

**Report of the
Joint Legislative Audit and Review Commission
To the Governor and
The General Assembly of Virginia**

**Interim Review of the
Virginia Information
Technologies Agency**



**SENATE DOCUMENT NO. 17
2008**

In Brief

Interim Review of the Virginia Information Technologies Agency

Senate Joint Resolution 129 and Item 29 (E) of the Appropriation Act from 2008 directed JLARC to examine VITA's services, some of which are provided through a partnership with Northrop Grumman.

Annual payments to Northrop Grumman are subject to a \$236 million cap, but it can be exceeded if inflation occurs or if the State buys new IT services. Northrop Grumman is guaranteed a minimum payment, equal to \$177 million in FY 2009, but it depends upon appropriations.

The transformation to Northrop Grumman's management of IT has been delayed because of inadequate planning by Northrop Grumman and a reported reluctance by some agencies to support transformation.

The partnership was intended to avoid projected costs, not achieve savings. In addition, VITA's implementation of IT rates may increase costs at some agencies.

State agencies have identified problems with IT services which may indicate the partnership is unable to provide adequate service. Concerns have also been expressed that the IT governance structure is not fulfilling its purposes.

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This report is available on the JLARC website at <http://jlarc.virginia.gov>



COMMONWEALTH of VIRGINIA

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January 7, 2009

The Honorable M. Kirkland Cox
Chairman
Joint Legislative Audit and Review Commission
General Assembly Building
Richmond, Virginia 23219

Dear Delegate Cox:

Senate Joint Resolution 129 and Item 29#1c of the 2008 Appropriation Act directed the Joint Legislative Audit and Review Commission to examine the services provided by VITA to State agencies and other entities. This is an interim report discussing those services as well as the financing of information technology in the State and VITA's partnership with Northrop Grumman.

Findings included in this interim report were presented to the Commission on December 8, 2008.

On behalf of the Commission staff, I would like to thank the staff at the Virginia Information Technologies Agency for their assistance during this study.

Sincerely,

A handwritten signature in black ink that reads "Philip A. Leone".

Philip A. Leone
Director

PAL/asc

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JLARC Report Summary:

Interim Review of the Virginia Information Technologies Agency

Key Findings

- The contract between the Commonwealth and Northrop Grumman caps the annual cost of initial “baseline” information technology (IT) services at \$236 million. Annual payments to Northrop Grumman can exceed this cap, however, if inflation occurs or if the Commonwealth purchases new IT assets or services. Although the contract guarantees a minimum payment to Northrop Grumman, equal to \$177 million in FY 2009, payments are contingent upon the appropriation of sufficient funds. (Chapter 2)
- Transformation into a “managed service” environment in which Northrop Grumman manages and operates the in-scope IT infrastructure has been delayed because of inadequate planning by the partnership with Northrop Grumman and reported reluctance by some agencies to allow transformation to occur. (Chapter 2)
- The partnership with Northrop Grumman was intended to avoid future costs, not achieve savings, and savings are likely only if the contract is extended. (Chapter 3)
- VITA’s implementation of internal service fund rates may increase IT costs at some agencies. IT costs may increase by a total of \$9.7 million annually as assets are replaced because some agencies are not pre-paying the replacement cost. In addition, VITA’s decision not to implement lower rates approved by JLARC in 2007 has resulted in \$2.35 million in higher charges in the first half of FY 2009. (Chapter 3)
- The State’s new approach to IT has created short-term challenges, and State agencies express concern that the problems they have encountered are indicative of a longer-term inability of the partnership to provide adequate service. The transformation to a new IT model has raised concerns regarding the State’s current governance structure and whether it is fulfilling its intended purposes. (Chapter 4)

Senate Joint Resolution (SJR) 129 and Item 29 (E) of the Appropriation Act, passed by the 2008 General Assembly, direct the Joint Legislative Audit and Review Commission (JLARC) to “examine the quality, cost, and value of the services provided to state agencies and public bodies by the Virginia Information Technologies Agency” (VITA). The study was requested in part because of concerns that the information technology (IT) costs of State agencies had been increasing and that the services provided by VITA through its contract with Northrop Grumman were not meeting

the operational needs of State agencies. The present interim report discusses VITA's service and oversight functions, its contractual relationship with Northrop Grumman, and the financing of IT.

MAJOR INFORMATION TECHNOLOGY REFORM OCCURRED IN 2003

IT Includes Infrastructure and Applications

IT can be categorized into two large groups. The first group, infrastructure, includes mainframe, server, and personal computers. The other major component of IT is the software applications that run on the infrastructure. When an agency implements new infrastructure or an application (or both), this effort is termed a systems development project.

In December of 2002, JLARC staff completed a study of systems development projects which found that the State had wasted at least \$75 million on failed efforts and had incurred an additional \$28 million in cost overruns. As a result of these failures and a noted lack of project oversight, support, and planning, JLARC recommended the appointment of an oversight board known as the Information Technology Investment Board (ITIB) and a full-time Chief Information Officer (CIO). However, the JLARC study did not recommend any changes to the management or provision of IT services because this was beyond the scope of the requested study.

At the same time that JLARC was conducting its study, the Secretary of Technology had been looking for opportunities to improve the State's IT infrastructure and reduce expenditures. Since the mid-1980s, State agencies had received very limited oversight or direction regarding IT purchasing or hiring, limiting the State's ability to achieve economies of scale and resulting in some duplication of effort. The secretary recommended that the IT oversight agency (the Department of Technology Planning) and the IT services agency (the Department of Information Technology) be merged to create VITA, which would consolidate infrastructure and applications.

In the 2003 Session, the Governor proposed and the General Assembly enacted legislation that consolidated the IT infrastructure and related staff of most executive branch (or "in-scope") agencies into VITA. The legislation also established the ITIB to oversee IT and created the CIO to serve as the administrative head of VITA. Some agencies, including institutions of higher education and the Virginia Port Authority, were deemed "out-of-scope" and their IT was not consolidated.

CREATION OF VITA RESULTED IN MANY CHANGES TO THE OVERSIGHT OF INFORMATION TECHNOLOGY

The ITIB was established as a supervisory board that is responsible for hiring the CIO as well as "planning, budgeting, acquiring, using, disposing, managing, and administering of information technology in the Commonwealth." One of the specific duties of the ITIB is to approve the Recommended Technology Investment Projects (RTIP) report, which contains annual project funding recommendations. The ITIB is also responsible for reviewing and ap-

proving proposed major systems development projects, which are defined as projects that cost more than \$1 million or are mission critical.

Both the CIO and VITA have defined statutory responsibilities for the oversight of IT. The *Code of Virginia* directs the CIO to take steps “necessary to support a unified approach to IT across the totality of state government.” In support of this, the CIO is responsible for developing IT policies, guidelines, and standards and a four-year strategic IT plan. The CIO also oversees systems development projects with the assistance of VITA’s Project Management Division.

VITA also has the authority to review the IT goods and services procured by all agencies. However, VITA has elected to delegate some procurement authority. Out-of-scope agencies can procure IT goods and services with a value up to \$50,000. The delegated authority of in-scope agencies varies by the type of good or service. For items provided by VITA or Northrop Grumman, in-scope agencies have no delegated procurement authority. Other items may be procured by in-scope agencies, such as digital cameras, educational software, agency-specific applications and non-infrastructure products with a value up to \$50,000.

NEED FOR CAPITAL INVESTMENT LED TO TWO PUBLIC-PRIVATE PARTNERSHIPS

In 2003, VITA determined that its ability to achieve cost savings depended upon the creation of a cohesive enterprise IT infrastructure. However, the State lacked the capital required to modernize its IT infrastructure and applications. VITA received five unsolicited proposals under the Public-Private Education and Infrastructure Act (PPEA) to modernize the State’s IT. Consideration of this solution was in keeping with the CIO’s statutory responsibility to “periodically evaluate the feasibility of outsourcing information technology resources and services.” Subsequently, the proposals were placed on two different tracks, one for infrastructure and another for applications.

In November of 2005, the Commonwealth entered into a ten-year, \$2 billion partnership with Northrop Grumman for the provision of most of the IT infrastructure services which VITA had been providing. These services include personal computers (desktops and laptops) plus the underlying IT infrastructure and related services, such as data backup and disaster recovery. However, VITA still retains responsibility for providing telecommunications, geographic information systems, and E-911 support services.

Public-Private Education and Infrastructure Act of 2002 (PPEA)

State agencies can use the PPEA to leverage private sector resources and expedite the process of procuring infrastructure. The PPEA allows private entities to offer an unsolicited proposal to State agencies, rather than having to rely on the traditional method of responding to an agency’s request for a proposal.

The other public-private partnership was formed between CGI and the Virginia Enterprise Applications Program (VEAP). This partnership is a seven-year, \$300 million performance-based agreement designed to develop new administrative, financial, human resource, and supply chain applications by 2012. VEAP is administered by the Chief Applications Officer (CAO), who reports to the Governor and to the ITIB because VEAP is treated as a systems development project by the board. In addition to overseeing VEAP, the CAO has assumed several of the CIO's statutory responsibilities for managing enterprise systems development projects, developing needed standards (such as data definition standards), and conducting key parts of the State's IT strategic planning.

COMPREHENSIVE INFRASTRUCTURE AGREEMENT GOVERNS THE PARTNERSHIP AND TRANSFORMATION

The terms of the relationship between the Commonwealth and Northrop Grumman are set forth in the Comprehensive Infrastructure Agreement ("the contract") signed by the parties in 2005. Under the contract, the provision of IT infrastructure services is a joint effort between both partners and a new governance structure has been developed in which service provision is overseen by the ITIB and Northrop Grumman. The company assumed responsibility for delivering IT services on July 1, 2006, and the contract sets a goal of fully transferring management of the State's IT infrastructure to the company by July 1, 2009.

After July 1, 2009, the partnership will operate in a "managed services" environment in which Northrop Grumman will be responsible for providing and managing the staff, hardware, software, and facilities needed to operate the State's IT infrastructure. Northrop Grumman will also report monthly data on its performance to VITA. In the managed services environment, the Commonwealth will essentially pay a monthly fee, based on the volume of assets and services consumed, to use the IT infrastructure. This volume-based fee structure requires an accurate count of the IT assets being used by State agencies, and a key transformation activity is the completion of this asset inventory, which has been delayed.

VITA AND NORTHROP GRUMMAN HAVE DEFINED RESPONSIBILITIES UNDER THE CONTRACT

The obligations of VITA and Northrop Grumman under the partnership are detailed in the contract. The terms under which the partnership operates are set by the contract, which consists of the 151-page agreement and an additional 55 amendments, 29 schedules, 17 appendices, 17 addendums, six attachments, and 196 Service Level Agreements (SLAs).

Northrop Grumman must adhere to a series of deliverables in each of the three transition phases, and the company must meet performance measures in a managed service environment. Much of the contract consists of statements of work that detail the services Northrop Grumman must provide. These statements cover services such as security, messaging, mainframes and servers, and desktop computing. Key services provided by Northrop Grumman include

- construction of two new data centers to deliver infrastructure services to the State, including leasing office space to the State in the primary data center located in Chester;
- disaster recovery services to protect the State’s “mission critical” applications;
- information security services that include the physical protection of IT assets as well as protection from electronic threats such as viruses;
- regular replacement of the State’s IT infrastructure, including desktops, laptops, and servers; and
- a single helpdesk center to support the State’s IT functions.

The contract also includes 196 SLAs—or performance metrics—that are intended to allow VITA to monitor Northrop Grumman’s performance. Although VITA will regularly monitor Northrop Grumman’s adherence to each SLA, no more than 20 SLAs are subject to penalties in any given month. In addition, VITA must rely on Northrop Grumman to provide accurate data that indicate its performance. If Northrop Grumman fails to meet the performance metric in an SLA, the contract provides a system of “performance credits” that can be awarded to VITA. These credits can be used to offset the fees charged by Northrop Grumman, but the total amount of the credits are capped at ten percent of average monthly fees.

Provisions in the contract also address the ownership of IT assets during and after the initial ten-year term. During the initial term, Northrop Grumman owns all of the IT assets used to provide infrastructure services to the Commonwealth. If the contract is allowed to expire at the end of the ten-year term (or after the optional three-year extension period), Northrop Grumman is required to transfer to the Commonwealth—at no additional cost—ownership of all “tangible assets” used in the provision of IT services. The Commonwealth can also negotiate the purchase of Northrop Grumman’s data center in Chester. By contrast, if the contract is terminated by either party, the Commonwealth may be able to purchase these IT assets from Northrop Grumman at a price that includes the company’s costs plus a markup specified in the contract.

CONTRACT PROVIDES GROUNDS FOR TERMINATING THE PARTNERSHIP

The contract provides the Commonwealth six avenues for terminating the partnership with Northrop Grumman prior to completing the ten-year term. Under some circumstances, the Commonwealth would pay substantial financial penalties and would be required to lease IT assets from Northrop Grumman for the remainder of the contract term. The total cost to the Commonwealth to terminate the contract in FY 2009 on three of the six grounds is between \$468 and \$474 million. However, these costs decline substantially in future years. Northrop Grumman has only one option to terminate the contract. The company can unilaterally withdraw from the contract if the Commonwealth defaults on its contractual obligations by amassing a minimum of \$100 million in unpaid fees for services.

PAYMENTS TO NORTHROP GRUMMAN ARE DETERMINED BY THE CONTRACT

The contract includes an annual payment cap of \$236 million for defined baseline services: telecommunications contracts retained by the Commonwealth, VITA employees managed by Northrop Grumman, and baseline IT infrastructure services provided by Northrop Grumman.

However, the cap could be exceeded if Northrop Grumman requests a cost of living (inflation) adjustment or the Commonwealth requests a higher volume of services. The contract also provides for a decrease in payments to Northrop Grumman in the event that any of the following occurs: the volume of services declines, deflation occurs, the company offers lower fees to other customers, or its fees are not among the best 25 percent of the rates being charged to similar entities for similar services.

The contract guarantees Northrop Grumman a minimum annual payment equal to 85 percent of fees for its baseline services, or approximately \$177 million in FY 2009. However, provisions in the contract protect the Commonwealth in the event sufficient funding is not available to meet payment obligations to Northrop Grumman. The contract appears to give the Commonwealth the ability to negotiate reduced service levels and fees below the 85 percent minimum revenue commitment if IT funding is not adequate.

PROBLEMS HAVE DELAYED THE TRANSITION TO A MANAGED SERVICES ENVIRONMENT

Some elements of the transformation process have been delayed, and it appears that transformation of some agencies will not be

completed by the June 30, 2009, deadline in the contract. The partnership reports that 39 of 85 agencies face some level of risk for not completing transformation by the deadline, and 12 of these agencies have been deemed “unlikely” to meet that deadline.

Several problems account for the delays in the transformation process. In some cases, responsibility for these delays is not clear. An accurate inventory of IT assets requires substantial cooperation among VITA, Northrop Grumman, and State agencies. However, to date such an inventory has not been completed, and thus State agencies cannot be accurately billed for services from Northrop Grumman. Transformation has also been delayed because the partnership—either VITA, Northrop Grumman, or both—appears not to have fully understood the complexities of some State agencies, including funding arrangements and relationships with local government agencies. Other transformation delays more clearly involve Northrop Grumman. For example, VITA has identified problems with the company’s planning activities that have hindered the transformation process. Northrop Grumman appears to have been slow to develop key planning documents such as agency-specific transformation plans.

Finally, in some cases transformation has been delayed by agencies because the partnership has not addressed agency concerns such as data security. Several agencies have delayed transformation until the partnership addresses their concerns regarding the installation of Altiris, a centralized desktop and asset management system that the agencies fear could compromise their protection of confidential data.

VITA’S REVENUES AND EXPENDITURES ARE PRIMARILY FROM ITS INTERNAL SERVICE FUND

In FY 2008, VITA reported revenues of \$325 million and expenditures of \$341.7 million. Most of the shortfall (\$16.5 million) occurred within its internal service fund (ISF), which accounts for about 82 percent of VITA’s revenues and is primarily used to pay for contractual services. Northrop Grumman was the primary recipient of these payments, and the company received \$161 million in FY 2008. Of this amount, \$153.5 million was for baseline IT infrastructure services provided to in-scope agencies. (The other \$7.5 million was for new IT services not covered by the cap on baseline services.) VITA’s total expenditures for baseline infrastructure services in FY 2008 (\$230.5 million) also included payments for telecommunications and other services (\$60.4 million) and the salaries and benefits of State employees who are managed by Northrop Grumman (\$16.6 million).

NO ADDITIONAL SAVINGS FROM THE PARTNERSHIP ARE ANTICIPATED DURING THE CONTRACT TERM

The IT Partnership with Northrop Grumman is unlikely to produce additional savings during the contract term, and the CIO has stated that “there are no ‘uncommitted savings’ ” in the initial term of the contract because any savings are “committed to repayment of Northrop Grumman’s up-front \$270 million capital investment.” Savings may occur if Northrop Grumman can provide services at a lower cost without affecting service levels. If this occurs, then Northrop Grumman and VITA will each receive a portion of the savings. If the contract is extended for an additional three years, savings could occur because the company would be required to lower its fees by about \$28 million during each of these three years.

Instead of savings, it is likely that any financial benefit to the State during the ten-year contract term will result from avoiding projected costs that may have occurred if VITA had continued to provide IT infrastructure services. Prior to executing the contract, VITA projected that its FY 2005 expenditures (\$236 million) on baseline services would increase by \$200 million over the next ten years because of inflation and the need to replace obsolete equipment. VITA informed policymakers that the IT Partnership would avoid this increase by capping the cost of baseline infrastructure services (including the vendor’s fees) at \$236 million annually.

However, the terms of the contract do not appear to allow the State to achieve the cost avoidance that VITA reported to policymakers. The contract allows Northrop Grumman to make annual requests for cost of living adjustments and both parties “shall negotiate and execute a contract modification adjusting the fees.” Fee adjustments could therefore raise total annual payments for baseline services above the \$236 million cap. It should be noted that the same language could allow VITA to reduce payments to Northrop Grumman in the event of deflation, which is more likely in the current economic climate but does not appear to have been considered during contract negotiations.

VITA’S IMPLEMENTATION OF RATES MAY RESULT IN INCREASED COSTS FOR SOME AGENCIES

The ISF rates which VITA develops are designed to provide sufficient revenue to pay for VITA’s internal costs and the agency’s contractual obligation to pay Northrop Grumman. In addition, federal regulations require that all recipients of a materially similar service be charged the same rate. This requirement is designed to prevent states from drawing down additional federal funding by charging higher rates to federally funded agencies.

VITA must receive approval from JLARC before implementing rate changes. However, in December of 2004 the ITIB granted the CIO authority to request rate changes without first receiving the ITIB's approval.

Rates approved by JLARC and implemented by VITA in December 2006 may result in additional costs for some agencies. These rates included three primary service options, depending upon the costs incurred by the IT Partnership. For assets assigned to option one, the rate includes the capital cost of replacing the asset (such as personal computers or servers) and the cost of providing IT support services. In other words, agencies are pre-paying for the replacement asset. (Assets are replaced on a five-year schedule.) As a result, assets assigned to option one will be replaced at no additional cost.

However, the assets of many agencies, including those that rely heavily on federal funding, were assigned to option two, which does not include the prepayment of capital costs. As a result, when those assets are replaced, the agencies will incur additional costs totaling about \$9.7 million annually. This charge will occur because federal regulations prohibit prepayment.

In addition, some assets were assigned to option three, which excludes the labor costs incurred by Northrop Grumman and VITA. This is because some agencies do not receive IT support from the partnership. However, because VITA has not reconciled its billing inventory to accurately reflect which assets should be billed under service option three, it appears that some other agencies that provide their own service for IT equipment are being billed by VITA for support.

VITA received approval from JLARC in December 2007 to lower the rates for "standard" personal computers and implement new rates for "premium" computers. (Premium computers have improved specifications compared to the standard personal computers, and these improvements entail a higher capital cost.) By implementing separate premium rates, VITA could lower the rates for the standard computers which are used by the vast majority of all users. In the course of this study, a review by JLARC staff of VITA's monthly bills to State agencies indicated that these new rates have not been implemented. The decision not to implement the approved lower rates for desktops and laptops has resulted in \$2.35 million in higher charges to State agencies in the first half of FY 2009. According to VITA staff, the agency reconsidered the practicality of administering separate rates for standard and premium computers and decided not to implement the approved rates.

The decision not to implement the rates proposed in December of 2007 raises two other concerns. VITA did not seek JLARC's permission to defer or amend the approved rates. In addition, because VITA has continued to bill all agencies at the standard rate for both premium and standard PCs, it has been cross-subsidizing the hardware cost of premium PCs by overcharging the users of standard PCs. Charging the same rate for materially different services may mean that VITA has been inconsistent with federal cost allocation principles.

PARTNERSHIP HAS PRODUCED BENEFITS, BUT CHALLENGES HAVE EMERGED

The IT Partnership has made several significant achievements to date, including the construction of two secure data centers with disaster recovery capabilities, the creation of new jobs in two parts of the state, and the consolidation of agency servers to one data center. The partnership has also made significant improvements in IT security and training for systems development project managers.

STATE AGENCIES REPORT CONCERNS WITH SOME SERVICES PROVIDED BY THE PARTNERSHIP

The State's new approach to IT has created short-term challenges. One of the challenges is that agencies contend that they need to continue to have autonomy and authority in certain areas, but VITA and Northrop Grumman maintain they need to be able to assume more control of those areas. State agencies also express concern that the problems they have encountered during transformation suggest a longer-term inability of the partnership to provide adequate service. Agencies have expressed the following specific concerns:

- Delays in the request for services procurement process have impacted critical business functions.
- VITA has not provided the service levels promised in its memoranda of understanding with in-scope agencies.
- VITA has not shown a willingness to learn about the operational objectives (or business needs) of agencies, limiting its ability to adequately address reported problems.
- The partnership has not met agencies' most critical needs during transformation, such as the replacement of aging equipment.

For its part, VITA believes that some State agencies have not cooperated with the State's new business model and that some chal-

lenges may result from a reluctance to embrace the new model rather than from inherent flaws in the model.

GOVERNANCE STRUCTURE MAY HAVE SHORTCOMINGS

The transformation to a new IT model in the State has raised concerns regarding the State's current governance structure. Agencies feel they must rely on VITA to address their problems but have no means to hold the CIO or VITA accountable if those problems are not being addressed satisfactorily. Specific governance concerns include:

- Should the CIO be more accountable to the Governor?
- Does the Project Management Division at VITA adequately support systems development in the Commonwealth?
- Does the Recommended Technology Investment Projects process adequately prioritize systems development projects?
- Are the role and the reporting relationship of the State's Chief Applications Officer, who oversees the Virginia Enterprise Applications Program, appropriate?

Overview of Information Technology Services and Oversight

In Summary

The Virginia Information Technologies Agency (VITA) was created in 2003, and most of the IT infrastructure previously maintained by State agencies was consolidated in VITA. VITA reports to the Chief Information Officer (CIO), who is in turn supervised by the Information Technology Investment Board (ITIB). The CIO and the ITIB oversee the IT decisions of State agencies, and must approve most IT procurements and systems development projects. However, State agencies retain authority over IT goods and services that were not consolidated, including infrastructure and applications that are unique to individual agencies. As a result, authority over IT is diffuse. In 2006, VITA entered into a ten-year, \$2 billion contract with Northrop Grumman to provide IT infrastructure services to State agencies. Since the execution of the contract, agencies have raised concerns about increases in the cost of IT services. Some agencies also report that delays and poor service provision by Northrop Grumman hinder their ability to accomplish business objectives.

