

Report Title: IT Strategic Plan Summary

Agency: 129 Department of Human Resources
Management

Date: 4/17/2017

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 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?

DHRM has a goal to «create technologically advanced systems and efficient infrastructure capabilities to enable timely delivery of accurate and consistent employment information throughout the Commonwealth.» The goal seeks to achieve and sustain a reliable, robust, evolving, secure, integrated and interactive suite of human resource technology solutions that assists management and human resource practitioners in addressing ongoing business needs and responding to new information challenges. DHRM has continued to work towards this goal by leveraging the use of technology with existing resources to maintain continuity of service from its legacy systems, data warehouse tools and web-based services that support a broad range of Human Resource (HR) functions, including recruitment, policy, benefits, compensation, communications, EEO services, training and reporting.

Major Initiatives for this biennium:

1) LEGACY SYSTEMS – DHRM operates and supports the Commonwealth's Personnel Management Information System (PMIS) and Benefits Eligibility System (BES). These systems capture and communicate critical human resource and benefit election information for most of the Commonwealth's current and retired workforce. These systems run on a Unisys mainframe hosted by Northrop Grumman (NG) through the current VITA/NG Master Services Agreement. On 12/31/2016 this mainframe will be decommissioned and no longer available for DHRM / Commonwealth use. The PMIS and BES systems must be operational in another environment by 12/31/2016 or the Commonwealth will experience significant negative impacts to agencies and to active and retired employees.

In 2014 DHRM initiated efforts to migrate these systems. A successful migration would eliminate DHRM's need for the Unisys mainframe at CESC. DHRM was directed to complete the migration by 6/30/2016. VITA worked with DHRM and released an RFP for the needed mainframe migration services. VITA awarded a contract to Fujitsu America, Inc. (Fujitsu) for these services and DHRM executed a statement of work (SOW) under this contract with Fujitsu.

The SOW stipulated that Fujitsu needed to have the system operationally ready by 6/30/2016. When Fujitsu was not able to meet this requirement, DHRM sent Fujitsu a breach of contract letter. Fujitsu is now targeting an 11/18/2016 date to completion. Meeting this completion date is not a certainty due to prior lapses of Fujitsu to deliver on time.

There is a strong possibility that the system will not be ready by the 12/31/2016 decommission date of the Unisys mainframe at CESC. In order to decommission the system by year end, DHRM believes that a "Plan B" needs to be implemented. Otherwise the Unisys mainframe at CESC cannot be decommissioned or the Commonwealth will not have a critical central system for personnel management and health benefits eligibility.

DHRMs "Plan B" involves transitioning its mainframe systems onto a smaller Unisys mainframe in a different location for a temporary period of time, while Fujitsu completes its migration efforts and Fujitsu and DHRM have adequate time to test the migrated system. This also allows DHRM to prepare for operational support.

VITA, DHRM, and NG are in conversations with Unisys about the current PMIS operating environment on the Unisys mainframe. Although requests have been made, no cost estimates have been provided at this time. DHRM has no funding for "Plan B".

DHRM has received \$5.49M of funding to invest in the PMIS migration initiative. DHRMs migration effort will address a short term need (i.e., have migrated core business applications off of the Unisys mainframe at CESC) but it will not address DHRMs long term need to provide a robust HR solution to Commonwealth agencies. DHRM will need additional monies starting in FY18 to pursue this long term need.

2) DATA WAREHOUSE - DHRM needs to upgrade its data warehouse offering, to enable more data storage and provide enhanced business analytics – DHRM currently provides agencies access to data in its data warehouse. DHRM has tools that can allow advanced analysis to be performed on this HR data by internal staff and external agencies and is moving to provide these tools. DHRM anticipates that the analytics offering will improve agency experience and provide better access to information. As part of this effort, DHRM must have more storage area, dedicated servers and adequate support the new tools. Funding will be needed for this effort.

3) HEALTH BENEFITS ELIGIBILITY - DHRM provides health benefits to various state agencies and localities. To fulfill that directive, DHRM is creating new portals and new processes for localities, that can interface with DHRMs Benefits Eligibility System (BES). These portals and processes will provide new services and easier, secure access to BES. DHRM has funding to support these efforts that are being developed and maintained by 3 contractors under the IT Computer Aid, Inc. (CAI) contract.

