

2024 - 2026 IT Strategic Plan

Agency: 194 Department of General Services (DGS)

Date: 1/2/2024

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?

The Department of General Services (DGS) is a service agency supporting the missions of government by delivering quality, cost-effective, timely, safe, and secure laboratory, engineering and architecture, procurement, real estate, facilities management, and fleet management services, while also serving businesses and citizens.

Operational Technology Investments

The DGS Office of Information Systems & Services (ISS) provides technologies that enable the agency to offer services to citizens, partner agencies and businesses throughout the Commonwealth. The ISS team supports over 70 applications leveraging the infrastructure provided by the VITA Information Technology Infrastructure Strategic Partnership (ITISP). DGS maintains applications that support the agency's core business functions and related performance measures including:

The Division of Consolidated Laboratory Services (DCLS) leverages a number of applications in support of public health, environmental protection and emergency response

LIMS (Laboratory Information Management System) processes and reports results for newborn screening, clinical, environmental and all hazard samples. The system also monitors compliance with the state's lab certification program.

Rhapsody facilitates the daily exchange of data, lab orders, and results

Qualtrax is an internal web-based system, monitors and tracks compliance with ISO 17025 standards of accreditation. This system allows the lab's Quality Assurance group to readily provide ISO auditors with reports that demonstrate:

- Compliance and provide information on standard operating procedures and forms
- Staff competencies, certifications and training records
- Previous audit findings and the associated corrective action plans
- Instrumentation maintenance and calibration records

Bionumerics classifies, sequences and links organisms to DNA clusters potentially related to pandemics and national outbreaks.

Wintox is used to test and report drug-screening results.

Laboratory Response Network (LRN) Results messenger is a web-based application used for rapid reporting and

secure exchange of biological and chemical agent information with CDC.

NorthWest Analytics is used with the clinical, micro, hazard, newborn screening and environmental LIMS Modules for enhancing quality assurance of sample analysis and processing

The Division of Purchases and Supply

eVA, the Commonwealth's online system for electronic procurement of goods and services. eVA is a SaaS procurement lifecycle management platform. It allows state agencies, colleges, universities and local governments to conduct purchasing and sourcing activities for goods and services.

DPS Virginia Distribution Center uses VALS to maintain information on high-quality products used by state agencies, universities and colleges, mental health and correctional institutions, and political subdivisions.

DPS Surplus Property Management AMP (Asset Management Platform) is the inventory and reporting system used by the Office of Surplus Property Management (OSPM) to track federal surplus property.

GovDeals, an Internet-based auction system, lists state agency surplus items for sale/auction.

The Division of Engineering (DEB) – Statewide Building Officials

Building Information Tracking System (BITS), a web-based DGS computer application, to manage project reviews and inspections, and to process key project-related forms. BITS tracks project submittals, manages reviewer assignments, and supports other related business operations. State agencies and DEB use the BITS application to process capital outlay forms for design and other project approvals. BITS also is used for processing Building Permits, Certificates of Use & Occupancy, and requests for Beneficial Occupancy.

The Division of Real Estate Services manages the Commonwealth's leased and owned property portfolio

COVATrax, a system that combines an SaaS solution with an internally developed web portal in managing the Commonwealth's broad portfolio of real estate leases, owned properties and transaction pipeline. The system helps track land, building, and lease data such as deeds, leases, property contracts and financial data. COVA Trax also helps provide reports to the General Assembly on facility utilization. The web portal allows outside agencies to report their leases not administered by DREFM and easily review and update their agency land use plans.

Offices under the DGS Director's Office manage owned property at the seat of government.

Office of Facilities Management - AssetWorks AIM, the facility maintenance SaaS application, is used to capture and track work order information related to facility maintenance, repairs, and equipment upgrades. These include building tenant service requests and ongoing preventive maintenance for state-owned properties in the metropolitan Richmond area.

Office of Parking and Badging (OPB) - AIMS, the Capital area parking system, is used by the to manage the usage of state-operated parking facilities.

