inspectors with technology that will allow them to inspect highway construction projects more effectively and efficiently. This procurement is for PlanGrid software, which will be used on previously purchased, cellular enabled ipads.	
BRnT Regional Multimodal Mobility Program (RM3P)	
BRT Type:	Business Requirement for New Technology
Requested Start:	
Mandate:	No
Mission Critical:	No
Description:	
VDOT is seeking to procure IT services and solutions to implement technologies to optimize the performance of the existing transportation infrastructure, enhance travel-time reliability for regional commuters, and support on-demand, multi-modal trip options/choices for travelers. The IT services and solutions will leverage artificial intelligence (AI) and machine learning to extract information from large data sets, develop intelligence, and present/distribute information/data in real-time to the operators and public to make decisions.	

BRnT Road Network System (RNS) Needs Assessment an	
BRT Type:	Business Requirement for New Technology
Requested Start:	
Mandate:	No
Mission Critical:	No
Description:	
Business Requirement to conduct a needs assessment, develop requirements and evaluate alternatives for replacing VDOT's linear referencing system (LRS) known as the Roadway Network System (RNS). At VDOT, we have implemented a linear referencing system (LRS) known as the Roadway Network System (RNS) to manage roadway assets. Over time the amount of information managed within RNS has grown. A major component of the system, known as the roadway inventory management system (RIMS), was added a few years ago and allows end users to manage roadway characteristic data. Additional competing requirements and the resultant enhancements to the system over the last 10 years have led to a high level of complexity. Today the data in RNS is used to produce the annual highway performance management system (HPMS) report to the Federal Highway Administration (FHWA). It is also used to assist in meeting requirements related to MAP21, the all roads network of linearly referenced data (ARNOLD), the transportation asset management plan (TAMP), the National Highway Transportation Safety Administration's (NHTSA) traffic safety records assessment, crash analysis, and more. We maintain data on roughly 127,000 lane miles of roadway with over 150 event types. The VDOT IT Division executes between 5 and 6 million dollars annually to support these activities. We have reached a point where we deal with: · Near constant data integrity problems · Slow or no response to enhancement requests · Little or no capability to handle additional data/event types within the system · Data synchronization between supported systems (i.e. Pavement Management System) takes weeks · In order to support the continued and growing need for the management of current and future roadway data we need to take a fresh look at the RNS and determine a future implementation plan.	
BRnT RUMS Replacement	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	
Mandate:	Yes
Mission Critical:	Yes
Description:	
Right of Way Management System (RUMS) is reliant on antiquated services, tools, and code. Out of date services such as Infragistics, (a software utility that manages all grid views in RUMS) creates significant IT management issues for many upgrades. The document management and delivery, which	

is a critical piece to the right of way property acquisition process, still utilizes an older version of MS Word documents. This out of date tool is a direct factor in the 300 – 400 users utilizing multiple versions of VDOT form letters. Cumbersome screen design, connectivity issues and an inconsistent web service, that logs users out every 20 minutes causing lost work, discourages localities and contractors from utilizing the system. These deficiencies create mass rework as well as reporting and tracking challenges on locally administered projects.	
BRnT Safety Data Analytics	
BRT Type:	Business Requirement for New Technology
Requested Start:	4/16/2021
Mandate:	No
Mission Critical:	No
Description:	
Identify and develop strategies and predictive solutions that reduce the number and severity of crashes in Virginia by enhancing its analytical tools and improving its qualitative crash analysis capabilities.	
BRnT Sign Shop MRP Replacement	
BRT Type:	Business Requirement for New Technology
Requested Start:	4/11/2022
Mandate:	No
Mission Critical:	No
Description:	
The VDOT Sign Shop currently is the E2 Shoptech MRP (Materials Resource Planning) system. E2 has indicated that that are discontinuing the online order request feature (WebView) of their system. This feature is critical to the operation of the Sign Shop and the loss of this functionality requires manual processing that effectively prohibits the Sign Shop from meeting performance measures and customer expectations. This BRT supports an effort to identify a viable replacement for the E2 Shoptech product.	
BRnT Smart Parking Multi-Modal Commuter Linkage	
BRT Type:	Business Requirement for New Technology
Requested Start:	7/13/2021
Mandate:	No
Mission Critical:	No
Description:	

Establish a Data-as-a-Service arrangement that data providers will furnish real-time parking space availability data for selected commuter parking lots. VDOT will retain non-exclusive rights to the data in perpetuity. This will be a cooperative contract for partner agencies' use.

BRnT Statewide Advanced Traffic Management Systems	
BRT Type:	Business Requirement for New Technology
Requested Start:	
Mandate:	No
Mission Critical:	Yes
Description:	

BRnT - VDOT Transportation Operations Centers and Statewide Advanced Traffic Management Systems Services
Purpose: To operate, integrate and innovate the state's 5 regional Transportation Operations Centers (TOC's).
Proposed Outcomes Include:
· Improved interoperability between five TOCs through technology, people and processes.
· Developing, implementing, operating and maintaining a new state-wide ATMS platform across five TOCs that is flexible for future enhancements and includes advanced components such as interoperability, Integrated Corridor Management, Active Traffic Management and Arterial Signal Management. Increase operational efficiency and safety through economies of scale gained by having one contract for responsible for traffic operations and ATMS.
· Providing performance-based management of TOC Operations and ATMS services.
· Develop consistent standard operating procedures across the state, while accommodating regional characteristics.
· Protect and enhance current asset value/investment.
· Providing a platform for innovation of VDOT's traffic operations and an opportunity for the private sector to test new products and strategies
For more information, visit http://www.virginiadot.org/business/traffic_operations_centers.asp

BRnT Statewide Transportation Improvement Program	
BRT Type:	Business Requirement for New Technology
Requested Start:	
Mandate:	No
Mission Critical:	Yes
Description:	

The Statewide Transportation Improvement Program (STIP) enhancements will allow Division staff to route original and amended STIP projects to VDOT and non-VDOT stakeholders for review and approval. The enhancement included a workflow for approval routing and hierarchy.

BRnT StreetLight InSight Travel Metrics Applicatio	
BRT Type:	Business Requirement for New Technology
Requested Start:	
Mandate:	No
Mission Critical:	No
Description:	
This is a procurement for the Secretary of Transportation, who ran the procurement and drafted the sole source documentation; VDOT's SCM reviewed and made the necessary corrections/enhancements. The StreetLight InSight Travel Metrics subscription service allows users to access the power of Big Data for transportation planning, operations, and management. This service has been described as "the only product in the US market with a user interface that allows planners, modelers and engineers to dynamically and flexibly run core transportation analytics based on Big Data." StreetLight Data, Inc is a data aggregator of non-sensitive transportation data. The company's service product combines data access and analytical capabilities within a bundled online subscription service arrangement.	
BRnT Tolling Operations Software	
BRT Type:	Business Requirement for New Technology
Requested Start:	
Mandate:	No
Mission Critical:	No
Description:	
This procurement is to purchase 3 year term limited licenses to support the tolling operating systems until they are migrated to the cloud.	
BRnT VDOT Sharepoint Upgrade	
BRT Type:	Business Requirement for New Technology
Requested Start:	
Mandate:	No
Mission Critical:	No
Description:	
VDOT has previously developed plans to migrate from its SharePoint 2010 Infrastructure to SharePoint	

2016/2019 and will now use the findings in those migration plans to develop a Migration to SharePoint Online to coincide with the Governor's Executive Order 19: "Cloud Service Utilization and Readiness."	
BRT Agile Assets Software License and Maintenance	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	9/7/2022
Mandate:	No
Mission Critical:	No
Description:	
Agile Assets BRT for support of the PMS systems	
BRT eForms Civil Rights Title IV	
BRT Type:	Business Requirement for New Technology
Requested Start:	8/1/2022
Mandate:	No
Mission Critical:	No
Description:	
The Civil Rights Division (CRD) needs an automated solution that will allow it to capture and store information related to Title VI Compliance Monitoring and Review process for Local Public Agencies (LPAs) only. Reporting is required to be a part of this automated solution. The Local Assistance Division along with VDOT Project Managers require access to this data and or reporting to verify the status of compliance for specific Local Public Agencies (LPAs).	
BRT Federal Program Management	
BRT Type:	Business Requirement for New Technology
Requested Start:	12/30/2022
Mandate:	No
Mission Critical:	No
Description:	
Given the criticality of the work performed within the Budget and Funds Management Division (BFMD), the systems are not suitable for the division to efficiently and effectively execute and manage the	

department's federal program in support of project and program delivery and ensuring compliance with federal requirements. The following systems need to be replaced: • Statewide Transportation Improvement Program (STIP) database within the Integrated Six-Year Program (iSYP) suite • Federal Strategy database

BRT Highway Maintenance Management Support Proc	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	7/11/2022
Mandate:	No
Mission Critical:	Yes
Description:	
Renewal of the Operations and Maintenance Support of the Highway Maintenance Management System (HMMS) solution. VDOT requires a commercial-grade, web-based, transportation-centric HMMS solution, hosted at VITA's Commonwealth Enterprise Solution Center, to better manage and control the costs of its operations.	

