**vmware®**

# VMware Hybrid Cloud
## Accelerate Your Time to Value

# Fulfilling the Promise of Hybrid Cloud Computing

*"Hybrid cloud computing can maximize the value and balance the use of internal assets and external services (e.g., deploying services internally that could also be deployed to public cloud services when the internal capacity is available) while enabling better scalability."*[1]

Businesses are looking for a more flexible IT framework that can adapt to today's rapidly changing and global environment. Business teams striving to move quickly into new markets—and launch new products and services—are demanding more from IT organizations that have traditionally focused on avoiding downtime, ensuring security and compliance, and holding down costs. The need for faster, more cost-effective access to IT resources has created a healthy tension between business teams and IT, driving both to look for new and better solutions.

Two important trends are helping to bridge the gap between IT and the business. First, virtualization has improved the agility and efficiency of onsite data centers, while also providing a foundation for IT as a service and cloud computing. Second, public cloud services have emerged as a way to rapidly deliver IT resources at low cost.

However, moving existing workloads from the onsite data center to the offsite cloud service can be a complex, costly, and time-consuming process. Typically, IT organizations must modify or rewrite applications for portability to the cloud. And after these changes are made, IT and business teams can be locked in to the services of individual service providers.

## New Generation of Hybrid Cloud Services

Now VMware and our partners are delivering a new generation of hybrid cloud services that seamlessly extend your onsite data center to the cloud. Infrastructure-as-a-service hybrid clouds from VMware and VMware vCloud® Service Provider Partners enable you to deploy applications onsite or offsite to meet the needs of your business and to move applications between your onsite and offsite environments.

Now you can extend your data center to the cloud with confidence, preserving your investment in applications, infrastructure, networks, management, and IT training. You can improve IT agility and accelerate your time to value—all while maintaining the highest standards of performance, availability, security, and control. VMware and our partners are fulfilling the promise of hybrid cloud computing, enabling you to deploy and run all your applications onsite, offsite, or both—without compromise.

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[1] Gartner, "Get Past the Confusion Surrounding Hybrid Cloud Computing" October 22, 2012.

# Hybrid Clouds Built on a Trusted Foundation

Infrastructure-as-a-service hybrid clouds from VMware and our partners are built on the trusted foundation of VMware vSphere®, the world's leading virtualization platform. You can write, deploy, and manage applications in the cloud the same way you do today, relying on the underlying vSphere platform to provide the same level of security, reliability, and performance you get from your current VMware infrastructure.

Seamless interoperability gives you the freedom to quickly deploy workloads to the cloud, with the flexibility to move them between your onsite and offsite environments as your requirements change. WIth this interoperability, you don't need to worry about application compatibility or service provider lock-in, often associated with other cloud services. Diverse cloud-service offerings are available from our global ecosystem, providing a faster path to cloud success and return on investment, while minimizing risk.

