

Migrate to the Cloud with Amazon Web Services and Strategic Communications

EBOOK



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Introduction

Migrating to Amazon Web Services (AWS) enables organizations to transform the way they accomplish their mission by empowering them to accelerate their cloud migration, freeing them from the constraints of on-premises data centers, and providing the flexibility to pay only for what they use. This eBook will detail how cloud adoption can deliver significant benefits to public sector organizations.

A key imperative is the development of a thorough and compelling mission-driven case that clearly identifies the specific business benefits your public sector agency will achieve by moving to the cloud. A robust methodology is also key. We'll provide an overview of the three-phase migration process, which serves as a guide to migration. We'll then discuss seven migration strategies that are used to move applications and workload to AWS. You will also be introduced to the support options that are available from AWS Partners, AWS Professional Services, and vendor solutions in AWS Marketplace that can help you migrate.

Developing a robust mission-driven case will also help you begin to see the positive effect that migration will have on your agency, and help you gain an understanding of how specific roles and responsibilities for the cloud adoption effort will be assigned.

Business Case

A robust and thorough mission-driven case is critical

A core tenet of migrating to AWS is developing a plan that is based on your agency's fundamental reasons for cloud adoption. For example, moving to AWS means your organization's IT team will spend significantly less time managing on-premises infrastructure and upgrades. It also means you will no longer have to make large upfront investments in hardware and software, or manage ongoing maintenance. Faster time to market, improved workforce productivity, and more transparency into operational costs are some of the most common reasons our customers migrate to AWS. Other frequent business drivers for AWS migration are increased operational agility that enables you to react to macro- and microeconomic conditions more quickly, and using the global footprint of AWS to reduce your risk profile. These factors help build a robust and compelling mission-driven case for moving to the cloud.

Working with AWS or an AWS Partner, you can create a mission-driven case for migration based on sound planning and preparation. This will help accurately determine the cost of the current on-premises data center, what the migration cost will be, and what the new AWS cost will be. Based on this you can set expectations for cloud adoption and provide your agency an opportunity to begin the process of instilling a change management mindset throughout your workforce.

Creating the mission-driven case will also help you begin to answer key questions, such as:

What is the expected return on investment (ROI), and when will the projected cash flow be positive?

What are some of the other organizational value benefits of cloud adoption, beyond cost savings?

What is the potential organizational impact of migrating a select group of applications first?

What are factors that help agencies determine if a hybrid cloud environment would be the best solution?

What indicators are used to estimate how long the migration process will take?

Once the mission-driven case has been developed and this important first step is complete, you will have an understanding of the financial impact and benefits of cloud adoption. As the move to the cloud evolves, you will be able to more specifically consider the many positive ways this transformation will impact your organization as a whole.

Three-Phase Migration Process

Visualizing the three-phase migration process



The three-phase migration process can help guide your organizational approach to migrating tens, hundreds, or thousands of applications. This serves as a way to envision the major milestones of cloud adoption during your journey to AWS.

Three-Phase Migration Process ASSESS

At the start of your journey, you assess your organization's current readiness for operating in the cloud. Most importantly, you want to identify the desired business outcomes and develop the business case for migration.

Engaged leadership, frequent communication, and clarity of purpose, along with aggressive but realistic goals and timelines, make it easier for your entire company to rally behind the decision to migrate.

In this phase, you'll assess your on-premises resources and build a right-sized and optimized cost projection for running applications in the cloud. A number of AWS services and tools can help.

Our tools help you assess your on-premises resources and build a right-sized and optimized cost projection for running applications in AWS. Your initial evaluation should include a quick review of your company readiness by using the Cloud Adoption Readiness Tool (CART) to evaluate strengths and opportunities for improvement.

That initial assessment could lead to a deeper understanding with the Migration Evaluator, which provides a total cost of ownership (TCO) projection for AWS based on your actual resource usage.

Our years of helping customers optimize their compute, storage, database, networking, and software licenses on AWS allows us to evaluate your on-premises resources. When you only need to generate right-sized Amazon Elastic Compute Cloud (Amazon EC2) instance recommendations for running on-premises workloads in AWS, use AWS Migration Hub.

