



Virginia Information Technologies Agency

Joint Commission on Technology and Science

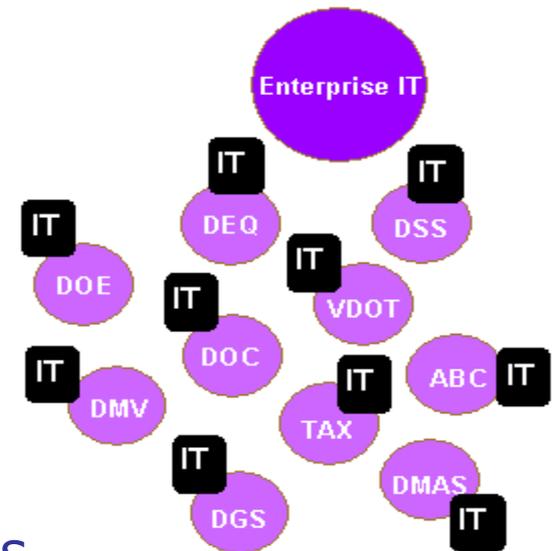
Sam A. Nixon Jr.

Chief Information Officer of the Commonwealth

October 22, 2014

State of Technology, Pre-VITA

- 90+ independent, autonomous IT shops
 - Duplicative systems
 - Few metrics on performance & spending
 - Inability to leverage buying power or manage investments
- Aging, decades-old infrastructure
 - Inadequate security
 - Limited disaster planning
 - Obstacles to sharing data across agencies
- Millions \$ in failed IT projects
 - No project management
- Unsustainable





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



IT Infrastructure footprint

Computers

59,374 PCs
3,356 servers

Mailboxes

58,948 accounts

Data storage

1.5 petabytes

Mainframes (2)

IBM
Unisys

Communications

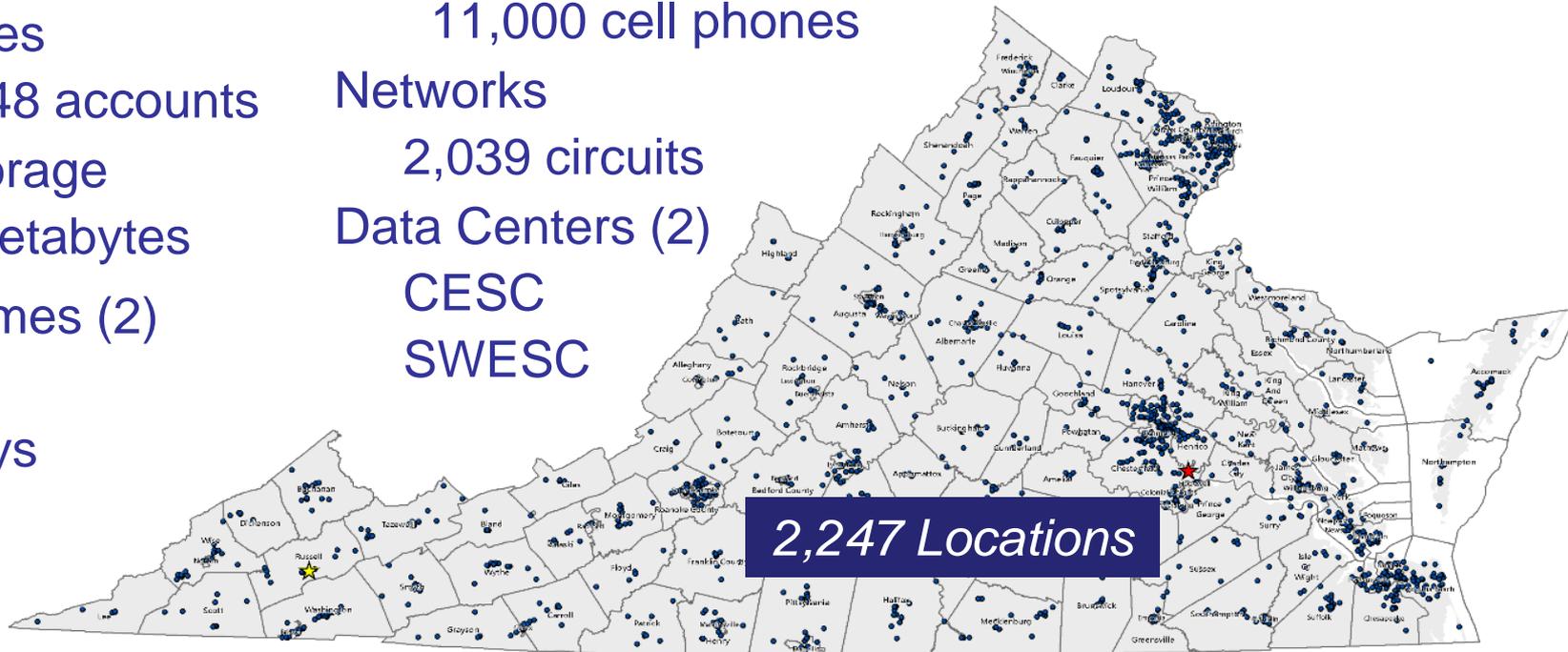
55,000 desk phones
6,100 handhelds (PDAs)
11,000 cell phones

