



Public Cloud Strategies for Extending Your IT Infrastructure

An Excerpt from the VMware Guide:
*Modernize Your VMware Data Center
in the Public Cloud*

For many VMware customers, fluctuating IT capacity requirements that result in over- or under-provisioning or the inability to quickly scale workloads up and down to meet the needs of the business, are key reasons why so many are turning to the public cloud as an alternative approach.

Yet, architecting and rolling out a cloud-based solution can feel like a daunting task, and plans can quickly be derailed or delayed due to the misconceptions about cloud types and deployment models.

Since you are running a VMware vSphere®-powered data center, you can update or replace on-premises infrastructure in the cloud using VMware vCloud® Air™, the ready-to-run public cloud built on vSphere.



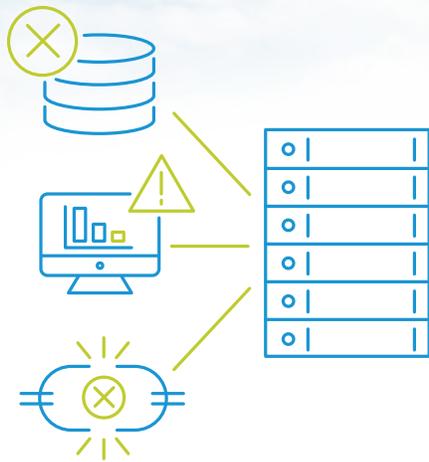
According to IDG Research Services* more than **59% of businesses surveyed** planned to move email/collaboration software first to public cloud.

Source: Market Pulse Survey, IDG Research Services, October 2015

This excerpt, from our guide *Modernize Your VMware Data Center with the Public Cloud*, provides vSphere users with the facts you need to understand how to best leverage the public cloud to extend your IT infrastructure.



Download the [full guide](#) for more insights, resources, and practical advice on other opportunities to leverage the public cloud to modernize your data center.



Picture it. The data center that you've so meticulously designed is no longer meeting the needs of your organization.

The reasons why can be as varied as the needs they create. If your organization is in e-commerce and bracing for the holiday season, your woes could be caused by the expected rush of online shoppers who hopefully will generate the kind of sales that could translate into a much-deserved holiday bonus for IT leaders like you. If you work for a higher education organization on the heels of open enrollment season, it could be caused by the upcoming influx of students who will all be scrambling to access the registration portal to get the classes that will give them the credits they need to graduate. And for just about any organization in just about any industry, it could be about the need to build and provision IT resources faster to make sure applications meet SLAs anywhere in the world, or a mandate to find new ways to meet growing needs with stagnant (or even shrinking) budgets.



Will my existing vSphere workloads be able to run in the public cloud without changes or configurations?



With vCloud Air they will. Otherwise, organizations face problems when moving workloads to a public cloud provider that is not designed to run both existing and new applications on a common platform.

While the reasons differ from industry to industry, the pressure that IT leaders like you feel is universal. All eyes are on you to find the answer to the problem, and to find it fast.

Building additional on-premises data center capacity that cannot scale down once it has scaled up is expensive, time consuming and impractical—especially if you are wrestling with a limited budget and an already overworked team.

The public cloud, with its ability to provide the scale needed for seasonal workload bursts and enable the provisioning of applications at the edge of the network and therefore close to remote users, can seem like an obvious solution. However, it comes with its own set of challenges. Not all applications and workloads can (or should) migrate to the public cloud. Compliance mandates or security concerns might mean that you want to keep certain applications on-premises. Or you might rely on esoteric applications, or run on older versions of operating systems that are not commonly supported by third-party cloud providers. Also, consider that re-architecting applications to run in a third-party public cloud provider's platform is a costly and time-consuming process.

Common Challenges with Integrating Public Cloud into an Enterprise Architecture

Need for additional staff and training required to manage public cloud tools that work differently than on-premises tools.



Proprietary Platform

- Optimized for New Apps Only
- Limited Network Integration
- Separate Management Tools
- Separate Processes and Skillsets



Follow the Proven Path for Extending Your Infrastructure to the Public Cloud



Do This:

Build on your investments in vSphere workloads with a unified hybrid platform that supports your workloads in the data center and the cloud.



Not That:

Continue building out your on-premises data center with additional servers and other hardware that needs to be managed and can consume precious data center floor space.

