

To: The Honorable Ralph Northam, Governor of Virginia
The Honorable Grindly Johnson, Secretary of Administration
The Honorable C. E. (Cliff) Hayes Jr., Chair, Joint Commission on Technology and Science

From: Nelson Moe, Chief Information Officer of the Commonwealth

Background

Pursuant to Section 2.2-2007(B)(2) of the Code of Virginia, the Virginia Information Technologies Agency (VITA) respectfully submits this report, which provides for annual updates on the “use and application of information technology by executive branch agencies to increase economic efficiency, citizen convenience, and public access to state government.”

Introduction

The Virginia Information Technologies Agency appreciates the opportunity to serve the Commonwealth’s more than 60 executive branch state agencies and 55,000 state employees, equipping and empowering agency colleagues to serve Virginia’s 8.6 million residents and many more visitors.

In 2020, the world faced unprecedented challenges posed by the ongoing state of emergency due to the novel coronavirus. Immediately after Governor Northam declared a state of emergency in March, VITA was presented with a fulfilling charge to transition Virginia’s executive branch workforce to a full-time remote working environment in a few short weeks. VITA’s expeditious movement and success was due largely to the Commonwealth of Virginia’s new multisupplier information technology (IT) infrastructure model.

To enable remote work, VITA expanded virtual private network (VPN) capacity by 700% (from 5,000 to 35,000 concurrent connections) in just over a month, implemented a cloud-based VPN alternative rapidly for large agencies with particular need, scaled up help desk support staff to address a surge in call volumes and VPN access requests.

VITA also obtained thousands of additional laptops sufficient to meet all identified remote work needs, created an option to take a desktop computer to a remote location for work, enhanced the frequency and detail of communications about operations, worked with the Department of Human Resources Management (DHRM) to develop guidance for telework, and addressed nearly all agency one-time requests in an expedited manner.

Through the tireless efforts of personnel in the Commonwealth's executive branch, the Commonwealth of Virginia this year placed among the top states in the country for digital technology by the Center for Digital Technology. Virginia earned an A-, one of the highest honors achievable in the comprehensive biennial survey, which rates states on demonstrated results in innovation, operations, governance and administration.

The survey also named Virginia as one of the "Top 3" states for excellence in Connected Infrastructure, which focuses on computing, networks, storage and cloud capabilities. The Commonwealth also earned two top honors from the National Association of State Chief Information Officers' (NASCIO) State Information Technology (IT) Recognition awards, which celebrate the country's leading government IT services. Virginia's winning submissions came from VITA and a joint initiative from the Department of Criminal Justice Services and the office of the Chief Data Officer.

VITA's recent implementation of its multisupplier model is enabling executive branch agencies to use technology to increase efficiency, citizen convenience, and public access to state government, as the examples in this report demonstrate.

Report

Virginia Department of Health – Emergency Call Center and Devices Support

The Virginia Department of Health (VDH) has been a lead agency in Virginia's response to the unprecedented challenges resulting from the novel coronavirus. With the assistance and support of VITA and its voice and data network supplier, Verizon, VDH began to set up command centers statewide before officials publicly reported the first coronavirus case in Virginia. These command centers materialized in about two days.

VITA also supported VDH in its efforts to establish an infrastructure for contact tracing, and most recently, COVID-19 vaccinations. Utilizing the multisupplier model, VITA ensured the provision of over 1,000 laptops for use by the contract-tracing workforce. VITA's end-user services supplier, Iron Bow, provided these laptops within an unprecedented timeframe. VITA also ensured the provision of over 1,000 tablets for use in Commonwealth's current vaccination effort.

Virginia Department of Transportation – Rapid Remote Work Expansion

With a multisupplier model in place, VITA and its suppliers have been able to ensure that the Commonwealth's critical services remained continuous even in a rapid transition to remote work. In March 2020, the immediate transition to a remote workforce placed a significant strain on the Commonwealth's virtual private network (VPN). The Commonwealth lacked sufficient

VPN connection capacity to adequately support the demand in usage. Atos and VITA expedited Zscaler, a cloud-based VPN alternative. The quick rollout enabled some of the large agency VPN users to relieve the strain on the VPN network.

VDOT was one of the first agencies to sign up as a pilot agency to help test Zscaler. Prior to the COVID-19 pandemic, VDOT's workforce reflected approximately 90% of workers reporting to a physical work location, and only about 10-20% of workers working remotely. VDOT currently employs approximately 7,700 full-time employees. Utilizing the cloud-based VPN alternative, VITA enabled VDOT to push Zscaler to approximately 6,000 users, thus transforming its workforce to reflect approximately 90% of its workforce working remotely, and to maintain continuity of business.

