

VMware Cloud

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.

According to the Taneja Group, over 65 percent of enterprises surveyed are running at least some business-critical workloads in a public cloud,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 survey of 400+ companies interested in hybrid cloud found that only 19 percent had progressed past research and planning due to concerns surrounding data security, risk of extended downtime and inconsistent user experience.²

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

- 1 Rationalize and justify the move to the cloud**
- 2 Research migration strategies**
- 3 Test, learn and adapt your approach**
- 4 Plan effectively to mitigate risk**
- 5 Seamlessly migrate to the cloud with VMware Cloud on AWS**

1

Rationalize and justify the move to the cloud

At a glance

- Identify clear business needs for further migration
- Understand how value will be added
- 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. However, the true value of cloud migration is the opportunity to modernize existing products and create the next generation of high-value apps by working out the best way to manage app workloads.

“From Gartner client inquiries, we observe that 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, and business and IT may not want to change the funding and operation models at the first cloud adoption stage.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 built-in 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, learn and adapt your approach

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.

This is an important opportunity to increase the learnings and experience of your entire IT staff with minimal risk.

By taking things slowly at first, not only will this make larger migration tasks easier, but it may reduce the cost of employing cloud-experienced contractors later on.

4

Plan effectively to mitigate risk

Sufficient allocation of dedicated expertise and time is often underestimated during cloud migration planning and execution.



Expertise

The need for workers experienced in cloud migration is essential to mitigating risk. Successful enterprise migrations often use dedicated teams that have the skills and expertise to facilitate the necessary research, workload assessment, initial testing and mission-critical phases of the migration.

Given that it is common for enterprise migrations to include hundreds of thousands of workloads, ensuring your migration teams have the tools and resources to support their migration actions will pay off in the long run.



Time

Every migration takes place across a different time span depending on the motivations for migration, app refactoring, as well as the number and complexity of workloads to be migrated. Larger migrations are often staged over extended periods to minimize disruption to service offerings and ensure cloud-native features are effectively leveraged.

Taking the time early on and bolstering your team's experience by migrating less-critical apps will reduce the risk of disruption as the migration continues.

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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 running on the world's most popular public cloud provider
- Move and run mission-critical workloads at scale with robust business continuity
- Deliver consistent network and security services and policies
- 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. It combines the leader in private cloud running on world's most popular, dedicated, elastic, bare-metal infrastructure with access to a broad range of services.

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

The hybrid cloud model involves moving a specific selection of workloads to the cloud, allowing an organization to better utilize their existing on-premises data center for other purposes.

Gartner predicts that by 2020, 90 percent of organizations will adopt hybrid infrastructure management capabilities.⁴

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 rewriting applications and replatforming workloads, with the benefits of on-demand capacity extension and disaster recovery protection.

