Discover the Next Generation Infrastructure: Infrastructure as-a-Service
Digital Transformation starts in the data center... requiring companies to first undergo an IT transformation, which converts the IT organization from a back-office enabler of business to a prominent role as the engine powering digital business.¹

As we look at the fifth Federal Information Technology Acquisition Reform Act (FITARA) scorecard released at the end of 2017, we see a dip in agency scores for the second consecutive year, prompting the Office of Management and Budget (OMB) to extend the Data Center Optimization DCOI deadline into 2020. The FITARA scorecard is meant to examine agencies’ progress in implementing DCOI guidelines and support IT acquisition reform and security; despite continual effort, organizations are clearly struggling to keep up. The road to modernization is a complicated one, particularly because many agencies are maintaining systems that are decades old. Why? Legacy systems are the backbone that enable these organizations to achieve their missions and a complete overhaul comes with great risk and cost. But today, there is light at the end of the seemingly endless IT modernization tunnel. While the industry has braced against the many challenges, it has also prompted great innovation.

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**Time to Accelerate Your Data Center Modernization**

- **72%** of Federal IT managers state that converged infrastructure will become the central housing mechanism for their data center needs.¹

- **43%** of IT professionals cite the need to support business stakeholders with faster, on-demand delivery of infrastructure and applications.²

- **3X** more projects achieve on time or ahead-of-schedule results in modernized data centers.³

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Source 1: https://www.meritalk.com/articles/converged-infrastructure-helps-fill-data-center-needs/

The Modernizing Government Technology (MGT) Act was signed into law December 2017, giving agencies a funding mechanism to accelerate IT modernization as they identify their best options for updating aging infrastructure and implementing more secure solutions. It is a shot in the arm – giving agencies support and encouragement to save for modernization. Technology manufacturers and service providers are also responding to the market by providing more economical and flexible solutions with on-demand delivery. The new legislation, along with the advent of hyperconverged technologies, software-defined everything and the as-a-Service “on-demand” approach to data center modernization, promises a better route to FITARA success. And these new solutions aren’t just improving operations from a technology standpoint, they are breaking down siloes within organizations and freeing up internal resources to pursue other goals.

In this paper, we examine current data center optimization challenges and trends, as well as how Infrastructure as-a-Service and new hyperconverged infrastructure solutions are providing a means to future-proof the data center and bridge the gap to modernization.
The Roadblocks to Optimization

On average, federal agencies spend upwards of 80% of their time maintaining legacy data center technology. This type of environment causes a ripple effect of inefficiency and creates siloed groups within IT that are bogged down in manual processes. Meanwhile, the demands of new applications and access to data require more efficient approaches like multi-cloud and hybrid cloud environments. Simply put, new demands do not coexist peacefully with legacy data centers. Nearly all agencies face a similar set of challenges that the right acquisition model and technology can address without risking the mission.

Federal agencies spend upwards of 80% of their time maintaining legacy data center technology, causing inefficiencies across the operation and impeding modernization.
Maintaining Information Security

Securing existing data and data that is transmitted across the network is 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 and loss of confidential information. As agencies modernize, many are seeking greater confidence in data management and protection along the way.

Consolidating Data Centers

The traditional model of expanding data centers to keep pace with application growth is no longer sustainable due to tight budgets and reduced resources, requiring a more economical path to growth. According to Data Center Dynamics, “services are replacing traditional data center 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. It’s a constant juggle and utility-based models dramatically alleviate these pressures.

Managing Data Growth

According to IDC, by 2025 the total amount of digital data created will hit 180 zettabytes as a result of the volume of devices and sensors generating data. Agencies are tasked with storing, analyzing and prioritizing this data so it is secure but accessible and delivers greater value. Innovative data center strategies such as edge computing are being implemented to control the volume of data and stay ahead.

Integrating 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. Data volume needs to be well managed in order to derive value and provide real-time reporting to support the mission. Advanced Analytics increases the value of data as a type of “new currency.” This is only made possible when the data can be securely stored, tiered, accessed and organized. The right data center technology supports this effort and automates the process.

