



The Virginia Information Technology Infrastructure Partnership **ANNUAL REPORT**

Improving Technology and Wiring Virginia
for the 21st Century

July 1, 2006, through June 30, 2007



NORTHROP GRUMMAN

Marking the First Year of the IT Infrastructure Partnership

On July 1, 2006, the Virginia Information Technologies Agency (VITA) and Northrop Grumman embarked on a ground-breaking project to transform state government IT services in the Commonwealth. This annual report reviews the accomplishments and challenges during the first year of our IT Infrastructure Partnership, and looks at our vision for the future.

In just 12 months, we have made significant progress. Among our noteworthy achievements to date:

- Completion of a new Tier III data center in Chesterfield County and occupancy by both VITA and Northrop Grumman staff
- Construction of a new Tier II back-up data center in Lebanon, Russell County, that will open later this year and create more than 400 jobs over the next three years
- Consolidation of 90 servers down to 16 servers
- Replacement of more than 6,000 desktops and installation of new mainframe and server hardware
- Enterprise security operations enhancements
- A new help desk management system and global e-mail address list
- Improved ability to measure performance

We also faced a number of challenges that have helped us come together as a team, including: adapting to the unique needs of 85 diverse customer agencies; uncovering infrastructure much older than previously anticipated; troubleshooting equipment challenges; and, analyzing our strengths and weaknesses to improve service.

While we have only just begun to transform state government's IT infrastructure and improve services, the progress we have made and the partnerships we have built in this first year have laid a solid foundation for the future. Moving forward, we will build on that foundation to create a secure and efficient state government IT environment for the benefit of the Commonwealth and its citizens.

Lem Stewart

Chief Information Officer
Commonwealth of Virginia

Hugh Taylor

President, Commercial, State and Local
Northrop Grumman Information Technology

Fred Duball

Service Management Organization Director
Virginia Information Technologies Agency

Joe Fay

IT Infrastructure Partnership Program Director
Northrop Grumman Information Technology



*Fred Duball, Lem Stewart,
Hugh Taylor and Joe Fay*

Bringing Innovative IT Solutions to Virginia

As consumers of government services, our safety, health, employment, economy, education, mobility and even recreation depend on information technology. IT is the vital mechanism through which state government agencies provide critical services to Virginia's 7.6 million residents. Until recently, the IT infrastructure supporting that mechanism was segmented and outdated with little chance for an infusion of improvement funds.

That's when the IT Infrastructure Partnership was formed between VITA and Northrop Grumman. The partnership provides the resources and expertise needed to bring state government's IT Infrastructure into the 21st century and ensure that taxpayers receive critical services as quickly, effectively and cost efficiently as possible.

Delegate Sam Nixon, who represents a portion of Chesterfield County, was instrumental in passing legislation needed to create the IT partnership. "Our vision was to adopt a more business-like approach to managing the state's information technology resources. It didn't make sense for the state to operate literally hundreds of systems in silos," he said. "The IT partnership is the partial fulfillment of that vision. It has enabled Virginia's government to leverage experience, buying power and resources to increase taxpayer value while creating a stronger and more secure IT environment."

Through the 10-year, \$2 billion public-private partnership between VITA and Northrop Grumman, the Commonwealth will realize the benefits of that vision with the construction of a modern and secure infrastructure of computers, networks, mainframes and servers and the adoption of consistent processes to secure and support that infrastructure. A technology transformation on this scale would not be possible without the capital investment of a private partner, such as Northrop Grumman. VITA and Northrop Grumman are working together to provide modern IT services with measurable results at predictable costs.



Delegate Sam Nixon supported legislation needed to create the Virginia Information Technologies Agency (VITA) and ultimately, the IT Infrastructure Partnership.

"The IT Infrastructure Partnership has enabled Virginia's government to leverage experience, buying power and resources to increase taxpayer value while creating a stronger and more secure IT environment."

– Delegate Sam Nixon

Commonwealth Enterprise Solutions Center (CESC)

Following the May 2006 groundbreaking, construction on the Commonwealth Enterprise Solutions Center (CESC) progressed according to plan. The building, which contains a state-of-the-art Tier III data center, opened for business on July 1, 2007. It is located in Chester.



