



Hybrid Cloud in the Commonwealth: Virginia IT Leaders Embrace Innovation

Hybrid cloud solutions — which use a combination of on-premises, private cloud and third-party public cloud services — offer a viable path for government agencies to transition to and more fully leverage the cloud. In the Commonwealth of Virginia, three very different entities — the City of Virginia Beach, the Department of Judicial Information Technology (DJIT) and the Virginia Information Technologies Agency (VITA) — have adopted hybrid cloud approaches that fit their unique needs. Doing so provides the efficiency, resiliency and agility these organizations need to innovate, modernize and thrive amid rapid change in their IT and business environments.

The Sky Is the Limit

The following opportunities are driving government IT leaders in Virginia and elsewhere to embrace hybrid cloud:

Optimization and resilience. As part of an overall optimization strategy, a hybrid cloud solution helps organizations use resources as efficiently and effectively as possible. The ability to move cloud operations to different locations in the event of an outage, environmental disaster or other emergency is also an advantage.

Peter Wallace, CIO of the City of Virginia Beach, has real-world experience of the impact of an inaccessible data center after a tragedy occurred in one of the City's municipal buildings.

“Virginia Beach encountered a horrific event on May 31 of this year. Our data center is in the basement, which was ground zero for the shooting, so we were locked out of the computer room for almost two weeks. We had to really look at how we do business,” he says.

The City is now looking at a software-defined data center, which would allow it to leverage both existing legacy applications and new cloud-based services.

Less complexity. Moving to the cloud eliminates a lot of the customization and configuration that developers typically spend time on. The DJIT provides technology services to all levels of the Commonwealth's judiciary — from the Supreme Court and Court of Appeals to circuit and district courts.

“What interests us about the cloud is being able to stand up servers and not have to worry about things like maintaining the operating systems and patches. Let that be handled so we can use the resources we have on hand for the development of the applications,” says Mike Riggs, Director of IT for DJIT.

Customer satisfaction. Whether jurisdictions are serving the public or internal organizations, the cloud helps meet customers' expectations for a modern user experience. VITA provides cybersecurity, IT infrastructure services, IT governance and other services to the Commonwealth's executive agencies.

“Our customers fall into two different groups,” says Todd Kissam, Enterprise Architect for VITA. “The IT professionals want new services — containerization, orchestration, low code. The

business folks want software-as-a-service (SaaS) [that can deliver] back-office functions such as financial management and asset management. Many of these solutions can only be delivered through the cloud.”

Top Strategies for Success

IT leaders in the Commonwealth recognize that cloud technology alone does not guarantee success. The following measures are equally vital.

Enable data sharing. Cloud technology enables government organizations to more easily share data across departments, agencies and other environments; however, cultural and functional challenges such as disparate data use agreements, conflicting security and compliance policies, and obsolete thinking can inhibit data sharing.

“We as government have to realize that we don’t really own our data. We are custodians of it,” says Wallace.

Riggs advocates for strong data governance, where entities find common ground on the kind of data they need to share, how they will share it, and the security policies and mechanisms they need to apply. To address some of the privacy and security concerns associated with data sharing, Kissam recommends tools that anonymize data or enable data matching without using personally identifiable data. He also suggests organizations consider metadata repositories and other tools that help ensure data quality and create a common definition for the data being shared.

Ensure security and compliance. To ensure cloud security is in place for its agencies and foster confidence in cloud services, VITA implemented a security standard that focuses on hosting in the cloud and standardizes terms and conditions across its procurements. Security cloud architects use a formal process to review SaaS and other cloud-based applications before they are deployed. Security is also at the forefront of everything the DJIT does.

“We try to look ahead. We ask, ‘What do we want the core system to look like in five to seven years, and what do we need to do from a security standpoint to ensure we can make that move?’” says Riggs.

Making security a top priority changes IT culture.

“Security has to be part of the conversation from day one. If it’s not, by the time you deploy it, it’s already too late. That has changed our mindset. Today, cybersecurity people have to be at the table when we talk to our stakeholders as well as our own IT personnel,” says Wallace.

Use the cloud to foster a culture of continuous improvement, innovation and engagement. The cloud’s scalability, flexibility and interoperability enable organizations to adapt more quickly and easily to the accelerating pace of change. To take advantage of innovation and new opportunities, organizations need to clarify what they want to accomplish, be open to achieving their goals in new ways and demonstrate the benefits of change quickly. They need to educate and support their customers and staff to adopt a new mindset that focuses on solving business problems.

“We are trying to provide our agencies a set of managed services so they can focus on the business problems, not on maintaining or patching a server. And that is a cultural shift,” says Kissam.

Cloud technology can also be an important recruitment and retention tool.

“When we mention cloud or cloud development in a strategy meeting, there’s great excitement. If you’re doing progressive development and you have those architectures available to explore that new technology, the retention of key staff is easy,” says Riggs at the DJIT.

Looking into the Future

Commonwealth IT leaders agree there will always be small loads that have to remain on physical servers for security, compliance, performance or other reasons. They are also clear that a hybrid cloud approach is essential to maintain resiliency and scalability, interoperate with other partners and move into the future. As cloud offerings mature, confidence in cloud security increases and competition drives down prices, organizations will be able to take greater advantage of hybrid cloud offerings to quickly and cost-effectively meet customers’ demands for data and services today and in the IT environment of the future.

This session is part of the IBM Government Cloud Virtual Summit, a free, online event featuring 20 sessions with insightful keynotes, illustrative case studies and deep dives into job-critical topics for government leaders. To view any of these sessions, visit www.govtech.com/ibmvirtualsummit

