![Virginia Information Technologies Agency (VITA) logo]

Joint Legislative Audit and Review Commission

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

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In This Briefing

- Background

- IT Security

- Workload and Resources

- NG Contract Planning

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*

IT Infrastructure

Computers
   59,374 PCs
      3,356 servers

Mailboxes
   58,948 accounts

Data storage
   1.5 petabytes

Mainframes (2)
   IBM
   Unisys

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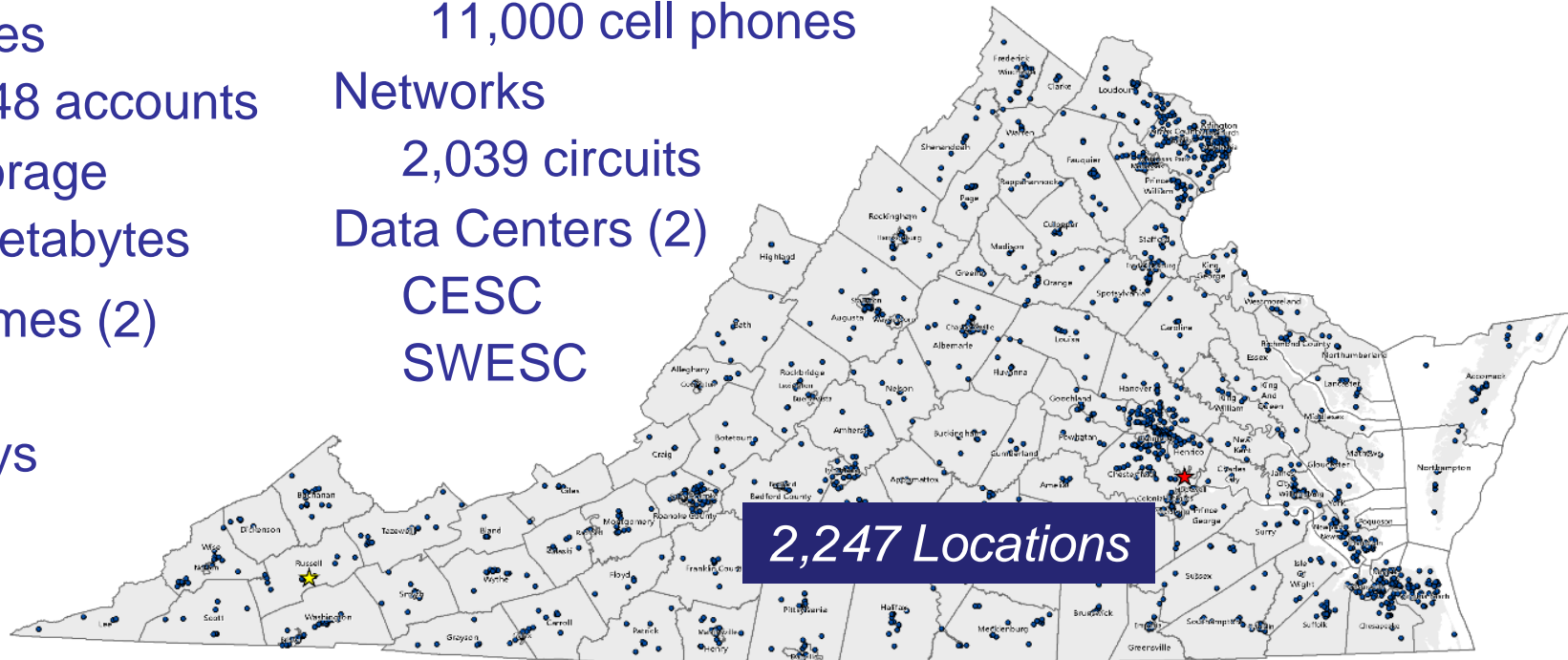   55,000 desk phones
         6,100 handhelds (PDAs)
      11,000 cell phones

