

# BACON'S REBELLION

The Op/Ed Page for Virginia's New Economy

## Curriculum VITA

**The overhaul of the Commonwealth of Virginia's antiquated IT system is a textbook study of how government can improve performance and save money - without a dime of taxpayer investment.**

By James A. Bacon

Lemuel C. Stewart vividly remembers his first day on the job, in 2005, as chief of the Virginia Information Technologies Agency (VITA). The agency had recently been created to rationalize the Commonwealth of Virginia's fragmented, outdated and expensive information technology system. Attending a hearing of the Senate appropriations committee, Stewart presented an overview of what the agency hoped to accomplish and how it needed \$300 million to do it.

The hearing went smoothly until the end, Stewart recalls. "The chairman looked at me and said, 'You know what? We don't have any money to do this with.'"

Stewart spent the next 90 days devising a fall-back plan: Virginia would engage a private vendor to join in a public-private partnership, contribute the up-front investment capital, and recoup its investment over the life of the contract. As Stewart recapitulates what he was asking for: "You put up the money, assume all the risk,

and cap expenses at 2005 levels for 10 years."

The proposal, the first such state IT outsourcing in the country, attracted bids from four major national players. In the end, Northrup Grumman, the Northern Virginia defense and IT giant, snagged the job with a promise to invest \$270 million to be repaid over 10 years, and to cap expenses at \$236 million a year (with adjustments if the scope of services increased). As VITA went about consolidating the state's IT administration, Northrup Grumman started building the hardware backbone for a statewide infrastructure, including the state's IT nerve center, the state-of-the-art Commonwealth Enterprise Solutions Center (CESC) south of Richmond, a back-up center in Southwest Virginia, and a telecommunications system to tie everything together.

Expectations were high. By consolidating hardware and services that had been scattered among dozens of agencies, VITA's champions had promised to drive down costs and reap millions of dollars yearly in savings that lawmakers could apply to other

priorities. Today, three years after Stewart's arrival, functions are moving to the enterprise solutions center and VITA is nearing the end of the restructuring process.

But not everyone is happy. Many government employees are saying, "Show me the money!" Some agencies are actually paying *more* for IT services today than before the much-vaunted reform. Some state employees assert that service is worse. (See [End Note One](#).)

Complaints reached such a fever pitch that Gov. Timothy M. Kaine put language in the fiscal 2009-2010 budget that would have transferred IT procurement from VITA to the Department of General Services -- a startling rebuke had it been carried out. The administration subsequently backed off that idea, but Sen. Ken Stolle, R-Virginia Beach, introduced a [bill](#) directing the Joint Legislative Audit and Review Committee (JLARC) to evaluate the cost, quality and value of services that VITA provides state agencies. That bill passed the state Senate and is now under consideration by the House of Delegates.

Against that background, VITA chieftain Lem Stewart responded to a post on the *Bacon's Rebellion* blog in which I had queried whether the agency was living up to its promise. He invited me to

the state's new facility for a tour and an interview. I accepted the offer, and I present here what I saw and heard. This is only one side of the story, but I offer it in the hope that it will stimulate a constructive conversation about an issue that has received only sporadic public attention.

There can be no disputing the fact that VITA has implemented major improvements to the state's IT system, although many of the benefits may be less than apparent to the end users, the state agencies. Benefits include:

- Greater security from a catastrophic failure of the system due to a hurricane, hackers, saboteurs or some other external cause.
- A statewide IT system built on 2000s-era technology, a big upgrade from the '80s-era technology that served about 60 percent of the state bureaucracy.
- Leveraging the state's size to drive down the price of PCs and applications, saving tens of millions of dollars each year.
- Electricity savings from energy-efficient PCs, servers and other hardware -- the benefit for which shows up in agencies' electric bills, not their IT budgets.
- No IT project failures, in contrast to a track re-

cord of tens of millions of dollars in pre-VITA projects that crashed and burned.

Before VITA, there were more than 90 autonomous IT shops: in effect, one for each agency. There was massive duplication of resources, obstacles to information sharing, and no ability to leverage the state's buying power. Although there is still work to do, Stewart says, VITA has remedied those deficiencies to a significant degree.

#### **Security and redundancy.**

Pre-VITA, the state IT control center was located in a rehabbed warehouse in Richmond near the Interstate. "The facility met virtually no relevant security standards," Stewart says. The building leased out space to non-state workers, and it contained a parking lot that took in renters from nearby businesses. There was even a cafeteria that served the public. The circumstances made it all but impossible to control access.

The most visible change to the state's IT system can be seen at the Commonwealth Enterprise Solutions Center in a remote, hard-to-find facility in southern Chesterfield County. The facility meets Tier 3 security standards, just below that of the military. Cameras watch every movement outside -- the artificial intelligence can spot someone leaving a briefcase unattended -- and the building is protected by an array of ornamental stone barriers strong enough to halt any-

one, such as a car bomber, who might try to plow into the building. The facility also is built to withstand 155 mile-per-hour hurricane winds.

In case the electricity goes out at its main Dominion power station, CESC connects to a second, separate sub-station. In case both sub-stations go out, the center can draw upon its own diesel generators with enough fuel on hand to run for 72 hours. In case one of the two generators blows a gasket, there's a third standing by. Plus, there's a massive array of truck-sized batteries to supply surge power for the 12 seconds it takes the diesel generators to kick in.

