



# Joint Legislative Audit and Review Commission

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Chief Information Officer of the Commonwealth

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# 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

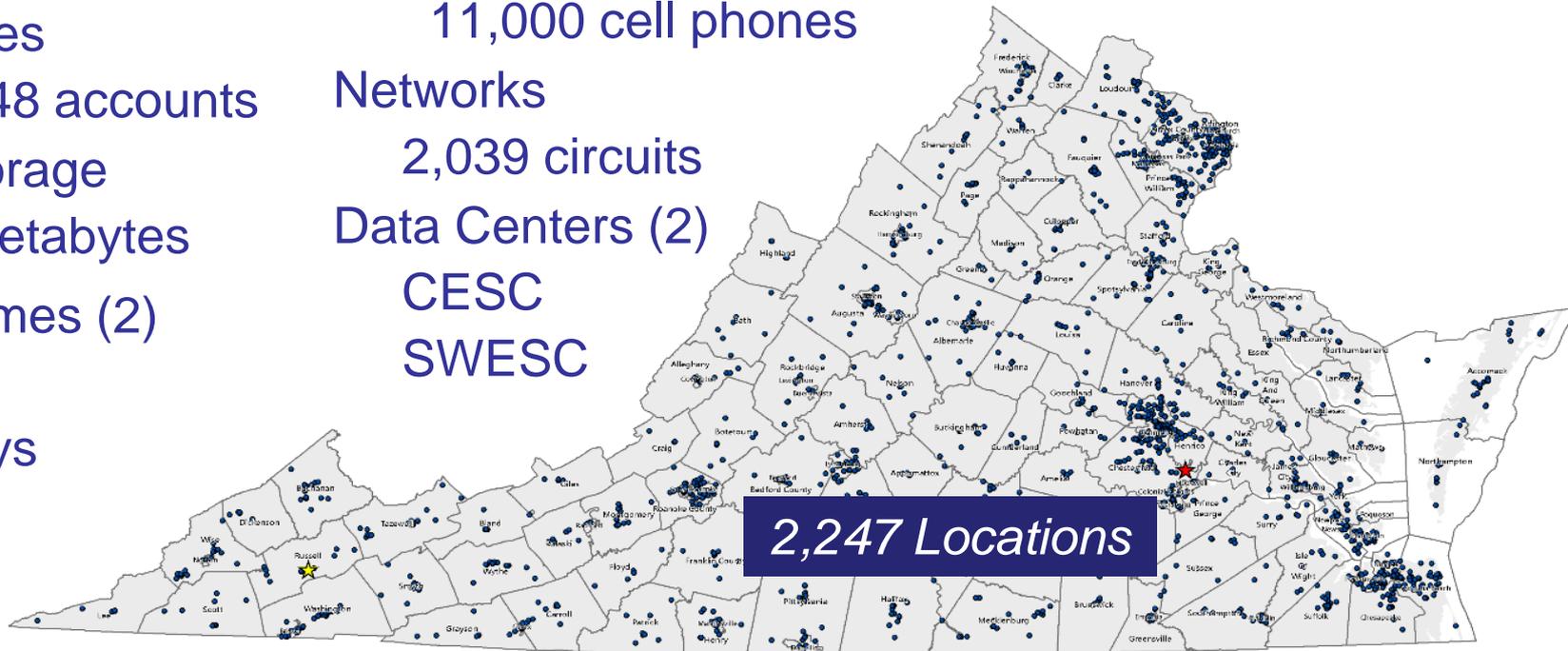
2,039 circuits

## Data Centers (2)

CESC  
SWESC

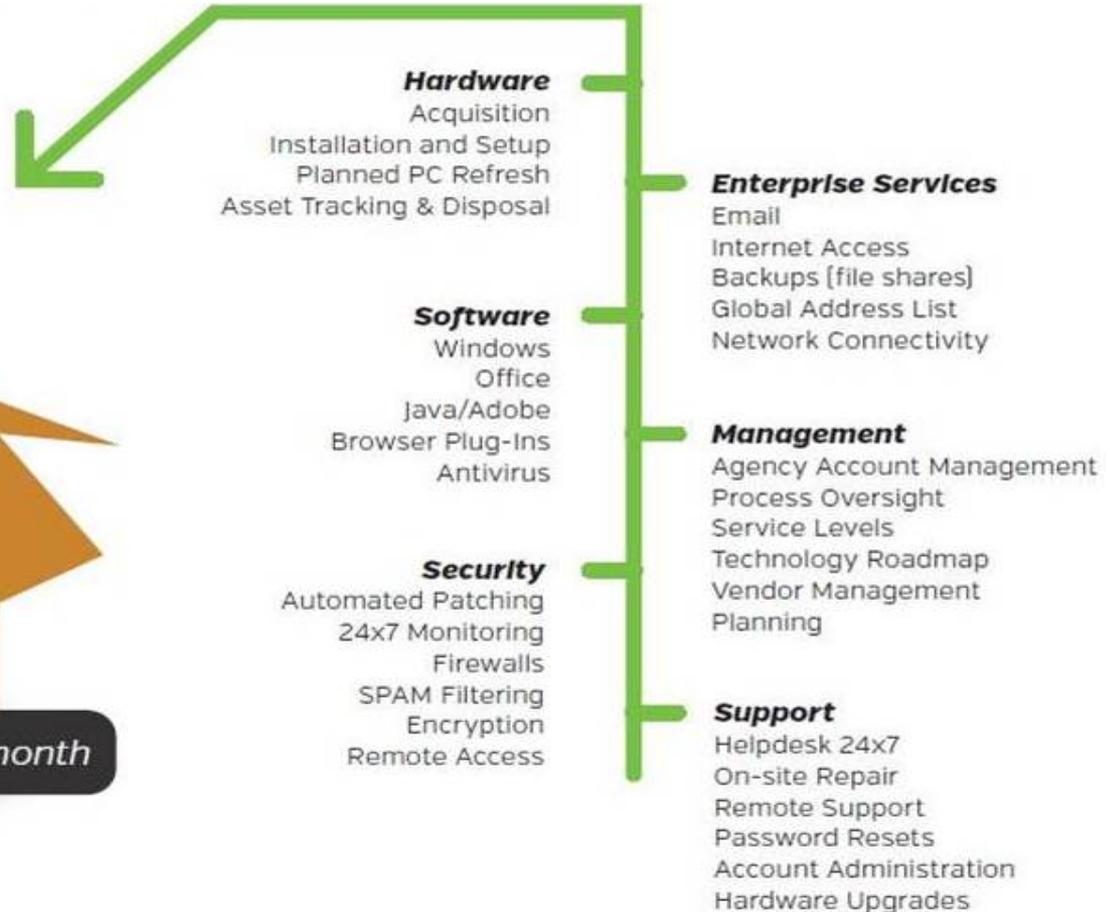
## Printers

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
  - 4<sup>th</sup> & 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



## 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



# Work Request Dashboard for Agencies

## Work Request - Dashboard

Customer : All      Flag Updated Since : 08/25/2014      Submit      Clear

Category	Init	Plan	Impl	Close
All	3	5	10	1
Level Green	2	5	6	1
Level Yellow	1	0	1	0
Level Red	0	0	0	0
Insufficient Data	0	0	3	0
My Tasks	3	0	0	1
Updated Since 08/25/14	0	1	0	0

Category	3A	3B
All	0	10
Level Green	0	6
Level Yellow	0	1
Level Red	0	0
Insufficient Data	0	3
My Tasks	0	0
Updated Since 08/25/14	0	0