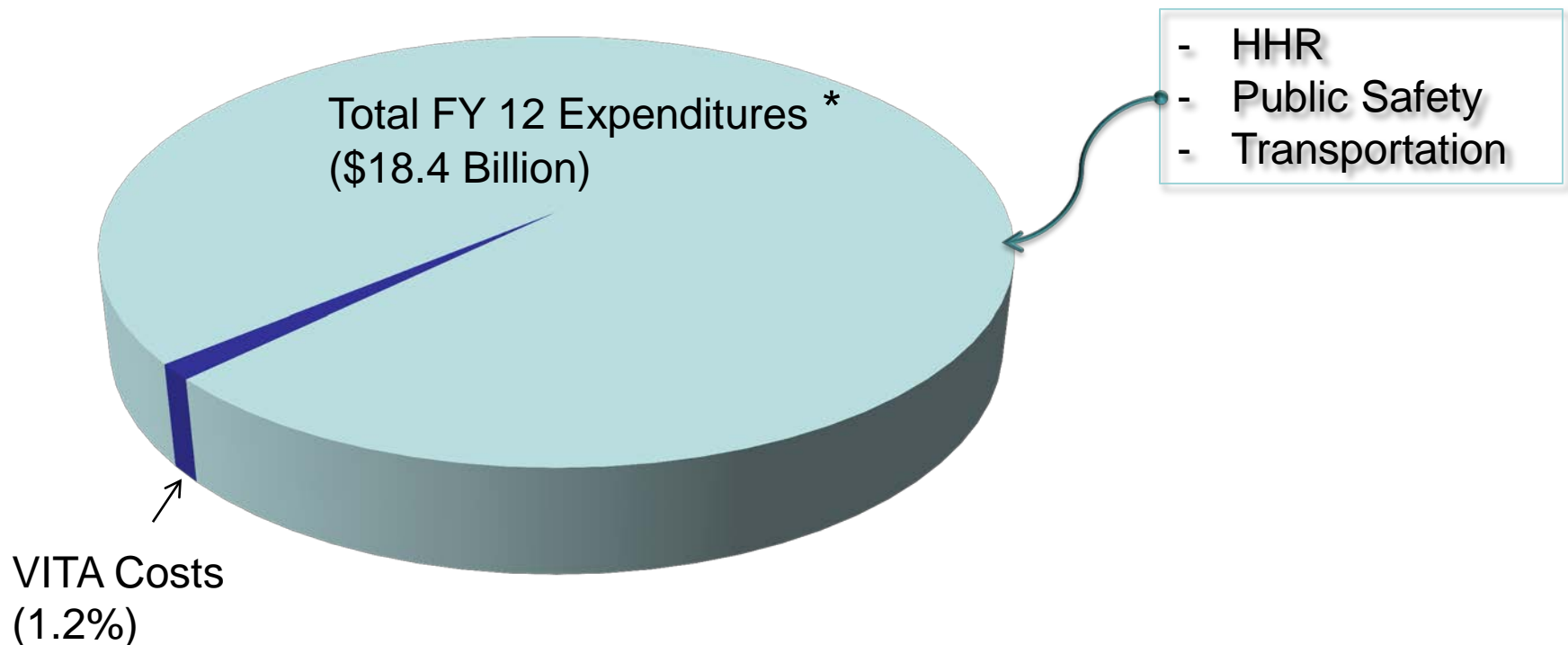Networks
   2,039 circuits

Data Centers (2)
   CESC
   SWESC

Printers
      5,311 network
   22,000 desktop

2,247 Locations

VITA Costs Are Typically 2% of Budgets

Total FY 12 Expenditures *
($18.4 Billion)

- HHR
- Public Safety
- Transportation

VITA Costs
(1.2%)

Sources: Commonwealth Data Point, VITA

* Top 3 Secretariats account for 74% of VITA invoices

FY 2013 Accomplishments

- Several technology upgrades
- Met all FY 2013 financial targets
    - 3rd payment toward line of credit
    - FY 2014 rates reduced slightly
- Adopted several new statewide standards
- Electronic Data Management (EDM) deployed to support eHHR
- Re-engineered eGov outsourcing model, including re-design of Virginia.gov
- Received several national awards

