

2016-18 Strategic Plan

Virginia Information Technologies Agency [136]

Mission

The Virginia Information Technologies Agency supports the Commonwealth by providing cybersecurity, information technology infrastructure services and information technology governance.

Vision

The Virginia Information Technologies Agency will deliver agile technology services at the speed of business.

Values

Value Add for our Customers' Experience

We will work hard to make sure that everything we do is "value-add" for our customers and achieves VITA's vision thereby strengthening and improving services provided to the entire Commonwealth and its citizens. We will incorporate input from our customers to continually improve their experience, ensuring that improvements align with customer, business, and IT goals. When making technology decisions, we will focus on service delivery quality, ease of doing business, service flexibility, evolution, and innovation. These decisions will demonstrate our understanding of the trends, issues, and technologies that impact our customers' businesses. We will establish information technology and organizational governance that focuses on leadership, organizational structures and business processes, not just technology. Good governance will allow us to forge partnerships based on mutual respect and a clear understanding of each other's needs and abilities.

Teamwork

We recognize that our strength is—and always will be—people. We foster and reward open, candid communication, teamwork, and personal development. As team players, we work toward common goals, consider how actions and decisions impact other areas of the agency, respond to the needs of our colleagues, and deliver on what we promise. We continually learn and we share our ideas and knowledge. We recognize and reward team behavior and we collaborate to achieve operational excellence for our agency.

Accountability

We hold ourselves accountable in everything we do. We are passionate about measuring and monitoring to ensure rigorous quality and cost control. We strive for efficient, zero-defect service delivery. We recognize that mistakes happen and when mistakes do happen, we address them quickly, accurately, and pleasantly. When procuring goods and services, we leverage economies of scale and enable purchasing agility and diversity of service offerings.

Integrity

Our reputation is defined by how we respect and treat with dignity our customers, each other, and the citizens of the Commonwealth. We are committed to providing an environment that fosters clear and open communication as well as consistency and fairness in our decisions and actions. Our customers, employees, and Virginia's citizens will be able to trust that we have their best interests in mind. Within VITA, a promise will be a promise and dedication, reliability, and honesty will be paramount to our success.

Finance

Financial Overview

VITA's resources include appropriations from the Internal Service Fund, Dedicated Special Revenue Fund, General Fund, and Special Revenue Fund. Additionally, appropriations from the Federal Trust Fund are requested as needed.

The Internal Service Fund (ISF) is VITA's primary source of revenues and expenses. In this intra-governmental fund VITA collects revenue and makes associated expenses for providing information technology infrastructure and telecommunications services to other state agencies, institutions, and local governments. The services furnished are charged to the recipient agency, institution, or local government to recover costs through user charges approved by the Department of Planning and Budget and the Joint Legislative Audit and Review Commission (JLARC). Discretionary services VITA provides to some customers are captured in a separate ISF program (Central Support Services). The other budgeted category of ISF is support for the VITA internal organization, which includes project management, information security, customer relations, service management, and overall agency management and operational support. The total ISF amounts budgeted in Chapter 780, for the 2016-2018 biennium, are \$367,516,997 in FY 2017 and \$361,193,611 in FY 2018.

The Dedicated Special Revenue Fund accounts primarily for the distribution of receipts generated by the Virginia Geographic Information Services (VGIN) program and the Enhanced Emergency Communications System program (E-911). VITA incurs a limited cost to administer these two programs. Funding for e-government and enterprise collaborative services is also included here. Chapter 780 appropriations are \$27,412,577 in FY 2017 and \$26,657,641 in FY 2018. This includes \$904,936 in FY 2017 for the VA Information Providers Network and \$1,108,150 in FY 2017 and FY 2018 for Virginia Information Technology Infrastructure.

The Special Revenue Fund source is the Acquisition Services Special Fund, derived from a surcharge on information technology procurements. The Chapter 780 appropriations of \$10,155,165 in FY 2017 and \$11,165,229 in FY 2018 are used by VITA for procurement and contracting oversight and management expenses and to pay for services to customers that are not considered allowable by the federal government, for their share of payments to VITA (recorded as internal service fund revenues). VITA also provides support to the Governor's office from this fund, and recent revenue increases have been designated for use in planning for the infrastructure services contract transition.

The General Fund reflects appropriations received from the Commonwealth of Virginia used for the service areas entitled Information Technology Investment Management (ITIM) Oversight Services, Information Technology Security Service Center Web Development, Support Services, and Enterprise Development Services. The General Fund appropriation for these four service areas is \$2,841,248 in FY 2017 and \$2,459,203 in FY 2018.

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	2,841,248	405,084,739	2,459,203	399,016,481
Changes to Initial Appropriation	0	-3,444,130	-2,034,039	-11,450,025

(Changes to Initial Appropriation will be 0 when the plan is created. They will change when the plan is updated mid-biennium.)

Customers

Anticipated Changes to Customer Base

As VITA enters this transition phase, it does not anticipate any increase in its customer base since the priority is clearly surrounding disentanglement and IT sourcing activities. It should be noted, however, that VITA anticipates that the Department of State Police will assume responsibility for the billing for Virginia Criminal Information Network (VCIN) services and this will reduce the number of Local or Regional Government Authorities and perhaps the number other customers.

Current Customer List

Predefined Group	User Defined Group	Number Served Annually	Potential Number of Annual Customers	Projected Customer Trend
Governor	Governor's office (includes Secretariats, Lt. Governor, Attorney General, and the Inspector General's Office)	16	16	Stable
State Agency(s),	Executive branch agencies (includes 44 correctional facilities and 15 DBHDS State Facilities)	63	63	Stable
State Agency(s),	Non-Executive Branch State Agencies (includes independent, legislative and judicial branch entities)	19	19	Stable
Higher Education Institutions	Institutions of higher education	44	44	Stable
Local or Regional Government Authorities	Local or Regional Government Authorities (multiple entities within the same city, town, or county are counted separately)	593	593	Decrease
Non-Profit Agency (Boards/Foundations),	Non-profit entities	14	14	Stable
Federal Agency	Non-Commonwealth government entities	42	42	Stable

Partners

Name	Description
Federal Agencies	Funding partners, policy partners
Executive Branch Agencies and Institutions of Higher Education	Agency representatives participate in workgroups and focus groups on: application and data governance and related issues; IT enterprise architecture; and IT services.
Department of Accounts (DOA)	Advises on enterprise financial management requirements and opportunities
Department of Human Resources Management	Advises on enterprise human resources requirements and opportunities

(DHRM)	
Department of Planning and Budget (DPB)	Advises on enterprise budgeting requirements and opportunities
Legislative Staff and the Department of Planning and Budget	Provide assistance in maintaining the Commonwealth Technology Portfolio of proposed IT investments.
Auditor of Public Accounts (APA)	Provides assistance to ensure the financial management of VITA is sound and in accordance with all applicable authorities (laws and regulations).
Local governments	Data contributors, data and application standardization partners
Local 9-1-1 Centers	Funding recipients and providers of the actual service to citizens
IT Infrastructure Sourcing Partners	Currently, Northrop Grumman is responsible for providing all IT infrastructure services that VITA has established to provide such services as messaging, mainframe, network infrastructure, desktop support, server storage, security and protection, identify management. However, the agency is moving toward multiple partnerships.
Information Technology Vendors	Direct product and service acquisition relationships including, but not limited to, hardware, software, security, telecommunications, contingent labor
Research advisory services	Research advisory services, from the Gartner Group and others, used to keep VITA up to date on new technologies and best practices
The CIO Council	Agency IT leaders who provide advice and input to the Commonwealth's Chief Information Officer (CIO)
Commonwealth Preparedness Working Group	Participate in the evaluation of threats, hazards and responses
Council on Virginia's Future	Advises on Strategic Planning, Proposed Enterprise Business Architecture (EBA) Business Owner
Customer Advisory Council (CAC)	Advises VITA on the development and enhancement of future services to be offered in the VITA Service Catalog and operational governance
Health Information Technology Standards Advisory Committee (HITSAC)	Assisting the ITAC in providing advice to the Commonwealth's Chief Information Officer on the use of nationally recognized technical and data standards for health information technology (IT) systems or software
Information Security Officer Advisor Group (ISOAG)	Advises on program areas that affect customer agencies
Information Technology Advisory Council (ITAC)	Advises Commonwealth's Chief Information Officer (CIO) and the Secretary of Technology on the planning, budgeting, acquiring, using, disposing, managing, and administering of information technology and appoints a health information technology standards advisory committee in the Commonwealth
Wireless E-911 Services Board	Provides policy and oversight for the Wireless E-911 Fund

Agency Goals

- **Goal 1: Information Technology Services - Ensure the operating environment that supports the Commonwealth's ability to provide services to its citizens has clear rules, quality delivery, and is adaptable to change.**

Summary and Alignment

Information technology is in a constant state of change. The Commonwealth's IT operating environment must be flexible enough to meet the changing needs of state agencies and the citizens they support. For effective delivery of services, the IT environment must also operate within a set of guidelines designed to manage the infrastructure and costs.

Associated State Goal

Government and Citizens: Be recognized as the best-managed state in the nation.

Associated Societal Indicator

Government Operations

Objectives

- » **Objective 1.D: Meet 100% of service level objectives for.**

Description

Delivery of reliable and cost effective enterprise services that meet or exceed agency Memoranda Of Understand (MOUs) and performance metrics (SLAs – service level agreements) for IT Infrastructure services.

Objective Strategies

- 1. Execute Unisys mainframe service termination activities.

Measures

- ◆ Percentage of service level objectives (defined in customer agency memorandums of understanding) met or exceeded. Target: 100% SLA performance for ITP services.
- ◆ Percentage of service level objectives met or exceeded

» **Objective 1.A: Demonstrate continuous and constant improvement in customer satisfaction with service delivery quality and agility.**

Description

VITA will become more agile and flexible in adapting our service offerings to meet the business needs and objectives of our customers.

Objective Strategies

- 1. FY 2019/2020 - Plan and execute use of IT services by non-executive branch entities
- 2. FY 2017/2018 - Develop and implement a cloud oversight service with software as a service (SaaS) as the first step
- 3. FY 2017/2018 - Establish an Innovation Center of Excellence (ICE) to support the exploration, evaluation and exploitation of new technologies.

Measures

- ◆ Agency satisfaction with their Involvement in ICE
- ◆ Number of new technologies demonstrated/piloted via ICE

» **Objective 1.B: Improve efficiency in the service delivery model for new services and changes to services.**

Description

VITA will take this opportunity during this transition period to identify improvements in its service delivery model to become a provider of choice for the Commonwealth by focusing on the customer experience and service excellence.

Objective Strategies

- 1. FY 2019/2020 - Create, market test and rebid engine.
- 2. FY 2017/2018 - Develop executive order (EO) 20: system integration and small, woman and minority-owned (SWaM) business reporting capabilities.

Measures

- ◆ Percent improvement in total process cycle time for service lifecycle management (new requests and changes)

» **Objective 1.C: Meet 100% of milestones for wave one, two, and three information technology sourcing activities.**

Description

VITA will use established project management best practices for IT Governance and IT Investment Management to ensure the transition to the new multi-sourcing service model will be completed on time, on budget and without degradation in the quality of service to its customers.

Objective Strategies

- 1. FY 2019/2020 - Execute wave three activities (desktop, data/voice networks).
- 2. FY 2017/2018 - Execute wave one activities (messaging, IBM mainframe, MS licensing).
- 3. FY 2017/2018 - Plan wave three activities (desktop, data/voice networks).
- 4. FY 2017/2018 - Plan and execute wave two activities (service integration, service desk, server/storage, security, internal chargeback, identity management for COV employees and business partners).