Office of Fleet Management Services (OFMS) FleetFocus M5 is the automobile fleet management system used by the to track vehicle inventory, repairs and maintenance.

Enterprise Applications

PeopleSoft Financials, used by the Office of Fiscal Services, maintains DGS financial activities. DGS PeopleSoft Financials integrates with eVA and Cardinal.

PeopleSoft Time & Labor, used by the Office of Human Resources (HR), supports the time reporting needs of a wide range of business functions including time accounting, payroll, financial and employee benefits.

PeopleSoft ISAS, a DGS security management tool, allows managers to request, change or track staff access to the DGS network and applications.

Payment Portal, processes online payments for DGS customers.

EpiServer is the content management system for the agency website.

Oracle databases support LIMS, eVA Billing, Fleet M5, and the PeopleSoft applications. We anticipate an upgrade to our Oracle databases during the coming year.

SQL databases support many applications.

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?

DGS works with several external entities that include other state and federal agencies as well as private sector entities. We are finding increasingly often that our technology is not consistent with their systems and standards.

This is particularly important at the Division of Consolidated Laboratories where much of the testing is dictated by the CDC and FDA, as well as organizations such as the Association of Public Health Laboratories (APHL) that set the standards for clinical and environmental testing. Virginia has been a prominent laboratory for many years, setting the standard for public health labs. The concern is that our standing will fall without access to more modern technology such as serverless services and microservices.

In the area of construction project management, there is a need for the ready exchange of information, often large files, between the project team and the general contractor. Too often DGS is forced to use the systems in use by the general contractor because of the difficulty in sharing files with internal and external individuals in a way that is easy and can be readily audited by our agency for content and compliance.

Costs remain a critical factor. While a migration to Azure would be ideal where an acceptable SaaS solution does not exist, as an largely internal service fund agency, DGS struggles to find funding for the costs to migrate our VM workloads to a cloud platform like Azure.

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 agency's 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?

AWS Serverless services – APHL drives much of what is considered acceptable in public health laboratories. They identify methodologies to achieve efficiencies in a number of areas, including whole genome sequencing. Sequencing is quickly becoming the testing norm for both informational and results based testing. As more mandated testing moves toward sequencing, larger data sets are created, requiring higher bandwidth, and more flexible compute power is required to scale to needs, such as COVID sequencing during the pandemic. Without this ability agencies pay for compute they do not need, even when they work to manage availability.

COVGOV Azure – our 5 year solution includes migrating VM loads to the Azure environment

LIMS Updates – LIMS reflects the existing state and federal mandated clinical and environmental testing requirements. As such constant updates are needed

Environmental LIMS – As the number of environmental tests grow, so have the needs to implement a system specifically designed to address environmental testing/results needs.

DGS Portal/Helpdesk – DGS will implement a helpdesk based on the COVGov Power Platform environment. The intent is to develop a system that is flexible enough to expand to the other administrative support offices and ultimately to support agency related needs like a CRM.

BITS Update/rewrite – DEB's BITS application while functional, does not fully leverage available technology that would improve efficiency. As DEB processes change, BITS process requires updating to efficiently capture process requirements.

PeopleSoft Reimplementation – DGS will be reimplementing our PeopleSoft environment. The existing environment has been overly customized and has become difficult to manage and maintain.

Fleet M5 – DGS is targeting to move this system to a SaaS as soon as possible to reduce support requirements and increase customer flexibility.

Payment Portal – We will continue to expand upon the capabilities of our Payment Portal application. The planned enhancements potential new interfaces with agency applications.

Electronic Signatures – DGS will continue to work toward electronic signatures to replace antiquated paper processes, determining which of the available options, ePen/DocuSign or Adobe best suites our needs and business processes.

DGS continues to look for ways to decrease costs, create economies of scale and provide efficient solutions that meet the needs of our customers, yet are flexible enough to change with them. We do so by creating opportunities for our development resources to acquire new skills or expand existing ones, ensuring cross-training and bench strength development as well as documentation. Most of the projects identified will be funded by cost avoidance or increased efficiency.

