

How Data Center as-a-Service Accelerates IT Modernization





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Introduction

A man and a woman are in a meeting. The man is sitting at a desk, holding a tablet and pointing at the screen. The woman is standing next to him, leaning over and looking at the tablet with a smile. They are both wearing business casual attire. The background is a brick wall with some papers or charts pinned to it. The entire image has a blue overlay.

How can organizations make their operations agile and mitigate the complexities of IT modernization? The as-a-Service model is the gateway to achieving modernization quickly, efficiently and cost effectively, with greater confidence.

According to *Forbes*, “Digital transformation has created a business climate where no one wants to fall behind — not an easy task in an environment where tech changes daily.” This may explain why the global XaaS market is expected to grow at a compounded annual growth rate of nearly 40% from 2016 to 2020.

Storing, managing and accessing the right data for critical decision-making drives every organization’s success. However, under the data center umbrella lies a vast list of operational “must-haves” including cloud, information security, analytics and virtualization – all of which continually pressure IT managers, especially in the wake of explosive data growth.

So what’s the path forward? Leaders can tackle each individual part of the data center operation independently or opt for a truly robust solution that balances resources and performance needs across the entire enterprise. Given the vigorous pace associated with managing capacity, back-up, disaster recovery, data protection, storage, compute and networking needs, it may seem overwhelming.

However, modernizing the complete IT operation on an accelerated timeline while lowering costs is not only possible, it is available now – if organizations are ready to think differently about how they procure technology.

Data Center as-a-Service (DCaaS) provides all facets of data center technology without the up-front capital investment. It helps accelerate and streamline delivery of capabilities and technology, and reduce costs.

In this eBook, we'll share how DCaaS can reduce or remove the burden associated with modernizing data centers to gain efficiency and performance with fewer headaches.



1

A person in a dark suit is seen from behind, standing in a server room. They are looking at several rows of server racks. The room is dimly lit, with the primary light source being the blue glow from the server racks. The overall color scheme is a monochromatic blue.

Pursuing a Modern Infrastructure: Common Challenges Facing IT Leaders

Keeping up with technology changes across the data center and increasing capacity demands is a constant challenge for operations and procurement and impacts every aspect of an organization. This chapter examines the common issues IT and business leaders face that DCaaS can address.

1. INFORMATION SECURITY

The average total cost of a data breach is [\\$3.62 million in 2017](#)¹. Yet, industry surveys continue to show that information security decision makers across the country have little confidence in managing digital threats. One key question remains present for CIOs: how can you prevent the costs and loss of confidential information due to a data breach?

Securing existing data and data that is transmitted across the network are important to every CIO and administrator. Thirty-two percent of CIOs surveyed by [the Society of Information Management](#) listed security as their top priority. The right storage solution balances security with performance so organizations are less vulnerable to risk.

2. DATA CENTER CONSOLIDATION

Traditionally, organizations expand data centers to keep pace with data and application growth to support their workforce. However, this method is no longer successful in achieving modernization due to tight budgets and reduced resources.

¹ <https://securityandintelligence.com>



According to *Data Center Dynamics*, “services are replacing traditional procurement to lower costs and provide the most efficient technology.”

Modern data centers need to be effective in managing performance, efficiency and budget while still maintaining the flexibility to be nimble and meet needs as they arise. Data center managers are tasked with containing costs across all facets of the operation. This includes planning for capacity and avoiding over-provisioning as well as power conservations. It's a constant juggle and utility-based models dramatically alleviate these pressures.

3. DATA GROWTH

[Gartner](#) characterizes the Internet of Things (IoT) as a disruptive force that will forever change the data center, purely because of the data volume IoT creates. All this information must be stored, analyzed and prioritized in the data center so everyone can have access to it and derive value. Innovative data center strategies such



as edge computing are being implemented to control the volume of data and stay ahead. Keeping pace with the extraordinary volume of data, new technologies to control it and resources to manage it can be overwhelming.

4. DATA & ADVANCED ANALYTICS

In the battle to solve storage challenges, there is also the need to access, prioritize and analyze data to enable decision-making across the organization. The increasing volume of data requires a tiering system that allows organizations to derive value from the data with real-time reporting to make sure it supports the mission objectives. Data storage is just half the equation. Data agility, business-driven applications and machine learning are trends that require a different approach to data center operations. *CIO Magazine* claims that regardless of your industry or operation, **“Data will be everyone’s product.”** Information is being called, the “new currency.” Advanced analytics is increasing the value of this currency, but only if the data is accessible, secure and organized.