Networks

2,039 circuits
Data Centers (2)
CESC
SWESC

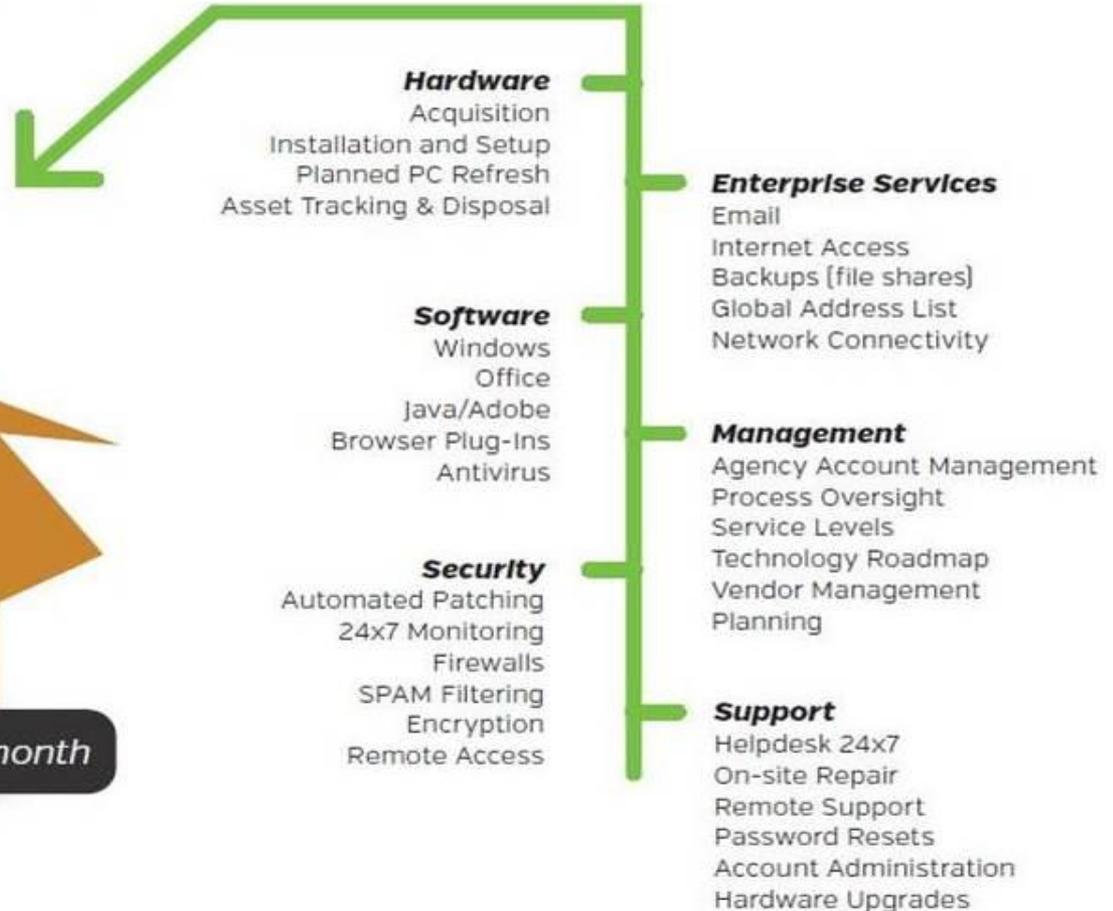
Printers

5,311 network
22,000 desktop



IT Provided As a Shared Service

People, Process,
Technology and Leadership





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



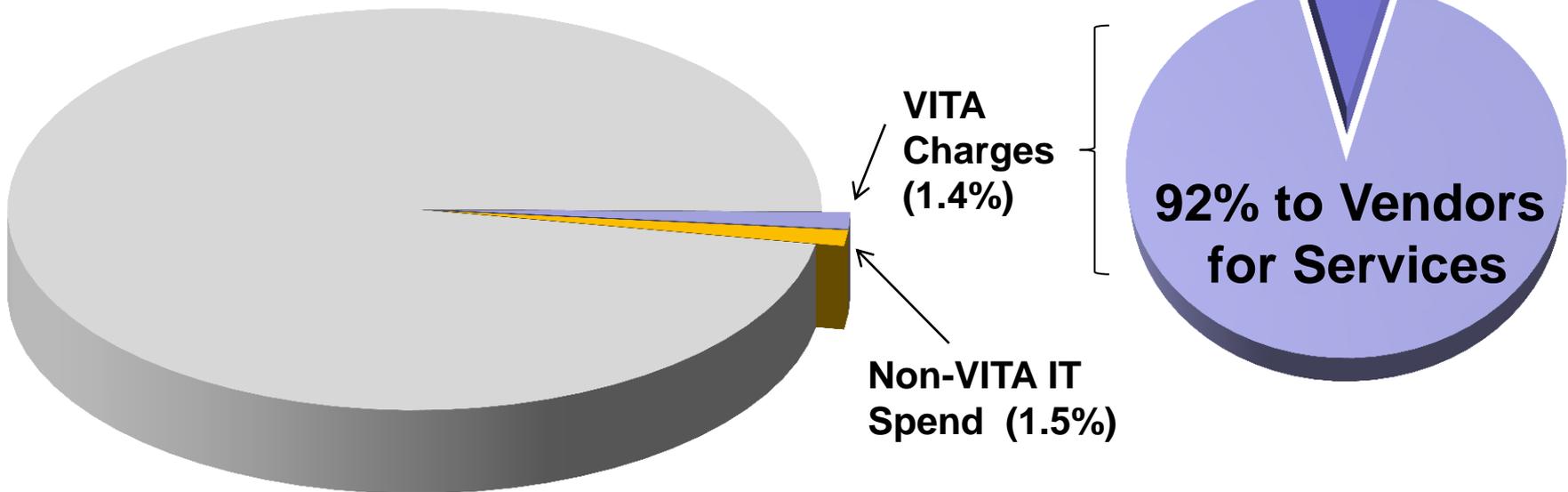