Senate Joint Resolution (SJR) 129, and Item 29 (E) of the Appropriation Act, passed by the 2008 General Assembly, require the Joint Legislative Audit and Review Commission (JLARC) to “examine the quality, cost, and value of the services provided to state agencies and public bodies by the Virginia Information Technologies Agency” (VITA). Studies were requested in part because of concerns that the information technology (IT) costs of State agencies had been increasing, and that the services provided by VITA through its contract with Northrop Grumman were not meeting the agencies’ business needs. These resolutions are provided in Appendix A.

To explore these concerns, the study mandates specifically direct JLARC to review VITA’s oversight and service responsibilities. SJR 129 focuses on the impact felt by State agencies “resulting from the transition to a fee-based services model and to the IT infrastructure partnership with Northrop Grumman.” The budget amendment echoes this requirement and adds four specific areas to be reviewed: (1) the relationship between VITA and its oversight body, the Information Technology Investment Board (ITIB); (2) VITA’s exercise of its statutory authority to procure IT goods and services for other agencies; (3) the management of IT systems development projects by VITA’s Project Management Division (PMD); and (4) the potential for VITA to play a greater role in the governance of IT maintenance and operations expenditures and functions that are now under the purview of State agencies.

Research Methods for the Interim Report

For this interim report, JLARC staff interviewed members of the ITIB, VITA staff, and the IT staff at 12 State agencies. JLARC staff also conducted a review of key documents, including the contract with Northrop Grumman, and analyzed procurement, financial, and service performance data provided by VITA.

Over the course of the study, JLARC staff anticipate using several research methods to address the study issues. The majority of the research will consist of structured interviews with VITA staff, members of the ITIB, and staff at State agencies. The interviews will be used to determine the impact that VITA and Northrop Grumman's activities have upon State agencies. Supplemental to this research, JLARC staff will conduct document reviews and data analysis. The primary documents reviewed will be the contract between the Commonwealth and Northrop Grumman; VITA's policies, standards, and guidelines for IT services and oversight; and the relevant statutes that govern VITA and the ITIB. The study team will also conduct an extensive analysis of data on IT procurements, Northrop Grumman's service performance relative to its contractual obligations, and the financing of IT goods and services by VITA. These research activities are discussed in more detail in Appendix B.

The mandates direct JLARC to prepare an interim report by December of 2008 and a final report by December of 2009. This interim report discusses VITA's service and oversight functions, its contractual relationship with Northrop Grumman, and the financing of IT in Virginia.

MAJOR INFORMATION TECHNOLOGY REFORM OCCURRED IN 2003

IT is an integral part of daily operations in State agencies, and most of these resources are provided by VITA. The creation of VITA was part of an IT reform effort which was first proposed by the Secretary of Technology in June of 2002, when he reported to the Joint Commission on Technology and Science that \$100 million in savings could be achieved annually across executive branch agencies, institutions of higher education, and local governments. This savings amount was later included in the report issued by the Governor's Commission on Efficiency and Effectiveness, which attributed the savings estimate to IT consolidation, procurement reforms, elimination of duplicative financial management applications, and other productivity enhancements.

VITA was then created during the 2003 Session of the General Assembly following these reports and a JLARC study, *Review of Information Technology Systems Development*. Most of the IT infrastructure and support staff used by State agencies were consolidated in VITA. VITA assumed responsibility for the provision of fundamental IT infrastructure services, such as desktop computing, data center services, and network (Internet and telecommunications) services. VITA has also implemented new oversight measures to govern the procurement of IT goods and services

and review the IT systems development projects undertaken by State agencies.

Servers and Mainframes

A server is a computer that allows many users to access data and applications simultaneously over a network. Although any personal computer can act as a server, a server has more robust specifications.

Like a server, a mainframe is connected to personal computers through a network, either local (inside a building) or wide (between buildings or localities). Because of their size, mainframes are almost always located in a data center, which is a specialized facility with substantial electrical, air conditioning, and security capacities.

Mainframes are distinguished from servers by their capacity. Nearly all mainframes have the ability to run (or host) multiple software applications and can thereby replace dozens or hundreds of servers. Because of this capacity, mainframes are used mainly by large organizations for critical applications such as bulk data processing. For example, the Virginia Department of Social Services (DSS), the largest user of VITA's mainframe services, processes applications for benefits such as Food Stamps and Medicaid, in part by comparing DSS's data with the data of other State agencies.

IT Used by State Agencies Includes Infrastructure and Applications

IT embraces a wide array of devices and systems, and can be categorized into two large groups. The first group, infrastructure, includes personal computers (desktop, laptop, and tablet), plus mainframe and server computers. (Appendix C provides a glossary of commonly-used IT terms.) Also in this group are telecommunications equipment such as telephones, which are now converging with data networks and being used for phone calls over the Internet, as well as cell phones, personal digital assistants (PDA) such as Blackberries, and radio communications systems. The State has both agency-specific infrastructure that helps agencies perform unique business functions (such as traffic-light management systems) and enterprise infrastructure that is used by all agencies (data networks).

The other major component of IT is the software applications that run on the infrastructure. Applications can also be described as agency-specific or enterprise. Examples of the former are the Medicaid Management Information System at the Department of Medical Assistance Services, the electronic birth certificate program at the Virginia Department of Health, or student information systems at colleges and universities. (In this report, the term "application" does not refer to more basic software like operating systems, word processors, or anti-virus software.)

Virginia's enterprise applications perform common functions such as personnel and payroll, and are maintained by the central agency that manages that specific function. However, if the State's enterprise application does not provide required features, then individual State agencies can develop their own versions of enterprise applications. For example, many agencies have developed unique accounting and financial management applications that supplement the State's 20-year-old accounting application by allowing the agency to track and report its unique expenditures and revenues.

When an agency implements new infrastructure or an application (or both), this effort is termed a systems development project. The Virginia State Police has an ongoing infrastructure project to modernize its radio communications system. An application project is also underway at the Department of Corrections, which is replacing the offender management system. Both of these projects are agency-specific. In contrast, an enterprise project is underway to replace the State's financial management system. This effort is be-

ing overseen by an agency within the Governor's office, the Virginia Enterprise Applications Program (VEAP).

JLARC Staff Recommendations Were Intended to Improve Oversight of Systems Development Projects

In November of 2000, JLARC directed its staff to review systems development projects at State agencies because of concerns that State funds were being wasted on projects that were never completed. The study focused on the causes of project failures and the identification of practices that would increase the rate of success.

The study was completed in December of 2002 and reviewed 15 systems development projects carried out by State agencies from 1991 to 2002. JLARC staff also reviewed the IT standards and policies developed by the Department of Technology Planning (DTP). JLARC staff found that the State had wasted at least \$75 million on failed efforts and had incurred an additional \$28 million in cost overruns. Project oversight, support, and planning had been minimal, and it was recommended that these areas be strengthened.

Recommendations Included an Oversight Board and a Full-Time Chief Information Officer. To increase the degree of central oversight over systems development projects, JLARC staff recommended that the IT governance structure be modified to create a full-time, independent chief information officer (CIO). The Secretary of Technology served as CIO at the time of the study, but the secretary also had economic development duties. The lack of effective project oversight suggested that a full-time CIO was required.

In order to give the CIO the independence needed to oversee the systems development projects of State agencies—a change that would reduce the agencies' autonomy—JLARC staff recommended that the CIO be hired by and report to an Information Technology Investment Board (ITIB). The CIO's independence would be achieved by using a contractual arrangement similar to that used by the Board of the Virginia Retirement System to employ a chief investment officer. An independent CIO would strengthen oversight because the position would be insulated from the political process and not report to a single executive branch official.

To balance the CIO's independence and ensure that the business needs of all secretariats were considered, JLARC staff recommended that the ITIB include each of the Governor's cabinet secretaries along with other members. JLARC staff also recommended that the ITIB approve major IT projects proposed by State agencies and be authorized to terminate a failing project after approval. The only other recommended duty of the ITIB was oversight of a

capital funding structure that would be created for systems development projects. If a State agency required capital funding for a proposed project, the ITIB would prioritize it relative to other proposed projects that required funding and submit a list to the General Assembly. This process is now known as the Recommended Technology Investment Projects (RTIP) report.

Recommendations Did Not Include IT Management Changes. Because the study was limited to a review of systems development projects, JLARC staff did not recommend any changes to the management of IT services. Under JLARC staff's proposed governance reforms, the Department of Information Technology (DIT) would have continued to manage the State's data center and telecommunications services, with the Director of DIT continuing to report to the Secretary of Technology. State agencies would have continued to manage and operate their own infrastructure and applications.

Governor Proposed and General Assembly Enacted Legislation Consolidating IT in VITA

At the same time that JLARC was conducting its study, the Secretary of Technology had been looking for opportunities to improve the State's IT infrastructure and reduce expenditures. As described in the secretary's September 2002 *Strategic Plan for Technology 2002-2006*, the State could accomplish these goals by consolidating IT to enable central provision of IT services. This effort would build upon the enterprise infrastructure services that DIT was already providing through its operation of the State's data center and the State's data and telecommunications networks. The consolidation therefore involved infrastructure that had previously been wholly managed by State agencies: help desks, agency-specific data centers (with mainframes and servers), and personal computers (PCs).

Central Oversight of IT Maintenance and Operations Expenditures Had Been Minimal. Since the mid-1980s, State agencies had received very limited oversight or direction regarding IT purchasing or hiring, and as a result agencies bought different kinds of infrastructure and applications. Although this approach gave State agencies flexibility, it limited the State's ability to achieve economies of scale in purchasing and management. It also resulted in some duplication of effort, as documented in a 2001 report on financial management systems by the Auditor of Public Accounts (APA). The APA found that State agencies (including institutions of higher education) had spent \$556 million over the previous five years on duplicative applications that had difficulty sharing data.

Consolidation Was Intended to Improve Management by Reducing Costs and Increasing Efficiency. In the fall of 2002 the Secretary of

Technology retained a consultant to propose a consolidation strategy. The consultant recommended that the oversight agency (DTP) and the services agency (DIT) be merged to create VITA. The rationale for consolidation was that it would allow the Commonwealth to provide more effective services, reduce redundancy, and lower costs.

By granting VITA the authority to centrally manage IT, VITA would be able to consolidate both infrastructure and applications, plus their support staff. The consultant's report argued that, in the short run, VITA could improve the management of existing resources by ensuring that every computer and every technician was being used full-time. VITA could also leverage the State's buying power by making bulk purchases and replacing duplicate IT with standard infrastructure and applications. Standardization of infrastructure and applications would also reduce the number of IT staff required. The result would be a more modern IT environment which could be maintained at a lower cost. Another benefit would be an enhanced career ladder for IT staff, because a large agency like VITA could provide more opportunities for advancement and training.

Governor Proposed to Consolidate IT in VITA. The Governor's proposal called for the creation of the ITIB and VITA, and advocated that all IT infrastructure and applications for executive branch agencies, and all IT staff, be consolidated in VITA. Institutions of higher education were deemed to be "out-of-scope" agencies and were excluded, along with the Virginia Port Authority. The Governor also advocated granting VITA the authority to form public-private partnerships as a means of implementing the consolidation effort.

2003 General Assembly Session Enacted Legislation to Create VITA. In 2003, the legislature considered several IT reform bills. VITA's enabling legislation differed from the Governor's original proposal by limiting the consolidation effort to infrastructure assets and support staff. In contrast, applications and their supporting IT staff were deemed to be out-of-scope. VITA was charged with consolidating infrastructure and personnel within its first 18 months. One of the first steps was the appointment of the ITIB, which hired a full-time CIO in January of 2004 on a five-year contract.

VITA then worked with in-scope agencies to determine which infrastructure assets (and their supporting IT staff) should be consolidated. These decisions were based on the ability to leverage common infrastructure components to achieve economies of scale. In cases where hardware was highly specialized and unique to an agency's operations, or hardware maintenance and operation required specific skills, economies of scale could not be created and

responsibility for those assets was not assumed by VITA. Examples of these unique infrastructure assets included perimeter monitoring systems at the Department of Corrections, document scanners at the Virginia Department of Transportation, and point-of-sale systems at the Department of Alcoholic Beverage Control. Assets were designated in-scope if they were widely used across State government, such as servers and PCs.

Responsibility for Information Technology Services and Oversight Is Diffuse

As a services agency, VITA is responsible for providing certain IT infrastructure and telecommunications services. However, VITA is not responsible for managing the unique infrastructure used by in-scope agencies or any applications. In addition, VITA is not responsible for providing any services to the out-of-scope agencies (Table 1).

Table 1: VITA Is Only Responsible for Enterprise Infrastructure

Type of Agency	Degree of VITA’s Service Responsibility			
	Infrastructure		Applications	
	Agency-Specific	Enterprise	Agency-Specific	Enterprise
In-Scope	None	All	None	None
Out-of-Scope ^a	None	None	None	None

^a Out-of-scope agencies include institutions of higher education and the Virginia Port Authority.

Source: JLARC staff.

As an oversight agency, VITA has broader responsibilities. VITA has the statutory authority and responsibility to oversee many of the IT decisions of other agencies, including approval of IT procurements and systems development projects. VITA also ensures that agencies adhere to IT standards. This oversight role is intended to reduce unnecessary expenditures and foster the efficient management of IT.

From a fiscal perspective, VITA’s service and oversight responsibilities encompass approximately two-thirds of the State’s annual expenditures on IT. According to the APA, in FY 2007 agencies spent a total of \$607 million on IT (excluding higher education). About \$238 million (39 percent) represents payments to VITA for providing the IT infrastructure services and another \$150 million (25 percent) was expended on new systems development projects. The remaining \$219 million (36 percent) was expended by in-scope agencies to maintain and operate existing agency systems. These

funds are under the control of individual agencies and are not formally overseen by VITA outside of its procurement review process.

VITA'S CREATION CHANGED MANY ASPECTS OF INFORMATION TECHNOLOGY OVERSIGHT

The legislation which created VITA was designed to improve IT oversight. A full-time CIO was appointed who reports to the ITIB and is responsible for setting IT standards and reviewing systems development projects proposed by State agencies. VITA also exercises the sole statutory authority over the procurement of IT goods and services.

ITIB Has Responsibility for Overseeing Many Aspects of IT

The ITIB was designated as a supervisory board with the responsibility for hiring the CIO and overseeing all aspects of IT. It is an independent board with nine voting members: eight citizens and the Secretary of Technology. The General Assembly appoints four of the eight citizen members. The Governor appoints the other four citizen members, plus the Secretary of Technology. The APA serves as a non-voting member. Although the ITIB is defined in statute as a part of the executive branch, it more closely resembles independent bodies like the State Corporation Commission because of the appointment process.

By statute, the ITIB is responsible for the “planning, budgeting, acquiring, using, disposing, managing, and administering of information technology in the Commonwealth” (Section 2.2-2457 of the *Code of Virginia*). These duties include approval of the RTIP report and major systems development projects. The ITIB meets at least once a quarter and all meetings are open to the public.

VITA and the CIO Are Also Responsible for IT Oversight

The CIO is the administrative head of VITA, and both the CIO and VITA have defined statutory responsibilities for the oversight of IT. VITA's oversight responsibilities are broader than its service responsibilities. VITA can review the systems development decisions of most out-of-scope agencies, and all in-scope agencies must receive VITA's procurement approval.

CIO Promulgates IT Policies, Guidelines, and Standards. The CIO is charged with taking steps “necessary to support a unified approach to IT across the totality of state government” (Section 2.2-2007). In support of this, the CIO is statutorily required to direct the promulgation of IT policies, guidelines, and standards. Each of these terms has a specific meaning that indicates the degree to which State agencies must comply:

- Policies are general statements of direction and purpose that are advisory in nature.
- Guidelines include more specific directives and specifications but they are not binding.
- Standards are specific directives and specifications that State agencies are required to implement.

The CIO is also required to direct the formulation of policies for the effective management of IT investments throughout their life cycle. Known as information technology investment management, this approach is intended to ensure that applications are maintained and replaced or updated when necessary.

The CIO's authority regarding information security is very broad, and statute states that the policies, procedures, and standards developed in this area apply to the executive, legislative, and judicial branches, plus independent agencies and institutions of higher education. The CIO is also charged with conducting security audits to assess security risks and determine appropriate security measures (Section 2.2-2009).

VITA Has Sole Statutory Authority to Procure Almost All IT Goods and Services. Although VITA provides some IT services, VITA's procurement authority is much more encompassing. Pursuant to Section 2.2-2012 of the *Code of Virginia*, VITA has sole authority to procure all IT and telecommunications goods and services for executive branch agencies and institutions of higher education except those explicitly exempted by statute. Judicial, legislative, and independent agencies are not subject to VITA's procurement authority. VITA is the only agency authorized to establish statewide contracts for IT and telecommunications goods and services, and all agencies, institutions, localities and public bodies may use any statewide IT contract VITA develops.

VITA and the Department of General Services (DGS) have developed a list of goods and services which are classified as IT and are thus subject to VITA's policies and procedures. (Non-IT goods and services are overseen by DGS.) The definition of IT and telecommunications goods and services over which VITA has procurement authority includes computer or telecommunications equipment, electronic word processing and office systems, and printers and copiers. Services include Internet services, electronic payment processing, and the hosting of applications and databases. All other technology services, such as application development, technology consulting services, or training are also within VITA's statutory procurement authority.

Agencies do not have the authority to procure IT and telecommunications goods and services unless VITA delegates this authority. In those cases where VITA has delegated procurement authority to any agency, this authority is only for procurements up to \$50,000. VITA must approve all IT procurements with a value greater than \$50,000. In addition, all IT procurements with a value of over \$100,000 must be approved by the CIO.

The delegation of procurement authority varies by the type of agency. Out-of-scope agencies must first obtain VITA’s approval but then are allowed to buy all IT goods and services with a value of up to \$50,000. The procurement authority delegated to in-scope agencies varies by the type of item. The first group is known as “in-scope” items because these products and services are provided by VITA or Northrop Grumman and cannot be procured directly by these agencies. This group includes most kinds of software (such as word processors and anti-virus software), personal computers and their components, and telecommunications equipment (such as radios, televisions, or telephones). Items in the second group, which are classified as “out-of-scope,” can be procured by in-scope agencies using their delegated authority. They include digital cameras, educational software, agency-specific applications and non-infrastructure products. In-scope agencies are also allowed to purchase specific consumable items (such as paper, mouse pads, and compact discs) and non-networked printers with a value up to \$1,000. Table 2 indicates the types of delegated authority.

Table 2: Delegation of IT Procurement Authority Varies by Type of Agency and Item

Type of Agency	Type of IT Good or Service				All Items
	In-Scope		Out-of-Scope		
	Up To \$50,000	Over \$50,000	Up To \$50,000	Over \$50,000	
In-Scope	VITA Procures	VITA Procures	Agency Procures	VITA Approves	CIO Approves
Out-of-Scope	Agency Procures	VITA Approves	Agency Procures	VITA Approves	CIO Approves

Source: JLARC staff analysis of VITA’s procurement authority and delegation policies.

CIO Has Specific IT Planning Responsibilities. All State agencies and public institutions of higher education are required to submit IT plans to the CIO for review and approval. VITA must then prepare a statewide four-year strategic plan for IT that includes specific projects that will implement the plan.

CIO and VITA Review Proposed Systems Development Projects. The CIO also reviews all systems development projects proposed by State agencies, with the assistance of VITA’s Project Manage-

ment Division (PMD). The nature of the review depends upon the characteristics of the systems development project. Projects with a value between \$100,000 and \$1 million are first reviewed by PMD staff, who recommend to the CIO whether such projects should be approved or disapproved. The CIO then reviews the project, and he is directed by statute to disapprove all such projects that do not conform to the statewide IT strategic plan or to the individual IT plans of State agencies or institutions of higher education.

For major projects, the CIO is statutorily required to develop an approval process. A “major” project is defined in statute as a project that is mission-critical, has statewide application, or has a total estimated cost of more than \$1 million. Major projects must be approved by the ITIB.

CIO Has Specific Project Management Responsibilities, Which Are Aided by PMD. The CIO must also establish a methodology for conceiving, planning, scheduling, and providing appropriate oversight for systems development projects. The CIO’s specific statutory duties include

- establishment of minimum qualifications and training standards for project managers,
- review and approval of all procurement solicitations involving major systems development projects,
- development of any statewide or multiagency enterprise systems development project, and
- modification or suspension of any major systems development project, including the ability to recommend that the ITIB terminate any project.

The CIO is assisted by PMD, which is directed in statute to provide ongoing assistance and support to State agencies in the development of systems development projects and provide training to project managers at State agencies. In addition to consulting support, PMD is responsible for overseeing systems development projects.

Higher Education Management Agreements Give Covered Institutions Increased Independence from VITA’s Oversight. If an institution of higher education has an approved Management Agreement for Institutional Performance with the Commonwealth of Virginia, it is not subject to VITA’s procurement guidelines. In addition, institutions which are covered by such an agreement are not required to obtain the CIO’s approval for major systems development projects nor are their projects subject to oversight by PMD.

However, the CIO still has the authority to suspend or terminate projects at these institutions.

IN 2006, VIRGINIA ENTERED INTO TWO PUBLIC-PRIVATE PARTNERSHIPS TO MODERNIZE INFORMATION TECHNOLOGY

Public-Private Education and Infrastructure Act of 2002 (PPEA)

State agencies can use the PPEA to leverage private sector resources and expedite the process of procuring infrastructure. The PPEA allows private entities to offer an unsolicited proposal to State agencies, rather than having to rely on the traditional method of responding to an agency's request for a proposal.

In 2006, Virginia entered into two public-private partnerships—one with Northrop Grumman and one with CGI—in order to modernize its enterprise infrastructure and applications. As a result of the partnership with Northrop Grumman, many of the IT infrastructure services for which VITA is responsible are now provided by the vendor.

Private Partnerships Were Sought to Obtain Capital

In 2003, VITA determined that its ability to achieve cost savings depended upon the creation of a cohesive enterprise IT infrastructure. This effort involved the replacement of all PCs and other in-scope infrastructure to ensure that “every aspect of the state’s business receives a basic, acceptable level of desktop service, while at the same time leveraging the volume buying power of 59,000 units.” The new enterprise infrastructure would be the “launching pad for expanded enterprise systems [applications] and other collaborative efforts.”

However, the State lacked the capital required to modernize its IT infrastructure and applications. Between November 2003 and March 2004, VITA received five unsolicited proposals under the Public-Private Education and Infrastructure Act (PPEA) to modernize the State’s IT. Review of these proposals was given impetus by the 2004 General Assembly, which directed an expedited review of proposals to expand public-private partnerships for enterprise-wide business modernization efforts. This solution was in keeping with the CIO’s statutory responsibility to “periodically evaluate the feasibility of outsourcing information technology resources and services.”

The Commonwealth decided to work with vendors on two different tracks:

- For infrastructure, vendors would propose technologies such as mainframes, data centers, and PCs. The CIO would manage this track, and the responsible party (“business owner”) would be the ITIB.
- For enterprise applications, vendors would develop solutions and business processes associated with human resources, accounting, budgeting, and procurement. The Office of the Governor would manage this track, and the

business owners would be the Secretaries of Administration and Finance. The ITIB would be “responsible for oversight of the IT portion, similar to any other major IT project.”

