



COMMONWEALTH of VIRGINIA

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October 1, 2008

MEMORANDUM

TO: The Honorable Timothy M. Kaine, Governor of Virginia
The Honorable Joe T. May, Chair, Joint Commission on Technology and Science
The Honorable Mamie E. Locke, Vice Chair, Joint Commission on Technology and Sciences
The Honorable Kenneth C. Alexander, Member, Joint Commission on Technology and Science
The Honorable John A. Cosgrove, Member, Joint Commission on Technology and Science
The Honorable Janet D. Howell, Member, Joint Commission on Technology and Science
The Honorable John D. Miller, Member, Joint Commission on Technology and Science
The Honorable Samuel A. Nixon, Jr., Member, Joint Commission on Technology and Science
The Honorable Kenneth R. Plum, Member, Joint Commission on Technology and Science
The Honorable Harry R. Purkey, Member, Joint Commission on Technology and Science
The Honorable Thomas D. Rust, Member, Joint Commission on Technology and Science
The Honorable William C. Wampler Jr., Member, Joint Commission on Technology and Science
The Honorable John Watkins, Joint Commission on Technology and Science

FROM: Lemuel C. Stewart, Jr. *Lemuel Stewart*

SUBJECT: 2008 Annual Report on Selected Information Technology Efforts of State Agencies and Public Institutions of Higher Education

The *Code of Virginia*, §2.2-2007, directs the Chief Information Officer (CIO) to prepare an Annual Report on Selected Technology Efforts of State Agencies and Public Institutions for the Governor and the Joint Commission on Technology and Science.

I am pleased to report that under the auspices of the IT Investment Board, IT investment management in the Commonwealth continues to promote greater efficiencies, accessibility to citizens and customers, and enhanced convenience. Furthermore, by adopting enterprise standards and consolidating the IT infrastructure, the Commonwealth is in a position to leverage and recapitalize the IT infrastructure to truly transform the delivery of government services to citizens.

As always, I would welcome the opportunity to discuss with you any aspects of VITA and the IT integration efforts underway.

Attachment

c: The Honorable Wayne Turnage, Chief of Staff
The Honorable Aneesh Chopra, Secretary of Technology
The Honorable Terrie L. Suit, Chair, House General Laws Committee
Lisa Wallmeyer, Executive Director, Joint Commission on Technology and Science
Glen Tittermary, Deputy Director, Joint Legislative Audit and Review Commission
Paul Van Lenten, Legislative Fiscal Analyst, House Appropriations Committee

AN EQUAL OPPORTUNITY EMPLOYER

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Bill Echelberger, Legislative Analyst, Senate Finance Committee

Karen Helderman, Director, Auditor of Public Accounts

G. Paul Nardo, Chief of Staff, House Speaker's Office

**2008 ANNUAL REPORT ON
SELECTED INFORMATION TECHNOLOGY EFFORTS
OF STATE AGENCIES AND
PUBLIC INSTITUTIONS OF HIGHER EDUCATION**

§ 2.2-2007 *Code of Virginia*

**SUBMITTED BY
THE CHIEF INFORMATION OFFICER
TO
THE GOVERNOR
AND
THE JOINT COMMISSION ON TECHNOLOGY AND SCIENCE
COMMONWEALTH OF VIRGINIA**

OCTOBER 1, 2008

2008 Annual Report

Select Information Technology Efforts of State Agencies and Public Institutions of Higher Education

Executive Summary

The Virginia Information Technologies Agency (VITA) submits this report annually to address a General Assembly mandate to inform the Governor and the Joint Commission on Technology and Science of the efforts of state agencies and public institutions of higher education to increase economic efficiency, citizen convenience, and public access to state government through the use of information technology¹. This report highlights representative efforts within state government over the past fiscal year along with the processes instituted by VITA and others that strengthen interagency collaboration and multiagency planning.

Patterns and Trends for Agency Projects

An analysis of recently completed and currently planned information technology (IT) projects shows four general approaches occurring in agencies and institutions of higher education: improving business practices, exploiting technical advances, promoting collaboration, and targeting accessibility. These approaches frequently result in the desired improvements in citizen convenience, government services accessibility, and government efficiency. The report identifies example IT initiatives that use these approaches successfully.

