

An aerial view of a cityscape with a blue and yellow color palette. The image is overlaid with a complex network of white lines and glowing nodes, suggesting a digital or cloud infrastructure. The background features a grid of semi-transparent hexagons in various shades of blue and yellow.

50 Years of Growth, Innovation and Leadership

Modernizing the VMware Environment with the Right Hybrid Cloud Platform

A Guide for Service Providers

A Frost & Sullivan Executive Brief
Sponsored by IBM

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INTRODUCTION

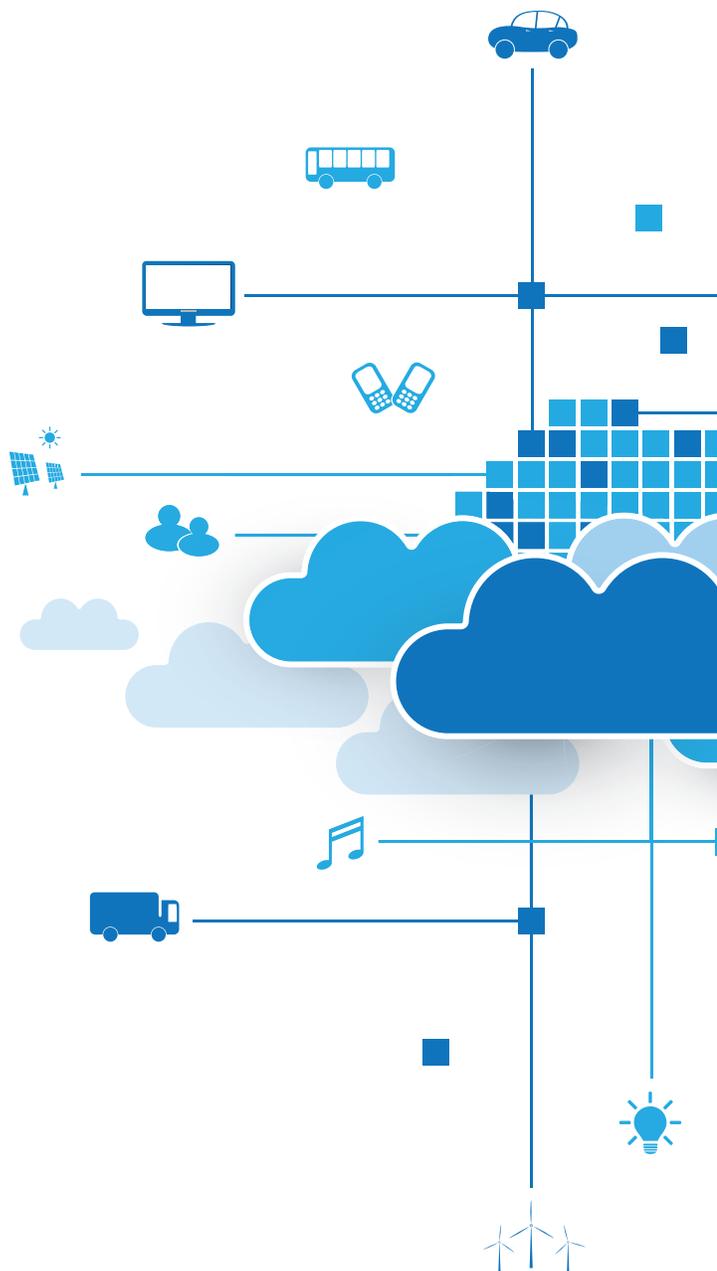
In today's digital economy, nearly every company is a technology company, relying on IT to help run the business efficiently, and drive new operational models.

For service providers, particularly independent software vendors (ISVs) or managed service providers (MSPs) whose revenue depends on delivering software-based products and services, the urgency is even greater. ISVs and MSPs need to accelerate service delivery and streamline internal processes. They must also be able to easily develop software and services that leverage the advanced technologies that clients need to transform their own businesses, all while ensuring that sensitive data is protected. These services must also be delivered to clients in the infrastructure or location of their choice—whether on their own premises or in the public cloud.

