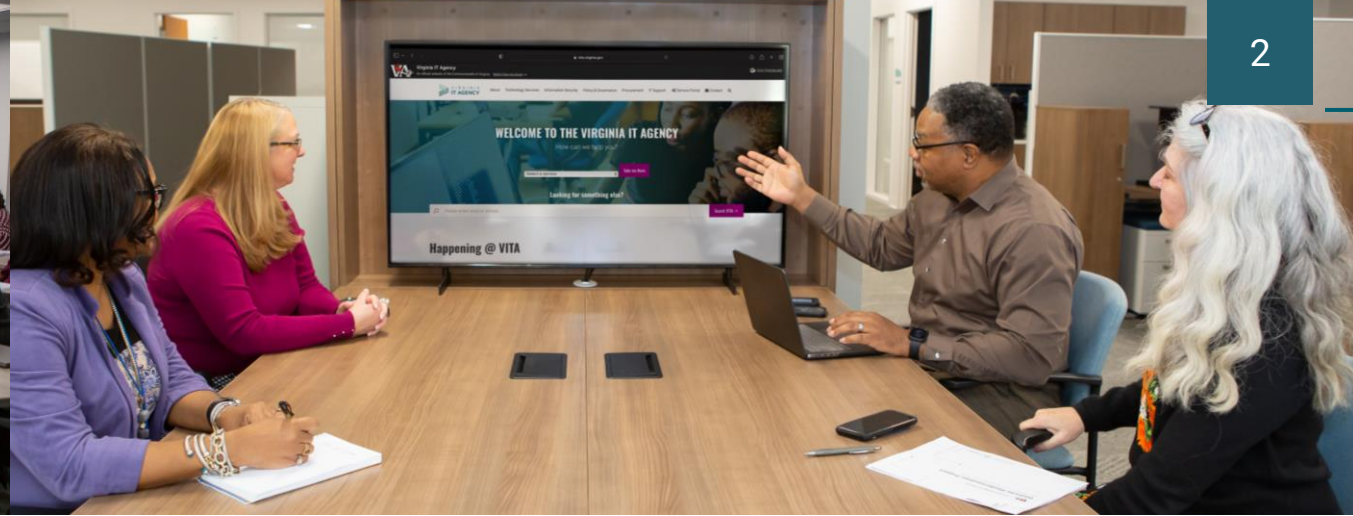




# JOINT LEGISLATIVE AUDIT AND REVIEW COMMISSION BRIEF

Robert Osmond  
Chief Information Officer of the Commonwealth

November 2023



## Who we are and what we do

VITA is comprised of about 266 professionals who connect, protect and innovate for Virginia, as part of four main statutory roles.

1. **Cybersecurity:** Protect people, assets and information from loss, damage and misuse
2. **Infrastructure:** Ensure the operating environment is efficient, adaptable, scalable, and delivers the best value
3. **Governance:** Provide policy and standards to support technology decisions, IT best practices, and enterprise optimization
4. **Procurement:** Develop value-driven statewide IT contracts that enable Commonwealth public bodies to obtain the best deal for their organizations (\$1B annually)

