2022 - 2024 IT Strategic Plan

Agency:	127 Department of Emergency Management (VDEM)
Date:	1/26/2023

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 agencys 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 agencys 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?

IT Summary

The Virginia Department of Emergency Management (VDEM) collaborates with localities, state, federal, tribal governments, and private sector stakeholders to provide resources and expertise through the five mission areas of emergency management.

* Prevention - Prevention involves the capabilities needed to avoid, prevent or stop an act of terrorism. Capabilities include planning, public information and warning, operations coordination, forensics and attribution, intelligence and information sharing, interdiction and disruption, and screening, search and detection.

* Protection - The Protection Framework involves the capabilities necessary to protect citizens, visitors and assets against acts of terrorism and manmade or natural disasters. Capabilities include planning, public information and warning, operations coordination, access control and identity verification, cybersecurity, intelligence and information sharing, interdiction and disruption, physical protective measures, risk management for protection programs and activities, screening, search and detection, and supply chain integrity and security.

* Mitigation - Mitigation involves the capabilities necessary to reduce the loss of life and property by lessening the impact of disasters. Capabilities include planning, public information and warning, operations coordination, community resilience, long-term vulnerability reduction, risk and disaster resilience assessment, and threats and hazards identification.

* Response - Response involves the core capabilities necessary to save lives, protect property and the environment, and meet basic human needs after an event has occurred. Capabilities include planning, public information and warning, operations coordination, critical transportation, environmental response/health and safety, fatality management services, fire management and suppression, logistics and supply chain management, infrastructure systems, mass care services, mass search and rescue operations, on-scene security, protection and law enforcement, operational communications, public health, healthcare, and medical services, and situational assessment.

* Recovery - Recovery involves the core capabilities necessary to help communities affected by an emergency to recover effectively. Capabilities include planning, public information and warning, operations coordination, economic recovery, health and social services, housing, infrastructure systems, and natural and cultural resources.

As an emergency management agency, VDEM's ability to meet the mission and deliver essential services requires a solid and resilient communications infrastructure, as well as secure and rapid access to authoritative information. The information used is generated from internal sources, from other Commonwealth agencies, and from approved external sources. For example, WebEOC, our primary crisis management system, is the source for tracking requests for assistance from all localities across the Commonwealth, as well situational awareness reports. Communication pathways include the MS Teams service, an internal audio-visual solution, external conferencing, and audio services. To support activations at the local level, the agency deploys caches of radios, phones, tablets and other networking equipment.

In July 2020, the former Integrated Services Program transitioned from VITA to VDEM. The program –now called the 9-1-1 and Geospatial Services Bureau, or NGS— continues to work with stakeholders to build the Next Generation 9-1-1 digital network to provide better speed and functionality for Public Safety Answering Points in support of the citizens of the Commonwealth. Another division within NGS, the Virginia Geographic Information Network (VGIN), manages the statewide metadata and clearinghouse portal. In addition, VGIN hosts data layers for public use to include base map imagery and a geocoding service.

The agency is actively engaged in multiple projects with VITA and its vendors to transition to the commonwealth network and services. As part of the discovery for transformation, a system inventory revealed a future opportunity to consolidate applications and assess the feasibility of moving to a cloud-based low code environment. Telecommunications (VoIP, voice recording) at the Virginia Emergency Operations Center (VEOC) are being evaluated for business needs and total funding requirements for initial and ongoing operations and maintenance costs. To establish a replacement cycle for equipment caches used in emergency operations (radios, phones, tablets) a consistent, stable multi-year funding is paramount.

The agency has entered into a memorandum of understanding with Commonwealth Security and Risk Management (CSRM) to facilitate the alignment of the agency security program with the Virginia code mandates for information security.

VDEM's IT footprint is expanding following the accelerated virtualization of resources in response to the COVID-19 pandemic as well as the extensive support provided during the statewide vaccination effort. The resulting hybrid model necessitates a different level of support, particularly at the Emergency Operations Center and other satellite locations, including the central warehouse near the Port of Richmond from where the statewide distribution of personal protective equipment and other disaster supplies is coordinate, as well as other regional offices. Resources (network, telecommunications, and information systems) need to be stabilized during steady state to ensure the capability to ramp up quickly during activations. The ability to cover costs associated the network, telecommunications and information systems to establish and maintain a geographically dispersed emergency management response can be challenging as funding sources change and prices continue to increase annually.