Following a review process that included 21 State agencies, the Commonwealth entered into two IT partnerships.

VITA and Northrop Grumman Formed the IT Partnership to Provide In-Scope Infrastructure Services

Northrop Grumman in Virginia

Northrop Grumman Corporation is a large defense and technology contractor with \$32 billion in annual sales. Northrop Grumman is a Delaware corporation, and its corporate headquarters are located in Los Angeles, California. Northrop Grumman’s business areas include electronics, aerospace systems, and shipbuilding as well as information technology.

Northrop Grumman Information Technology, Incorporated, is a subsidiary of Northrop Grumman. Northrop Grumman IT is a Delaware corporation based in McLean, Virginia. Northrop Grumman IT has annual sales of \$4.5 billion and a diverse customer base that includes federal, state, and local governments as well as commercial enterprises.

In November of 2005, the Commonwealth entered into a ten-year, \$2 billion contract with Northrop Grumman Information Technology, Incorporated, a subsidiary of the Northrop Grumman Corporation. As a result, VITA transferred the management of the IT infrastructure for in-scope agencies to Northrop Grumman effective July 1, 2006. The rationale for entering into the “IT Partnership” with Northrop Grumman was that the State lacked the \$270 million needed to modernize the IT infrastructure. In a presentation to JLARC, the CIO stated that the alternative was for VITA to continue maintaining the State’s “deteriorating 1980s infrastructure” at an average cost of \$256 million annually.

Northrop Grumman Now Provides Many of the IT Infrastructure Services for Which VITA Is Responsible. Under the contract, Northrop Grumman has committed to a number of deliverables including a consolidated IT infrastructure, the use of two data centers (in Chesterfield and Russell Counties), and the provision of IT services and security to all in-scope agencies. (The contract is discussed in more detail in Chapter 2.) At the conclusion of the contract, the State has the option to purchase or continue to lease the primary data center located in Richmond and to hire Northrop Grumman’s IT personnel.

Northrop Grumman is responsible for modernizing the in-scope infrastructure. This includes mainframes, servers, PCs, voice and data networks, e-mail and messaging, data security, and technical support (help desk). Unlike a traditional outsourcing arrangement, where all payments are made in conjunction with specific deliverables, Northrop Grumman committed to an initial capital investment of \$270 million which it hopes to recoup by reducing the operating costs of the in-scope infrastructure. Northrop Grumman has agreed to reduce the number of servers by one-third, replace up to 58,000 PCs with newer models, consolidate the State’s 40 separate telecommunications networks into one, and consolidate nine e-mail and messaging programs into one statewide system.

Northrop Grumman has also begun to provide the IT services previously provided by VITA. These include mainframe and server services in Northrop Grumman’s data center and disaster recovery

services that allow the data used by an agency to be restored after an emergency. Northrop Grumman also provides personal computer services, such as equipment purchase, installation, maintenance, and surplus. Software licensing, patches, and upgrades are included. As the new network is installed, Northrop Grumman will manage the State's data network services (including Internet access), telephone and teleconferencing services, and mobile services (cellular telephones, paging, and PDAs). The services themselves will be provided by telecommunications vendors. Lastly, Northrop Grumman provides IT security services, including fire-wall management, vulnerability assessment, and security incident tracking.

VITA Continues to Provide Certain IT Services. Services performed by VITA include supply chain management (procurement), geographic information system (GIS), and radio engineering. In addition to VITA's statutory authority over IT procurements, VITA provides procurement services including the maintenance of state-wide contracts for the purchase of IT goods and services. VITA also provides contracting assistance and market and supplier analysis. VITA's GIS services include aerial photography and base mapping (road networks and other basic map data). Lastly, VITA provides radio communications engineering, including radio acquisition support, the management of radio frequencies, and support for the Wireless E-911 Services Board. (Appendix D provides a current list of in-scope agencies and VITA's other customers.)

VITA presently has a maximum employment level (MEL) of 399, and 365 of those positions are filled. (This has increased by 32 from its MEL of 367 in FY 2003.) VITA's staff fall into two groups: "managed" employees that provide services to in-scope agencies under the direction of Northrop Grumman, and retained staff that support internal functions and services outside of the Northrop Grumman Partnership. There are presently 163 managed employees, and the remaining 202 retained staff are assigned to divisions within VITA, as shown in Table 3.

VEAP and CGI Formed a Partnership to Modernize Enterprise Applications

In January of 2006, the Commonwealth entered into a seven-year, \$300 million performance-based agreement with CGI. The Governor's Chief of Staff informed the General Assembly that when the enterprise applications project concluded in 2012 the Commonwealth would have new administrative, financial, human resource, and supply chain management applications. The Chief of Staff noted that some of CGI's deliverables might offset the cost of the project, such as recommendations for new processes across State government that would increase efficiency, productivity, and re-

duce cost. CGI also agreed to provide new collection and cost recovery programs, such as increased collections of unpaid taxes and other debts owed to the Commonwealth.

Table 3: VITA Staff

Division Name and Primary Responsibilities	Number of Classified Staff
Finance & Administration: financial, human resource, and supply chain management (procurement) services	71
IT Investment & Enterprise Solutions: strategic planning and oversight, including PMD	66
Service Management Organization: oversight and administration of the Northrop Grumman contract	27
Security & Risk Management: security assurance and oversight activities	14
Communications and Executive	11
Customer Account Management: primary liaison between VITA and its customer agencies	8
Internal Audit	5
Total	202

Source: VITA.

Because the business owners of the enterprise applications project are the Secretaries of Administration and Finance, not the ITIB, the Governor created the Virginia Enterprise Applications Program (VEAP) under Executive Order 105. The order authorized the Chief of Staff to sign a contract and created the position of VEAP Director in the Office of the Governor.

The ITIB decided to treat VEAP like a systems development project, and VEAP must therefore obtain the ITIB’s approval before commencing any work. In addition, the 2006 Appropriation Act requires that the director be hired on a six-year contract, the director’s qualifications be approved by the ITIB, and the director obtain the ITIB’s approval before expending any funds. This includes appropriated funds as well as revenue that VEAP may collect as a result of CGI’s revenue enhancement initiatives.

In January of 2008, the Governor designated the Director of VEAP as the State’s Chief Applications Officer (CAO). Subsequently, the ITIB directed the CIO and CAO to define their respective roles, and an “Operational Plan to Address IT Governance” was jointly presented to the ITIB in April. This plan formalized the CAO’s assumption of a subset of the CIO’s and VITA’s statutory responsibilities. As shown in Table 4, the CAO is responsible for managing the projects which are intended to modernize the State’s enterprise applications, developing needed standards (such as data definition standards), and conducting key parts of the State’s IT strategic planning. The CIO’s retained responsibilities are to manage the

State’s infrastructure and oversee (but no longer manage) enterprise systems development projects.

Table 4: Subset of Statutory Responsibilities of the CIO and VITA Has Been Assumed by the Chief Applications Officer (CAO)

CIO or VITA’s Statutory Responsibility	Authority Given to CAO
IT strategic planning § 2.2-2007 (A) (1)	Strategic business application planning
Development of statewide technical and data standards §§ 2.2-2007 (A)(2) and 2.2-2010 (8)	Development of data standards
Direction of any statewide or multi-agency enterprise project § 2.2-2008 (5)	Oversight and management of executive branch business application portfolio, business architecture, and enterprise applications

Source: [Chapter 20.1](#) of Title 2.2 of the *Code of Virginia*, and *Operational Plan to Address IT Governance* presented to the Information Technology Investment Board on April 17, 2008.

CONCERNS ABOUT THE INFORMATION TECHNOLOGY PARTNERSHIP LED TO THE PRESENT STUDY

This study resulted in part from the concerns expressed by executive branch officials and State agency staff, who believe that the new approach to IT oversight and management has resulted in higher costs, lower levels of service, and an inability to make necessary changes to their business operations.

The creation of VITA, and the subsequent contract with Northrop Grumman, was intended to provide an array of benefits to the Commonwealth including a reduction in IT expenditures. Since the contract with Northrop Grumman was executed, however, there are reports that the IT expenditures of State agencies have increased. Some agencies have asserted that the increased costs have or will require them to reduce expenditures on other activities, including customer services.

In addition to concerns about rising costs, another frequently mentioned concern of executive branch officials is that VITA has not shown a willingness to learn about the operational objectives (or business needs) of State agencies. Instead, State agencies report that VITA has a one-size-fits-all approach to service provision, but that the varying needs of State agencies and their clients requires a degree of variation in service levels. A related concern is that if VITA does not understand the individual business needs of State agencies, then VITA cannot determine if Northrop Grumman is meeting its contractual obligation to provide an adequate level of services. Nor could PMD assist an agency that is developing a new systems development project.

Comprehensive Infrastructure Agreement Governs the Transition to Managed Services

In Summary

In 2005, the State entered into a ten-year public-private partnership with Northrop Grumman to modernize its IT infrastructure. Transformation into a “managed service” environment in which Northrop Grumman manages and operates the State’s IT infrastructure is occurring in three phases between 2006 and 2009, but progress has been delayed because of inadequate planning by the partnership and a reported reluctance by some agencies to allow transformation to occur. The contract between the State and Northrop Grumman defines the parties’ obligations, provides avenues for early termination, and caps the annual cost of initial “baseline” IT services at \$236 million. Annual payments to Northrop Grumman can exceed this cap, however, if inflation occurs or if the Commonwealth purchases new IT assets or services; conversely, the payment can be lowered if the volume of services declines or if deflation occurs. Although the contract guarantees a minimum amount of revenue for Northrop Grumman, equal to \$208 million in FY 2009, payments are contingent upon the appropriation of sufficient funds.

The public-private partnership between the Commonwealth and Northrop Grumman has been described as a novel approach to modernizing State IT systems because Northrop Grumman is responsible for all upfront capital investments. The agreement also represents a significant shift in the way the Commonwealth has historically managed its IT infrastructure because IT will now be centrally managed and regularly funded. The rights and obligations of the Commonwealth and Northrop Grumman are detailed in the Comprehensive Infrastructure Agreement (“the contract”), which was signed by the CIO on behalf of the Commonwealth.

COMMONWEALTH EXECUTED A TEN-YEAR CONTRACT WITH NORTHROP GRUMMAN IN 2006

The Commonwealth’s ongoing IT modernization initiative is intended to significantly improve the operations, support, and maintenance of the IT infrastructure. Once the transformation is complete, Northrop Grumman will provide specific services including

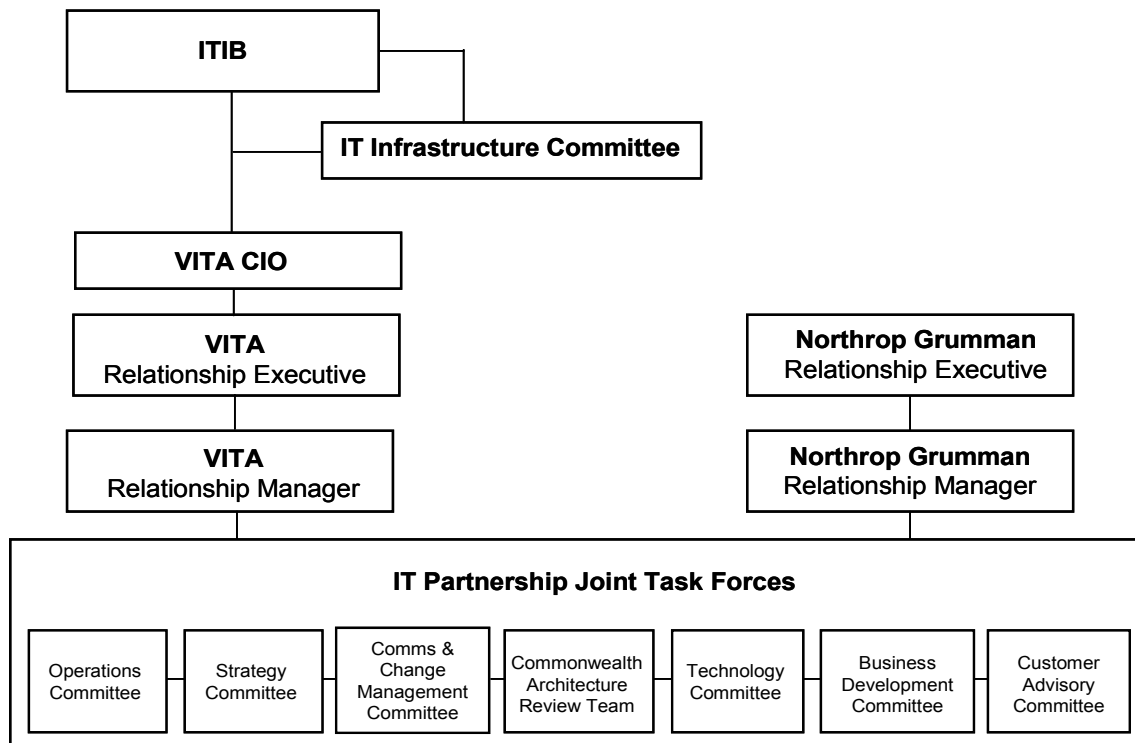
- construction of two new data centers to deliver infrastructure services to the State, including leasing office space to the State in the primary data center located in Chester;
- disaster recovery services to protect the State’s “mission critical” applications;

- information security services that include the physical protection of IT assets as well as protection from electronic threats such as viruses;
- regular replacement of the State’s IT infrastructure, including desktops, laptops, and servers; and
- a single help desk to support the State’s IT functions.

VITA is administering the contract under the auspices of the Information Technology Investment Board (ITIB). To oversee the initiative, VITA has developed a new governance structure in concert with Northrop Grumman, which is referred to as the IT Partnership.

Figure 1 shows how the provision of IT infrastructure services is now a joint effort between both partners. The partnership’s operations are overseen by seven joint task forces that bring together VITA and Northrop Grumman staff to address issues such as customer concerns and business development.

Figure 1: Governance Structure Indicates Sharing of Responsibilities in IT Partnership



Source: VITA, “IT Infrastructure Partnership,” April 2006 presentation.

The terms under which the partnership operates are set by the contract, which consists of the 151-page agreement and an additional 55 amendments, 29 schedules, 17 appendices, 17 addendums, six attachments, and 196 Service Level Agreements (SLAs). The contract is available online on VITA's website at <http://www.vita.virginia.gov/itpartnership/default.aspx?id=451>.

TRANSITION TO MANAGED SERVICES IS OCCURRING IN THREE PHASES

Northrop Grumman assumed responsibility for delivering IT services on July 1, 2006, and the contract sets a goal of fully transferring management of the in-scope IT infrastructure to the company by July 1, 2009. (In this report, "transition" refers to all activities prior to the July 1, 2009 transformation deadline.) After this date, the company will be responsible for providing IT infrastructure services in a "managed service" environment.

In a managed service environment, Northrop Grumman will continue to be responsible for providing and managing the staff, hardware, software, and facilities needed to operate the State's IT infrastructure as well as reporting performance data to VITA on a monthly basis. However, under managed services, resource-unit fees will be based on the volume of services used (including the number of assets). The Commonwealth will essentially pay a monthly fee for the right to use the IT infrastructure.

Resource Unit

A resource unit is a unit of measurement defined in the contract and is used to determine the level of IT services consumed by the Commonwealth. A resource unit is defined for each type of asset and service provided by Northrop Grumman.

Service Level Agreements Allow VITA to Monitor Northrop Grumman's Performance

A key aspect of this managed service environment is the measurement of Northrop Grumman's adherence to its contractual obligations. The contract's 196 SLAs provide performance metrics in nine separate service areas. The partnership is also jointly developing 196 data collection documents (DCDs) that VITA will use to monitor Northrop Grumman's adherence to each of the 196 SLAs. The DCDs are not publicly available. (Appendix E includes a list of the DCDs.)

Each DCD references the minimum performance target specified in the contract (the SLA) and lays out the means by which Northrop Grumman will collect data to document its performance. VITA will then rely on Northrop Grumman to provide accurate and unbiased performance data for all 196 SLAs on a monthly basis. For example, the DCD for SLA 5.41 addresses the procurement of new hardware services through the Request for Service (RFS) process. An RFS is used when a State agency requires a more complex level of services than is associated with a typical procurement. The RFS process has several steps, and Northrop Grumman is given ap-

proval to fulfill the order after the State agency, VITA, and Northrop Grumman have agreed upon the solution and its cost.

The source of this DCD is the contract's procurement SLA, which stipulates that 90 percent of procurements for new end-user devices must be delivered on time (Schedule 3.3, Appendix 5). The DCD has operationalized the SLA by defining "on time," and the definition excludes the steps in the RFS process that occur before Northrop Grumman is given approval to proceed. In addition, because the contract does not define what a "procurement" is, the DCD has defined it as an RFS order of more than 15 standard hardware items. As a result of these definitions, the SLA in the contract only measures on-time performance when more than 15 standard items are procured in one order, and it does not measure the time that elapses when Northrop Grumman is developing an initial solution and a cost estimate.

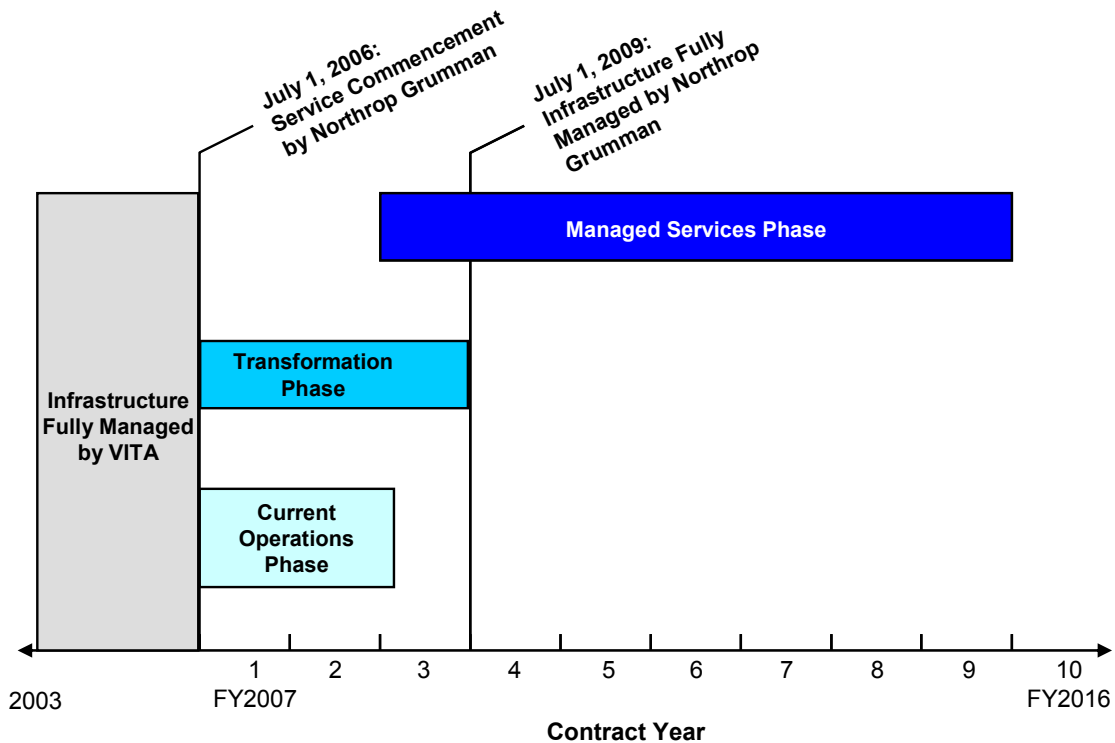
The contract also provides a system of "performance credits" that are awarded to VITA when Northrop Grumman fails to meet the performance metric in an SLA (Schedule 3.12). Performance credits can then be used by VITA to offset a portion of its monthly fees to Northrop Grumman. In a managed services environment, VITA will monitor Northrop Grumman's adherence to each of the 196 SLAs. However, no more than 20 SLAs are eligible for a performance credit each month, meaning that Northrop Grumman can only be penalized for not meeting a subset of its obligations. (In any month, the SLAs for data network, and for voice and video telecommunications services, are always eligible for performance credits.) In addition, the performance credits awarded to VITA in any month cannot offset more than ten percent of the monthly fees paid to Northrop Grumman for its services.

Contract Provides for a Three-Phase Transition Process

The contract provides for the transition to a managed-services environment to occur in three phases. Each phase includes defined obligations for the Commonwealth and Northrop Grumman, which are described below and illustrated in Figure 2.

Current Operations Phase Covers Contract Years One and Two. The Current Operations phase began with the commencement of service delivery on July 1, 2006, and ran through June 30, 2008. Payments to Northrop Grumman were for direct invoices to cover the cost of the labor, materials, and services delivered by the company through the first two years of the contract. Current Operations activities included services that will also be provided throughout the contract term, such as managing the State's mainframes and servers and providing day-to-day assistance with desktops and

Figure 2: Transformation to a Managed Service Environment Occurs in Three Phases



Source: Comprehensive Infrastructure Agreement Detailed Transition Plan (June 16, 2006).

laptops. Other activities included one-time responsibilities such as building new data centers in Chester and Lebanon, Virginia; establishing the Virginia Customer Care Center, or help desk; and hiring VITA employees. An important task in this period was the completion of the final asset inventory, which has not yet been completed.

The Current Operations phase, which technically ended on June 30, 2008, appears to have been completed. In practice, however, certain Current Operations activities are ongoing. A final asset inventory, which is a precondition of moving to resource-unit based fees, has not been completed, meaning the transition to a managed services environment is not complete. Similarly, the measurement of SLAs—another precondition for managed services—has not been initiated because the DCDs have not been completed.

Transformation Phase Occurs During the First Three Years of the Contract. The Transformation Phase began July 1, 2006, and is scheduled to end June 30, 2009, when Northrop Grumman completes its modernization and optimization of the State’s IT infrastructure services. During this phase, Northrop Grumman must complete 74 milestones that cover specific deliverables, such as re-

placement of the Commonwealth's IT infrastructure and the consolidation of servers into the Chester data center. (Appendix F includes a list of the milestones.) VITA will determine whether each milestone has been completed according to a set of acceptance criteria that VITA and Northrop Grumman must develop and agree upon. The development of 196 SLAs also occurs during this phase.

Managed Services Phase Commences at the Beginning of Contract Year Three. The final phase, Managed Services, spans from the beginning of year three through year ten of the agreement. This phase commenced on July 1, 2008, when the parties entered a managed service environment as defined above.

Northrop Grumman's Services Can Be Extended for an Additional Three Years

According to Section 14.1.2 (Term Renewals), the Commonwealth may, in its sole discretion, renew the contract for up to three years beyond the current ten-year agreement, and Northrop Grumman must lower its fees during that period in accordance with the terms in Schedule 10.1. (More information on these fees is provided in Chapter 3.)

CONTRACT ASSIGNS RESPONSIBILITIES AND SETS TERMS FOR TERMINATION IF THEY ARE NOT MET

A key element of the contract is a delineation of each partner's obligations. Northrop Grumman must adhere to a series of deliverables and performance measures in each of the three phases. In return, the Commonwealth is bound by payment obligations that could total more than \$2 billion over the ten-year term of the contract. Should either partner fail to meet its obligations, the contract provides for specific remedies under defined conditions.

