Joint Legislative Audit and Review Commission

Sam A. Nixon Jr.
Chief Information Officer of the Commonwealth

September 8, 2014
VITA’s Mission: Mandate for Change

- Executive & Legislative Branch leaders called for
  - Business-like approach to managing IT services across the enterprise of state government
- Use of “Shared Services” (cloud computing)
  - Statewide IT infrastructure for government entities
- Central oversight of IT procurement, projects, security, standards, policy and procedures, Wireless E-911, and contingent labor
- Modernization is a journey
  - Step 1: Creation of VITA & governance framework
  - Step 2: Transformation of infrastructure
  - Step 3: Focus on shared services across enterprise
  - Step 4: Northrop Grumman contract transition
Computers
59,374 PCs
3,356 servers

Mailboxes
58,948 accounts

Data storage
1.5 petabytes

Mainframes (2)
IBM
Unisys

Communications
55,000 desk phones
6,100 handhelds (PDAs)
11,000 cell phones

Networks
2,039 circuits

Data Centers (2)
CESC
SWESC

Printers
5,311 network
22,000 desktop

2,247 Locations
IT Provided As a Shared Service

People, Process, Technology and Leadership

**Hardware**
- Acquisition
- Installation and Setup
- Planned PC Refresh
- Asset Tracking & Disposal

**Enterprise Services**
- Email
- Internet Access
- Backups (file shares)
- Global Address List
- Network Connectivity

**Software**
- Windows
- Office
- Java/Adobe
- Browser Plug-Ins
- Antivirus

**Management**
- Agency Account Management
- Process Oversight
- Service Levels
- Technology Roadmap
- Vendor Management
- Planning

**Security**
- Automated Patching
- 24x7 Monitoring
- Firewalls
- SPAM Filtering
- Encryption
- Remote Access

**Support**
- Helpdesk 24x7
- On-site Repair
- Remote Support
- Password Resets
- Account Administration
- Hardware Upgrades

**Bundled Services**
- **Laptop:** $116.87/month
- **PC:** $98.06/month
VITA: Achieved Major Policy Goals

- Provide standardized infrastructure
  - Reliable, secure, licensed, maintained
- Curtail failed IT projects
  - Consistent project management oversight
- Enable data sharing across agencies
  - Data standards & enterprise data services
- Leverage buying power
  - Over 100 statewide contracts
- Enhance IT security
  - Enterprise infrastructure protections
FY 2014 Accomplishments

• Met all FY 2014 financial targets
  – 4th & final payment toward line of credit
  – Rate stability

• Numerous technology upgrades
  – Windows 7 upgrades, ITSM, Disaster Recovery test

• VITA as a Service Organization
  – Functional re-alignment
  – VITA Business Process Management Program
  – VITA Leadership Training Program

• Transition to new contingent labor contract
  – SWAMs win 60% of spend

• Received several national and state awards

www.vita.virginia.gov
Customer Involvement & Support

- Organizational Change Management project
- VCAST: Customer Relationship Management system
- Valued Customer Experience initiatives
- CIO Council meetings (6 per year)
- Agency IT Resource meetings & website
- Information Security Officer meetings & Cyber Symposium
- Data Stewards meetings
- Project Management Summit
- SoTech/VCU Data Intern Program
- COVITS: annual Commonwealth of Va. Innovative Technology Symposium

