Data Center as-a-Service: The Gateway to Rapid IT Modernization

MARKET TRENDS REPORT

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INTRODUCTION

There's a renewed focus across government to modernize legacy IT infrastructure — most of which is costly to operate and taxing for agencies to manage.

Federal agencies have long grappled with the budget, acquisition and security challenges of maintaining aging hardware and software. But thanks to new laws such as the Modernizing Government Technology (MGT) Act and ongoing efforts to optimize data centers and better track IT spending, agencies now have a unique opportunity to take advantage of more modern and cost-effective technologies.

To balance the demands of uninterrupted mission services with the need to update legacy technologies, agencies need a path forward that involves an as-a-Service approach. This IT business model will enable them to streamline delivery of capabilities and technology and reduce costs.

More specifically, the benefits that come with Data Center as-a-Service (DCaaS) can help accelerate federal agencies' objectives of freeing up IT resources to focus on strategic initiatives, capturing all their operating expenses and standing up and optimizing mission-critical applications in a timely manner.

To further explore these issues, GovLoop partnered with ViON Corporation for this Market Trends report. ViON is a Cloud Service Provider with over 37 years of experience designing and delivering enterprise data center solutions to government agencies and commercial businesses. In this report, we highlight how DCaaS can accelerate IT modernization in government by addressing common IT challenges. You'll also learn best practices for making the most of this as-a-Service model and how DCaaS has benefited federal agencies.

BY THE NUMBERS

1,900
data centers closed by agencies since the 2010 Federal Data Center Consolidation Initiative (FDCCI), saving nearly $1 billion.

9,000
data centers remain in the federal inventory, with some 4,680 planned for closure under the revised FDCCI, known as the Data Center Optimization Initiative (DCOI)

Source: From the FY 2016 Annual Report to Congress: "E-Government Act Implementation"

$2.7 billion
expected cost savings by the end of fiscal 2018 from reducing costs attributable to physical data centers.

Source: The Government Accountability Office's "Data Center Optimization" report

8.9%
of the fiscal 2018 federal IT budget funds provisioned services, such as cloud computing.

DCOI requires agencies to:

- Develop and report on their data center strategies.

- Transition to more efficient infrastructure, such as cloud services and interagency shared services.

- Use technology advancements to optimize infrastructure.

- Provide quality services for the public good.

Source: https://datacenters.cio.gov/

Agencies are seeing success:

$3.1 million
savings per year for the National Oceanic and Atmospheric Administration, after it migrated to cloud-based email and decommissioned legacy servers.

Source: President's Budget for Fiscal Year 2018

THE CHALLENGE
Modernizing Legacy IT

In fiscal 2016, agencies spent more than $90 billion on IT, and nearly 80 percent of those resources went to operations and maintenance to keep existing systems running in their current state. That left only about 20 percent to fund development, modernization and enhancement projects, such as migrating to cloud environments and optimizing mission-critical applications.

The hope is that the MGT Act will give agencies more flexibility to recoup savings from IT projects and carry those funds over year-to-year. Then they can spend the money on other modernization projects, rather than being constrained by unpredictable congressional budget cycles.

But even with the new law in place, the road to modernization will be an involved journey for agencies, some of which are maintaining systems that are decades old. And these aren't just any systems, but critical systems that they rely on to execute their missions.

One of the major pain points agencies face is **identifying their legacy applications and understanding where they reside across data centers,** what servers they run on and what databases those apps interact with, said Rob Davies, Executive Vice President of Operations at ViON.

"It's about having a detailed understanding of your applications, how they function and which applications and functions might actually migrate to a more modernized environment," Davies said. "Sometimes agencies set goals of going to a public cloud, but they're challenging the laws of physics based on their user expectations for response times and performance levels, because these applications are tightly intertwined in the data center."

Another pain point agencies must work through is **developing a strategy and migration plan for transitioning from legacy technology to modern solutions.** Many agencies and commercial enterprises are transforming their IT infrastructure with enterprise-scale hyperconverged infrastructure solutions across the data center.

