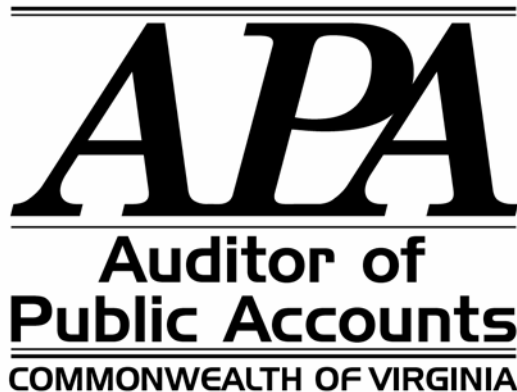


**PROGRESS REPORT ON SELECTED  
INFORMATION TECHNOLOGY PROJECTS  
IN THE COMMONWEALTH**

**DECEMBER 2006**



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## OBJECTIVES AND SCOPE

We audit a number of systems development projects on an on-going basis, as described in Appendix B. The objectives of our audits are to determine that:

- the project manager complies with the Commonwealth's Project Management Standard, as issued by the Virginia Information Technologies Agency; and
- the project remains on time, within budget, and on scope.

Our reviews generally include examining documents including the project charter, project plan, communications plan, and risk mitigation strategies. We regularly attend project meetings to note any issues affecting the project and meet with the project managers to offer suggestions and recommendations based on our experience monitoring implementations throughout the Commonwealth.

Our goal is to detect problems at the earliest possible point and alert decision makers to this information, thereby reducing project failures. During our review process, we also gain an understanding of the system and its controls that will allow us to plan future audit work involving that system. A detailed explanation of our review process is included later in this report in Appendix A.

The purpose of this report is to provide a progress report of selected projects we are actively auditing along with any recommendations we have to improve the project management. Specifically, this report highlights the following systems development projects:

- Ticketing Improvements System  
Jamestown-Yorktown Foundation
- Virginia Election and Registration Information System (VERIS)  
State Board of Elections
- Project New Horizons  
Virginia State University
- Roadway Network System (RNS)  
Department of Transportation

For the projects outlined above, this report describes the project activities and their status. We verified the accuracy of this information with all of the agencies; however, since there was no formal audit report published we did not conduct an exit conference or receive an agency response.

A background and history of all the projects we are currently following is in Appendix B. Therefore, we do not repeat the background and history below for each of the highlighted projects. Instead, we focus only on our findings, recommendations, and project response strategies relative to these projects. In addition, the Auditor of Public Accounts website at [www.apa.virginia.gov](http://www.apa.virginia.gov) has all historical reports by searching on the specific agency name.

## HIGHLIGHTS OF SELECTED SYSTEMS DEVELOPMENT PROJECTS

### Ticketing Improvements System Jamestown-Yorktown Foundation (Foundation)

The Jamestown-Yorktown Foundation's Ticketing Improvements System will improve ticketing capabilities and provide enhanced services for the upcoming Jamestown 400<sup>th</sup> Anniversary Commemoration. The Foundation needed to replace the former ticketing system for several key reasons, including the system's inability to handle the expected increase in volume due to the 2007 commemoration. In addition, the former system could not support ticket packages with neighboring Colonial Williamsburg and Busch Gardens resulting in foregone revenues. Finally, the old system's vendor support would not continue after July 1, 2007.

The Foundation put out an initial Request for Proposal (Proposal) in November 2005. After receiving proposals that did not conform to the specified requirements, they reissued the Proposal. The re-issuance resulted in a one-month delay and minor reduction in scope, removing non-essential functionality. The second Proposal yielded a vendor, RTP, and the Foundation is currently implementing the final phase of the Ticketing Improvement System.

The Ticketing Improvements System has two central requirements. It must provide expanded ticketing capabilities and provide scheduling and resource management functionalities. During negotiations, the Foundation discovered that the RTP product satisfied the ticketing requirement, however, the scheduling and resource management component required additional functional capabilities, adding several months of work. The ticketing functionality is currently in operation, but the Foundation has had to implement several work process changes to meet their scheduling and resource management needs. In Spring 2007, RTP is planning a software upgrade that will add scheduling and resource management functionality and eliminate the need for the current work process changes.

### Virginia Election and Registration Information System (VERIS) State Board of Elections (Elections)

As noted in our previous progress report, VERIS's most significant risk to the Commonwealth is the potential loss of some or all the project funding because of project schedule slippage. Elections and their contractors continue to work towards a revised implementation date of late December 2006, one year later than originally contracted and almost one year after the Help America Vote Act (HAVA) imposed deadline of January 1, 2006.

The project schedule slippage to date resulted from missed deliverables, poor application performance during user acceptance testing, problems with data accuracy, and resource and communication issues within the project team. The remaining project schedule is highly aggressive, with major requirements remaining before the "Go Live" date.

To mitigate the potential for additional slippage and to address internal organizational restructuring, Elections made several changes to the project team. They added a project director to facilitate the acquisition of resources, improve communications, and ensure the execution of the new project schedule. Further, Elections acquired a new project manager and installed a new project sponsor. The project has benefited from these changes.

Elections also established a risk management team in Spring 2006. The risk management team meets bi-weekly to review on-going project risks, assess their status, and determine actions they might need to take. Over the past month, several potential risks that the risk management team was actively monitoring have become actual issues.

Specifically, these issues surround the adequacy and quality of training documents, accuracy of Geographical Information System (GIS) precinct assignment, accuracy of data converted from the legacy system, and report design and readiness; as well as the scheduling of special elections in January 2007. Individually, each issue could impact the project schedule to a significant degree and the number of issues that require managing by the project team increases the potential for schedule slippage. To date, Elections has not made the decision to change the Go-Live date and we continue to monitor the projects progress against their planned schedule.