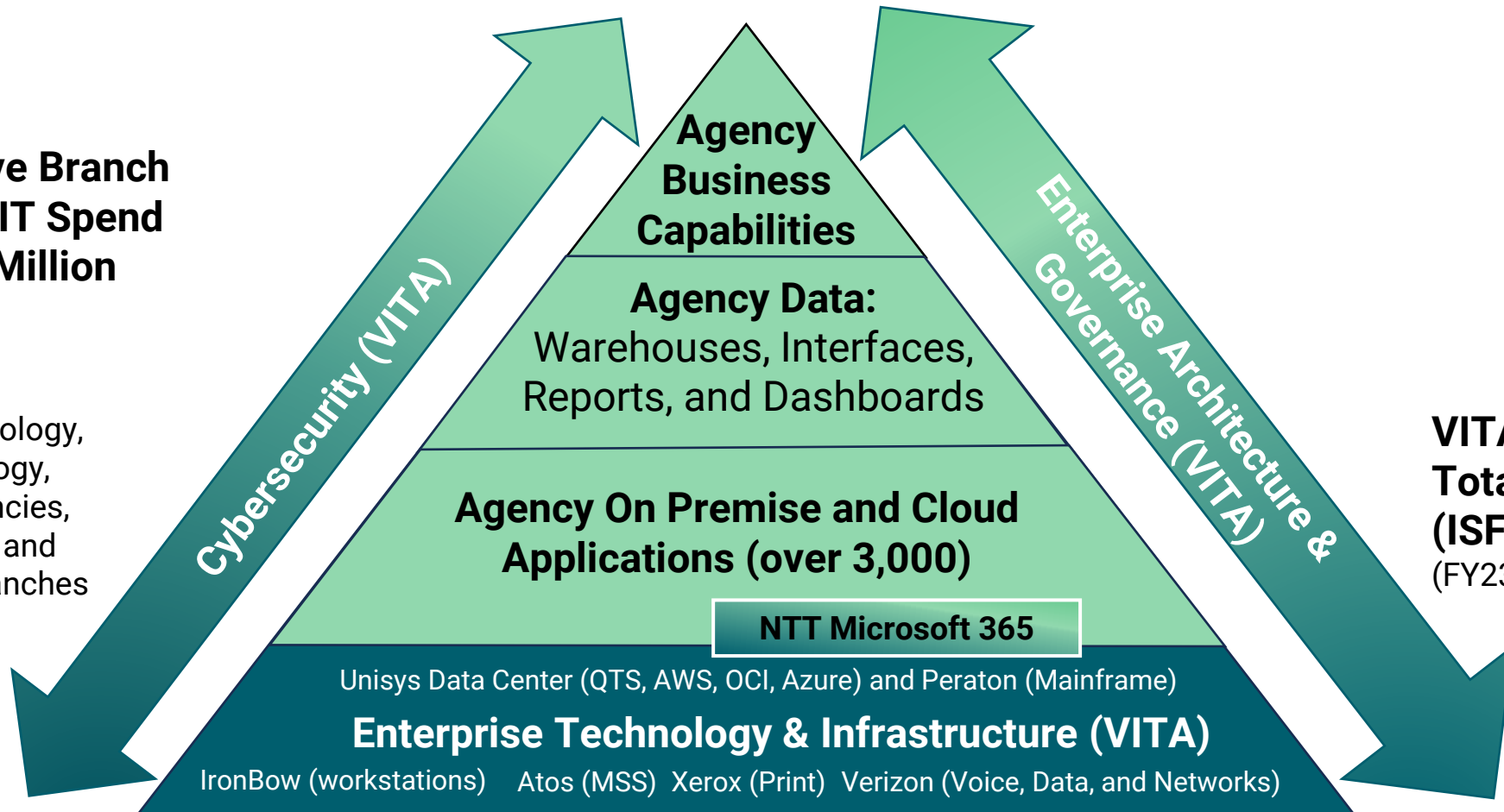


# COV INFORMATION TECHNOLOGY IS DECENTRALIZED AMONG AGENCIES AND SUPPORTED WITH ENTERPRISE INFRASTRUCTURE

Total Executive Branch IT Spend: \$1,421.5 Million

Executive Branch  
Agency IT Spend  
\$986.5 Million  
(FY23)

Note: Excludes  
operational technology,  
business technology,  
independent agencies,  
higher education, and  
non-executive branches  
of government.




VITA Portion of  
Total IT Spend  
(ISF) \$435 Million  
(FY23)

Commonwealth Technology Strategy

# VITA'S PORTFOLIO: BY THE NUMBERS

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## DATA CENTERS

PHYSICAL DATA CENTERS  
QTS  
ASHBURN

VIRTUAL DATA CENTERS  
AWS  
AZURE  
OCI



## 67

EXECUTIVE  
BRANCH AGENCIES



## 1,700

LOCATIONS SERVED  
IN VIRGINIA



## ENTERPRISE SOLUTIONS SERVICES


WEBSITE MODERNIZATION  
AND EGOV SERVICES

DIGITAL SIGNATURE

APPLICATION INTEGRATION SERVICES

AUTOMATION AND ROBOTIC PROCESS  
AUTOMATION (RPA)


