

# 2022 - 2024 IT Strategic Plan

**Agency:** 778 Department of Forensic Science (DFS)

**Date:** 9/24/2022

## 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 is on:

- 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.
- Continuing efforts to strategize with the LIMS vendor to provide technological productivity and efficiency enhancements.
- Continuing efforts to ensure and maintain compliance with the Commonwealth IT security policy (to include new service offerings (i.e. file/folder/disk encryption, disaster recovery, etc.).
- Developing and providing business analytics interactive visualization capabilities.
- Supporting and maintaining the web-based victim Physical Evidence Recovery Kit tracking (PERK) system.
- Developing an expungement module for efficiently expunging required records within the LIMS in a manner compliant with updated legal requirements; and
- Continuing efforts to ensure and maintain compliance with the Commonwealth IT security policy.

DFS is entering into the beta test phase of the next enhancement to the LIMS DNA Databank module, the DFS DNA Sample Tracking System (DNASTS). The DNASTS provides a real-time, web-accessible capability for law enforcement agencies to confirm the existence of required offender DNA samples and will replace the Virginia Compensation Board's Local Inmate Data System (LIDS). This enhancement will reduce the number of duplicate samples collected for the same offender and help reduce the omission of required offender samples. The DNASTS also has a prelog feature that will allow for the electronic entry of information about the sample into the system at the time of collection, which will be pre-populated into the system at DFS when the sample is received. Prior to full implementation, legislative changes are required and will be the subject of an agency bill in the 2022 General Assembly.

DFS is currently in the process of developing a method to enhance the mode of communication between breath alcohol test instruments located throughout the Commonwealth and the DFS database that stores breath test results from evidential instruments. A more efficient collection process will decrease the lag time between when a breath test was administered and when the results of the test are available for access through the LIMS module.

The DFS IT staff continues to maintain and provide end-user support for the agency's out-of-scope scientific instrumentation computing environment and building automation network. The 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 web site will be required to maintain compliance with the COV IT Security policy, to interface with Qualtrax, and to provide an overall refresh

## **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 affect 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. Additionally, DFS is concerned that existing WAN bandwidth speeds may not be sufficient to handle the increased usage of the internet resulting from Executive Order 19 (cloud computing), and therefore plans for potential increased costs for increased speeds. 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.

Financial factors and IT staff resources are impacting the ability of the agency to meet its information technology (IT) goals. 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 also increase costs. Limited resources and increasing demand to reduce case TAT 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 body 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 (i.e. new ISO position that reports directly to the agency head).
- Costs associated with assessing, evaluating and transitioning to applicable systems Software as a Service (SAAS) platform or Cloud based services (Executive Order 19)

- Costs associated with increasing bandwidth requirements to cloud based systems (Executive Order 19).
- 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 if digital document authentication standards are established for use with all public records in the Commonwealth.

## **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?**

The agency has reviewed its revised Business Impact Analysis (BIA) and is developing Continuity Plan and Disaster Recovery solutions that meet the requirements of the revised BIA.

DFS is reviewing other 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; and
- Ensuring DFS is properly staffed to provide IT support for DFS staff and user stakeholders.

DFS recognizes the need for improved efficiencies in case management including retrieving and analyzing data. DFS is receiving ever increasing requests from the criminal justice community to provide forensic analytical and submission data analyzing trends in criminal activity across the COV. The agency is working on data analytics to accommodate these needs.

DFS is also 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.

A primary agency goal is to increase efficiency and workforce productivity using new and existing technology. 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:	9/24/2022			
<b>Current IT Services</b>				
	<b>Costs Year 1</b>		<b>Costs Year 2</b>	
<b>Category</b>	<b>GF</b>	<b>NGF</b>	<b>GF</b>	<b>NGF</b>
<b>Projected Service Fees</b>	\$2,051,114.47	\$786.00	\$2,112,647.91	\$809.00
<b>VITA Infrastructure Changes</b>	\$1,979,000.00		\$2,038,000.00	
<b>Estimated VITA Infrastructure</b>	\$4,030,114.47	\$786.00	\$4,150,647.91	\$809.00
<b>Specialized Infrastructure</b>				
<b>Agency IT Staff</b>	\$505,000.00		\$510,000.00	
<b>Non-agency IT Staff</b>	\$50,000.00			
<b>Cloud Computing Service</b>	\$150,000.00		\$175,000.00	
<b>Other Application Costs</b>	\$1,700,000.00		\$1,800,000.00	
<b>Total:</b>	\$6,435,114.47	\$786.00	\$6,635,647.91	\$809.00
<b>Proposed IT Investments</b>				
	<b>Costs Year 1</b>		<b>Costs Year 2</b>	
<b>Category</b>	<b>GF</b>	<b>NGF</b>	<b>GF</b>	<b>NGF</b>
<b>Major IT Projects:</b>				
<b>Non-Major IT Projects:</b>				
<b>Agency-Level IT Projects:</b>	\$60,000.00		\$60,000.00	
<b>Major Stand Alone IT Procurements:</b>				
<b>Non-Major Stand Alone IT Procurements:</b>				
<b>Agency-Level Stand Alone IT Procurements:</b>				
<b>Procurement Adjustment for Staffing:</b>				
<b>Total:</b>	\$60,000.00	\$0.00	\$60,000.00	\$0.00
<b>Projected Total IT Budget</b>				
	<b>Costs Year 1</b>		<b>Costs Year 2</b>	
<b>Category</b>	<b>GF</b>	<b>NGF</b>	<b>GF</b>	<b>NGF</b>
<b>Current IT Services:</b>	\$6,435,114.47	\$786.00	\$6,635,647.91	\$809.00
<b>Proposed IT Investments:</b>	\$60,000.00	\$0.00	\$60,000.00	\$0.00
<b>Total:</b>	\$6,495,114.47	\$786.00	\$6,695,647.91	\$809.00