Elections continues to update United States Department of Justice regarding the implementation status, providing support for their ongoing efforts to comply with the HAVA requirements. Based on United States Department of Justice responses, they appear to be willing to work with Elections to resolve the compliance issue without impact to the project funding. However, until Elections reaches full compliance, funding will continue to remain at risk.

#### Project New Horizons Virginia State University (University)

Since we issued our last progress report, Virginia State University's Project New Horizons has gone live with the Banner Finance module. The project team implemented the module on schedule in July 2006. Recently, several APA auditors went to the University to review reconciliations in the Banner Finance module and we left with a positive assessment and noted no significant deficiencies. We will conduct a detailed assessment of the system's operational capabilities during our financial audit of the University sometime in Spring 2007.

The University project team is currently implementing the Banner Student and Financial Aid modules. They are currently on schedule to complete these modules on time. The APA remains actively involved with the Project Management staff and will continue to monitor the project through its implementation.

#### Roadway Network System (RNS) Department of Transportation (VDOT)

The RNS project has postponed implementation three times since the project began. VDOT initially planned implementation for January 2008 with a revised implementation date of June 2008. The Virginia Information Technologies Agency (VITA) Road Centerline/Virginia Base Mapping Program, part of the Virginia Geographic Information Network (VGIN) Initiative, has caused the majority of the delays as RNS relies on Geographic Information System (GIS) data for this program. VITA's project team originally promised the GIS data by September 2005, but this date continued to slip. The primary cause of the delays is due to collecting data from localities in the correct format. This remains an ongoing problem with the project, but the project has been re-baselined and now there is a more realistic project deliverable schedule. Before its new baseline, the project had very little project management and oversight. The new baseline has brought the project into VITA's Project Management Division purview and has added the necessary oversight. VITA has now promised the GIS data to the RNS project team by April 2007, over 18 months after their initially agreed upon due date.

RNS has moved some portions of the project to reduce the 18-month delay down to 6 months. The delays have reduced the financial benefit of the project because VDOT must maintain their current Roadway Centerline data in-house until they can receive VITA's GIS data. The delays have cost VDOT approximately \$165,000 to date, with an estimated future cost of \$110,000 based on receiving GIS data in April 2007. VDOT has also estimated the GIS delay will require some rework to the RNS, and the initial estimate is that it will cost \$150,000. As a result, the total cost due to the VITA program not delivering GIS data by the original due date of September 2005 is estimated at \$425,000. The RNS project team has submitted a change request to the Commonwealth's Chief Information Officer to re-baseline their project, issue realistic due dates, and update the project budget caused by the VITA delays.

### Introduction

Section 2.2-803(b) of the Code of Virginia requires the Auditor of Public Accounts to review financial systems implemented by state entities. To facilitate this review we use staff specialists trained predominately in systems development best practices and audit techniques. The results of these reviews are often included within the responsible agency's annual financial audit report. Additionally, there are occasions where we issue special reports responding to legislative requests to review and report on a specific systems development effort.

During the 2003 General Assembly session, the Commonwealth created the Virginia Information Technologies Agency (VITA), established a Commonwealth Chief Information Officer (CIO) position, and created an Information Technology Investment Board (ITIB), effective July 1, 2003. The ITIB is responsible for initially approving systems development projects and determining whether they should continue based on information obtained from the CIO. This progress report serves to provide information to the CIO, ITIB, Legislature, and Governor to aid in making well-informed decisions regarding the continued support of projects.

Because we are involved with many projects from their start, we have the opportunity to review planned controls and audit trails designed in the system to ensure they sufficiently protect data and log activities. Further, by understanding planned controls early, we can aid in the future development of effective and efficient audit procedures.

Through the years, there has been an increasing amount of money spent on system development projects. Some of these projects have run over budget (either time or money), while others resulted in failure. A major goal of our involvement in projects is to determine if and when a project is not progressing as planned and alert any chief parties of this information, thereby mitigating the potential for failure at the earliest point possible. We view our involvement as one of early detection and prevention and work with the project manager and agency management to foster a positive working relationship.

### Methodology to Identify Projects for Review

During the year, we monitor many resources to identify potential systems development projects. These sources include the following as well as others not listed.

- The Information Technology Investment Board and related subcommittees
- Legislative meetings
- Appropriations Act and Budget Bill
- Discussions and meetings with agency management and systems professionals
- Joint Commission on Technology and Science (JCOTS) meetings
- Council on Technology Services (COTS) meetings
- VITA Project Management Division

- Dashboard - VITA's electronic record of development projects
- Discussions and meetings with financial audit staff and project leaders within the APA

Once we identify a potential systems development project, we maintain a record of that system. However, the volume of ongoing projects at one time dictates that we identify and follow only those that represent the most risk to the Commonwealth. To achieve this, we accumulate information about the system based on meetings with agency personnel and use this information to calculate a risk score using the following risk factors.

- Project budget
- External dependencies such as others relying on the information
- Management support
- Importance of the system to the agency's mission
- Agency's experience and history at implementing systems
- Complexity of project and technology
- Project phase and higher risk of failure in early stages of development

We rank all project risk scores from highest to lowest and the Systems Development team members convene to discuss the highest risk projects and assign available staff to audit them. We re-evaluate the risk scores at least three times a year so that new projects or ones whose risk has increased can undergo more thorough auditing.

#### *Systems Development Audit Approach*

We audit the project throughout its development life cycle phases and determine if it is meeting the six tangible success elements contained in every project phase. Projects that contain these six tangible success elements have a higher likelihood of on time completion, meeting the budget, and achieving the desired objective. The six tangible success elements are:

- Project Scope and Time Management
- Commitment
- Risk Management Mechanisms
- Financial Management Mechanisms
- Procurement and Contract Management
- Communication



These project success elements are considered standards for the project management profession and are described in detail in, *A Guide to the Project Management Body of Knowledge (PMBOK Guide)*, created by the Project Management Institute (PMI). The industry recognizes the following PMI standards as best practices for project management.