Cybersecurity in everything



## MANAGED STORAGE ~2.5 PETABYTES

MAINFRAMES  
IBM

### VITA MANAGES




## COMPUTERS

59,206 PCs  
5,161 SERVERS




## COMMUNICATIONS

25,000 VOIP  
PHONES  
2,400 CIRCUITS



## PRINTERS

2,374 NETWORK



## MAILBOXES

72,086 ACCOUNTS  
9,477 MANAGED  
NETWORK COMPONENTS



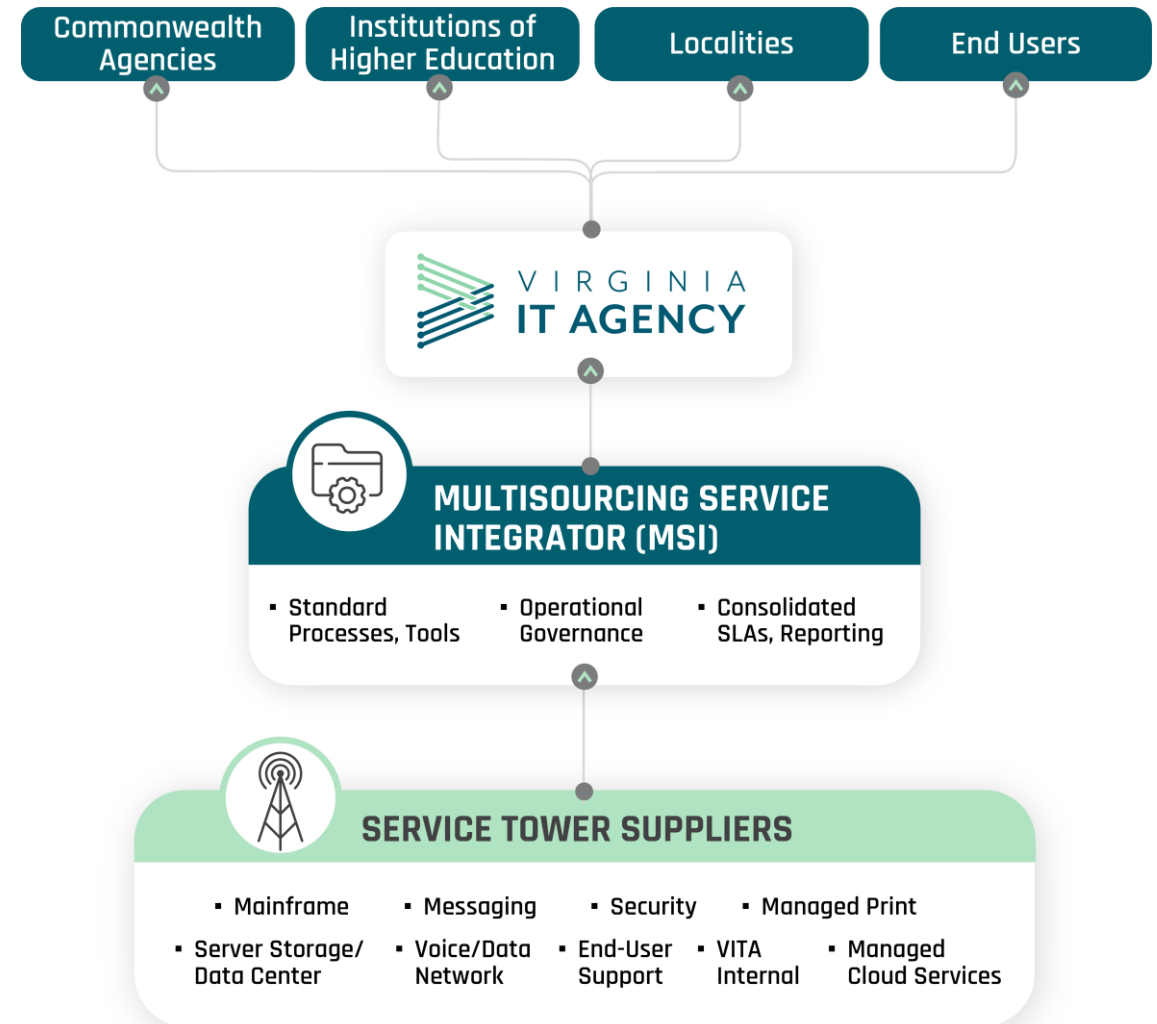
## PROCUREMENTS

200 STATE CONTRACTS  
\$1 BILLION OF  
CONTRACT SPENDING

# VITA'S OPERATING MODEL: MULTISUPPLIER

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- Since 2018, VITA evolved from a single outsourced model (Northrop Grumman) to the multisupplier model
- We have one multisourcing integrator and nine supplier areas ("towers") of services (all contracts are directly with VITA)
- In 2021, VITA recompeted the messaging supplier (from Tempus Nova to NTT) and platform (from Google to Microsoft)
- Currently recompeting two tower contracts:
  - Mainframe services
    - (RFP closed Oct. 11 - In Evaluation)
  - Managed cloud services
    - (proposals due Nov. 15)
- Next: MSS (security) then SSDC (data center)



# VITA'S LEADERSHIP AND STAFF



**Robert (Bob) Osmond**  
Chief Information Officer  
of the Commonwealth



**Naveen Abraham**  
Chief of Infrastructure  
Services



**Cynthia Cordova-Edwards**  
Chief Financial Officer



**Michael Watson**  
Deputy CIO and  
CISO of the  
Commonwealth



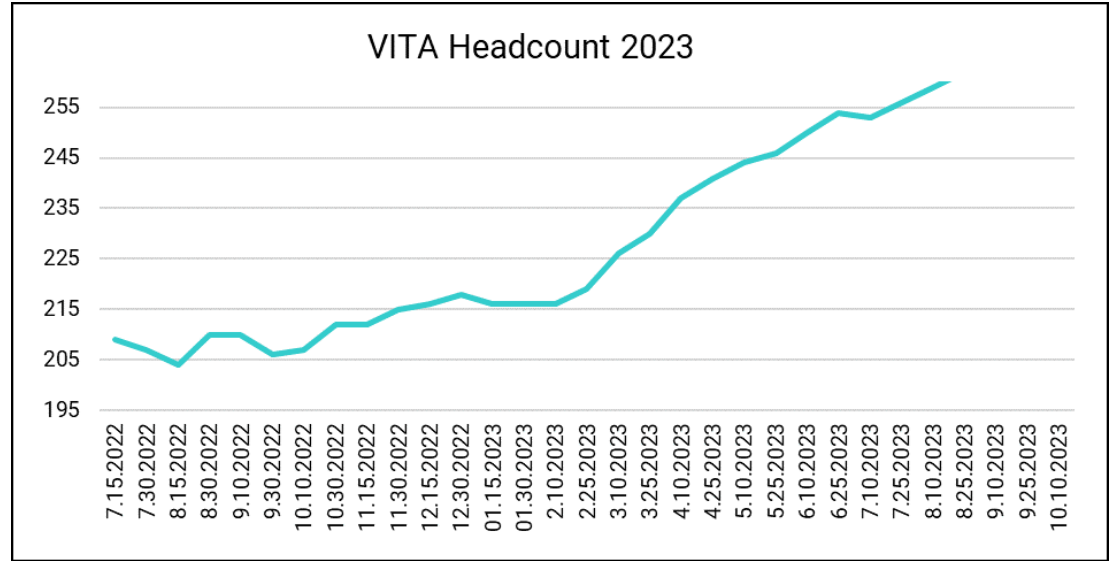
**Melinda Stewart**  
Chief of Enterprise  
Solutions



**Jason Brown**  
Chief Administrative  
Officer



**Richard Matthews**  
Chief Customer  
Experience Officer



## Staff levels

- 266 employees
- Current maximum employee level (MEL) is 319
- Hired 27 team members this past fiscal year