Northrop Grumman and the Commonwealth Have Defined Contractual Responsibilities

Northrop Grumman is required to provide the services detailed in the contract's Statements of Work, report monthly data consistent with the SLAs, and meet several other deliverables. For example, during transformation Northrop Grumman is required to meet 74 milestones that mark specific deliverables. In a managed services environment, Northrop Grumman must satisfy the SLAs. The Commonwealth, in turn, has specific payment obligations in each phase of the partnership.

Statements of Work in the Contract Detail the IT Services Northrop Grumman Will Provide. A substantial portion of the contract consists of Statements of Work describing the specific services North-

Northrop Grumman must provide to State agencies (Schedule 3.3). Ten statements cover the main services in the agreement, including security, messaging, mainframes and servers, and desktop computing. For example, the Statement of Work for desktop computing (Schedule 3.3, Appendix 5) defines the scope of services to include providing

- desktop and laptop hardware and their associated operating systems;
- business productivity software, such as Microsoft Office 2003;
- network-attached printers and scanners; and
- handheld devices such as smartphones and PDAs.

Technical Addenda to the Statements of Work Provide Further Service Details. The addendum for desktop services requires Northrop Grumman to provide hardware and software maintenance, an asset inventory and tracking system, and the regular replacement of aging hardware (Schedule 3.3, Appendix 5, Addendum 5). The addendum also states that the company will use Altiris, a centralized desktop and asset management system, to “provide the Commonwealth with complete insight into the deployed desktop computing IT infrastructure.” Other software that would be standard to all desktops in the Commonwealth include Microsoft Outlook 2003, Adobe Acrobat Reader, and antivirus software.

Commonwealth Has Defined Payment Obligations Under the Contract. The contract requires the Commonwealth to pay Northrop Grumman all undisputed invoices for services within 30 days. Specific payment obligations of the Commonwealth are set forth in a series of schedules and attachments to the main agreement (Schedule 10.1 and Attachments 10.1.1-10.1.12). Additional provisions of the contract describe the rights and obligations of the parties in the event of a disagreement over services, fees, or any other element of the contract (Section 24).

If Northrop Grumman Fails to Meet Its Obligations, the Commonwealth Has Several Means of Terminating the Contract

The contract envisions several scenarios in which the Commonwealth could exit the partnership prior to completing the ten-year term. Specifically, Section 14 provides the Commonwealth with six means of terminating the contract:

- **Default by Vendor.** The Commonwealth can withdraw from the contract should Northrop Grumman default on its contractual obligations. Default by the company could occur in several ways, including a material breach by the company,

such as a breach of security; a failure to complete the transformation process by July 1, 2009; or a failure to meet contractual obligations regarding the disaster recovery plan.

- ***Incurred Liability by Vendor.*** The Commonwealth can terminate the contract without incurring exit or resolution fees if Northrop Grumman’s aggregate liability exceeds \$225 million. According to VITA staff, the company could incur such liability if it failed to deliver a project or meet a milestone and the Commonwealth suffered monetary damages as a result.
- ***Commonwealth’s Lack of Funds.*** The contract provides for termination in the event that funding is not “appropriated, allocated or available” to State agencies or other entities receiving services from Northrop Grumman.
- ***Change in Control of Vendor.*** The Commonwealth can terminate the contract if a change in control affects at least 50 percent of ownership in Northrop Grumman.
- ***Force Majeure Events.*** The Commonwealth can terminate all or a portion of the contract if a “force majeure” event, such as an act of God, causes a “delay or interruption in its performance of a significant or substantial portion” of services for at least 15 consecutive days.
- ***Convenience of Commonwealth.*** The Commonwealth can terminate its relationship with Northrop Grumman “for its convenience, at any time and for any reason or no reason[.]”

Exit and Resolution Fees

Exit fees cover administrative, labor, and other costs associated with early termination of the contract. Resolution fees consist of payments to Northrop Grumman for the continued use of IT hardware, including the Chester data center, as well as unpaid transition costs incurred by the company during the early years of the contract.

In Some of These Situations, the Commonwealth May Be Liable for Exit and Resolution Fees. Exit fees apply under certain circumstances if the Commonwealth terminates the contract prior to completing the ten-year term. Resolution fees also result from early termination, and consist of lease payments from the Commonwealth to Northrop Grumman for use of IT assets (including the Chester data center) through the remainder of the contract term. Attachments to the contract detail the exit and resolution fees for early termination under the scenarios described above.

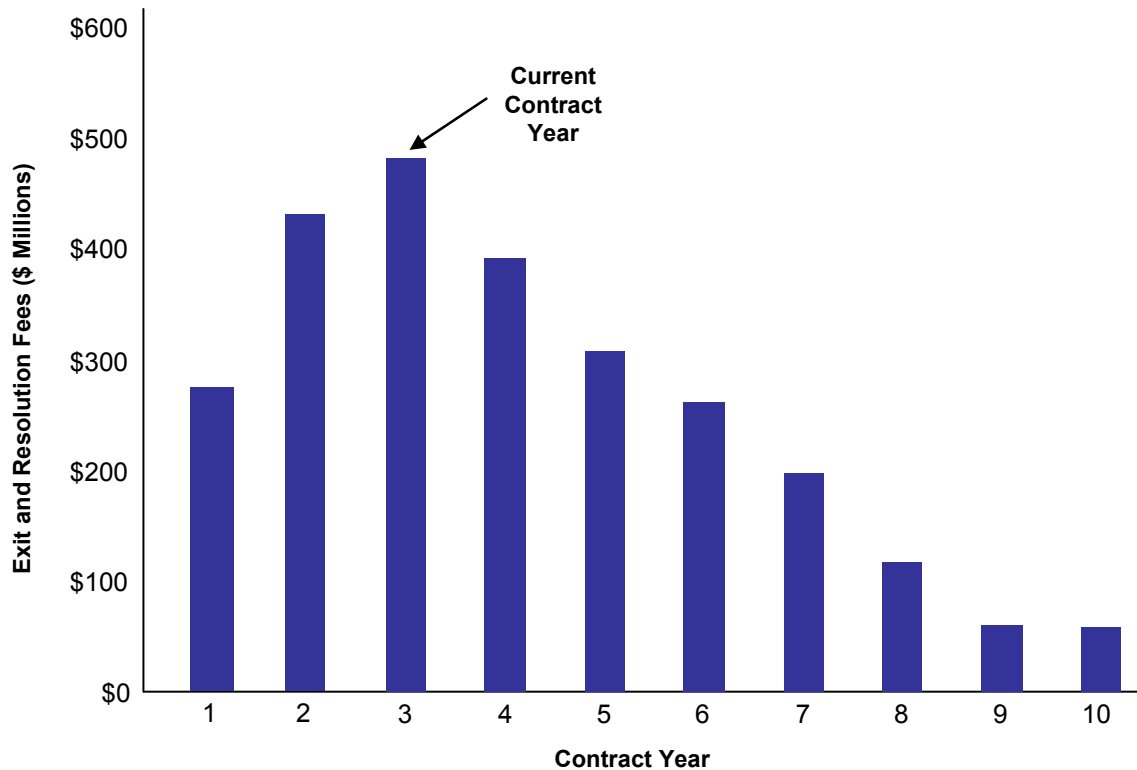
Where exit and resolution fees apply, it appears that the Commonwealth would pay a substantial financial penalty for early termination of the contract, and would be required to lease IT assets from Northrop Grumman for the remainder of the contract term. As shown in Table 5, the total cost to the State to terminate the contract in FY 2009 on three of the six grounds is between \$475 and \$482 million. The total cost to the Commonwealth for termination for reasons of a change in ownership, force majeure, or convenience declines substantially in future years (Figure 3).

Table 5: The Commonwealth Has Six Grounds for Terminating the Agreement and the Associated Costs to the State in FY 2009 Range From \$0 to \$482 Million

Grounds for Contract Termination	Description	Applicable Fees in Contract Year 3 (FY 2009)		
		Exit Fees	Resolution Fees	Total Cost to the State
Default by Vendor	Includes material breach and failure to complete transition process	NA	NA	\$0
Incurred Liability by Vendor	Liability incurred by vendor exceed \$225 million	NA	NA	\$0
Commonwealth's Lack of Funds	Funds not appropriated to State agencies	NA	NA	\$0
Change in Control of Vendor	Change in ownership of Northrop Grumman greater than 50 percent	NA	\$475 million	\$475 million
Force Majeure Events	Extraordinary event prevents vendor from fulfilling contract	\$7 million	\$475 million	\$482 million
Convenience of Commonwealth	Right to terminate contract at any time for any reason	\$7 million	\$475 million	\$482 million

Source: JLARC staff analysis of the Comprehensive Infrastructure Agreement.

Figure 3: The Cost to the Commonwealth of Terminating the Contract Declines Substantially Over Time



Source: JLARC staff analysis of the Comprehensive Infrastructure Agreement.

Commonwealth Can Also Terminate Without Cost During FY 2009 if Northrop Grumman Fails to Complete Transformation. The contract requires Northrop Grumman to “complete the transition of all Services to Vendor by the transition completion date as set forth in the Transition Plan” (Section 3.2.2). If this fails to occur by the end of FY 2009, the contract adds that “the Commonwealth may terminate this Agreement for cause without opportunity for cure[.]” If the Commonwealth were to terminate the contract because of such a default, then the Commonwealth would not be required to pay any exit or resolution fees.

Northrop Grumman Can Terminate the Contract Only if the Commonwealth Fails to Meet its Payment Obligations

Northrop Grumman appears to have only one basis for terminating its relationship with the Commonwealth before the full term of the contract. The company can unilaterally withdraw from the contract if the Commonwealth defaults on its contractual obligations by failing to pay a minimum of \$100 million in fees, not disputed in good faith, for services (Section 14.5.2). However, the contract imposes a 60-day period, during which the Commonwealth can make payments, before Northrop Grumman can exercise this option. Under this scenario, the Commonwealth would be liable for both exit and resolution fees, as well as any unpaid fees.

Contract Provisions Address the Ownership of IT Assets During and After the Term

For the life of the agreement Northrop Grumman owns all hardware and software assets for which it is operationally responsible, such as desktops, laptops, servers, and other equipment (Section 2.1). Additional provisions in the contract address the ownership of IT assets if the contract is terminated early or allowed to expire at the end of the ten-year term (Section 15.4.6 and Attachment 10.1.11 to Schedule 10.1).

If the contract is allowed to expire at the end of the ten-year term or the three-year extension period, Northrop Grumman is required to transfer to the Commonwealth—at no additional cost—ownership of all “tangible assets” used in the provision of IT services by the company. In addition, the Commonwealth has the option of negotiating the purchase of the Chester data center from Northrop Grumman, but no purchase price is specified in the contract. The contract does not include a similar option for the Commonwealth to purchase the backup data center in Lebanon.

By contrast, if the contract is terminated by either party, the Commonwealth would be required to fulfill certain lease obligations to Northrop Grumman (including the data centers). These

leasing costs are one component of the resolution fees the Commonwealth would be required to pay. According to Section 15.4.6 of the contract, the hardware would then be available for purchase from Northrop Grumman “at a price consisting of [Northrop Grumman’s] direct and indirect costs... plus a markup pursuant to Schedule 10.1.”

Once the contract expires, the State has a right under the contract to extend employment offers to any Northrop Grumman employees whose positions are directly related to the services being terminated (Section 15.4.8). Many of the State’s former IT staff accepted employment offers from Northrop Grumman, and the company is required to cooperate and assist the Commonwealth with these efforts, particularly regarding salary and benefits information, so that competitive employment offers can be made.

PAYMENTS TO NORTHROP GRUMMAN ARE DETERMINED BY THE CONTRACT

The contract includes an annual payment cap of \$236 million for “baseline” infrastructure services. Therefore, the State could pay as much as \$2.3 billion for baseline IT infrastructure services over the ten-year term, or approximately \$1.6 billion in present value terms.

Contract Sets an Initial \$236 Million Cap on Payments for Certain Services

The contract prohibits the annual cost of baseline services from exceeding a cap of \$236 million (Section 2.0 of Schedule 10.1). The baseline was initially set in 2005 when the contract was negotiated, and it was based upon the existing inventory of assets and other measures of service usage and resources. The baseline will be finalized (or “re-snapped”) once the final inventory is completed, a task that is behind schedule.

The payment cap is composed of three elements, and the contract includes a mechanism to ensure that the total cost of these three elements does not exceed the \$236 million cap:

- ***Retained Costs of the Commonwealth.*** Retained costs refer to the costs of contracts executed by the Commonwealth prior to the agreement with Northrop Grumman. These costs include payments made by VITA to telecommunications vendors, of which the largest are MCI and Verizon, as well as payments for non-telecommunications contracts which VITA retained such as disaster recovery fees and payments for Microsoft Office licenses.

- ***Costs of the Managed Employees.*** Prior to the beginning of the ten-year contract term in July 2006, Northrop Grumman was required under the contract to extend offers of employment to VITA employees with IT infrastructure responsibilities. A total of 566 VITA employees accepted positions with Northrop Grumman; however, 245 VITA employees chose to remain State employees. These State employees are now managed by Northrop Grumman staff (referred to as “managed employees”), and the company is required to compensate the Commonwealth for their salaries and benefits. (This group does not include other State employees at VITA who were not offered employment with Northrop Grumman, such as finance and administration staff, contract managers, internal audit, and project management division employees.)
- ***All Fees for the Baseline Services Provided by Northrop Grumman.*** Baseline service fees cover a variety of IT services provided by Northrop Grumman, including the operation and maintenance of the statewide network, disaster recovery and network security, and regular hardware replacement and maintenance. The difference between the \$236 million cap and the sum of the retained costs and the managed employee costs represents the cap on Northrop Grumman’s annual baseline service fees. For FY 2008, the effective “cap” on services actually performed by Northrop Grumman appears to be \$153.5 million.

Northrop Grumman was required to complete an initial inventory of the State’s IT assets by July 1, 2007. This inventory was intended to verify the actual existence of assets and support the establishment of a baseline number of assets for billing purposes. The parties were also required under the contract to complete a reconciliation of the inventory by April 1, 2008, prior to the use of the “volume-based” service fee model beginning July 1, 2008, but this inventory has not been completed.

If the inventory reconciliation identifies a higher number of assets than had been identified in the initial baseline, then the contract requires Northrop Grumman to adjust its fees to ensure that total payments remain within the \$236 million cap (Section 5.1.8 of Schedule 10.1). Conversely, if the reconciled number of assets is less than or equal to the initial baseline, then VITA and Northrop Grumman “will meet to discuss what, if any, adjustment” to volume-based rates should be made.

Contract Provides Two Means by Which the Cap Could Be Exceeded

Provisions in the contract allow annual fees to exceed the \$236 million cap for two reasons. These provisions could increase the cap after an asset reconciliation has been completed.

First, the contract allows Northrop Grumman to make annual requests for cost of living adjustments in the event that costs increase or decrease (Section 12.0 of Schedule 10.1). According to the contract, the Commonwealth and Northrop Grumman “shall negotiate and execute a contract modification adjusting the fees” that cover administrative and facilities costs, or the fees for the support and replacement of assets such as desktops and servers. Language in the contract allows these fee adjustments to raise (or lower) total annual payments to Northrop Grumman from the initial \$236 million cap. VITA notes that it must agree to specific fee adjustments but it has the authority to do so without the prior approval of the Governor or General Assembly.

A second provision in the contract allows annual payments to exceed the cap if additional assets and services are requested by the Commonwealth. The \$236 million cap only applies to baseline services and the asset counts to be determined in the final inventory reconciliation. As a result, if State agencies add new computers or new types of IT services once the transition to a managed-service environment is complete, the State will pay Northrop Grumman additional fees for these new services. In conjunction with the cost of baseline services, these additional fees could exceed the \$236 million cap stipulated in the contract.

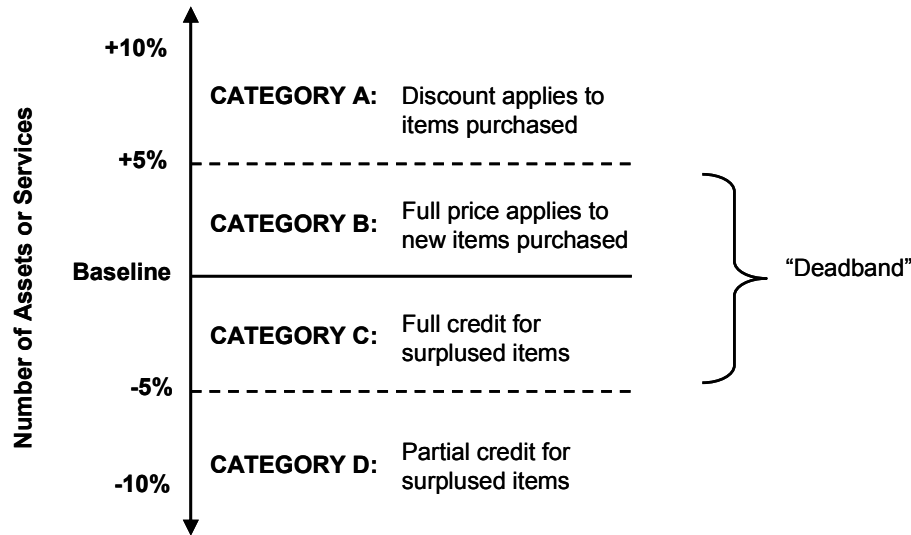
Contract Provides Volume Discounts for the Purchase of New IT Assets. The contract enables the Commonwealth to capture economies of scale if the items (assets or services) purchased from Northrop Grumman in a managed service environment increase beyond a certain threshold (Section 5.3.2 of Schedule 10.1). The company would charge the full price for the first five percent increase in additional items above the inventory currently in place. Beyond this five percent threshold (referred to in the contract as the “deadband”), the *new* assets or services would be available to the Commonwealth at discounted rates. These economies of scale are available for all assets and services provided by Northrop Grumman, with the exception of mainframe computing services, and are calculated separately for each type of asset.

For example, the contract assumes a baseline number of desktops. If the Commonwealth increased this number over time by five percent (by purchasing additional machines), the State would pay the full rate for these additional machines. (This is category B in Fig-

ure 4.) However, any additional machines purchased above this threshold amount would exceed the “deadband” and a discount would apply (category A). This discount would apply only to machines that exceed the five percent threshold; all pre-existing machines would continue to be billed at the full price. The discounted prices provided in the contract range from approximately 10 to 15 percent.

Conversely, the contract includes a reduced savings rate when assets or services decrease by more than five percent. According to VITA staff, this provision was designed to help Northrop Grumman meet certain fixed costs in the event that the Commonwealth’s consumption of IT items declines substantially. As shown in Figure 4, if the Commonwealth reduces the number of desktops by five percent (by surplus-ing machines), it would receive a one-for-one credit for the fees paid for each surplus-ed machine (category C). However, once the five percent threshold is exceeded, the fees paid for each additional surplus-ed machine would receive only a partial credit (category D). In other words, once enough machines are surplus-ed to exceed the deadband, the Commonwealth would continue to pay a percentage of the full price even though these machines are no longer in use.

Figure 4: Contract Provides Volume Discounts and Reduced Savings Rates for Changes of More Than 5 Percent to Baseline



Source: JLARC staff analysis of the Comprehensive Infrastructure Agreement.

Contract Provides for Payments to Be Reduced in Certain Circumstances

Payments to Northrop Grumman could decrease under two scenarios. First, the contract requires Northrop Grumman to implement a benchmarking process that will allow VITA to compare Northrop Grumman's fees and service levels to the best rates and practices in the industry (Section 10.8). VITA may request a benchmarking review for one or more services at any time beginning 12 months after completion of the transition, but no more than once during any 24-month period during the term of the contract. If one of the approved benchmarking firms finds that Northrop Grumman's fees are not among the best 25 percent of the rates being charged to similar entities (including private sector entities) for similar services, then the company must lower its fees accordingly.

Second, the contract requires Northrop Grumman to match the best prices and terms it offers to its U.S. customers including public and private sector entities (Section 10.2). Up to once annually, the Commonwealth can request written assurance from the company that it is receiving the best prices and terms for similar volumes of services under similar circumstances and terms. If not, Northrop Grumman must lower its fees and refund the Commonwealth if higher fees had already been paid.

Northrop Grumman Is Guaranteed a Minimum Annual Payment

The contract creates a floor under which the total cost for baseline services from Northrop Grumman cannot fall (Section 5.4 of Schedule 10.1). Language in the contract sets a "minimum revenue commitment" equal to 85 percent of certain fees in a managed-service environment. As a result, if the volume of services consumed drops below the 85 percent threshold the Commonwealth must pay additional fees to meet the minimum revenue commitment.

The contract applies the 85 percent threshold to services provided after the asset inventory has been completed and fees to Northrop Grumman have been adjusted accordingly. Under the contract, the 85 percent threshold will be applied to the anticipated annual contractual payment to Northrop Grumman in a managed services environment, which consists of four cost elements (defined in sections of Schedule 10.1):

- annual services fee (Section 5.2.1),
- management fees (Section 5.2.2),
- facilities fees (Section 5.2.3), and
- fixed rate volume-based fees (Section 5.3).

The 85 percent minimum revenue commitment does not apply to the retained costs of the Commonwealth or the costs of managed employees.

The contract does not apply the 85 percent threshold to the retained costs of the Commonwealth (telecommunications and other services not provided by Northrop Grumman) or the costs of managed employees. While the annual service, management, and facilities fees are fixed costs, the amount of the fixed rate volume-based fees will depend on the volume of services actually provided to the Commonwealth. Using the initial baseline asset inventory and existing fees, VITA staff anticipate that these four cost elements will total \$208 million in FY 2009. (Table 12, in Chapter 3, provides the anticipated annual contractual payment to Northrop Grumman in the remaining years of the contract.)

Contract Provisions Protect the Commonwealth if Adequate IT Funding Is Not Available

Although the contract guarantees a minimum amount of revenue for Northrop Grumman, VITA staff indicate this guarantee is contingent upon the “appropriation, allocation and availability of sufficient government funds” (Section 10.9). Provisions in the contract protect the Commonwealth in the event sufficient funding is not available to meet payment obligations to Northrop Grumman. The contract states:

Each payment obligation of the Commonwealth is contingent upon the appropriation, allocation and availability of sufficient government funds for the payment of such an obligation (Section 10.9).

As a result of this provision, it appears that the Commonwealth could negotiate reduced service levels and fees below the 85 percent minimum revenue commitment if IT funding was not adequate. Specifically, this provision requires the parties to

- establish lower fees for State agencies,
- reduce the level or scope of services provided, or
- reprioritize projects or schedules.

In this case, the Commonwealth would reduce its payments to the company accordingly. In addition, as discussed above, the contract allows the Commonwealth to terminate the agreement if “funds are not appropriated, allocated or available” to State agencies for services (Section 14.7), and exempts the Commonwealth from exit or resolution penalties in this situation.

According to VITA staff, these provisions were included in the contract to limit the Commonwealth’s liability if it experiences significant declines in revenue. Staff indicated that events of statewide significance would have to occur to trigger these provisions, such

as the withholding of spending authority specifically for IT by the Governor, broad legislative decreases in appropriations for IT, or the loss of federal funds for agencies dependent on these funding streams. For example, this section would apply if language in an appropriation act restricted IT expenditures for all agencies. By contrast, according to VITA staff, the unilateral decision by one or more agency heads to substantially reduce their individual use of IT services, as may occur in response to a call for reductions in general spending levels, would not trigger these provisions.

