WHITE PAPER

BUILDING TODAY'S INFRASTRUCTURE FOR TOMORROW'S BUSINESS

How a Software-Defined Digital Foundation Prepares You for the Future

vmware®

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79%

of CIOs say digital business has created a greater capacity for change and a more open mindset in their IT organizations.[1]

It's an App-Driven World

Today, most of us carry at least one mobile device with us at all times. We're surrounded by connected appliances, from wearables to workstations. When we engage with these devices and appliances, it's almost always through applications.

Applications power ideas, products, and services, allowing businesses to make an immediate, direct connection with end users. This power is nothing short of transformative, and lowers competitive barriers across industries. New companies can disrupt existing models as quickly as they can build an app, host it, and deliver it.

IT organizations are the support system behind it all, delivering and managing the apps that drive customer engagement and revenue. In fact, IT is the vital, strategic team that helps the business meet customer expectations and achieve its goals.

But what is required for IT to properly support these new business imperatives? A complete infrastructure plan that incorporates the proper balance of people, processes, and technology.

Infrastructure is the Enabler

As IT organizations make decisions about the future of their data centers and cloud environments, they need agile solutions that enable them to support people, processes, and applications. IT must be flexible and service-oriented, using public and/or private clouds to quickly deliver services that drive business innovation and growth.

A modern IT requirements checklist is no small thing. It should:

- ☑ Empower employees across locations to become more productive and successful
- ☑ Enable processes that streamline operations and support business goals
- ☑ Enable consistent application performance anywhere, anytime
- ☑ Reduce risk as applications move across endpoints and hybrid cloud locations
- ☑ Minimize time spent on maintenance to enable focus on more high-value activities

IT organizations no longer have the luxury of spending years making infrastructure decisions and waiting to see what's next. Today, they must deliver infrastructure that is highly dynamic, agile, available, all with programmatic compute, network, storage, and security services.

Let's look at an example of how these demands and requirements are shaping an industry.

1 Gartner, Mastering the New Business Executive Job of the CIO, October 2017

Industry Spotlight: Financial Services

Digital transformation has influenced IT organizations in every industry—and the financial services industry is no exception, as it has undergone a huge shift in how it delivers products and services to customers. Mobile devices are turning into personal banking centers, as financial services companies make more features available with a few simple taps. From Remote Deposit Capture to Person-to-Person payments, these application-based functions have become the backbone of a new digital banking customer experience.

Underpinning these evolving experiences are digital infrastructures that support innovation, security, and uptime, which all enable customers to quickly and confidently access information and complete transactions anywhere, at any time. Financial services companies that lack a robust and consistent infrastructure will find themselves at an immediate disadvantage. Customer growth and engagement will suffer, as competitors outpace and out innovate, capturing new market share and securing new revenue streams. As in other industries, the takeaway is clear: IT infrastructure and business goals are becoming inseparable.

The software-defined data center (SDDC) solutions market is expected to grow at 21.9% from 2017 to 2022.[2]

From Siloed Thinking to an App-Centric Future

As IT leaders look to transform their organizations to meet changing demands, they must avoid the traps of traditional thinking. Approaching application and service delivery in an ad-hoc, hardware-centric way simply will not deliver the efficiencies needed to stay relevant.

It's time for an entirely new mindset. IT must adopt a modern, software-defined approach to infrastructure, with the goal of building to a digital foundation that supports dynamic, distributed apps across data centers and hybrid clouds.

Side-by-Side: The Traditional Data Center vs. The Modernized Data Center

Traditional Data Center	Modernized Data Center
Complex to plan, deploy and operate	Integrated platform with built-in lifecycle automation for the cloud
Challenging to meet business requirements for speed and flexibility	Agile, scalable and highly responsive IT service delivery capability
Inefficient and difficult to manage at scale	Highly efficient, enhanced performance and capacity optimization designed to scale across clouds
Significant security and compliance risks	Security built-in at every level of infrastructure and operations
Incompatible public and private clouds	Quickly becomes the common platform across required clouds

2 Global Software Defined Data Center (SDDC) Market," Wise Guy Reports, 2018

WITH A SOFTWARE-DEFINED INFRASTRUCTURE YOU'LL BE ABLE TO:

- Consolidate hardware silos
- Adjust quickly to changes in app requirements or business demands
- Eliminate application reliance on physical infrastructure
- Deploy and manage an entire set of applications without complex infrastructure requirements

Adding Up the Benefits

A software-defined, hyper-converged infrastructure containing natively integrated compute, network, and storage virtualization technologies speeds IT responsiveness, giving you the operational flexibility and agility needed to help the business gain a competitive edge. When market dynamics shift, or customer demands change, you can more easily adapt and deliver the right solutions at the right time.

Key Considerations for the Journey to Modernization

It's clear that IT organizations need to carefully consider how their infrastructure can prepare their apps to meet business needs both today and in the future. But what does it mean to make the right infrastructure decision to support the needs of your apps? How can you be certain that your technology and approach is aligned with business objectives?

Here's where to start:

- **Start conversations across the business.** Meet with key stakeholders to understand the business and where it's headed in the future. It's absolutely vital to determine the organization's focus, and what their roadmap for the future means for you. The more you know, the better you can design an infrastructure that meets and anticipates these needs.
- **Make choices that enable maximum flexibility.** No matter what area you look at—from data center locations to endpoints to skillsets—the future will always be uncertain. As new technologies emerge and business imperatives change, it's impossible to fully predict what lies ahead. To prepare for the unknown, design an infrastructure that adapts to changing needs without the risk of wasted investments or the need to start over every time.