# SEVEN STRATEGIC INITIATIVES

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- 1 Improve the customer IT experience (including increasing the network capacity, improving latency, and enhancing workstation choice)
- 2 Power the Commonwealth of Virginia (COV) transformation with enterprise technology solutions
- 3 Cybersecurity for VITA, VITA's customers and the whole Commonwealth
- 4 Drive efficiency to provide higher value by streamlining operations (cloud, automation, website consolidation)
- 5 Enable data analytics, management, intelligence and science with enterprise data platforms, software, and services
- 6 Transform the VITA culture to instill urgency, customer centricity, business mindset, teamwork and inclusion
- 7 Apply smart governance to help customers succeed





# MAJOR ACCOMPLISHMENTS OVER THE PAST TWO YEARS

Focusing on continuous improvements and shared accomplishments with our customers:

## Completed

- Messaging migration
- Data center move
- VITA's move
- Key cybersecurity initiatives

## Ongoing

- Network modernization
- Commonwealth cybersecurity  
Zero Trust
- Website modernization
- Procurement transformation





## Messaging Migration Scope

Migrated 67 executive branch agencies and over 60,000 state employees to the new email and collaboration platform across diverse disciplines, disparate locations, various work environments and ever-changing technological needs.

## Outcomes

- Completed on-time and on-budget
- Transitioned more than 72,475 user accounts, migrating more than 1.6 billion objects with a 99.9% success rate
- Avoided disruption to state agency operations.
- All agencies migrated over 20 weekends



This was the VITA team that supported the messaging migration project deployments at the agencies. NTT DATA processed the Google to Microsoft migrations almost every weekend for eight months and provided hypercare after each deployment. Each agency provided as many or more resources than VITA during each deployment.

# COMPLETE: VITA'S OFFICE AND DATA CENTER MOVES

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## VITA's Move Scope

- Data center move required a parallel VITA office move and renovation, from Chester to North Chesterfield (The Boulders)

## Outcomes

- Closer proximity to more customers
- Saves the Commonwealth \$2.6 million annually
- Less drive time for most employees
- More than two dozen conference rooms; seven teaming areas
- Project completed on-time and under-budget



## Data Center Move Scope

Migrated about 4,500 servers and applications from a traditional, on-premise data center to a modernized, cloud-ready platform. The work was completed through 50 move events and 26 cloud migrations.

## Outcomes

- Increased speeds of production
- Flexibility and adaptability to business needs
- Reduced operations and maintenance needs
- Simplified support
- More resilient environment

# SPOTLIGHT: VITA'S CYBER PROGRAM

## Cyber threats continue to rise (CY2022)

- 55 million attack attempts
- 73,000 pieces of malware blocked

## Agency Cyber Program Improvements

- Modernized security standard (SEC530), aligning with latest federal (NIST) standards
- Cybersecurity awareness training (KnowBe4) for all executive branch agencies
- Multifactor authentication now includes enhanced password security (longer passwords for all and vaulted administrative passwords)
- New vulnerability management tools (Nucleus)
- New security tools for websites (Acunetix)
- Zero Trust implementation progressing
- Two stress test assessments (Mandiant)
- Additional security staff onboard; working on completing additional hiring needs through FY24
- 10th annual COV-wide Security Conference held



User and system access attempts (suspicious)

## Proof Point

The Commonwealth's cybersecurity insurance rates were reduced by 20% due to insurer's assessment of risk reduction.