Measures

- ◆ Percentage of wave 1, 2 and 3 milestones that were met

• **Goal 2: Cyber Security – Protect Commonwealth information technology systems, resources and information assets from loss, damage and misuse.**

Summary and Alignment

We will protect citizen's data through effective security programs; fully implement the NIST framework for risk management; collaborate with private sector and law enforcement on threat information and best practices

Associated State Goal

Public Safety: Protect the public's safety and security, ensuring a fair and effective system of justice and providing a prepared response to emergencies and disasters of all kinds.

Associated Societal Indicator

Emergency Preparedness

Objectives

» Objective 2.A: Increase the number of information technology risk assessments and audits completed by the end of FY2018.

Description

VITA will establish an Information Security Shared Services Center that will provide security and risk management services assist agencies in conducting activities needed to ensure cyber vulnerabilities and risks are identified and remediated.

Objective Strategies

- 1. FY 2017/2018 - Begin offering sensitive system audit, information security officer (ISO) services and vulnerability scanning as shared security services.
- 2. FY 2017/2018 - Expand the ability of agencies to assess the risk to their information technology environments.

Measures

- ◆ Percentage of agencies completing audits of sensitive systems
- ◆ Percentage of risk assessments completed
- ◆ Reduction in average time from discovery to mitigation and closure of security incidents and/or critical audit findings
- ◆ Reduction in the number of audit critical findings

» Objective 2.B: Strengthen the cyber security framework.

Description

The objective is to further strengthen the information security (IS) posture of the Commonwealth of Virginia by implementing and maintaining an effective program of IS governance and collaboration. This program includes: •Maintaining IT Security Policy, Standards and Guidelines •Identifying IT Risks Within the Commonwealth •Creating Information Security Awareness •Preparing defenses against cyber-attacks and plans for cyber security responses

Objective Strategies

- 1. FY 2019/2020 - Integrate a new reporting and assurance methodology for the new enterprise environment.
- 2. FY 2017/2018 - Update the enterprise security incident playbook.
- 3. FY 2017/2018 - Evaluate incident response and cyber insurance resources.
- 4. FY 2017/2018 - Establish a new Commonwealth of Virginia operational security model.
- 5. FY 2017/2018 - Implement two-factor authentication.

Measures

- ◆ Percentage of Commonwealth executive branch agencies achieving satisfactory results in reviewing their environment for adequate compliance with the Commonwealth's Information Security Program.

• Goal 3: Information Technology Governance – Ensure VITA's processes, organization and decision-making are effective and efficient and customers find it easy to do business with us.

Summary and Alignment

An effective IT governance framework helps to ensure that we make the right decisions concerning IT investments and that we have established sound decision-making processes that address the interests of our customers and other stakeholders. An effective operational framework (i.e., finances, workforce, and workflow) ensures we are able to achieve performance goals and leads to transparency in our operations.

Associated State Goal

Government and Citizens: Be recognized as the best-managed state in the nation.

Associated Societal Indicator

Government Operations

Objectives

» Objective 3.A: Demonstrate continuous and constant improvement in customer satisfaction with the customer experience (to include ease of doing business with VITA).

Description

VITA will adopt strategies that will allow it to become more customer-focused and develop an understanding of the business needs and objectives of its customers.

Objective Strategies

- 1. FY 2017/2018 - Adapt the new customer engagement model and satisfaction measures as a component of the IT sourcing strategy.

Measures

- ◆ AITR Satisfaction Rating

» Objective 3.B: Improve the effectiveness and efficiency of information technology processes.

Description

VITA ensures that we have the necessary processes and controls in place to be responsible stewards of public funds.

Objective Strategies

- 1. FY 2019/2020 - Establish automated workflow with dashboard capabilities.
- 2. FY 2017/2018 - Document significant VITA business processes by the end of FY 2018.

Measures

- ◆ Percentage of payments for delivered goods and services paid by the required payment due date. Target: 95% compliance.

» Objective 3.C: Achieve an “A” in the Digital States Survey.

Description

The biennial Digital States Survey examines best practices, policies and progress made by state government’s use of technology to improve operations and meet the needs of the citizens.

Objective Strategies

- 1. FY 2019/2020, FY 2017/2018 - Complete and submit the Digital States Survey.

Measures

- ◆ Digital States Survey Grade

» Objective 3.D: Complete 100% of Commonwealth major information technology projects on time and on budget against their managed project baselines.

Description

This VITA IT governance function is strategic for the Commonwealth of Virginia. The Secretary of Technology and Commonwealth CIO, with advice from the Information Technology Advisory Council (ITAC), provide strategic direction for the use of technology resources and for managing risks in technology projects for the Commonwealth. VITA's Governance staff role is one of facilitating the development of that direction and providing oversight to ensure information technology resources are used and appropriately managed within the confines of that direction. In part, VITA fulfills its responsibility by engaging Agencies in IT Strategic planning with selection of projects and procurements that satisfy Business Requirements for Technology which support the mission, goals, and objectives of the agency and secretariat business plans. VITA's governance staff oversees the pre-selection, selection, control and evaluation of information technology investments which support Executive Branch Agency business objectives. Governance and oversight activities associated with the duties and responsibilities enumerated in the Code of Virginia ensure that application of information technology solutions for business/government requirements are planned, designed, developed, implemented, operated and managed in accordance with current best practices to provide the best value to the Commonwealth for those IT investments. Risk Management is a key function in the governance of IT projects. VITA's governance staff identifies methods for capturing risks and ensuring that project risks are identified and managed.

Objective Strategies

- 1. FY 2019/2020, FY 2017/2018 - Position VITA's organization and staffing levels to support VITA's mission.
- 2. FY 2017/2018 - Implement a modern, integrated, user-friendly telecommunications expense management and billing solution (TEBS).
- 3. FY 2017/2018 - Coordinate and support the statewide deployment of Next Generation 9-1-1 (NG9-1-1) in cooperation with the 9-1-1 Services Board and local stakeholders

- 4. FY 2017/2018 - Define a strategy to expand the use of data analytics and data sharing to add value to the Commonwealth.
- 5. FY 2017 - Clarify and enhance Commonwealth's hosting strategy to include cloud.

Measures

- ◆ Percentage of Commonwealth major information technology (IT) projects completed on time and on budget against their managed project baseline.

Major Products and Services

VITA's Service Catalog offers its customers access to 73 discrete information technology-related services in 14 service categories: Business Intelligence Services, Disaster Recovery Services, E=911 Emergency Services, eGovernment Services, Geographic Information Systems Services, Mainframe and Server Services, Messaging Services, Network Services, Personal Computing Services, Security Services, Supply Chain Solutions Services, Voice and Video Services, Workplace Collaboration Services and Workplace Productivity Services.

The catalog of services is available at <http://shop.vita.virginia.gov/>

Performance Highlights

Following are some performance highlights in each of the four main VITA roles cited above:

- Operation of the state's technology infrastructure – VITA has begun disentanglement tasks in preparation for ending the contract with NorthropNorthrop Grumman in 2019.
- Information technology security governance – VITA continues to improve the information security posture of the Commonwealth for the protection of government information by updating information security policies, standards and guidelines to address new security issues as they arise. VITA is now offering a service for providing information security officers for agencies that are unable to fulfill this role internally.
- Governance and oversight of major information technology (IT) projects – VITA continues to develop its processes for oversight and management of IT projects. VITA has provided guidance to ensure the effective and efficient use, acquisition, and management of information technology resources in the Commonwealth through a variety of means, including:
 - Providing strategic direction through the Commonwealth's Strategic Plan for Information Technology
 - Developing, implementing and ensuring compliance with a statewide IT enterprise architecture that supports the strategic plan and provides strategic and tactical direction to agencies and institutions of higher education in the Commonwealth
 - Ensuring agencies and institutions of higher education follow project management best practices and procedures and are compatible with Commonwealth strategic plan initiatives when developing or enhancing major information technology systems
 - Developing and implementing IT strategic goals and objectives for the Commonwealth and each agency
 - Maintaining an enterprise-level data governance body responsible for the management and oversight of the Commonwealth's data assets to provide business users with high-quality, consistent and accessible data

VITA has also established an IT Investment Management Methodology for managing IT investments in the Commonwealth.

- Procurement of technology-related goods and services on behalf of state and local governments – VITA continues to establish statewide contracts for use by all public bodies of the Commonwealth, supporting broad procurement initiatives such as SWaM and bringing efficiency and effectiveness to IT and telecommunications contracts.

Staffing

Authorized Maximum Employment Level (MEL)	246
Salaried Employees	197
Wage Employees	9
Contracted Employees	54

Key Risk Factors

VITA faces many challenges in the coming biennium. Most significant is the successful transitioning from a single-source supplier sourcing arrangement to a multi-source supplier sourcing environment. During this transition period, VITA is tasked with the challenge of maintaining the

current operating environment with no degradation of services and establishing the new multi-sourcing environment.

Additional challenges facing VITA include:

- Improving customer relations, customer service and customer outreach.
- Protecting Commonwealth systems, data and user privacy by maintaining a secure Commonwealth IT environment.
- Maintaining a stable, modernized IT infrastructure environment.
- Addressing applications in the IT enterprise and collaborative applications arena.

Management Discussion

General Information About Ongoing Status of Agency

Performance Improvement Highlights

Following are some performance highlights in each of the four main VITA roles cited above:

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 - Developing and implementing IT strategic goals and objectives for the Commonwealth and each agency
 - Maintaining an enterprise-level data governance body responsible for the management and oversight of the Commonwealth's data assets to provide business users with high-quality, consistent and accessible data
 - VITA has also established an IT Investment Management Methodology for managing IT investments in the Commonwealth.
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Management Discussion & Analysis

VITA continues to pursue its mission of providing information technology services to our customers that enable Virginia's government to better serve the public in the following areas:

IT Infrastructure: As VITA progresses toward the end of the CAI contract with Northrup Grumman, it will continue to contract with multiple service providers that will establish standards for availability, response, time to repair and other quality of service measures to ensure that the Commonwealth has the ability to monitor and sustain service level targets to assure satisfactory service performance.

IT Security Governance: VITA provides 24 X 7 X 365 protection of the Commonwealth's data. This protection is being provided via:

- Intrusion detection and vulnerability scanning
- Antivirus and firewalls
- Spam and web content filtering

- Centralized and automated software patching
- Secure remote network access
- Encrypted internal e-mail
- Intelligence and information sharing in collaboration with the Federal Bureau of Investigation, Department of Homeland Security and others

The risk of cyber-attacks is increasing globally and VITA must be prepared to quickly assess and resolve security breaches.

IT Investment Management: VITA is continuing to establish and implement agency-level and Commonwealth-level IT investment management (ITIM) processes that leverage infrastructure transformation, enterprise systems development strategies, and collaboration in the acquisition and development of agency business applications.

Supply Chain Management (SCM)/Customer Relations Management (CRM): VITA continues to develop policies, standards and guidelines for the procurement of IT and to leverage supplier relationships to provide the best value IT solutions to meet the Commonwealth's business needs. In an effort to ensure the wise spending of taxpayer dollars, VITA is attempting to become more customer-focused and is engaging the customer in the determination and selection of products and services offered by VITA.

Information Technology

Unlike most other state agencies, VITA has the distinction of being both a provider of IT products and services as well as a consumer of the services provided.

