



HOW A PRIVATE CLOUD CAN ACCELERATE YOUR HYBRID STRATEGY

F R O S T  S U L L I V A N

An Executive Brief Sponsored by TierPoint and VMware

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INTRODUCTION

To compete successfully in the fast-paced digital economy, businesses are undergoing digital transformation initiatives designed to leverage technology in innovative ways. Supporting the escalating digital imperatives calls for IT organizations to move away from their traditional, labor-intensive data center infrastructure in favor of options that are more flexible, resource-friendly, and easier to manage. The optimal hybrid environment—comprising a range of infrastructure environments (physical and virtual, dedicated and shared, cloud and hosted)—enables IT to make deployment decisions based on the unique characteristics of each workload.

But many IT leaders are realizing it's easier to describe an optimal hybrid environment than to implement one. This is especially true for mid-market businesses with limited budget and on-staff technical expertise. To lead their businesses into the digital era, IT organizations must implement new technologies and capabilities (e.g., Internet of Things, mobility, artificial intelligence, analytics), while simultaneously modernizing legacy applications to be more agile and cost-effective.

For forward-thinking IT leaders, a key step on the business's transformation journey is moving workloads away from the premises data center to a private cloud managed by an expert data center services provider. As part of a hybrid strategy, a private cloud offers secure, dedicated hardware resources as a managed cloud service, hosted in a state of the art cloud center.

In this report, we will discuss the challenges of creating a hybrid environment, how to choose the best environment for your workloads, and the important role of private cloud in your hybrid strategy. We will also look at characteristics of “the right” private cloud to meet your needs, both today and in the future.

CREATING A HYBRID CLOUD THAT SUPPORTS BUSINESS GOALS

Even more than other sectors, mid-market businesses are relying on cloud-based technologies to support such business goals as agility, innovation, and cost-efficiency. Among mid-market companies surveyed by Frost & Sullivan, 62% say the cloud is the foundation of their digital transformation strategy, while 73% say their cloud strategy is essential to remaining competitive in their respective industries.

Though the cloud plays an important role in many businesses' IT strategies, IT leaders find that implementing a successful hybrid cloud strategy can be a challenge. IT leaders must navigate changes not only in new infrastructure models, but also in business expectations and operational processes. Specifically:

Business expectations: In their new role as enabler of business goals, IT leaders now are beholden to a new set of internal constituents—Line of Business managers, who are focused not on infrastructure but on business outcomes. With this new focus come new measures of success. IT is not simply responsible for deploying an app; instead, Line of Business staff measures a deployment in terms such as:

- How long it takes to deploy, scale, or update a new application or service
- Ensuring that the new service is available to all employees and applications that need to access it, regardless of the time zone or region they are working in
- Application performs adequately, as measured in throughput and time to complete transactions

- Usage metrics – e.g., how many employees, partners, or customers are using the service
- Granular cost elements

Operational processes: IT is expected to act as a “service broker” to the business, understanding the business requirements for each workload, and selecting the appropriate infrastructure and deployment model. This requires skills and expertise across multiple infrastructure models—skills that are unlikely to be found in the IT staff of most mid-market firms. For IT organizations long accustomed to deploying most applications in the company data center, this requires developing partnerships with third-party experts who can help assess needs, deploy new applications, and migrate legacy applications to the optimal model.

Struggle to Deploy a Hybrid Cloud

To meet the expectations of demanding internal clients (and thus, meet the needs of the business), IT leaders must have at their fingertips a range of infrastructure options; and they must have processes in place to select, maintain, and manage the appropriate infrastructure option for each workload.

It’s not an easy task. In deploying hybrid clouds, IT leaders in mid-market firms say their efforts fall short, with top challenges including:

- 53% struggle to meet Line of Business expectations
- 54% say they find it challenging to gain support from business leaders
- 56% say they struggle to get the budget they need to complete their hybrid cloud deployment

For many firms, the challenges are rooted in the fact that IT organizations do not have sufficient resources to both manage infrastructure and explore innovative technologies. Specifically, IT leaders are not confident in their hybrid cloud deployments due to:

- Insufficient cloud expertise in their organization (cited by 58% of mid-market firms)
- Difficulty managing costs to run cloud workloads (56%)
- Their struggle to assess workloads for optimal deployment (53%)
- Challenges migrating workloads (59%)

It shouldn’t be surprising that most businesses are turning to a trusted provider for outside assistance when it comes to implementing a hybrid cloud strategy. Fully 93% of businesses state that they have or will choose an outside provider for assistance with hybrid cloud; with 46% of those choosing their cloud platform or services provider; and an additional 13% enlisting the support of a managed services provider. But not all of these “experts” have the right tools and technicians to support your needs for a fully optimized, flexible, managed hybrid cloud environment.

