Annual Report of the Secretary of Technology

The Honorable Jim Duffey

Secretary of Technology

Presentation to the Joint Commission on Technology and Science

December 6, 2010

Technology Priorities

- **Start-up Companies**

    - encouraging the creation and growth of high potential companies

- **Research**

    - positioning the Commonwealth as a hub for research and commercialization

- **Broadband**

    - retaining the Commonwealth's position as a national leader

- **Health IT**

    - expanding the deployment and adoption of electronic medical records and telemedicine

- **Information Technology**

    - creating an environment of increased accountability

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Start-up Companies - Objectives

- Encourage the creation and location in Virginia of high-potential companies that will attract follow-on investments allowing for rapid growth and head-count expansion

- Emphasize the need to supplement traditional economic development practices with a new "organic growth" paradigm that focuses efforts on creating companies around innovations developed in labs universities, and garages across the Commonwealth

- Utilize legislative and policy tools to encourage and stimulate high-potential start-up company formation

- Enhance entrepreneurial activity through the expansion of tools such as "Virginia Business One Stop" and the CIT "GAP" program

CIT – Making Virginia the "Go-To" State for Entrepreneurs

- During FY2010, **CIT provided SBIR grant education and facilitation services**
  - In November, CIT was awarded **$100,000 Small Business Administration contract for statewide Small Business Innovative Research grant education and support** services
  - **Thirteen statewide events were conducted for 271 participants**

- CIT's **GAP Fund accounts for 50% of all seed stage company formation in the Commonwealth**
  - **Current portfolio of GAP investments contains 39 companies that received $4M in funding**
  - **Over 2,000 potential investments have been evaluated** (80% tech, 15% life sciences, 5% other)
  - **Private sector investment attraction - for every $1 invested by CIT, private investors contribute $14. Since 2005, $55M in third party investment has been secured.**
  - Portfolio companies show an average of 277% increase in jobs after receiving CIT's investment.
  - In November, **CIT was notified that it will receive a $1M federal grant to establish a GAP Energy Fund.**

Incentives - Making Virginia the "Go-To" State for Entrepreneurs

In 2010 the Governor worked with members of the General Assembly to enact measures to incentivize the establishment and growth of businesses in the Commonwealth, including:

- **Capital Gains Exception** which grants income tax exemptions on capital gains related to qualified investments in technology, science or bio-tech start-ups

- **Small Business Jobs Grant Fund**, which supplies grants to small business owners that create at least 5 new full time positions in Virginia

- **Temporary Business Licenses**, which make it easier to open a business in Virginia

- **Major Business Facility Tax Credit,** which provides tax credits for major business facilities that create at least 50 jobs in economically distressed areas or enterprise zones

- **Enterprise Zone Job Creation Grants,** which changes the eligibility for enterprise zone jobs grants in areas with an unemployment rate of at least one and one-half times the state average

- **Green Jobs Tax Credit**, which grants a $500 per employee tax credit for every 'Green' job created

CIT – Making Virginia the "Go-To" State for Entrepreneurs

- **Innovation Index**
  - Regional planning project designed to synchronize state and local economic development resources
  - Implemented in conjunction with state's regional technology councils
  - Most councils have adopted the Index as a standing committee initiative and have produced an initial planning report
  - Planning process is structured to help identify emerging opportunities for new company formation and existing company expansion.
  - In November, the Virginia Chamber of Commerce selected the Roanoke region's Innovation Index as a finalist in its program recognizing economic impact in a community.

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Research and Development - Objectives

- Produce a statewide research and development strategic plan

- Position the Commonwealth as a leader in Research and Development across a variety of disciplines including bio-sciences, aerospace, and energy

- Serve as an advocate for increased licensing and commercialization of technologies developed in Virginia's universities

- Promote the use of development and use of technologies that increase energy efficiency and contribute to the "greening" of state government and the Commonwealth

- Emphasize the growing need for science, technology, engineering and math (STEM) education and workforce development