Improving the Commonwealth's Business Practices

- Modernizing information systems provides agencies with significant opportunities for improving agency and Commonwealth business practices. Nearly all IT projects that address operations issues take advantage of these process improvement opportunities. The great majority of information systems projects undertaken in the executive branch address incremental improvements in business practices and modernization through greater internet access to workflow improving tools.
 - Numerous agencies implement improved processes along with new and revised information systems including: Forestry's Integrated Forest Resource Management System; Professional and Occupational Regulation's Electronic Access to Government Licensing and Enforcement System; the Community College System's statewide Administrative Information System; the multiagency No Wrong Door initiative; and the State Police's Central Criminal Image System.
 - Universities continuously consider new ways to keep students connected. They have implemented e-mail alternatives for students, access anywhere via wireless services to libraries and staff resources, and everything over internet protocol (IP). Some universities are even considering whether the once-necessary university-hosted or -sponsored student e-mail is even needed in today's connected world.
 - Agencies including VITA have changed business processes to enable and promote telework. They also use partnership-provided conferencing to connect teleworkers to meetings and MPLS VPN services to connect teleworkers securely to local area networks.
 - Agencies such as the Virginia Department of Transportation increase revenues through process reengineering including improved toll collections

¹ *Code of Virginia, § 2.2-2007. Powers of the CIO. A. 8.*

- Many of the Commonwealth's Universities install the same enterprise resource management package (Banner software) and use both software standards and lessons learned through a consortium of agencies to improve university business practices.
- More and more virtual servers are being deployed to take advantage of cost savings possible through infrastructure consolidations. VITA is streamlining the process of moving to virtual servers by creating model configurations from which agencies may select to speed approval.
- Mobility enhancements are enabled by the continuing build out of radio towers across the Commonwealth for public safety use and the installation of public safety vehicle equipment that communicates using the towers.
- Regional State Police units are better able to share information regardless of geography as a result of the centralized Law Enforcement Management System.
- Numerous agencies work to continuously improve business processes as they install and adapt state-of-the-art central information systems.
- The centralizing of criminal images across law enforcement and transportation agencies improves officer convenience and citizen safety by permitting quick electronic access to needed identifying information. Images, including driver's licenses, mug shots, scars, tattoos, and other physical identifiers are being made available through these systems.
- Mechanisms such as the Public Private Education Facilities and Infrastructure Act (PPEA) and other cooperative public/private ventures continue to enable efficiencies to be considered as a result of willingness of the private sector to provide up-front investments in the Commonwealth's future.

Promoting Collaboration

- Currently, the Virginia Enterprise Application Program (VEAP) is collaborating with agencies to explore the applicability of a recently selected Business Intelligence (BI) tool for addressing agency business needs including data analysis and data reporting online. They are also exploring collaborative opportunities in human resources, financial management and performance budgeting.
- The Commonwealth's Information Technology Investment Board (ITIB) continues to support enterprise and multiagency collaboration opportunities as the primary ranking criterion in its Recommended Technology Investment Projects Report (RTIP).
- Consolidated central services both within and across agencies continue to enable efficiencies in the provision of backups, e-mail, desktops, call centers, data storage, telecommunications and networking.
- Centralized foundation and infrastructure services are constantly improving. Examples include: geographic information system (GIS) base maps; public safety radio networks; central voice over Internet protocol private branch exchange (VoIP/PBX) options; and cost-effective infrastructure services.
- Colleges and universities are sharing technical solutions for common problems through Virginia-based and national alliances. Both common IT solutions and common policy approaches often result from their collaborative efforts.
 - Eleven Virginia Universities now collaborate on enhancements to their common enterprise resource planning solution, Banner, which provides a full complement of student, staff, course, and financial information with Web interfaces for many processes.
 - Internet2, a member-driven group that focuses on networking improvements, is exploring: quality, cost-reducing and interoperable solutions for campus video; middleware solutions to aid universities in tracking identities for access and authorization across multi-organizational initiatives (called Shibboleth); and the best

techniques for providing video across greater distances (e.g., through wide-area networking).

- George Mason is heading up a multi-university initiative to investigate alternatives to computer labs that will provide virtual access to applications typically installed on these computers.
- Virginia universities continue cooperative initiatives for non-local data storage for purposes of disaster recovery. Virginia Tech and the University of Virginia (UVA) are working on such a solution.
- The Virginia Alliance for Secure Computing and Networking (VASCAN) continues to provide training events and explore solutions to such common problems as wireless security and protecting identities.
- Grant writing, especially involving universities and the federal government, is an area where many universities desire a common and well-integrated solution.
- UVA and other universities and libraries throughout the world continue to work with Google to scan select library resources in to a central searching system. The goal, Google reports, is to "create a comprehensive, searchable, virtual card catalog of all books in all languages."