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Meeting Challenges & Accelerating Modernization

The IT landscape is changing so rapidly that what is modern today may be outdated tomorrow. Traditional IT procurement cycles are lengthy and misaligned with modernization strategies, which inherently favor speed, flexibility and access to the latest infrastructure technology. Instead of purchasing equipment that may quickly become obsolete, the ViON® as-a-Service model allows organizations to use operating expense (OpEx) funds to immediately access leading-edge technology they might not otherwise be able to afford with minimal risk. This approach provides a more dynamic solution, giving organizations the benefit of modernization today, tomorrow and in the future – on an as-needed basis with rapid deployment.

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. This is where DCaaS can conquer these challenges and help managers maintain the proper balance between all the factors driving their success.

Companies like ViON own and manage the equipment, but the organization chooses the vendor, configuration and technology elements included in the infrastructure. No capital is required. Vendor lock-in is avoided entirely. And organizations get the opportunity to truly right-size storage, maximize capacity and performance and seamlessly integrate the security, back-up and disaster recovery technology.

Storage can be scaled within hours or days instead of weeks or months – and there are no minimums, ceilings or penalties for deactivation. Hardware and software can either be installed on-premise or hosted and managed elsewhere. More importantly, as-a-Service frees valuable internal resources that may be bogged down by the cumbersome complexities of provisioning or managing storage to finally focus on meeting new objectives and driving innovation.



Take advantage of Data Center as-a-Service to:

- Align storage and IT infrastructure with current objectives
- Integrate compute, storage, virtualization and networking resources in a hyperconverged infrastructure
- Significantly lower costs and leverage OpEx vs. capital expenditure (CapEx) funds
- Establish consistency of service across multiple locations for better performance and greater efficiency
- Eliminate the risk of under- or over-provisioning storage
- Gain access to leading-edge storage technologies
- Avoid vendor lock-in and pay only for the capacity used
- Capitalize on best-practice Service Level Agreements (SLAs)

The benefits of Data Center as-a-Service are clear. We'll take a look at some of the options and advanced technologies in the next chapter.



3 Choosing the Right Solution



Today's infrastructure landscape offers more options than ever before and the flexibility of the DCaaS model gives organizations the opportunity to tap into these modern methods in record time, while minimizing risk and reducing costs. Consider the following and imagine the possibilities of attaining this type of leading-edge network, compute and storage technology without the lengthy procurement process and drain of CapEx funds.



ENTERPRISE IT: Enterprise network, compute and storage offerings provide agile and scalable platforms with unmatched reliability to support today's modern applications, which require systems that are always on and always available. DCaaS puts the industry's best combination of enterprise-ready storage, advanced global storage, virtualization and efficient, easily scalable high-performance hardware within easy reach, enabling continuous operations, self-managing policy-driven management and agile IT.



SOFTWARE-DEFINED STORAGE: Software-Defined Storage (SDS) includes data storage technologies that separate storage hardware from the software that manages storage infrastructure. By abstracting software from hardware, SDS empowers portability, scalability and flexibility, greatly improving the capacity and performance of storage systems and lowering the overall total cost of storage. A SDS environment provides policy management for features such as data

deduplication, replication, thin provisioning, snapshots and backup. This is increasingly important as data centers experience growth of unstructured data, creating a greater need for scale-out architectures.



FLASH: Due to its extreme flexibility and ability to scale quickly to meet a wide variety of workloads and performance demands, Flash storage is transforming storage architecture and revolutionizing the enterprise data center. All-Flash storage arrays can scale up or down to meet exacting requirements, allowing organizations to speed applications, create hybrid environments or supercharge entire storage systems.



OBJECT/FILE STORAGE: According to IDC, unstructured data will account for 80% of all data created in 2020. Object storage architecture offers a promising solution to this growth. It can be implemented at multiple levels, including the device level, the system level and the interface level. Object-based storage delivers high scalability, reduces complexity in terms of management and lowers total cost of ownership. This solution offers the flexibility to retrieve or push data to and from cloud storage services and ultimately enables IT organizations to focus on gaining value from the data versus managing data repositories.



HYPER-CONVERGED INFRASTRUCTURE:

The single shared infrastructure integrates server, storage, networking and virtualization resources into a dynamic Enterprise Cloud Platform. Rapidly scale and reassign resources to meet the performance, availability and security requirements for each application. Organizations can gain recovery, search and application development in a hyperconverged environment on a single platform and simplify back-up and recovery for virtualized environments. It is the ultimate means to simplify the complexities of the data center in a pre-configured intelligent, software-defined solution that can be deployed in minutes.



DATA MANAGEMENT AND PROTECTION:

The Cloud Data Management platform delivers instant application availability to hybrid cloud enterprises essential for recovery, search, cloud and development. It also provides instant, self-service access, where customers mobilize applications, automate protection policies, recover from Ransomware and search and analyze application data at scale on one platform. Ensure applications and data are instantly accessible in an immutable format and resume business within minutes of an attack.