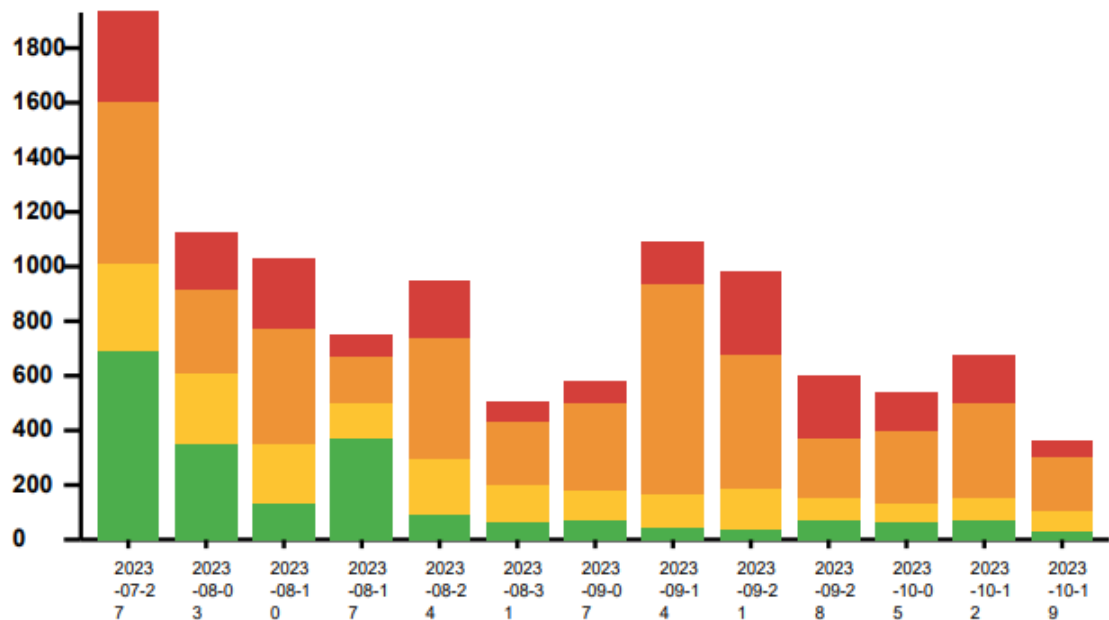


## Addressing vulnerabilities

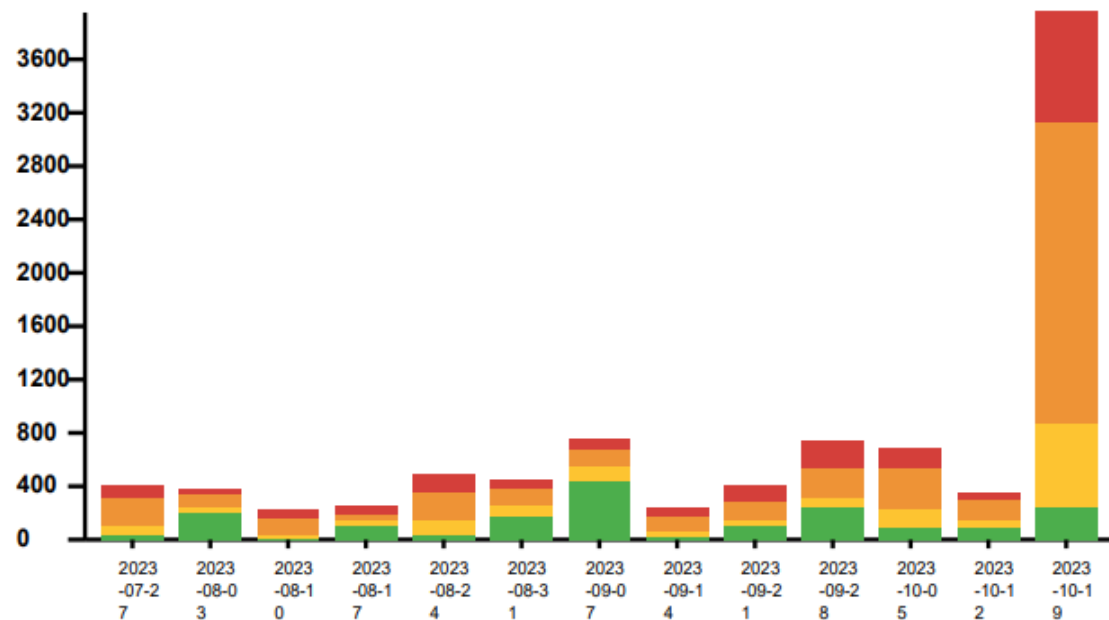
- New vulnerability tools now available
- Past 90 days show 11,297 vulnerabilities discovered and 9,438 remediated (84%)

### 3 Month Trends

3 Month - Discovered



3 Month - Remediated



## 2022

- Incident reporting requirement enacted for all public bodies, state and local (see [reportcyber.virginia.gov](https://reportcyber.virginia.gov))
- Budget authorizes Virginia participation in State & Local Cybersecurity Grant Program (and provides matching funds), a federal initiative run by CISA and FEMA

## 2022-23

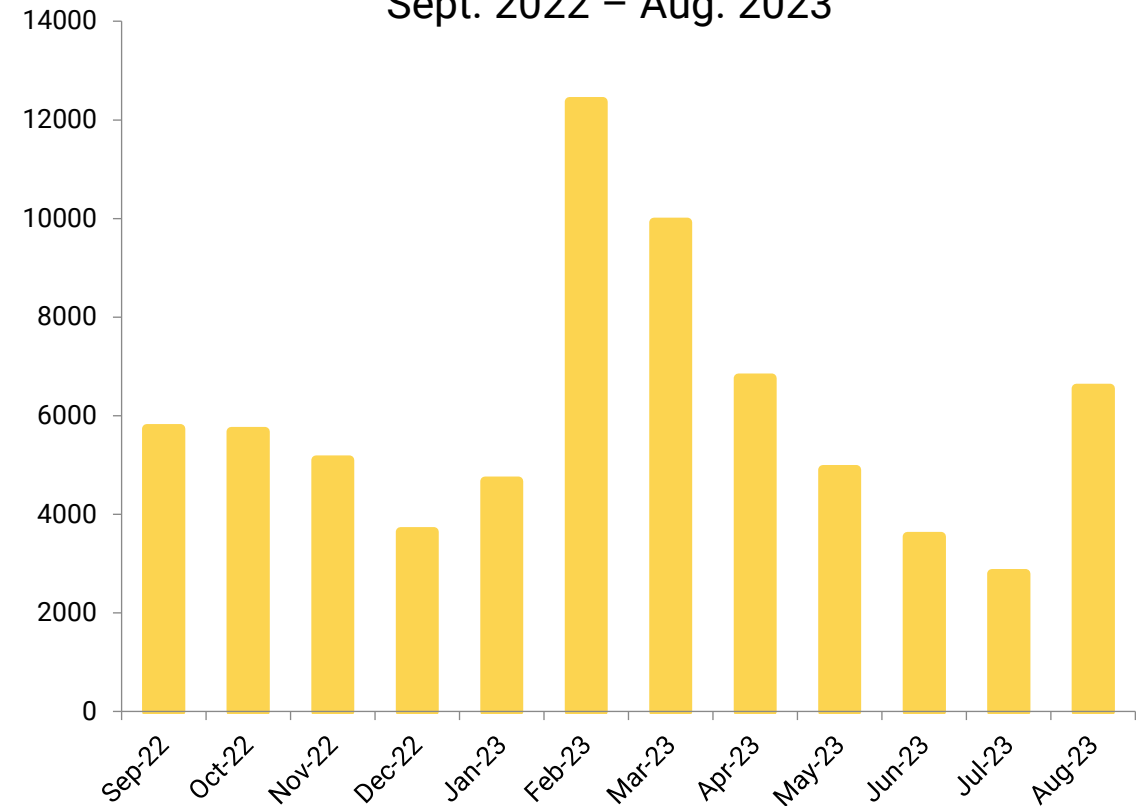
- Virginia Cybersecurity Planning Committee (comprising state and local cyber experts across key sectors) meets
- Virginia Cybersecurity Plan approved by Feds