IT Strategic Plan Budget Tables

Agency:	194 Department of General Services (DGS)
Date:	1/2/2024

Current IT Services

Category	Costs Year 1		Costs Year 2	
	GF	NGF	GF	NGF
Projected Service Fees	\$2,789,435.90	\$1,554,193.27	\$2,873,118.97	\$1,600,819.07
VITA Infrastructure Changes				
Estimated VITA Infrastructure	\$2,789,435.90	\$1,554,193.27	\$2,873,118.97	\$1,600,819.07
Specialized Infrastructure				
Agency IT Staff	\$850,000.00	\$6,000,000.00	\$900,000.00	\$6,500,000.00
Non-agency IT Staff		\$1,500,000.00		\$1,000,000.00
Cloud Computing Service		\$16,000,000.00		\$16,000,000.00
Other Application Costs		\$600,000.00		\$650,000.00
Total:	\$3,639,435.90	\$25,654,193.27	\$3,773,118.97	\$25,750,819.07

Proposed IT Investments

Category	Costs Year 1		Costs Year 2	
	GF	NGF	GF	NGF
Major IT Projects:		\$100,000.00		\$50,000.00
Non-Major IT Projects:	\$100,000.00		\$50,000.00	
Agency-Level IT Projects:	\$50,000.00		\$60,000.00	
Major Stand Alone IT Procurements:		\$600,000.00		\$650,000.00
Non-Major Stand Alone IT Procurements:		\$400,000.00		\$400,000.00
Agency-Level Stand Alone IT Procurements:	\$60,000.00	\$275,000.00	\$60,000.00	\$300,000.00
Procurement Adjustment for Staffing:				
Total:	\$210,000.00	\$1,375,000.00	\$170,000.00	\$1,400,000.00

Projected Total IT Budget				
	Costs Year 1		Costs Year 2	
Category	GF	NGF	GF	NGF
Current IT Services	\$3,639,435.90	\$25,654,193.27	\$3,773,118.97	\$25,750,819.07
Proposed IT Investments	\$210,000.00	\$1,375,000.00	\$170,000.00	\$1,400,000.00
Total	\$3,849,435.90	\$27,029,193.27	\$3,943,118.97	\$27,150,819.07

Business Requirements For Technology

Agency:	194 Department of General Services
Date:	1/2/2024
AWS Serverless Services	
BRT Type:	Business Requirement for New Technology
Requested Start:	1/1/2024
Mandate:	
Mission Critical:	
Description:	
As more mandated testing moves toward sequencing, larger data sets are created, requiring higher bandwidth, and more flexible compute power is required to scale to needs, such as COVID sequencing during the pandemic. Much of the testing in this area is related to Federal requirements and APHL best practices	
BRET - DCLS Business Continuity Solution for Data	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	1/1/2024
Mandate:	
Mission Critical:	Yes
Description:	
Re-architect the lab's data exchange environment by clustering and configuring servers for high availability, service redundancy, ease of failover, and 24/7 operation to support the reliable and secure exchange of electronic lab orders and results with partner agencies.	
BRET - DCLS Data Exchange with Environmental Labs	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	1/1/2024

Mandate:	
Mission Critical:	

Description:
 Establish an electronic standards-based exchange with six national providers who administer proficiency test studies for contract environmental laboratories using Orion Rhapsody as the data integration engine/message broker and the Lab Certification LIMS.

BReT DCLS Environmental Lab Upgrade

BRT Type:	Business Requirement for Existing Technology
Requested Start:	1/1/2024
Mandate:	Yes
Mission Critical:	Yes

Description:
 The Division of Consolidate Laboratory Services (DCLS) is seeking a Laboratory Information Management System (LIMS) to support laboratories within the Division whose primary focus is in the field of environmental testing services. The ideal LIMS solution will be purpose built for management of all aspects of environmental testing following the rigorous requirements of the multiple accreditations held by DCLS. This will be an on premise solution as the system need to integrate with instruments at DCLS. Additionally system should be able to fail over and run at DCLS in the event of loss of WAN/data center connectivity.

