



AWS FOR MIGRATION

Modernize and migrate to the cloud through automation

Get the right support to optimize your
AWS migration

In collaboration with

MLOGICA

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Moving to the cloud: Benefits and migration best practices

Organizations across every industry want to become more agile so they can innovate and respond to changes faster. Faced with ever-increasing disruption, they must also find ways to differentiate their businesses to stay competitive. For many organizations, moving to the cloud quickly is the best first step to modernization and transformation. However, realizing the full benefits of the cloud requires deep expertise and experience during the migration process.

This eBook explores how organizations are migrating and modernizing on **Amazon Web Services (AWS)** to achieve critical business advantages such as higher productivity, faster time to market, and a stronger bottom line. It also covers key benefits of cloud migration, why now is the best time to migrate, and how your organization can realize the associated benefits of migrating to AWS with solutions from AWS Partner, mLogica.



Why cloud, why now?

Often, the decision to migrate workloads to the cloud starts with a desire to reduce costs. However, the benefits don't stop there, and customers have found that the strategic value of migrating to AWS goes well beyond the cost savings of retiring legacy infrastructure. Leveraging the breadth and depth of its research, AWS has identified eight key business drivers for moving to the cloud. Whether they are migrating some or all of their digital assets to the cloud, organizations can achieve transformational results.

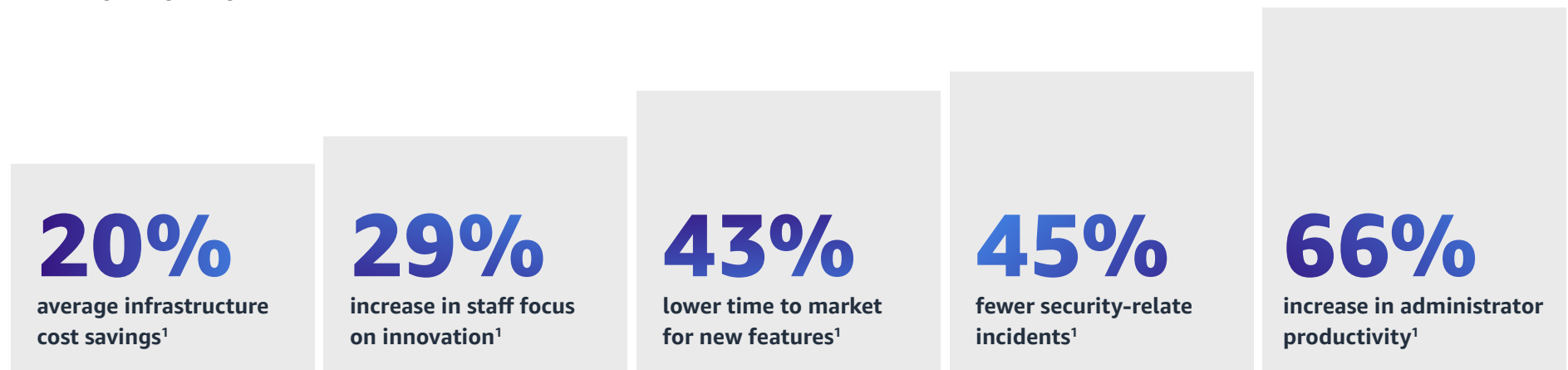
Business drivers for migrating to cloud



Why migrate to AWS?

To boost innovation, respond quickly to changing demands, and drive business transformation, organizations are migrating their infrastructure and applications to AWS. Modernizing on AWS enables streamlined operational practices that lead to measurable results.

On average, migrating to AWS delivers:



While migrating to AWS offers many benefits and opportunities, successful migrations take planning and expertise. Organizations also need to understand the challenges they're likely to face as part of the process.

With an experienced AWS Migration Competency Partner like mLogica by their side, businesses can anticipate those challenges and accelerate their cloud journey to achieve benefits faster.

Common patterns for migration: “The 7 R’s”

Creating a detailed strategy that identifies the best pattern for various workloads is essential to accelerating and optimizing the migration journey, as well as achieving desired business objectives. Common migration patterns usually follow one of six basic patterns—but with AWS, organizations have a seventh option, culminating in “The 7 R’s”.



1. Rehost

In a large-scale migration scenario that demands a quick migration and rapid scaling to meet a business case—such as a data center lease termination—the majority of workloads are rehosted. Also known as “lift-and-shift,” rehosting can be automated with tools such as [AWS Application Migration Service](#) in most cases.