## 2023-24

- Begin disbursement of federal and state funds to localities for cybersecurity improvements

## Number of pieces of malware blocked

Sept. 2022 – Aug. 2023



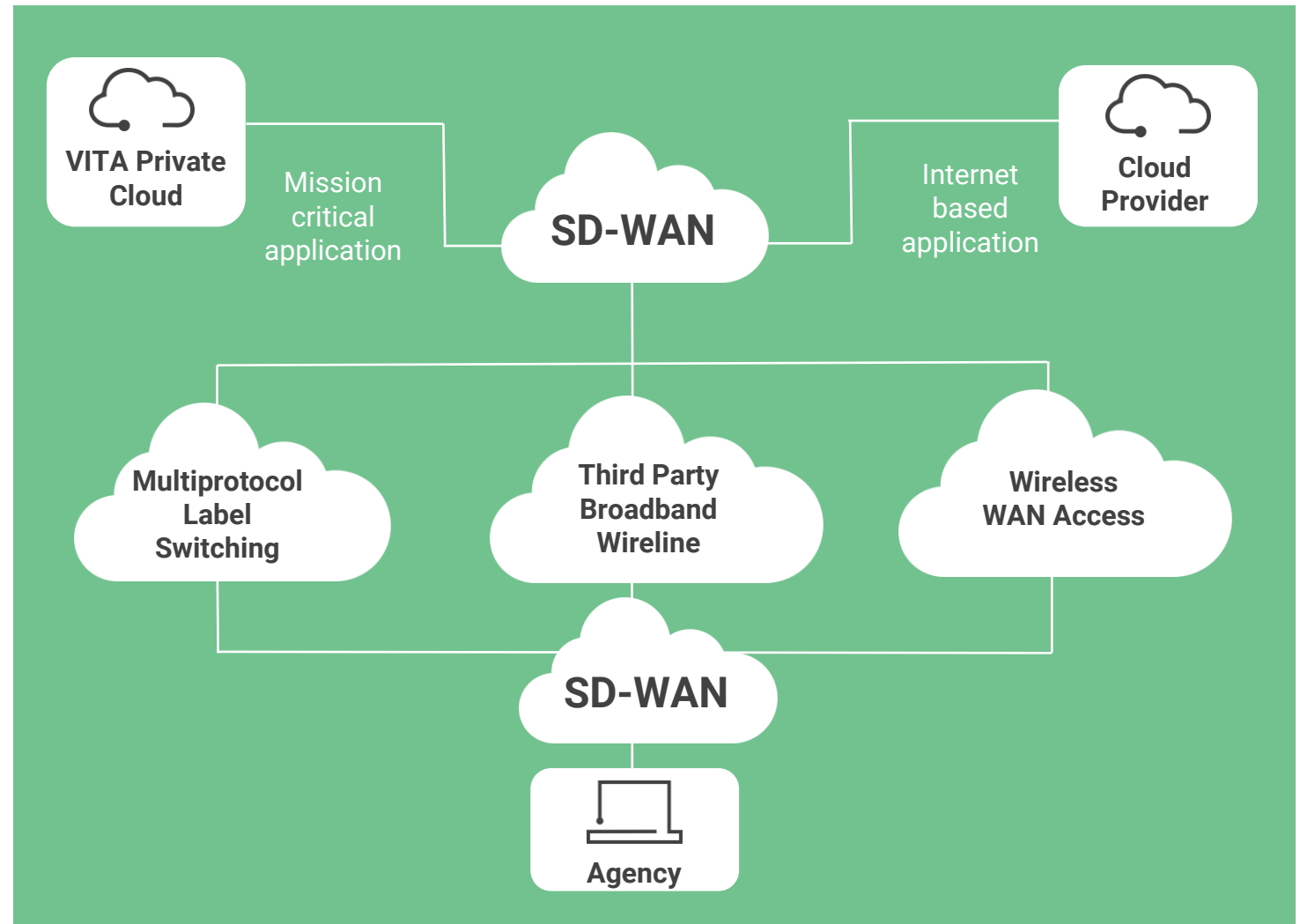
*Commonwealth-wide reporting (shown for the VITA-served agencies) available now that legislation provides for whole-of-state approach*

[vita.virginia.gov](https://vita.virginia.gov)

# SPOTLIGHT: NETWORK MODERNIZATION

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- One of our most critical priorities at VITA is to help modernize our network, increase capacity, and build resiliency across our infrastructure.
- This important work involves phases of efforts, including a software-defined, wide area network (SD-WAN) and broadband circuit upgrades to realize full and collective success.
- SD-WAN has been deployed to over 850 sites out of 1000 (over 80% complete) around the Commonwealth.