Information Technology Summary and Current Investments

Just as the Commonwealth's IT infrastructure was in need of transformation, so too have VITA's legacy systems and tools been in need of modernization. Investment in VITA's own infrastructure and capabilities has been, and will continue to be, crucial to VITA's mission. Significant technology investment initiatives currently underway include:

- A more modern Telecommunications Expense (Management) and Billing System (TEBS)
- A comprehensive Customer Relationship Management (CRM) program
- Automated Work Request Management and Service Portfolio Catalog
- Consolidation of content management solutions to a single solution for web content management
- Next Generation Analytics to establish standards for the use of big data
- Virginia Base Mapping imagery procurement in support of E-911 activities

Additional Proposed Technology Needs and Plans

As VITA prepares itself for the next generation of IT service delivery, involving the integration of solutions from multiple suppliers (the IT Infrastructure Services (IT IS) initiative), it must place emphasis on balancing the needs of the enterprise as a whole, individual agency requirements, as well as citizen expectations. As the provider of IT services to the Commonwealth, VITA must be able to keep pace with technological advances and how Virginia citizens expect to use technology to interact with government agencies. VITA must become more flexible, agile, customer-focused, transparent, and innovative. We must continue to effectively deliver IT services that are cost effective for our customers.

VITA's strategic plan includes projects and proposed initiatives related to:

- Ongoing planning and implementation of IT Infrastructure Services (IT IS) activities
- Expansion of Service Oriented Architecture (SOA) for the standardization of information exchange between agencies and partners
- Internal operation upgrades (such as migrations to Windows 10, SQL Server 2008, Oracle 11G, .net, MS Office 2016, etc.)
- Cloud hosting to support the storage and accessibility of Commonwealth data
- Standardization of VITA's Computer Services Customer Billing
- Archer software upgrade (used for security risk assessments)
- Small, Woman and Minority-Owned (SWaM) business reporting directives

Estimate of Technology Funding Needs

VITA has researched other IT transitions to a multi-source model. However, given the unique nature and scale of the Commonwealth approach, no clear analog exists, and there are no established benchmarks for assessing resource needs. VITA does anticipate that additional funding will be necessary, and is in the process of preparing estimates of the Commonwealth's transition and post-transition funding requirements.

Estimate of Technology Funding Needs

Workforce Development

In 2015, VITA outsourced many of its Human Resource functions to the Shared Services Center through the Department of Human Resource Management (DHRM). We continue to work with DHRM to address workforce development issues.

Like many other employers, VITA is facing workforce challenges related to the aging workforce with its inherent loss of institutional knowledge as individuals begin to plan for retirement, having a multi-generational workforce with an appropriate use of advanced technology and flexible work schedules that will be attractive to “millennials,” as well as the complexities of interpersonal relationships with a multi-generational staff complement and the lack of a well-developed succession planning program.

As of June 2015, the average age of a VITA employee is 52 with an average of 15.6 years of service compared to a statewide average of 46.7 years old with 12 years of service. The DHRM report indicates that 26 employees (13%) are eligible to retire immediately with full benefits. Approximately 54 employees (27.27%) are retirement eligible in five years. If these eligible employees do retire, VITA could experience a significant knowledge gap that most likely would impact its ability to deliver the products and services expected by our customers.

Another challenge for VITA is succession planning. In 2012, VITA began taking a more formalized approach to workforce development and succession planning. VITA has conducted a skills inventory of all employees. Employees have over 30 certifications, as well as 200 defined KSAs (Knowledge areas, Skills, and Abilities), on which they can rate their proficiency level from “Basic” to “Trainer” using this skills inventory. VITA has commenced mapping our anticipated workforce needs to employees' strengths and knowledge, to determine optimum staffing deployments as well as to identify where additional training might be needed.

To enhance the ability to provide meaningful training and development for our employees, VITA has purchased a technical training suite from SkillSoft. This suite contains thousands of current on-line and audio books, courses, simulations, test/prep exams and job aids. For the upcoming performance management cycle, managers will be asked to continue to incorporate development needs for their employees and identify SkillSoft or DHRM Knowledge Center programs to address some of these needs.

VITA received funding for 41 additional full time positions to assist with the transition to a multi-supplier environment and cyber security. VITA successfully filled nine vacant positions in FY2016 and continues to fill these positions as needed. VITA had had 59 separations (52 of which were due to retirements) in FY2016.

Physical Plant

VITA's primary office facilities are located at the Commonwealth Enterprise Solutions Center (CESC), 11751 Meadowville Lane, Chester, VA. 23836. CESC is not a state-owned facility, and relocation of the operations/data center and of VITA offices may also be part of the IT Infrastructure Services transition.

Supporting Documents

Title	File Type
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Geographic Information Access Services [71105]

Description of this Program / Service Area

Users of Geographic Information System (GIS) software and computerized mapping systems include federal, state and local governmental bodies, businesses, and private citizens. GIS systems have many applications, including public utilities management, urban and regional planning (zoning and land use planning, environmental impact analysis), and transportation planning (encompassing traffic studies, road networking, accident analysis and “hot spot” analysis). Among the most important uses today are those in support of public safety and security, and disaster management and mitigation. The ability to locate a citizen having an emergency, to determine the impact of a disaster on critical infrastructure, or to plan for the evacuation of a region of the state requires data from a multitude of entities, both public and private. In Virginia, there are currently at least 400 local, state, and federal government departments and utilities creating geospatial data to support decision making using mapping and GIS (E911 response, tax mapping, utility mapping, economic development site marketing, etc.) with an estimated direct investment of over \$50 million annually.

To work effectively, GIS systems require consistent, accurate, complete, and current data (geospatial and analytical). The Virginia Geographic Information Network (VGIN) Division’s service responsibilities are:

1. To coordinate and leverage the efforts of all mapping constituencies in Virginia, public and private, in order to establish a highly efficient statewide geospatial infrastructure comprising consistent, sharable data, and standardized technologies producing a significant improvement in the cost benefit equation for all geospatial constituencies and users.
2. To offer geospatial enterprise services that directly reduce operating costs for existing GIS implementations (especially in state and local government) and significantly improve the quality and availability of geospatial products and services for governments, businesses, and the citizens of Virginia.

Responsible VITA Directorate: Relationship Management and Governance

Mission Alignment

VGIN’s policy and coordination work is directed at transforming Virginia’s independent geospatial actors (state agencies, local governments, utilities, private companies, federal agencies, etc.) into an efficient enterprise GIS network, providing geospatial products and services for “the best value at the lowest cost”.

Applicable code references for this Service Area include:

- 2.2-2026. Geographic Information Network Division established
- 2.2-2027. Powers and duties of the Division; Division Coordinator
- 2.2-2028. GIS Fund Created
- 2.2-2029. Additional powers and duties of the CIO
- 2.2-2030. Nonstock corporation to assist in the development of GIS data

Products and Services

Description of Major Products and Services

Enterprise GIS Services: Virginia Base Mapping Program (VBMP) for procurement, maintenance, and distribution of consistent statewide geospatial base data, including aerial photography, digital road centerlines, hydrography, rail, etc.

Geospatial Data Services: The GIS Clearinghouse and data exchange services and Internet Mapping Services.

Enterprise Systems Operations and Support Services for State and Local Government: Geospatial project management, data collection, custom geospatial analysis and mapping for state and local government and geospatial policy and data standards development

Anticipated Changes

NA

Factors Impacting

Budgetary and resource constraints may impact some organizational functions.

The demands of implementing the Information Technology Infrastructure Services Program (ITISP), while simultaneously maintaining daily operational work tasks, could potentially impact operational priorities and delivery dates.

Financial Overview

The Geographic Information Access Services area is funded by Dedicated Special Revenue.

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	0	2,562,707	0	2,712,707
Changes to Initial Appropriation	0	0	0	0

Supporting Documents

Title **File Type**

Emergency Communication Systems Development Services [71201]

Description of this Program / Service Area

This service area encompasses the work of the E-911 Services Board and the promotion and deployment of emergency telecommunication systems such as 911 across the Commonwealth. In the 2016 General Assembly session, the scope of this service area was expanded to include the coordination of next generation 9-1-1 in the Commonwealth. This coordination must address transitioning E911 from its current proprietary communications protocol to a new, open Internet Protocol (IP) based platform.

This new platform is needed to ensure the 9-1-1 system is able to respond to changes in the way people communicate. Virginians now use many different types of devices and methods to communicate, such as text messaging, but the current system cannot support receiving emergency information by any method other than telephone. The E-911 system must evolve to be able to receive requests for emergency assistance from any of the wide range of existing methods, but also be adaptable to future needs and technologies (such as including photos and hyperlinks in emergency announcements).

VITA's responsibilities in this service area include promoting E-911 services, processing payments to funding recipients, and providing technical and professional assistance to local 911 centers (also known as PSAPs— Public Safety Answering Points) and telecommunications providers, to ensure all citizens have access to E-911 services. Finally, VITA supports the Board by coordinating bi-monthly public meetings and by maintaining all records of the Board.

Responsible VITA Directorate: Relationship Management and Governance

Mission Alignment

This service area supports the mission of VITA by providing enterprise services and solutions to one hundred and twenty 911 centers in the Commonwealth. Coordination provided by the VITA Division of Public Safety Communications helps increase efficiency through information sharing and project management support.

Applicable code references for this Service Area include:

- 2.2-2026. Geographic Information Network Division established
- 2.2-2027. Powers and duties of the Division; Division Coordinator
- 2.2-2028. GIS Fund Created
- 2.2-2029. Additional powers and duties of the CIO
- 2.2-2030. Nonstock corporation to assist in the development of GIS data

Products and Services

Description of Major Products and Services

Comprehensive Planning: Development of the statewide comprehensive plan for the future of 9-1-1 that will drive the deployment of 9-1-1 throughout the Commonwealth for many years to come

Best Practice and Model Program Development: Central development of best practices and model programs that can be used by multiple agencies, reducing redundant development

Consulting Services: Technical and professional assistance to all customers of the service

Fiscal Management for the 9-1-1 Services Board: Payment of funds to localities and wireless services providers based on Board action

Anticipated Changes

As deployment of wireless and landline E911 have been completed, focus and assistance has shifted toward support of the future of 9-1-1. Often referred to as "Next Generation 911" or "NG9-1-1," this will fundamentally change the infrastructure for 9-1-1 to allow an open platform for new emergency services to be provided (for example, including text messaging to 9-1-1, which is often a primary method of communications for hearing impaired citizens).

Factors Impacting

There may be changes in telecommunications products and services available to the citizens of the Commonwealth.

Budgetary and resource constraints may impact some organizational functions.

The demands of implementing the ITISP sourcing transition, while simultaneously maintaining daily operational work tasks, could potentially impact operational priorities and delivery dates.

Financial Overview

The Emergency Communication Systems Development Services area is funded by Dedicated Special Revenue sources. For detailed financial information, please refer to the Budget Table in the Agency Strategic Plan.

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	0	6,860,176	0	6,860,176
Changes to Initial Appropriation	0	0	0	0

Supporting Documents

Title **File Type**

Financial Assistance to Localities for Enhanced Emergency Communications Services [71202]

Description of this Program / Service Area

This service area provides grant funding support to the one hundred and twenty local 911 centers in the Commonwealth for the deployment of E-911 services. Revenue is generated by a monthly wireless E911 surcharge (currently, \$.75) on all wireless telephones, which is collected by the wireless service providers and remitted to the Wireless E911 Fund through the Department of Taxation. The 9-1-1 Services Board administers this fund in accordance with its enabling legislation.

As a result of a legislative change in the 2012 General Assembly session, the process for the monthly distribution has changed. Sixty percent of the fund is distributed to the local 911 centers. This allocation is performed by the Department of Taxation. Thirty percent of the fund is held for wireless service provider cost recovery, and is paid to the providers upon receipt and approval of their invoice and supporting documentation. Any funding remaining from the thirty percent share is combined with the final ten percent of the fund and is used to support grants to 911 centers for wireless E911 costs, as determined by the Board.

Responsible VITA Directorate: Relationship Management and Governance

Mission Alignment

This service area supports the mission of VITA by providing enterprise funding to one hundred and twenty 911 centers and all wireless telephone service providers in the Commonwealth. Centralized administration reduces the cost of collection and distribution of the surcharge.