Department of Elections – Fiber Cut

The Commonwealth's network is key to conducting the business of the Commonwealth. On the last day of voter registration for the 2020 federal election, a fiber cut in Chesterfield County caused statewide disruption that directly affected the Department of Elections. This incident demonstrated how the multisupplier model has better equipped Virginia to deal with such challenges.

VITA worked directly with its supplier, Verizon, to ensure repair of the fiber cut within hours and then to better protect against similar occurrences moving forward, and ensure for network redundancy. Noting that the smaller, backup circuits did not perform adequately during the fiber cut outage, VITA and Verizon quickly added, and failover tested, two additional 1 Gbps circuits to ensure that loss of the main 10 Gbps circuit would not again result in such an outage. VITA has since added a redundant 10 Gbps circuit. In 2021, VITA plans a transformation of the technologies used in the Commonwealth's network to further improve capacity and resiliency.

Virginia Department of Corrections – Electronic Signature Rollout

During the unprecedented pandemic, VITA introduced electronic signature capabilities to ensure that the Commonwealth's critical services remained continuous. The Virginia Department of Corrections (VDOC) is the largest state agency, with more than 12,000 employees across the Commonwealth. VDOC is a unique agency in that it not only manages the largest workforce, but also coordinates an even larger population of resident offenders and the citizens wishing to maintain interaction with them.

VDOC was the first agency to utilize the DocuSign electronic signature services to facilitate continued offender visitation during the pandemic. Prior to the COVID-19 pandemic, VDOC staff conducted this process manually. Through the rollout of electronic signatures, VITA enabled VDOC to push DocuSign to approximately 43 facilities, with a total average daily population of

approximately 30,000 offenders.

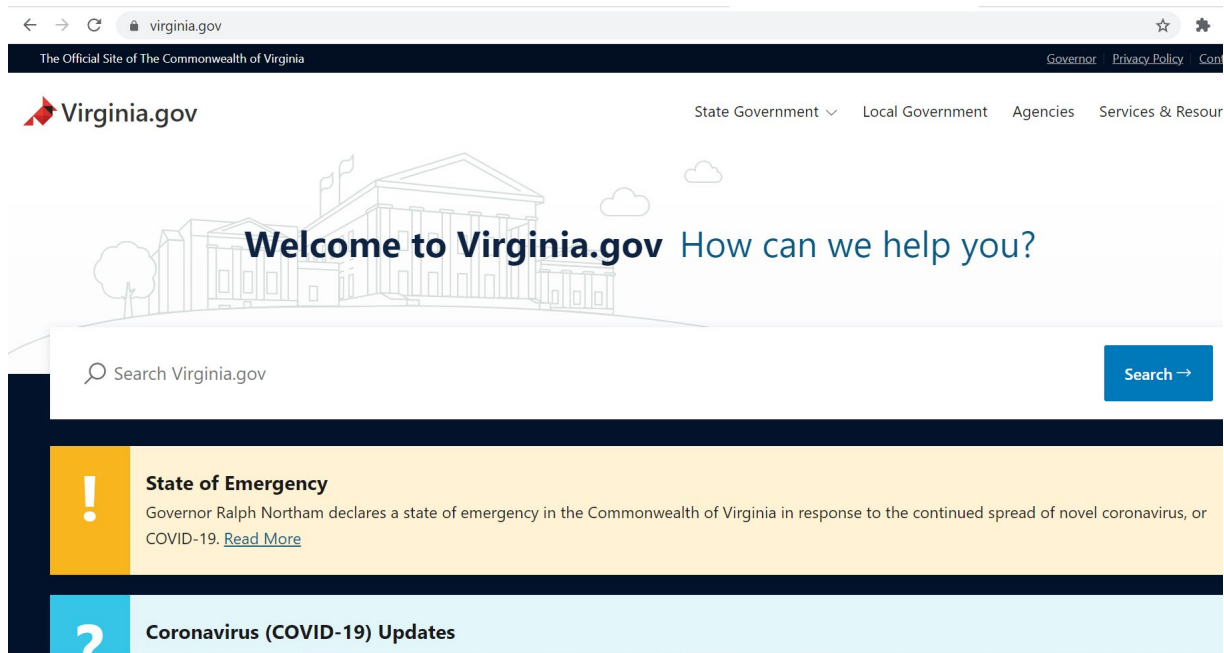
VITA received very positive feedback from VDOC. The technology enabled the agency to digitize many of their processes that require multiple layers of approval, such as curriculum management and submitting of post-class documentation, thus allowing better management of the approval flow process. This technology resulted in a drastic transformation in process, as well as the continuity of a critical service to the public.