PROBLEMS HAVE BEEN REPORTED WHICH HAVE DELAYED TRANSITION TO A MANAGED SERVICES ENVIRONMENT

The Commonwealth entered into a public-private partnership with Northrop Grumman in order to realize the benefits of a managed-service environment, including a consolidated, centrally managed network; improved security and backup capability for Commonwealth IT systems; and new IT hardware.

Key transformation activities include replacing hardware such as desktops and laptops; installing a set of basic software on each PC, including a statewide email program; and moving the agency's hardware onto the network managed by Northrop Grumman. As of November 2008, transformation activities that have been completed include the following :

- More than 26,500 desktops, laptops and tablets have been replaced at 64 agencies, and replacement is currently underway at another 22 agencies.
- The new network now includes 2,000 agency locations.
- The VITA help desk is being used by 64 agencies encompassing more than 30,000 staff.
- Mainframes and some servers have been moved to the new data center in Chester.
- Disaster recovery and a consolidated help desk are provided at the new data center in Lebanon.
- Security and incident management systems are being used at most agencies.
- A new messaging system is being implemented.

Current Status of Transformation Activities

Some elements of the transformation process have been delayed, and it appears that transformation of some agencies will not be completed by the June 30, 2009, deadline in the contract. As a result, the State may not immediately realize all the benefits of a managed service environment, and VITA will have difficulty monitoring Northrop Grumman's adherence to the SLAs, a point made by the APA in its February 2008 review of the partnership.

The progress of the current transformation phase can be measured in two ways: by task and by agency. By agency, the contract requires that all executive branch agencies receiving IT services from the partnership complete the transition to a managed service environment by June 30, 2009. However, a substantial number of State agencies have experienced delays in this transition. According to an October presentation to the ITIB by VITA and Northrop Grumman staff, 39 of 85 agencies are at some level of risk of not completing transformation by the deadline. Twelve of these agencies have been deemed "unlikely" to meet that deadline.

VITA has noted that the first large agency to complete all transformation tasks will be the Department of Juvenile Justice (DJJ). The agency has already completed tasks such as the replacement of its desktops and the transition to the statewide help desk. Partnership staff are currently moving DJJ onto a common email system, and the relocation of its servers—the last major transformation task for the agency—is scheduled to begin soon and will be completed in the first quarter of 2009. Other smaller agencies are close to being fully transformed, including the Virginia Racing Commission and Commonwealth's Attorneys' Services Council.

The progress of transformation can also be measured by task. The contract sets deadlines for certain key transformation activities, including

- providing new desktops and laptops for at least 90 percent of staff at eligible agencies by March 2009;
- consolidating 90 percent of eligible servers by June 2009; and
- having all SLAs developed and eligible for performance credits by June 2009.

The progress of individual transformation activities can vary considerably by agency. For example, the partnership reports that at a statewide level the replacement of all desktops is 83 percent complete and will be finished in April 2009 (Table 6). However, desktop replacements have not begun at several key agencies.

Accurate Inventory of IT Assets Has Not Been Completed

The partnership has made three separate attempts since 2006 to complete an inventory of all IT hardware in the Commonwealth. However, many agencies dispute the counts these inventories have produced, and Northrop Grumman recently contracted with an

Table 6: Key State Agencies Are at Differing Stages in the Replacement of Desktops

Agency	Percent Complete	Finish Date
Department of Corrections	100	12-27-07
Department of Juvenile Justice	100	3-11-08
Department of Mental Health, Mental Retardation and Substance Abuse Services	100	4-09-08
Department of Rehabilitative Services	100	6-03-08
Department of Alcoholic Beverage Control	0	11-21-08
Department of Social Services	0	1-30-09
Department of Environmental Quality	0	1-23-09
Virginia State Police	0	2-23-09
Department of Motor Vehicles	0	2-24-09
All Agencies	83	4-23-09

Note: Figures current as of 10-5-08.

Source: JLARC analysis of partnership data.

outside vendor to complete a fourth inventory. A complete and accurate asset inventory is required by the contract in order to determine what changes have occurred since the baseline level of services was established. Once the final inventory reconciliation is completed, and the baseline is “re-snapped,” the partnership can transition to a resource unit method of billing as required in the managed service environment.

VITA Has Identified Problems With Northrop Grumman’s Planning Activities

The transformation of 85 executive branch agencies to a managed service environment is an enormous undertaking requiring a significant amount of planning and coordination. Key elements of the transformation process depend on one another. For example, according to partnership staff, agencies must transition to the help desk operated by Northrop Grumman before they can begin using the new email system. In addition, transformation activities must accommodate the day-to-day operations of State agencies to ensure that they can continue to perform core business functions.

Inadequate Planning Appears to Have Hindered the Transformation Process. Some delays in the transformation process may have re-

sulted from inadequate planning by the partnership. According to the Commonwealth's CIO, Northrop Grumman's initial approach to transformation focused on transforming one service at a time across all agencies—such as converting all agencies to a common email system simultaneously. This method has proved logistically challenging and Northrop Grumman is now transforming one agency at a time, by performing all tasks at that agency before moving on to another agency.

Northrop Grumman also appears to have been slow to develop key planning documents. Northrop Grumman developed an initial transformation plan in June of 2006, which lists the major tasks and the scheduled initiation and completion dates. However, VITA staff noted in September 2008 that the initial plan had not been updated to reflect contract modifications, deadline extensions, and other changes.

Similarly, both VITA and agency staff have complained about the lack of agency-specific transformation plans which identify how Northrop Grumman will implement the tasks listed in the overall transformation plan, and account for agency-specific constraints. Northrop Grumman appears to have developed some agency plans, but these plans do not appear to have been shared with agencies. Without these agency-specific plans, agencies may have difficulty coordinating transformation activities with their daily business operations. In addition, VITA staff concluded that the lack of plans makes it difficult to determine each party's responsibility.

Partnership Does Not Appear to Have Grasped the Complexities of Some State Agencies. Transformation has also been delayed because the partnership appears not to have fully understood the complexities of some State agencies. For example, State agencies such as the Department of Social Services (DSS) have limited control over the local social services agencies and in many cases do not provide their IT support services. However, the partnership based its transformation plans for DSS on the assumption that DSS did provide IT support to local departments. As a result, the partnership must now consult with DSS to determine which local agencies will receive IT support services from Northrop Grumman.

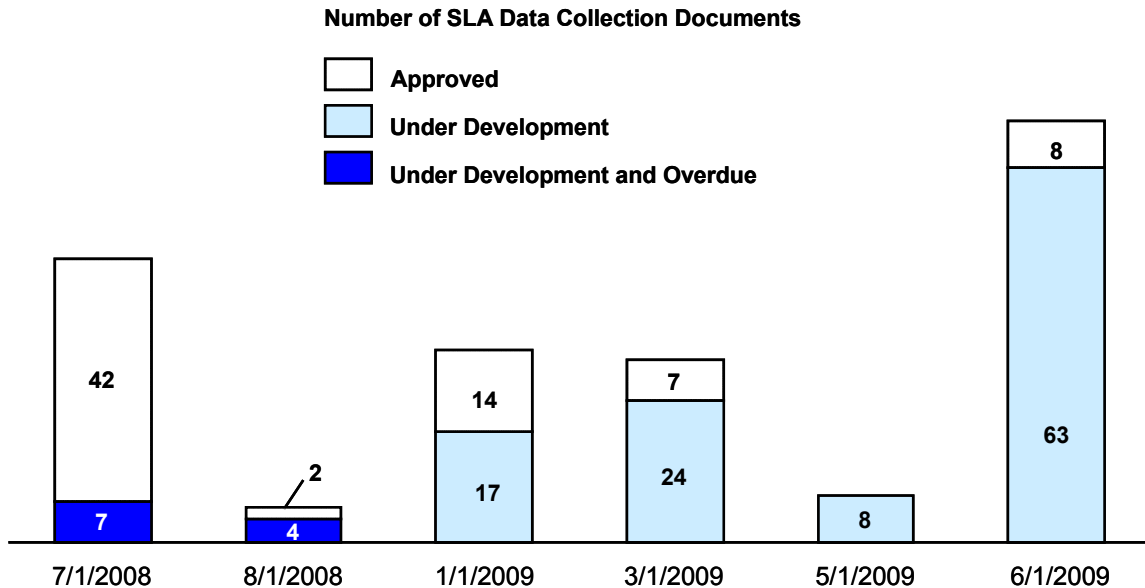
Similarly, the partnership appears not to have fully understood the complex funding arrangement of some agencies. Some elements of transformation have been problematic for agencies that rely extensively on federal or grant funding. Such funding may be available for a limited period, may not coincide with the billing processes used by the partnership, and may not be available unless certain requirements are met. For example, in recent years the Virginia Department of Health has accessed federal subsidies to reduce the cost of providing high-speed Internet connections to ru-

ral health districts. However, this funding may not be available if a third-party vendor such as Northrop Grumman provides these services.

Means of Measuring Performance According to Service Level Agreements Have Not Been Developed On Time. The partnership has been developing DCDs for the service level agreements in order to enable VITA to measure Northrop Grumman’s performance. Interim reporting of Northrop Grumman’s performance was first scheduled to begin in mid 2007. In addition, the contract provides for performance credits (as noted above) and the initial reporting of performance credit eligible measures was scheduled to begin in July of 2008. To enable this reporting, the DCDs must be completed, and the target was for 55 of the 196 DCDs to be developed by August 1, 2008.

However, VITA staff report that Northrop Grumman has not developed the capability to report or achieve service levels as currently scheduled. Many of the target dates for interim reporting were missed, which hindered VITA’s ability to measure and report on Northrop Grumman’s services prior to the implementation of performance credits. In addition, as Figure 5 indicates, 11 DCDs are currently overdue and therefore the SLAs are not available for performance credits. This limits VITA’s ability to measure Northrop Grumman’s adherence to contractual obligations and penalize underperformance.

Figure 5: Eleven Data Collection Documents For Service Level Agreements Are Currently Overdue



Source: VITA.

In addition, agreements detailing the individual service levels that will be provided to each State agency have not been developed, and there appears to be disagreement between VITA and Northrop Grumman about whether these customized service levels are required under the contract. VITA has noted that the failure to measure service levels as they pertain to individual State agencies will limit the benefits of the partnership.

Several State Agencies Have Delayed Key Elements of the Transformation Process

Transitioning State agencies to a managed service environment depends in part on the cooperation of agency staff and the ability of Northrop Grumman and its subcontractors to coordinate transformation activities with agency staff. Coordination is needed because the agency's ongoing business processes need to continue. However, in some cases agency staff are reportedly not cooperating and may not meet the June 30, 2009, transformation deadline.

Several Agencies Have Delayed Transformation Until the Partnership Addresses Their Concerns. In some cases, agencies have delayed transformation because the partnership has not addressed concerns. A prominent example involves concerns over data security. During the summer of 2008, VITA staff reported that 25 agencies—including several law enforcement agencies—were delaying network and desktop transformation until the partnership addressed their concerns regarding the installation of the Altiris software on all desktops. (As of November 2008, VITA reported that only six agencies were continuing to express concern about Altiris.) As Northrop Grumman indicated in its 2005 proposal to VITA, it wants to use the software to remotely manage the State's IT infrastructure by tracking asset inventories, sending out software packages or security updates, and performing other functions. The use of Altiris is a key means of reducing the cost of maintaining the IT infrastructure. However, some agencies fear that confidential data may be compromised because, in some configurations, the software could be used to view protected health information or confidential law enforcement records.

In addition, some agencies have pointed to errors in the asset inventory which they state have resulted in overcharges on bills. As a result of these overcharges, which agencies dispute, one agency indefinitely delayed the replacement of its desktops until additional funding could be identified to cover the resulting cost increases.

Finally, in some cases it appears that transformation activities would have interfered with ongoing IT projects at the agency. For example, the partnership had planned to move the Department of

Rehabilitative Services (DRS) to the new email system in July 2008. However, DRS delayed this activity until November of 2008 because it was in the midst of an ongoing systems development project.

Other Agencies Are Reported to Be Reluctant to Transition to a Managed Service Environment. VITA reports a more general reluctance by some agencies to permit transformation activities to proceed. In some cases, agency transformation has stopped over disagreements between VITA staff and the agency. Partnership staff have noted that some agencies were canceling scheduled activities with little notice, adding to Northrop Grumman's cost because arrangements for subcontractors and site-specific equipment had already been made. Partnership staff added that these agencies would often prohibit activities from occurring, putting the partnership "at significant risk of not meeting program objectives." However, the Secretary of Technology has noted that agencies have not received agency-specific transformation plans informing them of scheduled activities, how these activities could affect their operations, and what steps are required of the agencies. As a result, some agencies may have cancelled activities in order to minimize the disruption to their business processes.

Cost of Information Technology Services

In Summary

In fiscal year (FY) 2008, VITA had expenditures of \$342 million and revenues of \$325 million. VITA attributes the shortfall to its internal service fund (ISF), which generates revenues based upon monthly ISF rates charged to VITA's customer agencies. The cost of IT services provided by VITA and Northrop Grumman continues to be a concern for State agencies, which expected savings to result from the partnership. However, the partnership was intended to avoid future costs, not achieve savings, although some savings may occur if the contract is extended. Some of VITA's current rates do not charge agencies for the cost to replace the IT assets used by agency staff. As those assets are replaced they will be assessed a higher rate, which may increase ISF revenues by \$9.7 million annually. JLARC staff have also identified instances in which some agencies provide their own IT support but are assessed an ISF rate which includes VITA's cost for support. In addition, VITA's decision not to implement lower rates approved by JLARC in 2007 resulted in \$2.35 million in higher charges in the first half of FY 2009.

The creation of VITA, and the subsequent contract with Northrop Grumman, were ultimately intended to reduce the cost of IT for the Commonwealth. Since the contract was executed, however, the IT expenditures of some State agencies may have increased. Some of these cost increases have been funded by additional general funds and appropriations, and the 2008 Appropriation Act will provide some general funded State agencies up to \$19 million during the biennium to offset increases in VITA's rates. However, many agencies have expressed concern that if additional general funds are not provided in future years, then the increased costs of IT may require them to reduce expenditures on the services they provide.

BACKGROUND ON VITA'S REVENUES AND EXPENDITURES

In FY 2008, VITA reported \$325 million in revenues. VITA's revenues come from five funding sources and are used primarily to pay for vendor services.

VITA's Revenues Are From a Combination of Internal Service Fund Rates and Other Charges

As shown in Table 7, most of VITA's revenues (81 percent) come from internal service fund (ISF) charges. VITA's remaining funding sources are enterprise funds (16 percent), special revenue

funds (three percent), general funds (one percent), and federal funds (0.1 percent).

Table 7: VITA's FY 2008 Revenues by Fund

Fund	Revenues	Percent of Revenues
Internal Service Fund	\$261,854,981	80.6%
Enterprise Fund	50,948,458	15.7
Special Revenue Fund	9,134,749	2.8
General Fund	2,586,920	0.8
Federal Fund	486,330	0.1
Total	\$325,011,438	100.0%

Source: VITA's Income Statement, as reported in the October 2008 Financial Report to the ITIB Finance and Audit Committee.

ISF Charges Pay for the Services that VITA and Private Vendors Provide to State Agencies. The costs of VITA's services, including Northrop Grumman's contractual services, are recovered through VITA's ISF. For each service provided to an agency, VITA charges a specific ISF rate and bills the agency according to its usage. VITA's ISF revenues can be broken down into five major categories, as shown below:

- Decentralized services encompass the services associated with desktops, laptops, PDAs, and servers.
- Telecommunications services are services such as managing servers and routers that allow for network connectivity as well as local and long distance telephone calls.
- Computer services include those services related to data center computing, including mainframes, servers, and data storage.
- Telemedia services include audio and video conferencing.
- Consulting services offered through State contracts. (VITA did not receive any revenues from this in FY 2008.)

Table 8: VITA's FY 2008 ISF Revenues by Service

Service	Total ISF Revenues	Percent of ISF Revenues
Decentralized Services	\$141,279,869	54.0%
Telecommunications Services	68,023,819	26.0
Computer Services	51,692,219	19.7
Telemedia Services	319,155	0.1
Other	539,919	0.2
Total	\$261,854,981	100.0%

Source: Revenue data provided by VITA.

As shown in Table 9, the ten agencies that contribute the most to VITA’s ISF revenue represent 76 percent of all ISF revenue (\$198.8 million). The single largest contributor was the Department of Social Services, which contributed 19 percent of VITA’s ISF revenues (\$50.2 million).

Table 9: Agencies With the Ten Highest ISF Charges in FY 2008

Agency	ISF Revenue
Department of Social Services	\$50,175,967
Department of Transportation	42,959,172
Department of Corrections	23,475,314
Department of Health	19,329,707
Department of Motor Vehicles	18,983,225
Department of Taxation	11,996,439
Department of Mental Health, Mental Retardation and Substance Abuse Services	11,474,808
Virginia Employment Commission	7,853,037
Department of Alcoholic Beverage Control	6,364,813
Department of State Police	6,173,143
Subtotal	\$198,785,625
Percent of Total ISF Revenues	75.8%

Source: Revenue data provided by VITA.

VITA’s Second Largest Fund, the Enterprise Fund, Is Largely Comprised of Pass-Through E-911 Grants. The enterprise fund (\$51 million) is dedicated solely to wireless E-911 services provided by public safety answering point (PSAP) operators (the locally based E-911 dispatchers) and commercial mobile radio service (CMRS) providers, such as Verizon and Alltel. Within the wireless E-911 program, VITA’s primary role is to distribute grants approved by the Wireless E-911 Service Board to PSAP operators and CMRS providers. VITA also provides technical, end-user, and grant-submission support to localities and telecommunications firms. However, the expenses associated with these services account for only three percent of enterprise fund revenues.

Special Revenues Fund Is Comprised of Multiple Funds. Special revenues primarily consist of two sub-funds, the Virginia Geographic Information Network (VGIN) and the Industrial Funding Adjustment (IFA) funds, which are funded through several sources including dedicated special revenues and sales of geographic data. The VGIN fund includes the mapping and Geographic Information System (GIS) services associated with the Virginia Base Mapping Program (VBMP) and related activities. The GIS maps and aerial photography produced through VGIN and VBMP are used for planning and development purposes by State and local agencies, private utilities, and other firms. The IFA fund is used for supply chain management and general government activities, including support to the Governor’s Office.

General Funds Are Dedicated to Technology Management Oversight Services. General fund appropriations are dedicated to costs that are not recouped through ISF charges to State agencies, because these services benefit the Commonwealth as a whole. The Appropriation Act specifies that the funds be used for technology management oversight services, which include the services performed by the CIO and his staff.

VITA’s Expenditures Include Vendor Payments and Internal Costs

VITA reported expenditures of \$341.7 million in FY 2008. As with revenues, VITA’s \$278.4 million of ISF expenditures comprise the majority (82 percent) of VITA’s overall expenses. As shown in Table 10, the remaining expenditures can be attributed to the enterprise fund (15 percent), the special revenue fund (3.0 percent), the general fund (0.8 percent), and federal funds (0.3 percent).

Table 10: VITA FY 2008 Expenditures by Fund

Fund	Expenditures	Percent of Expenditures
Internal Service Fund	\$278,400,343	81.5%
Enterprise Fund	49,411,547	14.5
Special Revenue Fund	10,227,716	3.0
General Fund	2,586,920	0.8
Federal Fund	1,120,000	0.3
Total	\$341,746,526	100.0%

Source: VITA’s Income Statement, as reported in the October 2008 Financial Report to the ITIB Finance and Audit Committee.

VITA paid Northrop Grumman a total of \$161 million in FY 2008.

Most of VITA’s expenditures were for payments to vendors for contractual services, transfers to PSAP operators and CMRS providers, and rent (Table 11). Combined these categories represented 83.4 percent (\$285.0 million) of all expenditures, and Northrop Grumman received the majority of these payments (\$161 million). In addition, VITA paid \$46.0 million to PSAP operators and CMRS providers for E-911 services.

Payments for In-Scope Services Were Under the \$236 Million Contractual Cap

As discussed in Chapter 2, annual payments for baseline services cannot exceed the contractually defined cap of \$236 million. Total payments for baseline services in FY 2008 were \$230.5 million.

Most of the \$153.5 Million in Payments to Northrop Grumman Were for Milestone Completion and Current Operations. Most of VITA’s payments to Northrop Grumman in FY 2008 were for milestone payments (46.6 percent); the next largest amount was for current

operations (41.2 percent). Milestone payments are paid contingent upon Northrop Grumman's successful completion of the milestone tasks specified in the contract, such as replacing 90 percent of the

Table 11: VITA FY 2008 Expenses by Category

Category	Total	Percent of Expenses
Contractual Services	\$231,740,319	67.8%
Transfers to PSAP/CMRS	45,953,750	13.4
Personal Expenses	38,327,369	11.2
Depreciation & Interest	10,978,452	3.2
Rent, Insurance, & Related Charges	7,272,386	2.1
Expendable Equipment / Improvements	4,125,477	1.2
Transfers, Payments to Federal Government, and Educational Assistance	2,710,793	0.8
Supplies and Materials	637,980	0.2
Total	\$341,746,526	100.0%

Source: VITA's Income Statement, as reported in the October 2008 Financial Report to the ITIB Finance and Audit Committee.

State's desktops. Current operations fees are expenses incurred by Northrop Grumman in the first two years of the contract associated with developing the new infrastructure and providing IT services to agencies. VITA also paid Northrop Grumman \$6.4 million for the use of its data centers, and \$12.1 million for Microsoft licensing fees which Northrop Grumman then remitted to Microsoft. (Northrop Grumman also received another \$7.5 million for services not covered by the cap.)

Payments for Baseline Services That Count Toward the Contractual Cap Include \$77 Million in Expenses Not Paid to Northrop Grumman.

VITA paid \$51 million to telecommunications service providers for local and long distance telephone services and data network services. In addition, VITA paid \$16.6 million in salary and benefits for VITA employees who are managed by Northrop Grumman. Finally, VITA paid \$9.5 million for non-telecommunications expenses such as disaster recovery.

VITA Reports That FY 2008 Expenditures Exceeded Revenues Because of ISF Revenue Shortfall

VITA's total FY 2008 expenditures of \$341.7 million exceeded revenues by \$16.7 million. VITA addressed this shortfall by using ISF cash on-hand, working capital cash advances, and treasury loans. Most of the shortfall (\$16.5 million) occurred within the ISF.

VITA has attributed the ISF shortfall to two primary factors. The failure to reconcile the asset inventories at State agencies has reportedly hindered VITA's ability to fully and accurately bill agen-

cies. According to VITA's October, 2008, report to the ITIB Finance and Audit Committee, a recent inventory of assets at an agency revealed 300 previously uncounted servers that had not been billed in FY 2008. Additionally, a small number of agencies have refused to pay their bills until the asset inventory is reconciled.

NO ADDITIONAL SAVINGS FROM THE PARTNERSHIP ARE ANTICIPATED DURING THE CONTRACT TERM

The creation of VITA, and the subsequent contract with Northrop Grumman, were intended to provide an array of benefits to the Commonwealth, including a reduction in IT expenditures. A review of information provided by VITA indicates that savings to State agencies may have occurred in FY 2004-2006 as a result of initial consolidation activities. However, it does not appear that the contract with Northrop Grumman will produce any additional savings but instead may result in some avoided costs.

