

A man with glasses and a beard, wearing a blue button-down shirt, is looking towards the right. In the background, there is a computer screen displaying various data visualizations, including a bar chart, a donut chart, and several circular progress indicators. The overall scene is set in a dimly lit office or data center environment. The image is overlaid with large, semi-transparent geometric shapes in shades of green and blue.

# AGILE, CONSISTENT, AND BUSINESS-ALIGNED




Build a Software-Defined Foundation to Give  
Your Business an Edge

vmware®

# Changing IT Requirements in the High-Speed Digital Landscape

For companies in every industry, change is happening on a global scale—and fast. The digital landscape opens the door for new business models and opportunities across a wide range of users and devices. The possibilities are endless, and as technology becomes increasingly ingrained in business offerings, IT plays a more critical role than ever before. Yet many IT teams find themselves challenged by legacy hardware, insufficient budgets, and growing skills gaps.

To help the business maintain a competitive edge, IT organizations must:

-  **Empower teams to do more with increased agility.** A unified, software-defined approach reduces silos and complexity, and dramatically improves IT response times. It also provides a flexible platform that addresses the broadest list of future strategic needs.
-  **Deliver operational consistency.** With a set of familiar, simplified tools, IT organizations can run a consistent and streamlined infrastructure operation across compute, storage, networking and security—both on-premises and in the cloud. A full cloud management framework provides the self-service automation and self-driving operations needed to empower this operational model.
-  **Drive innovation and accelerate business impact.** By taking a more fluid approach to the data center, IT professionals are able to accelerate the development and delivery of applications, data and key resources that keep the business at the top of its game.

***What does a software-defined approach look like? Let's find out.***

# Taking a Software-Defined Approach to Private Cloud

A modern, software-defined infrastructure enables IT organizations to lower costs by leveraging prior investments, tapping into existing IT knowledge, and expediting service delivery. Unlike hardware-based clouds, which create disparate silos and are dependent on specialized, manual processes, a software-defined private cloud enables new levels of efficiency and agility.

**With a software-defined digital foundation, you'll see benefits such as:**

- ✓ Faster, more responsive deployments
- ✓ Unified operations and management
- ✓ Self-service automation
- ✓ Seamless evolution to future platforms
- ✓ New life into traditionally separate hardware investments
- ✓ Robust Investment protection for your IT infrastructure
- ✓ Consistent environment for the edge to the core to multiple public clouds

A software-defined private cloud architecture helps you create a readiness for public cloud and become less dependent on any specific layer of hardware. It allows you to create new efficiencies in the data center by abstracting the compute, network, and storage layers. Coupled with comprehensive cloud management, it enables better app portability—without risk, loss of time, or needless complexity, so that you can stay prepared for future business needs.

# Beginning Your Journey to a Software-Defined Private Cloud

Not all software-defined private cloud solutions are created equal, and it's critical to choose the right provider. The VMware approach gives you flexibility and choice for when and how you implement new capabilities, so you can do it at your own speed and within your budget.

With VMware, it just takes four steps to develop a fully-capable software-defined private cloud:

- 1 Consolidate hardware silos
- 2 Adopt self-driving operations
- 3 Leverage automation to deliver new levels of agility
- 4 Enable lifecycle management of the entire SDDC stack

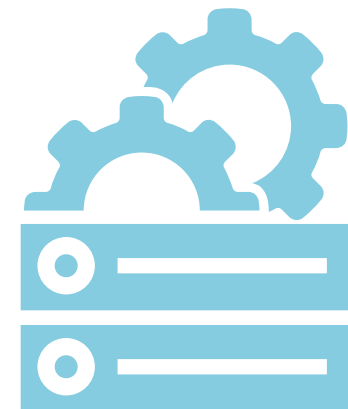
***Let's take a closer look at each one.***

# 1 Consolidate Hardware Silos

Silos are the bane of IT infrastructure—yet they're everywhere. The first important step toward your software-defined private cloud is to evolve to a unified and consolidated infrastructure that eliminates silos and brings consistency across private and public clouds. Hyper-converged infrastructure (HCI) extends virtualization across compute, storage, and networking, providing full visibility and control for traditional and cloud-native apps, while also saving money.

Post-consolidation, your infrastructure will:

- **Be consistent and simple to operate.** Eliminates operational complexity for IT and frees up valuable time that would have otherwise been spent on manual deployment and routine management.
- **Enable developers to move faster.** Gives them the ability to take advantage of a single control plane across clouds, providing globally consistent IaaS, an integrated self-service catalog, and simple blueprints that all add up to increasing their ability to deliver new products and solutions faster.
- **Offer critical visibility and insights.** Provides real-time monitoring and metrics to keep applications healthy, reducing operational risk and ensuring that IT teams will always have guidance on how to best manage and support their private cloud environments.

