

2024 - 2026 IT Strategic Plan

Agency: 778 Department of Forensic Science (DFS)

Date: 12/12/2023

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 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?

DFS' primary business function is to provide forensic laboratory services to the Commonwealth's state and local law enforcement agencies, medical examiners, Commonwealth's Attorneys, fire departments, and state agencies in the investigation of any criminal matter. These functions are supported by DFS' Laboratory Information Management System (LIMS) which is made up of three modules – LIMS Case Management, LIMS DNA Databank and LIMS Breath Alcohol. DFS' current IT investments are focused on support of the agency's strategic goals and continuing enhancements of its LIMS modules to provide more efficient delivery of forensic services and maintaining compliance with the COV IT security policy.

Current information technology emphasis:

- Providing a secure portal to allow law enforcement the ability to remotely enter or pre-log requests for laboratory examination (RFLE).
- Providing enhanced secure electronic notification and dissemination of completed certificate of analysis (COA) reports.
- Extend LIMS Analyst User Interface (AUI) capability to more easily mine data for statistical analysis.
- Add batch processing capabilities to interconnect analytical instrumentation with LIMS.
- Further development of business analytics from LIMS data to provide DFS management with up-to-date metrics a subset of which will be publicly provided on DFS's website using PowerBI.
- Ongoing maintenance and enhancements for web-based victim Physical Evidence Recovery Kit tracking (PERK) system.
- Continuing efforts to integrate the VSP (Virginia State Police) VSOMS (Virginia Sex Offender Management System) with DFS Data Bank. This system will more efficiently inform VSP of offenders that need DNA samples added to DNA Data Bank.
- Continuing efforts with VSP to upgrade AFIS to cloud-based system provided by NEC. Replacing current DFS-VSP networking solution with MSI provided SD-WAN direct connection to NEC.
- SD-WAN project with MSI to increase regional labs network bandwidth to accommodate future cloud-based applications and provide redundancy.
- DFS IT staff maintains and provides end-user support for the agency's out-of-scope scientific instrumentation and building automation network.
- DFS IT staff manages contracts for the LIMS module's annual maintenance/support and several other agency

specific applications (agency helpdesk, secure FTP application, web hosting, etc.).

- DFS also expects several modifications to the DFS website will be required to maintain compliance with the COV IT Security policy and to interface with Qualtrax/Ideagen.
- DFS expects costs associated upgrading the LIMS to enable the use of audit logs, which meet the requirements of SEC-501.

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?

The cost of the agency's IT infrastructure managed by the VITA MSI is subject to any potential rate increases related to network, cloud and other managed services, which must be planned for as a contingency. DFS must continue to plan for potential increased costs associated with IT security audits, to address any changes in security compliance requirements that may occur due to COV IT Security Policy changes during the biennium. DFS engages the MSI to help complete IT projects, however these engagements come at a cost over the standard service offerings and often require custom work orders, which increase the overall cost of IT. Mandates such as the COV IT security program, Continuity of Operations (CP) and Disaster Recovery (DR) requirements demand continuous vigilance and generally increase costs. Limited resources and increasing demand to reduce case turnaround times will require DFS to enhance and ensure more efficient service delivery mechanisms (including the IT environment and LIMS Modules). The costs associated with the COV IT security program compliance and external technical resources to augment agency IT resources are factors that also impact the agency's IT environment.

The following items could potentially require or mandate changes to DFS' use of IT and result in the need for additional, unplanned IT investments:

- Evolving requirements mandated by the governing bodies that accredits DFS's scientific operations.
- Laws or regulations impacting offender DNA sample collection and tracking.
- Data storage requirement and other costs associated with implementing the DR plan.
- Data storage requirements for storing high resolution image files and instrument data electronically.
- Developing and maintaining business analytics interactive visualization capabilities.
- Corrective actions resulting from pending IT security audits.
- Costs associated with new IT Security Standards.
- Costs associated with assessing, evaluating and transitioning to applicable systems Software as a Service (SAAS) platform or Cloud-based services.
- Costs associated with increasing bandwidth requirements to cloud-based systems.
- Costs associated with remedying vulnerability scan findings.
- Unforeseen costs not covered by grant funding for the PERK tracking system.
- Enhancements to the LIMS Breath Alcohol module will be required to interoperate with planed refresh of Breath Alcohol instrumentation.
- Costs associated with the acquisition of digital signature solution for all staff.

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?

DFS is reviewing initiatives to increase laboratory efficiency and stakeholder access to records, such as:

- Updating LIMS to transition towards the use of electronic case records, including planning for increased case record document storage requirements.
- Providing enhanced secure electronic notification and dissemination of completed certificate of analysis (COA) reports.
- Reviewing other initiatives to increase laboratory efficiency by leveraging the use of new laboratory technology that can integrate with the agency's IT environment. DFS is planning to implement new features of the LIMS to include remote entry of Requests for Laboratory Examinations (RFLE) via the internet.
- Enhancing productivity and decreasing paper waste by implementing batch processing capabilities into LIMS. Analytical data will transfer into LIMS eliminating the need to print results before entering onto LIMS.
- Evaluating LIMS products/solutions currently available for Forensic Science Laboratories, which has a proven track record for moving towards electronic records, instrument integration, timely service, and robust customer interface for information sharing.