# SPOTLIGHT: SD-WAN & BROADBAND CIRCUIT INSTALL

15

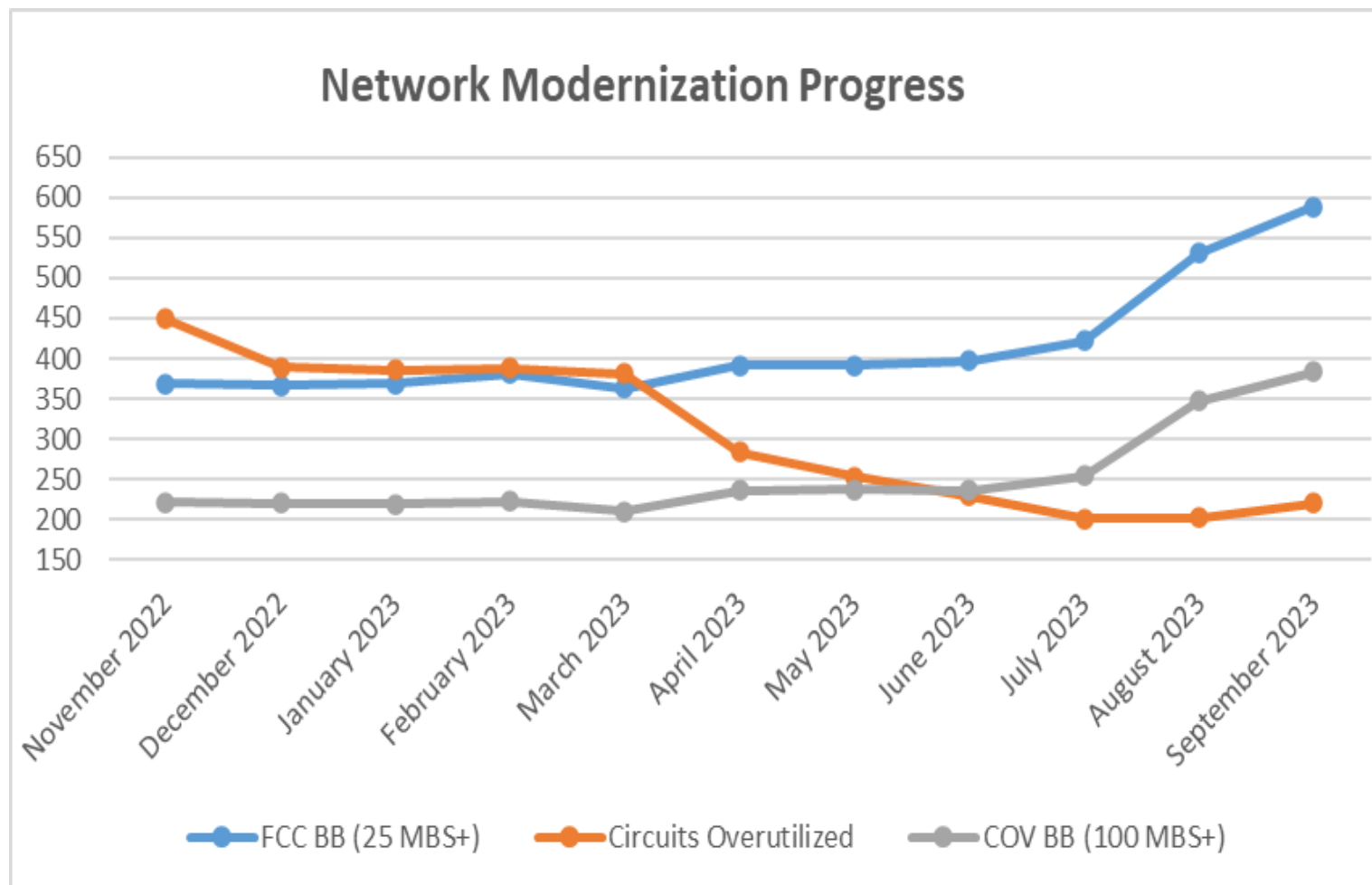
## Network capacity

### improvements:

- Deployed software defined wide area network (SD WAN) to over 850 sites
- Since March, we have doubled the number of sites with broadband and reduced by 50% the overutilized sites

## Network performance tuning (optimization):

- Eliminated over 22.5 TBs of weekly non-essential 3rd party network traffic
- Removed up duplicate protocol paths and over 1,000 obsolete firewall rules.