Exploiting Technical Advances and Changing User Patterns

- Smart phones increase annually in the number of tools they provide, adding GPS capabilities and reference materials. Universities consider continuously how to use student smart phones as learning, collaboration, reinforcement, and support tools.
- Citizens, students, faculty and other agency staff become more deeply involved with social networking tools as part of their standard communication toolsets. Agencies and higher education are considering the costs and benefits of using these tools to improve collaboration and a sense of belonging in business and school settings.
- Universities are moving to international markets with their distance learning reach, including devising multi-university Master's Degree programs such as the new Master's in Addiction Studies being offered online by Virginia Commonwealth University, University of Adelaide in Australia and Kings College in London.
- VITA, with its IT infrastructure partner, has made a new wide area networking (WAN) backbone available to agencies that reduces delays and enables end-to-end transmission priorities. This solution is called Multiprotocol Label Switching or MPLS. This is used extensively to connect teleworkforce to agency internal networks.
- Several agencies are incorporating global positioning system (GPS) devices to drive efficiency and accuracy improvements in field-based data entry and emergency management system improvements. Example agencies include the Virginia Department of Transportation for maintenance services data entry and emergency road services, the Department of Forestry for mapping and field data collection and the Department of Health for inspection and epidemiological data entry.
- Agencies are moving away from inflexible legacy databases and increasing the use of modern, state-of-the-art tools, such as the Virginia Department of Social Services' Systems Partnering in a Demographic Repository (SPIDER), which provides real-time data sharing among localities, state agencies and federal agencies across disparate systems, greatly improving citizen service.
- Many agencies and universities are considering potential telecommunications cost savings by providing part of their communications across geographically dispersed business units and campus buildings via VoIP.
- University campuses, libraries, public spaces, conference rooms, police cars and other areas are being equipped with secure and open wireless access to countless systems and resources.

- Agencies are considering central document management strategies and opportunities such as the Library of Virginia’s Web archival system and the Virginia State Police’s archive system.
- The Commonwealth received a 2007² NASCIO award for its Department of Forestry Integrated Forest Information Resource System (IFRIS) projects. This award was for Information Communications Technology Innovations.

Targeting Accessibility

- Rehabilitative Services strengthens case management using technology to improve coordination across service providers.
- Aging and seven partner agencies target citizens over 65 and disabled adults with the “No Wrong Door” Web site which enables the finding of assistance avenues based on citizen-provided qualifying information. This project, in addition to being notable for improving accessibility, also won an award for innovative use of technology as a tool for more efficient and effective business processes. This 2007 Intergovernmental Solutions Award was made by the American Council for Technology (ACT).
- The Council on Virginia’s Future Web site was a finalist in the 2007 Intergovernmental Solutions Award competition sponsored by ACT. This Web site provides citizens with easy access to government performance information.
- Agencies have moved to implement Web site standardization and technology accessibility requirements, thus improving accessibility for people with disabilities and for the general public.
- Numerous systems currently being developed or modified will improve the anywhere/anytime accessibility of information, data entry and notification capabilities via Web interfaces that will assist citizens, the state’s workforce, police, students, faculty and other groups.
- 24x7 access to reporting systems, data entry systems and information stores is now common and continues to grow as a result of the ongoing efforts of agencies and universities.
- Proven tools for improving citizen convenience and public access are being rolled out to more areas of the state. Tools include: wireless access; toll booth vehicle Smart Tag capabilities; and integrated student, staff, finance, and classroom capabilities within universities and across community colleges.

Tables 1 and 2 below cite representative fiscal year 2008 (FY 2008) IT projects that impact economic efficiency, citizen convenience, and public access to government. Table 1 includes projects that were completed during FY 2008. Table 2 lists projects that newly entered the planning or implementation stage during FY 2008. The designations (X’s) in the table columns indicate a particular strength of each project with respect to the General Assembly’s three characteristics of interest (economic efficiency, citizen convenience, and public access to government).

² These awards are typically made after the publication of this report and are, therefore, reported for the prior year.

