

EPLEXITY

aws partner
network

Transform your organization

**MIGRATE TO AMAZON
WEB SERVICES**

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Introduction

Migrating to Amazon Web Services (AWS) enables government agencies, educational institutions and nonprofit organizations to transform the way they accomplish their mission by empowering them to accelerate their speed, 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 and we will give an overview of the 5-phase migration process, which serves as a guide to migration, learn about six common migration strategies that are used to move applications and workloads to AWS. You will also be introduced to the support options that are available from Amazon Web Services Partner Network (APN) Partners, AWS Professional Services, and vendor solutions on 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 increased operational agility that enables you to react to macro and micro economic 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 APN 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?

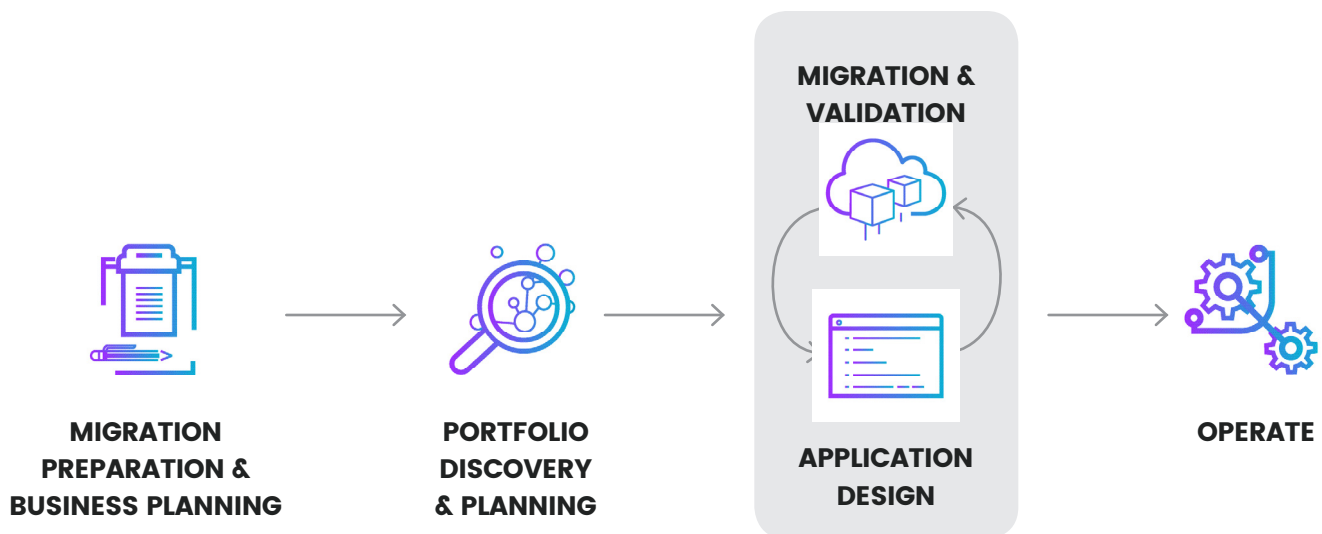
What are factors that help agency's determine if a hybrid cloud environment would be the best solution?

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.

Five-Phase Migration Process

VISUALIZING THE FIVE-PHASE MIGRATION PROCESS



The five-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.



PHASE 1

Migration Preparation and Business Planning

Developing a sound mission-driven case requires taking your objectives into account, along with the age and architecture of your existing applications, and their constraints.

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.

You will want to establish operational processes and form a team dedicated to mobilizing the appropriate resources. This team is your Cloud Center of Excellence (CCoE), and they will be charged with leading your agency through the organizational and mission-driven transformations over the course of the migration effort. The CCoE identifies and implements best practices, governance standards, automation, and also drives change management.