Project Scope and Time Management - Project managers define the business need, prepare a detailed project plan, and define a method to control changes to the project plan as part of their project scope and time management. Project scope management defines and controls what is and what is not part of the project. Project managers measure their success at achieving scope management by comparing actual activity and deliverables against the requirements and plan. Project time management involves defining detailed project activities, deliverables, schedules, and schedule controls to improve the likelihood of completing the project on schedule. Project managers typically receive ongoing requests to expand or contract project scope or to modify schedule estimates while the project is underway. It is critical that project managers define the procedures to follow for changing the project plan baseline, including required approvals, to ensure the project's successful scope and time management.

Commitment - Project managers seek to obtain strong executive, legislative and agency commitment to a project, and assign sufficient and competent staff as part of their project resource management. Project resource management makes the most effective use of people involved with the project and involves identifying and assigning project roles, including end user involvement; obtaining the appropriate human resources to work on a project; and developing staff competencies with the new application.

Risk Management Mechanisms - Project risk management involves the processes of identifying, analyzing, and responding to project risk. Project risk is an uncertain event or condition that can have a positive or negative effect on a project objective. Project managers use risk management to identify potential risks and minimize the probability and consequences of adverse events through the development of risk response strategies and use of risk monitoring techniques.

Financial Management Mechanisms - Project managers compile complete cost estimates and budgets, attempt to secure a dedicated funding source, and control changes to the budget as part of their financial management. Project managers use the detailed project plan, historical information, and alternatives to create the project budget. Once established, project managers use cost management to provide a change control system that defines the procedures for allowing changes to the cost baseline (budget).

Procurement and Contract Management - Project managers incorporate sound vendor and product selection processes and seek to develop a legally enforceable contract as part of their procurement management. Project procurement management involves all of the processes required to acquire goods and services from sources outside the agency. Elements include determining when to procure products and services outside of the agency, selecting the best vendor to provide the goods and services, and establishing a well-defined contract that describes the products or services that will satisfy the identified need. Contract management is the process of ensuring that the vendor's performance meets the contractual requirements.

Communication - Project managers develop strong team communication, information distribution, and performance reporting mechanisms as part of their communications management program. Project communications management provides the critical links among the project team. It also ensures the generation, collection, dissemination, storage, and disposition of project information to individuals inside and outside the project team including the Governor, legislature, public, and future users who are not part of the project team.

*Reporting Audit Results*

We report the results of our reviews in different ways, depending on the circumstances. Often we include project background and status information within the annual audit report of the agency. If there is a legislative request that we review a system, we will prepare a written report specifically addressing the legislative request. Finally, if we identify project management concerns that are serious and not being resolved timely, we immediately prepare a report that details our concerns and the corrective action.

APPENDIX B  
Comprehensive List of Systems Development Projects  
Currently Under Review

The systems development projects listed below are those projects we are actively auditing. While this list is not inclusive of all current projects across the Commonwealth, it does represent those that we consider of the highest importance due to risk, budget, phase, and/or impact of the system.

<u>Agency</u>	<u>System Name</u>	<u>Page</u>
Department of Corrections	VirginiaCORIS – Phases II and III	10
Department of Motor Vehicles	Integrated Systems Redesign	11
Department of Rehabilitative Services	Integrated Case Management	12
Department of Transportation	Roadway Network System	13
Jamestown-Yorktown Foundation	Ticketing Improvement System	14
Longwood University	Banner, Longwood's Implementation Strategy for Success	15
Office of the Governor	Enterprise Applications Public Private Partnership	16
State Board of Elections	Virginia Election and Registration Information System	17
University of Virginia	Student System Project	18
University of Virginia Medical Center	Integrated Healthcare Information Management System	19
Virginia Commonwealth University	Administrative re-engineering through Integrating Electronic Services	20
Virginia State University	Project New Horizons	21
Virginia Employment Commission	Virginia Workforce Network Information System (VWINS)	22
Department of Health	Electronic Health Record System	23

We have not repeated all projects reported in our June 2006 progress report on the following pages because some of the projects may have ended or been placed on hold. For example, since our last report, the Financial Management System (FMS) II Upgrade at the Department of Transportation has completed the planning phase. The FMS II project is currently waiting for a solution from the Enterprise Architecture Public Private Partnership and therefore is on hold. The reader can find historical information on this and other projects in our previous Interim Progress Reports available at [www.apa.virginia.gov](http://www.apa.virginia.gov).

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VirginiaCORIS - Phases II and III

The Department of Corrections (Corrections) is beginning implementation of an automated Offender Management Information System, VirginiaCORIS (CORIS). CORIS is the software solution purchased from xwave New England. Corrections developed the current offender applications over the last 30 years to satisfy individual functional area needs. These stovepipe applications no longer provide the functionality required by the Corrections end user.

CORIS is comprised of three major phases: Offender Sentence Calculation (successfully implemented in March 2006), Community Corrections (Phase II), and Institutional Operations (Phase III). The final product will result in a single, fully integrated system that will replace Corrections legacy offender-related applications. This system is critical to Corrections mission.

Sponsoring Agency Information	Secretary of Public Safety: John Marshall Department of Corrections: Project Sponsor: Gene Johnson, Director Project Director: John Taylor Project Manager: Jody Rogish	
Current Phase of Development	Planning	
Project Timeline	Begin preliminary planning Begin detailed planning Begin Community Corrections Release 1 Offender Sentence Calculation lessons learned Begin Community Corrections Release 2 Community Corrections Release 1 completion Community Corrections Release 2 completion Begin Phase III	August 2005 June 2006 August 2006 October 2006 January 2007 September 2007 January 2008 July 2007
Total Budget	\$14,500,000	
Funding	\$1 million federal matching grant (75% federal, 25% operating budget) Requesting General Fund Appropriations from General Assembly for remaining	
Actual Costs (As of 9/30/06)	\$950,169	
Outside Contractor(s)	Project Management Contractor: CGI-AMS Independent Verification & Validation: North Highland Group, November 2006	
Additional Information	This project is the next phase after the successful implementation of the VirginiaCORIS, Sentencing Module. The xwave solution is currently in production in Maine's Department of Corrections	
Prior APA Report and Issue Date	No reports issued to date.	