**Table 1
Representative Projects (Completed)³**

Agency	Project Formal Title	Economic efficiency	Citizen convenience	Public access to government
Governor's Office				
Governor's Office – Council on Virginia's Future	Business Climate Survey	X	X	X
Governor's Office - Commonwealth Interoperability Coordinator's Office (CICO)	Improving Communications to Save Lives	X	X	X
Administration				
General Services	Real Estate Portfolio Management	X		
Agriculture and Forestry				
No Recently Completed Projects				
Commerce and Trade				
Virginia Employment Commission	Virginia Workforce Network Information System (VWNIS)		X	X
Education				
Longwood University	Purchase and Install Enterprise Resource Program		X	X
Virginia Commonwealth University	Modernization of Communications Infrastructure—telephony replacement	X		
Virginia Commonwealth University	Administrative System Replacement	X	X	X
Virginia Commonwealth University	Modernization of Communications Infrastructure—progressive e911 implementation		X	X
Virginia State University	Re-engineer Core Business Processes	X	X	X
Finance				
Taxation	Virginia Tax Online Upgrade		X	X
Taxation	Remit Migration	X		
Health and Human Resources				
No Recently Completed Projects				
Natural Resources				
Game and Inland Fisheries	Administrative System Maintenance and Enhancement	X		

³ During Fiscal Year 2008

Agency	Project Formal Title	Economic efficiency	Citizen convenience	Public access to government
Public Safety				
State Police	Master Name Index	X		
Technology				
Information Technologies Agency	Emergency Management Mapping Application			X
Transportation				
Transportation	Electronic Toll Customer Service and Violation Enforcement System		X	
Motor Vehicles	PCs on The Front Counters		X	

**Table 2
Representative Projects (Planning or Implementation Stages⁴)**

Agency	Project Formal Title	Economic efficiency	Citizen convenience	Public access to government
Governor's Office				
No Projects in Progress				
Administration				
State Board of Elections	Campaign Finance Management System		X	
General Services	Consolidated Labs: Expand Electronic Messaging Capabilities	X		
General Services	Consolidated Labs: Expand Web Capabilities		X	X
General Services	Consolidated Labs: Replace Environmental LIMS	X		
General Services	Consolidated Labs: Upgrade Disaster Recovery System	X		
General Services	Performance Scorecard	X	X	X
General Services	Enterprise Application Alignment Project	X		
General Services	Purchase & Supply: Consolidation of the SWAM/DBE certification and eVA Vendor Registration systems	X		
General Services	Purchase & Supply: Warehousing System Modernization	X		
Agriculture and Forestry				
Agriculture & Consumer Services	Implementation of System Automation My License Application	X	X	
Agriculture & Consumer Services	Weights and Measure Software Implementation	X	X	

⁴ At the end of Fiscal Year 2008

Agency	Project Formal Title	Economic efficiency	Citizen convenience	Public access to government
Forestry	Integrated Forest Resource Information System - Forest Protection and Mobile Computing	X		
Commerce & Trade				
Board of Accountancy	Internal Licensing Application Replacement Software	X		
Business Assistance	Business One Stop Initiative		X	X
Professional & Occupational Regulation	Electronic Access to Government Licensing and Enforcement System	X	X	X
Mines, Minerals, & Energy	Field GIS System	X		
Education				
Jamestown-Yorktown Foundation	JYF Network Infrastructure and Bandwidth	X	X	
Radford University	Radford University Information System Project	X	X	X
Education	School Finance Program Revisions and Enhancements	X		
Education	School Information Program Revisions and Enhancements	X		
Education	Student Information Program Revisions and Enhancements	X		
Education	Supporting Systems Revisions and Enhancements	X		
Education	Education IT Expenditures in Localities	X		
University of Mary Washington	Facility Management System	X		
University of Mary Washington	Life-Cycle Business Systems Replacements	X		
University of Mary Washington	Teaching/Learning Support Systems		X	
James Madison University	University Advancement System Project	X	X	
Radford University	Voice Over Internet Protocol Telephone System Project	X		
Virginia Museum of Fine Arts	Centralized High Quality Digital Image Repository		X	X
Virginia Museum of Fine Arts	Enhanced Website		X	X
Christopher Newport University	Implementing the Banner Human Resources System on CNU Live	X	X	
Christopher Newport University	Relocation of CNU Center for IT Services	X		
Virginia State University	Staff Support Services	X		
Virginia Community College System	Administrative Information System	X	X	X
Virginia Community College System	New Human Resources Information System	X		