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 agencys current IT investments. These are requirements and mandates from external sources, such as other agencies or business partners, the agencys 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 agencys 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 agencys 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?

The agency is currently rebuilding the internal agency IT group of eight staff based on previous technology capacity

planning. Current recruitment efforts have been hampered by the current labor market for qualified IT professionals.

The IT division has identified additional staffing needs and has submitted the corresponding budget requests. In the meantime, the agency makes extensive use of consultants and contractors to design, implement, and support new projects and capacity. As those new capabilities and technologies are integrated into the agency's growing portfolio, additional IT staff are necessary to support both legacy and new technologies, and to assist with the removal of aging applications and systems from the VDEM infrastructure.

Current:

* Complete a high priority project to upgrade the existing audio-visual system at the VEOC and Governor's Situation Room.

* Operationalized an internal knowledge base in SharePoint to enable a single system for tracking of administrative processes and create a central hub for communication to the agency.   Business owners have access and been trained on best practices to modify information on their site and how to collaborate on workgroup specific files, thereby, moving data closer to the business for more rapid collaboration opportunities. This is the first phase of moving to the modern SharePoint environment and transitioning documents. The next phase is to automate workflows for critical administrative functions and enable greater visibility to the agency.

* MS Teams service has been rolled out across the agency with increasing use and utility. Initially this service focused on the need to collaborate and securely share information with internal and external business partners at the beginning of the pandemic for the Virginia Emergency Support Team (VEST). This service is part of an effort to move work away from email and towards a more collaborative platform. Developing policies, governance, maintenace and processes for the new tools is an ongoing effort.

* Onboarding of new staff and the move of VITA's Integrated Services Program (ISP) in July 2020 included additional information systems that require upgrading and re-architecting to a virtualized environment per Executive Order 19.

* Complete the transition into the commonwealth network through several active projects with the Multiple Supplier Integrator (MSI) and its vendors. This continues to impact all agency staff and customers as VDEM-specific systems are moved to the commonwealth data center with deadline of January 1, 2022.

* Complete the move of the primary crisis management system into a high availability environment by December 31, 2021.

* Engagement with Commonwealth Security and Risk Management for alignment of the agency information security program with mandates.

* Continue planning for the the upgrade of the existing flood warning system (IFLOWS), t o current technology as funded by the 2021 General Assembly by completing an assessment of the current state.

The agency has engaged additional contract personnel to support a portion of the transformation activities. Due to onboarding MS Teams and SharePoint, the agency will need to increase the agency IT staff to ensure capacity to handle the additional need. At this time, the new Microsoft capabilities are being supported through contractors. The agency has requirements for additional technology staff to support daily IT first level support, information security and enhancement tasks for VDEM systems. Data analytics staff will be required to support planning and full implementation of PowerBI for internal data metrics.

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 agencys 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 overall strategic roadmap is to complete digital transformation by 2025. Proposed IT solutions focus on documentation, re-engineering and establishing workflows to minimize the loss of staff time to non-productive activities (searching for documents and information). The document management strategy for the modern SharePoint and MS Teams sites is the first phase. Implementation of electronic signatures for signing ad hoc documents and integration into future automated workflows will increase staff efficiency.   The strategic direction is to fully enable the Microsoft technology stack available to the Commonwealth and reduce the number of unique systems to be maintained by the agency as feasible.

Systems supporting functions for human resources, information technology, procurement, finance, training and asset management will need to be assessed and implemented.

The review and documentation of all processes will allow for the creation of digital workflows through the adoption of authoritative documents and sources. Establishing efficient records management processes for the agency will reduce time required to find and retrieve information for daily administrative work, activation activities, and discovery for Freedom of Information Act (FOIA) requests. Standardization of the authoritative sources allows for the potential use of robotic process automation (RPA) for repetitive tasks to redirect staff to more productive activities. To support an electronic document management solution, the agency will need to digitize and index (tag) all current paper records. As data sharing is a primary tool to enable a single view across the agency, implementation of business analytics/reporting platform for a one-stop shop of agency internal metrics or augmentation of current business analytics platforms will be essential.

To support the governance and business process documentation, the agency has engaged outside contractors to augment the agency IT and subject matter experts. Additional ongoing funding is required to complete and stabilize governance and maintain newly acquired technology solutions.