## Implementation Phase - All

Select	Work Request No	Work Request Title	Work Request Status	Work Request Type
<a href="#">View/Print</a> <a href="#">Edit</a>	VITA-1331	MITA	3B - IMPLEMENTATION	WORK REQUEST - DESIGN AND BUILD
<a href="#">View/Print</a> <a href="#">Edit</a>	VITA-3327	Mita ORacle RAC memory upgrade	3B - IMPLEMENTATION	WORK REQUEST - DESIGN AND BUILD
<a href="#">View/Print</a> <a href="#">Edit</a>	VITA-3406	Mita Support hours	3B - IMPLEMENTATION	WORK REQUEST - DESIGN AND BUILD
<a href="#">View/Print</a> <a href="#">Edit</a>	VITA-3704	Mita labor	3B - IMPLEMENTATION	WORK REQUEST - DESIGN AND BUILD
<a href="#">View/Print</a> <a href="#">Edit</a>	VITA-3724	Quest Licenses and AD Integration (MITA)	3B - IMPLEMENTATION	WORK REQUEST - DESIGN AND BUILD
<a href="#">View/Print</a> <a href="#">Edit</a>	VITA-4110	VCAST Outlook Client Upgrade	3B - IMPLEMENTATION	WORK REQUEST - STANDARD (PD)
<a href="#">View/Print</a> <a href="#">Edit</a>	VITA-4182	Workstation White Listing Service	3B - IMPLEMENTATION	WORK REQUEST - DESIGN AND BUILD
<a href="#">View/Print</a> <a href="#">Edit</a>	VITA-4333	ALB74501 - 20gb increase	3B - IMPLEMENTATION	WORK REQUEST - STANDARD (PD)
<a href="#">View/Print</a> <a href="#">Edit</a>	VITA-4338	LOR01468 - 300gb increase	3B - IMPLEMENTATION	WORK REQUEST - STANDARD (PD)
<a href="#">View/Print</a> <a href="#">Edit</a>	VITA-4348	Sharepoint - additional space	3B - IMPLEMENTATION	WORK REQUEST - STANDARD (PD)