Government Data Breaches & Attacks

Government 25%
Retail 18%
Health 12%
Other 12%
Financial 30%
Non-profit 3%
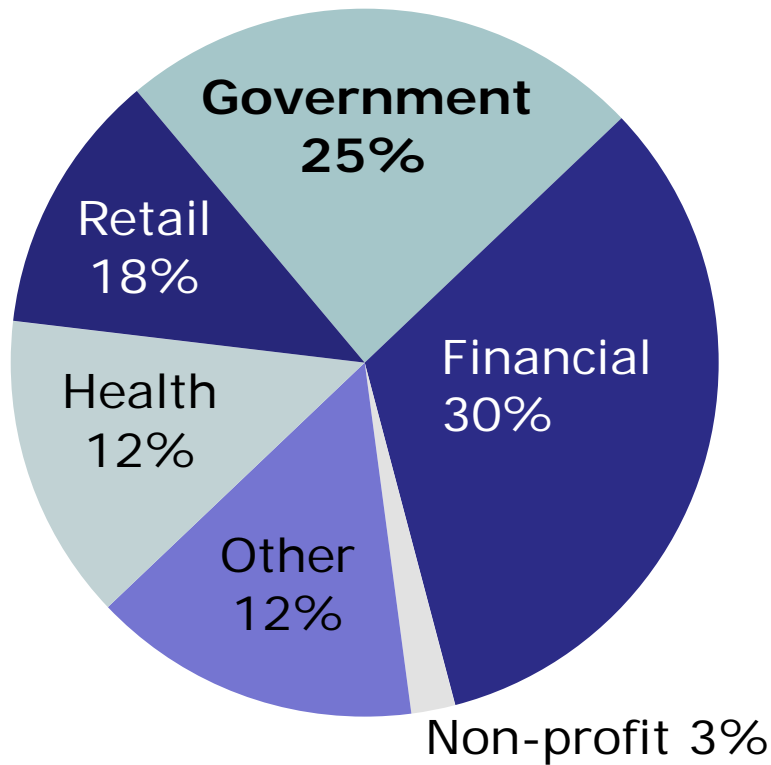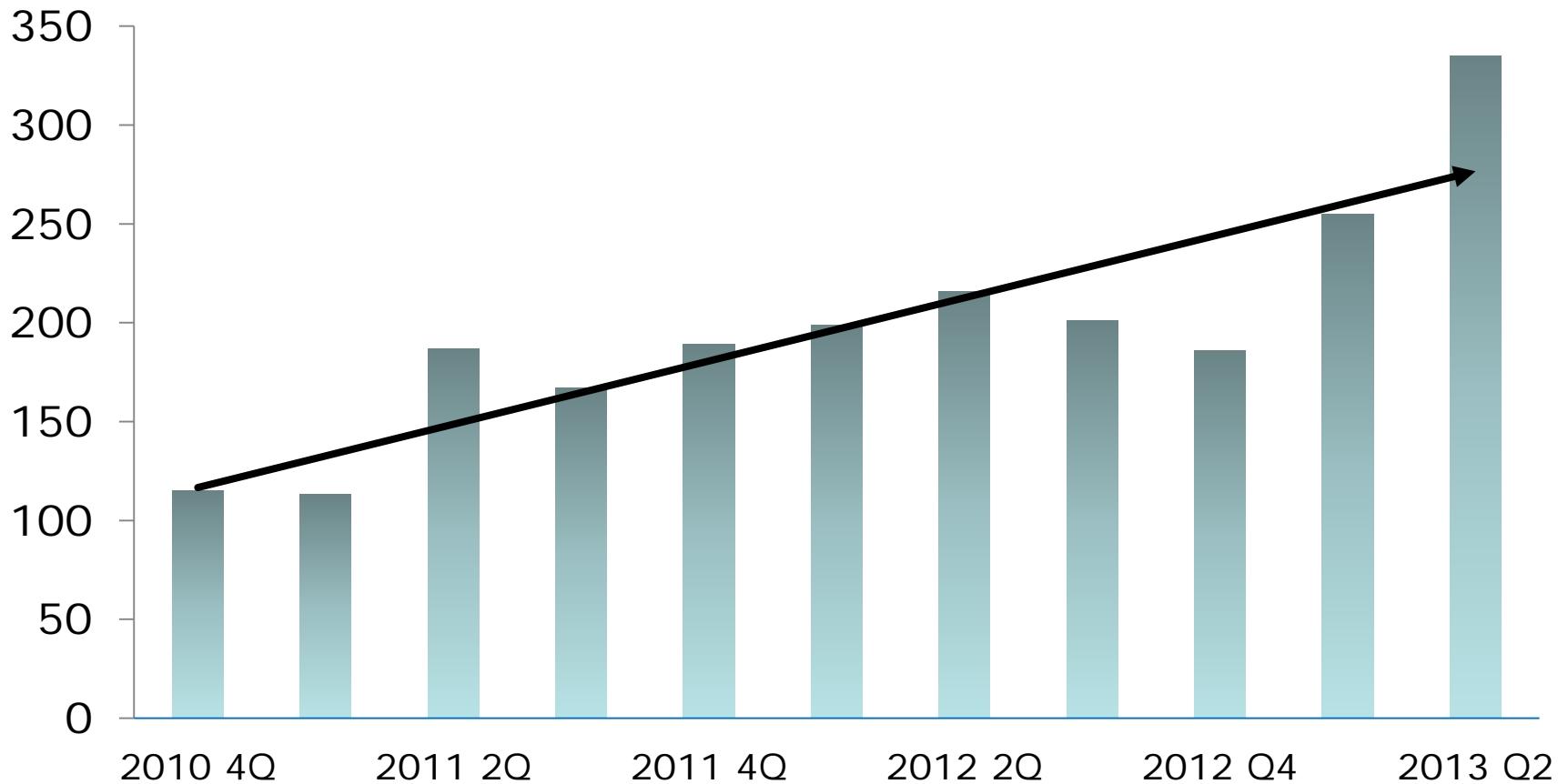
Security breaches of over 1 Million records