Hyperconverged integrated systems use a modular approach to provide compute, network and storage capabilities. While traditional IT infrastructures are generally defined by hardware on multiple devices from multiple providers, HCI is virtualized and delivered in a single standard server.

NetApp, which partners with ViON, is a leader in this space and offers solutions that provide increased infrastructure elasticity, less infrastructure overhead and easy automation.

In terms of developing a modernization strategy, agencies should address how they will incorporate these and other technologies. They should also detail how they will handle issues such as disaster recovery, where data will reside, cloud costs and acquisition plans for procuring new technologies.

"Putting together a strategy plan for how you're going to modernize your environment is crucial," Davies said.

THE SOLUTION

Modernization strategies involve multiple stakeholders and new levels of complexity that call for particular expertise, an innovative procurement model to keep costs down and a more comprehensive approach to capacity management overall.

At the highest level of government, agencies want and need the ability to manage their applications more easily — migrating them to a government cloud or on-premises solution, for example — and to modify applications in response to legislation or to improve citizens' online interactions with government.

DCaaS empowers agencies to conquer these challenges and helps managers maintain the proper balance among all the factors driving their success. DCaaS provides agencies with all facets of data center technology as a service, including storage, compute, network and HCI, in addition to capabilities such as data management, data protection, backup, recovery, archiving and data analytics – all without upfront investment.

"By investing in DCaaS, agencies can start to build up their working capital funds, using a strategic and purposeful migration plan to migrate to new environments, whether that's the cloud or keeping IT on-premises," Davies said.

In the next section, we share best practices on making the most of DCaaS to accelerate IT modernization at your agency.

BEST PRACTICES
Making the Most of DCaaS to Accelerate IT Modernization
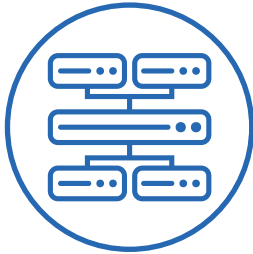
I. Modernize your data center

Familiarize your customers and IT staff with new technologies that will help them manage resources and workloads more effectively. Those solutions include virtualization and cloud technologies, and services that enable your agency to better manage, monitor and deploy necessary resources, whether they're more storage or computing power.

2. Increase performance and drive innovation

Take advantage of the speed and innovation that DCaaS provides to address your agency's mission objectives faster. Investing in DCaaS frees you to more easily move applications to different environments, such as public or private clouds. Having this flexibility allows your agency to better track the cost of running applications and their location. DCaaS gives agencies more options for managing their workloads in a way that best serves citizens.

3. Dramatically reduce downtime

DCaaS simplifies and accelerates the process for deploying new technologies in your data center, which leads to far less downtime. The nature of how these technologies operate changes the response to downtime for maintenance or unscheduled outages. If a disruption occurs, the natural protections that are built into the technologies allow these workloads to continue to run, which means you're less dependent on any one technology or system.

4. Reduce your Total Cost of Ownership (TCO)

When considering an investment in DCaaS, examine the total cost of owning and operating your current data centers. That includes acquisition costs for buying new technologies and operations and maintenance costs. Reviewing this data will give you a better understanding of what your agency spends on IT and potential savings from moving to a DCaaS model. Some of those savings will come from reducing your data center footprint and promoting energy efficiency. Under the MGT Act, agencies can funnel those savings into working capital funds to cover the costs of future IT modernization projects.

5. Partner with an experienced industry adviser

A trusted industry partner can help you understand what aspects of data center modernization could benefit you the most and the soonest. For example, how will DCaaS help your agency meet overall IT modernization goals and align with requirements in the Federal Information Technology Acquisition Reform Act? Do the economics of cloud make sense for applications and systems? These are the types of questions that you and your industry partner can explore together.

CASE STUDY

Federal agencies are tackling similar issues when it comes to modernizing their IT systems, including balancing maintenance costs of legacy systems with the resources needed to procure new solutions.

