

Agency IT Strategic Plan (Form) / 778 DFS FY14-16 ITSP

IT SUMMARY

General Information		
Item Name:	778 DFS FY14-16 ITSP	<i>Choose the CTP-prepared Agency ITSP item for the appropriate biennium</i>
Home Portfolio:	778 DFS IT Strategic Plans	<i>Choose your Agency Portfolio for ITSP</i>
ITSP Biennium:	FY14-16	
Proponent Secretary:	187 Secretary of Public Safety & Homeland Security	
Proponent Agency:	778 Department of Forensic Science	
Submitted by:	Administrator, System	
Agency has BRTs or Investments:	Yes	
Has CETR been updated?	Yes	
Date Submitted:		
For additional CETR information, secure link address or CETR access request go to the following VITA website:		
http://www.vita.virginia.gov/oversight/default.aspx?id=349		

About the IT Summary
<p>The purpose of the agency IT Strategic Plan is to establish an agency-wide vision and priorities for agency investments in IT and IT operations so that they promote the achievement of agency’s mission and business outcomes. The IT Plan Summary describes how agency IT strategies, goals, and objectives align with the mission, vision, values, and daily operations identified in the Agency Strategic Plan. This IT Plan Summary identifies the implications outlined in the Agency Strategic Plan and integrates them into implementable objectives and directives.</p>

Current Operational IT Investments
<p><i>In this section, describe the high-level strategy the agency will use to manage existing operational IT investments over the next year to 6 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:</i></p> <ul style="list-style-type: none"> • <i>Are there existing IT investments that will require additional funding over the next year to 6 years, such as license renewals, re-competition of current IT contracts, or system enhancements required by the Agency Strategic Plan?</i> • <i>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?</i> • <i>If the agency does not have the staff or funding to meet increasing demand for IT services, how will IT leadership fulfill the requests?</i> <p>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’ network infrastructure, computing environment and communication systems are provided and managed by the VITA/NG Partnership.</p> <p>DFS’ existing non-major project to replace its LIMS Case Management module is expected to be completed in FY 2015. One of the major benefits of 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 user interface provides configurable section analysis modules to meet DFS’ accrediting organization’s case documentation requirements, which require increasingly voluminous amounts of documentation to be stored with each analysis.</p>

DFS has completed its revision of the agency's Business Impact Analysis (BIA) to determine the Return to Operation (RTO) and Recovery Point Objective (RPO) for the LIMS. The existing (legacy) LIMS uses a distributed and replicated data system to meet the objectives of the BIA.

The new LIMS Case Management module will use one server to store data, which does result in a potential single point of failure. The agency's plan was to replicate data using servers recovered from the existing LIMS Case Management module to produce a replicated data system. However, the expanding requirements to produce and save documentation electronically will overwhelm current storage capacity. Subsequently, the disk storage capacity will prevent the agency from pursuing its goal to become less reliant on paper documentation and increase its overall efficiency by the utilization of electronic documentation.

The agency will also need to replace its legacy agency helpdesk application which tracks user support request for all agency specific applications. The existing helpdesk application leverages Microsoft applications nearing end of life.

The DFS IT staff maintains and provides 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 modules, IT security consultation services and several other agency specific applications (agency helpdesk, secure FTP application, web hosting, etc.).

The cost of the agency's IT infrastructure managed by the VITA/NG Partnership is expected to escalate 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 and continuity planning.

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. Each requirement or mandate from an external source must have a corresponding Business Requirement for New Technology (BRnT) or Business Requirement for Existing Technology (BReT) entered into the CTP. 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?

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 Virginia's record retention policy requires that these records be maintained for 50 years.

DFS has estimated the rate of storage consumption will 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 agency's 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 2015.

DFS is anticipating a potential change to legislation which may require enhancements to its LIMS DNA Databank module. The anticipated change in legislation will require DFS to review data with the VSP on a monthly basis 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. Fulfilling the FOIA requests is labor intensive and consumes valuable resources. Enhancements to the LIMS Breath Alcohol module will enable DFS to post breath alcohol instrumentation information in a publicly accessible format on the internet. This enhancement should significantly reduce the number of FOIA requests submitted to the agency.

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. Budget reductions, limited resources and increasing demand to reduced 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. 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 6 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?*

Becoming less dependent on paper case records is an agency goal that will provide overall efficiencies to reduce case TAT. The agency has estimated the cost associated with moving its data center to the Commonwealth Enterprise Solution Center (CESC) to accommodate the increase in data storage consumption and to take advantage of existing disaster recovery technology to meet agency RTO, RPO and continuity planning objectives.

The agency has reviewed its revised Business Impact Analysis (BIA) and anticipates developing Continuity Plan and Disaster Recovery solutions that meet the requirements of the revised BIA. The solution will be affordable, secure and have high availability. 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 constraints with the future 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 agency's 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.