CIT – Positioning Virginia as a Hub for R&D

- **State-wide Research and Development Strategic Plan**
    - Through legislation, the Innovation and Entrepreneurship Investment Authority (IEIA) is directed to develop a comprehensive research and development strategy roadmap that will be used to help guide institutions of higher education in establishing research and development priorities.
    - CIT Board established a research and development committee to oversee the development of the statewide R&D plan (members: Alan Merten (GMU), Charles Steger (VA Tech), Linwood Rose, (JMU) Lydia Thomas (Noblis, Inc.), and Jim Duffey, (Secretary of Technology)
    - CIT Board chose to temporarily suspend plan implementation to synchronize the plan with the recommendations of Governor McDonnell's Higher Education Commission
    - CIT staff supported and developed recommendations for the Research and Development Committee of the Higher Education Commission
    - Plan development scheduled to begin in early 2011.
- **Federally funded research and development programs**
    - In FY2010, CIT secured $1.64M in federal funds for research programs in the fields of bioterrorism, mine safety, and marine science.
    - CIT was recently awarded an $782,000 research grant to lead a team of experts (CODAR Ocean Sensors - CA; Stinger Ghaffarian Technologies –Norfolk and Wallops, VA; Rutgers University – NJ; and Old Dominion and Norfolk State Universities, VA) to advance vessel detection technology.

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Broadband - Objectives

- Retain Virginia's reputation as a leader in broadband policy and programs
- Support the work of the Broadband Advisory Council
- Work with industry partners to facilitate the creation of public-private partnerships for service provision
- Promote the use of emerging technologies (wired and wireless) to speed affordable service deployment to unserved areas
- Emphasize the need for the development and deployment of applications and programs to spur adoption
- Participate in federal broadband initiatives including the National Broadband Plan and ARRA funding opportunities

Broadband Contracts (VITA)

- **VITA has negotiated 13 master broadband services contracts that are available for use by state agencies and municipal governments throughout the Commonwealth.**

- The contracts include the following broadband technologies: cable, DSL, fiber to the premise, private line, satellite, and range in speeds up to 100mbps. These contracts represent an expansion of broadband technologies and services by providing multiple services and coverage throughout the Commonwealth.

- Users of these contracts are protected by the contract terms and conditions, including defined service level agreements and cancellation clauses. Early termination fees are excluded.

- The contracts are designed to provide flexibility for VITA customers for example, customer are not required to commit to lengthy order or contracts terms. **Due to aggregation of IT services state entities and public bodies are experiencing considerable cost savings.** Benefits have already been noted by several public bodies.

Broadband Advisory Council

Council Legislation

- The council was codified during the 2009 legislative session (HB2423).

Council Meetings

- The Broadband Advisory Council met for the first time on August 24, 2010 in Lynchburg
- October 12, 2010 in Charlottesville
- December 10, 2010 in Abingdon

www.wired.virginia.gov

Council Members

- Delegate Kathy Byron (Chair)
- Heather Gold, XO Communications (Co-Chair)
- Senator Phillip Puckett
- Delegate Clarence Phillips
- Delegate Joe May
- Ray LaMura, VCTA
- Bryan David, Region 2000 Partnership
- Laura Lee
- Duront Walton, VTIA
- Secretary Jim Duffey
- Secretary Jim Cheng

Staff: Caroline Stolle (Center for Innovative Technology) and Karen Jackson, Deputy Secretary of Technology

Broadband Mapping, Planning and Demand Generation Funds (ARRA)

Awarded:

•**Center for Innovative Technology – VA state designee for national mapping initiatives through National Telecommunications and Information Administration (NTIA)**

•CIT awarded **$8 million for broadband mapping and planning** by NTIA (2010).

- Partners include the Virginia Geographic Information Network and Virginia Tech
- Purpose: to build on the initial map published in 2009, provide additional verification and validation, and align Virginia broadband data with requirements for National Broadband Map (2011)
- Mapping health IT and e-commerce usage
- Technical Assistance (Education and training)
- Broadband mapping assistance for national tribal lands

ARRA Broadband Infrastructure Award Recipients
Round One (NTIA /RUS)

- **Allegheny County/nTelos** – $16 million loan/grant combination from the Rural Utilities Service for middle/last mile in Alleghany County

- **Mid-Atlantic Broadband Cooperative** - $16 million grant from the National Telecommunication and Information Administration for build out of 465 miles of open access (middle mile) fiber in southside Virginia.

- **Virginia Tech Foundation** - $5.5 million grant from National Telecommunication and Information Administration to build 110 miles of middle mile fiber between Blacksburg and Bedford City.