Southwest Enterprise Solutions Center (SWESC)

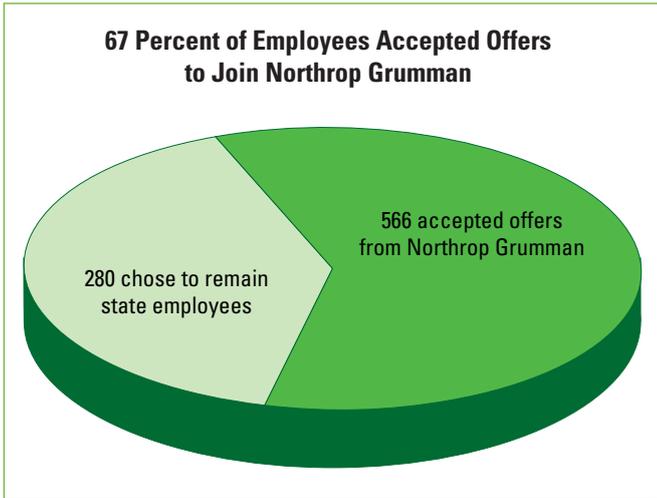
In late October 2006, we began construction on the Southwest Enterprise Solutions Center (SWESC). The building, shown to the right, is expected to open in fall 2007. It is located in the town of Lebanon in Russell County.



A Successful Employee Transition

Everyone working on or supporting the VITA-Northrop Grumman IT Infrastructure Partnership knows that a project of this size and significance is driven by more than process and technology – ultimately, it is our people who will make it a success. That is why VITA and Northrop Grumman focused on employees from the outset.

VITA and Northrop Grumman invested time and money ensuring that experienced state IT employees could remain with the state or join Northrop Grumman to work on the partnership. Meetings were held across the Commonwealth to answer questions and explain transition opportunities. The ultimate decision was up to each individual employee, and could be made depending on his or her professional/personal situation.



More than 845 VITA employees were offered positions with Northrop Grumman, and 566 – or 67 percent – accepted.

Employees who transferred to Northrop Grumman received:

- salary increases
- promotion and training opportunities
- sign-on bonuses
- transfer of state service for benefits
- enhanced savings plan contributions in addition to the standard company match

Employees who determined that, for their individual circumstance, it was better to remain a state employee and work on the project are now managed by Northrop Grumman.

On the day Northrop Grumman took over responsibility for the delivery of IT infrastructure services, officially called service commencement date, leaders from both VITA and Northrop Grumman met with employees to answer questions and celebrate the partnership’s beginning.

“VITA and Northrop did a great job answering our questions and helping each of us make the right individual decision,” said Rose Schleifer, IT Lead at Western State Hospital and a former VITA employee. “I chose to join Northrop Grumman to work for a well-known company and to be part of this incredible project for the Commonwealth. I now have more opportunities to grow both personally and professionally with a company on the cutting edge of technology advances.”

Throughout the year, VITA and Northrop Grumman worked to create a team with shared goals, standards and expectations, and to help employees adjust to the new work environment. As we move into 2008, we will continue to support VITA and Northrop Grumman employees by obtaining their input on how to best implement new technology that addresses customer needs and by listening to their concerns and challenges.



Hugh Taylor; Dr. Ronald Sugar, President and CEO, Northrop Grumman Corporation; and Lem Stewart answer employee questions during the celebration of Northrop Grumman's service commencement.



Rose Schleifer, a former VITA employee, transitioned to Northrop Grumman.

“With Northrop Grumman, I have more opportunities to grow both personally and professionally with a company on the cutting edge of technology advances.”

– Rose Schleifer

Investing in Transformation

As part of the \$2 billion partnership agreement, Northrop Grumman is investing \$270 million up front to standardize and modernize the state government’s IT infrastructure capabilities to better serve the Commonwealth’s state agencies, higher education institutions, private sector businesses and citizens. Over three years, the IT infrastructure will be transformed into a reliable and secure 21st century network. Work already is underway to deploy many of the new service offerings.