Contract With Northrop Grumman Is Largely Based Upon Avoided Costs, Not Savings

The distinction between an outsourcing arrangement and a partnership is that the latter entails an element of risk for both parties. As a member of the IT Partnership with VITA, the risk for Northrop Grumman appears to be that its initial capital investment will not be recovered. It is not clear whether the fees negotiated with VITA are sufficient to recoup this investment and provide a profit, or if Northrop Grumman must also find ways to make the Commonwealth operate more efficiently. In either case, the CIO has stated that the State is unlikely to receive any savings from the partnership during the term of the contract.

The CIO has stated that the State is unlikely to receive any savings from the partnership during the term of the contract.

As described by the CIO to the House Appropriations Committee in January of 2008, "there are no 'uncommitted savings' " in the initial term of the contract, because any savings are "committed to repayment of Northrop Grumman's up-front \$270 million capital investment." In other words, it appears that Northrop Grumman will likely capture any savings achieved during the term of the contract in exchange for providing the capital investment needed to upgrade the State's IT systems.

Avoided Costs Are More Likely to Occur Than Savings. Instead of savings, it appears that any financial benefit to the State from the partnership during the ten-year contract term will be in the form of avoided costs. Prior to executing the contract, VITA projected the amount of avoided costs. This began with an estimate that VITA expended \$236 million in FY 2005 to provide infrastructure services to in-scope agencies. VITA projected that this cost would increase over the next ten years because of inflationary increases

for salary and benefits of 2.5 percent and for other items at an average of three percent. VITA also projected that existing obsolete equipment would have to be replaced. VITA estimated that these projected increases would result in a cumulative cost increase of \$200 million over ten years, or an average of \$20 million annually over VITA's FY 2005 expenditures of \$236 million. VITA informed policymakers that avoided costs would be achieved by requiring the vendor to cap the cost of baseline infrastructure services (including the vendor's fees) at \$236 million annually. Therefore, VITA concluded that the State would avoid \$200 million in costs that the State would otherwise incur over the following ten years.

Baseline cap of \$236 million can be exceeded if inflation occurs.

Basis for Calculating Avoided Costs May No Longer Be Applicable Given Contract Terms. The terms of the contract executed with Northrop Grumman do not appear to allow the State to achieve the cost avoidance that VITA reported to policymakers. VITA's analysis assumed that the State would incur inflation-related costs if it continued to provide IT infrastructure services directly but that with a vendor providing services, and the \$236 million cap in place, the State could avoid these costs. However, the contract allows Northrop Grumman to make annual requests for cost-of-living adjustments (described in Chapter 2). Language in the contract allows these fee adjustments to raise total annual payments for baseline services above the \$236 million cap. As a result, VITA's projection of future avoided costs may not fully materialize.

It should be noted, however, that the same language could allow VITA to reduce payments to Northrop Grumman in the event of deflation. VITA staff state that Northrop Grumman is unlikely to trigger this provision, but that the State could. Although deflation is more likely in the current economic climate, historically it has been rare and does not appear to have been considered during contract negotiations.

Additional Savings or Other Benefits May Occur in Specific Circumstances

The contract provides for two means by which savings could occur and also includes provisions for improved services levels from advances in technology. Savings could occur as a result of reduced fees payable to Northrop Grumman if the contract is extended and lower fees if Northrop Grumman implements productivity enhancements. These savings could be passed on to State agencies, but the State's funding sources are not fungible and a savings attributable to the general fund may not be realized by agencies that rely on federal, special, or enterprise funds. In addition, Northrop Grumman is required to improve its service levels at no additional cost by incorporating advances in technology.

Savings May Occur If the Contract Is Extended or Services Are Provided at Lower Costs. In a presentation to the House Appropriations Committee in January of 2008, the CIO stated that “savings of approximately \$30 million per year will be returned to the State agencies beginning at contract end.” As discussed in Chapter 2, the contract allows the Commonwealth to renew the contract for up to three years at the end of the ten-year term. During that time, Northrop Grumman must lower its fees by \$28 million each year (Table 12).

Table 12: Savings May Result in Last Three Years If the State Extends the Contract

Anticipated Annual Contractual Payments to Northrop Grumman (\$ Millions)					
Year 3	Year 4	Year 5	Year 6	Years 7-10	Years 11-13
\$207.6	\$213.5	\$203.3	\$203.3	\$203.2	\$175.7

Source: VITA staff analysis of Attachments 10.1.3 - 10.1.5 of Schedule 10.1 of the Comprehensive Infrastructure Agreement as of December 2, 2008.

VITA appears to assume that the State will extend the contract for the three additional years. The extension may be in the State’s best interest because it is likely that the prices agreed to by Northrop Grumman for the first ten years were developed in anticipation of the lower prices for years 11 through 13.

If Northrop Grumman can provide services at a lower cost without affecting the service levels, then Northrop Grumman and VITA will each receive a portion of the savings for an agreed-upon time period. After that period, all such savings shall be passed through to VITA (Section 10.14 of the contract, Shared Savings).

Northrop Grumman Is Required to Improve Its Service Levels at No Additional Cost. The contract includes three “technology clauses” which may allow agencies to receive higher levels of service at no additional cost:

- **Northrop Grumman Must Continuously Improve Its Service Levels.** Beginning 18 months after the implementation of performance credits, Northrop Grumman must continuously improve services and annually adjust minimum performance levels for each service level. (Schedule 3.12)
- **Technological Improvements Are Expected to Improve Service Levels.** In the normal course of business, the services provided by Northrop Grumman are expected to evolve in order to keep pace with and use technological advancements and improvements (Section 3.5).

- ***Paradigm Technological Shift May Improve Service Levels.*** If a revolutionary, material improvement occurs in the technology used to provide any of Northrop Grumman's services, Northrop Grumman and VITA are expected to appropriately and equitably amend the contract. (Section 10.15).

VITA'S IMPLEMENTATION OF RATES MAY HAVE INCREASED COSTS FOR SOME AGENCIES

Although the overall cost of baseline IT services may not have increased, the current ISF rates assessed by VITA may have increased the IT costs of some agencies. VITA implemented rates in 2006 that assessed lower fees on some assets, but as those assets are replaced higher fees will be charged. Also, some assets appear to have been assessed for support services which the IT Partnership has not provided. Lastly, VITA chose not to implement lower rates approved by JLARC in 2007.

VITA's Rates Are Approved by JLARC but Not the ITIB

Budget language directs that the amounts generated through VITA's ISF rates shall be sum sufficient. In other words, the rates assessed on customer agencies must be capable of paying for VITA's expenditures. The individual ISF rates which VITA develops are designed to provide sufficient revenue to pay for VITA's internal costs and the agency's contractual obligation to pay Northrop Grumman. All rates consist of direct costs associated with a particular rate (such as hardware, software, and personnel) and shared costs that are spread across all rates (such as security and help desk services). The shared costs also include Northrop Grumman's management fees, which range from about 12 to 21 percent of the individual rates. To pay for its internal costs, VITA assesses administrative fees which represent about 10 percent of its rates.

Upon VITA's creation, the review of its ISF rates followed a two-step process in which the ITIB first approved a rate request which was then submitted to JLARC for final approval. In order to prevent VITA from making unnecessary expenditures, as a supervisory board the ITIB assessed the necessity of the services VITA provides and then reviewed VITA's rates to ensure that the cost of these services is reasonable.

This approach was adopted by the ITIB in 2003 when a formal motion was made to approve its initial request for interim rates. The ITIB also formally voted to adopt rate requests made in April and October of 2004. The ITIB subsequently decided to delegate the approval of rate requests to the CIO. In December of 2004, the

ITIB adopted a motion which assigned the CIO “authority to proceed with rate and budgetary submissions that come between Finance and Audit Committee meetings so as not to impede VITA’s ability to perform day-to-day activities.” Since that time, the CIO has informed the ITIB of the actions he has taken to modify rates, but the ITIB has not regularly approved the rates submitted to JLARC.

New or modified rates developed by VITA must be submitted to JLARC for final approval. Pursuant to Section 2.2-803 of the *Code of Virginia*, the Commission has the authority to establish new internal service funds and to discontinue those no longer needed. The purpose of JLARC’s review is not to determine the necessity for an expenditure, but to ensure that the rates are not over- or under-recovering VITA’s expenditures.

Federal Regulations Require That State Agencies Pay the Same Rate for the Same Service

Since its inception in 2003, VITA has used several approaches to charge agencies for IT-related labor, goods, and services. In 2006, VITA began using negotiated memoranda of understanding (MOUs) as a means of charging its customer agencies for labor and services. The amounts VITA assessed agencies under the MOU chargeback methodology were derived from (1) their respective FY 2006 actual expenditures and (2) in some cases, agency spending plans for FY 2007. The MOU chargebacks were designed to maintain costs at customers’ FY 2006 expenditure levels, except in cases where agencies submitted plans for increased IT expenditures. Advantages of the MOU approach included assuring consistency of VITA’s revenue flow and offering customers the ability to improve budgeting for these same IT services.

However, concerns with MOUs as a chargeback mechanism were then raised by customers as well as the cognizant federal agency, the U.S. Department of Health and Human Services’ Division of Cost Allocation (DCA). The DCA is designated by the Office of Management and Budget (OMB) as responsible for reviewing and negotiating cost allocation plans.

In August 2006, VITA submitted a Cost Allocation Plan (CAP) to DCA based upon the use of MOUs. The CAP depicted rates for each agency that VITA hoped would satisfy the pertinent federal cost allocation requirements. However, DCA disagreed and enumerated several concerns. Generally, DCA found that the CAP did not contain a methodology that assigned and billed costs in a manner that complied with federal regulations. As a result, the possibility existed that federally-funded agencies might be paying a higher rate than other agencies for the same service.

Federal regulations require that all recipients of a materially similar service be charged the same rate. This requirement is designed to prevent states and other governments from assessing a higher fee on federally funded agencies in an attempt to draw down additional federal funding. This cost allocation requirement is contained in the Cost Principles for State, Local and Indian Tribal Governments (Title 2 of the Code of Federal Regulations (2 CFR), Subtitle A, Chapter II, part 225), which is more frequently referred to as OMB Circular A-87. The circular contains general principles for determining allowable costs; per this regulation, fees must be the same for all agencies and services unless the services are materially distinct.

As a result, VITA must assess the same fee on all agencies for the same service or else risk losing federal funding. Consequently, VITA proposed statewide rates in submissions to JLARC and DCA in November of 2006.

VITA's Approach to Implementing Rates May Increase the Costs of Some Agencies

In November of 2006, VITA requested JLARC's approval of a widespread change in its rates. This change largely came in response to DCA's decision that it would not approve the rates VITA had proposed under the MOUs. Another factor was the concerns of customer agencies regarding the accuracy of asset inventories because the monthly charge to each agency was (and is) based upon the number of assets they use.

VITA therefore proposed the implementation of standard monthly rates for the various categories of decentralized services: desktop and laptop personal computers, servers, devices which are attached to a local area network (such as printers or scanners), and network access. In order to ensure that VITA could recover costs for the entire fiscal year in a manner that would satisfy federal concerns, VITA proposed that the new rates be made retroactive to July 1, 2006.

These rates were designed to recover both the operational and capital costs of providing decentralized services, and VITA proposed three primary service options depending upon the costs incurred by the IT Partnership. (These rates are based upon a five-year replacement cycle.) As described by VITA, the proposed service options were "full service, service excluding purchase (allowing for one time spending), and service excluding direct labor." These rates are based on a five-year replacement (or "refresh") cycle, meaning that a new asset will be provided to State agencies once every five years. This includes replacement during that time because of equipment failure, but not because of damage or loss.

- ***Full service (option one).*** Expenses recovered by option one include hardware costs, both annual maintenance costs and the prepayment of the replacement computer (a prospective charge). In other words, a portion of the rate for option one includes an advance payment for the replacement computer. Other recovered costs included software costs (the initial purchase cost and annual license fees), direct staff support, and allowable indirect expenses for administrative overhead and payments to support the IT Partnership.
- ***Service excluding the costs of one-time purchases (option two).*** Service option two was identical to service option one except it excluded the prospective recovery of hardware refresh costs. This option was proposed because of federal concerns related to the assessment of prospective costs for assets that would be delivered at a future date. However, once the existing equipment is replaced by Northrop Grumman, agencies will be assessed the full service rate.
- ***Service excluding the cost of direct labor (option three).*** Service option three was identical to service option one except it excluded the recovery of costs incurred in providing support to an agency, in cases where the IT Partnership did not provide that support. Once the equipment began receiving support from the IT Partnership, it would be assessed the full service rate.

A monthly rate was proposed for each service option. For example, a desktop computer would be assessed a monthly rate of \$86.90 for full service, \$66.94 for service excluding the prospective refresh costs, or \$42.35 for service excluding the cost of direct labor. (In addition, a fourth service option was proposed just for servers.)

The asset inventory which VITA relied on to develop its rate proposal in November of 2006 does not include any information about the source of funds used to purchase the asset, or the source of support provided to an asset. Since that time, VITA and Northrop Grumman have conducted three separate inventories, and continuing concerns about their accuracy has prompted another effort which is currently underway. As a result, it appears that VITA assigned assets to the service options using other criteria. The assets of 36 agencies are currently assigned to option two, and in most cases the agency's primary funding source is federal funds. The assets of the Department of Medical Assistance Services are assigned to service option three because its assets have been supported through a pre-existing contract with a third-party vendor.

JLARC staff reviewed VITA's request and recommended that JLARC approve the new service options and the associated rates. At its December 11, 2006, meeting, JLARC approved VITA's de-

centralized services rates proposal, and the rates were made retroactive to July 1, 2006. (The new rates satisfied federal concerns, and DCA formally approved VITA's Cost Allocation Plan in January of 2007.)

JLARC Staff Could Not Confirm the Impact Upon Individual Agencies Because of Concerns Involving the Asset Inventory. The recommendation of JLARC staff followed consultations with staff at the Department of Planning and Budget (DPB) and a review of the anticipated impact of the rates upon VITA's customers. Although the overall statewide impact of the proposed rates appeared to be revenue neutral, JLARC and DPB staff recognized that the impact on agencies would vary and some agencies would pay less for VITA's services while other agencies would pay more.

However, JLARC and DPB staff could not confirm VITA's estimates because of concerns involving the asset inventory. As noted by JLARC staff, "determination of asset inventory—upon which estimated recoveries from each agency are based—has been challenging, and there is a degree of dissent between agencies and VITA." VITA staff stated that the asset totals used in assessing individual agency impacts were current as of October 2006, but that this service rate structure was not permanent and that "additional revisions are anticipated each year upon reconciliation" of the asset inventory. (Northrop Grumman had a contractual obligation to verify the actual existence of the State's assets by July 1, 2007, and complete a reconciliation of this inventory by April 1, 2008.) Revisions could include changes to the number of assets, or movement of an asset from one service option to another. In his presentation to JLARC in December of 2006, the CIO stated that customers would have an opportunity to review and correct their inventories.

Implementation of Option One Rates Appears to Have Increased Costs and Led to Confusion About Billing. Many agencies have not received new equipment from Northrop Grumman and therefore continue to use assets which were purchased with agency funds. For example, several agencies informed JLARC staff that more than three-quarters of their assets were purchased with agency funds, and were not provided by Northrop Grumman. Because these assets have been billed at the full service rate, the agencies believe that they have been paying twice for the capital expense: once for the initial purchase using agency funds, and again because the full service rate includes a charge for the capital expense.

VITA states that these agencies are not being double-billed because the hardware charge included in the rate is not for recovery of the purchase price. Instead, the hardware charge is to pay for

the future replacement of the asset. According to VITA’s description of the recovery mechanism, assets billed at service option one (the full service rate) will be replaced with no increase in cost. Moreover, because of the three technology clauses discussed above, the new assets will be more advanced than the current assets, but the monthly rate will not increase as a result.

A corollary of this approach, however, is that assets currently billed in service option two will be moved to service option one when they are refreshed. At present, the monthly difference between the option one rate and the option two rates vary by the type of asset, but the difference can be substantial. For example, a desktop computer in option one has a monthly cost of \$114.90 including the network access charge. The option two rate is \$87.94, a difference of \$26.96 per month. As shown in Table 13, the cumulative effect of rate increases may represent an annual increase of \$9.7 million as assets are moved from option two to option one.

Table 13: State Agencies May Be Billed an Additional \$9.7 Million More Per Year After Option Two Assets Are Refreshed

Device	Count	Monthly Increase	Yearly Increase
Desktop	18,198	\$490,618	\$5,887,417
Laptop	3,942	172,108	2,065,293
Windows Server	407	53,558	642,696
Local Area Network Device	1,271	43,931	527,173
UNIX Server	132	28,330	339,960
Network Device	2,008	14,056	168,672
PDA	2,015	9,148	109,777
TOTAL	27,973	\$811,749	\$9,740,988

Source: JLARC staff analysis of asset inventory and billing data provided by VITA.

Currently, 35 percent of all assets (27,973) are in option two. Although they are located in 36 agencies, ten agencies account for 98 percent of option two assets:

- Department of Social Services (12,398 assets),
- Virginia Department of Health (6,351 assets),
- Virginia Employment Commission (2,715 assets),
- Department of Motor Vehicles (2,186 assets),
- Department of Rehabilitative Services and Woodrow Wilson Rehabilitation Center (1,203 assets),
- Department of Game and Inland Fisheries (773 assets),
- Virginia Department of Transportation (675 assets),
- Department of Mines, Minerals and Energy (389 assets),

- Department of Corrections (335 assets), and
- Department for the Blind and Vision Impaired (278 assets).

VITA Has Not Implemented the Option Three Rates in the Manner Understood by JLARC and DPB Staff. JLARC staff have identified an additional concern regarding billing. VITA has not reconciled the billing inventory to accurately reflect which assets should be billed under service option three. At the time of VITA's rate proposal in November of 2006, JLARC and DPB staff understood the plain language of the proposal to indicate that the service option would be applied to all State agencies. Moreover, corrections to the asset inventory would ensure that assets were assigned to the correct service option.

However, some agencies continue to provide their own service for some equipment but may be being billed by VITA for support. For example, most of the estimated 11,564 PCs (desktop and laptop) assigned to the Department of Social Services (DSS) are provided by DSS to local departments of social service. According to senior VITA staff, at the time the contract with Northrop Grumman was executed it was their understanding that all assets were supported by State DSS staff. Since that time, VITA reports learning that local government IT staff provide some degree of IT support in many local departments (including the largest departments in the State).

Although service option two properly excludes the prospective payment of federally-funded assets, it does not account for local government provision of support. Therefore, under this option DSS may have been paying twice for the support of some of its equipment. The partnership is currently developing a comprehensive service delivery plan to determine how to provide services to local government departments, but VITA staff state that assets which are supported by local government staff should be billed at service option three.

VITA Has Not Implemented Rate Reductions Approved by JLARC in December 2007

In December of 2007, VITA requested JLARC's approval of several changes to its existing rates and the approval of new rates. VITA also submitted this request to DCA as part of its new cost allocation plan. Among the proposed changes were the introduction of new rates for premium desktops and laptops, and decreases in the rates for standard desktops and laptops assigned to service options one and two. VITA also requested that the rate for standard desktops and laptops in option three be increased. As shown in Table 14, the percentage decrease for desktops in service option one was very small (0.8 percent), but the decrease for laptops in that cate-

gory was 11.4 percent. In addition, the proposed decreases in rates under option two for both desktops and laptops were substantial.

Table 14: VITA Proposed New Rates for Standard Desktops and Laptops in December 2007

Type of Computer and Service Option	Monthly Rate Per Standard Computer		
	Proposed Rate	Previous Rate	Percentage Difference
Desktop – Opt. 1	\$86.17	\$86.90	-0.8%
Desktop – Opt. 2	57.77	66.94	-13.7
Desktop – Opt. 3	48.80	42.35	15.2
Laptop – Opt. 1	108.09	121.99	-11.4
Laptop – Opt. 2	70.22	85.33	-17.7
Laptop – Opt. 3	68.66	62.59	9.7

Source: VITA Rate Proposal, November 19, 2007.

In its proposal, VITA stated that the recalculation of desktop and laptop rates was necessary in order to improve the accuracy and equity of the rates assessed across all of the service options. These recalculations resulted from the proposed introduction of rates for premium PCs and provided a means of separately assessing the different costs VITA incurred for each type of PC.

JLARC approved these rates on December 10, 2007. Subsequently, the CIO informed the House Appropriations and Senate Finance Committees that the rates would be implemented. This statement came in the context of discussions over proposed rebates to VITA’s customer agencies, which the CIO said were unnecessary because savings would be provided to agencies via the new rates.

In the course of this study, a review by JLARC staff of VITA’s monthly bills to State agencies indicated that the new rates have not been implemented. The decision not to implement the approved lower rates for desktops and laptops has resulted in \$2.35 million in higher charges to State agencies in the first half of FY 2009. According to VITA, it was the agency’s intention to implement the new rates effective July 1, 2008, but the agency reconsidered the practicality of administering standard and premium rates and decided not to implement the approved rates. In its place, in November of 2008 VITA submitted a request for JLARC to consider a new approach in which agencies that desire a premium PC would pay the additional hardware cost at the time of the request. These premium assets would then be billed at the standard rate because the support requirements are the same.

The decision not to implement the rates proposed in December of 2007 raises two other concerns. VITA did not seek JLARC’s permission to defer or amend the approved rates. In addition, because

VITA has continued to bill all agencies at the standard rate for both premium and standard PCs, it has been cross-subsidizing the hardware cost of premium PCs by overcharging the users of standard PCs. Charging the same rate for materially different services may mean that VITA's rate schedule has been inconsistent with federal cost allocation principles.

Emerging IT Service and Governance Issues

In Summary

The consolidation of infrastructure in VITA and the subsequent contract with Northrop Grumman have produced many benefits. However, VITA and State agencies have identified concerns about the process of transitioning to a managed services environment. Agencies report that procurement delays hinder business operations, that VITA's perceived lack of familiarity with agency business needs may affect their response to critical incidents, and that some of Northrop Grumman's services are inadequate. Some of these concerns may indicate that longer-term issues may need to be addressed, including the redefinition of VITA's service responsibilities and the degree to which State agencies should retain authority over out-of-scope IT. However, concerns have also been expressed that the current IT governance structure is not fulfilling its intended purposes. Issues have been raised regarding the Chief Information Officer's accountability, the Project Management Division's fulfillment of its responsibilities, the development of the Recommended Technology Investment Projects report, and the role of the Chief Applications Officer.

The consolidation of IT infrastructure services into VITA, followed by the execution of two parallel contracts to modernize IT infrastructure and applications, is a tremendous undertaking that exceeds most of the comparable efforts in other states. The State has already gained measurable benefits from the partnership. However, given the magnitude and complexity of the undertaking, there have been inevitable challenges to be addressed, including the ongoing tension between VITA and State agencies. This move to a new approach to IT organization has also raised issues regarding the current IT governance structure in Virginia. This concluding chapter briefly discusses the benefits already received, the challenges the State faces, and governance issues that may need to be considered. The issues raised in this chapter will be examined over the next year and discussed in the final report to be presented next fall.

IT PARTNERSHIP HAS PROVIDED CERTAIN BENEFITS

The IT Partnership has made several significant achievements to date, including construction of two secure data centers with disaster recovery capabilities. The data centers have produced several ancillary benefits, including the creation of new jobs in two parts of the state (Chesterfield County and Russell County). The data centers, in conjunction with the connection of more than 1,000 agency locations to a secure network, have assisted in the effort to consolidate and then relocate 806 servers and improve IT security.