Applicable code references for this Service Area include:

- 2.2-2026. Geographic Information Network Division established
- 2.2-2027. Powers and duties of the Division; Division Coordinator
- 2.2-2028. GIS Fund Created
- 2.2-2029. Additional powers and duties of the CIO
- 2.2-2030. Nonstock corporation to assist in the development of GIS data

Products and Services

Description of Major Products and Services

Grant Funding to Local 911 Centers: Provides funding to local 911 centers in the amount of 10% of the Wireless E911 Fund (in addition to any remaining funding from a wireless provider cost recovery) granted by the 9-1-1 Services Board.

Anticipated Changes

NA

Factors Impacting

Budgetary and resource constraints may impact some organizational functions.

The demands of implementing the ITISP sourcing transition, while simultaneously maintaining daily operational work tasks, could potentially impact operational priorities and delivery dates.

Financial Overview

The Financial Assistance to Localities for Enhanced Emergency Communications service area is funded by Dedicated Special Revenue sources.

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	0	10,984,640	0	10,984,640
Changes to Initial Appropriation	0	0	0	0

Supporting Documents

Title **File Type**

Financial Assistance to Service Providers for Enhanced Emergency Communications Services [71203]

Description of this Program / Service Area

This service area provides funding support to the (currently, five) wireless telephone service providers operating in the Commonwealth for the deployment of wireless E911 services. Revenue is generated by a wireless E911 surcharge that is collected by the wireless service providers and remitted to the Wireless E911 Fund through the Department of Taxation. The 9-1-1 Services Board administers this fund in accordance with its enabling legislation.

As a result of a legislative change in the 2012 General Assembly session, the process for the monthly distribution has changed. Sixty percent of the fund is distributed to the local 911 centers. This allocation is performed by the Department of Taxation. Thirty percent of the fund is held for wireless service provider cost recovery, and is paid to the providers upon receipt and approval of their invoice and supporting documentation. Any funding remaining from the thirty percent share is combined with the final ten percent of the fund and is used to support grants to 911 centers for wireless E911 costs as determined by the Board.

Responsible VITA Directorate: Relationship Management and Governance

Mission Alignment

This service area supports the mission of VITA by providing enterprise funding to the wireless telephone service providers operating in the Commonwealth. Centralized administration reduces the cost of collection and distribution of the surcharge.

Applicable code references for this Service Area include:

- 2.2-2026. Geographic Information Network Division established
- 2.2-2027. Powers and duties of the Division; Division Coordinator
- 2.2-2028. GIS Fund Created
- 2.2-2029. Additional powers and duties of the CIO
- 2.2-2030. Nonstock corporation to assist in the development of GIS data

Products and Services

Description of Major Products and Services

Cost Recovery Funding to Wireless Telephone Service Providers: This provides funding to wireless providers for the reasonable, direct cost of the deployment and continued operation of the wireless E911 system.

Anticipated Changes

NA

Factors Impacting

Budgetary and resource constraints may impact some organizational functions.

The demands of implementing the ITISP sourcing transition, while simultaneously maintaining daily operational work tasks, could potentially impact operational priorities and delivery dates.

Financial Overview

The Financial Assistance to Service Providers for Enhanced Emergency Communications Services area is funded by Dedicated Special Revenue sources.

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	0	4,991,968	0	4,991,968
Changes to Initial Appropriation	0	0	0	0

Supporting Documents

Title	File Type
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Network Services -- Data, Voice, and Video [82003]

Description of this Program / Service Area

The 820 service areas are used to record payments to vendors with revenues collected by VITA from customers. Each service area corresponds to a specific subset of services.

The primary capabilities of the service area are network services (data, voice and video services), supported by a wide array of interconnected and interoperating telecommunications networks, facilities and services that enable digitized electronic information to be exchanged between people, between machines, and between people and machines. Commonwealth data network services comprise the infrastructure of statewide telecommunications resources that enable the interconnectivity of computers that process and exchange digital data information. Data network services include wide area networks (WAN), local area networks (LAN), internet access, remote access via a virtual private network (VPN) and engineering support.

Voice network services provide tools that enable people to communicate verbally in real time over short and long distances using a wide range of systems and services. These tools include wireline services that provide local and long distance telephone services. Local services enable communications between people located within the same, close geographical area. Long distance services enable users to communicate with others located almost anywhere in the world. Agencies require diverse configurations of voice communications resources to enable them to manage the voice communications demand they encounter when interacting with the citizens and constituents they serve. They have traditionally used a combination of hosted services such as analog and digital Centrex (ISDN -BRIs), business lines, on premises-based Private Branch Exchange (PBX), and key systems and handsets to address agency business team, work group and enterprise office voice communications needs. Agencies with requirements to efficiently manage high volumes of calls implement automatic call distributor (ACD), interactive voice response (IVR), or contact center capabilities that are offered using hosted and premises-based solutions. Increased worker mobility and the demands of users to be accessible when away from the office while having uninterrupted access to agency information resources continue to drive the increased demand for more and better wireless (cellular) tools and services. Rapid advancements in the development in smartphones and tablet technologies have enabled wireless data communications to replace voice as the main driver of research and development in the industry

Video services leverage data and voice telecommunications network capabilities that enable participants to see and talk with each other using specially equipped devices and systems. Using equipment and services commonly available today, video sessions can be established with as few as two participants using multi-media smartphones and/or PCs. More complex sessions may include fully-equipped video conference rooms, interconnected and interoperating with multiple other similarly equipped sites involving hundreds or thousands of users. Consumer and commercial quality smartphones, PCs, and tablets often come from the manufacturer with the hardware and software to enable users to immediately participate in video sessions.

Responsible VITA Directorate: Service Management and Delivery

Mission Alignment

VITA's Network Services - Data, Voice, and Video support the agency mission by providing high-quality comprehensive resources and solutions to VITA's customers at the best available cost.

Applicable Code References for this Service Area include:

- 2.2-2007 - Powers of the CIO
- 2.2-2011 - Additional powers and duties relating to development, management, and operation of information technology
- 2.2-2012 - Additional powers and duties related to procurement of information technology
- 2.2-2013 - Internal service and special funds

Products and Services

Description of Major Products and Services

Network Data Services: Provide a secure mechanism for employees of the Commonwealth and the public to access the internet, applications and data stored on the network. Commonwealth employees may access the network using the Local Area Network (LAN)/Wide Area Network (WAN) connection or via a remote connection using a Virtual Private Network (VPN).

Voice and Video Services: Includes cellular wireless access, local access services audio, data and video conferencing, and unified communications as a service (UCaaS) otherwise known as Voice over Internet Protocol (VOIP). Wireless/cellular services are available through a variety of carriers and several plan options are available including text messaging, paging, Smartphones with data and internet access. VOIP provides for a wide range of advanced VOIP communications services that leverage the robust network infrastructure with connections to the internet that are fully managed and monitored. Video services include the capability to provide audio and data conferencing as well as video connections that enable a large number of participants to see and talk with each other from multiple locations throughout the Commonwealth.

Radio Frequency Licensing for Two-way Radio: This is a service VITA manages on behalf of the state. The Federal Communications Commission (FCC) licenses a limited range of radio frequencies for use by the public sector.

- VITA manages allocation of available frequency bands to ensure access and use by numerous agency constituents that consist of diverse users such as the state police with its statewide radio network that supports a wide range of consumers from 21 state agencies to the maintenance staff of the smallest remote community college.
- VITA also establishes and manages state contracts to ensure that users have a variety of the two-way radio equipment to satisfy their needs. Upon request, agencies obtain onsite support from a radio expert to assist with assessing their radio requirements and determining a solution to satisfy their needs.

Cross Functional Services: Deliver consistency and integration among the service areas through a common set of processes and documented procedures. Commonwealth IT Service Management processes are based on the Information Technology Infrastructure Library (ITIL) framework and tailored to the requirements of the Commonwealth. A procedures manual will be maintained to ensure that accurate, current, and actionable procedures are documented and published for all IT services. Service level management is part of the ITIL optimization initiative to provide a detailed service catalog, determine service level requirements, negotiate and reach agreement on service levels, and monitor and report on actual service levels versus agreed-upon service level targets.

Anticipated Changes

With the FCC and other regulatory bodies continuing the transition of telephone services to an IP-based environment, this means that traditional analog and digital desk phones will continue to migrate to VoIP offerings. This will, in turn, result in integration of voice services with other technologies. VITA expects that this transition will be the basis for multiple new high-value services.

VITA continues to develop new service offerings in order to leverage mobile technologies as business needs are identified and secure, supportable solutions are developed.

Demand for PC-based collaborative tools that include video conferencing will increase.

Factors Impacting

Telecommunications products will be reviewed and replaced, and telecommunications services will be assessed and updated as existing contracts expire and are replaced with new technology offerings.

Budgetary and resource constraints may impact some organizational functions.

The demands of implementing the ITISP sourcing transition, while simultaneously being responsible for maintaining daily operational work tasks, could potentially impact operational priorities and delivery dates.

Financial Overview

This Service Area is funded by Internal Service Fund and Special Revenue Fund (Acquisition Services Special Fund).

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	0	106,627,529	0	108,488,113
Changes to Initial Appropriation	0	0	0	-10,991,714

Supporting Documents

Title **File Type**

Data Center Services [82005]

Description of this Program / Service Area

The 820 service areas are used to record payments to vendors with revenues collected by VITA from customers. Each service area corresponds to a specific subset of services.

Data Center Services consists of traditional data center functions such as computer operations, system administration, disaster recovery services and data center facilities. These services can be provided over a wide range of hardware and software operating systems using multiple telecommunications and database architectures. Services include intranet connectivity with the ability to provide secure internet applications using multilevel authentication and encryption. Business applications requiring public access and server hosting also are available. VITA provides two data centers in Virginia that meet numerous physical and security criteria for central IT services. The Commonwealth Enterprise Solutions Center (CESC) is located in Chesterfield County and serves as the Commonwealth's primary data center. The Southwest Enterprise Solutions Center (SWESC) is located in Russell County and serves as the Commonwealth's backup data center and primary help desk facility.

Responsible VITA Directorate: Service Management and Delivery

Mission Alignment

VITA strives to deliver reliable and cost-effective computing platform services. Customers have a choice of platforms and services to meet their application requirements while VITA continues to take advantage of virtualization techniques accommodating increased workloads more efficiently. Additionally, limited "cloud" hosting is available and VITA is actively working on creating more "cloud services" that its customers can use.

Applicable Code References for this Service Area include:

- 2.2-2007 - Powers of the CIO
- 2.2-2011 - Additional powers and duties relating to development, management, and operation of information technology
- 2.2-2012 - Additional powers and duties related to procurement of information technology
- 2.2-2013 - Internal service and special funds

Products and Services

Description of Major Products and Services

All computing platform services include the following support benefits:

- 24 x 7 x 365 operation including real-time monitoring and fault management
- Multilayered security
- Backup and recovery support, including offsite data storage and separate recovery facility
- Systems monitoring, performance, and capacity management
- Comprehensive system monitoring and management software tools

Cross Functional Services: Will deliver consistency and integration among the service areas through a common set of processes and documented procedures. Commonwealth IT Service Management processes will be based on the Information Technology Infrastructure Library (ITIL) framework and tailored to the requirements of the Commonwealth. A procedures manual will be developed and maintained to ensure that accurate, current, and actionable procedures are documented and published for all IT services. Service level management will be implemented as part of the ITIL optimization initiative to provide a detailed service catalog, determine service level requirements, negotiate and reach agreement on service levels, and monitor and report on actual service levels versus agreed-upon service level targets.