Successfully using a public platform to extend your infrastructure lies in figuring out how to make your on-premises data center investments do double duty in the public cloud. Extending your on-premises infrastructure to the public cloud can get you over the delivery deficiency hump, and help you meet the growing demands of your organization.

When done properly, public cloud integration allows you to augment your internal data center resources, and provides you with a flexible and cost-effective solution to meet a variety of business issues, including:

- On-premises capacity limitations
- Limited IT staff and budget
- Lack of in-house IT cloud experience
- Seasonal or unpredictable usage patterns
- Additional geographical locations

This type of infrastructure can bridge the on-premises data center you have today with the agility you want from the public cloud moving forward. You can choose which applications are deployed in your data center, which are deployed in the cloud, and which are distributed across both. It also provides you with a transitional stage on the road to broader public cloud adoption, delivering a modernized infrastructure that improves efficiencies, geographical coverage, and economies of scale.

VMware Public Cloud Data Center Extension Solutions:

Seamless Extension from the Data Center to the Cloud and Back

You have made significant—and savvy—investments in your virtualized environment that you shouldn't have to relinquish in order to realize the benefits of a public platform.

Built on the trusted technology of vSphere, vCloud Air provides a true hybrid experience by seamlessly extending vSphere workloads from your data center to the public cloud and back.

With vCloud Air, you can run one or many copies of vSphere workloads in the cloud, for as long or as short a time as needed. Elastic consumption models shift up-front capital expenditures into flexible operating expenditures. If capacity demands diminish, simply migrate the applications back to the on-premises data center again and reduce the size of the public cloud instance.



Keep Going

Ready to learn more about how vCloud Air can help you modernize and extend your infrastructure? Check out these additional resources.



[Modernize Your Data Center by Extending to vCloud Air](#)

VMware customers that connect to vCloud Air can realize true hybrid cloud capabilities faster, and with less operational cost. Learn how VMware virtualized networking, security principles, and infrastructure management technologies ease the integration to vCloud Air.



[VMware vCloud Air – Hybridity & Networking](#)

Explore VMware vCloud Air Advanced Networking Services and Hybrid Cloud Manager for a seamless cloud experience. Advanced Network Services, powered by the VMware NSX™ network virtualization platform, will enable cloud administrators to achieve unprecedented security and isolation in the hybrid cloud. In this lab, you will explore the latest Advanced Network Services such as isolation with micro-segmentation, dynamic routing protocols, SSL-VPN, and Layer-7 load balancing. The Hybrid Cloud Manager enables secured, low-downtime migrations, WAN optimization, and Layer-2 extension to vCloud Air for a seamless hybrid cloud experience.

VMware Public Cloud Vision

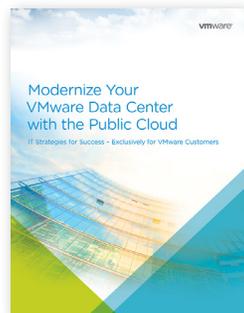
The explosion of data, mobile devices, and consumerization of IT have placed unprecedented pressure on IT resources. The cloud is no longer optional, it is a necessary component in delivering the agility and enabling the innovation required to remain competitive in today's market.

Digital innovation is in large part driven by applications and their associated digital processes. These applications can take and fulfill orders, provide support to customers, manage sales, and analyze and deliver data insights by extracting and linking data and intellectual property from multiple applications and locations into a streamlined process and experience. Connected applications depend on organizations being able to extend existing infrastructure and application services beyond their data centers, while delivering against the rigorous requirements of security, compliance, reliability, and performance.

VMware vCloud Air is the ready-to-run public cloud built on vSphere that enables our customers to modernize their infrastructures and protect, extend, and replace on-premises vSphere workloads. Because vCloud Air is built on the solid foundation of vSphere, customers can quickly and securely take advantage of the core benefits of a true hybrid cloud platform, while extending and maximizing existing IT investments into the public cloud—any application, no changes.

Modernize Your Data Center with VMware vCloud Air

Here are some IT projects to get you started:



Get the Full Guide

Learn more about the opportunities that the public cloud offers for disaster recovery, data center extension, and data center replacement.

Plus, get more resources, tools and access to success stories from VMware customers.

[Download](#) the guide now.