Department of Corrections (DOC), the largest Executive Branch agency in Virginia, stepped forward to be among the first agencies to refresh desktop and laptop computers. “The desktop refresh process is going smoothly,” said DOC Chief Technology Officer John Taylor. “We experienced some of the hiccups that come with a new environment where people are doing new things, but we are working through them. There will be big benefits for state government and for citizens when everything is in place.”

■ **New Desktop Computers (\$35 million)**

Replacement and standardization of more than 50,000 computers in 85 state agencies over three years will provide modern desktop, laptop and tablet computers for state employees. The computer refresh will improve compatibility and service.

Status: 6,058 desktops have been replaced in five agencies and additional refreshes are planned.

■ **Better Mainframes and Consolidated Servers (\$50 million)**

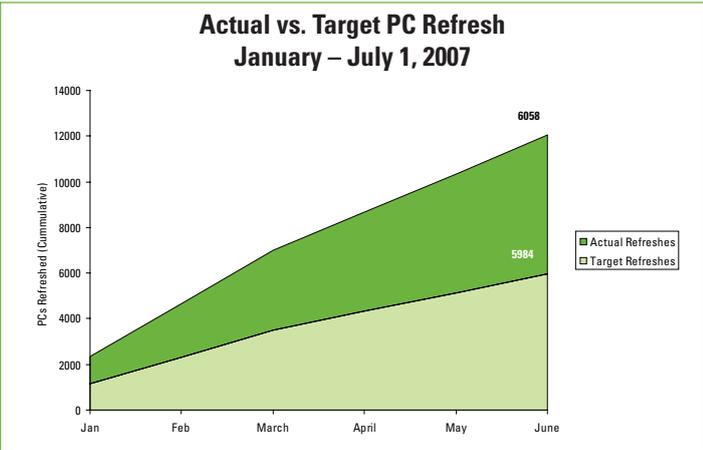
New mainframes will be installed in the data centers. Servers also will be modernized, consolidated and moved to the data centers, which offer a more secure location where the equipment can be closely monitored and more quickly accessed for servicing.

Status: New mainframes at CESC will be tested within the next few months; 90 agency servers located at VITA headquarters in Richmond were consolidated onto 16 machines.

■ **Centralized Help Desk (\$10 million)**

A centralized IT help desk will offer a range of initial call support and a coordination point for fast and effective problem resolution.

Status: Peregrine – a new help desk management tool to help track and resolve calls – currently is being used at seven state agencies and soon will be available at 14 additional agencies.





Wayne Williams answers help desk calls.

- **Two New Data Centers (\$60 million)**

The Commonwealth Enterprise Solutions Center (CESC) in Chesterfield County will be the primary data center, while the Southwest Enterprise Solutions Center (SWESC) in Lebanon, Russell County, will serve as the back-up data center and will house a centralized help desk. The SWESC will create will create more than 400 new jobs in economically challenged Southwest Virginia.

Status: Construction of the CESC is complete; VITA and Northrop Grumman staff members have moved into the facility and the data center will be moved in the fall. The SWESC is on schedule for completion this fall.

- **Improved Network (\$60 million)**

The new central, multi-service network being built across state agencies will be more robust, reliable and secure than ever before. Internet connections will be consolidated, increasing security and reliability.

Status: Network migration pilots have begun.

- **Global Messaging Services (\$25 million)**

There will be a centralized, secure messaging system with a single global address list that will make communicating across agencies faster, safer and easier.

Status: The expanded global e-mail address list is complete, and a pilot deployment has begun to create a single enterprise-wide messaging system. Also, nearly 50,000 users in 38 agencies now have Ironport software, which protects e-mail from spam and viruses.

- **More Reliable Telephone Services (\$20 million)**

New phone service using the Internet will result in better and more efficient service.

- **Enhanced Security (\$10 million)**

A secure Internet gateway, an enterprise security operations center and a computer security incident response center will ensure critical information is protected.



Jim Mullins works to configure a switch for the data center network.

Improving Service

IT Infrastructure Partnership customers expect first-class service and solutions to meet their unique business needs, and VITA and Northrop Grumman are committed to providing them. There are approximately 68,000 computer users working at 85 Executive Branch agencies in Virginia. Over the first year of the partnership, we standardized and expanded the data collected for Commonwealth infrastructure performance and made measurable improvements to service delivery. We also put contracts in place to save money and improve reliability.