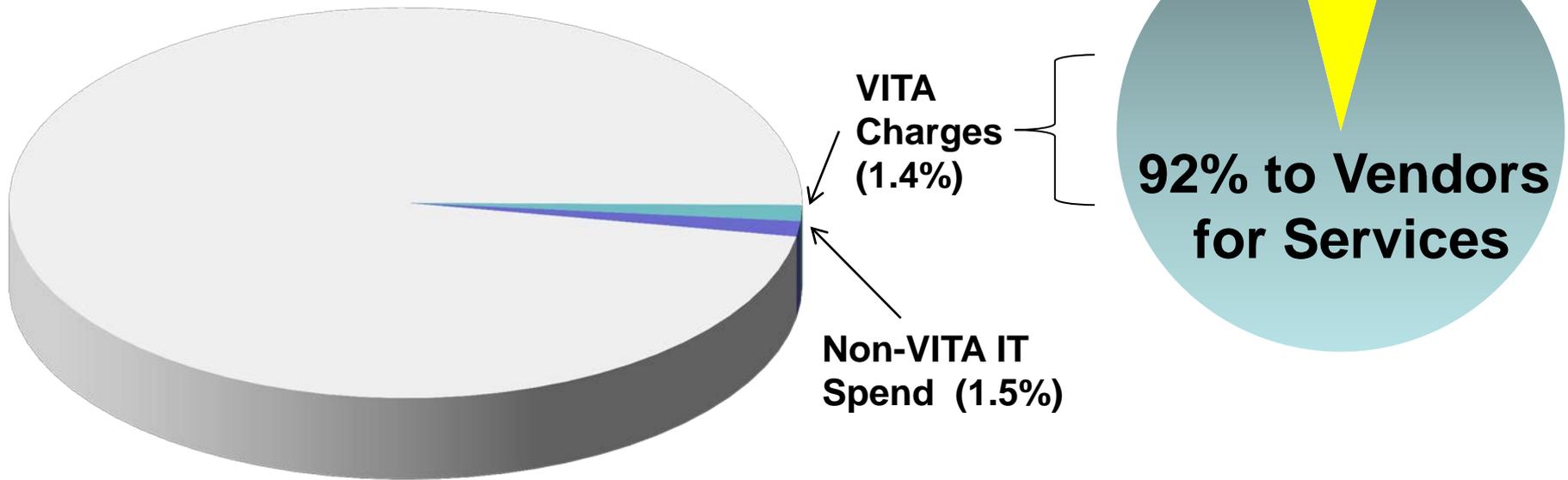
## New Agency Savings Opportunities

- **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\*



\* 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