2. Re-platform

Sometimes referred to as “lift-tinker-and-shift,” re-platforming entails making a few cloud optimizations to achieve tangible benefits—but without changing the core architecture of the application. For example, businesses that are managing a messaging broker can easily replace the seven common patterns for migration with [Amazon MQ](#). Amazon MQ is a fully-managed service that doesn’t require users to rewrite their applications or pay for third-party software licenses. Or, if migrating a Windows-based application that requires file storage, organizations can use the fully-managed [Amazon FSx for Windows File Server](#).

Businesses can reduce the amount of time they spend managing database instances by opting for a database-as-a-service offering such as [Amazon Relational Database Service](#) (Amazon RDS). When moving from one database source or version to a new platform or software version, [AWS Database Migration Service](#) (AWS DMS) keeps the source database fully operational during the migration, enabling near-zero downtime during the cutover.

3. Refactor

Refactoring changes the way an application is architected and developed, and is usually done by employing a data lake, which is cloud-native. Typically, refactoring (or rearchitecting) is driven by a strong business need to add features, scale, or improve performance that would otherwise be difficult to achieve in an application’s existing environment. If an organization is looking to boost agility or improve business continuity by moving to a service-oriented architecture (SOA), this strategy is a strong—although often the most expensive—option.

4. Relocate

Once on AWS, businesses can take advantage of the wide variety and capabilities of AWS services to easily optimize or rearchitect applications. One example is VMware Cloud on AWS, which allows users to quickly relocate hundreds of applications virtualized on vSphere to the AWS Cloud, as well as maintain consistent operations with VMware Cloud Foundation-based environments, in just a few days.

5. Repurchase

Casually referenced as “drop and shop,” repurchase enables organizations to replace their current environment by moving to a newer version of software or purchasing an entirely new solution. This also applies to businesses looking for a new software licensing model that allows them more flexibility to match their business needs. In this case, an organization may choose to purchase [Amazon Connect](#) to replace its current contact center application.

6. Retain

A company may have portions of its IT portfolio that it is not ready to migrate or believes are best kept on premises. For on-premises workloads, [AWS Outposts](#) brings the same APIs, services, management tools, support, and operating model to virtually any data center, co-location space, or on-premises facility. With AWS Outposts, businesses have a truly consistent hybrid cloud, allowing them to develop once, and deploy across AWS Outposts on-premises or on AWS without having to recertify their applications.

When going the retain route, businesses should remember that as more of their portfolio moves to the cloud, allocation of data center expenses across fewer workloads may eventually drive a need to revisit the retained workloads.

7. Retire

The retire route lets organizations decommission or archive unneeded portions of their IT portfolio. When businesses first assess their environments’ readiness to migrate, they may come across applications that are no longer being used. By rationalizing their IT portfolios and identifying assets that are no longer useful, organizations can strengthen their business case and direct their team’s attention toward maintaining the resources that are more widely used.

A streamlined approach to migration with mLogica and AWS

To streamline the cloud migration journey, it is important to have the proper support and guidance when you need it. mLogica, an AWS Migration Competency Partner that holds a long list of AWS certifications, offers end-to-end services to help customers navigate their entire cloud journey.

By aligning to AWS best practice guidance, including the AWS Migration Acceleration Program (MAP), mLogica can work in tandem with in-house IT teams to ensure a smooth, efficient cloud transition.

Following MAP, mLogica applies a three-phase approach:

The AWS Migration Acceleration Program (MAP) is a complete and proven cloud migration program based upon AWS's experience of migrating thousands of customers to the cloud. The program packages best practices, tools, expertise, financial incentives, and the expertise and solutions delivered by AWS Partners to make cloud adoption easier and help customers reach their business goals faster.

1 Assess

The migration readiness assessment identifies gaps along the six dimensions of the [AWS Cloud Adoption Framework](#): This includes business, process, people, platform, operations, and security. This survey enables organizations to identify the capabilities required to migrate and build a total cost of ownership (TCO) model. mLogica follows AWS-suggested best practices to determine how to both migrate infrastructure with the utmost care and handle any unforeseen challenges.

2 Mobilize

The mobilize phase creates an operational foundation for migration, with the goal of fixing the capability gaps that were identified in the assessment phase. mLogica analyzes and identifies financial hurdles, potential blockers, and other skill and knowledge barriers that might need attention before migration. This step accelerates migration decisions by providing clear guidance that improves the success of your migration.

3 Migrate and modernize

In this final phase, organizations execute the migration plan developed during the mobilize phase. Once application testing is complete, mLogica begins migrating workloads to the AWS Cloud and then optimizes for performance and spend.