For ISVs or MSPs, deploying services in a hybrid environment can be challenging without the right infrastructure partner. As workloads move from the premises data center to the public cloud, they may require refactoring and adopting new or unfamiliar management tools. Integrating new technologies can also be difficult, as some services may only be available in one deployment model and not in others. This makes creating the hybrid environment even more challenging.

Fortunately for the many businesses that use VMware, it is possible to modernize workloads without disruption. Doing so requires selecting a public cloud platform that is built to leverage sophisticated VMware management capabilities, whether the workload is deployed on the premises, in a colocation facility, or in the cloud.

This paper will show software and service providers how their choice of cloud infrastructure provider can impact the ability to deliver services seamlessly in a hybrid environment, particularly for those standardized on the VMware platform. We'll also offer criteria to seek in an infrastructure partner to help ensure your success.



WHY BUSINESSES ARE CHOOSING HYBRID CLOUD

As businesses strive to remain competitive and quickly deliver new services and enhancements on existing services, they need a flexible infrastructure foundation to remain competitive. And yet, many companies use proprietary, legacy applications, or collect sensitive data that requires extra protections. For many, this means deploying a hybrid cloud environment spanning the premises data center and the public cloud. Benefits of using a hybrid cloud include:



Businesses need a flexible infrastructure foundation to remain competitive.

- **Faster speed-to-market:** Having flexible infrastructure that can be deployed in minutes enables businesses to create services more quickly, and scale those services as necessary to support testing and production. Such flexibility also enables constant innovation and the ability to quickly roll out enhancements to existing services. Among IT decision-makers surveyed by Frost & Sullivan, 64% say the cloud lets them deliver applications and services faster; while 58% say cloud helps them be more agile and responsive to the business.
- **Improved application availability:** Cloud can help ensure that resources to support critical applications will be available when needed. Among businesses surveyed about their cloud usage habits, 67% state that a move to the cloud will improve their business continuity and disaster recovery capabilities.
- **Consistent, familiar APIs and management tools:** With the right cloud provider, IT technicians can leverage the same APIs and management tools that they already use, but in a flexible, scalable, pay-as-you-go environment. For the many businesses that have standardized on VMware as their virtualization platform in the premises data center, being able to leverage the same tools becomes especially important. Having to learn and master a second set of management and orchestration tools to administer the cloud environment costs time and money, and may require skill sets not readily available in the IT department. Of businesses using the cloud, 46% have concerns over insufficient cloud expertise in their organization. Sixty-three percent say they want a single console to manage their premises and cloud solutions.
- **Decreased infrastructure and maintenance costs:** In the public cloud's pay-per-use pricing model, customers only pay for the resources they need to support their own development and their customers' use of their services. With cloud, software developers and solution providers can scale up and down as needed to support the service, with little, if any, excess capacity. Reducing the hardware and software maintenance burden is a driver pushing companies to the cloud, with 70% of respondents saying it's a top reason they made the move.

- **Improved security capabilities:** For many companies, a move to cloud helps improve security capabilities, especially in hybrid situations. Sixty-one percent of businesses fear unauthorized access to their applications or data. Additionally, 51% of businesses are concerned with ensuring that security profiles are consistently maintained across multiple infrastructures.

In addition to these strategic and operational benefits, using the cloud to develop and deploy applications and services can help you modernize the services you create.

ISVs and MSPs must be able to deliver their software or services in the cloud, on the customers' premises, or in any combination of those that makes the most sense for the customer. But, not every IaaS provider can support deployment of your services across a hybrid environment. By choosing a provider that supports both cloud- and premises-based deployments, as well as familiar hypervisors like VMware, your business has the best chance to succeed in delivering quality solutions that are available every time a customer needs them.

USING THE PUBLIC CLOUD TO MODERNIZE EXISTING APPLICATIONS/SERVICES

Beyond supporting new cloud-native applications, cloud infrastructure can help businesses modernize their existing applications or services, and add enhancements not supported by their legacy infrastructure. There are three phases of application modernization that the cloud can assist with.