## Unified Platform for Hybrid Cloud

vSphere provides the core of the software-defined data center—the unified VMware architecture that underlies VMware hybrid cloud solutions. The software-defined data center extends the cost and operational benefits of VMware virtualization to the entire data center infrastructure—compute, network, security, storage, and management. You can pool, automate, and manage this complete set of resources with intelligent, policy-driven software that spans your onsite and offsite environments. The resulting hybrid cloud solutions provide unmatched business agility, the highest service-level agreements (SLAs) for all applications, dramatically simpler operations, and lower costs.
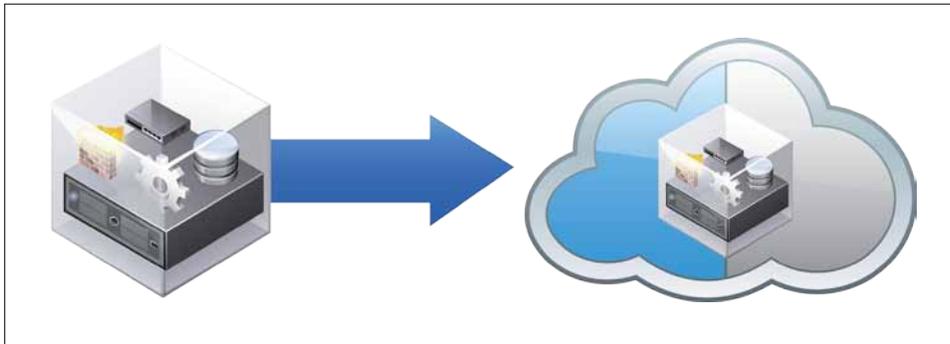
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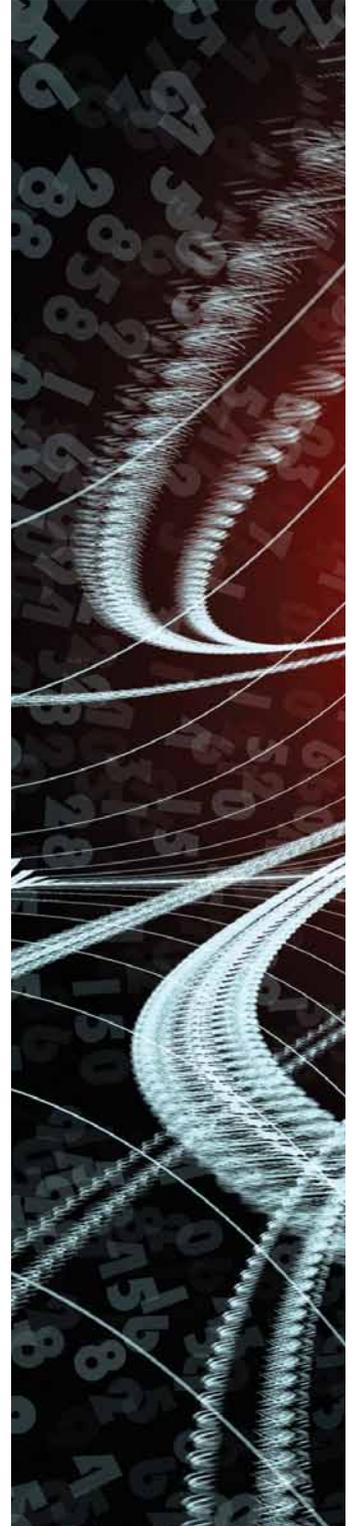
# VMware vCloud Hybrid Service

VMware vCloud® Hybrid Service™ is a secure, dedicated infrastructure-as-a-service cloud, owned and operated by VMware and built on the trusted foundation of vSphere and the software-defined data center architecture. The service supports existing workloads and third-party applications, as well as new application development, with unified networking that spans your existing and new data center capacity. It also offers common management and security and the same reliability and performance you expect from your internal VMware infrastructure. And with vCloud Hybrid Service, you have only one number to call for VMware support for both your onsite and offsite environments.

### Broadest Operating System and Application Support
vCloud Hybrid Service supports the thousands of applications and dozens of operating systems that are certified to run on vSphere, so you can run your applications in the cloud with no changes required. This support addresses a shortcoming of many other cloud providers' offerings: the complexity and effort required to rewrite applications for a specific cloud provider's platform.

### Seamless Network Integration
vCloud Hybrid Service is built on a virtualized network that is quickly customizable to support your application and security needs. You can stretch your Layer 2 and Layer 3 networks from your data center to vCloud Hybrid Service without the need for manual configuration changes. Network virtualization enables you to configure your firewalls and network as if they were in your own data center, so that you can replicate the network

your applications need to operate. The service provides common identity and access management across your onsite and offsite environments.

### High Performance, Reliable Platform
vCloud Hybrid Service includes automated replication, monitoring, and high availability of your applications at no additional fee, so you don't have to rewrite or rearchitect existing applications to ensure their availability. Leveraging the same platform you already run internally, you can extend your management tools into the cloud, gaining an integrated IT capability across your data center and the cloud. By utilizing your existing investments, processes, and expertise, you can lower your total cost of ownership.

### Choice of Service Options
vCloud Hybrid Service is available in two service options that can be deployed individually or in combination, giving you the flexibility and scalability you need to meet your organization's requirements:

- **Dedicated Cloud** provides you with a physically isolated infrastructure, giving you your own private cloud instance and the most control over your resources. This service is ideal for production workloads, including mission-critical applications, new application development, security- and compliance-driven applications, and high-performance applications that will benefit from physical isolation.