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

Virginia Agencies (FY 2013)

- 118 million attack attempts
  - 321,792 daily
- 759 million spam messages

Origins of Attacks on CoVA – July 2013

IT Security: Overview of Roles

- VITA sets standards, oversees Commonwealth's security program
- NG responsible for infrastructure security
- Agencies responsible for security of business applications & data

VITA Has Broad Statutory Security Role

- Set security architecture & standards
- Oversee Northrop Grumman
- Perform overall incident response
- Share intelligence & information (FBI, DHS, State Police, VDEM)
- Conduct risk management
- Oversee & assist agencies
  - CIO has limited authority to ensure compliance

NG Responsible for Infrastructure Security

- Physical & logical security
  - Data center protection
  - Firewalls, intrusion monitors, encryption, compartmentalization, antivirus & spam filters
- Detection, containment & removal of security incidents affecting the *infrastructure*
- However, most attacks affect *applications*
  - NG assists with attacks against applications
- Agencies remain responsible for protecting applications & data

State Agency IT Security Efforts Are Mixed

Agency Responsibility	Agencies in Compliance
Appoint Information Security Officer	97%
Develop & maintain IT security audit plan	71
Conduct IT security audits every 3 years (minimum)	63
Develop & maintain corrective action plans	56
Develop & maintain policies and procedures to control unauthorized uses and intrusions	42