The agency's priority solutions include:

* Complete the upgrade and expansion of the VEOC (Virginia Emergency Operations Center) capabilities for communications during activations. This is in the initial business requirements gathering stage to replace an outdated VoIP and voice recording system and establsih new solutions with appropriate redundancy.

* Complete a network assessment for the VEOC to identify the requirements for the next generation EOC with data-driven operations that are secure, have capacity to support operations and are redundant (geographic and circuits). EOC operations have network capabilities as the foundation to build upon. This project has not commenced until integration into the Comonwealth infrastructure is completed (early FY23). This assessment will include a project required to meet Commonwealth security standards. The network capability project will require additional funding

and staff for project implementation.

* Continue assessment for continuity operations for the situational awareness unit (SAU) in collaboration with Virginia State Police to ensure key information systems are securely available outside of the VEOC.

* Through review of agency workflows, complete assessment of document storage needs and minimize the locations to increase secure sharing of files to authorized users. Automate workflow and enable data-driven dashboards for visibility across the agency. Transitioning into the commonwealth infrastructure has enabled use of the Microsoft environment for storage, automation and dashboards. The agency has piloted automation for policy creation and approvals. Additional funding is required to fully implement and maintain automation and data visualization tools with new staff and maintenance costs to acquire and maintain licenses.

* Finalize review of agency current dat

To sustain a digitally transformed agency, an update of current staff IT skills or new staff will be needed with expertise in areas of document management, telecommunications, automation, data analytics, business analysis and project management.

IT Strategic Plan Budget Tables

Agency:	127 Department of Emergency Management (VDEM)
Date:	1/26/2023

Current IT Services				
		Costs Year 1		**Costs Year 2**	
Category	**GF**	**NGF**	**GF**	**NGF**
Projected Service Fees		$1,303,808.44		$1,342,922.69
VITA Infrastructure Changes	$861,387.57		$887,229.20	
Estimated VITA Infrastructure	$861,387.57	$1,303,808.44	$887,229.20	$1,342,922.69
Specialized Infrastructure	$170,000.00		$180,000.00	
Agency IT Staff	$850,000.00	$200,000.00	$850,000.00	$200,000.00
Non-agency IT Staff		$800,000.00		$800,000.00
Cloud Computing Service	$325,000.00	$1,500,000.00	$400,000.00	$1,500,000.00
Other Application Costs				
Total:	$2,206,387.57	$3,803,808.44	$2,317,229.20	$3,842,922.69

Proposed IT Investments				
		Costs Year 1		**Costs Year 2**	
Category	**GF**	**NGF**	**GF**	**NGF**
Major IT Projects:	$1,354,285.00		$1,000,000.00	
Non-Major IT Projects:				
Agency-Level IT Projects:				
Major Stand Alone IT Procurements:				
Non-Major Stand Alone IT Procurements:		$500,000.00		$500,000.00
Agency-Level Stand Alone IT Procurements:				
Procurement Adjustment for Staffing:				
Total:	$1,354,285.00	$500,000.00	$1,000,000.00	$500,000.00

Projected Total IT Budget				
		Costs Year 1		**Costs Year 2**	
Category	**GF**	**NGF**	**GF**	**NGF**
Current IT Services:	$2,206,387.57	$3,803,808.44	$2,317,229.20	$3,842,922.69
Proposed IT Investments:	$1,354,285.00	$500,000.00	$1,000,000.00	$500,000.00
Total:	$3,560,672.57	$4,303,808.44	$3,317,229.20	$4,342,922.69

Business Requirements For Technology

Agency:	127 Department of Emergency Management
Date:	1/26/2023

BReT Grants Management Systems Support and Hosting	
BRT Type:	Business Requirement for Existing Technology
Date Submitted:	3/12/2021
Mandate:	
Mission Critical:	Yes
Description:	

VDEM uses three externally hosted Grants Management Systems. Two of these manage Public Assistance and Mitigation grants, which are coordinated through FEMA programs. Together, support and hosting for those two systems costs $45,000/year and is handled through the vendor, MB3, Inc. The third system, whose vendor is TetraTech, Inc., manages our other Grants and costs $18,400/year.