Agency	Project Formal Title	Economic efficiency	Citizen convenience	Public access to government
Finance				
Secretary of Finance	Enterprise Performance Budgeting	X		
Taxation	Channel Cost Savings	X		
Health & Human Resources				
Aging and seven partner agencies	No Wrong Door Initiative	X	X	X
Rehabilitative Services	Implement Core Integrated Case Management System	X	X	X
Rehabilitative Services	Integrated Fiscal System	X		
Social Services	MAPPER Conversion	X		
Social Services	Food Stamp Manual Revamp Program	X		
Medical Assistance Services	HIPAA Upgraded Transactions and Code Sets	X	X	
Medical Assistance Services	Claims Direct Data Entry via Medicaid Web Portal	X		
Mental Health	Facility Maintenance Management	X		
Mental Health	Medication Management	X		
Mental Health	Clinical Applications EMR	X		
Health	Electronic Birth Record	X		
Health	Electronic Death Registration	X		
Health	Enterprise Content Management	X		
Health	Health Statistics Data Warehouse Conversion Project	X		
Health	Rescue Squad Assistance Fund	X		
Health	VA Immunization Information System	X		
Health	Emergency Medical Services Registry	X		
Natural Resources				
Conservation and Recreation	Modernization of the Agriculture Best Management Practices Loan Tracking Program	X		
Environmental Quality	Document Management Implementation	X	X	X
Environmental Quality	Comprehensive Environmental Data System Reporting	X	X	
Environmental Quality	Water Quality Data Exchange Implementation	X		
Environmental Quality	Geographic Information System Infrastructure Upgrade	X		
Game and Inland Fisheries	Boat Registration and Titling System Re-Engineering	X	X	X
Game and Inland Fisheries	Business Process Management Software Deployment	X		
Game and Inland Fisheries	Customer Data Cleansing and Aggregation	X		

Agency	Project Formal Title	Economic efficiency	Citizen convenience	Public access to government
Game and Inland Fisheries	Customer Data Integration	X		
Game and Inland Fisheries	Customer Data Warehouse	X		
Game and Inland Fisheries	Time Accounting Re-Engineering - Development	X		
Historic Resources	Convert Data Sharing System	X		
Historic Resources	Digitize Virginia Historic Properties and Report Archive		X	X
Virginia Museum of Natural History	Adventure Classroom			
Public Safety				
Alcoholic Beverage Control	Point-of-sale System Replacement	X	X	
State Police	Central Criminal Image System	X		
State Police	Statewide Agencies Radio System (STARS)	X	X	X
State Police	Replacement of the Firearms Application		X	
State Police	Sex Offender Registry Website Enhancement			X
State Police	Digital Crime Scene Images	X		
State Police	Central Criminal Repository and Report System Improvements	X		
State Police	STARS Asset Management Tracking System	X		
State Police	CAD Mobile Mapping Interface	X		
State Police	Replacement and Enhancement of the Central Criminal History Application	X		
State Police	Automation of Motor Vehicle Inspection Program	X		
State Police	VA Intelligence Management System	X		
State Police	Replacement and Enhancement of the Statewide Incident-based Reporting System	X		
State Police	VA Criminal Information Network Message Switch Upgrade (multiagency)	X		
State Police	Upgrade of State Police Systems for Transmission of Motor Vehicles Photos (multiagency)	X	X	
State Police	Law Enforcement Activity Management System	X		
Veteran's Services	Clinical and Patient Billing System	X		
Veteran's Services	Financial Management System	X		
Emergency Management	Grants Management System	X		
Corrections	Warehouse Management and Control	X		
Corrections	Video Visitation System		X	
Corrections	Phase 2 and Phase 3 of the Commonwealth Offender Record Information System	X		