APPENDIX B  
Comprehensive List of Systems Development Projects  
Currently Under Review

Integrated Systems Redesign

The Department of Motor Vehicles (DMV) is beginning to plan for the replacement and reengineering of their Customer Service System (CSS). They are currently in the first phase of a three-phase project: Phase I: Project Initiation and Business Requirements, Phase II: Procurement, Phase III: Development and Implementation.

The first phase consists of defining the scope, goals, objectives, and vision of the system; as well as performing a business process analysis, identifying communications channels, and securing funding for the duration of the project. The Integrated System Redesign will replace the aging CSS system, which consists of more than 12 information technology systems to process transactions and maintain customer records. The new system will be more flexible and secure, and will allow for easier changes to accommodate legislation, new technology and customer demands.

The project kickoff meeting occurred in October 2006 and included the DMV/CACI project team, as well as DMV Executive Staff and Directors. The meeting included a project overview presentation including project vision, project team, roles and responsibilities, project approach, milestones, and the business process re-engineering approach.

Sponsoring Agency Information	Secretary of Transportation Department of Motor Vehicles Project Sponsor: Karen Chappell, Deputy Commissioner and Project Sponsor Project Manager: Tully Welborn, Project Manager Integrated Systems Redesign
Current Phase of Development	Initiation
Project Timeline	Initial business process analysis completion December 2005 Phase 1 project milestones: Complete high level re-engineering/future business model December 2006 Perform gap analysis January 3, 2007 Define high level requirements January 15, 2007 Develop go-forward and transition plan February 15, 2007 Phase 1 closeout February 15, 2007
Total Budget	\$1,670,700 for the business process analysis and impact analysis only \$30,000,000 current estimate for implementation of the system
Funding	100% non-general funds
Actual Costs (As of 09/30/06)	Initial business process analysis (CGI-AMS) \$ 1,395,540 Project costs since July 1, 2006 \$ 145,399 Actual total to date: \$ 1,540,939
Outside Contractor(s)	CACI - Phase 1 – Business Process Re-engineering CGI-AMS - Comprehensive business process analysis, business impact analysis, and risk assessment analysis Additional contracts may be signed as the project progresses.
Additional Information	None noted.
Prior APA Report and Issue Date	No reports issued to date.

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Comprehensive List of Systems Development Projects  
Currently Under Review

Integrated Case Management (ICM)

This project is an effort to integrate 21 legacy systems and data exchange processes into a single case management application to support services across multiple agencies. The Department of Rehabilitative Services (DRS) is serving as the primary sponsor and point of contact for reporting to the Information Technology Investment Board. Three agencies sponsor and fund this effort: DRS (65 percent); Department for the Blind and Vision Impaired (15 percent); and Woodrow Wilson Rehabilitation Center (20 percent).

The project team continues to work with Alliance, the contractor, to implement their product, AWARE. They are currently in the design stage that is set to complete in January 2007; however, the project team has identified concerns with the existing reporting tools used by AWARE and these may affect the implementation schedule. The project team is assessing their options, but expects there may be schedule slippage. Alliance will absorb any increases in costs if there is any schedule slippage from this issue.

DRS has also initiated an upgrade to their existing financial system in order to move it off an unsupported platform. If this upgrade receives development approval from the Information Technology Investment Board, this project may affect the availability of agency resources for the ICM project. The ICM and financial system project teams are developing mitigation strategies to address this risk, should it occur. We continue to monitor the ICM progress against the project schedule in light of these developments.

Sponsoring Agency Information	Secretary of Health and Human Resources Department of Rehabilitative Services: Project Sponsors: Joseph Bowman, Commissioner, Department for the Blind and Vision Impaired James Rothrock, Commissioner, DRS Program Manager: Dennis Unger, DRS Director of Information Technology Project Manager: Susan Kropp	
Current Phase of Development	Execution and Control	
Project Timeline	Contract awarded Discovery completed Revised design completion Revised development completion Revised testing completion Revised go-live Revised project closeout	March 2005 March 2006 January 2007 June 2007 November 2007 April 2008 May 2008
Total Budget	\$4,856,891	
Funding	100% federal	
Actual Costs (As of 9/30/06)	\$1,221,811	
Outside Contractor(s)	Primary Contractor: Alliance Enterprises, Inc IV&V Contractor: CGI-AMS (North Highland) Sept/Oct 2005. April 2006 reviews Northrup-Grumman (Paragon) for October 2006 review	
Additional Information	DRS will be contracting separately for each scheduled IV&V, with one scheduled each Fall and Spring through the end of the project.	
Prior APA Report and Issue Date	No reports issued to date.	

Roadway Network System (RNS)

The RNS project creates a replacement system for the aging Highway Traffic Records Information System. The new system incorporates a relational database, links geo-spatial data and business attributes to the roadways, and provides web accessibility to users to retrieve roadway data.

The scope of work includes:

- 1) the migration of all the data from the old system to the new;
- 2) ensuring the roadway geo-spatial data aligns with the roadways;
- 3) connecting the business data to the geo-spatial roadway data;
- 4) building a web-based system for retrieving the roadway and business data; and,
- 5) improving business processes that have been limited due to the older technology.

Delayed project deliverables relating to the Virginia Information Technologies Agency (VITA) Virginia Geographic Information Network (VGIN) project has had a direct impact on the RNS project progress. Specifically, the RNS project needs Geographic Information Systems (GIS) data from VGIN, which was originally scheduled to be received in September 2005. The Department of Transportation is assessing the complete impact of the VGIN project delays, but this delay will affect the implementation date of individual RNS modules as well as the overall project completion date.