BRT I-66 Vehicle Occupancy Detection System	
BRT Type:	Business Requirement for New Technology
Requested Start:	5/1/2023
Mandate:	No
Mission Critical:	No
Description:	
A service that provides automated means to identify and correct trips where-in a traveler has incorrectly set the transponder to HOV mode. The system identifies the correct number of occupants, and follows VDOT business rules to provide a warning letter or rerate as appropriate.	

BRT SailPoint Identity & Access Mgmt Solution	
BRT Type:	Business Requirement for New Technology
Requested Start:	7/8/2021
Mandate:	No
Mission Critical:	No
Description:	

Sailpoint will be implemented as the Identity and Access Management (IAM) solution for the VDOT Operations Technology Environment in support of the agency's overall cybersecurity objectives. It will allow VDOT to identify, authenticate, and authorize users to access the various applications used in support of Traffic Operations. The requirements are:

1. Deploy a separate instance of Sailpoint for use by VDOT's traffic operations infrastructure to perform statewide identity and access/authentication management capabilities.
2. Statewide security services will be provisioned at the MicroSoft Azure hosted infrastructure, including Sailpoint included in this request. VDOT is in the process of integrating the traffic operations infrastructure with MicroSoft Azure.
3. Sailpoint will integrate with each of the five traffic operations centers as well as statewide systems.
4. Support for configuring both approval workflow and onboarding workflow to meet custom needs of VDOT traffic operations including employees, contractors, traffic operations center operators, ITS field technicians, Signal field technicians, and other technology support staff.
5. VDOT's traffic operations infrastructure should be segmented "air gapped" from other infrastructure to the greatest extent possible.

VDOT SD-WAN Upgrade	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	3/1/2023
Mandate:	Yes
Mission Critical:	Yes

Description:

Configure existing routers to support SD-WAN capability across all agency locations. This approach prepares agency location(s) with the ability to add additional network capabilities (multiprotocol label switching (MPLS), broadband, wireless (i.e., Cradlepoint)) to take advantage of application -aware routing over private and public networks.

Three step process:

Remote internetwork operating system (IOS) software upgrade on the router.

Remote SD-WAN deployment

Circuit deployment as needed

VDOT Website Modernization	
BRT Type:	Business Requirement for New Technology
Requested Start:	6/16/2023
Mandate:	No

Mission Critical:	Yes
Description:	
The primary objective of the COV Website Modernization and the CMS Virginia.gov projects are to ensure all state sites are on a single common platform and are following required VITA, COV and 508 standards	

Commonwealth Projects >= $250,000.00

Agency:	501 Department of Transportation (VDOT)
Date:	3/29/2024

Human Capital Management Cloud Implementation PROJ	
Category 2	Project Initiation Approval
VDOT HR is looking to implement an integrated SaaS solution to replace several HR systems that are outdated and are unsupported or are using soon to be-unsupported technologies. The SaaS solution will automate the processes and sub processes involved in recruiting, hiring, onboarding, performance management, compensation, health and safety, HR administration, succession, and the HR help desk. The solution will support agency initiatives such as VDOT of Tomorrow, the Agency Business Plan, and the Governor's mandate for Cloud Technology.	

Project Start Date	5/3/2021	Project End Date	7/31/2024
Estimated Costs:	**Total**	**General Fund**	**Non-General Fund**
Project Cost	$5,725,738.00		$5,725,737.00
Estimated first year of biennium:	$0.00	$0.00	$0.00
Estimated second year of biennium:	$4,614,203.00	$0.00	$4,614,203.00

Project Related Procurements

Human Capital Management Cloud Implementation PROC

Land Use Outdoor Advertising Permit PROJ	
Category 4	Project Initiation Approval
The Office of Land Use and Outdoor Advertising (OA) utilize 3 systems for permitting: The Land Use Permit System (LUPS) is used to issue and track land use permits as well as collect sureties and fees; The Online Application allows citizens, localities, corporations, and utility companies to submit permit applications and pay the fees; and the Outdoor Advertising, an MS Access database in conjunction with GIS and a GIS plugin to manage their day to day business of issuing and controlling sign permits. The permitting process between LU and OA are similar, however, it is the desire of the business to find a single solution that will address the needs of both groups if possible. The business wants a permit system that is more streamlined, has less user intervention (more automated than the current system), and interfaces with the GIS system that can be used for both Land	

Use and Outdoor Advertising. The system should reduce cycle time and improve the accuracy of managing permits.

Project Start Date	12/1/2021	Project End Date	12/31/2024
Estimated Costs:	**Total**	**General Fund**	**Non-General Fund**
Project Cost	$1,797,276.00		$1,797,276.00
Estimated first year of biennium:	$0.00	$0.00	$0.00
Estimated second year of biennium:	$520,424.40	$0.00	$520,424.40

Project Related Procurements

There are no procurements for this project

RUMS Replacement PROJ	
Category 4	Project Initiation Approval

The VDOT Right of Way (ROW) and Utilities Management System (RUMS) manages the process where a road construction Notice to Proceed (NTP) document is used to coordinate mandatory pre-construction activities including providing a comprehensive cost estimate on all potential necessary acquisition and damage costs, coordinating with the impacted utility companies to understand their needs, communicating with railroad companies to ensure that VDOT can obtain the proper right of entry agreements, ensuring that any special circumstance parcels within the project scope are handled in accordance with state or federal law, if VDOT and a landowner are unable to agree then managing eminent domain proceedings and final reimbursement and validation of any relocation expenses, managing any parcel remnant or whole parcel that was not utilized during construction, handling all lease agreements and payments as well as any state or utility conveyance of property, mitigating and gravesite or cemetery relocations, and all processing FOIA requests related to the above activities.

The current, RUMS (Right of Way Management System), is functional but, at 15 years old, the system is reliant on antiquated services, tools, and code. Out of date services such as Infragistics, which manages all grid views in RUMS, creates significant IT management issues for many upgrades. The document management and delivery, which is a critical piece to the right of way property acquisition process, utilizes an outmoded document format. This deprecated tool has led hundreds of state- wide system users to independently create their own multiple versions of VDOT form letters. Other issues include cumbersome screen design, connectivity issues, and an unstable web service causing frequent lost work. In combination these factors have discouraged localities and contractors from utilizing the system. These deficiencies create mass rework as well as reporting and tracking challenges on locally administered projects. The desired state is to update or replace RUMS with a modern framework and enhanced functionality that includes workflow, integrated state-of-the-art document management, and the ability to accurately track all project types and managers.

The RUMS replacement software will be selected via a competitive RFP; a vendor hosted (SaaS) Software as a Service system.

Project Start Date	10/1/2021	Project End Date	3/31/2026
Estimated Costs:	**Total**	**General Fund**	**Non-General Fund**
Project Cost	$4,961,100.00		
Estimated first year of biennium:	$0.00	$0.00	$0.00
Estimated second year of biennium:	$0.00	$0.00	$0.00

Project Related Procurements

RUMS Replacement PROC

Enhanced 511 PROJ	
Category 4	Project Initiation Approval

VDOT is seeking a Supplier to provide and securely manage a cloud-based suite of traffic, travel and road information services and specialized tools. This will be done through a single platform to serve a variety of stakeholders including: Internal VDOT operations centers, VDOT operators, VDOT executives, Public safety partners, Media members, Travelers, and the Connected and automated vehicle (CAV) community.
The Supplier will provide distribution services for designated VDOT operations-related transportation video and data generated in transportation operations and traffic engineering functions across VDOT. Distribution methods may include: Web, Mobile application (iPhone and Android), Digital voice assistant, IVR and Automated data services or application program interfaces (APIs) of various file types.
The project approach is to source a Supplier that can provide a comprehensive service that VDOT wishes to provide to the internal and external end users. VDOT does not have the ability to build and provide the services in-house and therefore seeks a comprehensive Supplier solution approach to the business problem.
The project serves the following customers: Internal staff at all levels, Traveling public, Public Safety Partners, Researchers, Media, 3rd Party entities such as the Commercial Vehicle and Connected and Autonomous Vehicle providers, and Automotive manufacturers.

The expected internal and external benefits:

-Emergency response and readiness through the ability to see in real-time what the roadway looks like across the state with a network of over 1,300 traffic cameras.

-Incident detection and awareness- VDOT operations staff outside a given TOC can view incidents quickly by monitoring the feeds of camera images through this system. VDOT can respond more quickly to incidents that are observed including severe road conditions.

-Moving to a cloud-based platform solution- VDOT is seeking a vendor that proposes a cloud-based platform for the video and data service which will achieve compliance with EO19.

-Innovation to government services- the RFP and contract contains requirements to present and infuse innovation into the program over its lifecycle. The Supplier will be required to host an Innovation Summit for VDOT once a year to showcase potential technologies that may improve the program.