Agency	Project Formal Title	Economic efficiency	Citizen convenience	Public access to government
Correctional Enterprises	Correctional Education Bar Code Scanning System Solution	X		
Criminal Justice Services	New Private Security Database		X	
Technology				
Information Technologies Agency	Information Technology Accessibility Compliance		X	X
Information Technologies Agency	Financials Upgrade V8.4 to 9 Vendor Support	X		
Information Technologies Agency	Contract Management Solution	X		
Transportation				
Transportation	VA Criminal Information Network Message Switch Upgrade (multiagency)	X		
Transportation	Upgrade of State Police Systems for Transmission of Motor Vehicles Photos (multiagency)	X	X	
Transportation	Emergency Management's Grants Management System	X		
Transportation	Warehouse Management and Control	X		
Transportation	Equipment Management System	X		
Transportation	Pavement Management System	X		
Transportation	Virginia Traffic		X	
Transportation	Financial Management System	X		
Transportation	Eminent Domain Appraisal Software	X		
Transportation	Integrated Project Management 2.0	X		
Transportation	ProSight Project	X		
Transportation	Roadway Network System	X	X	
Motor Vehicles	Financial Management System	X	X	
Motor Vehicles	Purchase of VA Criminal Information Network Hot Files			
Motor Vehicles	Traffic Records Electronic Data System	X	X	
Motor Vehicles	Automated Routing Solution – Hauling Permits	X	X	
Motor Vehicles	Customer Contact Center Relocation and Reorganization	X	X	X
Motor Vehicles	Customer Management Queuing System	X		
Motor Vehicles	New Private Security Database	X	X	X
Motor Vehicles	Expand Document Imaging to Motor Carrier Work Center	X		
Aviation	Aircraft Registration System Upgrade		X	X

Governing from an Enterprise Perspective

The characteristics of interest to the General Assembly may be addressed by multiagency efforts and centralized services, in addition to being addressed by agency-specific IT projects. Several processes

are currently in place in the Executive Branch under the auspices of the ITIB, the Chief Information Officer (CIO), and VITA that facilitate the development and implementation of such enterprise-level solutions. These processes facilitate the Executive Branch's ability to rapidly identify opportunities and reap benefits. Example processes include the following:

- The ITIB, in partnership with agencies, is continuing its development and enhancement of the statewide enterprise business, information, solutions, and technical architectures. These frameworks, policies and standards help to improve enterprise-level understanding of the Commonwealth's business and to identify opportunities for multiagency solutions.
- On behalf of the Commonwealth, the ITIB and CIO published the *2007-2011 Commonwealth of Virginia Strategic Plan for Information Technology*, which offers technology direction and guidance for state agencies and institutions and supplies a foundation to base technology investment decisions supporting Virginia's business direction.

This plan was designed to be incorporated into Virginia's existing strategic planning and budgeting processes, and to be available to state agency decision makers as guidance on the direction of information technology in the Commonwealth as they prepare their strategic plans and budgets.

- The ITIB and the CIO review procurements and projects from an enterprise architecture perspective.
- The ITIB and the CIO encourage the use of the PPEA process to develop central solutions to address the needs of multiple agencies. The Commonwealth, through the ITIB, entered into a 10-year, \$2 billion public-private partnership agreement with Northrop Grumman to modernize the Commonwealth's information technology infrastructure and services. The partnership is managed by VITA and is providing an agile, streamlined 21st century infrastructure. The agreement includes services such as data centers, personal computing, server, and other hardware, voice and data networks, messaging, security and help desk services.
- The Commonwealth is working to modernize the state's enterprise applications through Virginia Enterprise Application Program, VEAP. This effort is currently focused on financial management, performance budgeting processes, and human resource application improvements that will benefit multiple agencies across state government.
- VITA provides statewide geospatial data including digital orthophotography, road centerlines and addressing capabilities that support GIS application development and use for agencies, local government, private sector companies and higher education. Examples of enterprise applications include voter registration and the Virginia Readiness, Response, and Recovery application to assist with emergencies.

Even greater efficiencies, accessibility, and convenience will be possible in the future by ensuring that tools and mechanisms are available to encourage enterprise-wide thinking. Centrally coordinated planning, business identification, solution generation, solution evaluation, and solution provision are key to strengthening enterprise-level effectiveness.

Conclusion

Almost all agency and government-wide information technology (IT) projects and procurements have a direct impact on improving economic efficiencies, citizen convenience, and/or service accessibility. For example, individual agency information technology (IT) projects often address business process improvements, worker productivity, availability and delivery of citizen services, Web accessibility, and operational efficiencies. Enterprise and multiagency initiatives often address collaborative opportunities, consolidations of IT infrastructure, or facilities management activities that improve economic efficiencies of state agencies and enhance their ability to deliver government services to citizens.

Under the auspices of the ITIB and CIO, IT investment management in the Commonwealth continues to promote efficient, accessible and convenient customer services. Furthermore, having adopted enterprise standards and consolidated the management of its IT infrastructure, the Commonwealth is in a better position to leverage that IT infrastructure to transform the delivery of government services. The Commonwealth will continue to promote collaborative enterprise-wide initiatives and appropriate agency specific solutions that provide cost-effective, customer-centric services.