



Migrating Apps to the Cloud in 5 Steps



Introduction

Cloud applications, platforms and services are changing the way enterprises compete for customers. The implementation of cloud technology promises business transformation and modernization, while adding product value and meeting the increasingly demanding needs of applications – maneuvering even the most conservative organization into the digital future.

With Forbes predicting that 83 percent of enterprise workloads will be in the cloud by 2020,¹ it's no longer a matter of if or even when an organization should migrate to the cloud – but how to leverage cloud migration to generate the greatest business value from applications and services.

Whether migrating applications to the cloud to achieve improved IT agility, operational scalability or lower TCO, this best practices guide can be used to guide migration strategy.

The decision to migrate to the cloud is often underestimated, without proper consideration of the complexity and enormity of the migration process itself.

By developing a sound migration strategy and evaluating your business processes, effective cloud migration can be achieved on-time and on-budget with minimal risk.

A Forrester survey of 500 cloud-knowledgeable IT decision makers found that 89 percent experienced performance and cost challenges when migrating mission-critical applications to the cloud.²

Read more to discover five achievable steps to maximize the success of your cloud migration strategy.

- 1 Evaluate everything**
- 2 Research migration strategies**
- 3 Test and learn**
- 4 Consider bringing in additional resources**
- 5 Seamlessly migrate to the cloud with VMware Cloud on AWS**

1

Evaluate everything

At a glance

- Identify clear business needs for further migration
- Prioritize adding value, not saving money
- Don't underestimate the challenge

In order to minimize risk, it's vital to clearly assess the reasons for cloud migration, justifying the business impact of factors like time-to-value and speed of implementation for each workload before expanding further into the cloud.

Reviewing your business workloads – their use, function, dependencies and value – will inform your cloud migration strategy. Develop a complete inventory of workloads and distinguish whether migration will add business value, support greater infrastructure capabilities, or reveal workloads that need to migrate simultaneously to maximize success. This review may even expose services that are better left on-premises.

Cloud migration can relieve huge financial burden at the enterprise level, but this should never be the primary reason for migration – it's an opportunity to modernize existing products and create the next generation of high-value apps by working out the best way to manage app workloads.


“Business demand for private cloud is primarily focused on accelerating the application deployment cycle, thus improving reliability and availability. Cost savings are not always the first priority of business demand.”³

2

Research migration strategies

There are a variety of strategies to consider when deciding how to effectively migrate to the cloud:

Move without conversions

Moving a primary asset, like a website, from an on-premises environment to the public cloud – without changing anything about the asset – can result in significant savings. It can also  provide additional support through in-built cloud optimization functionality like disaster recovery and on-demand capacity extension.

Choose a SaaS replacement

Finding an existing marketplace Software-as-a-Service (SaaS) offering that can already do what you need it to can reduce the burden of the migration process as well as free up on-premises resources for other workloads.

Choose a PaaS replacement

Adopting an existing Platform-as-a-Service (PaaS) without adjusting any architecture can replace expensive on-premises server needs with a subscription-based service. This often leads to increased agility during periods of high demand.

Re-architect

Modernizing an application or service through cloud migration can add new and improved functionality, add tangible product value and give new life to an older but still valuable product.

Retire

If a given workload doesn't provide any business value, and it isn't intrinsic to another workload, retire it.

3

Test and learn

It's best practice to choose several different non-critical workloads and use them as forerunners to the primary migration.

Learnings from test cases will inform how to execute the migration and ensure that mission-critical workloads transfer smoothly.

“Focus should not be on just completing a successful migration, but documenting and learning from the experience.”⁴

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Consider bringing in additional resources



Cloud migration is accompanied by a need for additional resources to facilitate the migration. Findings from Forrester survey that 47 percent of early cloud migrators stated that they had teams of 50+ people dedicated to their migration strategy and process.⁵

Making specialist hires, and creating dedicated teams to manage certain facets of the migration – assessing workloads, initial migration testing, etc. – will greatly improve the whole migration process.

Ensure these teams have the tools and resources to support their migration actions. Many organizations also hire experienced migration planning experts as ongoing consultants, even after the migration is complete.



Cloud adoption strategies will influence more than 50 percent of ITO deals through 2020.⁶



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Seamlessly migrate to the cloud with VMware Cloud on AWS

At a glance

- VMware Cloud on AWS combines the leader in private cloud with a next-generation public cloud
- Hybrid cloud provides the “best of both worlds”
- Seamless operations achieved throughout app migration
- Keep track of ongoing cloud resources with a variety of built-in control and analytics tools

Consistent infrastructure, consistent operations

VMware Cloud on AWS is an on-demand service that offers access to the best software-defined data center experience from the leader in private cloud running on next-generation AWS infrastructure.

It allows organizations to extend on-premises data centers and easily migrate application workloads to VMware Cloud on AWS without conversions or re-architecting.

Additionally, cloud migrations can leverage bi-directional workload portability between on-premises systems and VMware Cloud on AWS.

Further value can be added by modernizing applications through optimized access to native AWS services.

Consider a hybrid cloud solution

One example is the choice to adopt a hybrid cloud solution, moving a specific selection of their workloads to the cloud in order to continue utilizing on-premises data center technology.

It is predicted that by 2020, 90 percent of organizations will adopt hybrid infrastructure management capabilities.⁶

VMware Hybrid Cloud Extension

Organizations can expand their existing enterprise infrastructure footprint to include clusters housed in public cloud data centers using VMware Hybrid Cloud Extension – a SaaS add-on of VMware Cloud on AWS.

“Our ability to develop something once and extend it to both private and public clouds allows us to deliver new products, services and updates much faster, so we can keep up with and even lead the pace of change in our industry.”

Alan Rosa

Senior Vice President of Technology Delivery and IT Security,
Marriott International

Key benefits include:

Lower TCO

Expedite cloud adoption while maintaining schedules and data governance. Enable migration without retrofit or reconfigurations, such as IP address and auto VPN setup.

Accelerate migration

Enable zero-downtime “live” migrations and scheduled low-downtime, large-scale migrations between multisite and cloud.

App mobility

Transform your data center with secure, seamless app mobility between on-premises and the cloud.

Infrastructure hybridity

Enable secure proxy and secure network extension, as well as high-throughput, WAN-optimized, multisite interconnects.

Try it for yourself in our hands-on lab at
www.vmware.com/go/try-vmc-aws-hol

Breaking down the move to the cloud in 5 easy steps:

1 Assess needs and justify your migration to the cloud

- Assess the business value of the migration for each enterprise process

2 Research alternative cloud solutions:

SaaS, PaaS, IaaS

3 Create a specialist team to manage the migration

- Make some specialist hires
- Consider consulting with a migration services provider

4 Test and Learn

- Choose non-critical processes to use as test cases
- Learn from initial migration test cases

5 Choose VMware Cloud on AWS to ensure your cloud migration success

Visit cloud.vmware.com/vmc-aws to get started