IBM mainframe Multiple Virtual Storage (MVS) Services: Include operation of a high performance, high volume, high availability, and secure hardware and software platform for developing and operating customer agency applications using comprehensive product and tool sets. Mainframe MVS services offers multiple telecommunication and data base architectures, automated production scheduling services, state-of-the-art online storage and tape archival systems, and print archiving software with local and remote printing

VITA currently also operates a Unisys mainframe, providing services to a limited number of Commonwealth agencies, including the Department of Social Services and the Department of Human Resource Management. Due to plans to discontinue use of this mainframe, no new customers of Unisys services are being accepted.

UNIX Server Support: Includes support for multiple UNIX technologies which currently include those compatible with Linux, AIX, and HP-UX operating systems. Servers supported range from small workstations dedicated to specific applications to large enterprise-class servers supporting many mission-critical applications. The primary database products are SQL and Oracle. Services include the ability to provide secure internet applications utilizing multilevel authentication and encryption.

Windows Server Support: Provides secure resources for hosting customer agency servers, websites, and applications. This includes systems and products capable of housing and executing agency business applications using a variety of failover and load balancing techniques. Extensive

use of server virtualization enables a highly available, flexible and efficient environment. Services include Active Directory, AntiVirus software, application publishing, enhanced operating system and database security, and patch management as well as the ability to provide secure internet applications using multilevel authentication, encryption and database clustering.

Enterprise Storage Services: Provide management of shared data storage platforms. Multiple storage performance offerings are provided as well as protocols to support agency requirements. Enterprise backup and recovery services provide a reliable means for agencies to back up and restore data. The backup infrastructure provides state-of-the-art tapeless backups. Automatic backups are done according to customer-specified times with backup retention periods and other options for backups tailored to customer requirements. Offsite vaulting services are inherent with the electronic backup environment to ensure the latest backup copies of critical data are sent offsite daily. Near real time data synchronization between the primary data center (CESC) and the backup data center (SWESC) is also available supporting expedient disaster recovery practices.

Facility Services: Provide oversight to the power and mechanical infrastructure for the primary and backup data center that supports the data center to ensure the physical data center is reliable and available.

Disaster Recovery Services: Provide the planning and coordination to ensure identified critical systems are accounted for and recoverable in the event of a disaster.

Anticipated Changes

Due to contractual term expiration, a comprehensive approach to sourcing these services is underway and will be implemented from 2016 until the end of the current contract term in 2019. This activity should provide added services and functionality to all aforementioned services.

Cloud computing and storage offerings will be created as security and support issues are addressed.

The Unisys mainframe is being retired from service. Unisys mainframe services should terminate at the end of 2019 coinciding with the modernization and migration of Department of Social Services applications as well as the migration/re-hosting of a Department of Human Resource Management application to Windows and UNIX servers.

Factors Impacting

Budgetary and resource constraints may impact some organizational functions.

The demands of implementing the ITISP sourcing transition, while simultaneously being responsible for maintaining daily operational work tasks, could potentially impact operational priorities and delivery dates.

Financial Overview

The Data Center Services area is funded by Internal Service Fund sources.

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	0	121,056,263	0	118,822,946
Changes to Initial Appropriation	0	0	0	10,304,437

Supporting Documents

Title **File Type**

Desktop and End User Services [82006]

Description of this Program / Service Area

The 820 service areas are used to record payments to vendors with revenues collected by VITA from customers. Each service area corresponds to a specific subset of services.

The VITA Customer Care Center (VCCC) is the Commonwealth's information technology help desk and provides end-to-end ownership of the desktop and end user services along with assisting in the management of agency-specific business applications. Every contact is logged, and prioritized as appropriate, leveraging agreed-to business rules. These contacts are either resolved or assigned to the appropriate technical resource or group for resolution. To ensure prompt resolution, ticket status is monitored throughout its life and as necessary, the VCCC will accelerate the resolution of tickets that are not being addressed as they should using the Service Level Agreements (SLAs) as their guidelines. Upon resolution, the VCCC requests confirmation that the issue has been resolved to the customer's satisfaction.

The VCCC provides customers with the flexibility to report their issues in the way most convenient for them. Customers can contact the desk via a toll-free number, email, or via Web ticketing. Customers also have the option to browse VITA's Knowledge Base. This repository contains solutions to the most common problems encountered by the customer base. Customers also have the ability to check the status of their tickets online.

Responsible VITA Directorate: Service Management and Delivery

Mission Alignment

VITA strives to deliver reliable and cost-effective computing platform services. Customers have a choice of highly available and high-performance platforms to meet their requirements, but customer applications and hardware services are consolidated on shared platforms wherever possible to take advantage of economies of scale. The Information Technology Partnership's (ITP) oversight and associated activities are instrumental to achieving this mission.

Applicable Code References for this Service Area include:

- 2.2-2007 - Powers of the CIO
- 2.2-2011 - Additional powers and duties relating to development, management, and operation of information technology
- 2.2-2012 - Additional powers and duties related to procurement of information technology
- 2.2-2013 - Internal service and special funds

Products and Services

Description of Major Products and Services

End User Services: This service is made up of three support towers: personal computing services, messaging and service desk.

Personal Computing Services (PCS): This service manages the end user experience on a number of levels. Along with managing the health of the workstation hardware components (desktop and laptop PCs, tablets, etc.) and mapping out the technology roadmap for said devices, PCS also provides management of the software environment. This includes services such as software deployment, agency-specific application testing, software upgrade services, mobile app packaging, software research and development, and license management. PCS also includes the onsite field technicians responsible for the care and support of the individual staff members of an organization and represent the "face" of the ITP. These "desktop technicians" provide guidance and instruction to customers to diagnose and resolve incidents as well as provide support based on tickets escalated by the Service Desk. The desktop technicians are also responsible for completing special projects such as major upgrades to operating systems and assisting with cross tower upgrades (i.e. in concert with network and server services). Finally, PCS also includes the management and support of the network printing infrastructure, fax services, and the copier and multifunction device areas.

Messaging and Directory Services: These are the services and activities supporting email and other interpersonal communications and infrastructure supporting wireless connectivity, wireless communications, and handheld devices.

Service Desk Services: These are provided via the VITA Customer Care Center (VCCC). The VCCC is the central point of contact for all information technology incidents, requests for information on all Information Technology Partnership (ITP) services, and for telecommunications service requests. The Service Desk also manages and monitors the satisfaction level of customers with offered services in the form of surveys and outreach.

Cross Functional Services: Will deliver consistency and integration among the service areas through a common set of processes and documented procedures. Commonwealth IT Service Management processes will be based on the Information Technology Infrastructure Library (ITIL) framework and tailored to the requirements of the Commonwealth. A procedures manual will be developed and maintained to ensure that accurate, current, and actionable procedures are documented and published for all IT services. Service level management will be implemented as part of the ITIL optimization initiative to provide a detailed service catalog, determine service level requirements, negotiate and reach agreement on service levels, and monitor and report on actual service levels versus agreed-upon service level targets.

Anticipated Changes

The need for bring your own device-based services (BYOD) will continue to increase. Yet, in order to be successful incorporating personally-owned computers into service delivery, significant process issues must be overcome. There may be a need to explore hosted virtual desktops as this demand increases.

The merging of cloud and desktop-based productivity solutions will continue to accelerate, requiring increased internet speed and bandwidth.

The ability for customers to create and manage their own mobile application solutions (mobile apps) will reach a critical mass and require an increased focus on software application review and assessment services.

We are also anticipating a growing demand for “anytime” access as the work day becomes more flexible. This may suggest the need for expanding the hours when technical support is available. These increased remote patterns of work may also require new authentication and security measures be put into place.

Finally, the current high-volume usage of critical systems suggests a need for more focused capacity planning, greater fault tolerance, and perhaps a revisiting of the customer desktop-based workflow.

Factors Impacting

Budgetary and resource constraints may impact some organizational functions.

The demands of implementing the ITISP sourcing transition, while simultaneously being responsible for maintaining daily operational work tasks, could potentially impact operational priorities and delivery dates.

Financial Overview

The Desktop and End User Services area is funded by Internal Service Fund sources.

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	0	88,566,495	0	82,929,482
Changes to Initial Appropriation	0	0	0	-4,811,993

Supporting Documents

Title **File Type**

Computer Operations Security Services [82010]

Description of this Program / Service Area

The 820 service areas are used to record payments to vendors with revenues collected by VITA from customers. Each service area corresponds to a specific subset of services.

Computer Operations Security Services are the operations, administration and governance services and activities required to provide and support the security of the Commonwealth's IT infrastructure and enterprise. VITA oversees the primary service area partner, Northrop Grumman (NG) which carries out the following responsibilities:

- Physical security of central IT infrastructure facilities including the Commonwealth Enterprise Solutions Center (CESC) and Southwest Enterprise Solutions Centers (SWESC)
- Infrastructure (desktop/network, etc.) security for all the infrastructure components provided by NG
- The primary and secondary Security Operations Centers at the above facilities
- Intrusion Detection and initial incident management for the provided infrastructure

Responsible VITA Directorate: Service Management and Delivery

Mission Alignment

This service area supports the mission of VITA by providing the information security services that enable the delivery of enterprise IT services and solutions in a manner that protects the confidentiality, integrity, and availability of the Commonwealth's sensitive and critical systems, technology infrastructure, and information.

Applicable Code References for this Service Area include:

- 2.2-2007 - Powers of the CIO
- 2.2-2011 - Additional powers and duties relating to development, management, and operation of information technology
- 2.2-2012 - Additional powers and duties related to procurement of information technology
- 2.2-2013 - Internal service and special funds

Products and Services

Description of Major Products and Services

Security Incident Management Services: Includes security incident management, cyber intrusion detection, cyber intrusion prevention, and malware response and alert.

Secure Infrastructure Services: Includes security technology, security architecture, security configuration, data protection, and technical consultation.

Enterprise Security Policies, Standards, Procedures, and Access Control

VITA Critical Infrastructure: Includes physical security of VITA and the enterprise data centers (i.e., facilities access).

Enterprise Risk Management: Includes enterprise risk assessment, enterprise vulnerability assessment, enterprise vulnerability scanning, and enterprise vulnerability remediation.

Assistance with Operational Aspects of Compliance Audits

Anticipated Changes

Evolving security threats will require increasingly sophisticated protection schemes.

Sourcing initiatives will change many existing security models which have been based on centralized assets in fixed data centers, and using a single vendor. As the Commonwealth transitions away from the IT Partnership with Northrop Grumman to a multi-source and multi-solution environment, new security vulnerabilities will develop, and the overall security environment will become more complex. The delivery of VITA security services and the oversight of multiple vendors providing those services will become more challenging.

Factors Impacting

Budgetary and resource constraints may impact some organizational functions.

The demands of implementing the ITISP sourcing transition, while simultaneously being responsible for maintaining daily operational work tasks, could potentially impact operational priorities and delivery dates

Financial Overview

Computer Operations Security Services is funded by Internal Service Fund sources.

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	0	3,620,657	0	3,751,448
Changes to Initial Appropriation	0	0	0	-348,775

Supporting Documents

Title **File Type**

Information Technology Services for Data Exchange Programs [82401]

Description of this Program / Service Area

This service area was created in conjunction with Virginia's Health and Human Resources (HHR) secretariat to implement Service Oriented Architecture (SOA) for support of HHR federal law compliance efforts. Enterprise Services and Tools (EST) used in Data Exchange Programs is a collection of tool-based and architecture-based services that share hardware and software to reduce overall costs to the Commonwealth. There are several enterprise-level services: Address Validation, Asynchronous Message, Business Process Management, Business Rules Engine, Commonwealth Authentication Service, Enterprise Data Management, Enterprise Service Bus, and Secure File Transfer. Other services include: WebSphere Hosting Administration, Web Services Repository and Registry, and WebSphere Application Server. These services, when implemented, will have a lower total cost of ownership versus the software and infrastructure they replace.