# Business Requirements For Technology

<b>Agency:</b>	778 Department of Forensic Science
<b>Date:</b>	9/24/2022
<b>Ballistic Identification System BReT</b>	
<b>BRT Type:</b>	Business Requirement for Existing Technology
<b>Date Submitted:</b>	12/8/2021
<b>Mandate:</b>	
<b>Mission Critical:</b>	
<b>Description:</b>	
DFS requires ballistic identification callability to conduct ballistic identification for forensic case work.	
<b>BReT - Annual Maintenance and Support Contracts (L</b>	
<b>BRT Type:</b>	Business Requirement for Existing Technology
<b>Date Submitted:</b>	3/26/2021
<b>Mandate:</b>	
<b>Mission Critical:</b>	
<b>Description:</b>	
Annual Maintenance and Support Contracts (LIMS modules): LIMS FA-BrAD Module \$25,000 LIMS DNA-Databank Module \$15,000 LIMS Case Management Module \$50,000	
<b>BRet DFS Centralized ISO and Audit</b>	
<b>BRT Type:</b>	Business Requirement for Existing Technology
<b>Date Submitted:</b>	3/26/2021
<b>Mandate:</b>	
<b>Mission Critical:</b>	
<b>Description:</b>	
Outsourced ISO augmentation and VITA Audit service (VITA) ISO Services annually: \$38,000 Audit Services annually: \$36,000	

**BReT DFS IT Security Program Compliance**

<b>BRT Type:</b>	Business Requirement for Existing Technology
<b>Date Submitted:</b>	3/26/2021
<b>Mandate:</b>	
<b>Mission Critical:</b>	
<b>Description:</b>	
COV IT security program compliance	

**BRet DFS LIMS Case Management Enhancements**

<b>BRT Type:</b>	Business Requirement for Existing Technology
<b>Date Submitted:</b>	3/26/2021
<b>Mandate:</b>	
<b>Mission Critical:</b>	
<b>Description:</b>	
DFS LIMS Case Management module enhancement and cloud storage/access.	

**BReT DFS LIMS DNA Databank Enhancement**

<b>BRT Type:</b>	Business Requirement for Existing Technology
<b>Date Submitted:</b>	3/26/2021
<b>Mandate:</b>	
<b>Mission Critical:</b>	
<b>Description:</b>	
DFS' LIMS DNA Databank module enhancement for search, review and track VSP SOR data and buccal kits.	

**BReT DFS LIMS FA-BrAD Enhancement**

<b>BRT Type:</b>	Business Requirement for Existing Technology
<b>Date Submitted:</b>	3/26/2021
<b>Mandate:</b>	
<b>Mission Critical:</b>	
<b>Description:</b>	
DFS' LIMS FA-BRAd module enhancement to provide decrease the access time to instrument data	


**BReT PERK Tracking System**

<b>BRT Type:</b>	Business Requirement for Existing Technology
<b>Date Submitted:</b>	3/26/2021
<b>Mandate:</b>	
<b>Mission Critical:</b>	
<b>Description:</b>	
Maintain/Enhance a public facing Physical Evidence Recovery Tracking (PERK) System.	

**BRnT DFS IT Disaster Recovery**

<b>BRT Type:</b>	Business Requirement for New Technology
<b>Date Submitted:</b>	3/26/2021
<b>Mandate:</b>	
<b>Mission Critical:</b>	
<b>Description:</b>	
DFS Disaster Recovery and CP	

**BRnT Storage Technology/Capacity**

<b>BRT Type:</b>	Business Requirement for New Technology
<b>Date Submitted:</b>	3/26/2021
<b>Mandate:</b>	
<b>Mission Critical:</b>	
<b>Description:</b>	
DFS current storage technology will not accommodate the new storage requirements and achieve the RTO and RPO. If DFS is to meet its goal to become less dependent on paper, the current technology will need to be replaced.	

**Forensic Advantage**

<b>BRT Type:</b>	Business Requirement for Existing Technology
<b>Date Submitted:</b>	3/31/2021
<b>Mandate:</b>	
<b>Mission Critical:</b>	

<b>Description:</b>	
Associated Project: CTP19442 - EO19_DFS_Forensic Advantage_Re-Host	
<b>Upgrade CODIS network connections</b>	
<b>BRT Type:</b>	Business Requirement for Existing Technology
<b>Date Submitted:</b>	11/23/2021
<b>Mandate:</b>	
<b>Mission Critical:</b>	
<b>Description:</b>	
<p>CODIS is moving away from the fractional T1 connections provided by the FBI as part of the CJIS network. DFS will need to procure networking hardware and software to replace the existing infrastructure currently provided by the FBI. DFS will also need to purchase a separate broadband connection to the internet or upgrade existing COV network connections to account for increased traffic</p>	

# IT Strategic Plan Projects

There are no projects for this agency.



# IT Strategic Plan Procurements

There are no stand alone procurements for this agency.