-Ability to change and grow the service as innovation drives change- The RFP and subsequent contract has provisions for growth and change to the service over time to include innovation requirements.

-Provide a tool to directly support Incident Command Managers (IMCs) in providing real-time, updated incident information to multiple levels of agency management simultaneously and efficiently through the app developed as a result of this RFP and contract.

-Reducing staff time by producing a reduction in phone calls to the Transportation Operations Centers and management – The reduction will be a direct result and benefit from the Incident Command app.

-Ability for IMCs to focus on the task at hand rather than making several phone calls to management through use of the new tool.

-Provide innovation to the end-users through the use of the mobile app, web and digital voice assistant products that will receive continuous innovative updates.

-Provide apps for smartphones- this will provide real time benefits for travel and for travel planning with hands-free infotainment integration.

-Provide website- the website will provide a multitude

Project Start Date	9/30/2021	Project End Date	12/30/2023
Estimated Costs:	**Total**	**General Fund**	**Non-General Fund**
Project Cost	$4,428,092.00		$4,428,092.00
Estimated first year of biennium:	$0.00	$0.00	$0.00
Estimated second year of biennium:	$4,428,092.00	$0.00	$4,428,092.00

Project Related Procurements

Enhanced 511 PROC
Inrix Data MOU PROC

AI-Based System for Incident Management PROJ	
Category 3	Project Initiation Approval
VDOT is requesting that the Offeror propose an innovative solution that meets the following high-level needs and functions for the AI-DSS: ● Predict/project transportation events (location, expected duration, severity) that will occur in a customer-configurable future period, such as between 15 minutes and an hour into the future;	

● Predict/project traffic congestion (location, expected duration, intensity) that will occur between 15 minutes and an hour in the future;
● Predict/project transit crowding that will occur between 15 minutes and an hour in the future;
● Predict/project the availability of parking spaces at selected individual regional parking facilities between 15 minutes and an hour in the future during AM Peak;
● Develop multi-modal, multi-agency response plan elements through coordination and agreement with regional operating agencies;
● Develop business rules and operating procedures for responding to incidents and congestion through coordination and agreement with regional operating agencies;
● Recommend response plan elements for actual and predicted transportation incidents and the expected impact of the response plan;
● Recommend response plan elements for actual and predicted traffic congestion;
● Recommend response plan elements for actual and predicted transit crowding conditions;
● Provide a data interface for parking availability predictions to send data and prediction information to the RM3P Data-Exchange Platform (DEP);
● Provide a web-based graphical user interface that authorized transportation operators can view modify, and coordinate recommended response plans;
● Provide response plan recommendations to regional stakeholders in various formats including but not limited to an API for agency operating systems to integrate the DSS data, a web-based GUI, and alerts in text and email format;
● As a separate option to the AI-DSS project, the Vendor for the Data Incentivization (DI) project may need to generate triggers within the DSS to implement various DI strategies. The AI-DSS vendor may be asked to develop an interface for the DI vendor to connect to the AI-DSS system and provide documentation for the DI triggers in the response plans. This work is an optional task, and will require separate pricing during the technical proposal pricing phase; and
● Provide a data interface to the RM3P Data-Exchange Platform (DEP) to send prediction information, response plan recommendations, and the executed response plan elements.
● Develop a data interface to the DEP to obtain current traffic, transit, and parking information.
The Offeror will propose its System-as-a-Service approach based on its expertise and proposed technologies; teaming arrangements are encouraged. VDOT is open to innovative solutions and the Offeror shall detail how its solution meets the needs and functions listed above.

Below is a list of probable elements in an AI-DSS solution. VDOT anticipates that these components or capabilities are likely to be reflected in Offerors' responses. Where specific elements are not needed, Offerors should explain the work-around.:
Rules Engine
The Rules Engine contains the logic to make determinations based on pre-defined rules. This includes monitoring current conditions to determine when a response plan needs to be created, updated, or deactivated; and developing response plans from a set of rules applied to current conditions.
Modeling Engine
An AI-DSS Modeling Engine may be used for evaluation and development of various response plans and events within the corridors and hot spots listed in the Predictive Engines section. The Model may be used by the selected Offeror to assist in the training of its predictive service.
Response Plans
Several agencies within the region have existing response plans and standard operating procedures (SOP) for events within their areas of responsibility. The selected Offeror/Vendor may use the existing response plans and SOPs. It shall develop a new set of coordinate

Project Start Date	10/1/2021	Project End Date	3/31/2027
Estimated Costs:	**Total**	**General Fund**	**Non-General Fund**
Project Cost	$9,109,999.98		$9,109,997.90
Estimated first year of biennium:	$0.00	$0.00	$0.00
Estimated second year of biennium:	$537,499.90	$0.00	$537,499.90

Project Related Procurements

AI-Based System for Incident Management PROC

Multimodal Mobility Enhancement DI PROJ	
Category 3	Project Initiation Approval

The purpose of the Dynamic Incentivization (DI) project is to improve safety, reliability, and mobility for travelers in or through Northern Virginia. The DI solution will offer incentives to the public for changing mode, route, or departure time in ways that lessen the overall impact of congestion and incidents. For example, if there was a major crash on Interstate 95 (I-95) that could impact travel in Northern Virginia, commuters who regularly drive that route might be offered an incentive to delay their departure or take transit. The goal of DI is to incentivize and reward a relatively small number of commuters who have the willingness and flexibility to safely change their travel patterns in a way that improves the efficiency of the transportation network as a whole. An additional goal of the solution is to change travel behaviors in the long-term, so the solution will also reward travelers for continued use of travel modes that reduce or eliminate Single-Occupant Vehicle (SOV) trips. While the initial deployment of DI will be limited to NOVA, the solution must be capable of scaling to other parts of the Commonwealth as well.

The incentives will be organized into three complementary programs:
● Dynamic Incentives – Created in real time in response to incidents.
● Challenges – Short-term incentives in response to planned events (e.g., construction, Metro station maintenance closures) or to reinforce specific behaviors.
● Loyalty Incentives – Long-term incentives to reinforce the use of active and shared modes.

These incentives are intended to encourage behavior changes that reduce the impacts of incidents and planned events and decrease usage of SOVs.
Northern Virginia and other parts of the state have several successful Transportation Demand Management (TDM) programs or commuter assistance programs (CAP) already in operation. These programs include manually managed programs, as well as program websites and app-based solutions. The goal of the DI solution is to work with regional stakeholders to enhance and complement these programs. For automated systems DI will support technical integration, and for manual systems DI will encourage local TDM program managers to provide input into the business rules guiding incentive offers.

Financial sustainability is an important aspect of this element. Program sponsors cannot provide financial backing for incentives indefinitely, and must find ways to reduce or eliminate the long-term

need for using public dollars to fund incentives and rewards. This could include existing agency partners contributing in-kind incentives such as discounted parking or transit passes, cultivating new relationships with private-sector vendors who can provide incentives in exchange for the exposure it offers them and their partners, or any other creative solution the DI vendor can offer to reduce or eliminate the need for public funding of incentives. In addition, the program must establish and grow a significant adoption rate among travelers. This will require ongoing marketing efforts and focus groups to identify ways to tailor the program to provide real value to commuters.

Dynamic Incentivization
Dynamic incentives will be offered in real-time based on the current transportation conditions as a part of an incident and congestion management operation strategy. DI will offer incentives to the public using one or more mobile apps, of which one will be developed by the DI project, with a strong focus on those who drive alone. The system architecture will be structured to allow multiple app providers to access the incentive solution, and the goal is that over time multiple app providers will join in the system, giving consumers a choice in how they access DI rewards.

Incentive Loyalty
The loyalty program will function much like a loyalty program for hotels or airlines, but will encourage use of active or shared modes. Within the loyalty program, travelers will be able to gain status and progress towar

Project Start Date	10/15/2021	Project End Date	9/2/2024
Estimated Costs:	**Total**	**General Fund**	**Non-General Fund**
Project Cost	$3,005,565.04		$2,888,890.00
Estimated first year of biennium:	$0.00	$0.00	$0.00
Estimated second year of biennium:	$0.00	$0.00	$0.00

Project Related Procurements

Multimodal Mobility Enhancement DI PROC

OT Service and Asset Management Solution PROJ	
Category 4	Project Initiation Approval

VDOT currently uses several tools to manage information for assets connected to the OT (Operations Technology) environment. The existing tools capture independent information about OT assets. This effort will fully integrate VDOT OT assets into a single statewide consistent approach.

All edge devices (e.g., traffic signals, highway message signs, highway cameras), cabinets, network switches, firewalls, TOC servers/desktops, etc. and other digital component asset information will be maintained in a statewide system, identified as Operations Technology Service and Asset Management (OTSaAM). This includes all Intelligent Transportation Systems (ITS) devices and components (e.g.,

controllers, cameras, dynamic message signs, firewalls, routers) and all traffic signal system components (e.g., controllers, signals, switches, routers, firewalls, detection devices). As old devices are retired, new devices are added, or exciting devices have configuration change on the OT environment the OTSaAM will reflect these actions. The OTSaAM will be the master data source (i.e. golden record) for all OT device asset information. As such it will be the source for all SOC (Security Operations Center), NOC (Network Operations Center), and IAM (Identity and Access Management) activities further articulated in the forthcoming ConOps.