All of these services are sharable at an enterprise level and are intended for Commonwealth of Virginia executive branch agencies; however, use of these services is possible for other governmental organizations.

Responsible VITA Directorate: Internal technology and portfolio Management

Mission Alignment

Enterprise Services and Tools provide wider cross-application and cross-agency access to Commonwealth information, while reducing agency IT costs.

Applicable Code References for this Service Area include:

- 2.2-2007 - Powers of the CIO
- 2.2-2011 - Additional powers and duties relating to development, management, and operation of information technology
- 2.2-2012 - Additional powers and duties related to procurement of information technology
- 2.2-2013 - Internal service and special funds

Products and Services

Description of Major Products and Services

Address Validation Service: This service has two features 1)online autocomplete ability when a user begins typing an address and Address Validation completes it with a United States Post Office (USPS) validated address, and 2) an offline feature where addresses are corrected to conform to USPS guidelines.

Asynchronous Messaging (or Message Queuing or MQ): This is a secure and reliable method for integrating applications across multiple platforms.

Business Rules Engine (BRE): Because business rules in applications are changed much more often than business processes, the BRE makes it possible to manage business rules outside of the application. The disentanglement of business rules from business processes using the BRE helps decrease costs related to necessary rules changes by not requiring information technology resources.

Secure File Transfer: This enables to movement of files within or between agencies' IT server locations. As the name suggests, the file data is encrypted.

WebSphere Application Server Hosting (WAS): The WebSphere App Server (WAS) Hosting service provides customers with access to secure and robust environments for their organization specific applications. A WAS environment is where applications can readily use the Enterprise Service Bus and other advanced software tools.

Web Services Repository and Registry (WSRR): WSRR provides functionality to store and retrieve web services information. New web services can be added for possible use by others.

Anticipated Changes

NA

Factors Impacting

Budgetary and resource constraints may impact some organizational functions.

The demands of implementing the ITISP sourcing transition, while simultaneously being responsible for maintaining daily operational work tasks, could potentially impact operational priorities and delivery dates.

Financial Overview

Information Technology Services for Data Exchange is funded by Internal Service Fund sources.

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	0	11,403,571	0	11,403,571
Changes to Initial Appropriation	0	0	0	-5,327,804

Supporting Documents

Title **File Type**

Information Technology Services for Productivity Improvements [82402]

Description of this Program / Service Area

VITA is transitioning its services in this service area from the SharePoint toolset to the Google Apps Tool Suite (Sites, Docs, Pages, Sheets, and Forms). GoogleApps is a webbased project collaboration system that provides a single integrated location where employees can efficiently collaborate, find organizational resources, manage content and workflows, and leverage business insight to make better informed decisions. This transition should be completed by the first quarter of 2017.

WCS improves worker efficiency while reducing IT overhead by providing a standardized and scalable collaboration service for agencies to address the business and productivity needs of Commonwealth of Virginia information workers. The service is intended to:

- Provide common standards, policies, procedures and best practices.
- Cut costs with a consolidated cloud-based infrastructure that offers enterprise scale manageability and availability, including backup/restore and disaster recovery.
- Provide a common method and set of techniques for managing information.
- Connect people to enhance teamwork and work efficiently to address changing business needs.

Responsible VITA Directorate: Service Management and Delivery

Mission Alignment

VITA strives to deliver reliable and cost effective computing platform services. Customers have a choice of platforms to meet their requirements, but customer applications are consolidated on shared platforms wherever possible to take advantage of economies of scale. All activities in this area are oriented towards supporting the business strategies and objectives of the Commonwealth, with an emphasis on collaborative and enterprise opportunities that increase efficiency and effectiveness.

The Code Authority relevant to this Service area is:

- 2.2-2007. Powers of the CIO
- 2.2-2009. Additional duties of the CIO relating to security of government information
- 2.2-2011. Additional powers and duties relating to development, management, and operation of information technology

Products and Services

Description of Major Products and Services

The services listed below are available to workplace collaboration services customers.

WCS Base Service: The Base service includes hosting of agency SharePoint solutions including initial portal and site collection templates. The agency is responsible for all administration and support of agency site collections. Base service includes one instructorled introduction class (15 seats).

WCS Full Service: The Full service includes Base service features along with support and administration of site collections with resources provided by VITA. Full service includes one instructorled introduction class (15 seats).

WCS Migration Option: Migration services are available for new customers interested in migrating the content of existing SharePoint sites into the VITA Service Offering.

WCS Training Option: Training is available for new and existing customers. Training offerings consist of both instructorled training and online training. Instructorled training is available at CESC as well agency sites in the Metro Richmond area, and is based on availability. A training catalog is available for existing courses and customers can request training on specialized topics.

Anticipated Changes

Workplace Collaboration Services, SharePoint, is moving to Google and their products that include sites, docs, and sheets. For those agencies who continue to demand SharePoint services, VITA is looking to establish an environment with Microsoft SharePoint Online featuring SharePoint 2016.

Factors Impacting

Budgetary and resource constraints may impact some organizational functions.

The demands of implementing the ITISP sourcing transition, while simultaneously being responsible for maintaining daily operational work tasks, could potentially impact operational priorities and delivery dates.

Financial Overview

Information Technology Services for Collaboration Improvement is funded through Internal Service Fund sources.

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	0	657,814	0	657,814
Changes to Initial Appropriation	0	0	0	0

Supporting Documents

Title **File Type**

Information Technology Investment Management (ITIM) Oversight Services [82801]**Description of this Program / Service Area**

The Commonwealth Technology Management Policy (GOV 105-04) establishes the Information Technology Investment Management (ITIM) methodology as the Commonwealth's approach for managing technology investments throughout the IT investment lifecycle. This is considered the best means to ensure business value and minimize risk. The lifecycle includes pre-select, select, control, and evaluate phases. In support of the responsibilities of the Commonwealth Chief Information Officer (CIO) and the Secretary of Technology (SoTech), as mandated by the Code of Virginia, the ITIM Oversight service area provides a range of Commonwealth services to ensure the effective application of ITIM best practices across the IT investment lifecycle. This includes early and continuous involvement of Commonwealth executives and agencies in the governance, oversight, and management of agency technology investments. ITIM uses structured processes to minimize risks, maximize return on investments, and support Commonwealth agency decisions to maintain, migrate, improve, retire, or obtain IT investments. It also establishes a common language for the Commonwealth to organize IT investments and define their business value, evaluate and prioritize the investments, and effectively manage change.

Mission Alignment

This service area supports VITA's mission of serving citizens by developing, promoting, and carrying out best practices in IT investment planning and management. All activities in this area are oriented toward optimizing the business value of discretionary IT investments (projects, programs and procurements) to support the mission, goals, and objectives at the agency, secretariat, and Commonwealth. In support of that orientation, the "best value" of all IT initiatives is consistently measured and evaluated in terms of business results.

Code References applicable to this Service Area include:

- 2.2-2014. Submission of information technology plans by state agencies and public institutions of higher education; designation of technology resource
- 2.2-2016. Division of Project Management Established
- 2.2-2016.1. Additional powers and duties of the CIO relating to project management
- 2.2-2017. Powers and duties of the Division
- 2.2-2018.1. Project and procurement investment business case approval
- 2.2-2020. Procurement approval for information technology projects
- 2.2-2021. Project oversight committee

Products and Services**Description of Major Products and Services**

ITIM products and services include:

Project Oversight and Guidance: Provides oversight and governance for managing the implementation of Commonwealth investments of \$250,000 or more. Commonwealth Technology Portfolio (CTP) System includes tools for determining project risk management and complexity assessment. This also includes the development of ITIM policies, standards, and procedures as well as the provision of training on the established ITIM process.

Strategic Planning: Provides guidance and direction for the development and maintenance of Commonwealth and agency strategic plans for information technology and technology business plans to ensure compliance with Commonwealth IT policies, standards, enterprise architecture, and the Commonwealth's Strategic Plan for Information Technology.

Project Management Development: Manages and administers the Commonwealth Project Manager Development Program.

Independent Verification and Validation (IV&V): Reviews and approves Statements of Work (SOW) and project IV&V reports.

Data Governance: Provides guidance for data quality, data management, data policy management, and risk management to ensure that Commonwealth data are managed consistently throughout the Commonwealth.

Consulting Services: Provides PublicPrivate Education and Facilities Act (PPEA) consulting for IT investments.

Anticipated Changes

While core oversight responsibilities will not change, the execution of those functions could become more complex as investments come to involve multiple suppliers and operate within a less-standardized IT environment. The transition to the multi-source environment (the "IT Sourcing" initiative) may have an impact on current processes and provide opportunities for new toolsets.

Factors Impacting

VITA is currently undergoing a significant organizational change that may add/delete and/or change our established ITIM methodologies.

Budgetary and resource constraints may impact some organizational functions.

The demands of implementing the IT Sourcing transition, while simultaneously being responsible for maintaining daily operational work tasks, could affect operational priorities and delivery dates.

Financial Overview

The Technology Management Oversight Services area is funded by Internal Service Fund, Dedicated Special Revenue, General Fund, and Special Fund sources.

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	1,653,483	0	1,653,567	0
Changes to Initial Appropriation	0	0	-1,653,567	1,653,567

Supporting Documents

Title **File Type**

Enterprise Development Services [82803]

Description of this Program / Service Area

The Enterprise Development Services service area supports the Commonwealth's efforts to modernize the planning, development, implementation, improvement, and retirement of Commonwealth applications. This includes the coordination and development of enterprise wide or collaborative (multi agency) applications.

As a provider of collaborative and enterprise applications for the executive branch of government, VITA supports the executive branch agencies in the identification and adoption of business solutions that provide improved services and/or reduced expenditures. VITA has adopted different supporting models to enhance the state of the Commonwealth's applications. These models include the use of a "lead agency" to spearhead enterprise and collaborative application technology solutions, and employment of "shared services" where multiple agencies collaborate to identify and develop value-producing application technology solutions.

Responsible VITA Directorate: Service Management and Delivery

Mission Alignment

This service area supports VITA's mission by modernizing the planning, development, implementation, improvement, and retirement of Commonwealth applications, including the coordination and development of enterprise wide or collaborative (multiagency) applications and shared services.

All activities in this area are oriented towards supporting the business strategies and objectives of the Commonwealth, with an emphasis on collaborative and enterprise opportunities that increase efficiency and effectiveness.

The Code Authority relevant to this Service area is:

- 2.2-2007. Powers of the CIO
- 2.2-2009. Additional duties of the CIO relating to security of government information
- 2.2-2011. Additional powers and duties relating to development, management, and operation of information technology

Products and Services

Description of Major Products and Services

Technology Services: Review agency IT strategic plans, projects, procurements, and application portfolios for collaborative and enterprise opportunities.

New products/services planned or in development include:

- Service-oriented architecture/data integration toolset (message brokers, web services, enterprise service bus)

Anticipated Changes

The transition to a multi-supplier sourcing environment presents opportunities for expanding enterprise services. VITA will be exploring these opportunities with the Multi-Sourcing Integrator (MSI). WPS is retiring in July 2019.

Factors Impacting

One factor is the ability to obtain adequate resources (budget and personnel) to identify, develop, and maintain new and existing/operational products and services.

Another factor is having the capacity to identify technology transfer opportunities and to research, test, and develop them.

Budgetary and resource constraints may impact some organizational functions.

The demands of implementing the ITISP sourcing transition, while simultaneously being responsible for maintaining daily operational work tasks, could potentially impact operational priorities and delivery dates.

Financial Overview

The Enterprise Development Services area is funded by General Fund and Non-general Fund sources.