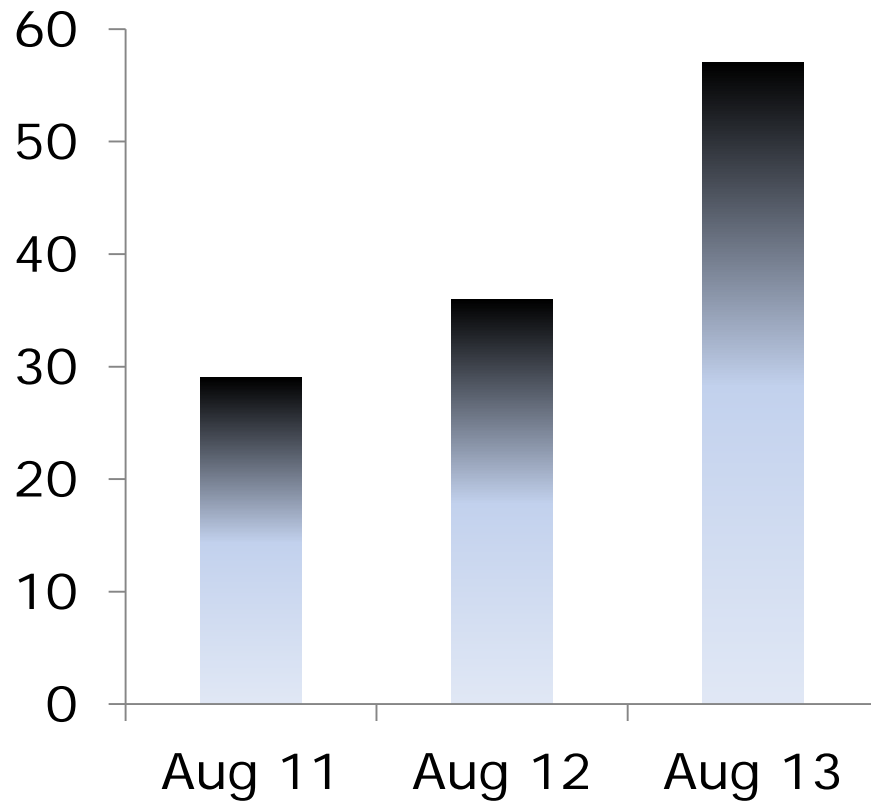Source: 2012 Commonwealth of Virginia Information Security Annual Report

VITA & Agencies Lack Security Staff

- VITA needs additional staff & resources to assess & respond to *evolving* threats
  - Need additional analysis of third parties that are targeting the Commonwealth