- **Nelson County** - $1.8 million grant from RUS to build middle mile fiber from Afton to Colleen in Nelson County.

- **Page County** - $1.6 million grant from RUS to build middle mile fiber to a distressed population in the county (< 40% broadband penetration) and to connect town governments, first responders, schools, libraries, and the primary hospital.

- **Buggs Island Telephone Cooperative** - $19 million from NTIA to bring high-speed affordable (wireless) broadband services to 15 underserved counties and the cities of Emporia and Franklin in south Central Virginia.

ARRA Broadband Infrastructure Award Recipients
Round Two (NTIA /RUS)

- **Bristol Virginia Utilities** – (NTIA) $22.7 million for construction of middle-mile optic network (388 miles) for Bland, Buchanan, Dickenson, Russell, Smyth, Washington, and Wythe Counties covering 120 educational institutions and community organizations and within 2 miles of more than 18,000 homes and 500 businesses.

- **Utopian Wireless Corporation** – (RUS) $468,133 to bring Wi-Max infrastructure to communities in/around Mineral. Project estimates service approximately 4500 people, 400 businesses, and 50 other community institutions.

- **New Castle Telephone Company** – (RUS) $1 million to bring DSL to unserved establishments in Craig County. Project stands to benefit approximately 700 people, several businesses and other community institutions.

- **Citizen's Telephone Cooperative** - (NTIA) $9,327, 760 for middle mile in the New River Valley. Project will directly benefit more than 50 community institutions, 163,000 people and 1,300 businesses.

- **County of Rockbridge** - (NTIA) $6,993,399 for middle-mile in west-central Virginia. Project will directly benefit 50 community institutions, 33,000 people, and 1,300 businesses.

- **Mid-Atlantic Broadband Cooperative** - (NTIA) $10,023,247 for middle-mile in eastern Virginia. Project will directly benefit more than 66 community institutions, 84,000 people and 340 businesses.

ARRA Award Recipients – Infrastructure Round Two (NTIA/RUS)

- **Scott County Telephone Cooperative -** (RUS) received $7.45m in loans and $17.4 to provide fiber-to-the-premises (FTTP) broadband services to approx. 12,000 residents, 80 businesses and 16 community centers

- **LENOWISCO Planning District -** (RUS) received $6.06m in loans and $14.16m in loans to provide service to an estimated 42,000 residents, 1,550 businesses and 100 community institutions.

Bottom Line:

Total Broadband Infrastructure Funding for Virginia
(Rounds 1 & 2, RUS and NTIA)

~$155 million

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Health IT - Objectives

- Support the Secretary of Health and Human Resources' initiatives relating to the implementation of Health Information Technologies in the Commonwealth including the implementation of a Health Information Exchange (HIE), and efforts to increase the adoption and use of electronic medical records (EMR) and telemedicine applications

- Encourage partnerships to promote the widespread adoption of electronic medical records and telemedicine

- Collaborate with the Secretary of Health and Human Resources to maximize the leverage/impact of available funding across functional lines (alignment of broadband and EMR deployments)

Quantify and Monitor Health Provider "Connectedness"
(Federally funded through CIT's Broadband Planning Initiatives)

- Distributed On-Line Interactive Survey to more than 9,000 Providers in Commonwealth – Conducted Interviews with Major Health Systems

- Published Survey on More Than 25 State Agency and Medical Association Web Sites

- Enables Commonwealth to Assess Specific and Overall Health Care Broadband, Telehealth, EHR and HIE Adoption Rates

- Identifies and Monitors Specific Areas of Interest Including:

  - Providers Located in Areas where Sufficient Broadband Service is Unavailable or Unaffordable

  - Health Providers Served or Scheduled to be Covered by RUS/NTIA Funded Networks

  - Physician Practices Desiring Support from Virginia's HIT Regional Extension Center

  - Update Data Annually for 5 years (through NTIA funding)

Health IT Standards Advisory Committee (staffing provided by VITA)

- **Health IT Standards Advisory Committee (HITSAC) is** an advisory committee of persons with expertise in health care and information technology to advise the **Information Technology Advisory Council (ITAC)** on the utilization of nationally recognized technical and data standards for health information technology systems or software

- VITA provides staffing for HITSAC. R**esearching and documenting existing federal standards, developing and managing the HITSAC work plan, preparing draft standards documents for committee consideration, preparing presentations for the HITSAC Chairman and performing administrative functions**

- On November 18, 2010 **HITSAC formally approved the Commonwealth of Virginia Health Information Exchange (COV-HIE) Topic Report and recommended its incorporation into the Commonwealth's Enterprise Information Architecture standard**.

