# Report Title: IT Strategic Plan Summary

**Agency:**  942 Virginia Museum of Natural History   **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 Virginia Museum of Natural History, located in Martinsville, hereinafter referred to as the "Museum," was created in 1985 and became a state agency in 1988. The Museum is an 87,000 SF facility located in Southwest Virginia, and is responsible for preserving and protecting Virginias natural history. The Museum houses more than 10 million specimens and artifacts. With no institution serving as a centralized repository for the Commonwealths natural history collections, the Museum was built to fill a gap in service to document our culture and natural heritage. To date, the Museum remains the states only collections-based science institution, and excels in collections-based research, inquiry based science education, science teacher professional development, and exhibit experiences rich with the actual specimens and artifacts documenting the natural and cultural heritage of Virginia. By way of its Distance Learning Adventure Classroom, the Museum uses information technology to provide significant SOL-based experiences for children, professional development, and educational training for numerous teachers across the Commonwealth. The Museums scientists have assembled more than 10 million inventoried specimens and artifacts and contribute regularly to the published literature of biology, geology, paleontology, and archaeology. Information technology is used to make all biology, geology, paleontology, and archaeology collections available in an in-house ReDiscovery database. This database requires yearly license and support fees that are currently unfunded. The base of the software, FoxPro, will no longer be supported by Microsoft. For this reason, the collections database, ReDiscovery, will need to be upgraded to the latest version known as Proficio.

One of the Museums duties is to coordinate an efficient network in Virginia where researchers and the public can readily use the natural hist ory material of the Museum, its affiliates, Virginias institutions of higher education andother museums. During the course of their work, scientists grow the museums collections that act as a library of the natural heritage of Virginia. They support the work of researchers world-wide who benefit from the accumulation and centralization of these collections. Each scientist also has active blogs.

The Museum also uses information technology to support fund-raising for the Museum. It uses an online database to search for topics relative to grant funding. This is very important to the Museum for supplementing operating funds. The Museum also uses an active membership database, The Raisers Edge by Blackbaud, resulting in increased membership retention and increased levels of membership. This database also requires a yearly license fee that is currently not funded.

The Museum uses information technology in other areas such as, a Visix electronic bulletin board in the lobby that is used to view announcements of events, emergency notifications, video news feeds, and weather. This system is outdated and requires a maintenance contract that has not been funded. Therefore, we can not to keep it updated.

The museum has a partnership with WeatherBug and provides a weather station to transmit data to

WeatherBug Achieve so that schools can access this data for education purposes. It also transmits to the Apps, Channel 7, as well as, other places in the WeatherBug Network. It also includes a webcam that not only offers access to current weather conditions, but also is available to Homeland Security. This system is currently not funded.

The Museum also uses an internet provider to provide two networks; one provides our Commonwealth of Virginia ERCS (Enterprise Remote Connectivity Service) network while the other supplies internet access for two way video communication for distance learning, for interactive exhibits, for the education rooms and lecture halls as well as for the public during their visits. The HVAC system utilizes the public network for monitoring and adjusting the system remotely. The current HVAC system uses XP computers and out-of-date version of JAVA to communicate, both of which have security issues. The HVAC software will need to be upgraded to be able to communicate using updated JAVA or a JAVA free system. The upgraded HVAC software will not run on the current XP computers, so the computers need to be upgraded to a current OS. There is no alternative available. None of these heavily used systems have been funded. The Museum needs funding to continue to use them and maintain their upkeep, enhancements and security.


**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?*

The Museum needs to upgrade the current collections database, ReDiscovery (FoxPro based program) to the current Proficio software with a support agreement.

The Visix electronic bulletin board needs to be upgraded due to running on XP computers that are no longer supported by Microsoft. This will incur new hardware (win7), software upgrade (Ver8), yearly maintenance and support to migrate our current data to the new version. Currently, this is not funded.

The HVAC needs to be upgraded from XP operating system to either Win7 or 8, and the application software for the HVAC upgraded to the current version and a yearly maintenance. This is not currently funded.

All of these technologies utilize two broadband internet accesses (one for ERCS (state network) and another for public and Distance Learning Adventure Classroom) neither of which is not funded.

SECURITY SHARED SERVICES. VMNH intends to sign a MOU with VITA for IT Security Audit Services and Security Officer Services.

INTERNET UTILIZATION: VMNHs current usage seems to meet our requirements.

CLOUD APPLICATION HOSTING: VMNH currently is using a virtual server for all of our applications. Museum is considering the Foundations Blackbaud cloud based software with the vendors of the software which will add extra fees. The museum is adding the web module for Proficio with its introduction and will be utilizing Microsofts Cloud services to be hosted with ReDiscovery Software. This addition will add an additional fee and a one time setup.

IT INFRASTRUCTURE TRANSITION: VMNH is in the process of upgrading our database: ReDiscovery to

Proficio. Currently using the virtual server has a lot of lag time to do any filters, so a possible use of the Citrix client may be used to fix this problem. To access our virtual server we utilize an ERCS network with a static IP that might be impacted by any changes applied within the CESC network.


**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?*

Museum is considering the Foundations Blackbaud cloud based software with the vendors of the software which will add extra fees. With the introduction of Proficio, a web module will be added which will allow the general public access to a partial, read-only version of the museums collection.