The OTSaAM will serve and support several functions for the OT environment:
1. Provide integration point for OT tools, processes, and services, including:
* Asset inventory & attribute management
* Asset and network service management
* Change & configuration management
* Ticketing and resolution management
* Asset discovery
* Asset segmentation & device testing
2. Deliver reporting on all aspects of OT security monitoring
3. Provide a comprehensive OT NOC (Network Operations Center)
4. Develop an operations and maintenance plan for OT

VDOT will ask Suppliers to provide the following services:

* Develop detailed technical design for VDOT's OTSaAM including connections to the Security Operation Center, the Identity and Access Management solution, Statewide Traffic Signal System, OSPInsight, and the Statewide ATMS
* Implement CalemEAM as the OTSaAM, including the data integration of existing signal assets from HMMS
* Implement an OT Network Operations Center (NOC) to serve all aspects of OT

The contracts resulting from these procurements will ensure Operations Technology is secure, resilient, and compliant with applicable polices and standards, and will enable VDOT to address and remediate finding identified in the 2018 OT Cybersecurity Assessment.

Project Start Date	10/15/2021	Project End Date	5/31/2024
Estimated Costs:	**Total**	**General Fund**	**Non-General Fund**
Project Cost	$1,690,000.00		
Estimated first year of biennium:	$0.00	$0.00	$0.00
Estimated second year of biennium:	$0.00	$0.00	$0.00

Project Related Procurements

OT Service and Asset Management Solution PROC

Internal Talent Opportunity Marketplace PROJ			
		Investment Business Case Approval	
Implement a COTS solution that will enable managers to post technical resource needs when their staff is at capacity. The solution would match these requests with employees who have indicated they have the appropriate skillset and availability to complete the work assignment.			
Project Start Date	10/15/2021	Project End Date	1/1/2024
Estimated Costs:	**Total**	**General Fund**	**Non-General Fund**
Project Cost	$300,000.00		
Estimated first year of biennium:	$0.00	$0.00	$0.00
Estimated second year of biennium:	$0.00	$0.00	$0.00

Project Related Procurements

Internal Talent Opportunity Marketplace PROC

Occupational Health Tracking System PROJ			
		Investment Business Case Approval	
To create an easy tracking system where program managers, managers and employees can be monitor and report on compliance with the following (and any new as mandated): house and track: Employees enrolled in VDOT's Occupational Health Programs requiring OSHA, FMCSA or USCG-required medical surveillance Hearing Program Respirator Program Silica Program Lead Program Hexavalent Chromium Program Commercial Driver Program Mariner Program Enrolled employees' compliance with medical surveillance requirements (e.g. Clearance Expiration) Respirator Clearance – Expiration Silica Clearance – Expiration DOT Medical Certificate – Expiration USCG Medical Certificate – Expiration Lead – Cleared/Not Cleared Hexavalent Chromium – Expiration Audiometric Testing – Expiration • Medical Record so Respirator Clearance (Employer Copy) Silica Clearance Document (Employer Copy) FMCSA/DOT Medical Examiner Certificate so Blood-lead level results* USCG Application for Medical Certificate CG 719k forms*Audiograms*			
Project Start Date	5/10/2021	Project End	1/1/2024

		Date	
Estimated Costs:	**Total**	**General Fund**	**Non-General Fund**
Project Cost	$600,000.00		$600,000.00
Estimated first year of biennium:	$0.00	$0.00	$0.00
Estimated second year of biennium:	$0.00	$0.00	$0.00

Project Related Procurements

Occupational Health Tracking System PROC

Data Query Tool PROJ			
		Investment Business Case Approval	
The overall vision of this project is to build the same functionality as the existing query tool on an ITD supported system/platform. This information is used in planning, designing, maintaining and restoring structures that come under the Commonwealth of Virginia. The existing query tool was developed over a decade ago on an antiquated system; as a result, updating it is extremely difficult. This request will migrate data flow and use data from the data warehouse. This query tool will use data from the Construction Division and the Structure and Bridge Division, as well as iPM, Falcon and other applications.			
Project Start Date	5/10/2021	Project End Date	1/1/2024
Estimated Costs:	**Total**	**General Fund**	**Non-General Fund**
Project Cost	$394,102.00		$377,000.00
Estimated first year of biennium:	$0.00	$0.00	$0.00
Estimated second year of biennium:	$0.00	$0.00	$0.00

Project Related Procurements

There are no procurements for this project

Web Content Management DXP PROJ	
Category 4	Project Initiation Approval
This Project focuses on establishing a new Digital Experience Platform (DxP) to host and manage VDOT's publicly facing websites that are managed by the Communications Division. This is required to eliminate the current VITA hosting of these websites and to address end of contract licensing and end of life for VDOT's current Crown Peak Content Management Platform.	

A new DxP is required to provide the following:

Close security gaps with the latest infrastructure and source code as defined in an ISO (information Security Office) Audit.

Enable compliance with Executive Orders 47 and 508 (colors, font sizes, translation, etc.)

Support web accessibility by supporting content in other languages

Upgrade legacy code

Reduce the technical skill needed to maintain, redesign, and enhance websites

Provide a Mobile friendly design

VDOT's public facing web properties are not accessible, have language translation barriers, do not promote safe travel across our state, have security vulnerabilities, and have a legacy design and infrastructure. This project will improve the overall user experience on our VDOT web properties for Virginia citizens and will make the maintenance/management of our websites easier for the Communications and ITD teams.

Project Start Date	7/1/2022	Project End Date	6/18/2024
Estimated Costs:	**Total**	**General Fund**	**Non-General Fund**
Project Cost	$2,410,639.00		$2,410,639.00
Estimated first year of biennium:	$0.00	$0.00	$0.00
Estimated second year of biennium:	$0.00	$0.00	$0.00

Project Related Procurements

Web Content Management DXP PROC

Traffic Monitoring System Replacement PROJ	
Category 3	Investment Business Case Approval
This request will ensure all traffic count users have reliable access to both raw and summary traffic data. 1. Update technology to ensure sustainability of system 2. Update business user interface to allow more intuitive data query 3. Update end user interface(s) to allow more user 'self-service' 4. Provide download site that allows more powerful query capabilities (Inside and Outside VDOT) 5. Update data input interface to reduce time managing data input while maintaining data quality 6. Ensure all reporting (inside and outside VDOT) is using SSR (master) data	

Project Start Date	11/1/2021	Project End Date	1/1/2024
Estimated Costs:	**Total**	**General Fund**	**Non-General Fund**
Project Cost	$5,368,200.00		$5,368,200.00
Estimated first year of biennium:	$0.00	$0.00	$0.00
Estimated second year of biennium:	$0.00	$0.00	$0.00

Project Related Procurements

Traffic Monitoring System Replacement PROC

Fuel Hardware and Software Replacement PROJ	
Category 3	Project Initiation Approval

The project objective it so replace E.J. Ward with a new module from the AssetWorks M5 System, (FuelFocus). This module will be hosted at QTS. E.J. Ward fuel terminal hardware will also be replaced and firewalls installed to support each fuel terminal.

Integrations with other VDOT systems will be created for the FuelFocus software. They will be created by a combination of Vendor and VDOT resources.

Installation of fuel terminals will be performed by the Vendor. Firewall installation and circuit upgrades, if needed, will be performed by VITA.

Project Start Date	3/6/2023	Project End Date	12/31/2028
Estimated Costs:	**Total**	**General Fund**	**Non-General Fund**
Project Cost	$11,667,534.40		$12,145,590.00
Estimated first year of biennium:	$0.00	$0.00	$0.00
Estimated second year of biennium:	$0.00	$0.00	$0.00

Project Related Procurements

There are no procurements for this project

Sign Shop MRP Replacement PROJ	
Category 4	Project Initiation Approval

The project description is to replace all existing E2 shop tech product processing with the MS Dynamics 365 application platform under the existing Microsoft Consulting contract, the VITA contract number is VA-160304-MCS. There is no statewide software solution currently available to replace the existing solution that is affordable.			
Project Start Date	4/17/2023	Project End Date	7/15/2025
Estimated Costs:	**Total**	**General Fund**	**Non-General Fund**
Project Cost	$730,988.00		
Estimated first year of biennium:	$0.00	$0.00	$0.00
Estimated second year of biennium:	$0.00	$0.00	$0.00

Project Related Procurements

There are no procurements for this project

Internal Communications Modernization PROJ			
Category 2		Investment Business Case Approval	
EBB tool is a highly successful communication vehicle using touch-screen monitors/TVs and NUCs for VDOT employee communication. The existing software on the EBB is dated, requires a difficult manual updating process and has gaps in the ability to provide consistent information and offer modern communication streams. EBB needs to modernize and build consistency in employee communication experience, offer an internal communication platform that enables two-way engagement, and provide a user-friendly interface and controls to switch between screens and modules.			
Project Start Date	11/14/2022	Project End Date	3/20/2023
Estimated Costs:	**Total**	**General Fund**	**Non-General Fund**
Project Cost	$2,778,500.00		$2,778,500.00
Estimated first year of biennium:	$0.00	$0.00	$0.00
Estimated second year of biennium:	$0.00	$0.00	$0.00

Project Related Procurements

VDOT EBB Replacement PROC

Statewide Bid Tab Modernization PROJ	
Category 4	Project Initiation Approval

The Bid Tab Query database uses MS Access and has consistently increased its user base 115 percent per year. Value has been proven, but the database is currently only accessible to COV users. VDOT partners access the data via a pdf document, which is updated infrequently, resulting in outdated data. This project will leverage a new solution incorporating MFT, SSIS, .NET & Power BI componets and automated data updates via API connections, opening access to all VDOT partners, and allow for parameter updates that will translate across the database rather than performing the process manually. Data incorporated from AASHTOWare will be imported into the database automatically as well.