New Agency Savings Opportunities

- **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

All IT Spending Averages < 3% of Budgets

**Total FY 13 Expenditures
by *In-Scope* Exec Branch Agencies***

8% VITA Agency



* 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

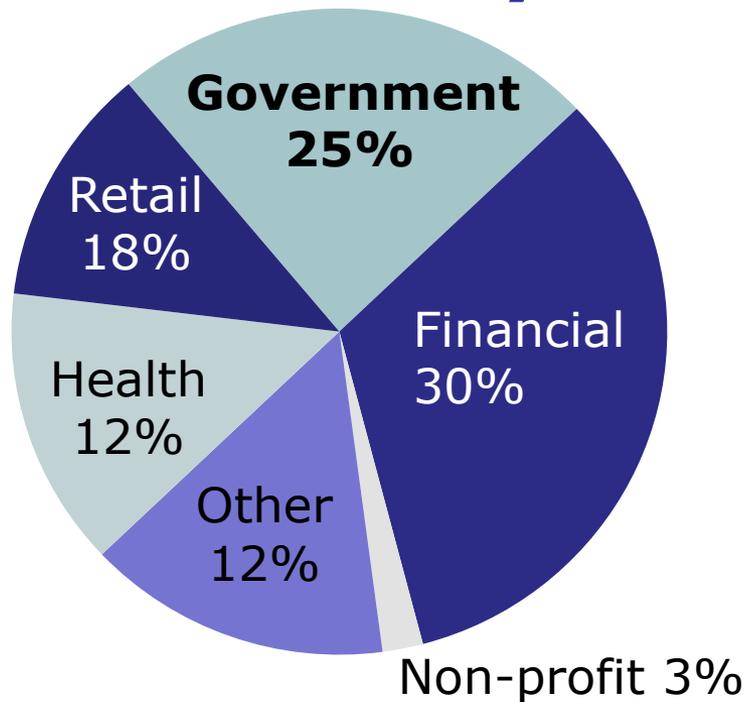


Examples of Active Major IT Projects