- Based on a recommendation from the members of HITSAC, **VITA organized and sponsored technical (HL7) training for 45 individuals .** This training lays the foundation for developing and implementing standards for messages containing health and health-related data.

CIT – Virginia's Health IT Regional Extension Centers (*national initiative*)

- CIT in conjunction with the Virginia Health Quality Consortium (VHQC) successfully secured a $12.4M performance based co-operative agreement to assist over 2,200 physicians implement medical records

- To-date, the Virginia Health IT REC has signed-up over 600 physicians for program participation.

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Information Technology - Objectives

- Provide the Governor with innovative and cutting-edge solutions to increase productivity and reduce IT costs in state government

- Create an environment of increased accountability and authority between the CIO and the Executive Branch

Information Technology – Outcomes *(overview)*

VITA – Revamped in 2010

- SB 236/HB 1034 enacted March 11, 2010
  - Legislation provides for a direct reporting relationship between the CIO, the Secretary of Technology and the Governor. Implemented multiple JLARC recommendations.
- Governance changes:
  - Information Technology Investment Board eliminated and replaced by the Information Technology Advisory Council (ITAC)
  - CIO appointed by Governor
- IT projects
  - Definition of "major IT project"
    - Goal: complete by end of 2010
    - Based on complexity, not just cost

Information Technology – Outcomes (*overview*)

VITA – Agency Transformation Status

Overall status as of 12/6/2010	
Total	89
Complete	71
Remaining	18
Scheduled signed	13
Scheduled, not signed est. CY2011	*5
*DFS, DMAS, VDEM, VEC, VSP	

Information Technology – Outcomes (*overview*)

Comprehensive Infrastructure Agreement Contract Revised – March 2010

The revisions set the tone for a more productive working relationship

Performance improvements

- Expedites service and response
- Provides agencies greater flexibility over administrative tasks
- Improves speed and quality of procurement and service requests
- Overhauls help desk services
- Adds new services and pricing options
- Moves desktop upgrades forward

Accountability & operational efficiencies

- Consolidates and strengthens Service Level Agreements (SLAs)
- Increases SLA penalties by 15%
- Creates a clear, faster dispute resolution process
- Establishes three-month review period to ensure performance

Financial

- Extends contract three years
- Allows billing from a re-baselined inventory
- Provides for more detailed billing