  - Current staffing focuses on incident response, not overall assessment of threat patterns

- State agency staffing constraints impede security gap correction & limit auditing
  - Agencies must test their applications against new patches & evolving federal requirements
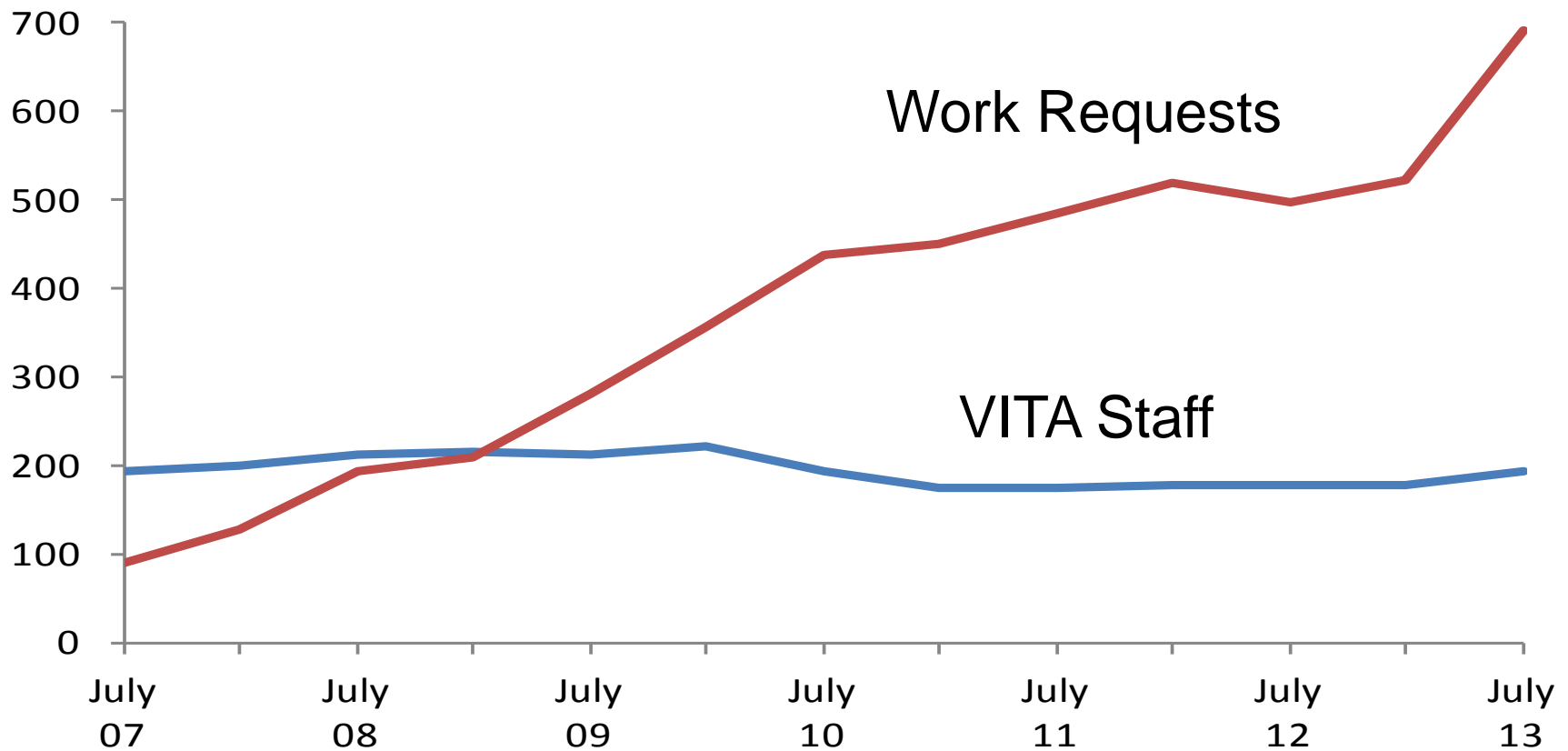
Agency IT Projects Are Increasing

