Report Title: IT Strategic Plan Summary

Agency: 778 Department of Forensic Science   **Date:** 2/8/2017

Current Operational IT Investments

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?

DFS primary business function is to provide forensic laboratory services to the Commonwealths state and local law enforcement agencies, medical examiners, Commonwealths 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 network infrastructure, computing environment and communication systems are provided and managed by the VITA/NG Partnership.

DFS completed its non-major project to replace the LIMS Case Management module in FY 2016. The new LIMS Case Management module allows DFS to pursue its desire to become less dependent on paper records through a phased approach to collect and record case notes in electronic format. This will provide efficient capability to search and mine data from historical records and additional accessibility and security of the data. In addition, the new LIMS module Analyst User Interface (AUI) provides configurable section analysis modules to meet DFS accrediting organizations case documentation requirements, which require increasingly voluminous amounts of documentation to be stored with each analysis. Additional configuration will be required to the LIMS Case Management modules AUI to meet DFS requirements for analytical case note management (part of the above mentioned phased approach). DFS expects to update and revise the AUI as new features in the LIMS become available and as accrediting requirements change. DFS plans to implement new features of the LIMS to include electronic dissemination of reports and remote entry of Requests for Laboratory Examinations (RFLE). The new features will provide DFS customers (state and local law enforcement) easier access to reports and improved RFLE entry efficiency. DFS is also reviewing other new features of the LIMS to increase laboratoryefficiencie s and provide DFS customers with self-help case status information.

DFS is revising its IT Disaster Recovery (DR) plan to include the recently completed renovation to the Western Laboratory as a hot site for all DFS IT systems. DFS has submitted a work request to VITA and is currently working with Partnership personnel to provide an estimate for the planned IT DR revision.

The DFS IT staff maintains and provides end-user staff support for the agencys out-of-scope scientific instrumentation and building automation network. The DFS IT staff manages contracts for the LIMS modules 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 update the underlying scripting language.

The cost of the agencys IT infrastructure managed by the VITA/NG Partnership is expected to increase due to new data storage requirements. Additionally, costs associated with COV IT security compliance are also expected to rise along with the costs associated with mandatory IT system audits (DFS plans on utilizing VITAs ISO and Audit services).

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?

DFS accrediting organization, the American Society of Crime Laboratory Directors / Laboratory Accreditation Board (ASCLD/LAB), requires documentation to support all forensic analyses. The Commonwealth of Virginias record retention policy requires that these records be maintained for 75 years.

DFS has estimated the rate of storage consumption could increase by 10TB each year – the consumption was calculated based on current and future practices to store all documentation electronically.

In order to meet the Governors Executive Order 82 (2009) to reduce the dependency on paper records and increase the efficiency of departmental processes, the new LIMS Case Management module allows for additional case documentation storage/retrieval, electronic evidence pre-submission, workflow processing of technical reviews and electronic report distribution.

These new processes will help reduce the agencys overall turnaround time (TAT) in casework performed for its customers in the criminal justice community. 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 by June 2018.

DFS is anticipating potential changes to legislation which will require enhancements to its LIMS DNA Databank module. The anticipated change in legislation will require DFS to review data with the VSP to ensure all individuals on the Sex Offender Registry have a DNA sample on file. If this process is not enhanced/automated, DFS risks not being able to provide information in the time frame required in this potential legislation.

DFS continues to receive numerous freedom of information act (FOIA) requests for breath alcohol instrumentation information. DFS will continue to develop solutions to reduce the number of resources required to fulfil FOIA requests. Also, enhancements to the LIMS Breath Alcoh olmodule will be required if digital document authentication standards are established for use with all public records in the Commonwealth.

Financial factors are impacting the ability of the agency to meet its information technology (IT) goals. DFS engages the VITA/NG Partnership 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 agencys IT environment. DFS IT environment is further hampered by limited agency IT staff supporting agency wide IT systems such as LIMS.

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 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. Accommodating the demand to decrease case TAT, the new LIMS module will need to have enhanced capabilities for remote access to enable the criminal justice community to submit requests for laboratory examinations electronically. The enhancement will also need to enable remote disposition of reports and case status. Along with new case record documentation storage ability, these capabilities will increase the overall efficiency of the laboratory environment and reduce case TAT.

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, however this data is currently unavailable in a readily accessible format.

DFS has taken the first step to improve data mining capabilities with the deployment of the new LIMS Case Management module. DFS is also reviewing other initiatives to increase laboratory efficiency leveraging the use of new laboratory technology that can integrate with the agencys IT environment. DFS is collaborating with the VITA/NG Partnership to provide a secure and reliable IT infrastructure to reach its desired goals. The IT infrastructure will provide a secure and highly available environment for DFS applications and LIMS modules (DFS has signed a MOU with VITA for the security and audit services). DFS also plans to implement new features of the LIMS to include secure electronic dissemination of reports and remote entry of Requests for Laboratory Examinations (RFLE) via the internet.

These objectives will help DFS meet the technology goals of the agency and the COV IT Strategic Plan. A primary goal is to increase effic iency through workforce productivity using new and leveraging existing technology. Investments in these areas should enhance laboratory efficiency leading to a decrease in case TAT and play a significant role in reaching agency and COV strategic goals.

DFS expects the VITA Partnership transition to multi-sourcing service integration (MSI) to have minimal impact on agency operations due to DFS servers and systems being located at DFS facilities. DFS does anticipate minor email relay configuration issues when the COV transitions to Google messaging.