Operational Improvement Initiatives – Current Status *(overview)*

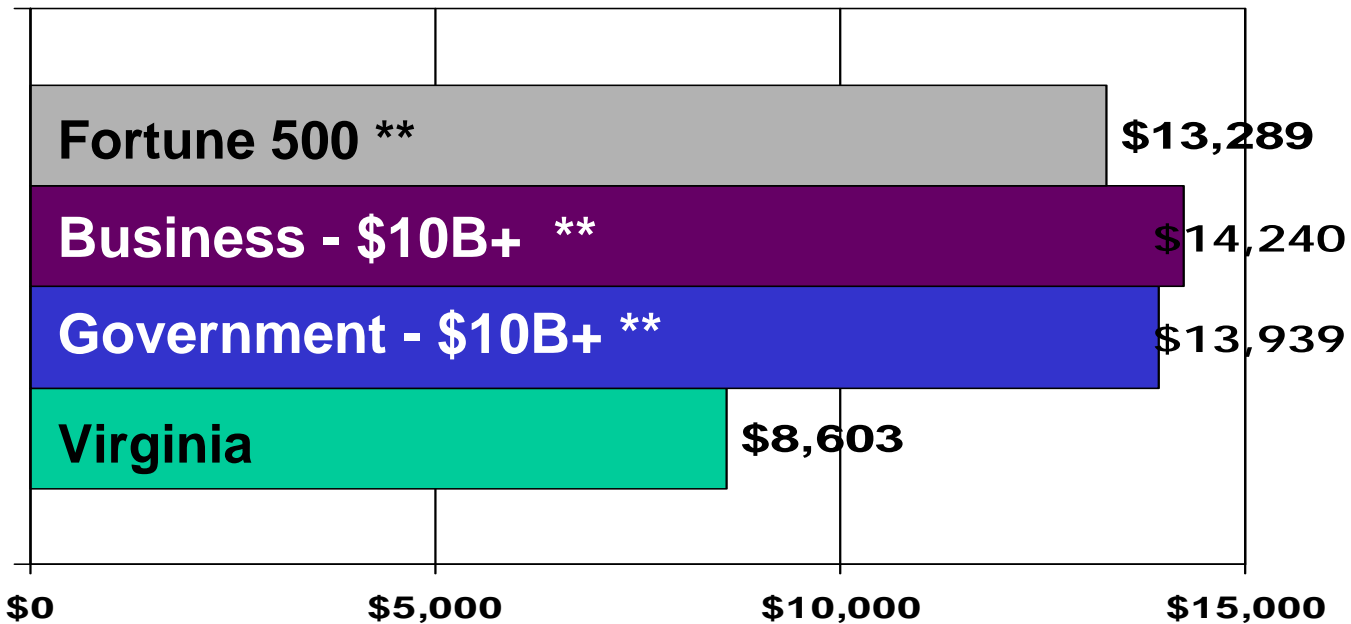| Initiative	Implementation Status	In Service	Presentation
Rapid Response Team		Y	22-Sep
Inventory/Billing Disputes		Y	22-Sep
Laptop/Desktop Depot Service		Y	30-Sep
Expedited Shipping for Replacement Laptop/Desktop		*	27-Oct
Work Request Process & Tech Architecture/ Solutioning Re-Design		Y	27-Oct
Agency Tech Lead Empowerment		Y	10-Nov
Help Desk Re-Design		Y	10-Nov
Storage Management			Late November
Inventory Errors			December
Work Request and Procurement Processing Times			December

VITA – Accomplishments

- Completed transformation for 78 of 89 agencies -- 48 of which were completed in 2010

- Reduced VITA's operating budget by $3.75 million

- Launched the Information Technology Advisory Council (ITAC)– to advise the Secretary of Technology and the CIO on agency business priorities.

- Received JLARC approval for new rates that adequately cover services offered; worked with the Governor and budget staff to provide proposed general fund appropriations for agencies to assist with payment of these new rates

- Implemented the first phase of an all-new Performance Budgeting system - a major enterprise application that replaced three legacy systems and the 30-year-old Commonwealth budgeting system

- Protected the security of information by fending off more than 124 million cyber attacks

- Helped obtain $7.6 million in broadband mapping grants and $1 million for enhanced E-911 services to establish a footprint for next generation 9-1-1 services in Virginia

- Allocated $15.6 million to upgrade/enhance public safety answering points (PSAPs) in localities across the Commonwealth

- Helped the Department of Education obtain a $17.5 million grant to track student information over multiple years in multiple schools

How does Virginia's IT spend compare?

FY09 IT spend as annual cost per employee *

Fortune 500 **	$13,289
Business - $10B+ **	$14,240
Government - $10B+ **	$13,939
Virginia	$8,603

$0 $5,000 $10,000 $15,000

***** Executive branch agencies "in scope" to VITA**

Sources: Dept. of Planning and Budget Web site   ** Gartner IT Key Metrics Data 2009
JLARC 2009 IT spend analysis, *Review of VITA*   Dept. of Accounts FY09 IT payroll data

Other Initiatives

- HJ130 (Poindexter, 2010) **Study; feasibility of developing a standard software package for local governments; report.** Requests the Secretary of Technology to study the feasibility of developing a standard software package for local governments. The Secretary of Technology shall also study the feasibility of identifying, developing, and customizing software applications that will improve the administration and operation of local programs and services, while providing cost savings. (Report submitted 1/11)

- Assisted Department of Business Assistance with the redesign of Virginia "Business One-Stop" portal

- Development of Cyber-Security Report (due out in 2011)

For More Information:

The Honorable James D. Duffey, Jr.

1111 E. Broad Street

Richmond, VA 23219

804-786-9579

Jim.duffey@governor.virginia.gov