Sponsoring Agency Information	Secretary of Transportation Department of Transportation Project Sponsors: Gary Allen, Chief of Technology and Constance Sorrell, Chief of Systems Operations Program Manager: Joe Pugh, IT Applications Manager Project Manager: Scott McCombe	
Current Phase of Development	Execution and control	
Project Timeline	Scheduled execution and control completion Scheduled project closeout	May 2008 June 2008
Total Budget	\$7,308,122	
Funding	100% Transportation Information Technology Division operating funds	
Actual Costs (As of 9/30/06)	\$2,761,863	
Outside Contractor(s)	IV&V Contractor: BearingPoint	
Additional Information	The schedule and budget listed above reflect the current request for a new baseline based on delays resulting from VGIN and other factors affecting the RNS project.	
Prior APA Report and Issue Date	Commonwealth Transportation Fund - Agencies of the Secretary of Transportation, October 2004. <i>Reports are available by searching under the agency name at <a href="http://www.apa.virginia.gov">www.apa.virginia.gov</a></i>	

Ticketing Improvements System

The Jamestown-Yorktown Foundation's Ticketing Improvements System will improve ticketing capabilities and provide enhanced services for the upcoming Jamestown 400<sup>th</sup> Anniversary Commemoration. The Foundation needed to replace the former ticketing system for several key reasons, including the system's inability to handle the expected increase in volume due to the 2007 commemoration. In addition, the former system could not support ticket packages with neighboring Colonial Williamsburg and Busch Gardens resulting in foregone revenues. Finally, the old system's vendor support would not continue after July 1, 2007.

The Foundation put out an initial Request for Proposal (Proposal) in November 2005. After receiving proposals that did not conform to the specified requirements, they reissued the Proposal. The re-issuance resulted in a one-month delay and minor reduction in scope, removing non-essential functionality. The second Proposal yielded a vendor, RTP, and the Foundation is currently implementing the final phase of the Ticketing Improvement System.

The Ticketing Improvements System has two central requirements. It must provide expanded ticketing capabilities and provide scheduling and resource management functionalities. During negotiations, the Foundation discovered that the RTP product satisfied the ticketing requirement. However, the scheduling and resource management component required additional functional capabilities, adding several months of work. The ticketing functionality is currently in operation, but the Foundation has had to implement several work process changes to meet their scheduling and resource management needs. In Spring 2007, RTP is planning a software upgrade that will add scheduling and resource management functionality and eliminate the need for the current work process changes.

Sponsoring Agency Info.	Secretary of Education Jamestown-Yorktown Foundation: Project Sponsor: Jeffrey Lunsford, Deputy Executive Director of Administration Program Manager: Jay Snyder, Information Technology Manager Project Manager: Mike Armour, North Highland Group	
Current Phase of Development	Execution and Control	
Project Timeline	Project Charter approved by ITIB Ticketing functionality Scheduling and resource management functionality Scheduled project closeout	September 2005 July 2006 November 2006 December 2006
Total Budget	\$443,000	
Funding	\$450,000 (including a \$50,000 contingency)	
Actual Costs (As of 9/30/06)	\$429,187	
Outside Contractor(s)	Primary Contractor: Resort Technology Partners (RTP) Project Management: North Highland Group	
Additional Information	The project team will consist of both vendor, RTP, and Foundation resources.  The project will use a commercial off-the-shelf product that will require minor modifications to satisfy the resource management requirement.  The Foundation anticipates over 1 million visitors for the 2007 celebration.	
Prior APA Report and Issue Date	Virginia's Museums Report on Audit For the Year Ended June 30, 2005 <i>Reports are available by searching under the agency name at <a href="http://www.apa.virginia.gov">www.apa.virginia.gov</a></i>	



APPENDIX B  
Comprehensive List of Systems Development Projects  
Currently Under Review

Banner, Longwood's Implementation Strategy for Success (BLISS)

Longwood University (Longwood) has sought solutions to replace both their software and hardware infrastructures because their current administrative systems are outdated. Longwood chose the Banner software solution for their BLISS project to provide Longwood with an administrative system that provides accurate, accessible, and reliable data in a secure, state-of-the-art environment.

BLISS' project execution began in September 2005 and will continue through the scheduled closeout in October 2007. Longwood went live with the finance module on July 5, 2006 and is currently working on the Human Resources, Student, and Financial Aid modules. These modules are on track to Go-Live on their scheduled dates during 2007, with the Human Resources module scheduled to Go-Live first on January 11, 2007.

In conjunction with the BLISS project, there are several ancillary products and services the University will implement to enhance BLISS' functionality. These ancillary services, which are outside the scope of the main project, are set to complete by January 2008.

Sponsoring Agency Information	Secretary of Education Longwood University: Project Sponsor: Frank Moore, Vice President of Information and Instructional Technology Services, and Chief Information Officer Project Manager: Joanne Worsham	
Current Phase of Development	Execution and Control	
Project Timeline	Master Agreement signed VITA approves Project Charter Planning phase begins Project execution phase begins Scheduled project closeout	February 2003 December 2004 January 2005 September 2005 October 2007
Total Budget	\$7,359,421 (\$200,000 set aside for contingency)	
Funding	100% internally funded by Longwood's operating revenues.	
Actual Costs (As of 9/30/06)	\$3,744,168	
Outside Contractor(s)	Primary Contractor: Sungard Higher Education IV&V Contractor: Dana German, University of Mary Washington	
Additional Information	Implementation of the Banner Finance to eVA Interface has been delayed due to technical difficulties in functional testing at the George Mason University (GMU). GMU is the first university that will install this interface, tentatively scheduled for November 13, 2006.	
Report Name and Issue Date	Longwood University Report on Audit For the Years Ended June 30, 2005 and 2004. <i>Reports are available by searching under the agency name at <a href="http://www.apa.virginia.gov">www.apa.virginia.gov</a>.</i>	

APPENDIX B  
Comprehensive List of Systems Development Projects  
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Enterprise Applications Public Private Partnership

The 2006 General Assembly appropriated \$11 million to fund the Enterprise Applications Public-Private Partnership Project Office (Office). The Office is to implement new administrative, financial, human resource, and supply chain processes and systems by doing the following:

- identifying redundant administrative processes across state government;
- recommending re-engineered processes to increase efficiency and productivity and to reduce cost; and
- proposing an enterprise computer system or systems to help address these issues.