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	380,472	2,013,086	380,472	1,108,150
Changes to Initial Appropriation	0	0	-380,472	380,472

Supporting Documents

Title **File Type**

Technology Security Oversight Services [82901]**Description of this Program / Service Area**

VITA's Commonwealth Security and Risk Management (CSRM) directorate provides strategic information security services to the Commonwealth. It develops and promulgates the information technology security policies, standards, and guidelines as well as the Information Security Awareness Program, for all branches of government in the Commonwealth of Virginia. Coupled with the development of the standards are security architecture services that assist agencies in implementing secure information systems. Beginning in December, 2008 and annually thereafter, it also reports to the governor and the General Assembly, those executive branch and independent agencies and institutions of higher education that have not implemented acceptable policies, procedures, and standards to control unauthorized uses, intrusions, or other security threats.

In addition, Commonwealth Security and Risk Management monitors and reports on the cyber threat landscape affecting Commonwealth agencies. This activity includes tracking of malicious third parties who are targeting Commonwealth systems and data as well as analyzing security incident reports from the executive branch, US-CERT (United States Computer Emergency Readiness Team) and other sources. Once tracking analysis is complete, Commonwealth Security and Risk Management takes actions necessary or desirable to ensure the security of the Commonwealth's electronic information. Commonwealth Security and Risk Management also partners with Commonwealth localities, federal government, and private industry to strengthen the information security posture of the Commonwealth through threat information exchange, security awareness, and IT security incident notifications.

CSRM also operates the Commonwealth IT Risk Management program. This program is intended to identify significant information security risks and ensure that appropriate resources are dedicated to address the situation or to formally accept the risk.

CSRM also provides assessments of the status of information security controls to agencies receiving infrastructure services from the IT Partnership.

Finally, the Commonwealth Security and Risk Management directorate serves as the internal information security resource for VITA. Program responsibilities include developing and carrying out, as needed, the Continuity of Operations Plan (COOP) and maintaining and overseeing physical security and access controls for VITA as well as carrying out the functions of the information security officer role.

Responsible VITA Directorate: Commonwealth Security and Risk Management

Mission Alignment

This service area supports the mission of the Commonwealth and VITA by providing the Commonwealth with the information technology security governance and management services necessary to adequately protect government information and the systems on which the information resides so that government services can be delivered effectively and efficiently.

The Code Authority relevant to this Service Area includes:

- COV Section: 2.2-2009. Additional duties of the CIO relating to security of government information
 - To provide for the security of state government electronic information from unauthorized uses, intrusions or other security threats
- COV Section: § 2.2-603. Authority of agency directors
 - F. Notwithstanding subsection D, the director of every agency and department in the executive branch of state government, including those appointed by their respective boards or the Board of Education, shall be responsible for securing the electronic data held by his agency or department and shall comply with the requirements of the Commonwealth's information technology security and risk-management program as set forth in § 2.2-2009.

Products and Services**Description of Major Products and Services**

Security Governance: Development of Commonwealth IT security policies, standards, and guidelines.

Security Awareness: Development of the Commonwealth Security Awareness & Orientation and Commonwealth Security Preparedness programs.

Risk Management: Development and implementation of the Commonwealth risk management program; analysis of the annual assessment of security controls in place by the IT Infrastructure Partnership; development of the annual report to the governor and the General Assembly on all executive branch and independent agencies and institutions of higher education that have not implemented acceptable policies, procedures, and standards to control unauthorized uses, intrusions, or other security threats.

Security Incident Management: Response to and resolution of security incidents.

Disaster Recovery: Development and maintenance of the VITA Continuity of Operations Plan (COOP).

Information Security Officer Centralized Service: This service is used to support the information security programs at Commonwealth agencies. The service is designed to perform a number of information security officer functions which agencies need. Agencies that may not have the expertise to perform these functions or smaller agencies that do not need full time staff can use this program to support the agency's information

security needs.

Security Audit Services: This service is used to perform security audits for agency's sensitive systems. Those agencies that do not have adequate staffing to perform the necessary audits can utilize this service to complete their required security audits.

Anticipated Changes

With the sourcing effort underway there may be changes to incident response services. Additionally there will likely be some updates to the way the security services are implemented once the new program is functional.

Factors Impacting

The transition to a multi-supplier sourcing environment presents additional challenges in protecting Commonwealth data assets.

Budgetary and resource constraints may impact some organizational functions.

The demands of implementing the ITISP sourcing transition, while simultaneously being responsible for maintaining daily operational work tasks, could potentially impact operational priorities and delivery dates.

Financial Overview

The Technology Security Oversight Services area is funded by both General Fund and Internal Service Fund sources.

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	151,072	4,405,293	151,072	3,476,134
Changes to Initial Appropriation	0	0	0	0

Supporting Documents

Title **File Type**

Information Technology Security Service Center [82902]

Description of this Program / Service Area

On August 26, 2015, Governor Terry McAuliffe issued Executive Directive 6 (ED-6) to expand cyber-related risk management activities and protections that safeguard the information entrusted to the Commonwealth's executive branch agencies. The directive required the Virginia Information Technologies Agency (VITA), with the assistance of executive branch agencies, to inventory state data, classify its sensitivity, and recommend steps to enhance the protection of the Commonwealth's information technology systems and data.

During the inventory process, VITA identified a number of steps that would enhance the protection of Commonwealth data and systems. To address this, VITA recommended that resources are developed to assist agencies in conducting activities needed to ensure cyber vulnerabilities and risks are identified and remediated. This recommendation resulted in budget and legislation authorizing VITA to create a service center to centralize certain audit, information security, and agency IT risk management functions.

On July 1, 2016, VITA officially launched the Information Security Shared Services Center (ISSSC). Commonwealth Security and Risk Management is currently in the process of staffing the new unit. At present, 26 executive branch agencies have entered into a Memorandum of Understanding (MOU) with VITA to have these services performed. Other agencies are expected to follow suit. Currently, the MOUs in effect total over \$3.8 million in services for the next three fiscal years.

Responsible VITA Directorate: Commonwealth Security and Risk Management

Mission Alignment

This service area supports the mission of the Commonwealth and VITA by providing Commonwealth agencies with an efficient and effective approach for performing certain IT audit, information security, and risk management functions.

The relevant code authority includes:

COV Section: § [2.2-2009](#)

- 1. Address the scope and frequency of security audits.
- 2. Control unauthorized uses, intrusions, or other security threats
- 3. Provide for the protection of confidential data maintained by state agencies
- 4. Address the creation and operation of a risk management program

Products and Services

Description of Major Products and Services

Audit and Risk Assessment: Includes the performance of IT security audits and IT security risk assessments to ensure the security and safety of the Commonwealth's assets.

Security Risk Mitigation: Develops corrective action plans to address threats or misuse of the Commonwealth's assets.

Consulting Services: Creates business impact analysis reports and other information security guidance.

Anticipated Changes

This is a new service offering for this fiscal year and may require additional development and modification depending on the business needs of our customers.

Factors Impacting

Budgetary and resource constraints may impact some organizational functions.

The demands of implementing the ITISP sourcing transition, while simultaneously being responsible for maintaining daily operational work tasks, could potentially impact operational priorities and delivery dates.

Financial Overview

The Technology Security Oversight Services is funded by both General Fund and Internal Service Fund sources.

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	312,515	4,035,814	274,092	4,214,229
Changes to Initial Appropriation	0	-2,633,298	0	-2,747,715

Supporting Documents

Title **File Type**

Cloud Based Services Oversight [82903]

Description of this Program / Service Area

The Commonwealth has more than 2,000 IT solutions hosted on various physical and virtual PaaS (Platform as a Service) servers. More cloud options are expected to be added in the future. Experts say that within three years, 40 percent of organizations will have a majority of their IT solutions hosted in the cloud. VITA and the Commonwealth of Virginia are striving to meet that mark, but in doing so, are working to keep commonwealth data secure and adapt IT solutions and business processes to they can use cloud-based services.

Cloud and Oversight Services provide oversight and support services for agencies undertaking the decision to move to cloud-based services. The CoVA Cloud service offering will allow agencies to obtain the optimal hosting solution for their specific business needs. For simple, repeatable application hosting, the agency will be able to leverage SaaS (Software as a Service). For potentially more complex hosting requirements that do not involve any sensitive data, the agency may be able to leverage the public cloud (i.e. AWS), and finally, for complex hosting requirements involving sensitive data, or requirements too complex to be satisfied by public cloud offerings, the agency can leverage the CoVA private cloud. VITA will assist customers in navigating this suite of services to find the appropriate service offering that adds most value.

The Enterprise Cloud Oversight Service (ECOS) will eliminate the need for exceptions for agencies seeking to leverage external SaaS services. These services provide a flexible and custom option to engage software as a service (SaaS) which meet an agency's specific requirements and growing operational demands. The services offer automatic compliance updates as well as achieve current regulatory and security compliance.

The service centralizes the oversight functions for certain cloud services by offering:

- SaaS Assessment
- Supply Chain Management Consulting Service
- Cloud Services Oversight

Responsible VITA Directorate: Platform Relationship Office

Mission Alignment

Products and Services

Description of Major Products and Services

Enterprise Cloud Oversight Service (ECOS) provides oversight functions and management of cloud based services, specifically focused on software as a service (SaaS). The service assures compliance and improved security by providing transparency through VITA oversight.

The service assures consistent performance from suppliers through service level and performance monitoring. Agencies benefit from flexibility with growing business demands by ensuring adequate security controls are in place for the protection of data, proper utilization of resources and compliance with regulations, laws and timely resolution of audit recommendations.

ECOS minimizes the need for exceptions in obtaining external SaaS services. ECOS provides a flexible and custom option for obtaining SaaS services which meet the specific needs of the agency. The service offers guidance and oversight activities for agencies in the following areas:

- Meeting commonwealth requirements, such as SEC 501 and SEC 525
- Incorporating appropriate contract terms and conditions to mitigate risk
- Completing Annual SSAE16 assessment reviews
- Ensuring vulnerability scans and intrusion detection are conducted
- Patching compliance of suppliers environment
- Ensuring architectural standards are met
- Monitoring performance against Service Level Agreements (SLAs)

ECOS is a service specifically created for third party vendors offering software as a service (SaaS) applications.

SaaS is the capability to use the provider's applications running on a cloud infrastructure. The applications are accessible from various client devices through either a thin client interface, such as a web browser (e.g., web-based email), or a program interface. The provider manages or controls the underlying cloud infrastructure including network, servers, operating systems, storage, or even individual application capabilities, with the possible exception of limited user specific application configuration settings.

SaaS Characteristics include:

- Network-based access to, and management of, commercially available software
- Access to provider's services through an internet connection to a third party hosted facility
- A one-to-many model (single instance, multi-tenant architecture) for service delivery
- A common architecture for all tenants, usage based pricing, and scalable management
- Third party management of the service including functions such as patching, upgrades, platform management, etc.
- A multi-tenant architecture with a single, centrally maintained, common infrastructure and code base shared by all users and applications
- Subscriber/user managed access for the application
- Provider-based data custodianship and server administration for the service

ECOS Applies when:

- Services under procurement meet the above definition and/or characteristics of a SaaS provider.
- When an agency is requesting the provider to act on behalf of a Commonwealth entity and/or is accepting commonwealth data, and/or serving as the data custodian and/or system administrator of that data for purposes of making it available back to the Commonwealth via an interface for fee.