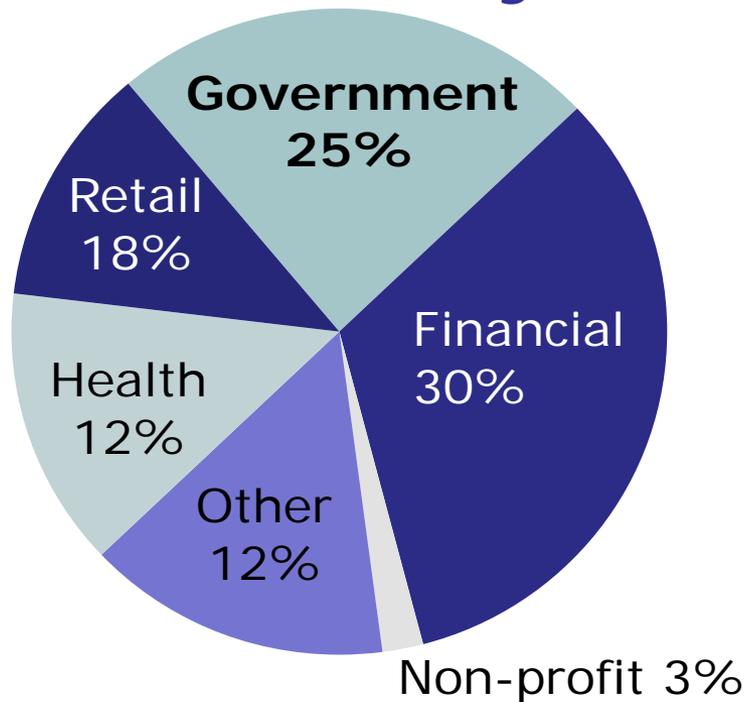


# Examples of Active Major IT Projects

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

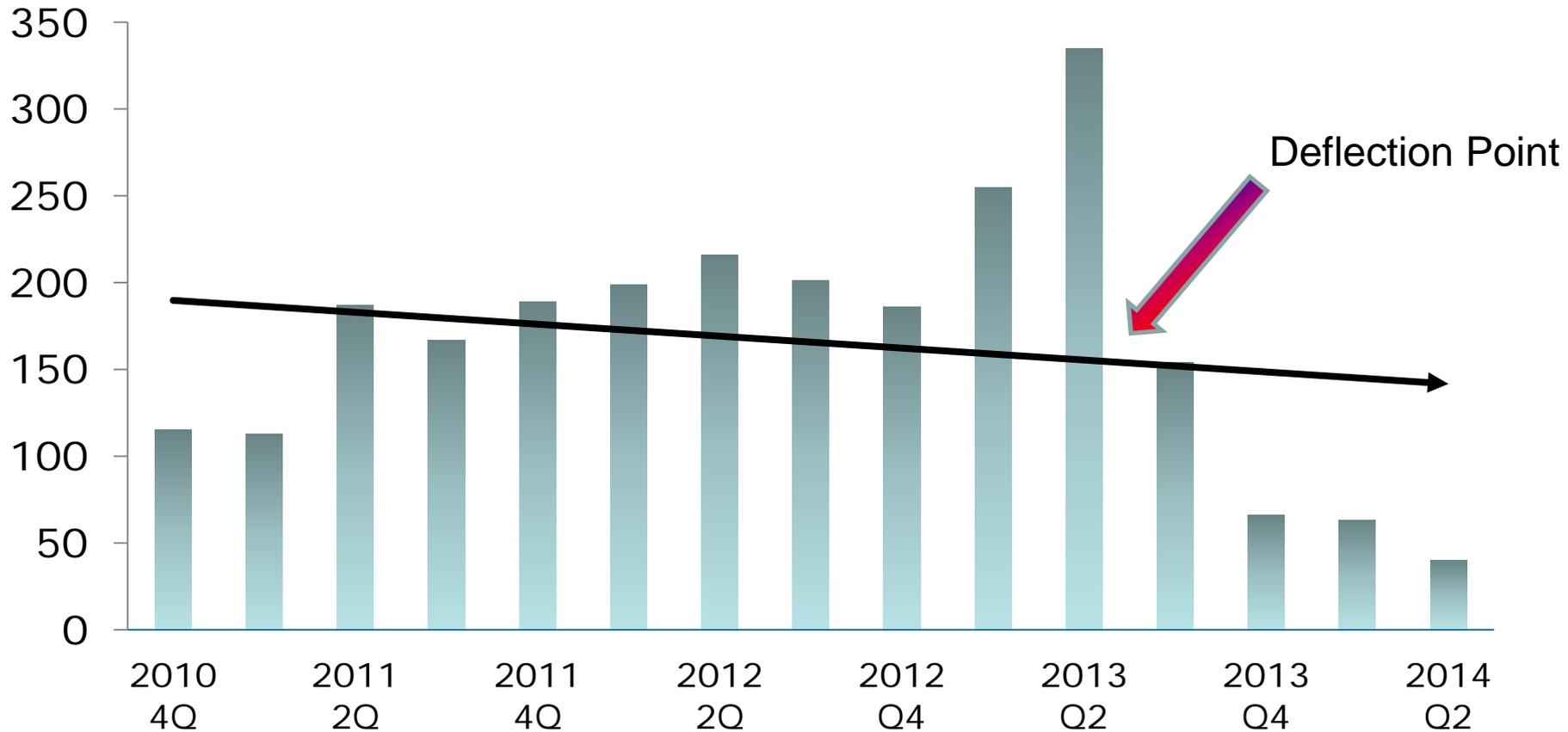
## Transformed Agencies (Jan-July 2014)