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

Government Data Breaches & Attacks

Nationally



Security breaches of over 1 Million records

Source: Privacy Rights Clearinghouse, *A Chronology of Data Breaches*, Aug 2013

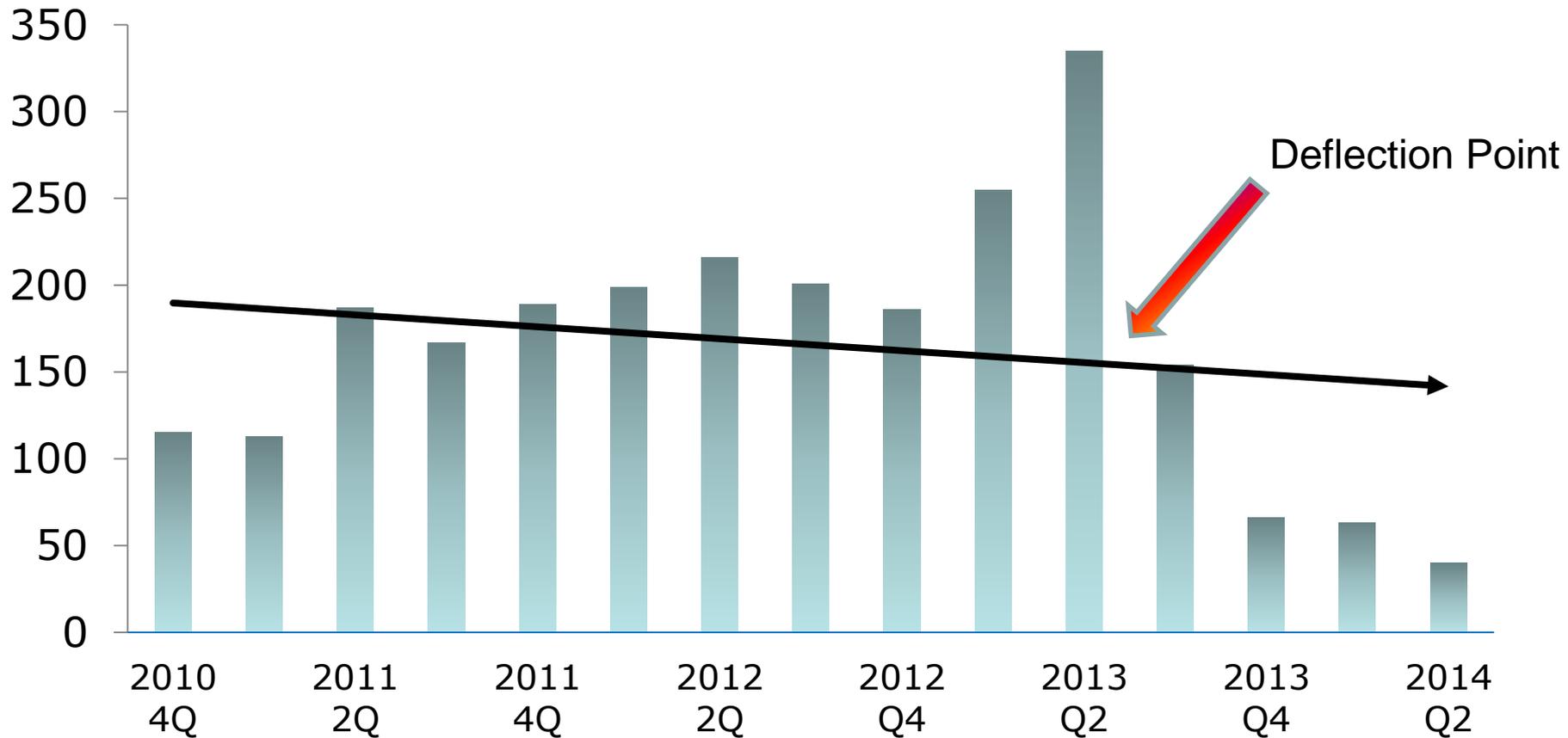
Transformed Agencies (Jan-July 2014)