Desktop PC Contract Awarded

In November 2006, Northrop Grumman awarded a contract to provide more than 50,000 PCs at a bulk price and set a standard PC platform for the Commonwealth. Nearly 300 staff members are in the process of becoming certified in order to provide faster, more effective and knowledgeable service for our customers.

Software Contract Negotiated with Microsoft

Northrop Grumman also recently negotiated a single enterprise agreement with Microsoft to purchase software at a bulk price. The agreement replaces scores of individual license agreements with Microsoft that have proven difficult to track, maintain and transfer to new equipment. This new contract will improve efficiencies and ensure that customers receive timely software updates and anti-virus patches.



Jim Rosen uses his HP certification to service a PC.



Velma Munro updates software on a VDOT laptop.

Measuring Performance

Over the course of the year, performance measures and objectives were put in place to help track progress toward meeting customer needs. The new measures already have helped identify areas where additional resources may be needed. Initial metrics show increased use of help desk services and improved ability to meet service objectives. We will continue to monitor and improve all service areas over the months ahead.

Increase in Service Level Objectives Met

All 10 major service level objectives were met or exceeded for central operations throughout most of the program year from July 2006-June 2007. Improvements were made to correct areas with a "red" status.

Help Desk Responds to More Customers

Over the course of the year, help desk services were expanded to include more customers, and as a result, the Virginia Customer Care Center (VCCC) is handling nearly double the call and e-mail volume recorded in July 2006. The average help desk call is answered within 18 seconds and is resolved within five minutes.

Help Desk Meets Customer Expectations

More than 1,500 customers responded to a help desk satisfaction survey between February and June 2007; a majority of respondents were very satisfied with their overall help desk experience.

Performance Against Service Level Objectives

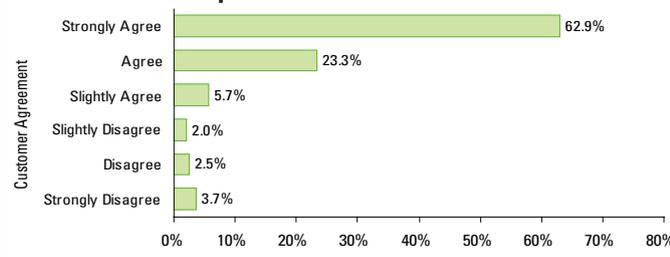
Measure	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.
Speed to Answer	Objective Met	Objective Exceeded	Objective Met	Objective Exceeded	Objective Exceeded	Objective Met	Objective Met					
Call Abandon Rate	Objective Exceeded	Objective Exceeded	Objective Met									
Email Response	Objective Met											
Voicemail Response	Objective Met											
First Call Resolution*	Objective Exceeded											
Messaging System	Objective Met											
Mainframe Availability	Objective Met	Objective Exceeded										
Server Availability	Objective Met											
Circuits Availability	Objective Met											
Security Reporting	Objective Met											

*Change in October to industry standard measure for first call resolution.

Help Desk Contacts July 1, 2006 – June 30, 2007



Helpdesk Overall Satisfaction



Improving Disaster Recovery

A disaster can be a hurricane that destroys millions of homes or a mainframe outage that prevents custodial parents from receiving child support checks on time. Whether the disaster is widespread or limited, it is important to recover quickly. Improving disaster recovery and response is a priority for the IT Infrastructure Partnership.

In September 2006, we supported Virginia's Emergency Operations Center during Tropical Storm Ernesto

In early September, VITA and Northrop Grumman employees played an important role in disaster recovery for Tropical Depression Ernesto, which caused \$118 million in damage in the Commonwealth. VITA and Northrop Grumman provided around-the-clock on-site technical support at Virginia's Emergency Operations Center in Richmond, connecting more than 200 visiting emergency responders to the network and helping to maintain the critical IT components of the facility.

"Our mission relies on seamless and consistent technology that helps us monitor power outages, access health system and transportation information, and maintain a holistic view of what is occurring throughout the state during an emergency. It is how we coordinate relief efforts," said Michael Cline, state coordinator for the Virginia Department of Emergency Management. "Over the last few months, the IT partnership has made significant progress in supporting the Virginia Emergency Operations Center's IT needs."