The areas needing replacement are currently comprised of various statewide computer systems, which are over 25-years-old (CARS, CIPPS, BES, PMIS) and a host of stand-alone agency accounting systems, such as those at the Department of Transportation, General Services, and Education, to name a few.

Although specific plans, budgets, and timelines are still in development, the Office has presented early plans to the Information Technology Investment Board. These plans expect to implement budget and general ledger systems first, followed by additional modules.

Sponsoring Agency Information	Office of the Governor Project Sponsor: Viola Baskerville, Secretary of Administration Judy Wagner, Secretary of Finance Acting Project Manager: Tim Bass
Current Phase of Development	Planning
Project Timeline	To be determined
Total Budget	To be determined
Funding	\$11 million General Fund support for 2006-2007 biennium. Remaining funding from future appropriations, and revenue enhancement initiatives to be implemented by CGI-AMS, as well as funding from agency partners such as the Department of Transportation.
Actual Costs (As of 9/30/06)	\$550,000 in seed money provided by the Information Technology Investment Board
Outside Contractor(s)	Primary contractor: CGI-AMS IV&V contractor: To be determined
Additional Information	None noted
Prior APA Report and Issue Date	No reports issued to date.

APPENDIX B  
Comprehensive List of Systems Development Projects  
Currently Under Review

Virginia Election and Registration Information System (VERIS)

The VERIS project reflects the State Board of Elections' (Elections) effort to meet the Help Americans Vote Act of 2002 (HAVA) requirements for a "computerized statewide voter registration list," as well as realize other operational efficiencies. Elections has budgeted \$12 million for the project, funded by HAVA. The functional scope includes all regulatory, operational, control, management information, and decision support needs related to the registration of voters and conduct of elections.

Elections and their contractors continue to work towards a revised implementation date of December 2006, one year later than the originally contracted and almost one year after the HAVA imposed deadline of January 1, 2006. Communications with the Department of Justice regarding the project status suggest the Department of Justice's willingness to work with Elections to resolve the existing compliance issue without impacting project funding. However, without full compliance, funding will continue to remain at risk.

The remaining project schedule is highly aggressive, with major requirements remaining prior to the "Go Live" date. Elections actively manages project risks through bi-weekly meetings. The project team is managing a number of issues that increase the risk of further schedule slippage, but to date, Elections has not made the decision to reschedule "Go-Live" date.

Sponsoring Agency Information	Secretary of Administration State Board of Elections: Project Sponsor: Valerie Jones, Assistant Secretary Project Manager: Nelly Romero	
Current Phase of Development	Execution and Control	
Project Timeline	Contract signed by VITA Originally scheduled Go-Live Revised scheduled Go-Live Renegotiated scheduled Go-Live Renegotiated scheduled project closeout	December 2004 September 2005 December 2005 December 2006 April 2007
Total Budget	\$12,000,000 (including \$1,000,000 for contingency)	
Funding	100% federally funded	
Actual Costs (As of 9/30/06)	\$5,587,076	
Outside Contractor(s)	Primary Contractor: Unisys Sub-Contractor: Quest (providing software) Sub-Contractor: Aradyme (handling data conversion) IV&V Contractor: CACI	
Additional Information	Jan Fatouros, Department of General Services, continues to serve as Project Director, facilitating the new project schedule and communication structure within the project team and with Unisys. Further, Elections has acquired additional staffing resources to improve project execution.	
Prior APA Report and Issue Date	Interim Review of the State Board of Election's Virginia Election and Registration Information System Project - June 2005 State Board of Elections Report on Audit For The Two-Year Period Ended June 30, 2004 <i>Reports are available by searching under the agency name at <a href="http://www.apa.virginia.gov">www.apa.virginia.gov</a>.</i>	

APPENDIX B  
Comprehensive List of Systems Development Projects  
Currently Under Review

Student System Project

The University of Virginia (University) is presently in the initiation phase of the Student System Project, which is the third component of the University's plan to replace its core administrative information systems. The first two components of this integrated systems project, Finance and Human Resources, concluded in 2001 and 2002, respectively.

The Student System Project seeks to transform student-related administrative processes that support the teaching, research, service, and health care missions of the University. This project will ultimately include the implementation of a new student information system, as well as activity pertaining to the review and re-engineering of institutional policies and processes.

Sponsoring Agency Information	University of Virginia: Project Sponsor: Gene Block, Vice President and Provost Project Director: Charles M. Grisham
Current Phase of Development	Initiation
Tentative Project Timeline	Oracle/PeopleSoft chosen as vendor March 2006 Request for proposal released for consultant services June 2006 Estimated project closeout December 2010 <i>Remaining schedule to be determined once consultant services are hired and planning begins in early 2007.</i>
Total Budget	Initial estimate of \$15,000,000 (see Additional Information section)
Funding	100% through University funding
Actual Costs (As of 9/30/06)	\$2,338,168
Outside Contractor(s)	Primary Contractor: Oracle/PeopleSoft IV&V Contractor: To be determined
Additional Information	The University hopes to have an implementation consultant under contract and on-site by the end of the calendar year. The original approved budget, established in 1999, for the Integrated System Project was \$58.5 million and included a placeholder of \$15 million for the implementation of a new student information system. The project budget for the Student System Project will be updated over the next six months with the assistance of the implementation consultants, given the selection of Oracle/PeopleSoft as the vendor and current industry guidance about the resource requirements for implementing a new student information system.
Prior APA Report and Issue Date	No reports issued to date.