- 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)

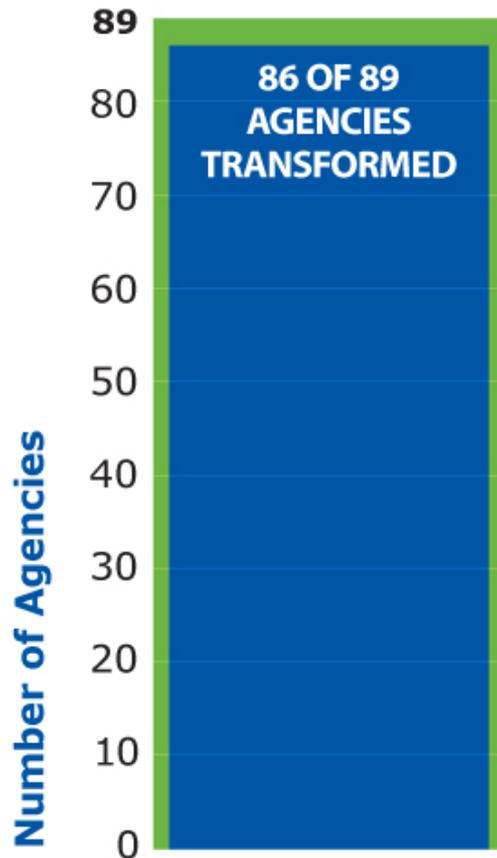




## New Cybersecurity Defenses

- **“Blue Vector” Pilot** uses DOD-grade CDM tool - machine-learning for early warning malware detection (1<sup>st</sup> state)
- **NIST Cyber Security Framework** identifies & communicates cybersecurity risks (1<sup>st</sup> 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