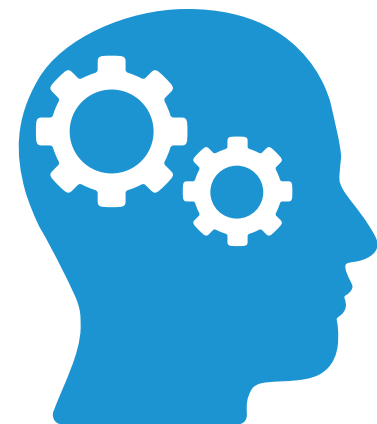


## 2 Adopt Self-Driving Operations

Business moves so fast that manual IT operations simply aren't practical anymore, but when common tasks are able to drive themselves, they become hands-free. In a software-defined infrastructure, you can continuously optimize and automate day to day operations management. Not only does this approach reduce costs and risks, it also allows your team to seamlessly run production operations across private and hybrid clouds.

With self-driving operations, you'll benefit from:

- **Continuous performance optimization.** Workload performance can be automated based on business and operational intent.
- **Efficient capacity management.** Infrastructure can be provisioned and operated like the public cloud, but with added benefits like optimal densification (e.g. VMdensity), proactive planning, and predictable procurement models.
- **Intelligent remediation.** IT can quickly predict, prevent, and troubleshoot across their entire software-defined data center and multiple clouds, with guidance and data every step of the way.



## 3 Leverage Automation to Deliver New Levels of Agility

Users, developers, and the business are all demanding more from IT. Applications have to be agile, consistent, and secure to meet everybody's needs. Automation through self-service does just that.

A unified service catalog allows you to:

- **Simplify service delivery.** Delivers infrastructure, container, application, and custom services based on pre-defined and custom blueprint policies that can be easily consumed through the catalog, or even dropped in entirely as code.
- **Sync IT actions with business goals.** Various levels of automation and operational consistency ensure that decisions are compatible with business objectives. Finally, IT and the business can get and stay aligned.
- **Gain flexibility in workload placement.** Choose the best cloud for your workloads without the hassle of wondering whether or not it's the right choice, thanks to personalized, policy-based governance, as well as insight into performance and operational metrics.
- **Provide developers with continuous service delivery.** Support rapid iterations and DevOps principles without compromising on compliance or security. Leveraging "infrastructure as code" even enables developers to quickly provision the resources their apps require without regard to the underlying hardware.



## 4 Enable Lifecycle Management of the Entire SDDC Stack

As environments grow, building and maintaining a software-defined data center can be a challenge. Lack of standard architecture, manual configurations, and out of date software can create operational and compliance risks. Even as old silos are broken down, new ones can still be created.

Comprehensive lifecycle management can drastically simplify deployment, configuration, and ongoing operations, allowing you to achieve a complete, software-defined private cloud.

With a complete lifecycle management solution, you can:

- Automate all Day 0 to Day 2 operations
- Optimize deployment times across the software stack
- Simplify patching and upgrades
- Deploy and manage a complete private cloud through built-in lifecycle automation





# Two Paths to Modernization

No single approach works for every business—and that's why VMware offers two paths to a modernized data center, so you can select the one that best suits your needs.

## VMware Cloud Foundation



The simplest, fastest way to implement a private or hybrid cloud is with VMware Cloud Foundation™. A complete, all-in-one solution, it allows you to take a fully software-defined approach to compute, storage, and networking with an integrated comprehensive management platform. It includes full cloud management capabilities which provide self-service automation and self-driving operations, along with intrinsic security. If you want to take a leap forward and swiftly modernize your infrastructure, this is it. No need to experiment with your infrastructure—invest those energies in your applications.

## Build Your Own



If you have existing hardware or infrastructure investments that you want to continue to use, a reference architecture-based approach might be best. VMware Validated Designs™ gives you the ability to lower TCO and still improve business and operational efficiency, while creating a path for eventually developing a complete software-defined private cloud. For instance, you can easily add storage virtualization on top of modernizing your existing compute virtualization, with the option to add network virtualization later.

# How to Choose Your Path

Which approach is right for you? It depends on your goals and objectives. .

## VMWARE CLOUD FOUNDATION

## BUILD YOUR OWN

You want the fastest time-to-market for your next-generation private cloud	You want to get more out of your existing infrastructure or hardware investments
You want a standardized, out-of-the box private or hybrid cloud experience	You want to use external storage as your primary storage architecture
You want to become more agile and responsive to changing business needs	You want to take an incremental, component-based approach to adopting the SDDC
You want to implement a fully software-defined private cloud now	You want the ability to implement a fully software-defined private cloud in the future

# Embracing the Software-Defined Approach to Infrastructure with VMware

Rising to the demands of the digital era can be a challenge—but with the right approach to infrastructure, you can meet changing expectations with confidence. By relying on software instead of hardware, you'll speed service delivery, make time for innovation, and improve security. As the landscape continues to evolve, you'll not merely keep up, but will help your business move ahead.

The VMware solution is built on a software-defined HCI architecture that delivers a consistent infrastructure and operational model across data centers and public clouds. IT organizations around the world use VMware solutions to realize the speed and agility they need to support innovation and growth. From better visibility to consistent performance and solid investment protection, this VMware solution supports the most demanding business needs for today and tomorrow.

## PREPARE FOR THE FUTURE WITH VMWARE

[Learn more about modernizing your infrastructure >](#)

[Take a test drive in a Hands-on Lab today >](#)

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