Project Start Date	10/24/2023	Project End Date	4/1/2025
Estimated Costs:	**Total**	**General Fund**	**Non-General Fund**
Project Cost	$551,618.54		$404,523.06
Estimated first year of biennium:	$0.00	$0.00	$0.00
Estimated second year of biennium:	$0.00	$0.00	$0.00

Project Related Procurements

There are no procurements for this project

VDOT Severe Weather Application System 2.0 PROJ	
Category 4	Project Initiation Approval

VDOT is responsible for coordinating emergency services related to snow and ice removal activities to minimize the impact to travelers across the state. VDOT mobilizes whenever an impending storm is approaching the area and prepares materials, people, and equipment to clear the roads as safely, quickly, and efficiently as possible during and after the storm.

The main tool available to accomplish this directive is the Severe Weather Application System (SWAS) which facilitates all the planning, contracting and execution of the events leading up to and during any snow and ice emergency. This system is the core of the severe weather activities for VDOT.

The current application has several shortcomings related to managing the assignment and movement of division assets, vendor management and communications and the need to provide a more modern mobile access to data and reporting. VDOT has had to add an ever-increasing temporary support staff to facilitate these shortcomings and create various workarounds.

The current format of required forms and reports needed to conduct effective communications and reporting in real-time remote situations are not designed for modern mobile devices and hinder the ability for VDOT and vendor resources to report real-time updates during emergency snow and ice removal efforts, especially in areas of little or no internet services.

It is expected the VDOT Severe Weather Application System 2.0 project will provide a more modern and integrated framework to support an ever increasing and demanding business framework. Changes to the user interface will result in an easier to use system for both internal and external users.

The integrated application capabilities provided with the newer technology will allow the business to:
o Have a reduced dependency on staffing resources.
o Provide a more integrated management of assets, vendor agreements, duty assignments.
o Deliver a more robust live update capability during periods of emergency situations through the enhancements of mobile capabilities, including integration with newer technologies such as automated vehicle locators.
o This enhancement will provide the capability for VDOT users to access and view Automatic Vehicle Location (AVL) data directly from within the solution. AVL and the services around AVL provide GIS/Mapping solutions for the application to track vehicle movements and history through mapping software.

The current project constraints and project urgency are compounded by the need to have most of the major components completed well before the start of the 2024-2025 Snow preparedness effort beginning in March 2024.

Project Start Date	2/23/2023	Project End Date	6/28/2024
Estimated Costs:	**Total**	**General Fund**	**Non-General Fund**
Project Cost	$802,000.00		$802,000.00
Estimated first year of biennium:	$0.00	$0.00	$0.00
Estimated second year of biennium:	$0.00	$0.00	$0.00

Project Related Procurements

There are no procurements for this project

VDOT Smart Portal 2024 PROJ	
Category 4	Project Initiation Approval
This procurement is one of a series of bi-annual procurements made to enhance the Virginia SMART (System for the Management and Allocation of Resources for Transportation) Portal system, a tool that was created to support a legislatively mandated project prioritization process. SMART Portal first went into service in 2015. The SMART portal supports multiple types of eligible entities providing transportation services in requesting funding from sources managed by the Commonwealth Transportation Board (CTB). Enhancements to the system will allow applications to be submitted for multiple prioritizations-based grant programs to include SMART SCALE, State of Good Repair (SGR), Transportation Alternatives (TA), Revenue Sharing (RS), Virginia Highway Safety Improvement Program (VHSIP), High Priority Projects and District Grant funding programs. These programs are overseen and coordinated amongst multiple VDOT divisions, DRPT, OIPI, and the Commonwealth Transportation Board (CTB).	

Project Start Date	5/15/2023	Project End Date	8/29/2025
Estimated Costs:	**Total**	**General Fund**	**Non-General Fund**
Project Cost	$5,296,343.00		
Estimated first year of biennium:	$0.00	$0.00	$0.00
Estimated second year of biennium:	$0.00	$0.00	$0.00

Project Related Procurements

VDOT SMART Portal 2024 PROC

Coleman Bridge Toll System PROJ	
Category 3	Investment Business Case Approval
The current toll system has multiple components that are nearing (or at) end of life/end of support. Parts are becoming difficult to source, VDOT to engage in a competitive procurement to allow for better value for the money, newer - more effective technology, and increased life span of the facility. Equipment will be refreshed minimizing risk that develops from aged/aging assets. Increases likelihood of competitive pricing. Certain assets are envisioned to be phased out that will decrease operational spend(treadles).	

Project Start Date	4/1/2024	Project End Date	10/1/2032
Estimated Costs:	**Total**	**General Fund**	**Non-General Fund**
Project Cost	$5,400,000.00	$466,666.70	$5,333,333.33
Estimated first year of biennium:	$0.00	$0.00	$0.00
Estimated second year of biennium:	$0.00	$0.00	$0.00

Project Related Procurements

There are no procurements for this project

Federal Program Management Application PROJ	
Category 3	Investment Business Case Approval
The State Transportation Improvement Program (STIP) database within the Integrated Six-Year Program (iSYP) suite is fragile, unstable and prone to outages. According to the business area, when the STIP database was developed it initially only met some of the department’s needs and has never	

reached the full potential desired by Budget and Funding Management Division (BFMD) or its predecessor divisions. the Federal Strategy database was built using an MS-Access database and is outdated and unreliable. The patchwork of systems lacks transparency, is not conducive to implementing federal requirement changes, and results in a myriad of standalone spreadsheets used to perform the associated project analyses. Incomplete and inadequate reporting functionality means, in some cases, manual report manipulation and/or generation and reliance on division technical experts to run many reports. The current applications do not allow for multi-year planning in an integrated way despite the fact that the business needs of the department dictate the need for multi-year planning and the ability to develop a true Federal Strategy. A lack of integration among the many federal, VDOT and BFMD systems creates many unwelcome opportunities for duplication of effort and rework among the BFMD teams and their stakeholders

VDOT will conduct an RFP for a Vendor-hosted SaaS solution integrated with core VDOT systems.

Project Start Date	10/1/2024	Project End Date	6/28/2030
Estimated Costs:	**Total**	**General Fund**	**Non-General Fund**
Project Cost	$7,938,500.00		$7,938,500.00
Estimated first year of biennium:	$0.00	$0.00	$0.00
Estimated second year of biennium:	$0.00	$0.00	$0.00

Project Related Procurements

There are no procurements for this project

MITS PLAID Add in New Test Data PROJ	
Category 4	Project Initiation Approval

One of the responsibilities of VDOT'S Material Division is the assessment of highway construction materials which is performed by the analysis, review and approval of asphalt sample tests conducted in their laboratories. The Materials Division currently uses a system called 'Materials Information Tracking System / Producer Laboratory Analysis and Information Details' (MITS/PLAID for short) to record their test results, store the information, review/report analysis, and approve test results. This system also allows test results to be recorded, viewed, and submitted by pavement vendors via the PLAID user interface.

There is a new measurement being required by VDOT called Balanced Mix Design (BMD). Whereas the current existing testing recorded in the system relate to the physical properties of the asphalt samples, the new BMD tests relate to their performance properties. This group of test results are requested to be displayed in the TL50 form in MITS PLAID as they relate to several performance properties of the samples tested.