Three-Phase Migration Process



As part of the mobilize phase, you create a migration plan and refine your business case. You address gaps in your organization's readiness that were uncovered in the assess phase, with a focus on building your baseline environment (the "landing zone"), driving operational readiness, and developing cloud skills.

Not every decision in a migration can be automated, but our tools help you make easier and better decisions. The AWS Application Discovery Service automatically collects and presents detailed information about application dependencies and utilization to help you make more informed decisions as you plan your migration. Our AWS Migration Competency Partners, such as [Partner Name], also provide deep discovery and planning tools.

To maximize the benefits of moving to the cloud, you need to give your teams the freedom and agility to innovate, but also enforce controls to protect your organization from risk. Using AWS Management and Governance services, you can improve business agility while maintaining governance and control over cost, compliance, and security. AWS Control Tower automates the setup of a baseline environment for running secure and scalable workloads in AWS based on prescriptive best practices that enable guardrails for security, operations, and compliance.



Three-Phase Migration Process

Migrate and Modernize

During the migrate and modernize phase, each application is designed, migrated, and validated. AWS Migration Hub allows you to quickly get progress updates across all of your migrations, easily identify and troubleshoot any issues, and reduce the overall time and effort spent on your migration projects.

While migrating to AWS, you iterate on your new foundation, turn off old systems, and constantly evolve toward a modern operating model. Your operating model becomes an agile set of people, process, and technology that improves as you migrate more applications. AWS Managed Services can also help you accelerate your migration by providing ongoing management, cost optimization, and operations of your AWS infrastructure, leaving your team free to focus on your applications and build their skills in the cloud.

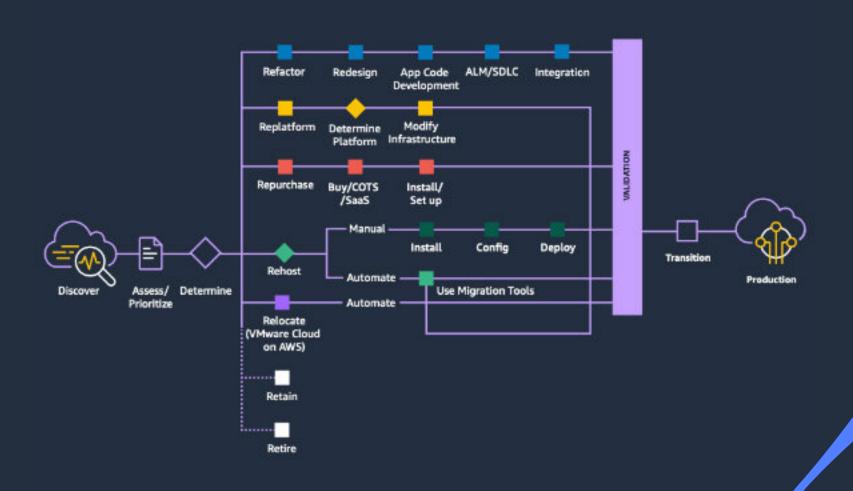
Many enterprises use the migration effort to also modernize their businesses by refactoring their legacy technology portfolio. Some proven ways to do this include infrastructure automation (elastic infrastructure, containers, AI/ML), agile development practices (DevOps, test automation, CI/CD, observability), cloud-native architectural patterns (stateless, microservices, serverless, data lakes), and product-based operating models (product teams, business outcome alignment, full-stack vs. platform structures). These methods accelerate innovation and increase agility, resiliency, and efficiency to accelerate your speed to market and customer outcomes.

Seven common migration strategies

Organizations considering a migration often debate the best approach to get there. While there is no one-size-fits-all approach, the focus should be on grouping each of the IT portfolio's applications into buckets defined by one of the <u>migration patterns</u>.

Common migration patterns usually follow one of six basic patterns—but when you migrate to AWS, you'll gain a seventh option (relocate), rounding out what we refer to as "The 7 Rs." Creating a detailed strategy that identifies the best pattern(s) for your applications is essential to accelerating your journey into the cloud and achieving your desired business objectives. Below are the details on each of these seven patterns as we see them adopted most often by our customers.

Seven common migration strategies



Seven common migration strategies

1

Rehost

Also known as

"lift-and-shift"

In a large-scale migration scenario, where you need to migrate and scale quickly to meet a business case—such as a data center lease termination—we find that the majority of applications are rehosted.