The VMware Approach to a Software-Defined Private Cloud

VMware solutions for modernizing the infrastructure allow IT to align with the business priorities that matter most.

For organizations that want to be ready for any future business need, the VMware software-defined private cloud provides virtualization and automation technologies that deliver the flexibility required to leverage any type of cloud, application, or infrastructure future. It enables you to achieve a private cloud that functions much like a public cloud, with an automated approach to management and less reliance on specific components, but with significantly more predictability and operational consistency.

The VMware Software-Defined Private Cloud:

- Enables a flexible, future-proof architecture that supports business needs today and tomorrow
- Provides continuous, automated performance optimization to accelerate decision-makings
- Incorporates built-in security at all levels to protect data, applications, and users
- Offers a common operational model that allows organzations to seamlessly address a range of business scenarios—such as acquisitions, expansion into new locations, and introduction of new apps—with a range of capabilities, including public cloud, hybrid cloud, and multi-cloud

Modernize Your Infrastructure Your Way

In the past you needed to build your own data center to support the business. Today you have a choice. Some IT leaders want to stop managing data centers and instead rely on public cloud providers. Others want to continue maintaining their own infrastructure, and therefore prefer a private cloud environment.

But it's not either-or—many organizations choose a hybrid approach to realize advantages of both public and private environments. Each choice is driven by specific business needs and drivers, such as the need for data privacy, specific compliance requirements, or end-user needs. Over time, these preferences will continue to change and evolve as businesses reevaluate how to best meet the needs of the market.

In a survey of VMware customers, 34% are working on documenting overall strategies and goals for digital transformation, while 26% are executing a fully documented plan as part of their corporate strategy.[3]

Whatever your objectives and needs, VMware allows you to develop a modernized infrastructure that best suits your business, so that you can start realizing the benefits faster.

All-in-One: VMware Cloud Foundation™

VMware offers a complete, all-in-one solution that allows you to quickly implement a private or hybrid cloud via hyper-converged infrastructure. With VMware Cloud Foundation, you can take a fully software-defined approach to compute, storage, and networking with full cloud management capabilities. It comes with self-service automation and self-driving operations, and also provides intrinsic security to protect apps across environments. If you're looking for an out-of-the box private or hybrid cloud experience that allows you to modernize your infrastructure on a single foundation, this option is for you.

Build-Your-Own

To leverage existing hardware or infrastructure investments, choose a reference architecture-based approach. VMware Validated Designs™ provide a prescriptive approach to designing a software-defined data center based on your unique requirements and give you the ability to lower TCO, improve business and operational efficiency, and create a path to develop a complete software-defined private cloud. For instance, you can easily add storage virtualization while modernizing and upgrading your existing compute virtualization, with the option to add network virtualization later.

3 Data Center Modernization Research, VMware Inner Circle Community

78%

of enterprises in a recent survey were either planning, or have already completed automating provisioning to minimize their IT operations efforts.[4]

Why Choose VMware to Modernize Your Infrastructure?

VMware enables organizations to manage and run consistent infrastructure and operations across data centers and public clouds. With VMware solutions, you can deliver applications with the speed and agility required to support business innovation and growth. In addition to software-defined solutions and expertise, VMware is backed by the richest ecosystem in the industry, with a broad network of over 4,500 technology partners and software vendors.

With VMware solutions, you can:

- **Empower the business with increased agility.** A unified, software-defined approach allows you to reduce silos and complexity, while dramatically improving response times to the business. It also provides plenty of flexibility for you to address a broad set of future needs.
- **Deliver operational consistency.** Familiar and simplified tools allow you to run a consistent and streamlined infrastructure operation across networking, storage, compute and security. It provides a software foundation that extends across your environments, both on-premises and in the cloud, with full cloud management capabilities that provide self-service automation and self-driving operations.
- **Drive innovation and accelerate business impact.** At a time when digital experiences drive consumer expectations, VMware solutions allow you to respond quickly to business needs. Scale your infrastructure up or down quickly, on- or off-premises, and maintain a fluid posture for whatever the future holds.

Take the Digital Era in Stride

Applications will continue to play a big role in the future of business—and the infrastructure that supports them will be more important than ever. Companies that are able to empower people, streamline processes, and achieve alignment between business and IT can gain a significant advantage over competitors.

VMware can assist you in meeting all of these objectives, with a digital infrastructure designed to support the needs of the modern workforce and power applications anytime, anywhere. Built upon a software-defined, hyper-converged architecture of natively integrated compute, network, and storage virtualization technologies, VMware solutions also enable full automation and intelligent operations management. With this foundation, you can deliver applications with the speed and agility required to support business innovation and growth.

PREPARE FOR THE FUTURE WITH VMWARE

Learn more about modernizing your infrastructure >

Take a test drive in a Hands-on Lab today >

Join Us Online:

4 Data Center Modernization Research, VMware Inner Circle Community

VMware, Inc. 3401 Hillview Avenue Palo Alto CA 94304 USA Tel 877-486-9273 Fax 650-427-5001 www.vmware.com