Accelerate migration

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

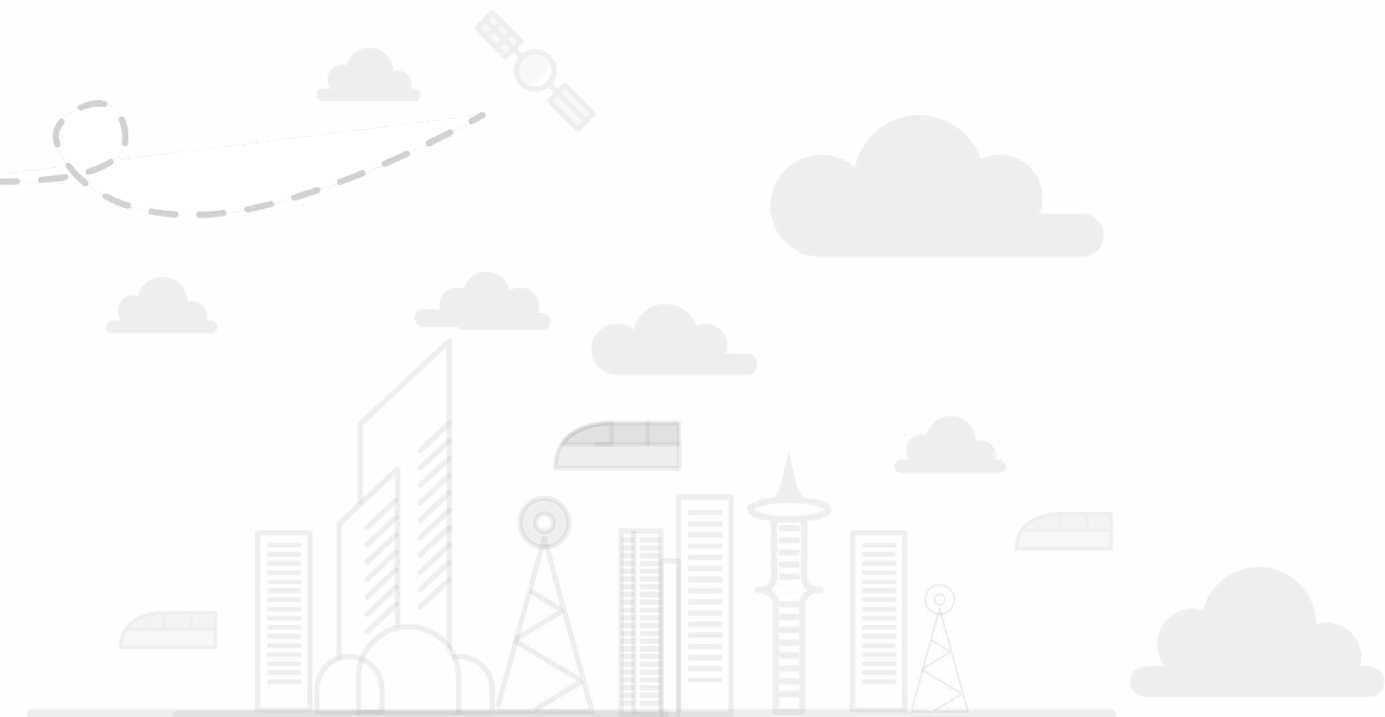
Consistent operations

Use identical skills, tools and processes for managing private and public cloud environments for reliable service delivery, improved productivity and reduced costs.

Infrastructure hybridity

Run, manage and secure applications in a hybrid IT environment without the need to purchase custom hardware, rewrite applications or modify operating models.

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 Rationalize and justify your migration to the cloud

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

2 Research migration strategies

- SaaS, PaaS, IaaS

3 Test, learn, adapt your approach

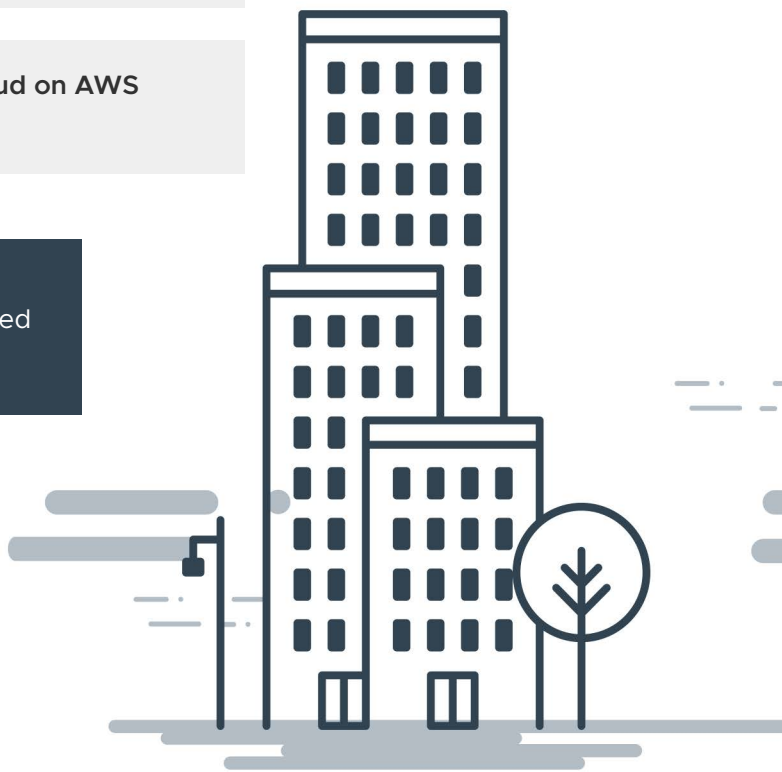
- Choose non-critical processes to use as test cases
- Learn from initial migration test cases

4 Plan effectively to mitigate risk

- Assess the experience and training of your current IT teams
- Consider consulting with a migration services provider

5 Seamlessly migrate to the cloud with VMware Cloud on AWS

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



References

1, 2 Taneja Group. VMware Cloud on AWS: A new approach to Public Cloud offers more value than Azure alternatives. December 2017. <https://assets.cloud.vmware.com/v3/assets/blt719094f4883f620b/blt650e36cc71a7beae/5a584bb154f8d3307c09ae31/download?disposition=inline>

3 Gartner. Build the Right Justification for Moving to the Cloud. May 15, 2017. <https://www.gartner.com/doc/3715018/build-right-justification-moving-cloud>

4 Gartner Press Release. Gartner Says a Massive Shift to Hybrid Infrastructure Services Is Underway. April 5, 2017. <https://www.gartner.com/newsroom/id/3666917>