BReT Internal HR and Learning Management System	
BRT Type:	Business Requirement for Existing Technology
Date Submitted:	3/12/2021
Mandate:	
Mission Critical:	
Description:	

The Virginia Department of Emergency Management (VDEM) is making an investment in fostering the long-term professional success of a critical Commonwealth asset, emergency management professionals representing every corner of the state. The Virginia Department of Emergency Management is seeking to acquire a comprehensive, robust, and adaptable learning management system (LMS) to support a wide-variety of learning experiences. These learning experiences are essential to providing emergency management and public safety professionals with the knowledge, skills, and abilities needed to anticipate, respond, and recovery from disaster. The learning management system must be able to support instructor-led training as well as other program delivery formats and learning experiences (e.g., virtual, Classroom). System's capabilities should include: admissions, enrollment, and registration functions; course catalog and curricula development and management; student records, learning plans, skills/competency management, and certification management; program and course resource requirements and tracking; content management; learner collaboration; e-commerce; survey and assessment tools; and tracking, reporting, and analytics. The system should support workflow management and communications capabilities from start to end, from idea to outcomes. Further, the system should support the Agency's human resource management functions to include performance management, competency and goal attainment, performance and development planning, performance reviews, performance calibration, pay for performance, and workflow management and communications. VDEM currently uses the Commonwealth of Virginia Learning Center (COVLC). However, this system does not include the full range of capabilities required and, therefore, leaves the Agency and its constituents in the wobble with many unmet specialized needs. VDEM plans to release an RFP seeking an LMS solution and provider that specializes inthe public safety space. VDEM seeks a cloud–hosted COTS solution that will be fully supported by the vendor. VDEM is conducting RFIs to inform a competitive procurement via this RFP.   As part of the RFI, the Agency will collaborate with other state agencies to identify any potential solutions that can leverage existing GSA contracts. The agency is fully aware of the ECOS approval process and has previously completed this process with the Planning Software Project.

BReT Support/Maintenance Contract Renewals

BRT Type:	Business Requirement for Existing Technology
Date Submitted:	3/12/2021
Mandate:	
Mission Critical:	Yes

Description:

VDEM requires the renewal of multiple support and maintenance contracts for software and hardware technologies that are required for business operations and agency mission completion. These include: WebEOC, WebFUSION, WebEOC Mapper, ArcGIS, FMS, Ipswitch, CA Arcserve, Kiwi CatTools, What'sUp Gold, Enterasys, Logi Analytics, and Entrust SSL certificates.

BReT VDEM 2016 Overall Audit Program ORI

BRT Type:	Business Requirement for New Technology
Date Submitted:	3/12/2021
Mandate:	
Mission Critical:	
Description:	

VDEM has hired Assura to assist us in analyzing our IT Security Program and to develop a Compliance Action Plan. Based on their recommendations, VDEM plans on developing a three-year audit plan and hiring a third-party auditing firm to implement the audits.

BReT VDEM 2016 Overall Risk Program ORI

BRT Type:	Business Requirement for Existing Technology
Date Submitted:	3/12/2021
Mandate:	
Mission Critical:	

Description:

VDEM has hired Assura to assist us in analyzing our IT Security Program and to develop a Compliance Action Plan. Based on their recommendations, VDEM plans on engaging a third-party contractor for future risk program activities as needed, though the hope is that we will be able to support these activities internally.

BReT VDEM Website and App Hostng and Maintenance

BRT Type:	Business Requirement for Existing Technology
Date Submitted:	3/12/2021
Mandate:	
Mission Critical:	Yes

Description:

VDEM's website, www.vaemergency.gov, is hosted by AIS Network.   Annual hosting and maintenance costs $28,500 per year. Note that it is expected that the VDEM website will undergo a complete redesign in 2016. This is expected to cost approximartely $130,000. VDEM also has a mobile app for Ready Virginia. The vendor is VERT Mobile. Development costs for the past year were $20,000, but will vary from year to year based on development needs.

BRnT 9-1-1 Data Analytics Procurement

BRT Type:	Business Requirement for New Technology
Date Submitted:	3/12/2021
Mandate:	
Mission Critical:	

Description:

The E-911 Services Board needs to be able to analyze local call detail data for the purpose of assuring NG9-1-1 implementation does not negatively impact system performance. This is local data currently not accessible by the Board. The proposed procurement will provide a method for localities to share their data with the Board and will allow the Board to perform analytics.