- 22,595,672 attack attempts
 - >106,000 per day
- 271,940,811 spam messages blocked

Origins of Cyber Attacks on COV (July 2014)



Security Incidents (2010-2014)

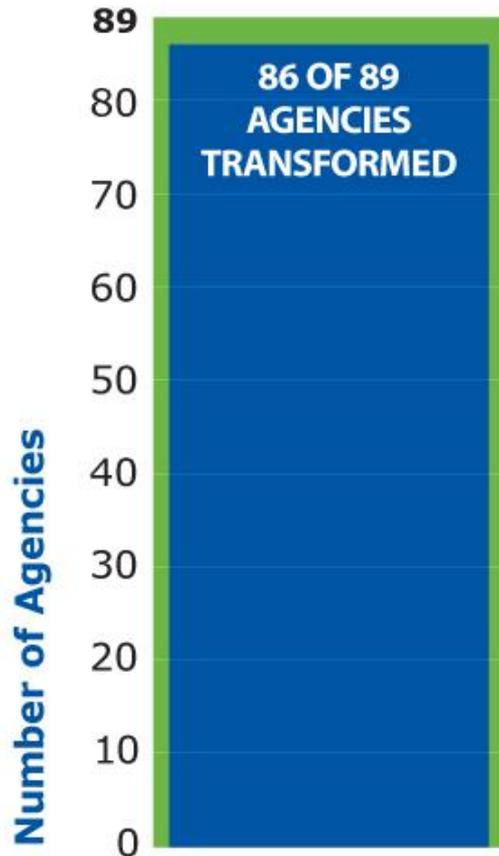




New Cybersecurity Defenses

- **“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

Transformation Status



- Critical mass: standard, reliable & secure services
- Remaining agencies:
 - VEC
 - ~ 60% transformed
 - VDEM
 - Jointly developing plan
 - VSP
 - Continued uncertainty on status