BRET DGS BITS Enhancements

BRT Type:	Business Requirement for Existing Technology
Requested Start:	1/1/2023
Mandate:	
Mission Critical:	Yes

Description:
 This is for enhancements being made to the BITS system.

BRET DGS LIMS Enhancements

BRT Type:	Business Requirement for Existing Technology
Requested Start:	1/1/2023
Mandate:	
Mission Critical:	Yes
Description:	
This is for ongoing minor enhancements to the DGS LIMS system	
BRET DGS Payport Enhancements	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	1/1/2023
Mandate:	
Mission Critical:	Yes
Description:	
This encapsulates ongoing enhancements to the DGS Payment processing portal	
BReT-Enterprise Electronic Procurement Solution 20	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	1/1/2024
Mandate:	Yes
Mission Critical:	
Description:	
This business requirement is to execute a new contract for eVA, the electronic procurement solution for the Commonwealth.	
BRNT DGS PowerPlatform Portal	
BRT Type:	Business Requirement for New Technology
Requested	10/1/2023

Start:	
Mandate:	
Mission Critical:	
Description:	
Will initially contain the DGS helpdesk	
DGS Expansion of Electronic Signatures	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	12/6/2023
Mandate:	
Mission Critical:	
Description:	
DGS intends to review and replace antiquated processes requiring signatures with electronic processes.	
DGS Fleet M5 to Cloud	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	1/1/2025
Mandate:	
Mission Critical:	
Description:	
DGS would like to migrate its on-prem implementation of AssetWorks M5 to the hosted version to streamline support, increase availability and decrease overall costs.	
DGS Peoplesoft Financials Reimplementation	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	1/1/2024

Mandate:	
Mission Critical:	
Description:	
DGS plans to reimplement our Peoplesoft Financials environment to streamline and simplify the environment as well as remove many customizations over the course of 20+ years.	
DGS QTS to Azure	
BRT Type:	Business Requirement for New Technology
Requested Start:	1/1/2025
Mandate:	
Mission Critical:	
Description:	
DGS would like to move completely away from QTS in favor of Azure	
DGS SD-WAN Upgrade	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	3/1/2023
Mandate:	Yes
Mission Critical:	Yes
Description:	
<p>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.</p> <p>Three step process:</p> <p>Remote internetwork operating system (IOS) software upgrade on the router.</p> <p>Remote SD-WAN deployment</p> <p>Circuit deployment as needed</p>	

DGS Security	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	12/19/2023
Mandate:	Yes
Mission Critical:	
Description:	
VITA Driven security requirements	
DGS Staff Augmentation	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	1/1/2024
Mandate:	Yes
Mission Critical:	
Description:	
Staff Aug	
DGS Website Modernization	
BRT Type:	Business Requirement for New Technology
Requested Start:	6/18/2023
Mandate:	
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:	194 Department of General Services (DGS)
Date:	1/2/2024

DCLS Environmental Lab Upgrade

Category 4	Project Initiation Approval
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The Division of Consolidate Laboratory Services (DCLS) is seeking a Laboratory Information Management System (LIMS) to support laboratories within the Division whose primary focus is in the field of environmental testing services. The ideal LIMS solution will be purpose built for management of all aspects of environmental testing following the rigorous requirements of the multiple accreditations held by DCLS.

This solution will be hosted at the VITA data center. Additionally, in the event of failure of the WAN or centralized data center, the system must switch over to another installation.

DCLS has numerous mission critical requirements and cannot afford any downtime.

Project Start Date	3/15/2021	Project End Date	2/29/2024
Estimated Costs:	Total	General Fund	Non-General Fund
Project Cost	\$1,076,415.00		
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

DCLS Environmental Lab Upgrade Procurement
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Commonwealth Procurements >= \$250,000.00

Agency:	194 Department of General Services (DGS)
Date:	1/2/2024
Stand Alone Procurements:	
Procurement Name:	PBA - Enterprise Electronic Procurement Solution 2
Procurement Date	8/1/2020
Procurement Description:	This business requirement is to execute a new contract for eVA, the electronic procurement solution for the Commonwealth.