Currently, there is no central location or database for the test results of the new BMD performance tests. The current MITS/PLAID system does not house the new data fields for these new tests and BMD

results are manually being stored offline in excel spreadsheets. VDOT is working towards implementing these new BMD performance tests for asphalt mixes and would like to begin incorporating the results into the existing system and reports. The request is to add the new data fields into the current MITS/PLAID system in order to have all test data/results and reporting in one location.			
Project Start Date	10/10/2023	Project End Date	9/8/2025
Estimated Costs:	**Total**	**General Fund**	**Non-General Fund**
Project Cost	$345,562.52		
Estimated first year of biennium:	$0.00	$0.00	$0.00
Estimated second year of biennium:	$0.00	$0.00	$0.00

Project Related Procurements

There are no procurements for this project

CSOD to Oracle Learning PROJ - ITSP - FY24			
Category 3		Investment Business Case Approval	
Human Resources manages the programs to support training and other workplace requirements. The current Learning Management System (LMS) system, Cornerstone On Demand (CSOD) is standalone and does not integrate with other systems fully, provide the data connections and reporting holistically with other HCM data. This effort is to implement the Oracle Learning module and migrate the learning functionality from Cornerstone On Demand to our integrated Oracle HCM. This allows for a single place for all HCM related activities and data streamlining. It will increase efficiency, decrease hours, allow for increased automation and financial savings through licensing. VDOT's Oracle HCM is SaaS-hosted by Oracle.			
Project Start Date	1/1/2024	Project End Date	12/31/2026
Estimated Costs:	**Total**	**General Fund**	**Non-General Fund**
Project Cost	$1,354,878.00	$1,354,878.00	$1,354,878.00
Estimated first year of biennium:	$0.00	$0.00	$0.00
Estimated second year of biennium:	$0.00	$0.00	$0.00

Project Related Procurements

There are no procurements for this project

Pavement Maintenance Scheduling PROJ - ITSP - FY24	
Category 4	Investment Business Case Approval

PMSS is an internally developed application that facilitates the planning of annual statewide pavement contracts. It is used by and impacts various stakeholders including Environmental, Right of Way, Traffic Engineering, Construction, Districts, and Residencies. The system is designed to interface with various other systems including the Pavement Management System (PMS) and the Road Network System (RNS) to facilitate pavement planning, cost estimation, and reporting.

PMSS is currently hosted at QTS.

PMSS will be rewritten in Azure Technology using Azure webi Application and Azure SQL Database.

It will be hosted in the Azure cloud.

Project Start Date	10/1/2023	Project End Date	9/30/2024
Estimated Costs:	**Total**	**General Fund**	**Non-General Fund**
Project Cost	$1,844,900.00	$1,844,900.00	
Estimated first year of biennium:	$0.00	$0.00	$0.00
Estimated second year of biennium:	$0.00	$0.00	$0.00

Project Related Procurements

There are no procurements for this project

Asset Management Budget Transfer 2.0 PROJ	
Category 4	Project Initiation Approval

The VDOT Asset Management Division (AMD) investment in a revised Budget Transfer Tool application is expected to provide significant improvements in financial controls related to budget management within the Agency. This project is the first of several initiatives AMD is undertaking to modernize the Division's budget management capabilities. Budget Transfer changes will provide a more modern and integrated framework to support an ever increasing and demanding business needs to increase productivity, consolidate several independent applications across one central framework, and streamline resource capabilities to reduce the complexities inherent in current, end-of-life applications.

This project addresses urgent business needs within the Asset Management Division caused by limited SharePoint capacity & functionality that is no longer meeting business needs. Removal of the application limitations caused by constraints within SharePoint functionality, security limitations in offering expanded user permissions and outdated business constraints will be replaced with a new Application framework, advanced security permissions, and business logic that meets enhanced business needs required to support advanced business operation needs.

Project Start Date	2/16/2024	Project End Date	6/30/2025
Estimated Costs:	**Total**	**General Fund**	**Non-General Fund**
Project Cost	$838,580.00		
Estimated first year of biennium:	$0.00	$0.00	$0.00
Estimated second year of biennium:	$0.00	$0.00	$0.00

Project Related Procurements

There are no procurements for this project

Commonwealth Procurements >= $250,000.00

Agency:	501 Department of Transportation (VDOT)
Date:	3/29/2024
Stand Alone Procurements:	
Procurement Name:	AASHTOWare License Renewal FY22-FY26 PROC
Procurement Date	6/30/2026
Procurement Description:	Software and license renewal including additional service units for AASHTOWare products, including but not limited to AASHTOWare Bridge Management; AASHTOWare Pavement & AASHTOWare Project Estimator.
Procurement Name:	Accounts Payable Automation PROC
Procurement Date	11/2/2020
Procurement Description:	For FY18, the Accounts Payable Automation project was ranked the highest technology project priority by the VDOT Strategic Technology Board. VDOT seeks to transform how the Agency processes invoices with a digital, comprehensive COTS cloud solution to automate the intake, processing and approvals of invoicing. The solution will be used across the agency by all staff responsible for this business function. In addition, VDOT anticipates other agencies may be able to leverage this solution. VDOT processes for managing invoices are manual, inefficient, time consuming and make it difficult for all vendors to do business with VDOT. VDOT processes over 129,000 invoices each year using numerous channels (mail, email) and destinations (multiple locations vs. a central intake) and passes hardcopy documents to multiple personnel for handling and “wet” signatures, which is inefficient and time-consuming. Each invoice received requires multiple VDOT personnel to: ·Manually enter invoice data twice which provides opportunities for simple, but expensive, errors. Create and store paper copies of invoices, supporting paperwork and AP Vouchers which requires extensive personnel time to properly manage document storage, archive and retrieval. ·Research and respond to vendor inquiries regarding invoice processing status (manual process). In addition to VDOT’s pain points regarding invoices, the vendor community has difficulties submitting invoices to multiple channels and locations, retrieving up-to-date status of submitted invoices and forecasting cash flow. Substantial productivity savings are expected across the agency with an anticipated ROI of 228% after five years. Characteristics of the solution include: standard implementation /configuration and scalability. This effort will support the COVA Strategic Plan goal to manage and direct the evaluation and adoption of cloud computing to address agency business requirements for a secure, flexible, economical, and rapidly scalable computing environment. In addition, this effort supports the Governor’s priorities to encourage innovation

	and research, and to make our government accessible and efficiently managed. Multiple options are being exploring, seeking to leverage COTS products and Cloud solutions.
Procurement Name:	Agile Assets Software License and Maint FY23 PROC
Procurement Date	10/31/2022
Procurement Description:	The Virginia Department of Transportation (VDOT) is responsible for building, maintaining, and operating the third largest state-maintained highway system in the nation with almost 58,000 miles of roadways, and serves a large and diverse constituency including citizens, contractors, and its own employees in fulfilling these responsibilities. In order to enhance its ability to fulfill these responsibilities, VDOT has previously deployed and continues to operate a Pavement Management System (PMS) within the VDOT central office and field units. This system was procured through a competitive bid process which resulted in the execution of contract 28044 for Pavement Management System Software with AgileAssets, Inc. Contract 45624 was executed in 2016 as the continued operation of the PMS requires periodic updates to the software to address changes in technology and pavement management, and assistance with customization and problem resolution on an on-going basis. As the Pavement Management System is a proprietary product of AgileAssets, Inc. they are the only vendor who can make updates to the software and provide the other services VDOT requires, and therefore, are the only vendor who can address this need. There are currently 5 (1) year renewals remaining on the current contract.
Procurement Name:	Automated Fuel Management Program Software Upgrade
Procurement Date	4/1/2020
Procurement Description:	AFMP Hardware and Maintenance, Software Maintenance, Training and Professional Services We confirm that this procurement is in accord with the Chief of Staff April 2 memorandum, which outlined a number of measures to reduce or eliminate agency spending due to the COVID-19 crisis. We have also attained all internal and external budget approvals necessary to complete this transaction.
Procurement Name:	Bentley Enterprise Public Sector 365 (EPS365) PROC
Procurement Date	4/30/2024
Procurement Description:	Bentley is the sole source to renew the Enterprise Public Sector 365 (EPS365) Subscription for VDOT. No other vendors can perform the specific functions required by VDOT. Bentley is the prime contractor and is responsible for maintenance of all Bentley supplied software. Bentley provides a comprehensive software support program through its Bentley SELECT Program, as well as enhanced licensing through its Enterprise