- **Virtual Private Cloud** provides you with logically isolated infrastructure, including fully private networking and resource pools. This service is ideal for short-term projects, development and test workloads, and projects with lower capacity requirements.

# VMware vCloud Service Providers

You can also advance your hybrid cloud strategies by working with a large global ecosystem of cloud computing partners who build clouds that are based on VMware technology. vCloud Service Providers enable you to choose cloud services that are optimized for a range of use cases, including seasonal projects, development and test, disaster recovery, and selected mission-critical applications.

All vCloud services incorporate the multilevel, auditable security of VMware vSphere, plus a comprehensive security framework designed for compliance with your internal IT environment. In addition, VMware sets stringent standards for security, scale, and production readiness.

The VMware vCloud service provider family provides a choice of cloud services:

• **VMware vCloud Datacenter Service** is a ready-to-use, enterprise-class cloud service offered through VMware certified Service Providers and built on VMware cloud infrastructure technology. With vCloud Datacenter Service, IT organizations can create an interoperable service-delivery model and approach that enables them to achieve the full flexibility and benefits of cloud computing while preserving security and control.

• **VMware vCloud Powered Services** are built on the same proven VMware cloud technology that more than 500,000 enterprises depend on in their data centers. This makes vCloud Powered Services inherently and fully compatible with your internal environment, so you can deploy and scale new and legacy applications without recoding.

## VMware Cloud Credits Purchasing Program

The VMware Cloud Credits Purchasing Program provides an easy on-ramp to the cloud, enabling you to maintain control and visibility of your cloud spend through your My VMware™ account. VMware Cloud Credits enable budget flexibility for your public and hybrid cloud strategy by allowing prepayment and future redemption for cloud services as business demand dictates. In addition, VMware Cloud Credits ensure control over cloud spend with approved VMware vCloud Service Providers running the same trusted VMware technology offsite as you are running onsite.

*"We have application portability between clouds and can expand or shrink resources as needed. That brings cost efficiencies, performance improvements, and the business scalability to meet growing demand from internal and external customers."*

Kristen Hayes,
Director of Global Infrastructure, Consona Corporation
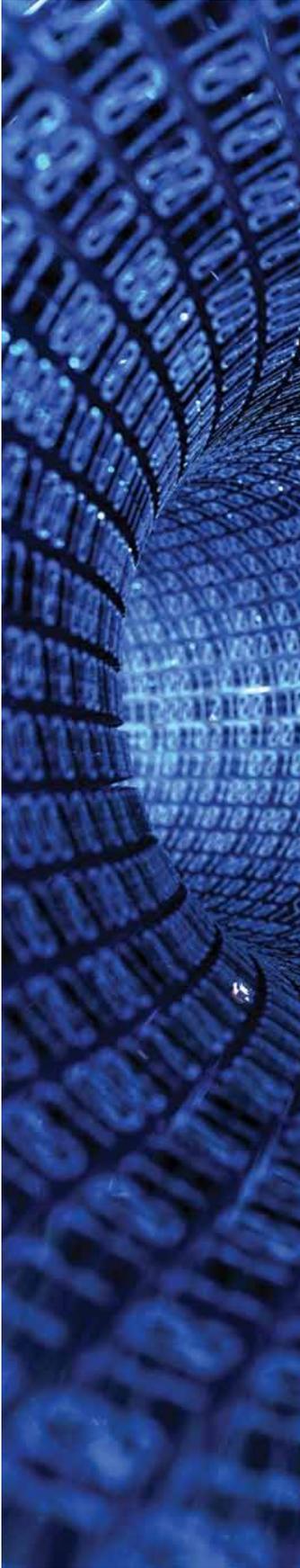
# Hybrid Cloud Use Cases

Early cloud adopters have found success in moving development and test workloads to the cloud. It's an easy, fast, and cost-effective way to get on-demand capacity for a limited time period. But other workloads are also good candidates for hybrid cloud computing. Depending on your unique requirements, you may want to evaluate the following types of workloads to move to hybrid cloud.