- **Cloud Hosted**—In a cloud-hosted environment, businesses lift and shift existing applications to the cloud through migration. Refactoring may need to occur to make the service operate properly in the cloud. Applications hosted in the cloud will scale more quickly and easily, and can be made available faster than if they were licensed and provisioned for on-premises deployment.
- **Cloud Enabled**—In a cloud-enabled environment, you can lift and transform applications using the platform services offered by your cloud provider, to bring new functionality to your service—for example, enabling mobile access to your service, offering advanced security features, or using intelligence to make your service perform better. Or, you might choose to containerize portions of the application to enable greater flexibility and portability.
- **Cloud Native**—In a cloud-native environment, businesses develop their software or services directly within cloud infrastructure, integrating cloud platform-based services to enhance functionality right from the initial application creation phase.

“cloud infrastructure can help modernize existing applications or services, and add enhancements not supported by legacy infrastructure”

For ISVs and MSPs, any of these options help with speed to market and easy scalability of your service. In addition, some cloud infrastructure providers offer a robust cloud service catalog that provides the latest technologies for integration into your apps and services. The savviest IaaS providers offer catalogs of pre-vetted services, from programming languages to security to “smart” services that can easily be integrated into your own services when hosted on their cloud.

There are also IaaS providers in the market that can offer the same platform across cloud and premises deployments, which helps streamline environment management, offering you a single-pane view of all virtual machines, even across multiple environments or customers. By choosing such a provider to host your services, your software or services business has the best chance to minimize, rather than exacerbate, your clients’ management burden.

Modernizing VMware Environments

VMware is the dominant virtualization platform for most enterprises. As a result, finding the right cloud platform that can easily migrate VMware workloads, or deploy services in a hybrid model that is standardized on VMware, is key. Businesses that use a VMware environment in their on-premises data centers are supported by the vSphere management platform. But migrating workloads from such environments can be a problem if your chosen cloud provider doesn’t support vSphere. Applications may have to be completely refactored before they can even be hosted by some cloud service providers, and you won’t be able to easily share data or functionality across cloud and premises. It also is difficult to use such cloud services for backup and recovery of on-premises VMware workloads.

As a service provider, you need a platform that:

- enables your customers to have a **consistent experience**, whether they deploy your service on the premises, in the cloud, or in a hybrid model
- offers **common APIs and management tools**, whether on the premises or in the public cloud
- helps **reduce migration challenges**
- **mitigates or eliminates the initial refactoring** needed to move the app to the cloud

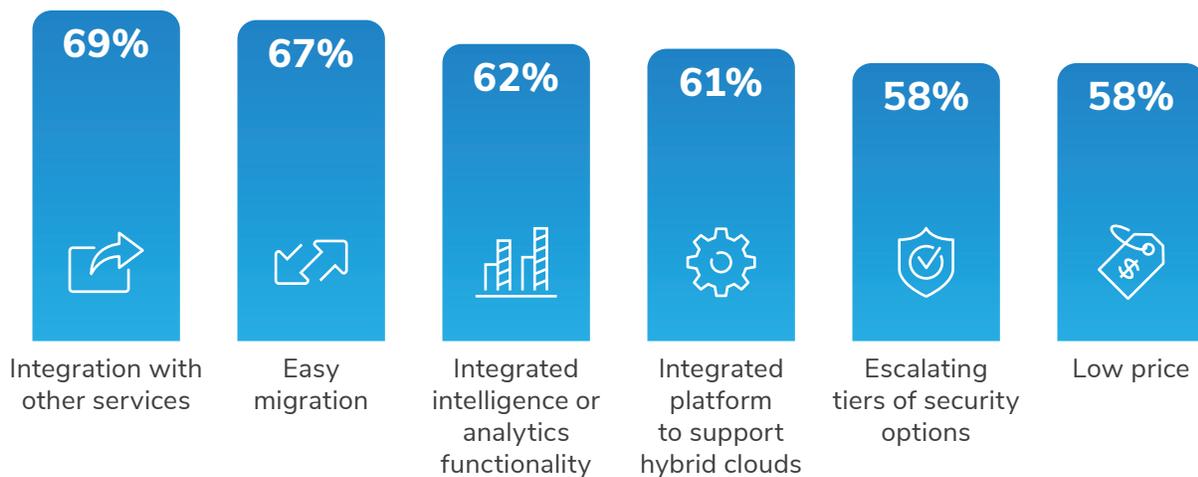
HOW YOUR CUSTOMERS CHOOSE AMONG CLOUD-BASED SERVICE PROVIDERS

One outcome of the digital era is that the cloud makes it easy for nearly anyone to create and sell software and services. No matter what your industry or area of expertise—no matter whether you’ve been in business for decades or just a few years—chances are you are facing an influx of competitors, both traditional and disruptors.