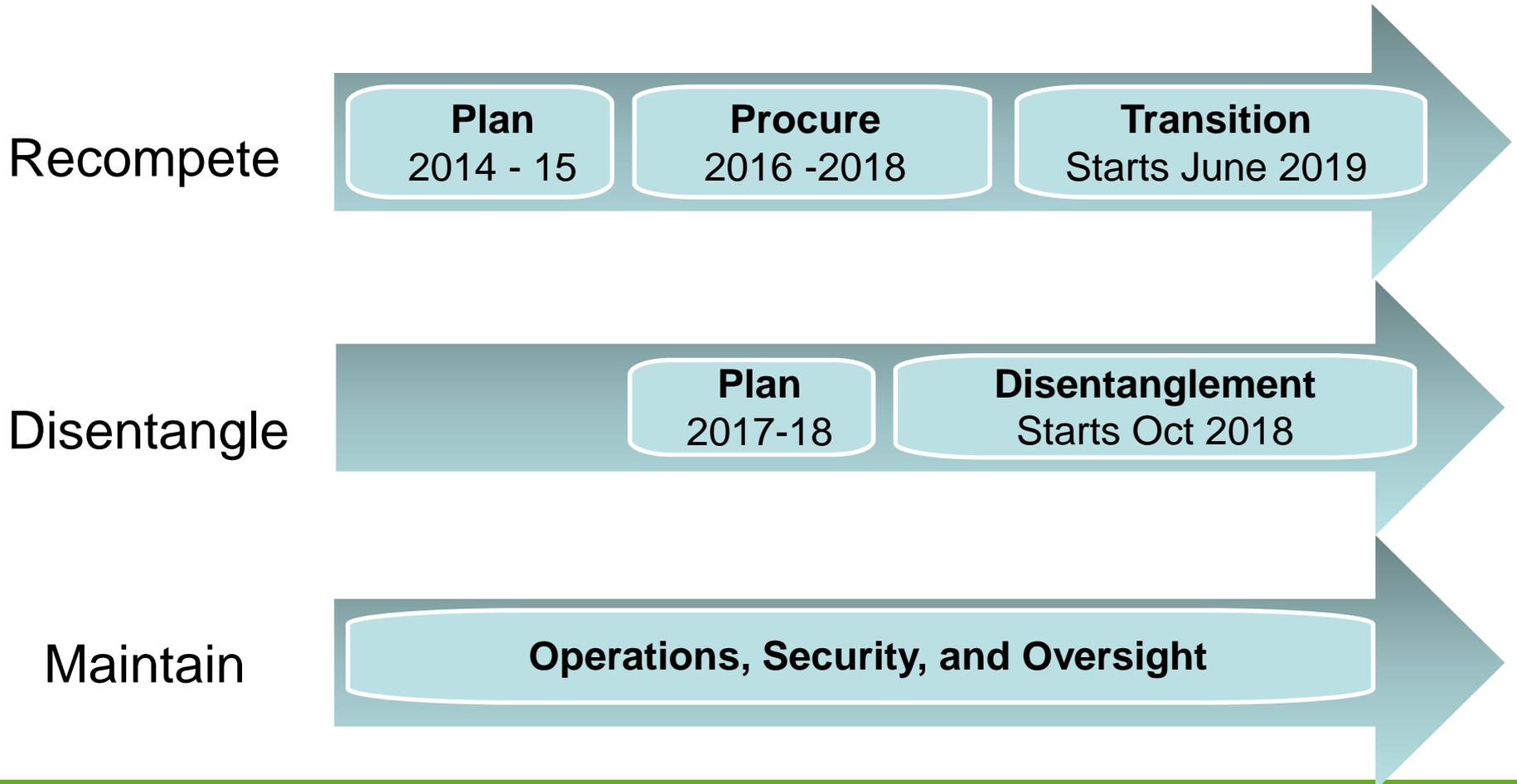


NG Contract

- 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 recompetete & disentanglement
- Feedback from policymakers & customers needed on next steps:
 - In-sourcing, out-sourcing, multi-sourcing



Prospective Timelines





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



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)