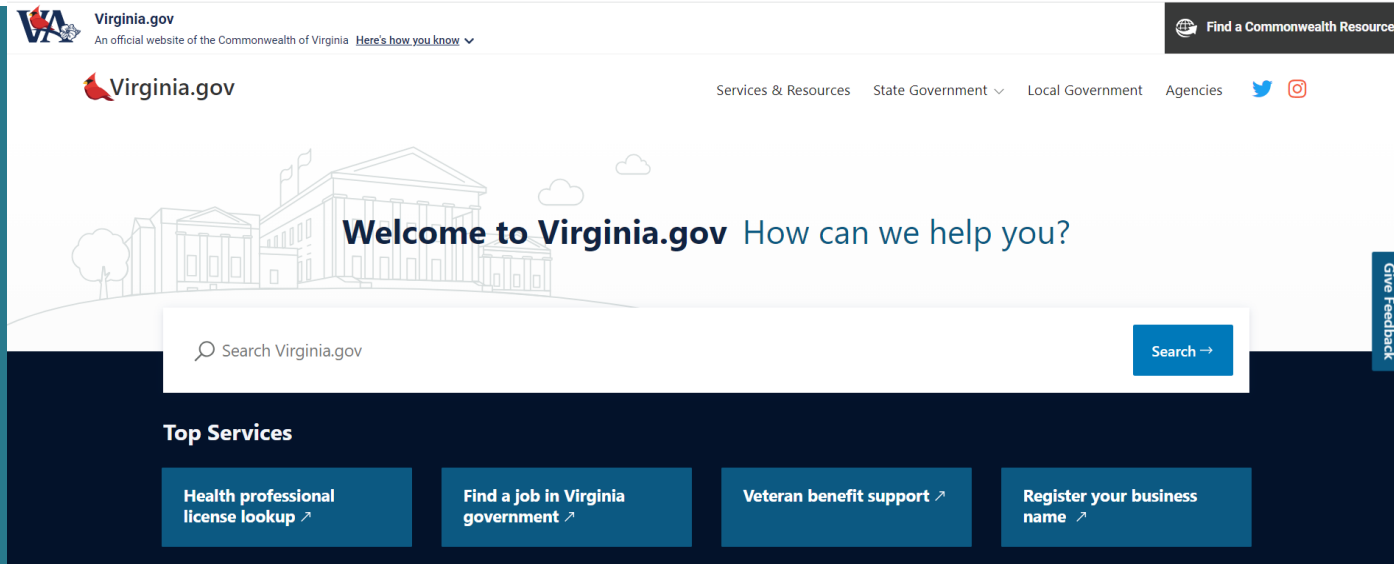


# SPOTLIGHT: WEBSITE MODERNIZATION

16

## Scope:

The Commonwealth of Virginia website modernization program was developed to ensure state websites provide an accessible, trusted and secure digital experience for all Virginians.



## Outcomes (so far):

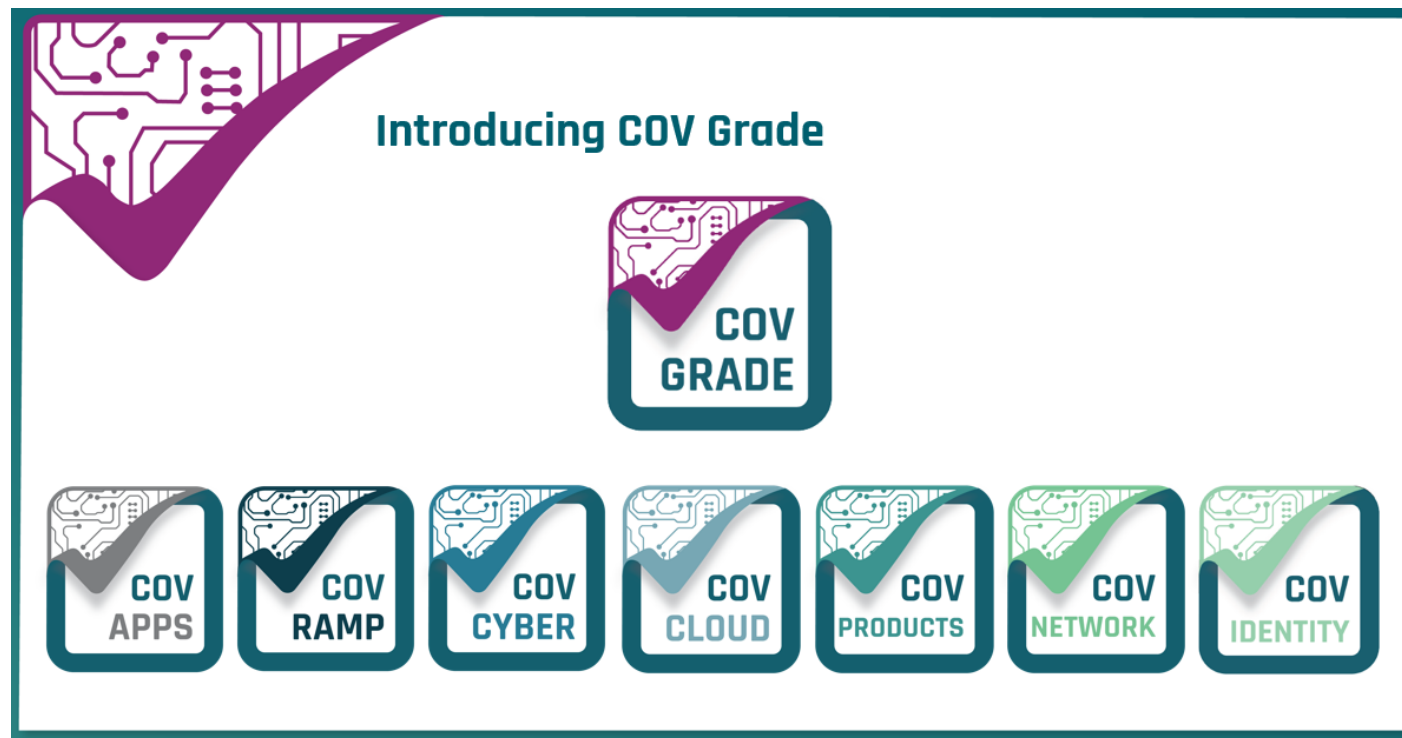
- The program provides new web standards, new security & accessibility tools and training for all customers.
  - In one year, moved baseline of 44% to 88.4% compliance website accessibility scores for executive branch agencies.
  - 100% of branding bar deployment for executive branch agencies
  - Over 200 websites identified for decommissioning
- Security tool rollout and training has resulted in a 50% decrease in late (over 30 days) critical and high vulnerability remediation over the last two months.

# THE FUTURE OF TECH IN THE COMMONWEALTH

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The Commonwealth of Virginia  
technology seal of approval:

Trusted.  
Secure.  
COV-Ready.





# Connect with us



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@VITAagency



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Example