BRnT Agency Radio and Telecommunications Integrati

BRT Type:	Business Requirement for New Technology
Date Submitted:	3/12/2021
Mandate:	
Mission Critical:	Yes
Description:	

This project will provide a continuity of operations solution that will enable remote access to our radio consoles, creating a virtual state warning point from anywhere. The project does not require a phone upgrade; costs are related costs of the server, telecommunications infrastructure integration at the server location, and associated licensing and implementation services. Our main contact number, instaphones, medevac, and STARS capability would be integrated into one screen. This project would provide dispatch-style software for COOP operations that would be capable of monitoring all existing pathways into the VEOC (phones, NPS nuclear instaphones, VAWAS, NAWAS, WAWAS, Medflight channels, and STARS) from desk phones located at the Trade Court Facility, which functions as our alternate emergency operations center.

BRnT Budget System and Cardinal Interface

BRT Type:	Business Requirement for New Technology
Date Submitted:	3/12/2021
Mandate:	
Mission Critical:	Yes
Description:	

A key aspect of the agency's financial strategy is the setting of financial risk. Risks are embedded in the optimism of revenue forecasts and the size of contingencies. Budget risk should be aligned with the agency's tolerance for risk, the current financial condition of the agency, and the apparent stability of the financial environment. VDEM has a very complex budget, with the majority of our funding being federal formula grants received each year, with multiyear period of performance. VDEM currently does not have a budget system that does enough to make budget risk evident. Currently, the budget is not being built from a budget projection (five years in the future is normal these days) that allows the testing of assumptions about the impact of new policies and changes in the financial environment (decrease of federal funding). VDEM has conducted an analysis of Cardinal's budget tool and has determined that it does not fit the needs of the agency. Where there are budget controls in Cardinal, these are not effective tools to manage the agency's budget ($30m) and pass through funding ($85m).   Finally, once implemented VDEM will be able to sustain, this is a one-time request.

BRnT Communications Upgrades in the State Warning

BRT Type:	Business Requirement for New Technology
Date Submitted:	3/12/2021
Mandate:	

Mission Critical:	
Description:	

· Upgrading cooling, cable management, lighting and ergonomics in the VEOC Watch Center. $80,000.00. Purpose-built dispatch furniture to update the Watch Center. The original furniture was designed to meet the needs of the Watch Center at that time but did not allow for much expansion or modification. Over time, additional functionality and responsibilities have required the addition of new systems in the Watch, but the current furniture has presented ergonomic and spatial challenges. This upgrade also introduces industry-standard component cooling, cable management, lighting, and ergonomics.

· Implementing remote talk/listen access to radio systems in Hampton Roads and Northern Virginia. $55,000.00. This gives us the capability to monitor first responder networks in Hampton Roads and Northern Virginia. This product integrates directly into our existing interoperability platform, allowing VDEM personnel to talk on a local jurisdiction's radio system, not only via STARS but from a smart-phone or tablet. Capability to remotely control the radio to the correct talkgroup is included.

· Evaluating a three-in-one portable radio to become the fleet-wide standard. $12,000.00. This request is for a radio and vehicle adapter for the purposes of evaluating a three-in-one radio as a potential fleet-wide standard. This portable radio eliminates the need for field personnel to carry multiple radio devices in their vehicles. Inserting the radio into a vehicle adapter eliminates the need for a duplicated mobile radio in the vehicle. This is one full-featured radio (encryption, P25, trunking, conventional) that takes the place of three mobiles and three portables. As a reference point, our current STARS portables are $5,500 for just one radio in one band. Buying one for each public safety band (VHF, UHF,800) would cost us $16,500, not including the vehicle adapter.

· Upgrading the monitors and other A/V equipment in the VEOC Watch Center to improve monitoring capabilities. $30,000.00. Allows for six monitors at each station, doubling the current configuration. This procurement will allow the addition of two static monitors at each workstation to provide dedicated monitoring access to products such as WebEOC and Mapper, as well as a third display agile to the users' needs at the time. The remaining three monitors would remain the same as the current configuration. All monitors will have sound cards built in to eliminate desktop computer speakers, keeping the work space are less cluttered.

· Transitioning from leased lines to control stations for operating the medflight program. $18,000.00. Our leased lines to operate the medflight program cost the agency roughly $2,100 per month. Eliminating the leased lines and procuring control stations to communicate with our partners would take approximately nine months for the ROI.