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Use Cases: Data Center as-a-Service

CIVILIAN AGENCY AAS SOLUTIONS

CHALLENGES	RESULTS	IMPACT
<ul style="list-style-type: none">• Excessive storage infrastructure outages and downtime• Complex contracting process for storage provisioning• Vendor lock-in• Dispersed management of storage infrastructure	<ul style="list-style-type: none">• Agile financial acquisition model for storage• Single entity for storage ownership, management and operation• Vendor-agnostic storage solutions• Predictability, stability and consistency• Scalable growth	<ul style="list-style-type: none">• Saved \$1 Million/month for first 6 months• Reduced storage footprint by more than 70%• 500+ storage requests delivered in less than 1/4 of the time for similar requests under previous model

ViON's on-premises managed storage services freed the agency from the burden of day-to-day storage management and allowed its IT team to focus on the needs of its customers and mission demands.

ViON provided a secure, web-based management portal, which simplified procurement and streamlined the ordering process. It also provided the agency visibility and ensured better control of project schedules and budgets.

Solution included: Enterprise Disk Storage, Network-Attached Storage, SAN Switches, Engineering, Services

Hyperconverged Infrastructure with Simplified Data Protection, Delivered as-a-Service.

The Joint Solution: Nutanix + Rubrik

Nutanix and Rubrik offer innovative, next-generation data center infrastructure that delivers business applications and services with cloud-like economics. And with ViON's expertise, this technology is available in a flexible as-a-Service model supported by professional and managed services.

Key features:

- Easy to deploy
- Simple to scale
- Save time with automation
- Track compliance and capacity
- Save money
- Scale and grow with your requirements



HEALTHCARE AAS SOLUTIONS

CHALLENGES	RESULTS	IMPACT
<ul style="list-style-type: none">• Outdated legacy systems, excessive downtime and maintenance costs• Delayed response times and high error rates• Complex contracting process for storage provisioning	<ul style="list-style-type: none">• Agile financial acquisition model for storage• Reduced application downtime• Modern IT storage delivery in an OPEX funding model	<ul style="list-style-type: none">• Saved a total of \$5M or 34% over a 5-year period• Refreshes ensured modern technology• Reduced acquisition time from 6 months to 15 minutes

ViON's as-a-Service approach accelerated the deployment of enterprise storage technology through a flexible model for increased capacity and lower costs.

Solution included: Enterprise Disk Storage, Mid-Tier/Modular Storage, Network-Attached Storage, SAN Switches, Engineering, Managed Services

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Why Choose as-a-Service with ViON?

Managing the challenges described above can be complex, time consuming and resource intensive – and it’s easy to create, rather than solve, capacity dilemmas. Developing strategies to align hardware, software and human capital required to manage data centers is complex. CIOs are challenged to find qualified personnel to manage it all and that is where an as-a-Service model can provide a valuable solution with experts available 24/7/365 to ensure success. We allow IT organizations to focus on more strategic endeavors, while we carry the burden of storing, securing and managing the organization’s most sensitive information.

When organizations contract with a systems integrator like ViON to support their data center, they gain a more responsive and highly available service.

“Here at ViON, we are not new to this IT consumption model and method of supporting organizations” says Rob Davies, ViON’s Executive Vice President of Operations. ViON has made the movement to aaS a fundamental principle in its business strategy. Its leaders understand the technology and how aaS can solve the business needs and what architecture is the right approach for each individual customer.

ViON’s as-a-Service team puts experts on your side to make the right architecture choices from the start. This offering doesn’t stop at hardware and software. We provide an array of managed and professional services designed to transform how IT infrastructure delivers value. You determine the level of support that you

organization wants and needs. In some cases, where resources and storage expertise are plentiful, that may simply mean ViON manages installation and configuration, and then steps away. If the data center team requires more support, ViON has various support engagement models from design, engineering, architecture, capacity planning and provisioning to break-fix, upgrades, ongoing administration, software licensing and more.

ViON is a veteran-owned, privately-held company with over 37 years of experience delivering enterprise-level infrastructure and support services to the federal and commercial marketplace. ViON has more than 17 years of experience providing data center support as-a-Service to businesses, government agencies, DOD and civilian agencies, CONUS and OCONUS locations, and classified and unclassified environments.

ViON works with the largest and most innovative OEM suppliers in the industry to design and implement custom solutions. To provide the highest levels of customer care, ViON also operates two 24/7/365 support centers in the United States, staffed by security cleared U.S. citizens, and our field and support engineers are located throughout the country, so your ViON storage team truly works where you work. To further simplify procurement, ViON offers a range of contracts and agency-specific purchasing vehicles.

Contact us to learn how you can get ahead of your most pressing infrastructure challenges with ViON. Contact us directly to determine the best path forward for your organization DCaaS@ViON.com or visit www.ViON.com/DCaaS to learn more.

