Report Title: IT Strategic Plan Summary

Agency: 402 Marine Resources Commission   **Date:**   3/28/2017

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?

The Agency has a suite of fifteen web based applications that are used by internal agency staff for most daily business functions related to marine resource management. Our systems also offer some services to a limited number of external users and citizens. These applications and numerous associated ad hoc data processes collectively handle hundreds of thousands of new data records annually, as well as millions of historical records. The Agency has three staff positions that are dedicated primarily to marine resource management functions, but are also responsible for implementation and support of agency business application systems and associated databases. Agency staff also provide assistance to the Virginia Information Technology Agency and Northrop-Grumman (VITA-NG) off-site technical staff that have the primary responsibility for supporting the Commissions information technology (IT) infrastructure. The Agency has a main office network with 60 desktop and laptop computers and two servers; one additional virtual server is hosted at the VITA-NG Commonwealth Enterprise Solutions Center (CESC). Agency IT staff also assist in support of about 40 more desktop and laptop computers located in Agency field offices or used for telework, as well as about 60 Virginia State Police Statewide Agencies Radio System (STARS) laptops used by Marine Police Officers. Agency business systems staff also maintain the Agency public web site and Geographic Information System (GIS) web based resource mapping tools. The Agency does not anticipate any major disruption of its IT environment by the transition away from the VITA-NG infrastructure partnership by FY19. Our most critical asset is the single virtual server hosted at CESC; that server has been updated to Redhat Linux 6.x and we would expect that its function could be transferred to another state contracted IT server environment without major difficulty.

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?

OVERVIEW: The Agency completed rebuilding of its suite of business applications in a web based development environment in 2012 using in-house resources. The completion of application renovation tasks has begun to allow the Agency more opportunity to offer additional citizen web access to agency data and business applications; adding new functionality accessible to external users is a challenge for an agency of our size and limited resources. The agency manages a relatively large suite of customized business systems and associated databases that are necessary to meet the Agencys mission, so support and maintenance of these systems, while they have been modernized, also continues to be a challenge for the limited staff we have available for this purpose, particularly when the staff that support these system still devote the majority of their time to marine resource management functions.

SECURITY SHARED SERVICES: MRC intends to sign a MOU with VITA for audit services. MRC has or will hire personnel (FTE) to perform information security officer functions

INTERNET UTILIZATION: MRC has tentative plans to upgrade bandwidth for its main office from current 6 mbps to 45 mbps. The agency also has plans to upgrade internet service to it Marine Police Dispatch Center.

CLOUD APPLICATION HOSTING: The Agency will consider cloud application hosting services as an alternative to the current CESC based virtual server environment or any alternative non-cloud based server hosting services the COV may develop.

IT INFRASTRUCTURE TRANSITION: The Agency does not anticipate any major disruption of its IT environment by the transition away from the VITA-NG infrastructure partnership by FY19. Our most critical asset is the single virtual server hosted at CESC; that server has been updated to Redhat Linux 6.x and we would expect that its function could be transferred to another state contracted IT server environment without major difficulty.

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 Commission business application systems staff has always recognized that their primary responsibility is development and maintenance of technology to support marine resource management. We have sought to employ information technology to allow us to perform those functions efficiently and cost-effectively. We do not attempt to run a leading edge IT program because we are not funded sufficiently to meet that objective. We strive to have an up to date, secure IT environment that supports our business functions. This objective has become more complex to maintain as demand for business application services increase, systems become more open to outside users, and security risks and security precautions grow more diverse.

Most work by business application systems staff at the agency continues to be on refining and maintaining the fifteen web applications the agency now hosts. Work on adding new features that offer some citizen accessibility via the web and mobile devices for selected applications will also be continued. Staff will also plan to do cosmetic renovation work on the agency public web site as time allows.

Information security has been emphasized in the last four biennium and will continue to be a consistent focus in the upcoming biennium. The Agency plans to take advantage of the new Chief Information Security Officer (CISO) sponsored security audit services starting in FY17. Since about 2007 staff has maintained compliance with the state SEC 501 security standard and the CISO annual security data points and currently plans to have Agency staff continue to provide Information Security Office (ISO) services for the agency.

Agency staff have tentative plans to work with VITA-NG to increase Agency main office bandwidth and consider alternatives for higher redundancy of the Agencys primary data application server now hosted at CESC. Staff has begun to consider the affects of transition away from the VITA-NG infrastructure partnership by F Y19, and will be involved in activities that support the use of new IT contractual services developed by VITA during the 2016-18 biennium.

In the Fisheries program, agency staff will be refining systems to better handle seafood buyer data, including consolidation of buyer identification information and addition of web features targeted at obtaining data from seafood buyers. Other smaller projects are the addition of a new feature in our fisheries tracking system to handle sturgeon observer data, enhancements to our biological sampling system to accommodate new electronic fish measuring board hardware, refinement of web based harvest reporting features for selected recreational saltwater fisheries, and addition of more specific artificial reef information in improved mapping features.

