Report Title: IT Strategic Plan Summary

Agency: 778 Department of Forensic Science

<u>Current Operational IT Investments</u>

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 current IT investments are focused on support of the agencys 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.
- Ensuring VITAs planned transition to the Multi-Supplier Integrated Services Platform (MSP) is mitigated for minimal impact and cost to the agency.
- Providing a grant funded victim Physical Evidence Recovery Kit tracking (PERK) system.

DFS has deployed several LIMS Case Management module updates and plans to upgrade to the latest version once it is released. The current installed update provides the ability for additional data mining, as well as storage of instrument data and high resolution photographs. The new version also provides a path to move forward with creating a secure portal to increase the efficiency of RFLE submissions and dissemination of COAs. The proposed secure portal will be required to comply wit h the new COV IT security policy requiring multi-factor authentication for web-based applications. The deployment of the portal could be delayed pending integration of multi-factor authentication.

The LIMS DNA Databank module will need to be enhanced to accommodate new buccal collector kits. This module will need to be able to track samples using barcode technology and new reagents. A document storage facility is also needed for this module to allow storing documents with associated DNA sample records. The current LIMS DNA Databank module does not provide a the capability for law enforcement agencies to confirm the existence of required offender DNA samples. This often results in multiple samples collected for the same offender or the omission of required offender samples.

The LIMS Breath Alcohol module was recently upgraded to provide access to redacted breath test results from the DFS website. This enhancement significantly reduced the number of freedom of information act (FOIA) requests received by the agency. DFS is reviewing processes to increase the speed of the collection of breath test results from breath alcohol test instruments located throughout the

Commonwealth. 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 is working with the IT Infrastructure Partnership to propose a cost effective method for implementing DFS IT Disaster Recovery (DR) plan. DFS submitted a Work Request (WR) to the Partnership to propose a method for using the recently renovated Western Laboratory as a hot site for all DFS IT systems.

The DFS IT staff continues to maintain and provide end-user support for the agencys out-of-scope scientific instrumentation computing environment 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 to maintain compliance with the COV IT Security policy.

The cost of the agencys IT infrastructure managed by the VITA/NG Partnership is expected to increase due to new data storage and continuity of operations requirements. Additionally, costs associated with COV IT security compliance is expected to rise along with the costs associated with mandatory IT system audits.

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?

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.

The following items could potentially require or mandate changes to DFS use of IT and result in the need for additional, unplanned IT investments:
- Changes from DFS accrediting organization, the American Society of Crime Laboratory Directors / Laboratory Accreditation Board (ASCLD/LAB), for documentation required to support forensic analyses.
- 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.
- Corrective actions resulting from pending IT security audits.
- Costs associated with VITAs transformation to a Multi-Supplier Integrated Services Platform.
- Costs associated with assessing, evaluating and transitioning to applicable systems Software as a Service (SAAS) platform.
- 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 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 signeda 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 efficiency throughworkforce 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

Current IT Services

Category	Costs Year 1 GF	Costs Year 1 NGF	Costs Year 2 GF	Costs Year 2 NGF
Projected Service Fees	$2,519,571	$56,677	$2,595,158	$58,377
VITA Infrastructure Changes	$0	$0	$0	$0
Estimated VITA Infrastructure	$2,519,571	$56,677	$2,595,158	$58,377
Specialized Infrastructure	$0	$0	$0	$0
Agency IT Staff	$500,000	$0	$500,000	$0
Non-agency IT Staff	$50,000	$0	$50,000	$0
Cloud Computing Service	$0	$0	$0	$0
Other Application Costs	$100,000	$0	$100,000	$0
Total	$3,169,571	$56,677	$3,245,158	$58,377

Proposed IT Investments

Category	Costs Year 1 GF	Costs Year 1 NGF	Costs Year 2 GF	Costs Year 2 NGF
Major IT Projects	$0	$0	$0	$0
Non-Major IT Projects	$0	$0	$0	$0
Agency-Level IT Projects	$0	$0	$0	$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	$0	$0	$0	$0

Projected Total IT Budget

Category	Costs Year 1 GF	Costs Year 1 NGF	Costs Year 2 GF	Costs Year 2 NGF	Total Costs
Current IT Services	$3,169,571	$56,677	$3,245,158	$58,377	$6,529,784
Proposed IT Investments	$0	$0	$0	$0	$0
Total	$3,169,571	$56,677	$3,245,158	$58,377	$6,529,784

Report Title: Business Requirements For Technology

Agency: Department of Forensic Science (DFS)

BReT - Annual Maintenance and Support Contracts (LIMS modules)

BRT Type:	Business Requirement for Existing Technology
Date Submitted:	8/28/2017
Mandate:	No
Mission Critical:	

Description:

Annual Maintenance and Support Contracts (LIMS modules):
LIMS FA-BrAD Module $15,000 (FY 18-20)
LIMS DNA-Databank Module $8000(FY 18-20)
LIMS Case Management Module $32,000 (FY 18-20)

BRet DFS Centralized ISO and Audit

BRT Type:	Business Requirement for Existing Technology
Date Submitted:	8/28/2017
Mandate:	
Mission Critical:	

Description:

Centralized ISO and Audit service (VITA)
ISO Services FY 18-20: $38,000
Audit Services FY 18-20: $36,000

BReT DFS IT Security Program Compliance

BRT Type:	Business Requirement for Existing Technology
Date Submitted:	8/28/2017
Mandate:	No
Mission Critical:	

Description:

COV IT security program compliance

BRet DFS LIMS Case Management Enhancements

BRT Type:	Business Requirement for Existing Technology
Date Submitted:	8/28/2017
Mandate:	No

Mission Critical:	
Description:	
DFS LIMS Case Management module enhancement and cloud storage/access.	

BReT DFS LIMS DNA Databank Enhancement

BRT Type:	Business Requirement for Existing Technology
Date Submitted:	8/28/2017
Mandate:	
Mission Critical:	
Description:	
DFS' LIMS DNA Databank module enhnacement for search, review and track VSP SOR data and buccal kits.	

BReT DFS LIMS FA-BrAD Enhancement

BRT Type:	Business Requirement for Existing Technology
Date Submitted:	8/28/2017
Mandate:	
Mission Critical:	
Description:	
DFS' LIMS FA-BRaD module enhnacement to provide public access to instrument data	

BReT End of Life 2008 Server DFS

BRT Type:	Business Requirement for Existing Technology
Date Submitted:	8/30/2017
Mandate:	
Mission Critical:	
Description:	
Agency will create a mitigation plan to address End of Life 2008 servers.	

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 PERK Tracking System

BRT Type:	Business Requirement for New Technology
Date Submitted:	8/28/2017
Mandate:	
Mission Critical:	

Description:
Provide a public facing Physical Evidence Recovery Tracking (PERK) System.

BRnT Storage Technology/Capacity

BRT Type:	Business Requirement for New Technology
Date Submitted:	8/28/2017
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:	8/28/2017
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 320 internal and 0 external.

The Department of Forensic Science has 35 desktops and 315 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 18 - 20 Report

Agency: Department of Forensic Science (DFS)

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 18 - 20 Report

Agency: Department of Forensic Science (DFS)

Agency Head Approval: No

There are no stand alone major procurements for this agency.