APPENDIX B  
Comprehensive List of Systems Development Projects  
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Integrated Healthcare Information Management System (IHIMS)

The University of Virginia Medical Center (the Medical Center) is currently implementing the IHIMS solution with support from clinical system vendors that provide the needed application solutions. These vendors include Kodak Picture Archive Computer System (PACS) for image management in radiology, PICIS for critical care system device monitor data collection, Streamline Health for document management, and GE Inc. (GE/IDX Inc.) for the Continuum of Care Electronic Medical Record.

The IHIMS project solution connects the Medical Center with its affiliates and ambulatory clinics in an integrated and transferable electronic medical records processing system. GE's Centricity Enterprise, formerly known as IDX Carecast, software application integrates results and medical chart data together which enables it to be the "hub" for the various systems, allowing a consolidated portal for the Medical Center's healthcare providers. This electronic medical records repository already provides doctors with timely online access to patient data, enhancing patient safety initiatives and quality outcomes. This repository will continue to evolve eventually bringing the hospital, emergency room, and all 104 ambulatory care sites of the Medical Center together into one functional database. GE's acquisition of IDX has slowed the Carecast implementation by 12 months. The project team is implementing the ambulatory components and the inpatient module planning is on schedule to dates below.

Sponsoring Agency Information	University of Virginia Medical Center: Project Sponsor: Barbara Baldwin, CIO Project Manager: Cindy Perry	
Current Phase of Development	Execution and Control	
Project Timeline	Contract signed and Board Of Visitors approved Interim Clinical Results Archive System implemented Resequencing of IDX phases and amended agreement Radiology Algotech/Kodak PACS LanVision/Streamline Document Management Multi-year data conversion and result repository Pilot ambulatory clinic conversions PICIS (critical care) first unit implementation Inpatient modules completion Emergency department modules completion Scheduled project closeout	May 1999 August 2001 July 2002 November 2002 August 2003 November 2004 July 2005 June 2006 February 2009 February 2009 June 2009
Total Budget	\$53,800,000	
Funding	100% internal funded through the Medical Center revenues.	
Actual Costs (As of 9/30/06)	\$32,298,090	
Outside Contractor(s)	Primary Contractors: GE Centricity Enterprise (GE acquired IDX in Jan. 2006) IV&V: University of Virginia Internal Audit	
Additional Information	The Medical Center does not fall under VITA's provisions, but considers VITA's best practices. In Jan 2006, GE merged with IDX. Project improvements are still in negotiation with the Medical Center that will affect the IHIMS project schedule.	
Prior APA Report and Issue Date	No reports issued to date.	

APPENDIX B  
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Administrative Re-engineering through Integrating Electronic Services (ARIES)

Virginia Commonwealth University (University) is currently implementing the SCT Banner system to replace their major administrative systems (finance, student financial aid and human resources) that are currently on older technology. The Banner suite of products will use new technologies and allow the University to re-engineer administrative processes.

ARIES project execution began in July 2004 and will continue through August 2007, with project closeout scheduled in October 2007. The Finance module successfully went live July 2006. The Student and Financial Aid modules are on track to meet their scheduled Go-Live date. The initial project budget is \$11.4 million, \$8 million in direct costs and an additional \$3.4 million for internal personnel efforts over the life of the project. The project requires resources from many of the University's organizational units to provide the needed expertise, staffing and decision-making. SCT is an integral part of the team by providing both technical and functional resources for installation, training, process analysis, and operations.

Sponsoring Agency Information	Secretary of Education Virginia Commonwealth University: Project Sponsor: Eugene Trani, President Program Manager: Paul Timmreck, Senior VP for Finance and Administration Project Manager: James Thomas		
Current Phase of Development	Execution and Control		
Project Timeline	Project Charter approved by the ITIB Financial and Human Resources modules scheduled Go-Live Student and Financial Aid module scheduled incremental Go-Live Scheduled project closeout	May 2004 July 2006 April - August 2007 October 2007	
Total Budget	\$11,400,000		
Funding	\$8 million in direct costs (\$3 million non-general funds; \$5 million general funds) \$3.4 million in internal personnel efforts		
Actual Costs (As of 9/30/06)	\$7,396,472		
Outside Contractor(s)	Primary vendor: SCT IV&V Contractor: CACI		
Additional Information	Functional area teams are lead by business managers and consist of several sub-teams focused on specific processes		
Prior APA Report and Issue Date	No report issued to date.		

APPENDIX B  
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Project New Horizons

Virginia State University (University) is implementing the SCT Banner system to replace their current system, SCT Plus. Banner will incorporate newer technologies and provide integration with web-based applications for information delivery. The University will use staff from both SunGard-SCT, Inc., the primary implementation service provider, and business units across the University.

The Commonwealth's Information Technology Investment Board approved Project New Horizons in January 2004. Initial work on the project began in April 2004 and continued for eight months. During this period, VITA employed a vendor, CACI, to perform an initial Independent Verification and Validation (IV&V) review, which found the project off-track and not positioned for success.

The IV&V report led the Commonwealth's Chief Information Officer (CIO) to suspend the project in January 2005. The suspension lasted 3 months in which time the University worked to satisfy the required corrective actions and the CIO reactivated the project in April 2005. The University met their scheduled Go-Live of July 1, 2006 for Finance, and the project team is currently implementing the Student and Financial Aid modules.