	Public Sector 365 (EPS365) Subscription.
Procurement Name:	Enhanced 511 PROC
Procurement Date	8/15/2021
Procurement Description:	VDOT is seeking a supplier to provide and securely manage a cloud-based suite of traffic, travel and road information services and specialized tools through a single platform to serve a variety of stakeholders including: Internal VDOT operations centers, VDOT operators, VDOT executives, public safety partners, media members, travelers, and the Connected and Automated Vehicle (CAV) community. The supplier will provide distribution services for designated VDOT operations-related transportation video and data generated in transportation operations and traffic engineering functions across VDOT. Distribution methods may include: web, mobile application (iPhone and Android), digital voice assistant, IVR and automated data services or application program interfaces (APIs) of various file types.
Procurement Name:	Facilities Maintenance Management System PROC
Procurement Date	9/30/2020
Procurement Description:	There is no centralized system that tracks facility repairs for both central office and the district offices. The current process is time intensive and does not allow the time needed to plan for preventative maintenance. Central office lacks visibility to all repairs needed across the districts, which can turn into larger repairs. We are looking for a centralized system to track work orders, condition assessments, lease management assessments, and needs assessments (functionality and suitability); which will also prioritize repair work at the approximately 1300 VDOT facilities across the state.
Procurement Name:	Federal Program Management Application PROC
Procurement Date	6/30/2031
Procurement Description:	The Federal Funds Management (aka Federal Programs) and the Planning and Reporting (PAR) teams within the Budget and Funds Management Division (BFMD) are responsible for planning, managing, monitoring, and reporting on the use of all federal aid highway program funds provided to the Commonwealth. The two BFMD teams plan and execute critical and federally-required VDOT processes. They perform their work in spite of outdated and unstable legacy VDOT systems and multiple division-created databases and spreadsheets. Furthermore, they are unable to fulfill the department's need for a multiple year federal strategy outlook, due to limitations with the existing tools and resources. Given the criticality of the work performed within the Budget and Funds Management Division

	(BFMD), the systems are not suitable for the division to efficiently and effectively execute and manage the department's federal program in support of project and program delivery and ensuring compliance with federal requirements. The following systems need to be replaced: • Statewide Transportation Improvement Program (STIP) database within the Integrated Six-Year Program (iSYP) suite • Federal Strategy database Replacing the outdated and unstable legacy systems will provide the following benefits to the Business' listed below. ▯ Reduce the number of manual operations ▯ Provide a stable integrated solution ▯ Provide enhanced visibility and transparency ▯ Reduce duplication of effort and rework ▯ Improve process efficiency and address workflow issues ▯ Integrate reporting functions ▯ Eliminate security gaps The project will solicitate for both a SaaS or custom built system No SOW has been created as an SOW will follow upon the RFP approval and vendor selection process. An RFI was performed in 2022 to give the agency a better idea of potential vendor solutions A cost benefit analysis was completed as part of the BRD approval process. Estimated cost was a ROM-level estimate that took into account the various components and functional areas that would need to be addressed in an RFP below. Vendor research was created and identified 4 vendors based on the functional capabilities identified by business. The market is saturated with systems stating the capabilities of a Capital Program Management System. More than one program will likely need to be procured to satisfy VDOT's requirements. Two of the sample vendors, ECOInteractive and PMG Software are specific STIP reporting tools and lack most other functionality. Massachusetts and Nevada DOT's use a combination of products to satisfy their Project and STIP reporting requirements. The estimate was created based on the comprehensive functionality and complexity of the functional areas. This estimate captures all the 4 program areas and functional requirements: ▯ STIP External Collaboration Application ▯ STIP Report Management ▯ Federal Strategy ▯ Capital Planning and Program Management
Procurement Name:	Fleet Cross Subscription Services PROC

Procurement Date	10/12/2020
Procurement Description:	The service provide by MOTOR Fleet Cross provides a custom indexing solution for Fleet Equipment (trucks and ground equipment -backhoes/motograder/loaders) that allows for web based access to VDOT owed Service and Maintenance Manuals provided with the equipment at the time of purchase. This custom built solution provides fast and accurate access to repair manuals for repair and parts ordering activities. This solution is the best alternative to provide this type of service.
Procurement Name:	Fuel Hardware and Software Replacement PROC
Procurement Date	12/16/2027
Procurement Description:	VDOT's Fuel Control Terminals support a fleet of 6,000 VDOT vehicles and other state agency vehicles such as the Virginia State Police. There are 250 EJ Ward Fuel Control Terminals (FCT) statewide. The existing E.J. Ward Fuel System is obsolete and nearing the end of the contracted support period. As a result of poor performance by the current fuel provider (EJ Ward), VDOT needs to replace all its fuel terminals and the software supporting fuel management. Extensive research, along with a Proof of Concept (POC) has determined that completely replacing the EJ Ward System with AssetWorks Fuel Focus RFC2500 is the best path forward for the Agency. VDOT needs to replace all 250 EJ Ward FCTs. The IBC for this PGR was previously approved.
Procurement Name:	Highway Maintenance Management Support PROC
Procurement Date	7/29/2022
Procurement Description:	VDOT seeks to renew the Operations and Maintenance Support of the Highway Maintenance Management System (HMMS) solution. VDOT requires a commercial-grade, web-based, transportation-centric HMMS solution. This system enables VDOT to better manage and control the costs of its operations and provide timely information and reporting on the 57,867 miles of roads that VDOT maintains in the Commonwealth. This solution is currently hosted at QTS.
Procurement Name:	Human Capital Management Cloud Implementation PROC
Procurement Date	2/26/2021
Procurement Description:	VDOT evaluated Gartner's recommended leading HCM applications as well as the two current VDOT products (Cornerstone OnDemand and PeopleFluent) that are in use. Vendors were evaluated on their ability to provide functionality needed by the business to include, Talent Acquisition and Onboarding, Benfits & Compensation, Performance Management, Offboarding, Personnel Files, Core HR and Administrative and Learning. Only two vendors

	(Oracle HCM and Workday) met the needs fully. Oracle HCM was identified as the best financial value with a 5-year ROI versus 10+-year ROI for Workday. Additionally, only Oracle HCM is available on an existing VITA state contract.
Procurement Name:	I-66 Vehicle Occupancy Detection System PROC
Procurement Date	7/31/2023
Procurement Description:	On the I-66 corridor VDOT utilizes a vehicle occupation detection system. This service provides an automated means to detect traffic intensity in real-time, and provide inputs like traffic volume and density, vehicle type, vehicle's occupants and other variables that support the calculation of congestion-based dynamic toll fare. VDOT provides EZPass flex transponders to incentivize carpooling in High Occupancy Vehicle (HOV) lanes throughout Virginia. A discount is provided for utilization of those toll roads if the required number of individuals are in the vehicle. The system allows for the identifcation and correct trips where-in a traveler has incorrectly set the transponder to HOV mode. The system identifies the correct number of occupants, and follows VDOT business rules to provide a warning letter or rerate as appropriate. VDOT wishes to explore options for replacing or repurchasing the system.
Procurement Name:	IdeaScale Innovation Platform FY23-25 PROC
Procurement Date	1/31/2023
Procurement Description:	Ideascale is a cloud based software innovation platform employing the principles and practices of crowdsourcing, i.e. a sourcing model in which individuals or organizations obtain ideas, voting, micro-tasks and finances, from a large, relatively open and often rapidly evolving group of participants. Ideascale provides VDOT a technology tool for the agency to engage internal groups and members across the state. This better enables idea sharing and encourages a collaborative workforce through a virtual platform.
Procurement Name:	Inrix Data MOU FY23-27 PROC
Procurement Date	6/30/2027
Procurement Description:	VDOT will issue a MOU to the University of Maryland (UMD) to obtain a data subscription from INRIX (a transportation data analytics company) to support performance measures, congestion management and traveler information efforts throughout the state. Specifically, as VDOT plans to disseminate travel time information statewide, this service will provide raw data and input to the travel time engine on key roadways for this program, and serve as a validation source to assess the quality of travel times obtained from VDOT sensors. This will be a five-year MOU.

Procurement Name:	Internal Talent Opportunity Marketplace PROC
Procurement Date	5/1/2023
Procurement Description:	Implement a COTS solution that will enable managers to post technical resource needs when their staff is at capacity. The solution would match these requests with employees who have indicated they have the appropriate skillset and availability to complete the work assignment.
Procurement Name:	MetroQuest PROC
Procurement Date	9/15/2022
Procurement Description:	MetroQuest is an urban and transportation planning specific online engagement / survey platform designed to better enable planners and public engagement professionals to cost-effectively conduct public engagement (outreach and input). MetroQuest is the only online engagement platform offering purpose-built planning engagement capabilities designed to support, improve, and increase public participation across a broad demographic, thereby providing better insight into public opinion based on quantifiable, data-driven public and stakeholder input.It provides urban and transportation planning specific online public engagement and survey platform to support virtual public involvement (VPI) efforts in the transportation planning and project development process.
Procurement Name:	Plan Grid Software PROC
Procurement Date	4/10/2020
Procurement Description:	PlanGrid is a cloud-based construction productivity software that allows CEI staff to view digital versions of plans and contract documents, take pictures, and mark-up plans using a mobile device while on the project site. Photos taken on the job site and scalable plan sheets can be easily marked up by construction teams and quickly emailed to decision makers to enable real time collaboration and expedite the resolution of issues. These functions are also useful for maintaining a running punchlist that automatically notifies the contractor of deficiencies that need to be corrected. The Virginia Transportation Research Council is currently conducting a pilot program to quantify the benefits of using iPads and PlanGrid on VDOT construction projects. A wide array of project types, field accessories, and project personnel were included in the pilot program to determine whether tablet based inspection was appropriate for VDOT Construction teams. Using FHWA's Every Day Counts ROI analysis tools, VDOT was able to estimate a Return on Investment (ROI) in excess of 500%. We confirm that this procurement is in accord with the Chief of Staff April 2 memorandum, which outlined a number of measures to reduce or eliminate agency spending due to the COVID-19 crisis. We have also attained all internal and external budget approvals necessary to complete this transaction
Procurement	Sign Shop MRP Replacement PROC

