vmware[®]

HARNESSING THE HYBRID CLOUD TO DRIVE GREATER BUSINESS AGILITY

WHY DIGITAL TRANSFORMATION IS DRIVING ADOPTION OF MULTI-CLOUD STRATEGIES

In the era of digital business, enterprises are increasingly using software, applications, and digital devices to provide the services and information their customers, partners and employees want. The delivery of more services at a faster pace has resulted in surging demands on IT infrastructure. What IT needs is a strategy that provides the agility and scalability to support rapid innovation and delivery.

That means IT must find faster, more efficient ways to deliver IT resources to meet business demand. With the advent of virtualization, public, private, and hybrid clouds now provide an incredible array of IT infrastructure services—with higher performance and capacity, greater scalability, improved security, and a lower cost than traditional physical infrastructure.

IT leaders are also looking to optimize their IT strategy for different priorities, such as performance, availability, security, redundancy, speed of implementation, compliance, and cost, which in turn leads to broader exploration of multi-cloud options. That is why 85% of enterprises now have a multi-cloud strategy.¹

Moreover, IT sees plenty of untapped value left in the cloud. At many companies there is an opportunity to extend the use of multi-cloud services into new areas such as software development; mission-critical workloads; continuous integration/continuous deployment (CI/CD); automation and intelligent workstreams; even IT transformation initiatives.

1. Source: Rightscale 2017 State of the Cloud Report.

Multi-Cloud vs. Hybrid Cloud: What's the Difference?

- Multi-cloud is the use of multiple disparate cloud providers (e.g. Amazon Web Services, Azure, internal IT) for separate workloads.
- Hybrid cloud leverages

 a common cloud stack
 inclusive of infrastructure
 and management
 functionality across
 private and public
 clouds to enable a
 fully compatible and
 operationally consistent
 environment.

MULTI-CLOUD ADOPTION BRINGS NEW OPPORTUNITIES, BUT CREATES ITS OWN SET OF CHALLENGES

Most IT environments have a combination of private and public clouds. This wasn't necessarily by design. In many cases the developer-driven nature of cloud adoption led to the use of a heterogeneous set of providers and services based on the preferences and requirements of individual developer teams. A multi-cloud approach may also be linked to a desire to reduce risk and dependencies from a single provider or the need for meeting specific application SLAs such as availability, compliance, and security.

Despite these benefits, the multi-cloud approach can also create some challenges for IT. For example:

- Management of disparate clouds requires different IT skillsets
- Multiple points of control can be time consuming and difficult to manage
- Incompatible cloud native stacks tie applications to specific providers or increase development cost to build apps in a cloud agnostic way

The digital age creates huge opportunities for business agility and differentiation, but implementing new technologies and solutions in a siloed manner can increase complexity, expense, and organizational resistance.



HOW CAN HYBRID CLOUD HELP ADDRESS THESE ISSUES?

The primary benefit of the hybrid cloud model is flexibility and freedom, but it also creates a seamless experience such that end users are completely indifferent as to whether an application is running in a public or private cloud. IT has the ability to deploy and run applications anywhere without the risk of getting locked in to the APIs of a specific cloud provider, and can access infrastructure on demand using a consistent set of tools and skillsets.

Whether you are looking to maintain your applications primarily on-premises and leverage public clouds for additional capacity as needed; trying to consolidate and migrate your applications to the public cloud; or attempting to get out of managing infrastructure altogether and run all of your applications in the public cloud, the hybrid cloud model provides you with that flexibility and freedom.

Run Your Apps and Workloads Anywhere



VMware gives you ultimate cloud flexibility and freedom.

At the core of the hybrid cloud approach is a common cloud infrastructure platform that delivers a complete set of software-defined infrastructure services for compute, storage, networking and security to run applications whether traditional or cloud native—in public or private environments, without the overhead of having to stand it up. A common cloud infrastructure platform for hybrid cloud creates a simplified and consistent experience across multiple cloud service providers to enable:

- Deploying workloads flexibly to different cloud environments, while maintaining consistent and centrally managed operations
- Managing cloud environments using the same set of existing IT skillsets and processes

Despite the promising vision, there have been a number of obstacles to broader hybrid cloud adoption, including:

- Rigid and costly legacy infrastructure slowing private cloud adoption
- Onerous planning and integration processes for architecting, deploying, and maintaining a multitude of point solutions
- IT organizational silos and lack of IT skillsets to broadly manage the entire cloud infrastructure stack (e.g. compute, networking, and storage)

The hybrid cloud gives IT the ability to deploy and run applications anywhere with no lock-in, using consistent tools and skillsets.

VMWARE CLOUD FOUNDATION: CORNERSTONE OF AN EFFECTIVE HYBRID STRATEGY

VMware Cloud Foundation enables IT teams to easily build out a full hybrid cloud leveraging the market-leading VMware infrastructure technologies, such as VMware vSphere®, VMware vSAN™, and VMware NSX®. It provides the software components as a fully integrated and interoperable cloud infrastructure stack and automates the initial bring-up, deployment and configuration processes through the VMware SDDC Manager™, thereby reducing the time and effort required to build a software-defined data center private cloud.

VMware Cloud Foundation also provides the option to consume the same infrastructure stack as a service from multiple cloud providers, such as Amazon Web Services (AWS) and IBM Cloud. A true hybrid cloud solution enables enterprises to maintain all business-critical applications on-premises, while cost-effectively accessing highly elastic compute, storage, and networking resources from a public cloud provider of their choice for additional capacity to support both traditional and cloud native applications. Furthermore, IT can leverage their existing expertise with VMware solutions and extend it to the public cloud. VMware Cloud Foundation provides a unified cloud infrastructure platform for building a hybrid cloud based on an agile software-defined approach.

Build a hybrid cloud with Cloud Foundation



Compatible. Stretched. Distributed.

In the example on page 4, a business can build a hybrid cloud using VMware Cloud Foundation software on qualified standardized hardware for its on-premises private cloud and for its public cloud; leverage VMware Cloud[™] on AWS, the VMware-managed public cloud service on AWS bare metal infrastructure; and gain access to all AWS services. IT administrators have visibility into both cloud environments through their vSphere web client and have full workload mobility between the two, thereby providing a common and consistent operational experience on-premises and off-premises.

With VMware Cloud Foundation, IT has the tools to keep up with everchanging business demands. IT has freedom and flexibility to quickly deploy any application—whether traditional or cloud native—anywhere, with the ability to freely move workloads between private and public cloud environments.



Learn more at: VMware Cloud Foundation

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

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