Most rehosting can be automated with tools such as CloudEndure Migration. For times when you can't install an agent on the server, AWS Server Migration Service offers agentless capabilities, which make it easier and faster for you to migrate thousands of on-premises workloads to AWS from a snapshot of the existing servers.

2

Replatform

Sometimes referred to as

"lift-tinker-and-shift"

This entails making a few cloud optimizations in order to achieve tangible benefits but without changing the core architecture of the application. For example, if you're managing a messaging broker today, you can easily replace this with the fully managed Amazon MQ service—without rewriting your applications or paying for third-party software licenses.

Or, if you're migrating a Windows-based application that requires file storage, you can use the fully managed Amazon FSx for Windows File Server

3

Refactor

Change the way the application is architected and developed, usually done by employing cloud-native features

Typically, refactoring (or rearchitecting) is driven by a strong business need to add features or scale, or improve performance that would otherwise be difficult to achieve in the application's existing environment.

If your organization is looking to boost agility or improve business continuity by moving to a service-oriented architecture (SOA), this strategy may be worth pursuing.

Seven common migration strategies

4

Relocate

Move vSphere-based applications to AWS without application changes

VMware Cloud on AWS allows you to quickly relocate hundreds of applications virtualized on vSphere to the AWS Cloud in just days and to maintain consistent operations with your VMware Cloud Foundation-based environments. Once in the AWS Cloud, your applications are easier to optimize or rearchitect to take advantage of the breadth and depth of AWS services.

5

Repurchase

Replace your current environment, casually referred to as "drop and shop"

This is a decision to move to a newer version of software or purchase an entirely new solution. You may also be looking for a new software licensing model that allows you more flexibility to match your business needs.

6

Retain

Do nothing, for now
—revisit later

You may have portions of your IT portfolio that you are not ready to migrate or believe are best kept on-premises. Keep in mind that, as more of your portfolio moves to the cloud, allocation of data center expenses across fewer applications may eventually drive a need to revisit the retained applications.

7

Retire

Decommission or archive unneeded portions of your IT portfolio

By rationalizing your IT portfolio and identifying assets that are no longer useful and can be turned off, you can strengthen your business case and direct your team's attention toward maintaining the resources that are more widely used.

Conclusion and Next Steps

Migration is the beginning of what is possible with AWS adoption and cloud capabilities. Looking at a migration as an organizational change project helps you generate buy-in across your agency and maintain communications through each stage of the process. Build a mission-driven case and refine the ROI as the project progresses. Identify specific roles and responsibilities for your migration team members, and familiarize them with the three-phase migration process and seven common patterns for migration to set your agency up for success. You will then be prepared to transform the way your organization moves the mission forward, and realize the benefits of cloud adoption on AWS.

Contact <u>Strategic Communications</u> to learn more about how migrating can transform your <u>organization!</u>



About Strategic Communications

Strategic Communications, headquartered in Louisville KY, is an Information Technology (IT) and Audio Visual consultant focused on AV systems, AWS & Microsoft Cloud, Cyber Security, and Network Engineering. Founded in 1994, Strategic works with enterprise businesses and government agencies across the United States in delivering solutions to fit business requirements. Leveraging our partner relationships, business longevity, and experience we provide clients with the highest level of customer support. In addition, Strategic Communications possesses certifications such as Cisco Gold Partner, Microsoft Gold, AWS Advanced Consulting Partner, Crestron, Extron and ISO 9001:2015. Let Strategic Communications assist with your IT, Cloud and Audio Visual projects!



Resources

AWS Marketplace Migration Solutions

A digital catalog with thousands of software and solution listings

AWS Migration Partner Solutions

Streamline your migration with featured AWS Partner solutions

AWS Application Discovery Service

Gather information about your on-premises data centers

AWS Server Migration Service

The easier and faster way to migrate on-premises workloads to AWS

AWS Database Migration Service

Migrate your databases to AWS with minimal downtime

AWS Migration Acceleration Program (MAP)

Move to AWS faster while reducing your operating costs

AWS Professional Services

Consult with our global team of technical and advisory consultants

Download the AWS Migration eBook

Best practices and strategies for migrating to AWS





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