4) STAFFING - Adequate funding – DHRM has a skeleton workforce and lacks IT staff. DHRM has consistently endeavored to "do more with less". However, this prolonged approach without a return to adequate funding levels has taken a toll on the ITech division. Not only is there no overlap in job functions, but key staff members perform functions that should typically be performed by several individuals. For example, DHRMs IT Systems Engineer functions as the agency ISO, lead developer, lead DBA, web application manager and supervises/directs a staff of nine employees. The DHRMs PMIS legacy data base administrator is also a senior systems analyst, a senior developer, and a help desk technician. Three of the DHRMs IT Specialists III are key resources that support DHRMs most critical core business systems and are eligible or close to be eligible for retirement.

Last FY16, DHRM requested funding for four FTE positions to operate and maintain the migrated legacy systems in the Windows .NET C# environment, and two positions to provide technical help desk to DHRM IT systems – presently DHRM ITech division has no technical help desk staff. DHRM was given approval for only 2 positions.

This staffing model does not allow for adequate system support / documentation and severely limits planning efforts and efforts for new initiatives. Since there is not enough staff over which to spread the operational workload, cross-training of existing resources and thorough documentation of systems cannot occur. As a result, if an ITech staff leaves DHRM employ, DHRM will lose significant operational / business knowledge and system support will suffer. ITech staff takes great pride in the systems they support and the work they deliver. However, the prolonged and reduced funding has negatively impacted staff morale.

DHRMs IT staff have consistently taken on more in an attempt to help the agency, but the demands have surpassed what they can realistically deliver. An increase in key staff positions would communicate to the existing employees that Commonwealth leaders see and believe that DHRMs systems can and do provide real value and are worth investment.

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?

1) DHRM is being required to migrate its legacy systems off of the Unisys mainframe and have them operational in another environment by 12/31/2016, using the \$5.5M in funding that was approved. If this deadline is not met, then the Commonwealth will experience significant negative impacts to agencies and to active and retired employees.

2) The vendor (Fujitsu) responsible for the migration of DHRM's legacy systems off of the Unisys mainframe, has been having constant difficulties in delivering on time the different phases of this project. There is a strong possibility that the system will not be ready by the 12/31/2016 decommission date of the Unisys mainframe at CESC. DHRM believes that a "Plan B" needs to be ready to be implemented. Otherwise the Unisys mainframe at CESC cannot be decommissioned or the Commonwealth will not have a critical central system for personnel management and health benefits eligibility.

3) Significant increases in the DHRM's IT costs are expected due to:

. ACA (Affordable Care Act) Reporting - requires annual changes to existent systems to satisfy IRS reporting requirements.

. LOA (Line Of Duty) code change - will require DHRM to create a new health benefits program with specific eligibility and enrolment rules. Automated systems need to be developed and/or changed, implemented and operated to satisfy this code change.

. SB 364 (2016 General Assembly Session, Chafin) creates the opportunity for a new health benefits program for local governments, local school divisions and other political subdivisions. This new program will require new automated systems to be developed, implemented and operated to satisfy the SB requirements.

. IT INFRASTRUCTURE TRANSITION - DHRM actual environment includes 99 desktops which 95 are fully encrypted, 70 laptops, 227 email boxes, 15 printers, 4 physical servers, 25 virtual servers and 17 Terabytes of storage providing support to 46 sensitive applications. In a situation of transition to a different provider DHRM will need funding and resources to support this initiative.

. SECURITY SHARED SERVICES - DHRM is engaged with VITA Security Shared Services and signed a MOU for ISO Services from VITA and a MOU for IT Security Audit Services from VITA. This engagement increase cost with IT security

. CLOUD APPLICATION HOSTING - While not using it presently, DHRM might need to consider it a viable option in the near future. DHRM does not have funding to support any anticipated costs with this initiative.