ROLE OF PRIVATE CLOUD IN YOUR HYBRID STRATEGY

Many businesses, including 53% of mid-market firms, have started their hybrid journey with a “cloud first” policy—that is, placing most new applications in the public cloud, but leaving legacy applications in the premises data center. However, IT leaders are now realizing that an optimal hybrid cloud is more complex. Existing applications cannot be left to run indefinitely on traditional infrastructure, where they consume escalating amounts of capital budget and IT resources. At the same time, the public cloud is not appropriate for many workloads.

Ideally, IT must assess the optimal deployment model for each workload, based on criteria such as:

- What resources does the workload need to run?
- Will latency or other configuration criteria impact performance?
- How scalable does this workload need to be?
- What security measures must we take to protect the workload?
- What regulatory statutes must we comply with?
- What are the ongoing management requirements for this workload?
- How can we minimize operating costs?
- How can we ensure accessibility for end users?
- What steps can we take to increase uptime?
- How can we simplify migration and limit business disruption?
- Does my team have the in-house expertise and available time to deploy and manage this workload in the cloud?

When considering these criteria, it is clear that “public cloud” and “traditional infrastructure” are not sufficient to cover all needs. That’s why more businesses are incorporating hosted or managed private clouds into their hybrid environment. Private cloud is a deployment option that provides benefits of the private data center—including dedicated infrastructure, a proven enterprise-grade management platform, and a high degree of control over security and performance—in a hosted cloud environment. The right private cloud can play an important role in helping businesses accelerate their hybrid cloud implementation and move workloads from the company data center.

Why Private Cloud?

For some workloads, a hosted private cloud is optimal. Among reasons businesses choose private cloud as a deployment model are:

- Private clouds afford a higher degree of security than shared models, and the ability to fine tune security measures and ensure compliance with applicable regulatory statutes.
- Private clouds offer dedicated infrastructure for your business, which minimizes the risk of performance impact from shared compute resources.

- With a private cloud, your business has greater control over configurations, enabling you to tweak the infrastructure to ensure optimal application performance.
- Hosted private clouds are more budget-friendly than procuring in-house hardware.

Another advantage of a private cloud is that businesses may have more opportunity to leverage the reliable and industry-leading platforms they have deployed in their company data center—rather than be forced to adopt new proprietary tools used by some public cloud providers. For example, for the many businesses that run their company data centers on the industry-leading VMware suite, a private cloud that is also built on VMware makes it easy to port legacy workloads from the on-premises data center—no need to reconfigure virtualized workloads. Also, using the same platform for your private cloud that is in your data center means no retraining of staff—everyone is familiar with the environment and how to manage it from Day One.

Accelerating Your Hybrid Journey

As part of the hybrid journey, a private cloud can be an effective way to maximize business value; accelerate your business's move away from the on-premises data center; and act as a strong complement to other deployment options.

For some workloads, private cloud may be a strategic placement that delivers immediate business value through the benefits of security, reduced capital expense, and a reduced maintenance burden, compared with the premises data center. Furthermore, a managed private cloud can provide a more flexible foundation for future functionality and deployments than the traditional data center. IT leaders should assume that workload functionality will not stagnate and that the deployment model that is “optimal” today may not be considered so tomorrow. The right managed private cloud can provide a springboard to modernize legacy applications, allowing the business to leverage new cloud-based technologies in the future.

Not All Private Clouds are Alike

There are many types of private clouds available on the market today, and many providers have their own definitions of what comprises a private cloud. Not every private cloud service will meet your business needs. That places the onus on the IT decision-maker to understand what each provider offers. For example, is the private cloud secured by physical or logical isolation? While both isolation types are configured for security, in a logical isolation configuration, workloads are competing for server resources—which can cause inconsistent application performance.

Also important to consider is whether your provider offers dedicated hardware versus dedicated hosts. With dedicated hardware, the customer pays for the instances, but those instances get placed on whatever hardware the provider decides. With a dedicated host, the customer pays for the entire physical server and can, in effect, run instances on it as they please. Dedicated instances may appear more economical, but offer less control than a dedicated host. With a dedicated host, hardware is paid for in a similar fashion to colocation. The customer knows exactly where their hardware is and can run workloads on it however they choose to.