Establish operational processes and form a dedicated team

An effective CCoE evolves over time, starting small and then growing as the migration effort ramps up. This evolution helps to establish migration teams within your organization, and decide which ones will be responsible for migrating specific portions of your IT portfolio to AWS. The CCoE will also communicate with the migration teams to determine areas where you may need to work with AWS Professional Services, an APN Partner, or a vendor offering a solution on AWS Marketplace to help you offset costs and migrate successfully.



Guiding principles for the creation of a CCoE:

Get executive buy-in (this will lead to organization-wide commitment for cloud adoption).

The CCoE structure will evolve and change as the organization transforms.

Treat the cloud as your product and the application team leaders as your customers.

Organizational change management is central to business transformation and cloud adoption. Use intentional and targeted organizational change management to change company culture and norms.

Embrace a change-as-normal mindset: Change of applications, IT systems, and business direction is expected.

Operating Model decisions will determine how people fill roles that achieve desired business outcomes.



PHASE 2 Portfolio Discovery and Planning

Full portfolio analysis of your environment, complete with a mapping of interdependencies, and migration strategies and priorities, are all key elements to building a plan for a successful migration.

The complexity and level of impact of your applications will influence how you migrate. Beginning the migration process with less critical and complex applications in your portfolio creates a sound learning opportunity for your team to exit their initial round of migration with:

- Confidence they are not practicing with mission critical applications in the early learning stages.
- Foundational learnings they can apply to future migration iterations.
- Ability to fill skills and process gaps, as well as positively reinforce best practices based on experience.

Begin the process
with less critical and
complex applications

The CCoE plays an integral role in beginning to identify the roles and responsibilities of the smaller migration teams in this phase of the migration process. It is important to gain familiarity with the operational processes that your organization will use on AWS. This will help your workforce build experience and start to identify patterns that can help accelerate the migration process, simplifying the method of determining which groups of applications can be migrated together.



PHASE 3 Application Design

&



PHASE 4 Migration and Validation

These two phases are combined because they are often executed at the same time. They occur as the migration effort ramps up and you begin to land more applications and workloads on AWS. During these phases the focus shifts from the portfolio level to the individual application level. Each application is designed, migrated, and validated according to one of the six common application strategies. (“The 6 R’s” will be discussed in greater detail below.)

Each application is
designed, migrated,
and validated.

A continuous improvement approach is often recommended. The level of project fluidity and success frequently comes down to how well you apply the iterative methodology in these phases.



PHASE 5

Modern Operating Model

As applications are migrated, you optimize your new foundation, turn off old systems, and constantly iterate toward a modern operating model. Think about your operating model as an evergreen set of people, processes, and technologies that constantly improves as you migrate more applications.

Optimize new
foundation, turn off
old system

Ideally, you will be building off the foundational expertise you already developed. If not, use your first few application migrations to develop that foundation, and your operating model will continually improve and become more sophisticated as your migration accelerates.

Six Common Migration Strategies: “The 6 Rs”