ECOS is composed of 3 new component services under the cloud oversight umbrella:

- **Assessment Review** - The assessment component is a pre-procurement questionnaire that will be completed by the proposed supplier(s) and reviewed by the Enterprise Services Director and the Security Architect. The assessment allows VITA to verify supplier ability to meet the commonwealth security and governance requirements for non-premise based services. Note: The Assessment Review service is engaged independently of the other two service components. Once a supplier's solution has been assessed and approved by VITA, the assessment is valid for 12 months from the approval date. An Assessment Review fee or associated fees will not be incurred by agencies seeking use of a previously approved supplier solution.
- **Supply Chain Management Consulting Service (SCM)** - The SCM component includes consulting services to offer guidance and oversight to the agencies for delegated cloud procurements, including contract language, contract terms and conditions, support during negotiations, and SCM final contract review. The SCM Consulting Service assures that contract language embedded into cloud contracts enable VITA oversight. The amount of VITA staff time will vary based on the level of assistance needed as well as supplier responsiveness.
- **Cloud Services Oversight** - The oversight component provides monthly performance monitoring (PM), Service Level Agreement (SLA) management, operational oversight and security conformance of SaaS services through analysis and review of data and artifacts provided by the SaaS service supplier. The service assures compliance with regulations, laws and annual audit recommendations. Oversight also includes both an annual and end-of-service contract review. Resources engaged in these activities are Technical Services Lead, IT Security Auditor, IT Security Architect (as required) and Enterprise Services Director.

Anticipated Changes

This is a new service offering and we can anticipate that there may be some modifications to the service as it matures through the initial deployment period.

Factors Impacting

- Budgetary and resource constraints may impact some organizational functions.
- The demands of implementing the Information Technology Infrastructure Services Program (ITISP), while simultaneously maintaining daily operational work tasks, could potentially impact operational priorities and delivery dates.

Financial Overview

The Cloud Based Services Oversight Service area is funded by Dedicated Special Revenue.

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	0	0	0	0
Changes to Initial Appropriation	0	0	0	625,314

Supporting Documents

Title **File Type**

Administrative and Support Services [899]

Description of this Program / Service Area

This service area encompasses the broad range of management, administrative and support activities that fall under the headings of Administrative and Support Services, General Management and Direction, Accounting and Budgeting Services, Human Resources Services, Procurement and Contracting Services, Audit Services, and Web Development and Support Services.

The VITA Administration & Finance (A&F) directorate is focused on effectiveness, efficiency, and operational excellence for VITA. Administration & Finance works with agency leadership to develop long-range plans and strategies, ensure that the necessary financial, human resources and other assets are available, develop criteria for success, track and report performance, and support continuous operational improvement.

General Management and Direction (service area 89901) - provides agency leadership, with an emphasis on customers and proactive management of customer relationships, ensuring that VITA's product and service offerings are consistent with the demands and direction of the agency's served customer markets. Awareness and adoption of offered services and products is accomplished through communication and promotional programs. Such programs serve to educate customer markets on available offerings and solicit customer feedback to help in fine tuning future product directions, in addition to improving internal staff communications, knowledge, and awareness. Support activities also include policy, legal, and legislative reviews and analyses, and legislative liaison. This area defines and implements strategic planning to support the business strategy and goals of VITA. This area is accountable for setting and enforcing VITA-wide policies, standards and guidelines and integrating IT processes and procedures using best practices. This area also includes HR functions that are not included in the DHRM Shared Services Center service agreement (training and knowledge management, professional development, human resources information systems, and contractor tracking and management).

Responsible VITA Directorate: Administration and Finance

Accounting and Budgeting Services (service area 89903) - Manages VITA's internal and external financial resources to ensure legal compliance with state and federal policies and procedures. Activities include maintaining accounting, budgeting, performance, and forecasting systems to provide VITA management with the necessary information for oversight and direction, as well as acting as the point of contact for all external financial information requests. Also included are customer billing for services rendered, reconciliation of expenses to telecommunications services providers' charges, maintenance and operations of financial and budgeting systems, and analytical support for internal and external projects.

Responsible VITA Directorate: Administration and Finance

Human Resources Services (service area 89914) - VITA contracts with the Department of Human Resource Management's Shared Services Center (DHRM-SSC) to perform most of its human resources functions (exceptions are included above). VITA continues to work with DHRM to address workforce development issues.

Responsible VITA Directorate: Administration and Finance

Procurement and Contracting Services (service area 89918) - This area provides comprehensive IT procurement services, leveraging the information technology supplier community for the best value IT solutions to meet the business needs of our state and local government customers. The centralization of IT procurement services within VITA allows the Commonwealth greater flexibility in negotiating contracts with suppliers that ensure the Commonwealth is procuring quality prices at the best possible price. It also provides for a mechanism for the standardization of IT equipment used throughout the Commonwealth.

Responsible VITA Directorate: Legal and Legislative Services (Supply Chain Management)

Audit Services (service area 89931) - Internal Audit Services is an independent and objective assurance and consulting activity that is guided by a philosophy of adding value to improve the operations of the Virginia Information Technologies Agency (VITA). It assists VITA management in accomplishing its objectives by bringing a systematic and disciplined approach to evaluate and improve the effectiveness of the organization's risk management, control and governance processes.

Responsible VITA Directorate: Internal Audit

Web Development and Support Services (service area 89940) - Web Development is responsible for the development of standard policies for the development and maintenance of VITA web applications and support of the Governor's Office websites.

Responsible VITA Directorate: Administration and Finance

Mission Alignment

Administrative and Support Services: Providing support services throughout the organization gives VITA a diverse set of knowledge and skills that assists other directorates in achieving their mission, goals and objectives.

General Management and Direction: Management emphasis on customer focus, technologically appropriate selection and market awareness helps VITA position itself as a change agent to continually improve services and lower costs to citizens and customers. The more VITA's products and services are recognized as bringing value, the more they will be used. Each of these forces leads to improving services, lowering costs, and providing improved value propositions for the citizens.

Accounting and Budgeting Services: Providing financial management leadership for VITA emphasizes implementing equitable and defensible service and service support charges; developing and executing sound spending plans in accordance with agency and state priorities; providing timely and accurate financial information to VITA's customers and managers; billing, collecting, and paying for services promptly and in compliance with state and federal directives. All of these efforts ensure that VITA possesses sufficient resources to perform its mission while maintaining sound financial management practices. Promoting standardization of planning, processes and procedures helps VITA to streamline its operations and become more efficient in the use of its resources. This improves services and lower costs to citizens and customers. Accounting and Budgeting provides guidance and support throughout all VITA service areas in implementing the strategies that directly support the agency mission and goals.

Human Resources Services: This service area supports all VITA service areas, which in turn directly supports the agency mission and goals.

Procurement and Contracting Services: This area supports VITA's mission through the procurement of information technology and telecommunications goods and services and by establishing statewide contracts and agreements that can be used by all public bodies, including counties, cities and towns. This supply chain organization further supports the mission by providing services and governance. These goods and services are vital to the success of the many projects identified in VITA's strategic plan and the achievement of its strategic objectives.

Audit Services: This service area supports VITA's mission by determining whether risk management, control, and governance processes are adequate and provide reasonable assurance that: risks are appropriately identified and managed; control processes are adequate and functioning as intended; required information is accurate, reliable, and timely; actions are in compliance with applicable requirements; resources are acquired and used effectively; and program plans and objectives are achieved.

Web Development and Support Services: Management emphasis on establishing standard policies for the development and maintenance of web applications helps VITA position itself to continually improve its services while lowering costs to citizens and customers.

Relevant Code Sections for this Service Area include:

- 2.2-2007. Powers of the CIO
- 2.2-2007.1. Additional duties of the CIO relating to information technology planning and budgeting
- 2.2-2011. Additional powers and duties relating to development, management, and operation of information technology
- 2.2-2012. Additional powers and duties related to the procurement of information technology
- 2.2-2013. Internal service and special funds

Products and Services

Description of Major Products and Services

General Management and Direction:

Accounting and Financial Management – The establishment of financial policies to ensure that VITA is in compliance with Generally Accepted Accounting Principles (GAAP). These services include such things as:

- Customer accounts and liaison for resolving billing inquiries
- Customer bills for services
- Approved rates establishment
- Reconciled bills
- Budget and revenue and expense monitoring, analysis and reporting for VITA Divisions
- Performance measurement system and benchmarking process
- Cost savings reports
- Asset management reports and inventories
- Financial reports and queries
- Financial systems development and operations

Strategic Planning: Development and monitoring of long-range plans such as the agency strategic plan and the IT strategic plan to ensure that the necessary financial, human and other assets are available.

Process Improvement: A&F is accountable for the continuous improvement of VITA operations with the capability for identifying and directing process improvements, change management, knowledge management and standards. A&F improves VITA's productivity through the development and application of consistent processes, standards, and principles. Critical activities include:

- Development of templates and assistance in the documentation of processes
- Process improvements/paperwork reduction

Customer Relationship Management - A&F's communications team manages communications, provides standards, and ensures internal and external communications are effective

- Internal/External Communications Monitoring and reporting of Work Plan Initiatives
- Development of the agency strategic plan and the IT strategic plan
- Information and assistance regarding programs administered

Human Resources:

Workforce Development: Development of the talent strategy to ensure that personal and organizational objectives are aligned with customer and IT strategies. Specific activities include:

- Information and assistance regarding programs administered from SSC
- Information and assistance related to SCC recruitment and position openings
- Policy and procedure interpretation from SSC
- Policy and procedure interpretation
- Professional development and training

Procurement and Contracting Services:

Procurement Governance: Ensures that the Commonwealth is in compliance with procurement policies and guidelines and that the Commonwealth is effectively using the services of SWaM suppliers. Governance activities include:

- Strategic Sourcing including needs analysis, market analysis, category management, solicitation development, negotiations, contract establishment, award and announcement
- Provisioning including requisition management, quick quotes, eVA administration, ordering
- IT Procurement Outreach including promoting increased access, participation, and partnerships with SWaM businesses, assisting IT suppliers in how to do business with the Commonwealth, and supporting Commonwealth procurement professionals with the acquisition of IT goods and services
- Contract and supplier management including relationship management, contract administration, service level management, information management and dispute resolution

Audit Services:

Assurance Services: Independent assessment on risk management, control, or governance processes. Examples: financial, performance, compliance, and system security engagements and investigations

Consulting Services: Advisory and related client service activities, the nature and scope of which are agreed upon with the client and which are intended to add value and improve an organization's governance, risk management, and control processes without the internal auditor assuming management responsibility. Examples include counsel, advice and facilitation.

Web Development and Support Services:

Website Maintenance: To ensure consistency in the communication and content of public facing websites. Includes such things as:

- Policy guidelines for development and maintenance of web applications
- Procurement and support of a content management system for VITA and the Governor's websites

Anticipated Changes

The transition to a multi-sourcing supplier model will bring about many changes for VITA that will require adjustments to our current processes and practices. New contractor agreements may necessitate the creation of a new rate schedule that will then need to be uploaded into our billing system to ensure that customers are billed correctly. Having multiple suppliers will increase the volume of purchase orders and vendors that must be managed and monitored. In addition, there will be a significant number of RFPs issued during this transition stage that require vast amounts of staff input and preparation.

Factors Impacting

VITA is transitioning from a single provider service delivery model to a multi-source provider environment. This transition will be finalized with the dissolution of the Comprehensive Infrastructure Agreement (CIA) with Northrop Grumman on July 1, 2019. This represents a significant change in the service delivery model currently provided by VITA and may impact all elements of the Administrative Support Services service area.

Additional factors are listed below.

- Budgetary and resource constraints may impact some organizational functions.
- The demands of implementing the ITISP sourcing transition, while simultaneously being responsible for maintaining daily operational work tasks, could potentially impact operational priorities and delivery dates

Financial Overview

The Administrative and Support Services area is funded by General Fund, Internal Service Fund and Special Revenue Fund sources. Internal Service Fund costs are recovered through user charges to our customers. Special Revenue Fund costs are recovered through the Industrial Funding Adjustment (IFA) fee charged to most suppliers of statewide IT contracts.

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	343,706	37,298,726	0	38,615,103
Changes to Initial Appropriation	0	-810,832	0	-185,814

Supporting Documents

Title **File Type**