Sponsoring Agency Information	Secretary of Education Virginia State University: Project Sponsor: Eddie Moore, Jr., President Project Director: Judy Marchand, CIO Project Manager: Richard Barnes	
Current Phase of Development	Execution and Control	
Project Timeline	Project Charter approved by ITIB Project suspended Project reactivated Finance with Human Resources integration modules Go-Live Student and Financial Aid modules Go-Live Scheduled project closeout	January 2004 January 2005 April 2005 July 2006 September 2007 October 2007
Total Budget	\$5,947,291	
Funding	Finance/Human Resources modules - \$2,124,400 Student/Financial Aid - \$3,698,091 IV&V Reviews - \$124,800	
Actual Costs (As of 9/30/06)	\$4,778,178	
Outside Contractor(s)	Consulting Services: SunGard-SCT Software Vendor: SCT IV&V Contractor: Dana German, University of Mary Washington	
Additional Information	The project met the scheduled Go-Live for Finance July 1, 2006. Virginia State is currently implementing the Student and Financial Aid modules and we remain actively involved in monitoring the project.	
Prior APA Report and Issue Date	Interim Report of Virginia State University's Project New Horizons - August 2005 Virginia State University Report on Audit for Fiscal Year Ending June 30, 2005 <i>Reports are available by searching under the agency name at <a href="http://www.apa.virginia.gov">www.apa.virginia.gov</a></i>	

APPENDIX B  
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Virginia Workforce Network Information System (VWINS)

The Virginia Employment Commission has contracted with Geographic Solutions Inc. to replace the current Virginia Workforce Network Information System (VWINS) with an internet based, commercially available off the shelf application.

The VWINS replacement will integrate various federal programs into a single workforce information system, as required by the Workforce Investment Act of 1998 and Code of Federal Regulation. These programs include the Workforce Investment Act (WIA), Wagner-Peyser Act, Trade Act, Virginia Initiative for Employment not Welfare (VIEW), and Labor Market Information. By consolidating these programs, the citizens and employers of the Commonwealth can receive workforce services from multiple state and local agencies using a single workforce information system. A single workforce system will provide citizens and employers with the convenience of self-service workforce activities. In addition, this system will give policy makers the ability to interact with a single system for the determination of labor demand and labor supply decisions. Replacing VWNIS will also eliminate duplicate data entry into multiple older systems and consolidate separate workforce information systems.

Sponsoring Agency Information	Secretary of Commerce and Trade: Patrick O. Gottschalk Virginia Employment Commission: Project Sponsor: Shelby Robinson, Assistant Commissioner for Field Operations Project Manager: Linda Belflower, CIO	
Current Phase of Development	Planning	
Project Timeline	Geographic Solutions Inc contract signed Project plan completed and approved Project execution phase begins Project close out	September 2006 November 2006 November 2006 November 2007
Total Budget	\$3,500,000	
Funding	Federally Funded	
Actual Costs (As of 9/30/06)	\$0	
Outside Contractor(s)	Primary Contractor: Geographic Solutions Inc. Independent Verification & Validation: To be determined.	
Additional Information	Implementation of the current VWINS occurred in 2000 and has provided minimal utility to the overall Workforce System within the Commonwealth.	
Prior APA Report and Issue Date	No reports issued to date.	



APPENDIX B  
Comprehensive List of Systems Development Projects  
Currently Under Review

Electronic Health Record System

The Department of Health is planning for the implementation of an Electronic Health Record (EHR) System. The system will replace the agency's paper-based medical records with an electronic medical record (EMR). The EMR will interface with the agency's practice management system. Interfacing the two systems will provide the Department of Health with the ability to store notes and other medical chart information electronically.

Since we began following this project, the Joint Commission on Technology and Science has formed an Electronic Medical Record advisory committee and Governor Kaine has formed a Health IT Council to examine issues and make recommendations regarding electronic health and medical records. As such, we expect these initiatives may ultimately affect the Department of Health's initiative.

Sponsoring Agency Information	Secretary of Health and Human Resources: Marilyn Tavenner Department of Health: Project Sponsor: Dr. Jim Burnes, CIO Project Manager: Deanna Malik
Current Phase of Development	Initiation
Project Timeline	Request development approval from the ITIB Begin product negotiations Launch initial pilot November 2006 December 2006 Spring 2007
Total Budget	To be determined
Funding	Non-general Funds
Actual Costs (As of 9/30/06)	\$0
Outside Contractor(s)	To be determined
Additional Information	The Department of Health plans to pilot the EHR system in the Rappahannock-Rapidan Health District, Warrenton location prior to implementation statewide.
Prior APA Report and Issue Date	No reports issued to date.



# Commonwealth of Virginia

**Walter J. Kucharski, Auditor**

**Auditor of Public Accounts**

**P.O. Box 1295**

**Richmond, Virginia 23218**

November 27, 2006

The Honorable Timothy M. Kaine  
Governor of Virginia  
State Capital  
Richmond, Virginia

The Honorable Thomas K. Norment, Jr.  
Chairman, Joint Legislative Audit  
and Review Commission  
General Assembly Building  
Richmond, Virginia

We are currently conducting audits of the systems development process for several major information technology projects and submit our report entitled, **"Progress Report on Selected System Development Projects in the Commonwealth"** for your review. We conduct each systems development audit in accordance with the standards for performance audits set forth in Government Auditing Standards, issued by the Comptroller General of the United States.

## AUDIT CONCLUSION

We found that for the major information technology projects included in this progress report the project managers comply with the Commonwealth's Project Management Standard, as issued by the Virginia Information Technologies Agency. However, the following projects have additional information provided to give an update on their status.

- Ticketing Improvements System  
Jamestown-Yorktown Foundation
- Virginia Election and Registration  
Information System (VERIS)  
State Board of Elections
- Project New Horizons  
Virginia State University
- Roadway Network System (RNS)  
Department of Transportation

## EXIT CONFERENCE

This progress report does not include audit recommendations for any of the projects we are currently following, but instead describes project history, activities, and status. We verified the accuracy of this information with all of the agencies, however since there were no audit recommendations, we did not conduct an exit conference or receive an agency response.

**AUDITOR OF PUBLIC ACCOUNTS**

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