Security is tight indoors as well: card swipes at corridor doors, roving guards, and a biometric, fingerprint scan to reach the inner sanctum. Deep inside the facility, a team of professionals guard against viruses, hackers and other cyber threats. Coordinating with national and international organizations, the security team monitors hundreds of threats around the world and on any typical day hones in on five or six that might pose a risk for the state IT system. It was not uncommon for security threats to penetrate the old, decentralized system, says Fred Duball, director, service management. So far, there have been no breaches at the CESC.

In the remote chance that a

natural disaster or terrorist act took out the Chesterfield facility, the Commonwealth maintains a back-up facility in Russell County that can get the state IT system back up and running within 24 hours. In pre-VITA days, someone would have had to run magnetic back-up tapes to a facility in Pennsylvania where it would take three days to get the state operating again.

All that security and redundancy costs money, and the value of that expenditure may not be readily apparent to state agencies -- until some terrible mishap occurs. If the state IT system crashes during a disaster or emergency, there would be no calculating the cost from the disruption to state operations.

**New technology.** The quality of IT services under the old regime was very uneven, Stewart says. Large organizations like the Department of Corrections and the Department of Transportation ran strong IT operations. But many smaller agencies did not; they limped along on antiquated equipment. Sixty percent of state equipment was eight to 10 years old, and the technology environment dated back to the '80s.

When Stewart came on board, he found PCs with 286-generation computer chips still in use. The warranties on many PCs had run out, and no one was servicing them. Indeed, some were so old they couldn't be ser-

viced. The machines were prone to breakdowns, and they had limited functionality. The statewide VITA standards ensure that state workers are equipped not only with faster, more reliable PCs but they are connected by faster communication links.

**Procurement.** VITA identified instances in which the state had more than 100 separate contacts with a single computer vendor -- many of them buying at different prices. "We took the 100 contracts, consolidated them and put them out to bid," Stewart says. Consolidation of purchasing saved state and local government \$16.7 million in 2004 and \$26 million in 2005. The same economies of scale apply to the purchase of software products. Before VITA, the annual price of leasing anti-virus software ran about \$23 each for the state's 60,000 PCs, Stewart says. That price has dropped to \$6 per PC. The savings exceed \$1 million a year!

**Energy efficiency.** Many of the techniques for maximizing energy efficiency are on display at the Commonwealth Enterprise Service Center. A big challenge of buildings stuffed with servers is maintaining a constant temperature around 70 degrees that allow the computers to operate at maximum efficiency. That's not easy because the servers give off so much heat. The CESC has an elaborate system for delivering cool air

where it's needed and to ventilate away the hot air. VITA's state-of-the-art server facility is far more efficient than the many jury-rigged operations that some agencies maintained, with servers stuffed in closets, hidden under desks or arranged any old way. Between the CESC and the adoption of Energy Star standards for PCs, Stewart says, he expects to save \$12 million a year in energy costs reductions by the end of next year.

**Administrative overhead.** The decentralized pre-VITA system was inefficient in another way: massive duplication of manpower in each agency silo. Stewart calculates that administrative overhead constituted 17.1 percent of total IT expenses. Through consolidation VITA has brought that number down to 9.5 percent, which is better than the national average, but Stewart believes there is still room for improvement.

If VITA has achieved so much, why are people unhappy? I offer Stewart's argument here, recognizing that there may be other valid perspectives that go unstated.

First of all, change is always difficult, especially when it means that agency chiefs lose some of their autonomy and authority. Any IT project costing more than \$100,000 -- such as implementing a law enforcement activity management system for the state police or a fleet equip-

ment management system for VDOT -- must be signed off by VITA. Acknowledges Stewart: "That causes heartburn."

Second, it takes time for the benefits to materialize. Stewart can't snap his fingers and magically create the efficiencies he has in mind, especially when VITA committed to not lay off any state IT workers. Furthermore, he can't migrate everyone to the new system all at once. While some agencies benefit right away, others feel left behind.

Thirdly, says Stewart, there are winners and losers from the reorganization -- and the losers tend to be more vocal. VITA has instituted a uniform system for charging agencies for their IT equipment and services. Everyone gets treated the same. Under the new cost-allocation methodology, agencies that scrimped on IT spending wind up getting charged more. They may have better equipment and service as a result, Stewart says, but there was "lots of noise and dismay" that the added expense would come out of their hides. However, that controversy should die down, he suggests, now that the Kaine administration is making budget adjustments to offset the higher charges.

Stewart envisions that the transition to the new VITA standards will take about three years and be substantially complete by the end of this year. At some point,

VITA efficiencies will save enough money to pay back Northrup Grumman for its giant infrastructure investment *and* start piling up savings for the state. Meanwhile, VITA is leveraging its investment for the benefit of local governments, schools and libraries.

Perhaps VITA's best defense is what the state would have spent had the agency never existed. By Stewart's calculation, state agencies would have spent \$120 million more over the next decade on failed IT projects, \$200 million supporting an aging IT infrastructure, \$120 million on energy consumption and \$45 million for IT products and services. If those numbers are close to credible, it's hard to argue that VITA isn't accomplishing its goal.

-- February 25, 2008

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### End Notes

(1). It is difficult to get government officials unhappy with VITA to speak on the record. But a sense of the dissatisfaction comes through in anonymous comments posts about VITA in the *Bacon's Rebellion* blog. For a taste, see the following entries:

["After Filling 1,368 Positions, Kaine Moves to Trim State Workforce,"](#) Feb. 7, 2008

["Oh, the Pain, the Pain! Fifty](#)

[State Employees \(out of 119,000\) Might Get Laid Off!"](#), Sept.. 18, 2007

["On the Path to Outsourcing: The Biggest Computer Crash in Recent History,"](#) June 22, 2007

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