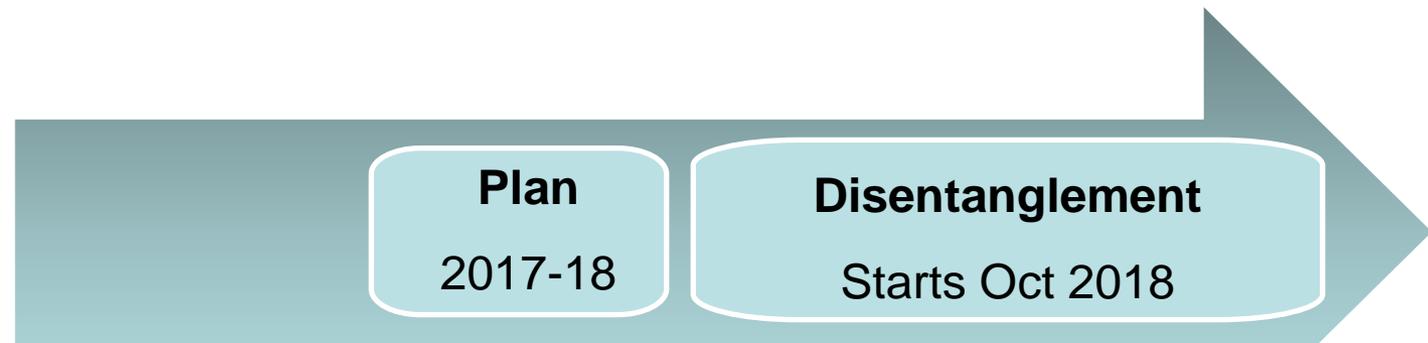


# Prospective Timelines

Recompete



Disentangle



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



## 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)

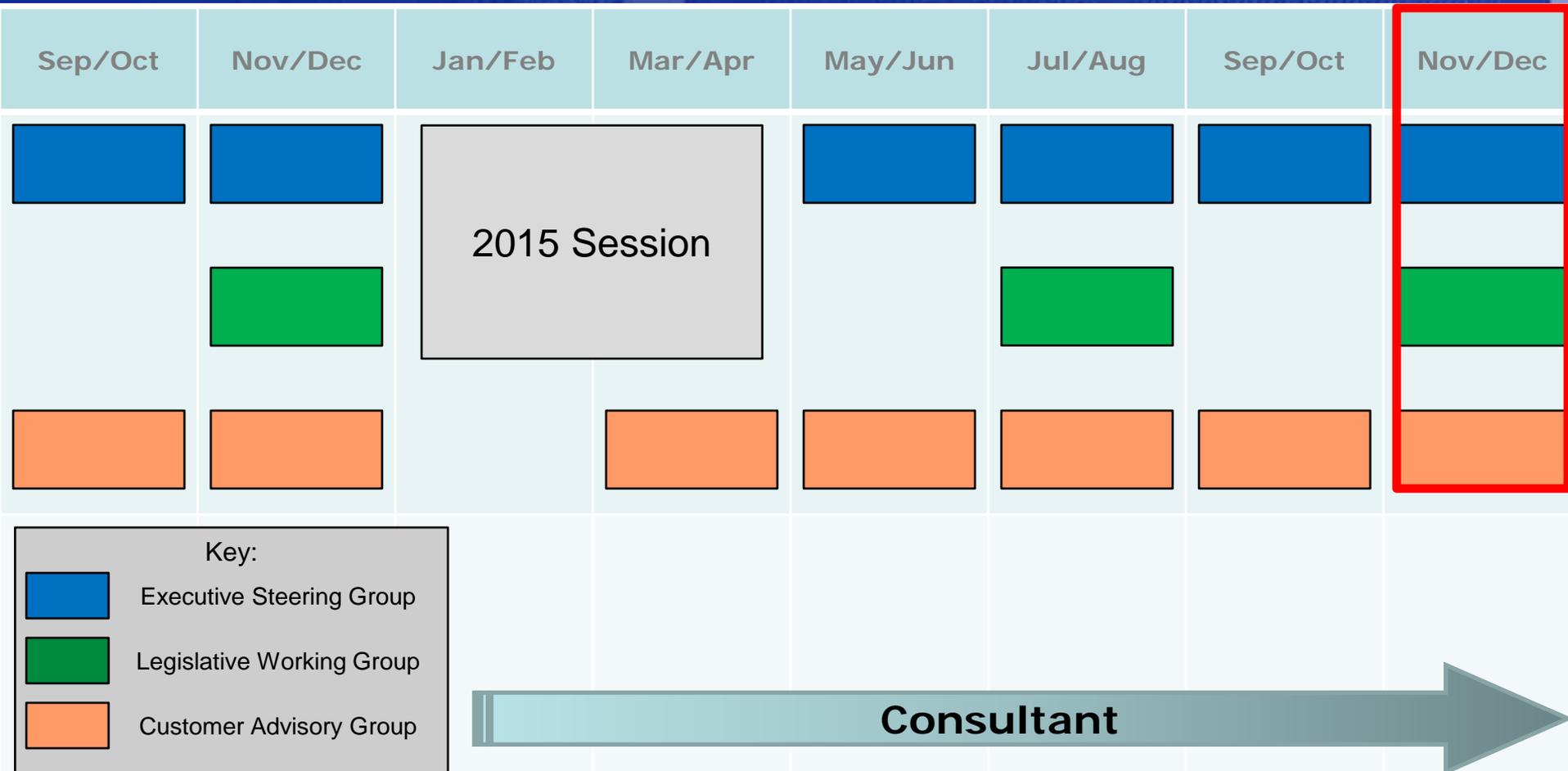


## Policy Decision: IT Staff Rehiring?

- 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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