www.vita.virginia.gov
## Work Request Dashboard for Agencies

### Implementation Phase - All

<table>
<thead>
<tr>
<th>Select</th>
<th>Work Request No</th>
<th>Work Request Title</th>
<th>Work Request Status</th>
<th>Work Request Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>View/Print</td>
<td>VITA-1331</td>
<td>MITA</td>
<td>3B - IMPLEMENTATION</td>
<td>WORK REQUEST - DESIGN AND BUILD</td>
</tr>
<tr>
<td>View/Print</td>
<td>VITA-3227</td>
<td>Mitas Oracle RAC memory upgrade</td>
<td>3B - IMPLEMENTATION</td>
<td>WORK REQUEST - DESIGN AND BUILD</td>
</tr>
<tr>
<td>View/Print</td>
<td>VITA-3406</td>
<td>Mitas Support hours</td>
<td>3B - IMPLEMENTATION</td>
<td>WORK REQUEST - DESIGN AND BUILD</td>
</tr>
<tr>
<td>View/Print</td>
<td>VITA-3704</td>
<td>Mitas labor</td>
<td>3B - IMPLEMENTATION</td>
<td>WORK REQUEST - DESIGN AND BUILD</td>
</tr>
<tr>
<td>View/Print</td>
<td>VITA-3724</td>
<td>Quest Licenses and AD Integration (MITA)</td>
<td>3B - IMPLEMENTATION</td>
<td>WORK REQUEST - DESIGN AND BUILD</td>
</tr>
<tr>
<td>View/Print</td>
<td>VITA-4110</td>
<td>VCAST Outlook Client Upgrade</td>
<td>3B - IMPLEMENTATION</td>
<td>WORK REQUEST - DESIGN AND BUILD</td>
</tr>
<tr>
<td>View/Print</td>
<td>VITA-4162</td>
<td>Workstation White Listing Service</td>
<td>3B - IMPLEMENTATION</td>
<td>WORK REQUEST - DESIGN AND BUILD</td>
</tr>
<tr>
<td>View/Print</td>
<td>VITA-4233</td>
<td>ALB74501 - 20gb increase</td>
<td>3B - IMPLEMENTATION</td>
<td>WORK REQUEST - STANDARD (FD)</td>
</tr>
<tr>
<td>View/Print</td>
<td>VITA-4238</td>
<td>LOR0146B - 300gb increase</td>
<td>3B - IMPLEMENTATION</td>
<td>WORK REQUEST - STANDARD (FD)</td>
</tr>
<tr>
<td>View/Print</td>
<td>VITA-4248</td>
<td>Sharepoint - additional space</td>
<td>3B - IMPLEMENTATION</td>
<td>WORK REQUEST - STANDARD (FD)</td>
</tr>
</tbody>
</table>

The dashboard allows users to filter by category, init, plan, impl, close, and flag updated since. It also shows the implementation status and type for each work request.
New Agency Savings Opportunities

- **Tier 3 storage** lowers cost for archival data
  - Monthly cost of $0.61 per GB
  - In contrast, Tier 2 storage is $1.37 - 2.83 per GB
- **Hosted mail archiving** saves unlimited email for $5.49/month per employee
- **BYOD** gives employees $45 monthly stipend to use own device: saves agencies $55
- **Managed print contracts** let agencies choose among vendors to find best value
Total FY 13 Expenditures by In-Scope Exec Branch Agencies*

- 8% VITA Agency Charges (1.4%)
- 92% to Vendors for Services
- Non-VITA IT Spend (1.5%)

* Excludes higher education

Sources: FY13 total expenditures from Commonwealth Data Point; FY14 Non-VITA spend & VITA charges from APA CARS extract; vendor charges from VITA billing data.
CoVA Business Needs Drive IT Spend

• 149 IT Projects worth $525 Million (Jul 2014)
  – 61 “major” projects (Total $468 M)
  – 88 “non-major” projects (Total $57 M)

• Agencies use 1,907 core business applications to meet business needs
  – 14% (261) need replacement (Ex: state HR system is 35 years old)
  – Significant # of systems contain Sensitive data

www.vita.virginia.gov
### Examples of Active Major IT Projects

<table>
<thead>
<tr>
<th>Agency – Project Name</th>
<th>Projected Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSS - Eligibility Modernization, Program Migration</td>
<td>$119,962,312</td>
</tr>
<tr>
<td>DOA - Cardinal Project Part 3 (Rollout)</td>
<td>$60,000,000</td>
</tr>
<tr>
<td>VEC - Unemployment Insurance Modernization</td>
<td>$58,540,155</td>
</tr>
<tr>
<td>DBHDS - Electronic Health Records</td>
<td>$32,796,815</td>
</tr>
<tr>
<td>DSS - Eligibility Modernization, Conversion</td>
<td>$16,481,824</td>
</tr>
<tr>
<td>DMAS – HIPAA Upgrade Code Set (ICD-10)</td>
<td>$12,730,355</td>
</tr>
<tr>
<td>VDOT - Customer Service Center 2.0</td>
<td>$5,910,333</td>
</tr>
<tr>
<td>VSP – Central Criminal History Application</td>
<td>$4,762,000</td>
</tr>
</tbody>
</table>
Government Data Breaches & Attacks