· Backup Medflight alerting capability. $12,000.00. VDEM receives calls from localities and dispatches the Virginia State Police medevac helicopter from the Chesterfield County airport. We average roughly 600 medevac missions per year. Currently, VDEM's only way of alerting Medflight to calls is via telephone. From time to time, telephone service in that area goes down, and we have to rely on calling the duty crews' personal cell phones. The requested funds would be used to develop a paging system for the alerting first responders to missions. Adding the capability to do this via radio also adds a primary means to make notifications, meaning that the unreliable phone method would become the backup method.

BRnT Fleet Management Software	
BRT Type:	Business Requirement for Existing Technology
Date Submitted:	3/12/2021
Mandate:	
Mission Critical:	
Description:	

VDEM has requested an analysis of its Fleet Management operations and recommendations to improve efficiency in tracking relevant information and improve collaboration by a analytics contractor.

BRnT Open Source Communications Analysis Platform

BRT Type:	Business Requirement for New Technology
Date Submitted:	3/12/2021
Mandate:	
Mission Critical:	Yes

Description:

VDEM requires one or more social media monitoring software products to assist with numerous functions, including homeland security intelligence gathering and monitoring (Virginia Fusion Center), situational awareness and "heads up" notifications (VEST, Planning and VEOC Watch Center), andrumor control (Joint Information Center and External Affairs).

Some functional requirements identified include the ability to:

· Monitor multiple social media channels
· Add new or emerging social media platforms
· Save and share profiles/views
· Monitor geo-located data, non-geo-located data, or both
· Easily save multiple searches, export/save search results and share search results
· Easily generate geospatial data feeds and mapping layers, to automate such processes, and ingest them into multiple, interoperable systems
· Enable tracking social media at both the macro level of trending topics and widely followed users and the micro level of specific subjects

VDEM expects that no single social media monitoring tool will meet all of these requirements and that more than one software-as-a-service solution will be needed to meet these needs.

BRnT VDEM Digital Transformation

BRT Type:	Business Requirement for New Technology
Date Submitted:	11/2/2022
Mandate:	
Mission Critical:	

Description:

There is a business need for digital transformation at VDEM which will address a lack of processes and necessary, related, technological capabilities in the areas of emergency & preparedness systems; procurement and budget systems; asset management systems; approval process automations and IT service management.
These areas require necessary process improvements and associated technology to ensure we can retire outdated and inefficient capabilities, contributing to furthering the effort to becoming an effective, best-in-class agency.

BRnT VEOC Disaster Preparedness

BRT Type:	Business Requirement for New Technology
Date Submitted:	11/2/2022
Mandate:	Yes
Mission Critical:	
Description:	

There is a gap in VDEM's Emergency Operations Center readiness capabilities. In order to carry out agency responsibilities identified in the Virginia Code, as well as Executive Order 41, the Virginia Emergency Response Team (VEST) comprised of executive branch agencies utilizes space at the Virginia State Police headquarters. ; however, only the space is provided. VDEM is responsible for all other costs associated with the day to day operations. The VEST also utilizes crisis management tools for situational awareness and GIS capabilities. Historically, the VEST has identified capabilities during disasters that assist with real-time situational awareness, but unable to resource technology solutions outside of a Governor's Executive Order for a State of Emergency (not funded).

BRnT VEOC Technology Assessment

BRT Type:	Business Requirement for New Technology
Date Submitted:	3/12/2021
Mandate:	
Mission Critical:	Yes
Description:	

The current Virginia Emergency Operations Center (VEOC) has been in operation for over a decade. During that time, the operational scope of the Virginia Emergency Support Team (VEST) has broadened, with the VEST leaning forward to better anticipate the needs of those stakeholders who we support and an increased presence at the VEOC during declared and non-declared emergency incidents as a result. During this time, also, technology has advanced greatly, with technology products such as Geospatial Information System playing and ever-increasing role in providing situational awareness and facilitating operational decision-making. At the same time, the technology infrastructure – servers, network, security, audio-visual capabilities, etc. – has not been systematically assessed or refreshed. With VDEM now actively working with VITA and the MSI to move to the COV shared network. It is an opportune time to perform such an assessment to holistically identify gaps in technological capabilities and opportunities to improve the technology infrastructure underpinning the VEOC. We request these funds in FY2020 in order to assure that all technology improvements that are in-scope to Transformation have been completed and that we are working from a solid baseline.