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 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.

Report Title: Strategic Plan

Agency: Department of Forensic Science

Date: 7/14/2015

Current IT Services

Category	Costs Year 1		Costs Year 2	
	GF	NGF	GF	NGF
Projected Service Fees	\$1,661,323	\$0	\$1,702,856	\$0
VITA Infrastructure Changes	\$916,000	\$0	\$1,266,000	\$0
Estimated VITA Infrastructure	\$2,577,323	\$0	\$2,968,856	\$0
Specialized Infrastructure	\$0	\$0	\$0	\$0
Agency IT Staff	\$465,000	\$0	\$465,000	\$0
Non-agency IT Staff	\$85,000	\$0	\$85,000	\$0
Cloud Computing Service	\$0	\$0	\$0	\$0
Other Application Costs	\$511,910	\$0	\$172,000	\$0
Total	\$3,639,233	\$0	\$3,690,856	\$0

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	\$0	\$0	\$150,000	\$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
Total	\$0	\$0	\$150,000	\$0

Projected Total IT Budget

Category	Costs Year 1		Costs Year 2		Total Costs
	GF	NGF	GF	NGF	
Current IT Services	\$3,639,233	\$0	\$3,690,856	\$0	\$7,330,089

Proposed IT Investments	\$0	\$0	\$150,000	\$0	\$150,000
Total	\$3,639,233	\$0	\$3,840,856	\$0	\$7,480,089

Report Title: Business Requirements For Technology

Agency: Department of Forensic Science (DFS)

Date: 7/14/2015

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 \$13,000 (FY 15 and 16)
LIMS DNA-Databank Module \$7000 (FY 15 and 16)
LIMS BEAST Module \$50,000 (FY 16)

BReT 2014 MS Windows 2003 Server ORI

BRT Type: Business Requirement for Existing Technology

Date Submitted:

Mandate:

Mission Critical:

Description:

Upgrade DFS Windows Servers environment to 2012

BReT DFS 2014 Windows XP ORI

BRT Type: Business Requirement for Existing Technology

Date Submitted:

Mandate:

Mission Critical:

Description:

Upgrade the remaining Windows XP computers to Windows 7

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 Replace Agency HelpDesk Application	
BRT Type:	Business Requirement for Existing Technology
Date Submitted:	
Mandate:	
Mission Critical:	
Description:	
replace legacy agency helpdesk application which tracks user support request for all agency specific applications. The existing helpdesk application leverages Microsoft applications nearing end of life	
BReT SQL 2005 ORI	
BRT Type:	Business Requirement for Existing Technology
Date Submitted:	
Mandate:	
Mission Critical:	
Description:	
Upgrade DFS' SQL Server Software to 2008/2012	
BRnT DFS LIMS DNA Databank Enhancement	
BRT Type:	Business Requirement for New Technology
Date Submitted:	
Mandate:	
Mission Critical:	
Description:	
DFS' LIMS DNA Databank module enhancement for search and review of VSP SOR data.	
BRnT DFS LIMS FA-BrAD Enhancement	
BRT Type:	Business Requirement for New Technology

Date Submitted:	
Mandate:	
Mission Critical:	
Description:	
DFS' LIMS FA-BRaD module enhancement to provide public access to instrument data	
BRnT Upgrade Forensic Advantage LIMS	
BRT Type:	Business Requirement for New Technology
Date Submitted:	5/12/2015
Mandate:	No
Mission Critical:	Yes
Description:	
<p>Upgrade the current Forensic Laboratory Information Management System (LIMS), Forensic Advantage version 1.1 to version 15.1. The upgrade will help the agency meet its internal quality assurance standards, ASCLD/LAB accreditation-related field traceability requirements and take advantage of the operational efficiencies offered by the current Forensic Advantage LIMS applications.</p> <p>The current Forensic Advantage LIMS application environment consists of Microsoft OS Server 2003 and Microsoft SQL Server 2005, both are nearing end of life with the inability to obtain an exception beyond July 2016. The latest version of Forensic Advantage takes advantage of Microsoft's current offerings, OS Server 2012 and SQL Server 2014. This BRnT will be instrumental in helping resolve OR/I to update end of life software (MS Windows 2003 Server ORI and SQL 2005 ORI)</p>	

Report Title: Appendix A 14 -
16 Report

Agency: Department of Forensic
Science
(DFS) **Date:** 7/14/2015

Agency Head No

Approval:

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

There
are no
Category
4 IT
Projects
for this
agency.

Report Title: Appendix A 14 - 16 Report

Agency: Department of Forensic Science (DFS)

Date: 7/14/2015

Agency Head Approval:

No

There are no major procurements for this agency.

There are no
non-major
procurements
for this
agency.