The State's achievements in IT security, including the implementation of an enterprise security operations center, have attracted national attention, and the State's Chief Information Security Officer was recognized by the 2007 Information Security Executive of the Year Awards. In addition to the partnership's accomplishments, VITA has also introduced improvements, including training for systems development project managers, and State agencies presently have 171 trained project managers.

State agencies have noted in their strategic plans that benefits have already been received from the IT Partnership. For example, one agency noted that the partnership's new email system has provided many benefits. Another agency wrote that when transformation is complete, "we will have essentially re-invented how we do business." As a result, the agency anticipates that its "productivity and efficiency will be greatly improved, as well as the ability of the agency to meet the needs of the citizens."

CHALLENGES EXIST IN IMPLEMENTATION OF NEW IT SERVICES MODEL

The State's new approach to IT has created short-term challenges, and State agencies express concern that the problems they have encountered are indicative of a longer-term inability of the partnership to provide adequate service. VITA, however, believes that some State agencies have not cooperated with the State's new business model and that some of the challenges may result from a reluctance to embrace the new model instead of from inherent flaws in the model.

Tension Between Centralization and Agency Autonomy May Need to Be Addressed

Given the move to a centralized model, and the relatively decentralized governmental structure in Virginia in which agencies have substantial autonomy and the responsibility to carry out their responsibilities, a natural tension exists between agencies and the partnership. Challenges associated with this tension have arisen. One of the challenges is that agencies contend that they need to continue to have autonomy and authority in certain areas, but VITA and Northrop Grumman maintain they need to be able to assume more control of those areas.

An example of this challenge is the current disagreement over the installation of Altiris monitoring software (as discussed on page 38). The partnership maintains that installation of this software is necessary in order to remotely manage the State's IT infrastructure. However, several State agencies have objected to its installation. They contend that they are responsible for ensuring the pro-

tection of confidential health information and law enforcement records entrusted to them and that the proposed monitoring software will jeopardize their protection of this information by giving VITA and Northrop Grumman personnel access to it.

Partnership’s Services Are Reported to Be Inadequate

In addition to VITA’s statutory authority over IT procurement, the move to a consolidated infrastructure transferred many new service responsibilities to VITA which were delineated in joint memoranda of understanding (MOU). State agencies have raised concerns about VITA’s adherence to its MOU responsibilities, and the partnership’s fulfillment of its contractual obligations.

State Agency Operations Have Reportedly Been Hindered by Procurement Delays. Several agencies have reported that delays in the request for services (RFS) procurement process have directly hindered their performance of critical business functions. For example, one agency submitted an RFS request for new servers which were required for compliance with new regulations. However, Northrop Grumman did not provide the servers for five months and only after the agency requested Secretarial assistance. According to a JLARC staff analysis of VITA data on RFS requests, in FY 2008, an average of eight months was required to develop and implement a solution in response to an RFS request.

Request for Services (RFS)

The RFS process is used for more complex IT requests that require either a significant amount of labor or development of a customized solution. For example, agencies would use the RFS process to request a new server or to have a large number of assets (more than 15) moved to a new location.

VITA has also expressed frustration with the RFS process and argues that a legacy of the State’s previous approach to IT is that State agencies have different kinds of infrastructure and applications. VITA also reports that Northrop Grumman has contributed to procurement delays and that the partnership is taking steps to reduce delivery times. These efforts include the dedication of additional staff resources to identified bottlenecks and the elimination of unnecessary procurement reviews. However, at the October 2008 ITIB meeting, Northrop Grumman stated that it assigns a lower priority to RFS requests than to transformation-related activities.

Services Promised by VITA in 2006 MOU Have Reportedly Not Been Provided. In 2006, VITA executed individual MOUs with in-scope agencies. Many agencies reported that VITA promised to provide the “same or better” level of service than they received prior to 2006, and they have raised concerns about the services VITA now plans to provide. Agencies also desire a larger menu of service options because a “one-size-fits-all” approach does not recognize the variations between agencies in their regulatory and funding environments, in their interactions with local and non-governmental agencies, or in the varying needs of their clientele and consumers. Almost all State agencies agree that VITA needs to provide a new

MOU with service levels that are specific to individual agencies. In response, VITA staff note that they are presently drafting a new MOU which should be presented to State agencies in the first quarter of 2009 and will include agency-specific service levels.

Reported Lack of Understanding About Agency Business Needs May Affect the Response to Critical Incidents. Agencies frequently state that VITA has not shown a willingness to learn about the operational objectives (or business needs) of State agencies. As a consequence, there is widespread concern that the IT Partnership cannot prioritize its service responses or ensure that reported problems are adequately addressed. In FY 2008, State agencies reported 862 “critical incidents” which can prevent agency employees from using applications, prevent customers from accessing an agency’s website, or cause telephone and email systems to fail. Recent incidents that directly affected citizens include the inability of the Department of Motor Vehicles (DMV) to process license and registration transactions, and the inability of the Department of Social Services (DSS) to process financial payments. Each incident occurred in July of 2008, and though the DMV incident only lasted for 23 minutes the DSS incident lasted for 58 hours.

Agencies Report That VITA and Northrop Grumman Have Not Provided Necessary Services. Agencies report that VITA and Northrop Grumman have not ensured that the most critical needs of State agencies are being met during transformation. Agencies have given examples of unmet needs, including aging equipment that needs to be replaced even if this requires a parallel process to regular transformation procedures. Failure to replace this equipment, it is argued, may lead to the loss of critical data or disruption of agency operations. Examples were also given of instances in which the IT Partnership has made decisions about the transformation schedule or the type of IT equipment to provide that are functionally incompatible with existing needs and infrastructure. Agencies also assert that VITA and Northrop Grumman are failing to adhere to basic levels of service, and report that data are not being backed up and that warranties and software licenses (including anti-virus programs) have not been renewed.

Impact of Partnership Upon State Agencies Is Extensive and Requires a High Degree of Coordination

As part of the new approach to infrastructure service provision, in-scope agencies are responsible for operating their applications, but the partnership operates the networks and the servers where applications and data are stored. This division of responsibility requires a high degree of mutual communication and cooperation but many agencies report that the new approach may create long-term challenges. Agencies must rely on partnership staff to make

changes to the servers, which only partnership employees can access. For example, one agency discovered that a lack of disk space on a server was affecting the operation of a critical database used by all local governments and had to rely upon a timely response from partnership staff. However, agencies report that calls to the help desk often result in delays of several hours as the appropriate person is found, and in some cases, the agency is told to call back during business hours. These challenges reportedly hinder the ability of in-scope agencies to update or fix applications or ensure that changes are made to the servers.

POTENTIAL SHORTCOMINGS OF EXISTING IT GOVERNANCE STRUCTURE

The transformation to a new IT model in the State has raised concerns regarding the State's current governance structure and whether it is fulfilling its intended purposes. There are concerns regarding accountability to agency needs, effectiveness of central oversight, prioritization of projects, and the role of the chief applications officer. JLARC staff have not reached any conclusions regarding these issues but plan to fully examine them over the next year.

State Agencies Express Concern About the CIO's Accountability

A frequently raised issue regarding the current governance structure is the CIO's lack of accountability to the Governor or agencies in the executive branch. The CIO reports directly to the ITIB but is only indirectly accountable to the Governor through his appointment of five of nine members of the Board. An expressed concern is that State agencies are dependent upon IT under the control of VITA to perform their agency responsibilities and that they cannot directly address interruptions in service or other problems that adversely impact their service delivery when they arise. Instead, they must rely on VITA to address their problems but have no means to hold the CIO or VITA accountable if they are not being addressed satisfactorily.

Some executive branch officials have asserted that this lack of accountability to the Governor needs to be rectified by having the CIO report directly to the Secretary of Technology or Governor. However, the current CIO maintains that the existing structure is beneficial because it gives him the independence necessary to implement the complex modernization initiative currently underway.

Concerns Are Reported With Oversight and Support of Systems Development

Another issue that has been raised is whether the project management division (PMD) has been adequately performing its oversight and support role as envisioned by the General Assembly. According to statute, PMD is required to “provide ongoing assistance and support to state agencies and public institutions of higher education in the development of information technology projects” in addition to overseeing systems development. A concern expressed by agencies is that PMD has focused on its oversight role which they contend has been limited to a review of compliance with procedural requirements. They assert that PMD has not provided useful support or assistance in the development of systems projects as contemplated by the statute.

Another potential issue is the intentional evasion of the oversight process by some agencies. In a December 2007 report on IT governance, the APA noted that one agency had initiated a systems development project without seeking approval by the ITIB, as required by statute, and PMD had been unaware of the project because the agency paid for the system by using maintenance and operations funds that fell under the review thresholds. A similar situation occurred with another recent project: a State agency originally described it as a procurement and, after two years, PMD discovered it was actually a systems development project. In part, PMD failed to discover that it was a project because VITA lacks a mechanism for reviewing the status of major procurements once they have been approved.

Recommended Technology Investment Projects Process Is Currently Limited

PMD is responsible for providing information to the ITIB on the strategic needs of State agencies for its use in the Recommended Technology Investment Projects (RTIP) report, which prioritizes the systems development projects that should be funded. However, several State agencies have noted that the information included in agency IT strategic plans, at PMD’s direction, represents current projects and not those that State agencies anticipate needing. As a result, IT strategic plans lack a long-term, strategic vision, and the information provided to the ITIB appears to be of limited value.

The ITIB has expressed concerns about the RTIP for several years, and at a recent ITIB meeting the chair noted that the board often does not understand how a proposed systems development project benefits the Commonwealth as a whole. The chair added that the ITIB needs to know how the Commonwealth’s business needs relate to its IT needs so that the board can prioritize projects for

funding in the RTIP. However, projects come forward for inclusion in the RTIP even though the State does not know what systems exist, what they are accomplishing, and what gaps need to be filled by new projects.

The CAO's Role and Reporting Relationship to the Governor Have Been Questioned

Many of the CIO's statutory duties have been assigned to the Chief Applications Officer (CAO), which the CIO describes as business functions, not IT functions. As discussed in Chapter 1, the CAO has assumed the CIO's duty to direct enterprise projects, perform some IT planning, and develop data standards. In addition to the roles formally adopted, the CAO has also begun to provide ongoing assistance and support to agencies in the development of systems development projects, which is PMD's statutory responsibility. The overlapping nature of the responsibilities assigned to VITA and the Virginia Enterprise Applications Program (VEAP), which the CAO oversees, has raised questions about whether VEAP should continue to have these functions. In addition, a recent report by the APA concluded that VEAP should better define its priorities.

Questions have also been raised about whether the CAO should continue reporting to the Governor. Many State agencies express high regard for VEAP and indicate that they are willing to cooperate with the CAO because she reports to the Governor. However, proposals have been made to have the CAO report directly to the ITIB, a change that many State agencies believe would worsen the problems they have with VITA. The CAO and the CIO agree that the State requires both positions on a permanent basis, and that they should be separate offices. They also agree that each office should report to the same authority. They disagree, however, over whether that authority should be the ITIB or the Governor. Lastly, senior VITA staff assert that regardless of what changes are made to VEAP's role and the CAO's reporting relationship, the mission of VEAP needs to be retained so that new enterprise applications can be developed.

Study Mandates

SENATE JOINT RESOLUTION NO. 129

Directing the Joint Legislative Audit and Review Commission to study the quality, cost, and value of services provided to state agencies and public bodies by the Virginia Information Technologies Agency. Report.

Agreed to by the Senate, January 30, 2008

Agreed to by the House of Delegates, March 5, 2008

WHEREAS, the Virginia Information Technologies Agency (VITA) is responsible for the operation of the IT infrastructure, including all related personnel, for the executive branch agencies declared by the legislature to be inscope to VITA; and

WHEREAS, VITA is responsible for procurement of technology for itself, other state agencies and institutions of higher education in the Commonwealth; and

WHEREAS, state agencies and public bodies are still in the process of adjusting to a feebased services model and the transition to the information technology infrastructure partnership with Northrop Grumman; now, therefore, be it

RESOLVED by the Senate, the House of Delegates concurring, That the Joint Legislative Audit and Review Commission be directed to study the quality, cost, and value of services provided to state agencies and public bodies by the Virginia Information Technologies Agency.

In conducting its study, the Joint Legislative Audit and Review Commission shall (i) evaluate the quality, cost, and value of the services delivered to state agencies and public bodies and (ii) characterize the impact to state agencies and public bodies resulting from the transition to a feebased services model and to the information technology infrastructure partnership with Northrop Grumman.

Technical assistance shall be provided to the Joint Legislative Audit and Review Commission by the Virginia Information Technologies Agency. All agencies of the Commonwealth shall provide assistance to the Joint Legislative Audit and Review Commission for this study, upon request.

The Joint Legislative Audit and Review Commission shall complete its meetings for the first year by November 30, 2008, and for the second year by November 30, 2009, and the chairman shall submit to the Division of Legislative Automated Systems an executive summary of its findings and recommendations no later than the first day of the next Regular Session of the General Assembly for each year. Each executive summary shall state whether the Joint Legislative Audit and Review Commission intends to submit to the General Assembly and the Governor a report of its findings and recommendations for publication as a House or Senate document. The executive summaries and reports shall be submitted as provided in the procedures of the Division of Legislative Automated Systems for the processing of legislative documents and reports and shall be posted on the General Assembly's website.

2008 Virginia Acts of Assembly Item 29 (E)

Approved May 9, 2008

The Joint Legislative Audit and Review Commission (JLARC) shall examine the quality, cost, and value of the services provided to state agencies and public bodies by the Virginia Information Technologies Agency (VITA). This examination shall include the relationship between VITA and the Information Technology Investment Board, the procurement of information technology goods and services by VITA on behalf of other state agencies and institutions of higher education, the management of information technology projects by the agency's Project Management Division, and the role that VITA could perform, if any, in the governance and oversight of information technology maintenance and operations now under the purview of state agencies. Technical assistance in the performance of this examination shall be provided to JLARC by VITA. All agencies of the Commonwealth shall provide assistance to JLARC in conducting this examination upon request. JLARC shall submit an interim report by December 15, 2008, and a final report with its findings and recommendations by December 15, 2009.

Research Activities and Methods

Over the course of the study, JLARC staff anticipate using several research methods to address the study issues. The majority of the research will consist of structured interviews with VITA staff, members of the ITIB, and staff at State agencies. The interviews will be used to determine the impact that VITA and Northrop Grumman's activities have upon State agencies.

Supplemental to this research, JLARC staff will conduct document reviews and data analysis. The primary focus of the document reviews will be on the contract between the Commonwealth and Northrop Grumman; VITA's policies, standards, and guidelines for IT services and oversight; and the relevant statutes that govern VITA and the ITIB.

The study team will also conduct an extensive analysis of data on IT procurements, Northrop Grumman's service performance relative to its contractual obligations, and the financing of IT goods and services by VITA.

Key research activities and methods for this interim report included

- structured interviews,
- data collection and analysis,
- document reviews, and
- attendance at meetings and conferences.

STRUCTURED INTERVIEWS

JLARC staff conducted structured interviews with staff at the following State agencies:

- Virginia Auditor of Public Accounts,
- Department of Alcoholic Beverage Control,
- Department of Corrections,
- Department of Health Professions,
- Department of Mental Health, Mental Retardation and Substance Abuse Services,

- Department of Mines, Minerals and Energy,
- Department of Motor Vehicles,
- Department of Planning and Budget,
- Department of Rehabilitative Services.
- Department of Social Services,
- Department of Taxation,
- Virginia Department of Health,
- Virginia Enterprise Applications Program, and
- Virginia State Police.

DATA COLLECTION AND ANALYSIS

JLARC staff collected fiscal year 2008 financial data, including revenue and expenditure data by customer, vendor, and fund, to analyze VITA's cash flow. Additionally, JLARC staff collected Request for Services data for fiscal years 2007 and 2008 and Procure to Pay procurement data for fiscal year 2008.

DOCUMENT REVIEWS

The team reviewed three types of documents:

- Comprehensive Infrastructure Agreement (contract),
- VITA's published Policies and Procedures, and
- The *Code of Virginia*.

Glossary of Commonly Used IT Terms

Application - A specific use for a computer or program, such as for accounts payable or payroll. The term is commonly used in place of the terms “application program,” “software” or “program.” Examples of programs and software include pre-packaged productivity software (such as spreadsheets and word processors) and larger, customized packages designed for multiple users (such as e-mail and workgroup applications).

BlackBerry – A two-way wireless device developed by Research in Motion. It allows users to check e-mail and voice mail (translated into text) and to page other users via a wireless network service. The device has a miniature keyboard used to type messages, which are delivered using the Short Message Service (SMS) protocol. BlackBerry users must subscribe to a wireless service that allows for data transmission.

Commercial Mobile Radio Service (CMRS) provider – An FCC designation for any carrier or licensee whose wireless network is connected to the public switched telephone network and/or is operated for profit.

Data Center – The department in an enterprise that houses and maintains back-end information technology (IT) systems and data stores — its mainframes, servers and databases.

Disaster Recovery (DR) – Methods and procedures for returning a system, network or data center to full operation after a catastrophic interruption — including the recovery of lost data, the use of alternative network channels if the primary channels are disconnected or malfunctioning.

Geographic Information Systems (GIS) – Computer-based technology composed of hardware, software and data used to capture, edit, display and analyze spatial information (that is, information tagged by location). GIS technology is used in many spatial-data applications, including marketing functions such as demographic analysis, and government functions such as zoning and census mapping.

Hardware – Machinery and equipment associated with computing devices. A computer is composed of both hardware and software. The software provides the instructions, and the hardware performs the processing.

Help Desk – The first point of contact for all technical and end-user support issues. Most help desks offer at least two tiers of support. Tier 1 is where routine or simple problems are solved, and where more-complex ones are handed off to a higher tier. Tier 2 help desk analysts have more in-depth technical knowledge or specialized expertise.

Information Technology (IT) – The common term for the entire spectrum of technologies for information processing, including software, hardware, communications technologies and

related services. In general, IT does not include embedded technologies that do not generate data for enterprise use.

IT Solution – A configuration of IT that addresses a business need.

Mainframe – A large-capacity computer system with processing power that is significantly superior to PCs or midrange computers. Traditionally, mainframes have been associated with centralized, rather than distributed, computing environments. Skilled technicians are required to program and maintain mainframes, although client/server technology has made mainframes easier to operate from the user's and programmer's perspectives. They are generally used by large organizations to handle data processing for enterprise wide administrative tasks like payroll or accounts payable.

Network – Any number of computers (such as PCs and servers) and devices (such as printers and modems) joined together by physical or wireless communications links. In the enterprise context, networks allow information to be passed between computers, regardless of where those computers are located. Networks provide the roads for information traffic (such as sending files and e-mail) within a corporate environment, and allow users to access databases and share applications residing on servers. If a network does not go outside of a company building, or campus, then it is known as a local-area network (LAN). If it has a bridge to other outside networks, usually via lines owned by public telecommunications carriers like AT&T, then it is known as a wide-area network (WAN).

Network Services – Telecommunications and internet services provided by Northrop Grumman and other vendors such as Verizon and MCI.

Networked Printer – A printer that is connected to a network and can be accessed by any computer also connected to the network.

Non-Networked Printer – A printer that is connected directly to a desktop and cannot be accessed by other computers.

Personal Computer (PC) – A microcomputer designed primarily for individual use. Sharing resources with another computer is optional.

Personal Digital Assistant (PDA) – A handheld computer that serves as an organizer and electronic notepad. It typically uses a stylus or pen-shaped device for data entry and navigation.

Refresh – Replacing, often systematically, assets that need to be retired.

Server – A system or a program that receives requests from one or more client systems or programs to perform activities that allow the client to accomplish certain tasks. The term usually denotes computers that provide specific services to other computers on a network. Routing servers connect subnetworks of like architecture; gateway servers connect networks of different architectures by performing protocol conversions; and terminal, print and file servers provide interfaces between peripheral devices and systems on the network.

Server Consolidation – Combining underutilized servers to improve efficiency. Consolidation often entails Server Virtualization.

Server Virtualization – The pooling of server resources in a way that masks the physical nature and boundaries of those resources from users or administrators.

Software – Programs that control computer hardware. The two primary categories are system software (which governs the workings of the computer itself, such as the operating system and utilities) and application software (which performs specific tasks for the user, such as word processing, spreadsheets and accounts payable).

Systems Development Project – A major effort by an agency to develop and implement either new infrastructure or an application (or both).

Tablet – A computing device that weighs less than 4 pounds and is operated by direct screen contact via a pen or touch interface.

Telecommunications Services – Services such as managing servers and routers that allow for network connectivity as well as local and long distance telephone calls.

Telemedia Services – Services such as audio and video conferencing.

Virus – Software used to infect a computer. After the virus code is written, it is buried within an established program. Once that program is executed, the virus code is activated and attaches copies of itself to other programs in the system. Infected programs copy the virus to other programs.

Web-Based Services – A software concept and infrastructure — supported by several major computing vendors (notably Microsoft and IBM) — for program-to-program communication and application component delivery. The Web services concept treats software as a set of services accessible over ubiquitous networks using Web-based standards and protocols. A Web service is a software component that can be accessed by another application (such as a client, a server or another Web service) through the use of generally available, ubiquitous protocols and transports, such as Hypertext Transport Protocol (HTTP). Joint efforts between IBM and Microsoft, with the support of other vendors such as Ariba and Iona Technologies, have produced agreement on a basic set of XML-based standards for Web service interface definition, discovery and remote calling.

Appendix **D**

In-Scope Agencies and VITA's Other FY 2008 Customers

VITA's customers include in-scope agencies, which are mandated to purchase IT services through VITA, as well as out-of-scope agencies plus local governments, colleges and universities, and private firms.

Table 1: Eighty-Six In-Scope Agencies Purchased Services From VITA in FY 2008

In-Scope Agencies

Board of Accountancy
Chesapeake Bay Commission
Commonwealth Attorneys' Services Council
Commonwealth Competition Council
Compensation Board
Department of Minority Business Enterprise
Department for the Aging
Department for the Blind and Vision Impaired
Department for the Deaf and the Hard of Hearing
Department of Accounts
Department of Agriculture & Consumer Services
Department of Alcoholic Beverage Control
Department of Aviation
Department of Business Assistance
Department of Charitable Gaming
Department of Conservation and Recreation
Department of Correctional Education
Department of Corrections
Department of Criminal Justice Services
Department of Education
Department of Emergency Management
Department of Employment Dispute Resolution
Department of Environmental Quality
Department of Fire Programs
Department of Forensic Science
Department of Forestry
Department of Game & Inland Fisheries
Department of General Services
Department of Health Professions
Department of Historic Resources
Department of Housing and Community Development
Department of Human Resources Management
Department of Juvenile Justice
Department of Labor and Industry
Department of Medical Assistance Services
Department of Mental Health, Mental Retardation and Substance Abuse
Department of Military Affairs
Department of Mines, Minerals, and Energy
Department of Motor Vehicles

Department of Planning and Budget
Department of Professional and Occupational Regulation
Department of Public Transportation & Rail
Department of Rehabilitative Services
Department of Social Services
Department of Taxation
Department of Treasury
Department of Veterans Services
Frontier Culture Museum
Governor's Office
Governor's Office for Substance Abuse Prevention
Gunston Hall
Hampton Roads Sanitation District
Human Rights Council
Innovative Technology Authority
Jamestown 2007
Jamestown -Yorktown Foundation
Library of Virginia
Lt. Governor's Office
Marine Resources Commission
Motor Vehicle Dealer Board
Museum of Natural History
Office of Commonwealth Preparedness
Office of the Attorney General
Roanoke Higher Education Authority
Science Museum of Virginia
State Board of Elections
State Council of Higher Education
Tobacco Indemnification & Community Revitalization Commission
Tobacco Settlement Foundation
Virginia Alcohol Safety Program
Virginia Board for People With Disabilities
Virginia Code Commission
Virginia Commission on Youth
Virginia Cooperative Extension
Virginia Crime Commission
Virginia Department of Health
Virginia Department of Transportation
Virginia Economic Development Partnership
Virginia Employment Commission
Virginia Housing Development Authority
Virginia Information Network Providers Authority
Virginia Museum of Fine Arts
Virginia Racing Commission
Virginia Resources Authority
Virginia State Police
Virginia Tourism Authority

Source: JLARC staff analysis of revenue data provided by VITA.