One federal healthcare agency in particular was challenged to provide secure, highly available, enterprise disk storage to meet the rapidly expanding requirements of its client agencies. The agency's IT department was managing multiple data centers with outdated legacy infrastructure, and budgets were overrun with excessive maintenance costs. In addition, the agency lacked resources to provide acceptable response times.

To address these challenges, ViON provided a flexible, highly reliable, and cost-effective storage as-a-Service. This solution enabled the agency to scale capacity up or down as needed.

ViON worked with the agency to plan for migration and deployment of new storage technology, including replacing outdated legacy systems, reducing downtime and eliminating excessive maintenance costs throughout the contract. ViON closely monitored and proactively managed the infrastructure to improve response times and reduce error rates. This ensured the highest level of availability and efficiency for the agency's evolving workloads.

ViON's fixed-price service covered the acquisition, shipment, unpacking, installation, initial configuration and maintenance of storage infrastructure. This approach minimized storage administration and logistics workload for the agency.

Through ViON's contract management processes, the agency managed project schedules and budgets with full accuracy for both cost estimates and invoice submissions. The solution ultimately reduced capacity provisioning timelines from six months to less than 20 days and provided cost-effective enterprise storage as-a-Service with 24x7 problem resolution support.

HOW VION HELPS

ViON's as-a-Service team provides an array of managed and professional services designed to transform how IT infrastructure delivers value. Working with ViON, agencies gain a deeper understanding of how data center modernization can benefit and empower them to operate more efficiently. Agencies ultimately determine the level of support they want and need.

For example, ViON helps agencies assess where DCaaS can help immediately and in the long run. It also helps agencies determine what investments will help them meet legislative requirements while fulfilling higher-level goals of operating more efficient facilities and better serving citizens.

"We help customers understand that this isn't a one-time effort, where you modernize and coast for the next five to 10 years," Davies said. "It's important that we help our customers with a strategy and an execution model against that strategy," whether that's cloud or otherwise.

Learn more here: http://www.vion.com/cloud/dcaas

Conclusion

As agencies make strides to better understand the true costs of owning and operating data centers, the business case for adopting cost-effective IT delivery models such as DCaaS will strengthen.

"Agencies are starting to understand that by taking advantage of a DCaaS approach, they will generate an amount of savings that is tangible and becomes the basis to build a working capital fund," Davies said. "That fund gives them flexibility as they look at how to use their budget more strategically."

DCaaS provides a new level of transparency into IT costs and operations that many agencies haven't had before. It ultimately enables agencies to make informed decisions about their IT modernization strategy today and well into the future.

ABOUT GOVLOOP

GovLoop's mission is to "connect government to improve government." We aim to inspire public-sector professionals by serving as the knowledge network for government. GovLoop connects more than 270,000 members, fostering cross-government collaboration, solving common problems and advancing government careers. GovLoop is headquartered in Washington, D.C., with a team of dedicated professionals who share a commitment to connect and improve government.

For more information about this report, please reach out to info@govloop.com.

ABOUT VION

ViON Corporation is a cloud service provider with over 37 years' experience designing and delivering enterprise data center solutions to government agencies and commercial businesses. The company provides IT as-a-Service solutions including on-premise public cloud capabilities to simplify the challenges facing business leaders and agency executives. Focused on supporting the customer's evolution to the next generation data center, ViON's Data Center as-a-Service offering provides innovative solutions from OEMs and disruptive technology providers via a consumption-based model. ViON delivers expertise and an outstanding customer experience at every step with professional and managed services, backed by highly-trained, cleared resources. A veteran-owned company based in Herndon, Virginia, the company has field offices throughout the U.S.

www.vion.com

ABOUT NETAPP

Government agencies of all levels count on NetApp for software, systems, and services to manage and store their most important asset, their data. With solutions ranging from data protection and recovery to cloud computing, data analytics, and flash solutions, NetApp has become government customers' top choice for key technologies that drive data center transformation. Top counties, cities, and states count on NetApp and value our teamwork, expertise, and passion for helping them succeed now and into the future.

For more information, visit www.netapp.com.