Report Title: Strategic Plan

Agency: Department of Forensic Science   **Date:** 2/8/2017

Current IT Services

Category	Costs Year 1		Costs Year 2	
	GF	NGF	GF	NGF
Projected Service Fees	$2,444,137	$54,980	$2,446,185	$55,026
VITA Infrastructure Changes	$660,000	$0	$630,000	$0
Estimated VITA Infrastructure	$3,104,137	$54,980	$3,076,185	$55,026
Specialized Infrastructure	$0	$0	$0	$0
Agency IT Staff	$465,000	$0	$465,000	$0
Non-agency IT Staff	$0	$0	$0	$0
Cloud Computing Service	$0	$0	$0	$0
Other Application Costs	$83,000	$0	$83,000	$0
Total	$3,652,137	$54,980	$3,624,185	$55,026

Proposed IT Investments

Category	Costs Year 1		Costs Year 2	
	GF	NGF	GF	NGF
Major IT Projects	$0	$0	$0	$0
Non-Major IT Projects	$0	$0	$0	$0
Agency-Level IT Projects	$200,000	$0	$200,000	$0
Major Stand Alone IT Procurements	$0	$0	$0	$0
Non-Major Stand Alone IT Procurements	$0	$0	$0	$0
Agency-Level Stand Alone IT Procurements	$0	$0	$0	$0
Procurement Adjustment for Staffing	$0	$0	$0	$0
Total	$200,000	$0	$200,000	$0

Projected Total IT Budget

Category	Costs Year 1		Costs Year 2		
	GF	NGF	GF	NGF	Total Costs
Current IT Services	$3,652,137	$54,980	$3,624,185	$55,026	$7,386,330
Proposed IT Investments	$200,000	$0	$200,000	$0	$400,000
Total	$3,852,137	$54,980	$3,824,185	$55,026	$7,786,330

Report Title: Business Requirements For Technology

Agency: Department of Forensic Science (DFS) **Date:** 2/8/2017

BReT - Annual Maintenance and Support Contracts (LIMS modules)

BRT Type:	Business Requirement for Existing Technology
Date Submitted:	7/16/2014
Mandate:	No
Mission Critical:	
Description:	

Annual Maintenance and Support Contracts (LIMS modules):LIMS FA-BrAD Module $15,000 (FY 16-18)LIMS DNA-Databank Module $8000(FY 16-18)LIMS Case Management Module $25,000 (FY 16-18)

BRet DFS Centralized ISO and Audit

BRT Type:	Business Requirement for Existing Technology
Date Submitted:	8/16/2016
Mandate:	
Mission Critical:	
Description:	

Centralized ISO and Audit service (VITA)ISO Services FY 16-18: 38,000Audit Services FY 16-18: 36,000

BReT DFS IT Security Program Compliance

BRT Type:	Business Requirement for Existing Technology
Date Submitted:	
Mandate:	
Mission Critical:	
Description:	

COV IT security program compliance

BRet DFS LIMS Case Management Enhancements

BRT Type:	Business Requirement for Existing Technology
Date Submitted:	8/16/2016
Mandate:	
Mission Critical:	
Description:	

DFS LIMS Case Management module enhancement

BReT DFS LIMS DNA Databank Enhancement

BRT Type:	Business Requirement for Existing Technology
Date Submitted:	8/16/2016
Mandate:	
Mission Critical:	

Description:

DFS' LIMS DNA Databank module enhnacement for search and review of VSP SOR data.

BReT DFS LIMS FA-BrAD Enhancement

BRT Type:	Business Requirement for Existing Technology
Date Submitted:	8/16/2016
Mandate:	
Mission Critical:	

Description:

DFS' LIMS FA-BRaD module enhnacement to provide public access to instrument data

BRnT DFS IT Disaster Recovery

BRT Type:	Business Requirement for New Technology
Date Submitted:	8/16/2016
Mandate:	
Mission Critical:	

Description:

DFS Disaster Recovery and CP

BRnT Storage Technology/Capacity

BRT Type:	Business Requirement for New Technology
Date Submitted:	1/17/2017
Mandate:	
Mission Critical:	

Description:

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.

DFS IT Sourcing BReT

BRT Type:	Business Requirement for Existing Technology
Date Submitted:	9/15/2016

Mandate:	
Mission Critical:	
Description:	

VITA is initiating disentanglement from NG messaging services in 2016. Messaging Services for email, enterprise collaboration services, and mobile device management are required for 300 users in the Department of Forensic Science. We also have 5 applications that have hooks into messaging services which will need to be tested. VITA is initiating disentanglement from NG servers and storage. The Department of Forensic Science has 10 servers (3 physical, 4 virtual and 3 CIFS) which will need to be migrated and tested during this transition. Five (5) applications will be affected by this move and will need to be tested. The Department of Forensic Science has 5 applications which will need to be migrated and tested during the authentication/directory services transition. Number of users (internal and external) are 300 internal and 0 external. The Department of Forensic Science has 34 desktops and 301 laptops and 60 network printers which will need to be migrated. The Department of Forensic Science has 404 UCaaS phone lines and 113 other phone lines which will need to be migrated. The Department of Forensic Science has 4 MPLS circuits which will need to be migrated. The Department of Forensic Science projects that internet usage will increase by 10% due to deployment of the LIMS remote RFLE entry and report dissemination system.

Report Title: Appendix A 16 - 18 Report

Agency: Department of Forensic Science (DFS)   **Date:**   2/8/2017

Agency Head Approval: No

There are no Category 1, 2, or 3 IT Projects and no Budget Category: Major IT Projects for this agency.

Report Title: Appendix A 16 - 18 Report

Agency: Department of Forensic Science (DFS)

Agency Head Approval:

Date: 2/8/2017

No

There are no major procurements for this agency.