Senior IT Engineer Brian McClellan provided IT support to emergency responders during Tropical Depression Ernesto.

In April 2007, we held our annual Disaster Recovery Test

More than 100 IT partnership employees participated in an annual disaster recovery exercise in April. They practiced restoring critical systems for 13 Commonwealth agencies. The test lasted 72 hours and simulated an actual disaster, requiring staff to restore more than 11 million individual files and 4.5 terabytes of information.

“We conduct the test each year in order to train and prepare our staff members, and it helps us uncover unforeseen problems that we can learn from and incorporate into our disaster recovery procedures before we encounter them in real life,” said Service Delivery Manager Mike Shaffer, who oversaw a large portion of the planning and testing effort.

Following this year’s test, recovery plans were updated to improve test team communication and include multiple recovery scripts for different situations.

With the move to the CESC just outside of Richmond and construction of the SWESC in Lebanon, Russell County, capabilities will continue to evolve into one of the most comprehensive government disaster recovery offerings in the country. Customers covered by the SunGuard contract will receive these enhanced disaster recovery benefits as they become available. Other customers will have the option to add these services at affordable rates and benefit from the knowledge that their critical systems will be safeguarded during emergency situations.

In June 2007, we repaired a mainframe outage and learned valuable recovery lessons

In mid-June, a series of nearly simultaneous hardware failures impacted customer service at several state agencies that use one of our mainframes. This event challenged our problem-solving capabilities and illustrated the need for an improved IT infrastructure. As partnership employees worked to recover from the failure, they noted issues that will be resolved over the next few months as equipment is upgraded and moved to CESC. The SWESC also will offer back up systems that can be activated in such situations to restore service more quickly. Until these upgrades are made, older equipment will be closely monitored and proactively replaced as needed.



Jim McDonald, Joe Royal, Ellen Morrisette and Brent Trefsgar worked through the night to recover critical agency information during the disaster recovery test in April.



Sam DiPersio and Jack Ek closely monitor mainframes from the master console area in Richmond.

Investing in Virginia

As part of a 10-year contract, Northrop Grumman will provide IT services for state government. By consolidating and upgrading the current IT infrastructure, Northrop Grumman, under the direction of VITA, plans to make IT services faster, more efficient and cost effective. Under the IT partnership, the Commonwealth will continue to receive IT services over the next 10 years at the same contract price.

In addition to investing in the Commonwealth's IT Infrastructure, VITA and Northrop Grumman are investing in the community through local partnerships, including the University of Virginia's College at Wise (UVa-Wise), Southwestern Virginia Community College, Mountain Empire Community College, Southwestern Virginia Second Harvest Food Bank and Central Virginia Food Bank.

Improving Information Technology Education and Career Opportunities

Last September, Northrop Grumman announced a \$1 million commitment to enhance the University of Virginia at Wise's new software engineering degree program, the only one of its kind in Virginia. The grant supports a public-private partnership with UVa-Wise in which Northrop Grumman, with support from the Virginia Coalfield Economic Development Authority (VCEDA), committed to a wide-ranging program to strengthen both the college's technology curriculum and the company's workforce recruitment efforts in Southwest Virginia. Also in partnership with VCEDA, Northrop Grumman announced \$250,000 grants for both Southwest Virginia Community College and Mountain Empire Community College.

Feeding the Hungry

Two annual Feed the Truck food drives, sponsored by Southwest Second Harvest Food Bank, Northrop Grumman and VITA, have helped feed more than 200 families across 11 counties and two cities in Southwest Virginia. Additionally, employees contributed to a food drive at VITA headquarters that benefited the Central Virginia Food Bank and donations were made to the Richmond Meals on Wheels program. In June 2006, the Southwestern Virginia Second Harvest Food Bank honored Northrop Grumman and VITA for their commitment.



Northrop Grumman Information Technology Sector Vice President Steven R. Perkins presents a check to UVa-Wise Chancellor David J. Prior and Virginia Coalfield Economic Development Authority Chair Mark Wooten.



Phillip Hatfield, Russell Boland, Tammy Helms and David Jones help collect canned goods for the Central Virginia Food Bank.

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