Infrastructure as-a-Service Provides Gateway to Modernization

Modern technologies like hyperconverged infrastructures and the Infrastructure as-a-Service model are built with all the challenges to modernization in mind and are cloud enabled to handle larger volumes of data, workloads and application deployment. Fortunately, with the MGT Act and expansion of FITARA into 2020, agencies have the “wind at their back” when it comes to optimizing their data centers. It’s not a matter of if or when agencies will modernize, it’s a matter of how to best make the transition. When facing the shift away from critical legacy infrastructures, agencies can significantly benefit from an as-a-Service approach to streamline delivery of capabilities and reduce costs.
The Potential of the Infrastructure as-a-Service Business Model

Modernizing IT infrastructure requires a multi-process flow of activities and services based on an overall strategic plan that incorporates milestones. Even with their best effort, when organizations find the right technology to solve their challenges, they are often “stuck on go” because of the complexities of migrating workloads and the cascading effects on their teams. Infrastructure as-a-Service changes this dynamic, solving issues across the entire process. This approach to modernization gives agencies access to the technology they need with the support of a full-service partner, like ViON®, that can adapt to existing legacy systems and support migration to new technology. This is the hallmark of ViON’s as-a-Service approach – understanding the customer’s unique environment and requirements to provide a smooth transition and ensure mission-critical data and operations are never compromised. The Infrastructure as-a-Service model bridges the gap, bringing balance among budget, timing and modern technology, all while reducing financial risk.

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The as-a-Service Model Opens Doors to New Technology

The traditional 3-tier architecture (compute, storage, networking) is quickly becoming a model of the past. These outdated systems are being replaced with hyperconverged infrastructures (HCI) that offer a more agile approach and require less staff and support time. Many organizations are also shifting to multi-cloud environments that combine the benefits of private on-premises and public cloud. The Infrastructure as-a-Service approach to transformation enables agencies to take advantage of these trends, allowing them to select which infrastructure and cloud environment best meets their application and data needs and providing the means to easily move between clouds as necessary. Essentially, Infrastructure as-a-Service takes the “building block” approach to modernization. Agencies can procure blocks of infrastructure at a fraction of the cost and then add on as needed – paying only for what is consumed.

The Benefits of Infrastructure as-a-Service

- Accelerated time-to-market
- Reduced footprint and increased energy efficiency
- Scalable, flexible, hyperconverged infrastructure
- Ability to store backup and archive data in Private and/or Public storage clouds
- Simplified IT and faster response to business demands
- Elimination of under- or over-provisioning storage
- Dramatically reduced downtime and increased IT staff productivity
- Opportunity to capitalize on best-practice Service Level Agreements (SLAs)
- Reduced total cost of ownership and ability to leverage OpEx funds
- Enhanced agility in workload management and application development/deployment
Migrating to Hyperconverged Infrastructure as-a-Service

Hyperconverged Infrastructure (HCI) is the transformative technology at the core of the Infrastructure as-a-Service movement and the fastest most economical way to transition from old to new. Offering a cloud-ready infrastructure, HCI integrates the components found in the traditional 3-tier architectures of the past into one consolidated, commoditized x86-based appliance. It is a platform with the flexibility to run software-defined storage and a hypervisor. Early use cases of HCI centered on test/development and Virtual Desktop Infrastructure (VDI) environments. Now, VDI is embedded in HCI allowing users to easily move workloads and optimize mobile environments. As a result, HCI is being used by organizations to handle more mission critical applications and workloads than ever before.

In today’s public cloud conversations, we often hear the technology isn’t important, but industry research disagrees. According to IDC, technology will increasingly determine how organizations define and distinguish themselves. The technology that agencies choose must enable a hybrid cloud state to maintain relevance in the future and choosing “future-proof” technology isn’t simply a suggestion, it’s becoming mandatory. ViON MarketPlace® makes this possible by implementing private cloud with public cloud and enabling management of technology as-a-Service.

Today, 34% of firms are running business applications on HCI

Key Benefits of Hyperconverged Infrastructure

**Ability to Scale:** The size of HCI appliances, usually two rack units (2U), allows organizations to start small and scale granularly.