BRT Iflows System Upgrade & O&M

BRT Type:	Business Requirement for Existing Technology
Date Submitted:	3/12/2021
Mandate:	Yes
Mission Critical:	Yes

Description:

1. Create and maintain the highest possible (>95%) network reliability especially during extreme flood events through robust and timely data transmission, data quality assurance and O&M
2. The ability of VDEM staff to track and manage O&M, view detailed field observations and deployed equipment through an online management system; enable trends analysis and proactive (instead of reactive) maintenance operations
3. Access a highly reliable, user-friendly, open website that displays current stream and rainfall observations
4. Provide context and analysis to current stream and rainfall observations through the use of tools such as interactive hydrographs, customizable dashboards, real-time analytics, auto-generated reports, flood inundation mapping, etc.
5. Create "one stop shopping" for stakeholders by integrating other relevant hydrologic data sources (ex. USGS gauges, NWS current conditions/forecasts/watches/warnings/flash flood guidance, etc.) to enable situational awareness and decision making in emergency management applications
6. On-demand/asynchronous and in-person training to stakeholders on gauge maintenance and software/website functionality
7. The ability for anyone to access a comprehensive, flexible and user-friendly database of hydrologic observations
8. Provide flexibility to refine, upgrade or expand hardware and/or software/website functionality based on continuous improvement initiatives, stakeholder feedback, funding opportunities, new technology or as required by VDEM staff
9. Alert users when certain rain/stream thresholds are reached through texts, emails and/or other means

Radio Cache Replacement for localities and VDEM

BRT Type:	Business Requirement for Existing Technology
Date Submitted:	10/5/2021
Mandate:	
Mission Critical:	Yes

Description:

Replacement of VDEM portal radios within the VDEM communications cache program. The program transitions from localities procuring radios and supporting equipment under a SHSP grant to VDEM providing the appropriate equipment to the locality caches. The goal is to provide 500 multiband radios to locality caches and have 100 multiband radios with VDEM over several fiscal years.

VDEM - Agency Data Analytics Platform

BRT Type:	Business Requirement for New Technology
Date Submitted:	10/18/2021
Mandate:	
Mission Critical:	

Description:

VDEM requires the ability to consolidate metrics for review by agency executive leadership and staff in the MS SharePoint environment. This will allow for an overview of activities and performance metrics for data-driven visualization of strategic goals.

VDEM - asset management system(s)

BRT Type:	Business Requirement for Existing Technology
Date Submitted:	10/18/2021
Mandate:	
Mission Critical:	

Description:

VDEM requires the ability to consolidate, as much as feasible, tracking of assets (computers and peripherals, radio equipment, equipment used for hazardous material response, agency vehicles) from procurement to surplus. Some equipment is temporarily loaned out to assist in emergency response activities.

VDEM - BRT - Grants Consolidation

BRT Type:	Business Requirement for Existing Technology
Date Submitted:	3/12/2021
Mandate:	
Mission Critical:	

Description:

VDEM is consolidating two separate grants systems into an existing grants system. The agency has been supported by Civix grants management systems for federal and hazard mitigation grants since 2009. In August 2020, the two separate systems were consolidated into vdem.emgrants.com. Two existing preparedness grants, State Homeland Security Grant Program (SHSP) and Emergency Management Performance Grants (EMPG), are hosted by TetraTech. in a system called eGMS. The goal is to move the SHSP and EMPG to modules supported by Civix. This will streamline the process for local governments to manage their funds in one system instead of three.

VDEM - BRT for VBMP Program

BRT Type:	Business Requirement for Existing Technology
Date Submitted:	12/6/2021
Mandate:	Yes
Mission Critical:	
Description:	

The Virginia Geographic Information Network (VGIN, § 44-146.18:6) manages the Virginia Base Mapping Program (VBMP). VBMP updates and serves out commonwealth-wide datasets annually. This BReT is to support the contract renewals for the VBMP data, an established program with a twenty year history.

VDEM - Digital Signatures

BRT Type:	Business Requirement for New Technology
Date Submitted:	10/15/2021
Mandate:	
Mission Critical:	

Description:

VDEM requires digital signature capabilities for signing documents as a stand alone (ad hoc) to be routed manually or as part of an automated workflow.

VDEM - EOC AV upgrade

BRT Type:	Business Requirement for Existing Technology
Date Submitted:	4/5/2021
Mandate:	
Mission Critical:	Yes

Description:

The agency emergency operations center has an audio-visual system that has reached the end-of-life for the equipment and system installed. An upgrade is required to maintain operational effectiveness for effective communication during activations due to emergency declarations.