Table 2: Approximately 370 Out-of-Scope Customers Purchased Services From VITA in FY2008

Out-of-Scope Customers

29th District Court
6th District Court
Accomack County
AEPTEC Microsystems, INC.
Albemarle County
Bureau of Alcohol, Tobacco, Firearms, & Explosives
Alexandria
Alleghany Highlands Community Services Board
Altavista
Amelia County
American Electric Power
Amherst County
Anderson and Associates, INC.
Appomattox County
Arlington County
Army National Guard
Ashcake Volunteer Rescue Squad
ATS International
Auditor of Public Accounts
Augusta County
Bath County
Bedford City
Bedford County
Big Stone Gap
Blacksburg
Bland County
Blue Ridge Community College
Bluefield
Blueskies Environmental Association, INC.
Board of Towing and Recovery Operations
Bowling Green
Botetourt County
Breaks Interstate Park Commission
Bristol
Brunswick County
Buchanan County
Buckingham County
Buena Vista
Camp Peary Police Detachment
Campbell County
Capital Area Workforce Investment Board
Capital Square Preservation Council
Caroline County
Carroll County
Cedar Mountain Stone, INC.
Central Intelligence Agency
Central Shenandoah EMS Council
Central Shenandoah Planning District Commission
Central Virginia Community College
Central Virginia Community Services Board
Central Virginia ETV Corp

Central Virginia Planning District Commission
Century 21
Charles City County
Charlotte County
Charlottesville/Albermarle Airport
Charlottesville
Chemung Contracting
Chesapeake
Chesterfield County
Christopher Newport University
Civil Air Patrol
Clarke County
College of William and Mary
Colonial Beach
Colonial Community Services Board
Colonial Heights
Columbia Forest Resources
Council on Virginia's Future
County of Spotsylvania
Covington
Craig County
Crater Planning District Commission
Crater Youth Care Commission
Crewe
Crossroads Community Services Board
Culpeper County
Cumberland County
Cumberland Mountain Community Services Board
Cumberland Plateau Planning District Commission
D.R. Allen and Associates
Dabney Lancaster Community College
Danville
Danville Community College
Danville-Pittsylvania Community Services Board
Defense Logistics Agency
Defense Supply Center
Department of Defense
Department of Fish & Wildlife
Department of Health and Human Services
Dickenson County
Dinwiddie County
Diplomatic Security Services
District 19 Community Service Board
Division of Capital Police
Division of Legislative Automated Systems
Division of Legislative Services
Drug Enforcement Agency
Eastern Shore Community College
Eastern Shore Community Services Board
Emporia
Environmental Protection Agency
Essex County
Fairfax County
Falls Church
Fauquier County
Federal Bureau of Investigation

Federal Reserve Bank of Richmond
Floyd County
Fluvanna County
Fort Meyers
Franklin City
Franklin County
Frederick County
Fredericksburg
Freedom of Information Advisory Council
Front Royal
Ft. AP Hill
Ft. Belvoir
Ft. Lee
Ft. Monroe
Galax
George Mason University
Germania Community College
Giles County
Gloucester County
Goochland County
Gordonsville
Grayson County
Green Man Forest Management
Greene County
Greensville County
Halifax County
Hampton
Hampton-Newport News Community Services Board
Hanover County
Harrisonburg
Harrisonburg-Rockingham Community Services Board
Henrico County
Henry County
Highland County
Highlands Community Services Board
Holiday Lake 4-H Education Center
Hopewell
Indigent Defense Commission
Internal Revenue Service
Isle of Wight County
J. Sgt Reynolds Community College
James City County
James Madison University
Jefferson Madison Regional Library
John Tyler Community College
Joint Commission on Health Care
Joint Legislative Audit and Review Commission
Judicial Inquiry & Review Commission
King & Queen County
King George County
King William County
King-Moore, INC.
Lancaster County
Landmark Design Group
Leary and Company, INC.
Lee County

Leesburg
Lexington
Longwood University
Lord Fairfax Community College
Loudoun County
Louisa County
Lunenburg County
Lynchburg
Madison County
Manassas
Marion Dupont Scott Equine Medical Center
Martinsville
Math Science Innovation Center
Mathews County
McKenney
Mecklenburg County
Medical College of Virginia
Metro Transit Police
Middle Peninsula Planning District Commission
Middle Peninsula-Northern Neck Community Service Board
Middlesex County
Mineral
Montgomery County
Mount Rogers Community Service Board
Mountain Empire Community College
N Shenandoah Valley Regulatory Commission
National Aeronautics and Space Administration
National Center for Missing & Exploited
National Park Service
National Science Foundation
Nelson County
New College Institute
New Kent County
New River Community College
New River Valley Agency on Aging
New River Valley Consumer Services Board
New River Valley Planning District Commission
Newport News
Norfolk
Norfolk State University
Normandeau Associates
Northampton County
Northern Neck Planning District Commission
Northern Virginia 4-H Education Center
Northern Virginia Community College
Northrop Grumman
Northwestern Community Services Board
Norton
Northern Virginia Planning District Commission
Northumberland County
Nottoway County
Office of the Magistrate
Old Dominion University
Opportunity in Hampton Roads
Orange County
Page County

Patrick County
Patrick Henry Community College
Paul D Camp Community College
Pearisburg
Piedmont Regional Community Service Boards
Pentagon Force Protection Agency
Petersburg
Phillip C. Jones
Piedmont Community College
Pittsylvania County
Poquoson
Portsmouth
Potomac and Rappahannock Transportation Commission
Potomac River Fisheries Commission
Powhatan County
Prince Edward County
Prince George County
Prince William County
Pulaski County
Radco Planning District 19 Commission
Radford
Radford University
Rapidan Service Authority
Rappahannock Area Community Service Board
Rappahannock Community College
Rappahannock County
Rappahannock Rapidan Community Services Board
Rappahannock-Rapidan Planning District Commission
Region Ten Community Services Board
Resource Management Association
Richard Bland College
Richmond City
Richmond County
Roanoke City
Roanoke College
Roanoke County
Roanoke County
Roanoke Higher Education Authority
Rockbridge Area Community Service Board
Rockbridge County
Rockingham County
Rocky Mount
Rummel, Klepper & Khal, LLP
Rural Retreat
Russell County
Salem
Scott County
Shenandoah County
Smithfield County
Smyth County
Social Security Administration
South Boston
South Hill
Southampton County
Southeastern Public Service Authority
Southside Community Services Board

Southside Planning District Commission
Southside Virginia Community College
Southwest Virginia 4-H Education Center
Southwest Virginia Community College
Spotsylvania County
Stafford County
State Board of Bar Examiners
State Corporation Commission
State Information Technology Consortium
State Law Library
State Lottery Department
Staunton
Suffolk
Supreme Court of Virginia
Surry County
Sussex County
Tappahannock County
Tazewell County
The Catena Group
Thomas Jefferson Planning District Commission
Thompson and Litton
Tidewater Community College
U.S. Air Force
U.S. Army
U.S. Department of Agriculture
U.S. District Court
U.S. Marine Corps
U.S. Navy
U.S. Postal Inspection Service
U.S. Probation Office
U.S. Secret Service
U.S. States Park Police
University of Mary Washington
University of Maryland
University of Virginia
URS Corp
Valley Community Services Board
Town of Vienna
Virginia Credit Union, INC.
Virginia Retirement System
Virginia Beach
Virginia College Savings Plan
Virginia Commonwealth University
Virginia Court of Appeals
Virginia Egg Board
Virginia Highlands Community College
Virginia Holocaust Museum
Virginia House of Delegates
Virginia Interactive
Virginia Lawyer Referral Service
Virginia Liaison Office
Virginia Military Institute
Virginia Office for Protection and Advocacy
Virginia Outdoors Foundation
Virginia Polytechnic Institute and State University
Virginia Port Authority

Virginia Railway Express
Virginia Retirement System
Virginia Senate
Virginia State Bar
Virginia State University
Virginia Union University
Virginia War Memorial
Virginia Western Community College
Virginia Institute of Marine Science
Warren County
Warrenton
Warsaw
Washington County
Waynesboro
Western Piedmont Planning District Commission
Western Tidewater Community Services Board
Westmoreland County
WestPoint
Williamsburg
Winchester
Wise
Wise County
Wythe County
Wytheville
Wytheville Community College
York County

Source: JLARC staff analysis of revenue data provided by VITA.

Data Collection Documents Developed by VITA and Northrop Grumman

As discussed in Chapter 2, the partnership has been developing data collection documents (DCD) for the service level agreements in order to enable VITA to measure Northrop Grumman’s performance. The following table provides a list of the DCDs and their completion status.

SLA Category (SLA IDs)	Number of DCDs Required	Description	Number of DCDs Approved
Cross-Functional			
Critical Data Center Locations – Incident Resolution (1-6)	6	Time to resolve critical data center (CESC and SWESC) incidents; required response times range from 2-16 hours	4
Other Locations – Incident Resolution (7-11)	5	Time to resolve incidents at other locations; required response times range from 8-18 hours	4
Data Center Services – Backup (12-19)	8	Percentage of daily and weekly data system backups performed	3
Restore Services (20-23)	4	Data restoration; required response times range from 4-16 hours	1
Disaster Recovery (24-29)	6	Restoration of software applications; required response times range from 4 hours to 7 days	0
Asset Tracking (30-32)	3	Verification of serial number, location, and hardware/software configuration for IT assets	0
User Satisfaction (33)	1	Survey of IT end-users; 80% of users must choose ‘satisfied’ or ‘very satisfied’	0
Internal Applications			
Application Development (34-40)	7	Accuracy of project cost estimates and completion of milestones on-time	7
Applications Operations & Maintenance (41-44)	4	Service levels for operating and maintaining software applications	4
Security			
System Service Administration (45-49)	5	Deployment of security patches and anti-virus updates; required response times range from 24-48 hours	0
Network Administration (50)	1	Management of network firewall, including implementation of changes; required response time of 2 hours	0

Security Intrusion Detection (51-55)	5	Ability to receive and respond to security breaches	0
Security Vulnerabilities & Penetration (56)	1	Testing of security vulnerabilities	1
Helpdesk			
Availability (57-60)	4	Helpdesk hours of operation for password support, end-user assistance, and other support	4
Response Time (61-66)	6	Response times to issues reported by phone and email	3
Incident Resolution (67-69)	3	Percentage of incidents resolved on first contact and time to resolve issues	2
Account Administration (70-76)	7	Response times for account administration requests such as password and privilege changes	0
End User Satisfaction (77-78)	2	Periodic sampling of end-users for satisfaction levels	0
Desktop			
Break/Fix Repairs (79-81)	3	Response times for desktop repair requests	0
Installs, Adds, Moves (82-84)	3	Minimum time to install, add, or move desktops	2
Software Installation (85-88)	4	Time to deploy core software, operating systems, and agency-specific software	0
Procurement of New Devices (89)	1	Time to deliver new devices from approval date	1
System Updates/Refresh (90-92)	3	Timeliness of replacement of desktops, laptops, and hand-held devices	0
Messaging			
Availability (93)	1	Availability of email service for end-users; outages cannot exceed two hours per month	0
Performance (94)	1	Delivery times for emails	0
Software Refresh (95-96)	2	Deployment of software updates and new versions of Microsoft Exchange within 30 days of VITA approval	0
Message Monitoring & Management (97-100)	4	Monitoring of email usage for incidents and management of problems	0
Recovery (101-102)	2	Recovery of email services following an outage (send/receive capability within six hours and access to existing emails within 48 hours)	0
Mainframe & Server			
System Availability – CESC (103-109)	7	Maintenance and operation of IBM and Unysis mainframes as well as Windows and Unix servers at the CESC	7
System Availability – ALL (110-116)	7	Maintenance and operation of IBM and Unysis mainframes as well as Windows and Unix servers at all other locations	0
Application Online Response Time – CESC (117-120)	4	Response times for mainframe and server transactions at the CESC	4
Application Online Response Time – ALL (121-124)	4	Response times for mainframe and server transactions at all other locations	0

Batch Processing (125-129)	5	Minimum performance times for mainframe batch processing	5
Output Delivery (130-132)	3	Minimum mainframe print times in and outside Richmond Metro area	0
General Administrative Functions (133-134)	2	Response times for notifying helpdesk of mainframe and server outages	0
System Server Administration (135-138)	4	Implementation of requests for additional server storage capacity and other server changes	0
Server Software Refresh (139-140)	2	Minimum time for implementation of updates and new versions	0
System Hardware Update/Refresh (141)	1	Timeliness of replacement of mainframes and servers	0
Database Administration (142-149)	8	Processes for managing databases, including storage capacity and service updates	0

Data Network

Network Availability (150-168)	19	Network operation, including Internet access, firewalls, and LAN/WAN connectivity	12
Network Performance (169-171)	3	Efficient network performance	2
Administration Services (172-174)	3	Service additions or changes as well as implementation of updated versions	0

Voice & Video

Availability (175-186)	12	Availability of VoIP, video conferencing, wireless, and local/long distance capabilities	4
Responsiveness (187-193, 196)	8	VoIP account changes; service initiation, installations, and additions	1

Chargeback

Chargeback (194-195)	2	Accuracy and timeliness of chargeback statements to State agencies	0
TOTALS	196		71

Note: Approval status as of 11-2-08.

Source: JLARC analysis of data from VITA.

Key Transformation Milestones for Northrop Grumman

Title	Description	Deadline
Account Management & Administration Transition		
Disaster Recovery Test at Southwest Enterprise Solutions Center SWESC (Critical)	Run first Disaster Recovery Test at the SWESC, to demonstrate and effectively replace the backup and business resumption capability that is currently available under the VITA SunGard contract	5/1/08
Data Center (Mainframe/Server) Transition		
Move mainframe/server workload from Richmond Plaza Building to Commonwealth Enterprise Solutions Center CESC)	Relocation of mainframe and server (data center) workloads from the RPB to the CESC completed	2/1/08
Move infrastructure for disaster recovery to SWESC back-up data center	Relocation of mainframe and server (data center) infrastructure (hardware) from the RPB (after workloads are moved to the CESC) to the SWESC completed	3/1/08
Tape automation complete	Implementation of automated tape devices (STK or EMC), and conversion of tape data completed	3/1/08
Server consolidation complete (25%)	Achieve 25% checkpoint with implementation of approved plan to consolidate 2341 existing servers across the Commonwealth	12/1/07
Desktop Computing Transition		
Quarter 2 Refresh	Achieve 24% checkpoint with implementation of approved plan to refresh 64,000 desktops across the Commonwealth	7/1/07
Quarter 3 Refresh	Achieve 36% checkpoint with implementation of approved plan to refresh 64,000 desktops across the Commonwealth	10/1/07
Quarter 4 Refresh	Achieve 48% checkpoint with implementation of approved plan to refresh 64,000 desktops across the Commonwealth	1/1/08
Quarter 5 Refresh	Achieve 60% checkpoint with implementation of approved plan to refresh 64,000 desktops across the Commonwealth	4/1/08
Quarter 6 Refresh	Achieve 72% checkpoint with implementation of approved plan to refresh 64,000 desktops across the Commonwealth	6/1/08
Messaging Transition		
Backend Infrastructure In Place	Complete the installation of the Exchange messaging infrastructure (servers, systems software, storage systems, and support tools) in preparation of the messaging mailbox migrations	9/1/07

Data Network Transition		
Connectivity to CESC	Establish network connectivity to the CESC	7/1/07
Connectivity to SWESC	Establish network connectivity to the SWESC	11/1/07
15% LAN Migration	Achieve 15% checkpoint with implementation of approved plan to migrate "hot" ports from the legacy Commonwealth networks to the new MPLS network	10/1/07
Enterprise Network Operations Center (NOC) (Critical)	Establish the Enterprise Network Operations Center (NOC) infrastructure and associated support services in the CESC to provide monitoring and management of the network segments that are visible from the CESC. The E-NOC will replace the VITA RPB NOC and T-NOC facilities, and will provide comprehensive network management as the new MPLS network is implemented.	11/1/07
MPLS Core established, begin Agency migration (Critical)	Complete the installation of the MPLS core network and LAN migration plan, and provide operational procedures. Begin Agency LAN migration activities.	9/1/07
30% LAN Migration	Achieve 30% checkpoint with implementation of approved plan to migrate "hot" ports from the legacy Commonwealth networks to the new MPLS network	1/1/08
45% LAN Migration	Achieve 45% checkpoint with implementation of approved plan to migrate "hot" ports from the legacy Commonwealth networks to the new MPLS network	4/1/08
60% LAN Migration	Achieve 60% checkpoint with implementation of approved plan to migrate "hot" ports from the legacy Commonwealth networks to the new MPLS network	7/1/08
Security Transition		
Enterprise Security Operation Center (ESOC) transitional	Establish the transitional Enterprise Security Operations Center (T-ESOC) infrastructure and associated support services in the CESC to improve the monitoring and management of security related network activities across the Commonwealth	11/1/07
Enterprise Security Operation Center (ESOC) complete (Critical)	Establish the production Enterprise Security Operations Center (ESOC) infrastructure and associated support services in the SWESC to provide complete monitoring and management of security related network activities across the Commonwealth. The T-ESOC becomes the backup security operations center.	6/1/08
Enterprise vulnerability assessment program operational (Critical)	Establish the Enterprise Vulnerability Assessment Program (EVAP), with the infrastructure, staffing, and operational procedures necessary to perform assessments, report on deficiencies, ensure compliance with security policy, and provide for patch and configuration management	3/1/08
Computer Security Incident Response Center (CSIRC) Complete (Critical)	Establish the production CSIRC infrastructure and associated support services in the CESC as a command center for intrusion detection, virus identification and eradication, and response to security related incidents.	3/1/08
Helpdesk Transition		
SWESC Staffed and trained	Staff hired, trained, and ready to provide customer support from the SWESC	1/1/08

Installation of Avaya telephony	Complete the installation of the Avaya switch and phone systems needed to support customer service desk activities	12/1/07
Dedicated incident management system and agent workstations installed	Complete the installation of the Peregrine Service Center infrastructure and software (servers, systems software, Peregrine application, storage systems, and support tools) and agent workstations needed to support customer service desk activities	12/1/07
Transition services to SWESC	Upon completion of the SWESC, transition customer service desk activities into the SWESC facility	3/1/08
Production incident management system/ SPOC help desk (Critical)	Complete implementation of the Peregrine Service Center system to support customer service desk activities	7/1/08
Data Center Buildings		
Richmond Plaza Building migration complete (Critical)	All VITA and NG staff relocated from RPB. All systems migrated from RPB. RPB available for lease termination.	3/1/08

Source: VITA.

Agency Responses

As a part of an extensive validation process, State agencies and other entities involved in a JLARC assessment are given the opportunity to comment on an exposure draft of the report. Appropriate technical corrections resulting from comments provided by these entities have been made in this version of the report. This appendix includes a written response from the Virginia Information Technologies Agency.



COMMONWEALTH of VIRGINIA

Virginia Information Technologies Agency

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711

December 1, 2008

Mr. Philip A. Leone
Director
Joint Legislative and Audit Review Commission
General Assembly Building, Suite 1100
Capitol Square
Richmond, Virginia 23219

Dear Mr. Leone:

Thank you for the opportunity to comment on the draft, interim report *Interim Review of the Virginia Information Technologies Agency*. Moreover, I appreciate the thoroughness and professionalism of the Commission staff in preparing this report. I think the interim report fairly presents the brief history, goals, responsibilities, and formidable challenges which remain for the Virginia Information Technologies Agency (VITA) as it modernizes the Commonwealth's outdated information technology (IT) infrastructure.

I would like to offer a few brief comments. First and foremost, while the report provides an accurate recounting of VITA's establishment and history, it does not acknowledge the broader agency cultural context that I believe is necessary to best understand VITA. VITA has been tasked with the "merger" and consolidation of IT support services for nearly 100 state Executive Branch agencies. Commonwealth agencies possess diverse cultures and business practices. I hope you recognize and agree that merging such varied environments has been, and continues to be, a very significant challenge. I think we have made great progress in this area, and the report reflects that.

As a result of the Commonwealth's contract with Northrop Grumman Corporation, the update and standardization of the Commonwealth's IT infrastructure is well underway, and will continue over the next year. Under the contract Northrop Grumman is committed to invest more than \$270 million in upfront capital to replace the Commonwealth's inefficient, aging IT infrastructure with a common and secure IT platform. These efforts will result in greater government efficiency, significantly improved information security, job creation in southwest Virginia and cost savings, or perhaps more accurately cost-avoidance, over many years to come. Additionally, the cost of the state Executive Branch IT infrastructure will remain frozen at approximately 2005 levels for the duration of the 10-year contract, not including new system growth in agencies. In the interim, as a result of the Governor and General Assembly's visionary efforts, this private capitalization serves to greatly improve the Commonwealth's citizen services.

Mr. Philip A. Leone
December 1, 2008
Page Two

The interim report discusses a number of the challenges associated with costing and billing customer agencies for the services they receive. VITA operates as an “enterprise” agency. Like a private business, we pay our bills by way of charge-back to other agencies, but on a not-for-profit basis. Projecting revenues and expenditures for the past few years has indeed been a challenge. While our cost of direct services from Northrop Grumman is capped, the apportionment of costs among agencies is a work in progress, and frankly, we have had to learn on the job. There are many reasons for this, but lack of an accurate asset inventory is the most significant factor. Simply stated, since at least 2003 the inventory of state agency IT assets has been wholly inaccurate, despite several attempts to accurately capture the data. We are fixing this situation, but the challenge is considerable, with more than 220,000 IT assets located at more than 2,000 agency sites across the state and the dynamic nature of IT transformation. The actual inventory and use of services and equipment is what drives the charges to agencies going forward. In the coming months we anticipate completing a definitive inventory of IT assets in use by the agencies, and obtaining each agency’s concurrence with their portion of the inventory. With this in mind, I expect our revenues and expenditures, based on actual utilization of assets, to be stable going forward.

Finally, let me turn to our efforts to respond to the diverse business climate of the many different state agencies. So we may better understand the business needs of every agency we serve, over the past year we have established more than a half-dozen customer councils. These councils, which meet regularly, serve as a constructive forum for state agencies to collaborate with VITA staff to address customer concerns. In addition, I personally meet each month with representatives of each and every agency we serve. I will continue to do so, with a goal of understanding their business needs and providing open lines of communication.

I again thank you for the opportunity to respond to this draft report, and look forward to working with you in the coming months.

Sincerely,

A handwritten signature in cursive script, appearing to read "Lemuel C. Stewart, Jr.", written in black ink.

Lemuel C. Stewart, Jr.



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