A primary agency goal is to increase efficiency and workforce productivity using new and existing technologies. Investing in these areas and accomplishing these initiatives should enhance laboratory efficiency leading to an increase in laboratory capacity and/or a decrease in case turnaround times. It will also play a significant role in reaching agency and COV strategic goals.

IT Strategic Plan Budget Tables

Agency:	778 Department of Forensic Science (DFS)			
Date:	12/13/2023			
Current IT Services				
	Costs Year 1		Costs Year 2	
Category	GF	NGF	GF	NGF
Projected Service Fees	\$2,135,580.88	\$818.42	\$2,199,648.30	\$842.98
VITA Infrastructure Changes				
Estimated VITA Infrastructure	\$2,135,580.88	\$818.42	\$2,199,648.30	\$842.98
Specialized Infrastructure				
Agency IT Staff	\$723,200.00		\$759,360.00	
Non-agency IT Staff				
Cloud Computing Service				
Other Application Costs				
Total:	\$2,858,780.88	\$818.42	\$2,959,008.30	\$842.98
Proposed IT Investments				
	Costs Year 1		Costs Year 2	
Category	GF	NGF	GF	NGF
Major IT Projects:	\$1,000,000.00		\$50,000.00	
Non-Major IT Projects:				
Agency-Level IT Projects:				
Major Stand Alone IT Procurements:	\$334,725.00		\$334,725.00	
Non-Major Stand Alone IT Procurements:				
Agency-Level Stand Alone IT Procurements:	\$655,000.00		\$720,000.00	
Procurement Adjustment for Staffing:				
Total:	\$1,989,725.00	\$0.00	\$1,104,725.00	\$0.00

Projected Total IT Budget				
	Costs Year 1		Costs Year 2	
Category	GF	NGF	GF	NGF
Current IT Services	\$2,858,780.88	\$818.42	\$2,959,008.30	\$842.98
Proposed IT Investments	\$1,989,725.00	\$0.00	\$1,104,725.00	\$0.00
Total	\$4,848,505.88	\$818.42	\$4,063,733.30	\$842.98

Business Requirements For Technology

Agency:	778 Department of Forensic Science
Date:	12/12/2023
Ballistic Identification System BReT	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	9/7/2023
Mandate:	
Mission Critical:	
Description:	
DFS requires ballistic identification callability to conduct ballistic identification for forensic case work.	
BRET - Breath Alcohol Instruments	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	12/5/2023
Mandate:	Yes
Mission Critical:	Yes
Description:	
The Virginia Department of Forensic Science seeks to establish a contract with one qualified Vendor to furnish up to 220 evidential breath test instruments (Devices) from the one Vendor, to include any related equipment, software, replacement parts, training to DFS personnel, and maintenance. The devices are to be used in the analysis of breath samples of subjects to determine the blood alcohol concentration (BAC) of these subjects.	
BReT - Consolidated LIMS Application Contract	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	6/1/2023
Mandate:	

Mission Critical:	
Description:	
Consolidate 4 Caliber Public Safety contract into one umbrella contract. FABRAD, DNAWEB, DBSATS, PRELOG	
BRet DFS Centralized ISO and Audit	
BRT Type:	Business Requirement for Existing Technology
Requested Start:	9/7/2023
Mandate:	
Mission Critical:	
Description:	
Outsourced ISO augmentation and VITA Audit service (VITA) ISO Services annually: \$38,000 Audit Services annually: \$36,000	
DFS 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	

DFS Website Modernization

BRT Type:	Business Requirement for New Technology
Requested Start:	6/16/2023
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

NEC AFIS Update

BRT Type:	Business Requirement for Existing Technology
Requested Start:	12/9/2022
Mandate:	
Mission Critical:	Yes

Description:
 The agencies supported by Virginia Department of Forensic Science submit evidence collected from crimes scenes to the Latent Print Section. Partial prints obtained from the evidence are searched in the AFIS to identify potential suspects. The Department requires access the Virginia State Police AFIS to conduct the searches.

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Commonwealth Projects \geq \$250,000.00

There are no projects for this agency.

Commonwealth Procurements >= \$250,000.00

Agency:	778 Department of Forensic Science (DFS)
Date:	12/12/2023
Stand Alone Procurements:	
Procurement Name:	Consolidated LIMS Application Contract
Procurement Date	6/7/2023
Procurement Description:	Consolidate DNAWEB, FABRAD, FALIMS and Perk separate contracts into one with Caliber Public safety.