. INTERNET UTILIZATION - More applications and automated processes will be available to a larger audience that use DHRM programs and services. The internet utilization will increase considerably this upcoming biennium. The Local Choice entities that are starting their participation, and the future participation of Schools in the State Health Plan managed by DHRM will contribute to a higher volume of web traffic. DHRM does not have funding to support any anticipated costs with this increase.

4) High demands for upgrading and modernizing systems to comply with new state and federal laws and regulations.

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?

1) DHRM needs to provide agencies with a modern, affordable, fully-integrated, configurable HR system – DHRM currently provides agencies with a dated, mainframe-based HR system that is being migrated to a different platform, while maintaining the same limited functional structure. This system lacks the robust, integrated capabilities of modern systems. DHRM believes that a more efficient and effective solution would contribute to drastically increase value in a great number of areas, including improving agency experience, providing new services to constituents, reducing costs through a shared service and enhance the Commonwealth's reputation as a well-managed state. DHRM anticipates conducting a study to assess the Commonwealth's HR system of record and identify an appropriate HR systems strategy. The agency does not have funding for this study or a new solution at this time.

Report Title: Strategic Plan

Agency: Department of Human Resources Management

Date: 4/17/2017

Current IT Services

Category	Costs Year 1		Costs Year 2	
	GF	NGF	GF	NGF
Projected Service Fees	\$752,507	\$1,347,563	\$752,507	\$1,347,563
VITA Infrastructure Changes	\$0	\$0	\$0	\$0
Estimated VITA Infrastructure	\$752,507	\$1,347,563	\$752,507	\$1,347,563
Specialized Infrastructure	\$0	\$0	\$0	\$0
Agency IT Staff	\$1,857,732	\$760,328	\$1,864,978	\$763,294
Non-agency IT Staff	\$0	\$520,000	\$0	\$520,000
Cloud Computing Service	\$0	\$0	\$0	\$0
Other Application Costs	\$1,290,371	\$269,227	\$913,371	\$269,227
Total	\$3,900,610	\$2,897,119	\$3,530,856	\$2,900,085

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	\$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		Costs Year 2		Total Costs
	GF	NGF	GF	NGF	
Current IT Services	\$3,900,610	\$2,897,119	\$3,530,856	\$2,900,085	\$13,228,672
Proposed IT Investments	\$0	\$0	\$0	\$0	\$0
Total	\$3,900,610	\$2,897,119	\$3,530,856	\$2,900,085	\$13,228,672

Report Title: Business Requirements For Technology**Agency:** Department of Human Resources Management
(DHRM)**Date:** 4/17/2017**BReT - DHRM - Authentication/directory services****BRT Type:** Business Requirement for Existing Technology**Date Submitted:** 9/30/2016**Mandate:** No**Mission Critical:****Description:**

DHRM has 46 number of applications which will need to be migrated and tested during the authentication/directory services transition. Number of users (internal and external) are 1,500 internal and 100,000+ external.

BReT - DHRM - Cloud Computing**BRT Type:** Business Requirement for Existing Technology**Date Submitted:** 9/30/2016**Mandate:** No**Mission Critical:****Description:**

DHRM is investigating moving some applications to a Cloud services vendor. The business reason for the move is to reduce costs and increase efficiencies. Applications are not cloud ready. Agency will need to bring in outside consulting to assess what needs to be done to the applications and supporting infrastructure in order to become cloud ready.

BReT - DHRM - Commonwealth Audit Compliance**BRT Type:** Business Requirement for Existing Technology**Date Submitted:** 1/25/2017**Mandate:****Mission Critical:****Description:**

Compliance with the overall audit program requirements

BReT - DHRM - Commonwealth Risk Compliance**BRT Type:** Business Requirement for Existing Technology**Date Submitted:** 1/25/2017**Mandate:****Mission Critical:****Description:**

Compliance with the overall risk program requirements

BReT - DHRM - Data networks

BRT Type: Business Requirement for Existing Technology

Date Submitted: 9/30/2016

Mandate: No

Mission Critical:

Description:

DHRM does not have networks outside MPLS

BReT - DHRM - End user computing

BRT Type: Business Requirement for Existing Technology

Date Submitted: 9/30/2016

Mandate: No

Mission Critical:

Description:

DHRM has 99 number of desktops and 70 number of laptops and 15 network printers which will need to be migrated.