**Quick Deployment:** Setup of an HCI system is much simpler and faster than a traditional system; HCI greatly reduces the complexity of architecting components, installing, configuring and getting systems ready for end users to access.

**Ease of Administration:** HCI offers a simpler administration platform, with all administration tasks managed in a centralized management portal.

**Evergreen Infrastructure:** Upgrading HCI environments and maintaining current infrastructure is easier, as workloads can be quickly migrated from older hardware to newer hardware – reducing the amount of downtime normally seen with traditional forklift migrations.

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The Business Impact of HCI: Business Value Highlights

- **Five-year ROI:** 619%
- **To payback:** 6 Months
- **Lower cost of operations:** 59%
- **Faster to deploy:** 73%
- **Less staff time to complete business extensions:** 83%
- **Less staff time to deploy storage:** 81%
- **Less unplanned downtime:** 98%
- **Improved application performance:** 42%

Take the Next Step to Data Center Modernization with ViON

ViON has been providing as-a-Service solutions to the industry for more than 16 years, but this model has never had greater value and application than it does in today’s environment. As agencies face an array of hurdles on the path to modernization, ViON’s expertise in migrating organizations from legacy technology to hyperconverged infrastructure tackles the largest among them. ViON has cleared the path to give agencies unprecedented flexibility, performance and financial security all backed by its 24/7/365 managed and support services team.

Where agencies have previously faced headaches in procuring technology and managing SLAs, ViON has introduced its MarketPlace®, where customers can manage their as-a-Service program from end to end.

ViONMarketPlace.com
Managing as-a-Service Solutions In A Single Platform

Across all industries today, consumers are looking for a tailored user experience – one that focuses on their needs, puts them in control and eliminates complexity. IT organizations are no exception.

Identifying the best path to data center transformation is just half the battle for IT decision makers. Organizations need a streamlined, efficient means to procure and manage new IT environments. With this in mind, ViON created MarketPlace® – a self-service portal that allows organizations to manage their as-a-Service solutions from a single cloud-based platform anytime, anywhere.

MarketPlace, hosted by ViON for use by authorized customers, OEMs and resellers, enables IT managers to shop, compare, procure and manage IT infrastructure delivered as-a-Service. A cloud services platform, the ViON MarketPlace includes one of the largest portfolios of data center technologies priced as-a-Service. It provides greater control and oversight of requirements, procurement, workflows, contracts and key performance indicators.

The ViON MarketPlace platform was designed around the following four primary drivers:

**Procurement:** Simplifies the process of researching, comparing and ordering technology solutions provided “as-a-Service” with intuitive eCommerce tools.

**Management:** Enables controls around who can make acquisition and funding requests to ensure organizations know exactly what services have been ordered.

**Visibility:** Provides centralized account view, end-to-end, that shows order history, status, provisioning, usage and billing – allowing for transparency across all facets of service and ability to make modifications at any time.

**Control:** Offers tools to create detailed and customized reports on-demand that illustrate SLAs, usage, performance, billing, metrics, payments and more.

Key Benefits

- Offers shop and compare features, specifications and pricing from multiple technology manufacturers on a single site.
- Simplifies the IT procurement process and helps manage costs.
- Provides greater management and control over as-a-Service environments.
- Enables visibility and analytics with online service requests and reporting.
- Accelerates IT modernization with Infrastructure as-a-Service solutions.
About ViON Corporation

ViON Corporation is a cloud service provider with nearly 40 years’ experience designing and delivering enterprise data center solutions for government agencies and commercial businesses. The company provides a large portfolio of IT as-a-Service, including infrastructure, multi-cloud and Artificial Intelligence solutions. Focused on supporting the customer’s IT modernization requirements, ViON’s Enterprise Cloud is changing cloud management for the market, providing a streamlined platform to audit and control technology in an evolving multi-cloud world. The ViON MarketPlace® allows customers to research, compare, procure and manage a full range Everything as-a-Service solutions from leading manufacturers via a single portal. ViON delivers 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. (vion.com).