VDEM - Next Generation VEOC network

BRT Type:	Business Requirement for Existing Technology
Date Submitted:	10/18/2021
Mandate:	
Mission Critical:	Yes

Description:

As VDEM has moved to fully operate in a hybrid model of on-site and virtually connected responders, the network supporting the communications and primary crisis management systems needs to be modernized for better throughput, true geographic and vendor diverse circuits and resilient connections.

VDEM BRT - Annual Contract Support

BRT Type:	Business Requirement for Existing Technology
Date Submitted:	12/15/2022
Mandate:	
Mission Critical:	Yes
Description:	
VDEM contractors with CAI for special project work to include asset management,, agency specific network engineers and other IT specialty disciplines	

IT Strategic Plan Projects

Agency:	127 Department of Emergency Management (VDEM)
Date:	1/26/2023

VDEM - EOC AV upgrade Project	
Category 4	Project Initiation Approval

VDEM requires an upgrade to the audio visual system at the Virginia Emergency Operations Center and at the Governor's Situation Room to ensure better communications during emergency activations. This upgrade will include requirements for connectivity outside of the two locations to support a large number of participants for conference calls.

CIO Email:
The following Investment Business Case has been submitted for your review and approval as a Strategic Planning entry by ITIMD. The Virginia Department of Emergency Management (VDEM) is planning a project (separate PBA and PGR is CIO approved) with procurement to purchase audiovisual equipment. The current A/V and VTC capabilities at the Virginia Emergency Operations Center (VEOC) are outdated. Many critical components of the existing systems are no longer manufactured and current replacement hardware is through refurbished equipment, if available. The agency is seeking to replace end-of-life hardware and implement current technologies, through the enhancement, replacement, and/or installation of A/V and VTC system solutions at VEOC and the Governor's Situation room. And additional phase will include a network assessment to ensure that sufficient bandwidth is for effective externally hosted communications (WebEx, MS Teams) for stakeholders at the locations and connecting virtually.
The agency does not has an approved 20 22 ITSP on file. The agency has no agency head approval on the 22 24 ITSP and has not submitted it; internal review is underway
Proponent Agency: VDEM
Planned Completion Date: 2022-5-31
Project Cost: $2,250,000 FY22 Mixed Funds, Federal/General

Project Start Date		Project End Date	5/31/2022
Estimated Costs:	**Total**	**General Fund**	**Non-General Fund**
Project Cost	$2,711,500.08	$1,104,285.00	$1,500,000.00

Estimated first year of biennium:	$0.00	$0.00	$0.00
Estimated second year of biennium:	$2,250,000.00	$750,000.00	$1,500,000.00

Project Related Procurements

VDEM - EOC and Governor's Situation Room AV Prj

IT Strategic Plan Procurements

Agency:	127 Department of Emergency Management (VDEM)
Date:	1/26/2023
Stand Alone Procurements:	
Procurement Name:	VDEM Procurement - ESRI SOC2 hosting, Year 3
Procurement Date	12/31/2023
Procurement Description:	VDEM is renewing the contract for the secured ESRI SOC 2 cloud hosting environment. Annual renewal of Planning GIS' ESRI Managed Cloud Services (EMCS) secured cloud hosted environment for the storage and hosting of secured data as well as data updated in near real time.
Procurement Name:	VDEM VGIN - VBMP 2022 - 2025
Procurement Date	12/30/2022
Procurement Description:	The Virginia Geographic Information Network (VGIN, § 44-146.18:6) manages the Virginia Base Mapping Program (VBMP). VBMP updates commonwealth-wide orthoimagery production on a four (4) year cycle. This is completed using a Statewide IT Contract (VA-200922-SURD). The VGIN operating budget is resourced to complete statewide acquisition of the base product (12", 4-band). Virginia localities may acquire 'buy-up' products from the contract. VGIN manages technical production and quality control for these products. VGIN bills localities for these products fifty percent on confirmed acquisition of aerial imagery, and fifty percent on delivery.
Procurement Name:	Virginia Base Mapping Program (VBMP) 2021 orthoima

Procurement Date	1/1/2021
Procurement Description:	Budget Code of Virginia directs the Virginia Geographic Information Network to acquire statewide high resolution aerial photography