Automate with mLogica's migration software suite

mLogica is a global provider of database and application modernization services for both distributed and mainframe environments. As an AWS Migration Competency Partner with deep experience in the legacy modernization market, they have a proven track record of successfully migrating distributed and mainframe workloads to AWS. Migration to the cloud is increasingly vital for businesses that want to stay competitive, however, it requires experienced partners, such as mLogica, with proven tools and successful, repeatable methodologies to ensure security, accuracy, timeliness, and minimal disruption to the business. The AWS Partner Network (APN) gives customers looking to migrate to the cloud access to mature and proven technology products and services designed for efficiently modernizing databases and applications.

Every business worldwide is on a path to the cloud; that's how IT will be managed in the future. And while many companies have already migrated their simpler databases and applications, we're now at the point where business and governmental agencies are finding it increasingly difficult to support decades-old legacy systems. These workloads are also typically mission-critical and highly complex, with many upstream and downstream applications and interfaces.

Automation is the key to successful modernization to the cloud. mLogica's approach in migrating workloads to AWS is through its tried and tested, highly automated tooling, which includes assessments, high-performance platforms, and compilers for re-platforming, database refactoring and the translation of legacy languages such as ASM and COBOL to more modern object-oriented language such as C# or Java.

mLogica's software tools, including their STAR*M automated migration software suite for distributed workloads and LIBER*M suite for mainframe workloads, help customers securely and cost-effectively transition to the cloud with minimal disruption to staff and business.

AWS enables scalable, flexible, and cost-effective cloud solutions for customers of all types, from startups to global enterprises, and the AWS Competency Program helps customers identify AWS Partners, like mLogica, with long-term industry expertise to support seamless integration and deployment of these solutions. mLogica has successfully completed over 600 modernization projects worldwide for customers in key sectors including healthcare, financial services, manufacturing, telecommunications, retail, and more, in addition to federal and state agencies.

Modernize legacy IT with advanced automation

- Migrate outdated legacy platforms to the cloud in one third the time and half the cost
- Advanced automated conversion software optimizes accuracy, efficiency, and spend
- Empower data with the agility and scalability of the cloud

Moving Legacy to the Cloud

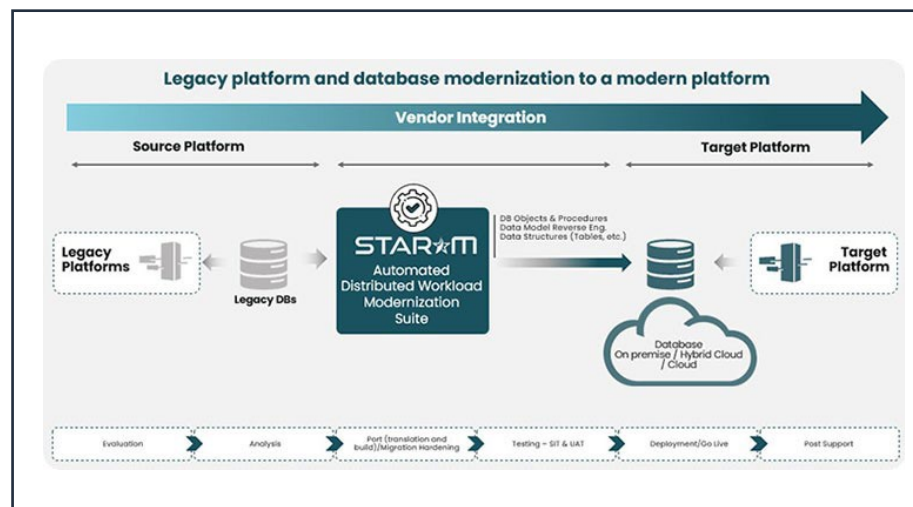
As the global economy becomes more digitalized and hyper-competitive, businesses are under unprecedented pressure to scale and innovate quickly with the latest cloud technologies. With business and customer demands evolving at exponential speed, outdated and underperforming platforms simply can't meet the current requirements of the modern organization, let alone future goals.

mLogica specializes in enabling low-cost, low-risk business system migrations to the cloud through its automation-driven mainframe, database, and application modernization platforms. mLogica's STAR*M automated migration software suite helps customers migrate legacy distributed database applications to the cloud with optimum speed, accuracy, and efficiency.

STAR*M translates and refactors legacy applications and database code onto leading-edge cloud platforms with unmatched reliability; reducing errors, risks, and costs while accelerating time-to-market.

Leverage the power of next generation automation

Manual database migrations are highly risky, especially when they disrupt critical enterprise business systems and divert the IT teams away from their vital business operations. Traditionally, IT organizations have tried to deliver these projects using in-house staff to manually convert code—a time- and labor-intensive process consisting of countless repetitive tasks highly prone to human error.