Revamping of Commonwealth's Portal Website – Virginia.gov

In early spring 2020, the Virginia web team at VITA officially revealed its new version of the state portal website, Virginia.gov. For almost a year preceding the launch, the team studied usage, web analytics, and user input to develop actionable improvements and iterative design drafts for user experience testing. The new website now accomplishes the site's chief user goals: a welcome and an invitation to help.

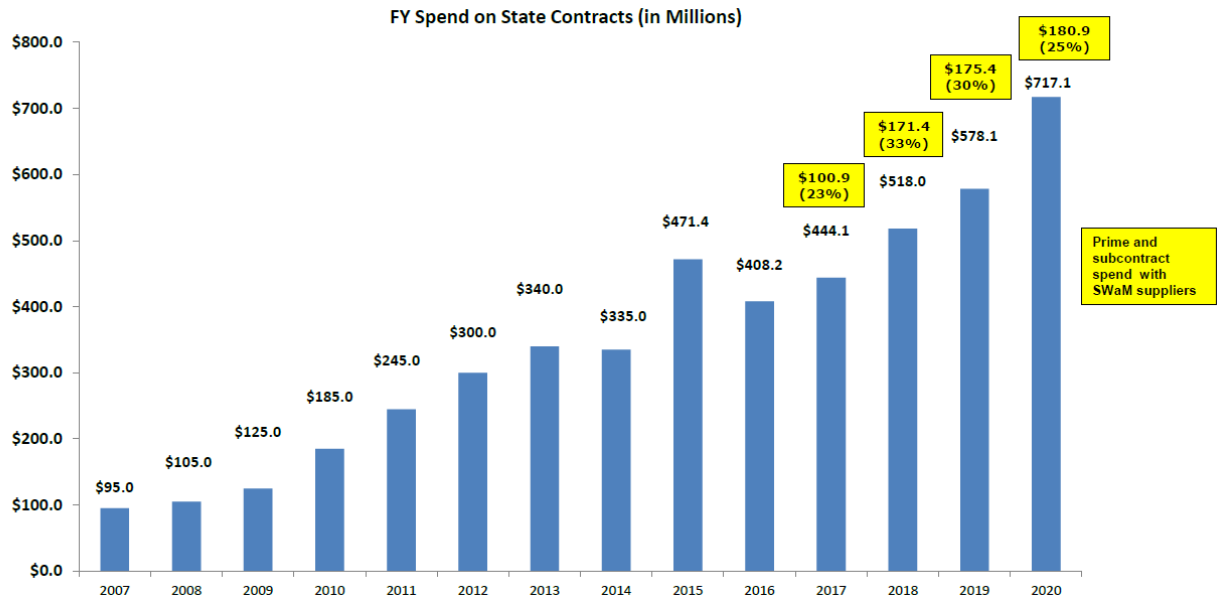
Virginia.gov's revamped search feature is now service-driven. The website invites the user to filter search results by services, agencies or localities. Service category listings provide another means for the user to access needed assistance based on service, not knowledge of government structure.

The new version of Virginia.gov is customer-centric and features a service-oriented redesign. The website now aligns with priorities of the chief information officer, the Governor and the Commonwealth IT Strategic Plan. The portal is 100% compliant with Level AA of Section 508 (concerning access for people with disabilities), and its content is fully responsive to whichever device a user chooses.



VITA - Increased Utilization of Virginia IT Contracts

With implementation of the new multisupplier model, VITA has built and grown a diverse, market-driven portfolio of new and adaptable services for Virginians. VITA offers a number of statewide IT service contracts that state and local public bodies may use to procure services beyond those contained in the VITA service catalog. The below graph from VITA's supply chain management team shows the year-over-year increase in the use of VITA contracts by public bodies. Such an increase demonstrates continued satisfaction resulting in an increased demand for services. With the best-of-breed offerings of the multisupplier model, VITA can ensure that customers are receiving the best services at value-driven prices.



Conclusion

VITA looks forward to continued opportunities in 2021 to assist executive branch agencies and Virginia's citizens benefit from the Commonwealth technology infrastructure and portfolio services. VITA continues its commitment to digital transformation and innovative technology, including with increased efficiency, better convenience and enhanced access to Commonwealth systems for Virginians and their communities.