# Report Title: Strategic Plan

**Agency:** Virginia Museum of Natural History      **Date:** 3/28/2017

### Current IT Services

| Category | Costs Year 1 | | Costs Year 2 | |
|---|---|---|---|---|
| | GF | NGF | GF | NGF |
| Projected Service Fees | $111,106 | $6,790 | $113,012 | $6,907 |
| VITA Infrastructure Changes | $0 | $0 | $0 | $0 |
| Estimated VITA Infrastructure | $111,106 | $6,790 | $113,012 | $6,907 |
| | | | | |
| Specialized Infrastructure | $0 | $0 | $0 | $0 |
| Agency IT Staff | $31,000 | $0 | $31,000 | $0 |
| Non-agency IT Staff | $0 | $0 | $0 | $0 |
| Cloud Computing Service | $0 | $0 | $0 | $0 |
| Other Application Costs | $20,152 | $4,786 | $26,496 | $5,100 |
| Total | $162,258 | $11,576 | $170,509 | $12,007 |

### 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 | $162,258 | $11,576 | $170,509 | $12,007 | $356,351 |
| Proposed IT Investments | $0 | $0 | $0 | $0 | $0 |
| Total | $162,258 | $11,576 | $170,509 | $12,007 | $356,351 |

# Report Title: Business Requirements For Technology

| | | | |
|---|---|---|---|
| **Agency:** | Virginia Museum of Natural History (VMNH) | **Date:** | 3/28/2017 |

## Blackbaud Hosting BReT

| | |
|---|---|
| **BRT Type:** | Business Requirement for Existing Technology |
| **Date Submitted:** | |
| **Mandate:** | No |
| **Mission Critical:** | Yes |
| **Description:** | |

Moving the database to the vendor for hosting

## Blackbaud License and Maintence BReT

| | |
|---|---|
| **BRT Type:** | Business Requirement for Existing Technology |
| **Date Submitted:** | 10/17/2014 |
| **Mandate:** | No |
| **Mission Critical:** | Yes |
| **Description:** | |

Yearly license/maintenance renewals for Blackbaud at $4,219.79.

## BReT VMNH Authentication Services

| | |
|---|---|
| **BRT Type:** | Business Requirement for Existing Technology |
| **Date Submitted:** | 9/13/2016 |
| **Mandate:** | No |
| **Mission Critical:** | |
| **Description:** | |

VMNH has 1 application which will need to be migrated and tested during the authentication/directory services transition. Number of users is 50.

## BReT VMNH Data Networks

| | |
|---|---|
| **BRT Type:** | Business Requirement for Existing Technology |
| **Date Submitted:** | 9/13/2016 |
| **Mandate:** | No |
| **Mission Critical:** | |
| **Description:** | |

VMNH has 1 network that is not mpls which will need to be migrated. We currently utilize Comcast for an ERCS network.

## BReT VMNH End User Computing

| | |
|---|---|
| **BRT Type:** | Business Requirement for Existing Technology |
| **Date Submitted:** | 9/13/2016 |
| **Mandate:** | No |
| **Mission Critical:** | |

**Description:**

VMNH has 42 desktops and 5 laptops and 1 networked copier which will need to be migrated.

## BReT VMNH Messaging

| | |
|---|---|
| **BRT Type:** | Business Requirement for New Technology |
| **Date Submitted:** | 9/13/2016 |
| **Mandate:** | No |
| **Mission Critical:** | |

**Description:**

VITA is initiating disentanglement from NG messaging services in 2016. Messaging Services is required for email for 50 users in our agency

## BReT VMNH Servers and Storage

| | |
|---|---|
| **BRT Type:** | Business Requirement for New Technology |
| **Date Submitted:** | 9/13/2016 |
| **Mandate:** | No |
| **Mission Critical:** | |

**Description:**

VITA is initiating disentanglement from NG servers and storage. VMNH has 1 Virtual servers which will need to be migrated and tested during this transition. 2 Database applications with one using a Citrix client and numerous shared
folders with security group permissions will be affected by this move and will need to be tested. Currently there is VPN and Remote Desktop Access for the AITR that will also need to be tested.

## Broadband Internet for ERCS BReT

| | |
|---|---|
| **BRT Type:** | Business Requirement for Existing Technology |
| **Date Submitted:** | 10/17/2014 |
| **Mandate:** | No |
| **Mission Critical:** | Yes |

**Description:**

Monthly fee to ISP for broadband internet service for the Commonwealth of Virginia's ERCS network at $144.85

## Compliance with Commonwealth Security BReT

| BRT Type: | Business Requirement for Existing Technology |
|---|---|
| Date Submitted: | 10/16/2014 |
| Mandate: | Yes |
| Mission Critical: | No |
| Description: | |

VMNH is in the process of signing two MOUs for auditing external sensitive systems.

### HVAC BReT

| BRT Type: | Business Requirement for Existing Technology |
|---|---|
| Date Submitted: | 9/19/2014 |
| Mandate: | No |
| Mission Critical: | Yes |
| Description: | |

The current HVAC system/program only works with outdated JAVA software (WEBtalk 2.1 requires the Sun J2RE Runtime Environment plug-in version 5). The current HVAC program would have to be upgraded to the current version to be able to use current JAVA. There are two computers that are running XP for this system and the updated HVAC software will not run on that OS. These two computers will need to be updated to a current version of operating system (7 or 8) or replaced with newer computers that will run the new software.

### ReDiscovery Upgrade BReT

| BRT Type: | Business Requirement for Existing Technology |
|---|---|
| Date Submitted: | 9/19/2014 |
| Mandate: | Yes |
| Mission Critical: | Yes |
| Description: | |

Update the application to the current version

### Visix Electronic Bulletin Board BReT

| BRT Type: | Business Requirement for Existing Technology |
|---|---|
| Date Submitted: | 9/19/2014 |
| Mandate: | No |
| Mission Critical: | No |
| Description: | |

Update the existing outdated XP system to newer computers and software and maintenance agreement to keep it updated

Report Title: Appendix A 16 - 18 Report

**Agency:**     Virginia Museum of Natural History (VMNH)          **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:** Virginia Museum of Natural History (VMNH)

**Date:** 3/28/2017

**Agency Head Approval:**

No

There are no major procurements for this agency.