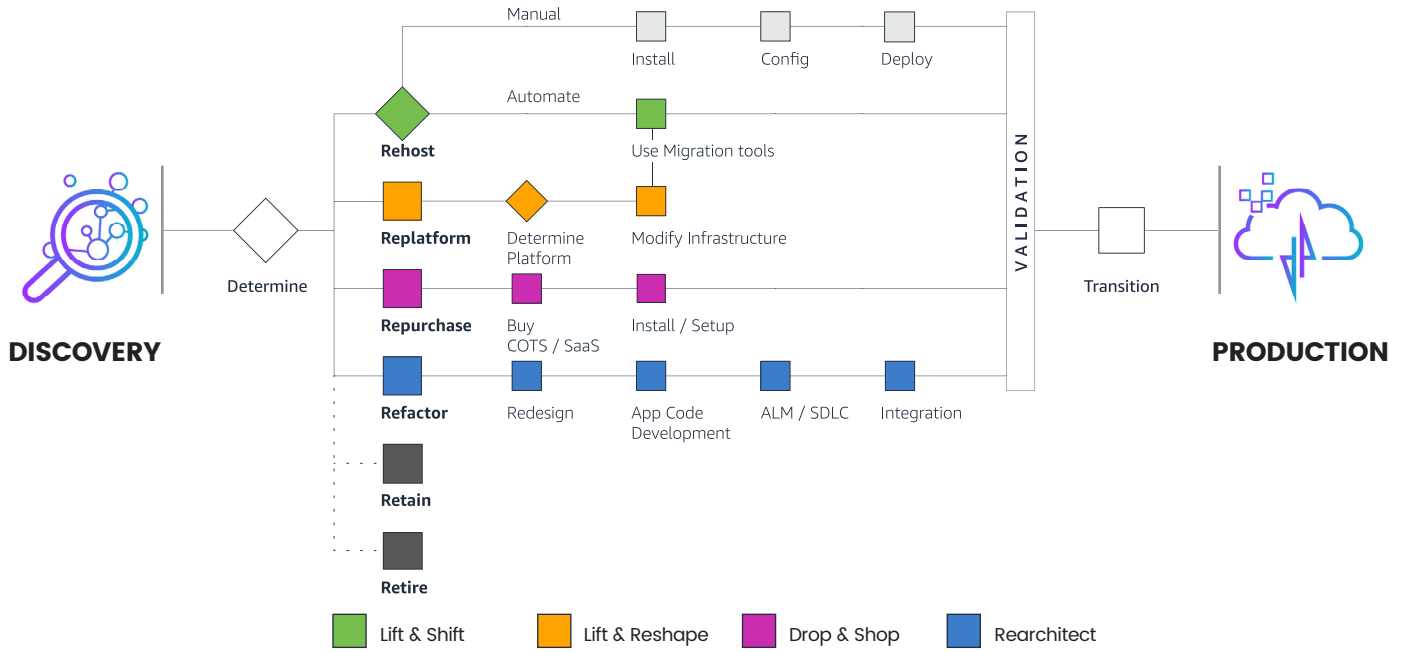
SIX COMMON MIGRATION STRATEGIES



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 migration strategies.

At this point in the migration process, you will want to have a solid understanding of which migration strategy will be best suited for the different parts of your IT portfolio. Being able to identify which migration strategies will work best for moving specific portions of your on-premises environment will simplify the process. This is done by determining similar applications in your portfolio that can be grouped together and moved to AWS at the same time.

Diagram: Six Common Migration Strategies



“The 6 Rs”

Six common migration strategies:

01 REHOST

Also known as **"lift-and-shift"**

In a large legacy migration scenario where your organization is looking to accelerate cloud adoption and scale quickly to meet a business case, we find that the majority of applications are rehosted. Most rehosting can be automated with tools available from AWS, or by working with an APN Partner who hold an AWS public sector competency or a vendor offering from AWS Marketplace.

02 REPLATFORM

Sometimes referred to as **"lift-tinker-and-shift"**

This entails making a few cloud optimizations in order to achieve some tangible benefit, without changing the core architecture of the application.

03 REPURCHASE

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

This is a decision to move to a newer version or different solution, and likely means your organization is willing to change the existing licensing model it has been using.

04 REFACTOR (RE-ARCHITECT)

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

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

05 RETIRE

Decommission or archive unneeded portions of your IT portfolio

Identifying IT assets that are no longer useful and can be turned off will help boost your business case and help focus your team's attention on maintaining the resources that are widely used.

06 RETAIN

Do nothing, for now –revisit later

Organizations retain portions of their IT portfolio because there are some that they are not ready (or are too complex or challenging) to migrate, and feel more comfortable keeping them on-premises.

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 5-phase Migration Process and Six Common Migration Strategies 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 EPLEXITY to learn more about how migrating can transform your government agencies, educational institutions and nonprofit organizations.

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