BReT - DHRM - Internet Usage

BRT Type: Business Requirement for Existing Technology

Date Submitted: 9/30/2016

Mandate: No

Mission Critical:

Description:

DHRM projects that internet usage will increase by 25% to 35% due to the increase of users using DHRM applications exposed to the web.

BReT - DHRM - Messaging

BRT Type: Business Requirement for Existing Technology

Date Submitted: 9/30/2016

Mandate: No

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 113 users in our agency. We also have 40 applications that have hooks into messaging services which will need to be tested. Workplace Collaboration Services is not VITA provided SharePoint. DHRM uses its own WCS SharePoint

2013.
We have no applications serviced via AirWatch.
DHRM uses CRM Dynamics fully integrated with Microsoft Exchange and Outlook email Client.

BReT - DHRM - Server/storage including housing of equipment

BRT Type:	Business Requirement for Existing Technology
Date Submitted:	9/30/2016
Mandate:	No
Mission Critical:	

Description:
VITA is initiating disentanglement from NG servers and storage. DHRM has 29 number of servers which will need to be migrated and tested during this transition. 46 applications will be affected by this move and will need to be tested

BReT - DHRM - Voice Networks

BRT Type:	Business Requirement for Existing Technology
Date Submitted:	9/30/2016
Mandate:	No
Mission Critical:	

Description:
DHRM has 120 UCaaS phone lines which will need to be migrated.

BReT OS and DB version updates - DHRM 2014 MS Server 2003

BRT Type:	Business Requirement for Existing Technology
Date Submitted:	9/24/2014
Mandate:	No
Mission Critical:	

Description:
DHRM needs to update the OS and DB software versions on several servers

BReT OS and DB version updates - DHRM 2014 SQL Server 2000

BRT Type:	Business Requirement for Existing Technology
Date Submitted:	9/24/2014
Mandate:	No
Mission Critical:	

Description:
DHRM needs to update the OS and DB software versions on several servers

BReT OS and DB version updates - DHRM 2014 SQL Server 2005

BRT Type:	Business Requirement for Existing Technology
Date Submitted:	9/24/2014
Mandate:	No
Mission Critical:	
Description:	
DHRM needs to update the OS and DB software versions on several servers	

BReT OS and DB version updates - DHRM 2014 Windows XP

BRT Type:	Business Requirement for Existing Technology
Date Submitted:	9/24/2014
Mandate:	No
Mission Critical:	
Description:	
DHRM needs to update the OS and DB software versions on several servers	

BRnT PMIS Migration from UNISYS

BRT Type:	Business Requirement for New Technology
Date Submitted:	9/2/2014
Mandate:	No
Mission Critical:	Yes
Description:	
DHRM is migrating its existing mission core business systems that run on the Unisys mainframe to a Windows/SQL Server environment. In doing this DHRM must translate the underlying code for these systems to a language that will run in the Windows .Net environment.	

Commonwealth HR System of Record evaluation

BRT Type:	Business Requirement for Existing Technology
Date Submitted:	9/24/2014
Mandate:	No
Mission Critical:	
Description:	
DHRM anticipates conducting a study to assess the Commonwealth's HR system of record and identify an appropriate HR systems strategy.	

DATA WAREHOUSE upgrade

BRT Type:	Business Requirement for Existing Technology
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Date Submitted:	9/24/2014
Mandate:	No
Mission Critical:	
Description:	
Upgrade DHRM data warehouse to enable more data storage and provide enhanced business analytics tools	
HEALT BENEFITS ELIGIBILITY - The Local Choice (TLC) Portal	
BRT Type:	Business Requirement for Existing Technology
Date Submitted:	9/24/2014
Mandate:	No
Mission Critical:	
Description:	
Create a new portal for localities that can interface with DHRM's Benefits Eligibility System (BES)	
Increase the NGF Appropriation for the COVKC	
BRT Type:	Business Requirement for Existing Technology
Date Submitted:	9/10/2015
Mandate:	No
Mission Critical:	No
Description:	
Refer to decision package "Increase the NGF Appropriation for the Commonwealth of Virginia Knowledge Center (COVKC)"	

Report Title: Appendix A 16 - 18 Report

Agency: Department of Human Resources Management (DHRM) **Date:** 4/18/2017

Agency Head Approval: No

Budget Category: Major Projects

PMIS Migration from UNISYS

Appropriation Act/Funding Status	Project Initiation Approval - Fully Funded GF 100%
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This project involves moving all DHRM applications that operate in the Unisys mainframe into a Windows Server / SQL Server / C#.Net environment.