Name:	
Procurement Date	11/1/2022
Procurement Description:	The VDOT Sign Shop currently is the E2 Shoptech MRP (Materials Resource Planning) system. E2 has indicated that that are discontinuing the online order request feature (WebView) of their system. This feature is critical to the operation of the Sign Shop and the loss of this functionality requires manual processing that effectively prohibits the Sign Shop from meeting performance measures and customer expectations. With the loss of functionality and support there is an urgent need to replace the sign shop software. We are unsure and will pursue ECOS if needed and provide details on hosting as a vendor is selected. We intend to pursue and RFP to select a vendor.
Procurement Name:	StreetLight InSight Travel Metrics Renewal PROC
Procurement Date	10/2/2023
Procurement Description:	StreetLight Data is the only provider of an online interface that completes immediate, customizable, transportation analytics that rely on GPS/cell phone data in real-time. The interface is known as StreetLight Insight. There are other suppliers of similar software, however, they do not provide the data real-time and on-demand. Further, StreetLight Insight provides immediate analysis, allowing a quick turnaround and without significant delay. An initial expense for Modes and all Metrics Subscription is shown within the proposal but this procurement pertains to three renewal periods at a cost of $1.5 million per year. There is an additional $40,000 yearly expense for the service team to run the Linear Reference System (LRS) conflation of data every two years, providing 12 months of metrics (at a cost of $20,000 per year), and for the service team to run a statewide area model including all geographies within Virginia's regional planning area (also at a cost of $20,000 per year). This information is used by VDOT's TMPD Transportation Mobility Planning Division.
Procurement Name:	Technology Infrastructure Management Services PROC
Procurement Date	6/30/2027
Procurement Description:	VDOT intends to issue a new nine year contract starting July 1, 2019 for a new transportation operation application. This application will reside at the Northern Virginia Transportation Operations Center (TOC), with a hot redundant replicated environment at its Salem TOC. Due to public safety implications, these systems must operate with no downtime, 24/7/365. TOCs are secure facilities that have available floor space, backup power capabilities and physically redundant paths to VDOT's fiber optic backbone. The VDOT objective is to reduce

	long-term costs by establishing a standard suite of applications and tools across all TOC locations. The contract will provide and securely manage the underlying technology environment to host a suite of existing and planned mission-critical, specialized software applications and tools that communicate with roadside assets and industrial control systems to: • Manage and control freeway (interstate) traffic for both day-to-day and emergency operations (e.g. snow removal, hurricane evacuation, etc.) through dynamic message signs, traffic cameras, weather sensors, lane controls, ramp meters, reversible roadways and other field device systems • Manage and control arterial (primary and secondary) traffic through signal system operations • Collect and disseminate real-time roadway condition information to public-safety agencies and the traveling public for incident and roadway management including major weather events and other emergencies • Manage tolling operations on I-66 (Inside the I-495 Beltway) and I-64 • Provide fire and life safety services at critical infrastructure transportation facilities This contract must provide highly reliable and secure Wide Area Network (WAN) services to interconnect VDOT's operational facilities not currently interconnected through VDOT's fiber backbone network. This interconnected environment will provide each facility a direct path to the primary and secondary hosted environments, with failover capability through other redundant routes. The service must be available to meet spikes in demand beyond standard operations. The technology environment will initially support the Statewide Advanced Traffic Management System (ATMS), Intelligent Transportation System (ITS) Maintenance Management System and several utilities used by the Project Management Office. The environment must be scalable to include future mission critical functions and supporting systems.
Procurement Name:	Traffic Monitoring System Replacement PROC
Procurement Date	1/1/2024
Procurement Description:	This request will ensure all traffic count users have reliable access to both raw and summary traffic data. 1. Update technology to ensure sustainability of system 2. Update business user interface to allow more intuitive data query 3. Update end user interface(s) to allow more user ‘self-service’ 4. Provide download site that allows more powerful query capabilities (Inside and Outside VDOT) 5. Update data input interface to reduce time managing data input while maintaining data quality 6. Ensure all reporting (inside and outside VDOT) is using SSR (master) data
Procurement	VDOT AxeMonitor Annual Renewal PROC

Name:	
Procurement Date	7/31/2023
Procurement Description:	AveMonitor by Deque dynamically scans and provides enterprise-level accessibility audits with advanced reporting & issues monitoring and has the most trusted accessibility engine in the industry to report on the accessibility status of VDOT’s entire site.
Procurement Name:	VDOT EBB Replacement PROC
Procurement Date	1/22/2025
Procurement Description:	The Electronic Bulletin Board (EBB) tool is a highly successful communication vehicle using touch-screen monitors/TVs and NUC for VDOT employee communication. These have been especially valuable for those employees that do not rely on computers for agency communication. VDOT currently has around 300+ monitor and NUC-paired units across the commonwealth. VDOT desires to expand this functionality to move devices to increase its reach to VDOT employees.
Procurement Name:	VDOT Managed Print Services Renewal FY23 PROC
Procurement Date	11/30/2022
Procurement Description:	VDOT needs to refresh the contract for current Xerox devices, through VITA contract VA-191121-XERX.They are copy devices with multi functions that support scan to mail, scan to fax and scan to folder.The Managed Print Services uses comprehensive security, analytics, digitization and cloud technologies and software to deliver a more seamless work experience across paper and digital platforms. VDOT gets workplace assessments, device management, and print management.
Procurement Name:	VDOT Network Operations Maintenance support PROC
Procurement Date	3/28/2023
Procurement Description:	This support services request is to help maintain consistent service across our Statewide Network. To do so, under this contract Skyline will be responsible for maintaining physical equipment spares as well as assist with any issues on configuration of the network from a logical side. This request is for Skyline to maintain our statewide network's Dense Wave Division Multiplexing technology (DWDM) equipment. The equipment referenced in this request is only intended to transmit our data, such as ATMS, from our presence at the NOVA data centers to our five TOC's.
Procurement	VDOT SMART Portal 2024 PROC

Name:	
Procurement Date	5/31/2025
Procurement Description:	This procurement is one of a series of bi-annual procurements made to enhance the Virginia SMART (System for the Management and Allocation of Resources for Transportation) Portal system, a legislatively mandated project prioritization system. SMART Portal first went into service in 2015. The SMART portal supports all Virginia governmental entities providing transportation services in requesting funding from sources managed by the Secretary of Transportation. VDOT will use CAI to develop improvements that allow for authorized applicants not only to submit eligible applications, but also re-submit applications not funded in prior cycles. The Authorized User needs to provide a system for transportation stakeholders in cities, counties, MPO's, Districts, and other authorities and organizations to submit candidate transportation projects that follows a straightforward and intuitive process that provides the necessary data for decision-makers to allocate program funding. The system shall make it easier for the Authorized User to validate, screen, and score all applications without the need for additional staffing while supporting additional funding programs
Procurement Name:	VDOT Tolling Microsoft GCC FY24-26 PROC
Procurement Date	6/1/2026
Procurement Description:	This request is for an Azure service, Microsoft Software Assurance for SQL and Windows Server, Remote Desktop Licensees, Visual Studio with GIT, GIT Advanced Security, and Azure P1 License for MFA Security
Procurement Name:	VDOT Wide Format Plotter Lease FY23-FY28 PROC
Procurement Date	9/1/2022
Procurement Description:	VDOT has a need to renew its lease of wide format plotters in support on-going highway maintenance and construction programs.
Procurement Name:	VDOT Xerox Printer Services Renewal FY23 PROC
Procurement Date	10/31/2022
Procurement Description:	Renewal of the FY17 Printing services with Xerox for the Central Office Document Production Services. Existing equipment is ready for refresh in VDOT Printing Services.

Procurement Name:	Waypath Customer Relationship Mgmt Support PROC
Procurement Date	7/22/2022
Procurement Description:	VDOT does not have internal expertise on CRM or the applications developed by Waypath. VDOT requires a vendor to keep applications on CRM operational and in good health, and be responsive to application issues as needed. Renew Operations and Maintenance Support - Maintenance Releases - 4 per year - Emergency hotfixes - Ad hoc Support Activities - First level application support provided by Authorized User - Infrastructure support provided by Authorized User - Advanced application software support is provided by Waypath. Issues are escalated to Supplier if they cannot be resolved by Authorized User at first level. This includes support for: - Customer Relationship Mgmt (CRM) basic functions - CRM configurations - Custom application features - Integrations
Procurement Name:	Web Content Management DXP PROC
Procurement Date	5/1/2023
Procurement Description:	VDOT's public facing web properties are not accessible, have language translation barriers, do not promote safe travel across our state, have security vulnerabilities, and have a legacy design and infrastructure.