In the Law Enforcement Division agency staff will work to increase the utilization of web based data resources for our officers and build new features to allow easier access to permit information such as shellfish dredge permits that are still handled manually. Staff will also expand a officer scheduling feature piloted in 2016 to other regions of the Marine Police. Agency business applications staff will also be looking at assisting Marine Police staff in the development of tools for Incident Based Reporting (IBR); both of these project areas were planned for the 2014-16 biennium, but have been delayed to the 2016-18 biennium. Agency staff also hope to assist the VSP with installation of new STARS laptops for the second half of our officers in the 2016-18 biennium; the first half were completed in Spring 2016.

In Geographic Information System (GIS) activities, Agency staff will continue to refine mapping tools integrated within agency developed data applications (mapping of fixed fishing device locations, JPA permit locations, lease application locations, commercial harvest distribution information, artificial reef locations), including features formatted for use on mobile devices.

Report Title: Strategic Plan

Agency: Marine Resources Commission **Date:** 3/28/2017

Current IT Services

Category	Costs Year 1		Costs Year 2	
	GF	NGF	GF	NGF
Projected Service Fees	$414,161	$210,422	$411,062	$208,847
VITA Infrastructure Changes	$0	$0	$0	$0
Estimated VITA Infrastructure	$414,161	$210,422	$411,062	$208,847
Specialized Infrastructure	$0	$0	$0	$0
Agency IT Staff	$25,000	$0	$25,000	$0
Non-agency IT Staff	$0	$0	$0	$0
Cloud Computing Service	$0	$0	$0	$0
Other Application Costs	$0	$0	$0	$0
Total	$439,161	$210,422	$436,062	$208,847

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	$439,161	$210,422	$436,062	$208,847	$1,294,493
Proposed IT Investments	$0	$0	$0	$0	$0
Total	$439,161	$210,422	$436,062	$208,847	$1,294,493

Report Title: Business Requirements For Technology

Agency:	Marine Resources Commission (MRC)	**Date:**	3/28/2017

BReT Marine Police Incident Based Reporting (IBR)

BRT Type:	Business Requirement for Existing Technology
Date Submitted:	12/12/2016
Mandate:	No
Mission Critical:	
Description:	

The MRC Marine Police have a business need to report a limited number of incidents to the VSP. To date that requirement has occurred with somewhat manual processes, The Marine Police are interested in developing or buying software to do IBR in a more automated manner. If possible an IBR feature will be added to our existing custom web application in use by our Marine Police. Expected cost $5000 to $15000.

MRC IT Sourcing BReT

BRT Type:	Business Requirement for Existing Technology
Date Submitted:	9/15/2016
Mandate:	No
Mission Critical:	
Description:	

Messaging BReT:
VITA is initiating disentanglement from NG messaging services in 2016. Messaging Services for email, enterprise collaboration services, and mobile device management are required for 150 users in our agency. We also have 15 applications that have hooks into messaging relay services which will need to be tested. For Workplace Collaboration Services (VITA provided SharePoint), the Marine Resources Commission does not use WCS SharePoint. We have no agency owned applications serviced via AirWatch which will need remediation.

IBM Mainframe BReT:
VITA is initiating disentanglement from NG IBM Mainframe services in 2016. Marine Resources Commission has no agency owned applications on the IBM which will need to be migrated and tested during this transition.

Server/storage (including housing of equipment) BReT:
VITA is initiating disentanglement from NG servers and storage. Marine Resources Commission has 3 servers which will need to be migrated and tested during this transition. 15 agency owned applications will be affected by this move and will need to be tested.

Authentication/directory services BReT:
Marine Resources Commission has no agency owned applications which will need to be migrated and tested during the authentication/directory services transition. Number of users (internal and external) are 150 internal and 3 external.

End user computing BReT :
Marine Resources Commission has 34 desktops and 72 laptops and 6 network printers which will need to be migrated.

Data networks BReT :
Marine Resources Commission has no networks that are not mpls which will need to be migrated.

Voice Networks BReT:
Marine Resources Commission currently has no UCaaS phone lines and 120 other phone lines which will need to be migrated.

Cloud Computing BReT:
Marine Resources Commission is investigating moving 15 applications to a Cloud services vendor; currently the applications reside in a standardized LAMP environment on a CESC hosted virtual server. The business reasons for a potential migration to cloud services would be to reduce costs, increase efficiencies, and reduce agency IT footprint. Applications are cloud ready. Agency does not anticipate needing to bring in outside consulting to assess what needs to be done to the applications and supporting infrastructure in order to become cloud ready.

Security Services BReT:
To meet Commonwealth Security requirements, Marine Resources Commission will engage VITA's Shared Security Services for sensitive system audits and use internal staff for Information Security Officer (ISO) services utilizing DPB funds.

Internet Usage BReT:
Marine Resources Commission projects that internet usage will increase, and has tentative plans to increase its two MPLS circuits from 6Mbps to 45Mbps for the agency headquarters primary data circuit and from 1Mbps to 3Mbps for our Marine Police Dispatch Center. Currently both existing circuits are fully utilized and regularly congested.

Report Title: Appendix A 16 - 18 Report

Agency: Marine Resources Commission (MRC)   **Date:**   3/28/2017

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: Marine Resources Commission (MRC)   **Date:**   3/28/2017

Agency Head Approval: No

There are no major procurements for this agency.