## Packaged Application Hosting

*Examples: email, collaboration software, data analytics, and business intelligence*

- Migrate packaged applications to a hosted environment compatible with your data center infrastructure, without having to rearchitect and reconfigure the applications.
- Offload the hosting of standard packaged applications such as Microsoft Exchange and SharePoint to a cloud service to refocus IT resources on applications with higher value and more complex needs.
- Free up existing on-premises resources and staff for more value-added projects.

## Web Hosting or E-Commerce

*Examples: 3-tier Web applications, mobile application development, and content-delivery solutions*

- Support new Web and e-commerce applications that have variable resource requirements.
- Deploy applications in a cost-effective and scalable environment.
- Distribute Web and e-commerce applications geographically across data centers to decrease latency and improve the end-user experience.

## Backup, Archiving, or Storage

*Example: secondary backup and archiving site*

- Preclude service disruption in a single-site IT deployment.
- Avoid the prohibitive expense of replicating a full production environment to a second site run by core IT.
- Utilize a low-cost remote storage facility over a fully synchronized active/active site, to be leveraged in the event of service disruption.

## Enterprise IT or Outsourced Data Center

*Example: on-demand data center expansion*

- Outsource data center functionality to a public cloud provider.
- Transition from a model of CapEx spend to OpEx spend for IT services.
- Support mission-critical applications in a public cloud environment with high levels of security, compliance, performance, and availability.

## Test, QA, or Development

*Examples: new application development or preproduction testing*

- Satisfy developers' needs for an agile, dynamic environment to test and develop software applications.
- Provide self-service provisioning by IT consumers, plus visibility, look-back, and chargeback capabilities for accountable resource allocation.
- Reduce test/QA environment costs to reflect its lower performance and availability requirements while streamlining application portability between test and production environments.

# Why VMware for Hybrid Cloud?

VMware is the global leader in virtualization and cloud infrastructure software, the key enabling technologies for infrastructure-as-a-service hybrid clouds. Named as a leader in Gartner's 2013 x86 Server Virtualization Magic Quadrant for the fourth consecutive year, VMware is cited by Gartner for its strength in providing a virtualization strategy and road map that lead to private and hybrid cloud computing.

## Customer Proven

More than 500,000 customers, including 100 percent of Fortune 500 and 100 percent of Fortune Global 100 companies, use VMware technologies and services. Businesses worldwide run more than 80 percent of all virtualized workloads and a large percentage of business-critical applications on VMware technology. VMware is the common denominator among many of the most innovative organizations successfully moving IT from rigid physical infrastructure to flexible, virtualized, and cloud environments.

## Expertise with Cloud

VMware is behind some of the largest and most successful cloud environments in the world, providing unique insight into the ways IT and business teams are using cloud computing to deliver new services, enter into new markets, get closer to customers, and make mobile employees more productive. Using this knowledge and the proven foundation of vSphere and the software-defined data center architecture, VMware delivers the security, reliability, and performance you need from a hybrid cloud platform.

## Expansive Partner Network

VMware and our network of more than 55,000 partners provide global coverage and deep domain expertise for IT strategies that span your data center and hybrid cloud solutions. Our partners include technology and consulting leaders, top distributors and resellers, system vendors, and integrators. Along with a global ecosystem of vCloud Service Provider Partners, VMware enables businesses to deploy the right hybrid cloud solutions to meet their business needs.

## Industry-Leading Vision and Innovation

VMware continues to pioneer the use of virtualization and cloud infrastructure technologies to radically simplify IT. By finding new ways to solve complex IT problems, we have helped businesses save billions of dollars, dramatically increase the agility of their IT environments while maintaining control, and significantly improve business outcomes.

Now, with infrastructure-as-a-service hybrid clouds from VMware and our partners, your business can rapidly evolve the way it brings products and services to market and interacts with customers. Your IT team can transition from reacting to business needs to being a proactive partner in business strategy and planning. Working together, your IT organization and business teams can drive true innovation—creating the new services and opportunities that grow revenue and further strategic differentiation.

Extend your data center to hybrid cloud today.

Visit http://www.vmware.com/go/hybridcloud.

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