VITA Oversight:

- Project Management
- Financial (TCO)
- Data Standards
- Architecture
- NG Contract
- Procurement
- Security

Chart (Active projects, values in units from 0 to 60):
- Aug 11: approximately 29
- Aug 12: approximately 36
- Aug 13: approximately 57

Note: Active projects only

Staffing Hasn't Kept Pace with Workload

Work Requests

VITA Staff

Staffing Constraints Hinder Oversight

- Staffing levels decreased following budget reductions (FY 2008-2012)
  - Retained customer-facing & direct service staff
  - Reduced oversight, analytical, & support staff
- Shortages impede fulfillment of statutory duties
  - Recent additions address minimal unmet needs
  - Additional staff needed to address new requirements & increasing service demands

Inadequate Staffing Creates Threats

- Thin bench: same person responsible for oversight, service delivery, & planning
  - Only one person in key areas: disaster recovery, telecommunications, network, email, desktop computing, server & mainframe computing, and help desk
- High reliance on IT contract support staff
- Focus on day-to-day service delivery
  - No resources to innovate or plan
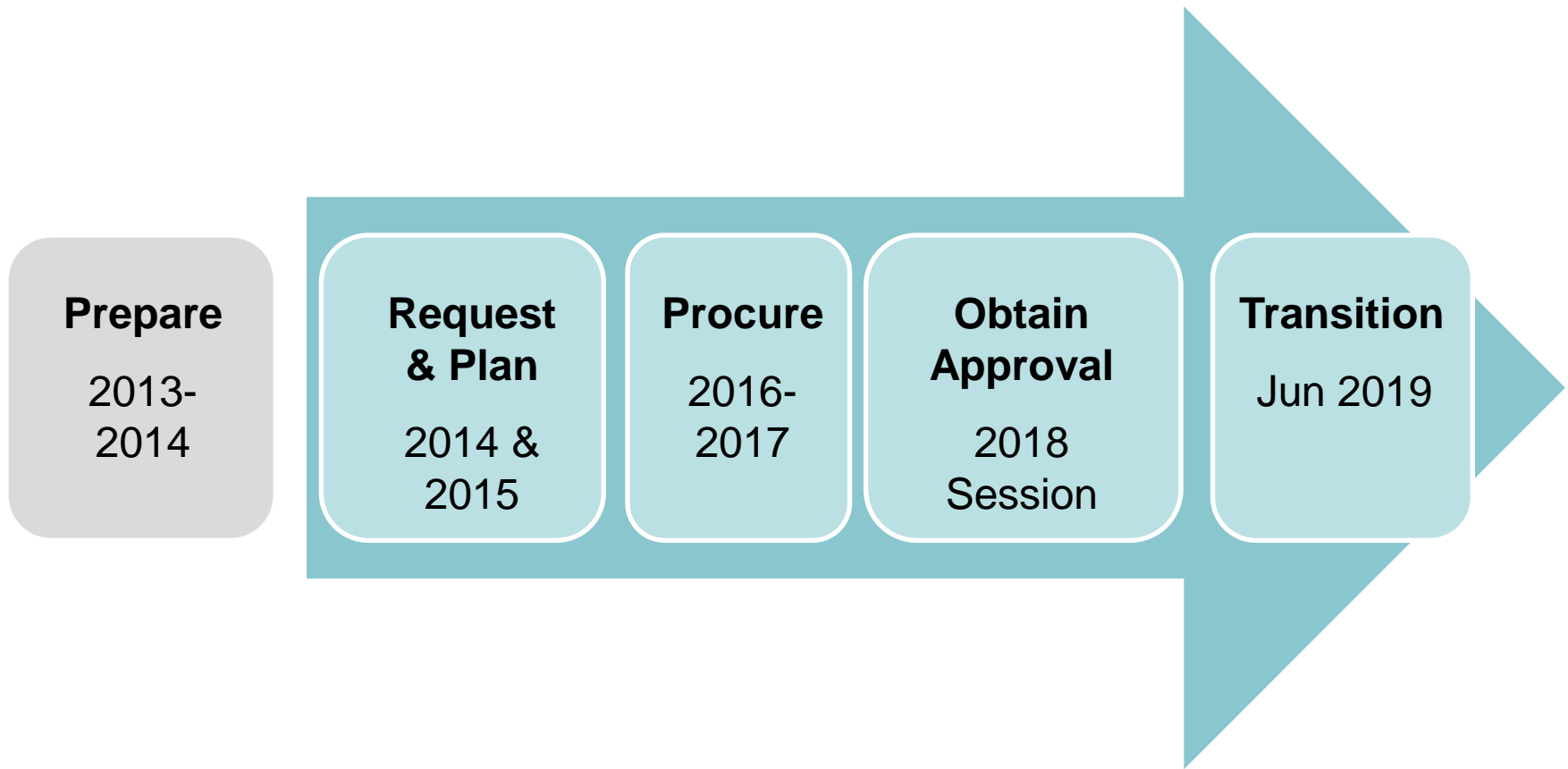 - Reactive, not proactive

Additional Staff Create Opportunities

- VITA needs adequate staff to provide insight, not just oversight
- Additional staff needed to plan for expiration of NG contract
  - Third-party expertise also required
- Staffing increases depend on:
  - JLARC approval of surcharge
  - DPB authorization of expenditure
  - Availability of skill sets in IT marketplace
  - Competitiveness with other employers

Prospective Timeline for IT Services

Prepare

2013-2014

Request & Plan

2014 & 2015

Procure

2016-2017

Obtain Approval

2018 Session

Transition

Jun 2019

Note: Calendar Years

Challenges, Look-ahead

- Third wave of IT is upon us: cloud, mobile, social media
- Evolving & increasing IT security threats
- Lingering resistance to shared services approach
  - IT as a <u>fully-managed service</u>, not just hardware
- Customer service is improving, but work remains
- Evolution of NG relationship & contract
  - Technology innovation
- Aging "legacy" applications
- VITA organizational constraints

Questions?

Samuel A. Nixon Jr.

sam.nixon@vita.virginia.gov

(804) 416-6004

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*
- Concept 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 & statutory framework
  - Step 2: Transformation of infrastructure
  - Step 3: Enterprise Applications & Services