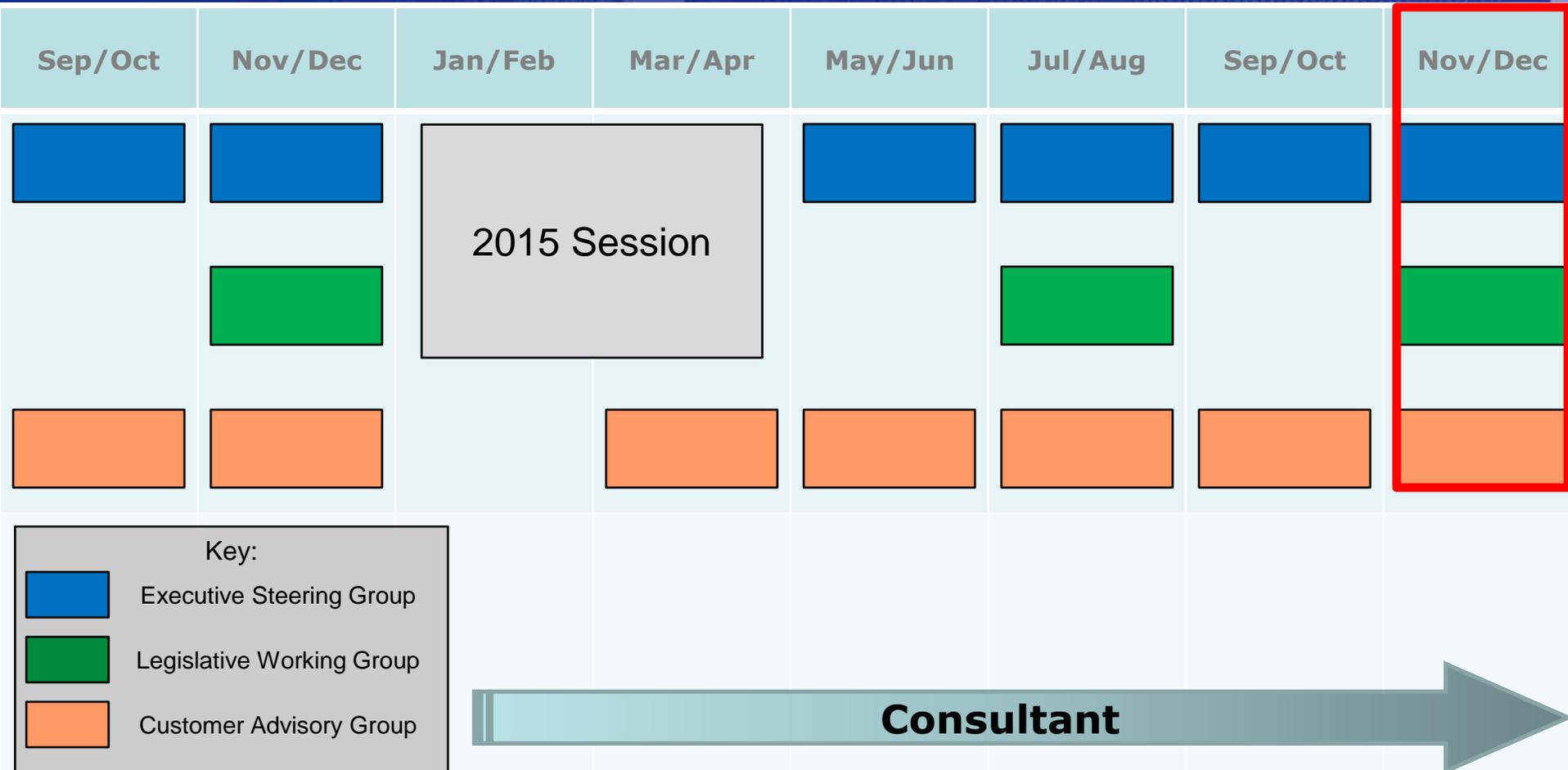


Policy Decision: IT Staff Rehiring?

- 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





Challenges, Look-ahead

- Staffing (retirements, balancing recompetete & daily ops, responding to agency initiatives)
- Aligning business & IT strategy
 - Northrop Grumman contract recompetete
 - 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?

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