That means your clients have many companies to choose from to meet their needs (often without being locked into lengthy service contracts). So, you have to work harder and faster to deliver your unique services to meet their needs.

When selecting a provider of software or services, the top criterion listed by business buyers (at 75%) is “functionality”—that is, they’re looking for the unique capabilities of your product. But the remaining criteria have to do with how the service is delivered (not just what is delivered). And the “how” depends largely on the cloud infrastructure you run on. Among the top selection criteria cited by IT decision-makers:

- Integration with other services (69%)—Chances are your customers are integrating your application with their own data or management systems.
- Easy migration (67%)—Customers want providers that make the migration process easy, by standardizing on as many of the same protocols that they already use.
- Integrated intelligence or analytics functionality (62%)—Customers want to leverage new technologies to enhance their own services.
- Integrated platform to support hybrid clouds (61%)—With hybrid clouds quickly becoming the enterprise standard, customers want an IaaS provider that supports hybrid natively, rather than having to use a third-party platform for management. Being able to support popular hypervisors or platforms, like VMware, for on-premises, cloud or hybrid deployments is a big win. Providers that champion hybrid deployments for partner solutions are even rarer.
- Escalating tiers of security options (58%)—Customers want to balance their security needs against their budgets, securing the most critical apps or data at higher levels than less important workloads.
- Low price (58%)—Your ability to price the service appropriately depends on driving costs out of your own business.



WHAT TO LOOK FOR IN A HYBRID CLOUD SERVICE PROVIDER

Just as your clients want a service provider that can make their experience easy, flexible and as technologically advanced as possible, you require a cloud provider that can help you deliver. In fact, your choice of cloud provider can help make—or break—your ability to consistently deliver a high-quality service to your clients. To ensure you can uphold your promises to clients, look for a cloud provider that offers:

Platform support for VMware workloads, including the ability to support both premises-based or cloud deployments easily, without refactoring, rewriting, or changing IP addresses of existing workloads; and enabling use of familiar APIs and toolsets.

Flexible/agile infrastructure options, including a wide breadth of infrastructure options (multi-tenant, single-tenant, bare metal); as well as the ability to choose infrastructure sizing at a granular level, so your business pays only for what it needs.

Service level agreements (SLAs) for infrastructure availability, as well as the ability to tune infrastructure for application performance.

Security and compliance native to the platform, which covers all layers of the stack.

Cloud catalog of new services and technologies that can be easily integrated into applications, including:

- Advanced analytics
- Artificial Intelligence/cognitive computing
- Blockchain
- Internet of Things
- Machine learning
- Mobility

Global presence with global, unmetered backbone that connects to all cloud data centers to meet enterprise needs, including the ability to ensure data sovereignty as required by local regulations.

Professional services to assist you, or to provide additional technical expertise for your more difficult customer deployments, as necessary.

THE LAST WORD

As a software or managed services provider, your choice of infrastructure can be an asset or a liability as you strive to confidently deliver VMware-based services to your clients. Hybrid cloud configurations based on VMware offer significant benefits, including speed to market; easy, agile scalability; and the ability to integrate new technologies and services into your offerings.

But, your choice of hybrid cloud provider can impact the scope of these benefits. By choosing the right provider, you can maximize your ability to offer secure, highly available infrastructure, as well as value-added services, without having to build them yourself. The savviest of providers champion the hybrid model of service deployment, enabling you to build software and solutions using familiar hypervisors and tools that can be deployed anywhere, whether on your customer's premises or in the cloud data center. For businesses, this can be critical, as workloads can be easily migrated or deployed in a hybrid configuration, as necessary. Enterprise-grade IaaS providers that support both on-premises and cloud-based deployments are rare, and should be highly valued by ISVs and managed service providers. By seeking a cloud infrastructure partner that can provide cloud infrastructure, the latest technologies, and flexible deployment options in the cloud or on the premises, you will be setting yourself up for success as you grow your services business.

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