**Nationally**

- **Government**: 25%
- **Retail**: 18%
- **Health**: 12%
- **Financial**: 30%
- **Other**: 12%
- **Non-profit**: 3%

**Transformed Agencies** (Jan-July 2014)
- 22,595,672 attack attempts
  - >106,000 per day
- 271,940,811 spam messages blocked

Security breaches of over 1 Million records


www.vita.virginia.gov
Origins of Cyber Attacks on COV (July 2014)
Security Incidents (2010-2014)
New Cybersecurity Defenses

- **“Blue Vector” Pilot** uses DOD-grade CDM tool - machine-learning for early warning malware detection (1st state)
- **NIST Cyber Security Framework** identifies & communicates cybersecurity risks (1st state)
- **Two-factor authentication** limits unauthorized access if user ID & password are compromised
- **Hard drive encryption** protects state data if PC is lost or stolen
- **McAfee Intrusion Protection System Dashboard** gives real-time visibility & control over defensive systems across the network
• Critical mass: standard, reliable & secure services

• Remaining agencies:
  – VEC
    • ~ 60% transformed
  – VDEM
    • Jointly developing plan
  – VSP
    • Continued uncertainty on status
NG Contract

- 13-year term expires on July 1, 2019
- Focus since 2005 has been tactical:
  - Finish “transformation” of 89 agencies
  - Improve overall performance
- VITA requires new resources to maintain operations while addressing recompete & disentanglement
- Feedback from policymakers & customers needed on next steps:
  - In-sourcing, out-sourcing, multi-sourcing

www.vita.virginia.gov
Prospective Timelines

Recompete

- Plan 2014 - 15
- Procure 2016 - 2018
- Transition Starts June 2019

Disentangle

- Plan 2017-18
- Disentanglement Starts Oct 2018

Note: Calendar Years
Key Decisions Needed by End of CY 2015

- Prerequisite activities must be completed during McAuliffe Administration
  - Direction needed from policymakers by end of CY 2015
  - Consulting support will be critical

- Options will also be affected by changes in provision & management of IT
  - Mobile computing, new contractual models, etc
Policy Decision: State Data Center?

- Will Commonwealth want a dedicated state data center, located in Virginia?
  - Other states use multi-tenant and/or out-of-state data centers, potentially lowering costs
  - Use of in-state center ensures Virginia laws apply & supports economic development

- Use of public “cloud” services may lower costs, but may add complexity & hinder security of data
  - NG already provides private cloud to CoVA

www.vita.virginia.gov
Policy Decision: Funding to Buy Assets?

• Outsourcing chosen in 2005 because state lacked capital
  – NG provided capital, which state is repaying
  – Cost to end contract early reflects this ($318M in FY 2014)

• Will funding exist to buy Chester data center & other IT assets?
  – 2013 assessed value of Chester facility is $38M
  – Contract stipulates at least $47M cost for certain assets (mainframes, servers, PCs)
Policy Decision: IT Staff Rehiring?

- More than 550 state IT staff became NG employees in 2006
  - NG now has 580 staff & contractors
- State may offer to hire NG staff & subcontractors
  - Offers must be made from Oct 2018 - Sept 2019
- In-sourcing will require substantial hiring
  - At least $24M-$48M plus benefits
**Proposed Schedule: Stakeholder Engagement**

<table>
<thead>
<tr>
<th>Sep/Oct</th>
<th>Nov/Dec</th>
<th>Jan/Feb</th>
<th>Mar/Apr</th>
<th>May/Jun</th>
<th>Jul/Aug</th>
<th>Sep/Oct</th>
<th>Nov/Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015 Session</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Key:**
- Blue: Executive Steering Group
- Green: Legislative Working Group
- Orange: Customer Advisory Group

**Consultant**
Challenges, Look-ahead

- Staffing (retirements, balancing recompete & daily ops, responding to agency initiatives)
- Aligning business & IT strategy
  - Northrop Grumman contract recompete
  - Enterprise Applications
- Evolving & increasing IT security threats
- Third wave of IT: cloud, mobile, social media
- Lingering resistance to shared services approach & oversight
- Aging “legacy” applications
Questions?

Samuel A. Nixon Jr.
sam.nixon@vita.virginia.gov
(804) 416-6004