The main customers for this translation/migration project are:

1) DHRM's Agency Head (Sara Wilson) - Ms. Wilson wants to avoid the \$15M additional annual costs that DHRM would incur by not migrating off of the Unisys mainframe in a timely manner. Successful delivery of this project meets her objective to avoid these costs.

2) DHRM's Director of Information Technology (Belchior Mira) - Mr. Mira directs the DHRM division (ITech) that operates and maintains the legacy systems currently running on the mainframe and will be responsible to operate and maintain the migrated systems. Successful delivery of the project will bring the systems into a modern, more readily supportable technology and further enhance DHRM's reputation to manage projects.

3) DHRM's Key Legacy System Business Owners (Rue White and Gene Raney) - Ms. White and Mr. Raney are the business owners for the PMIS and BES systems, respectively. Their needs from this project are for a seamless transition of the legacy systems from the current environment to the new one. Successful delivery of the project will result in uninterrupted services and processes to their teams and their customers (agencies and current/former employees).

4) Agencies that use PMIS & BES have employees who enter and maintain data in these systems. These employees need for the transition to the new platform to be seamless and with little to no re-training on system use, comparable (or better) system performance and comparable (or better) system up-time.

5) Employees (current & retired) and their dependents have employee and health benefit election information stored in and used by the systems that are being migrated. For this group the integrity of this information as well as its protection must be maintained during and after the migration of this system. Successful delivery of this project will result in uninterrupted services and processes for this group.

6) General Assembly - The General Assembly (GA) appropriated monies for this migration project. The GA wants the project to be delivered on-time and within budget.

Planned project start date:	2/16/2015	Planned project end date:	4/28/2017
PPEA Involvement:	No		

Estimated Costs:	Total	General Fund	Nongeneral Fund	
Project Cost (estimate at completion):	\$6,150,650			
Estimated project expenditures first year of biennium:	\$3,928,825	\$3,928,825	\$0	

Estimated project expenditures second year of biennium:	\$0	\$0	\$0	
Service Area				
129 DHRM 70419 Administrative and Support Services				Weight
				Primary
Project Related Procurements				
PMIS Migration from UNISYS - Procurement				
Procurement Description:	<p>DHRM needs to procure services to migrate its applications and related routines out of the UNISYS mainframe environment into a fully operational Windows/SQL Server environment as soon as possible as its mainframe charges are rising. Estimates indicate that these charges can reach over \$15M+ per year to DHRM if it is the sole Unisys mainframe user by June 2016 - Currently DSS (97% usage) and DHRM (3% usage) share the mainframe cost based on usage, but once DSS discontinues its usage (anticipated to be June 2016), then DHRM will bear the full mainframe cost.</p> <p>The procured services would translate existing functionality (no new requirements) from the current mainframe environment to the target environment.</p> <p>DHRM envisions that the procured services will include vendor use of automated tools to convert the existing code and data into the desired target environment.</p> <p>The procured services need to include services that assist DHRM technical staff to transition and operate its systems in this new environment.</p> <p>DHRM has received \$5.49M in its budget for the FY15-FY16 biennium to migrate its systems off of the Unisys mainframe. Half of the total monies will be provided to DHRM in the first year of the biennium and half in the second. DHRM needs any unused funds from the first year of the biennium to be available in the second year of the biennium. DHRM anticipates needing to split the \$5.49M for vendor services, VITA services and internal costs.</p>			
Planned Delivery Date:	1/1/2015			

Report Title: Appendix A 16 - 18 Report

Agency: Department of Human Resources Management
(DHRM)

Date: 4/17/2017

Agency Head Approval:

No

There are no major procurements for this agency.