CHOOSING THE RIGHT PRIVATE CLOUD PROVIDER

Evaluating all of the private cloud providers and offers on the market today can seem daunting. Following are some criteria to look for in a provider to help ensure your success in integrating private cloud into your hybrid strategy.

- **Managed Services:** Managed services—in which the provider takes responsibility for specific infrastructure or application management tasks—are growing in popularity. In particular, mid-market firms are adopting managed services as a way to ensure the optimal management of their cloud environment, while freeing up IT technical resources for more strategic initiatives. Providers that offer flexible managed services—as much or as little as you need to augment your own staff—are best positioned to ensure that your infrastructure and applications meet your business goals.
- **Trusted Advisor with a Consultative Approach:** Look for a provider willing to help you accelerate your hybrid journey. Providers who will take the time to understand your business goals and the applications that support them, and will help you determine workload placement through assessments and a high-touch, consultative approach are best poised to help you succeed.
- **Infrastructure Customization:** Look for a provider that is able to customize your private environment to help meet performance and latency requirements. Not every private cloud provider is willing to tweak their infrastructure to meet your needs.
- **VMware Support:** Look for a provider using the tools and platforms you already rely on—the less change you have to make to move to the cloud, the easier your migration will be. If you, like most businesses, use VMware in your data center, and your private cloud provider does too, their management tools, reports, and platform will all be familiar from the get-go—you are up and running from the start.
- **Multiple Data Centers in Multiple Geographies:** Look for a provider with data centers where you do business. Being able to select from private cloud locations that are closer to your end-users—rather than on the US coasts, for example—will help ensure the performance of your application for end users. Providers that are located in both big cities and smaller towns, and that have a wider array of data centers, are better positioned to move your workloads closer to users or data sources—thus, potentially reducing latency and improving application performance.
- **Backup and Recovery Assistance:** Providers that can offer assistance in backup and recovery—particularly automated backup and recovery solutions like Disaster Recovery-as-a-Service—will be best positioned to help you ensure that your business remains up and running, regardless of any emergencies that may occur.
- **Compliance Support:** Look for a provider whose data centers are accessible. If you want to walk in with a compliance officer, your Chief Security Officer, or a client, you should be able to. Providers should also offer strong security and compliance assistance, as proven by industry certifications – both for their data centers and for their data handling. Data centers should comply with SSAE 16, SOC 1, and SOC 2. Many providers can, based on their security practices, help customers become certified as compliant with HIPAA/HITECH, GLBA, PCI-DSS, and ITAR. Your chosen provider should also be NIST 800 compliant.

By keeping these criteria in mind as you choose a private cloud provider, you will be well-equipped to find a provider that will help you meet and exceed your digital transformation goals.

THE LAST WORD

Today's mid-market businesses are striving to digitally transform to better compete in today's marketplace; but limited resources, whether monetary or human, often constrain them. Cloud technologies, particularly in a hybrid cloud environment, are a way to introduce IT flexibility while reducing the day-to-day maintenance burdens that make traditional environments problematic. But implementing a hybrid cloud is anything but easy. Assessing optimal workload placement, and migrating between environments with disparate protocols, can make hybrid deployment a challenge. Engaging a provider's assistance to create a transformation strategy can make the difference between success and failure of your hybrid journey.

Private clouds play a particularly important role in the hybrid environment. Because private clouds offer the security and control of the on-premises data center, coupled with the economics and flexibility of the cloud, they are an ideal environment for a variety of applications and workloads. But not all private clouds are alike. It is critical to choose a provider who is willing to understand your business, its goals, and the applications that support those goals, as they seek to help you move from your on-premises environment into the cloud. Choosing a provider whose cloud is based on proven platforms and tools, like those from VMware, can help ease your migration and make ongoing management far smoother than if your team had to learn an entirely new platform.

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About VMware

VMware, a global leader in cloud infrastructure and business mobility, helps customers realize possibilities by accelerating their digital transformation journeys. With VMware solutions, organizations are improving business agility by modernizing data centers and integrating public clouds, driving innovation with modern apps, creating exceptional experiences by empowering the digital workspace, and safeguarding customer trust by transforming security. With 2016 revenue of \$7.09 billion, VMware is headquartered in Palo Alto, CA and has over 500,000 customers and 75,000 partners worldwide.



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