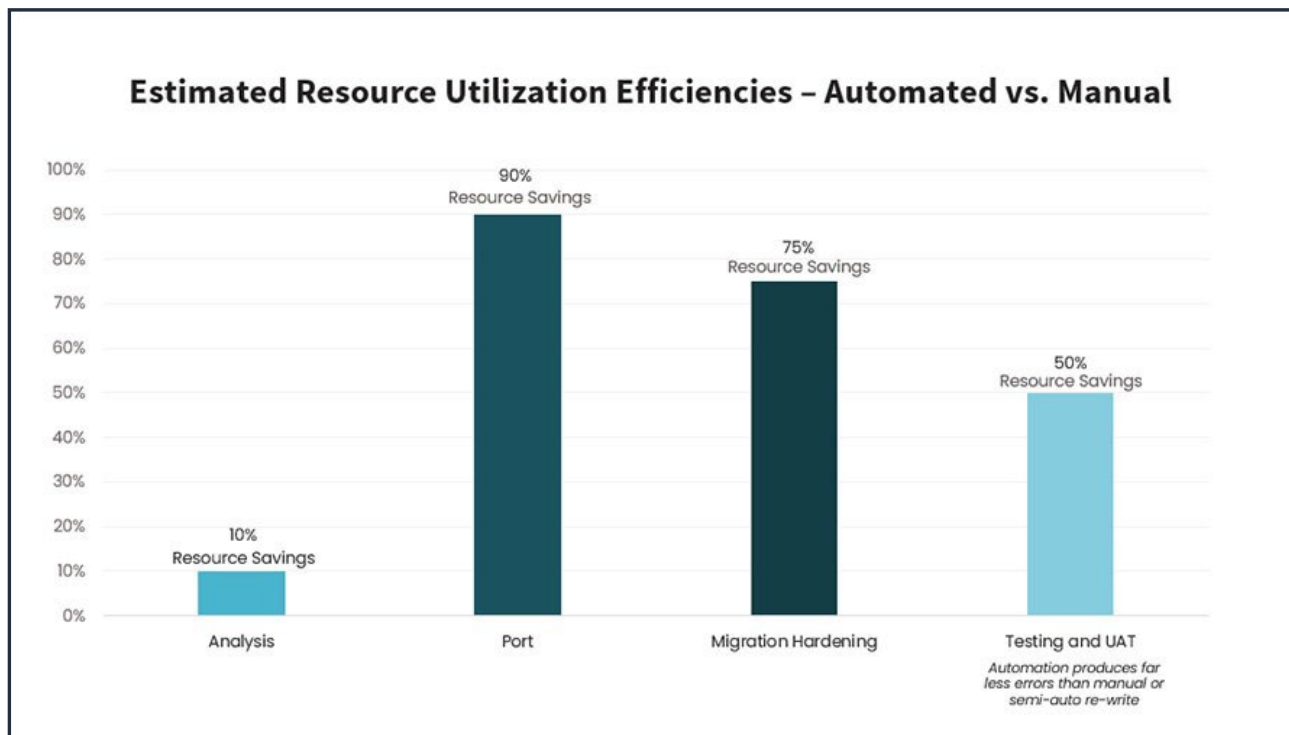
STAR*M automation for reducing errors, risk, and cost

Leveraging reinforced machine learning and an iterative refactoring process, mLogica's **STAR*M** suite automates the most tedious, time-consuming, and labor-intensive tasks involved in migrating complex, mission-critical enterprise databases while minimizing human error.

As legacy business software platforms become obsolete, they become more challenging and expensive to maintain and support. **STAR*M** offers a repeatable, low-risk and efficient set of cloud migration solutions. mLogica combines automated software, proven methodologies, and deep technology experience to **deliver migration projects in one-third the time and half the cost**, driving profitability through IT modernizations.

Strategizing Your Cloud Migration

While migrating your entire infrastructure to the cloud maximizes IT modernization investment, the reality is that few enterprises are ready to take that leap all at once. mLogica recommends careful planning based on each business' needs, which often results in phased cloud migrations to give IT experts time to fully encompass and leverage the benefits of moving to the cloud. Whatever your cloud migration strategy, STAR*M will make it fast, successful, and cost-effective.



CASE STUDY:

Live Nation optimizes workloads migrated to AWS with mLogica

The challenge

Live Nation decided to standardize its mission-critical databases and development operations (DevOps). Additionally, they migrated everything to AWS, including their Oracle workloads. Initially, both [Amazon Elastic Block Store](#) (Amazon EBS) and Oracle E-Business Suite on [Amazon Relational Database Service](#) (RDS) didn't perform as per the identified benchmarks and the organization struggled to identify the issues and root causes behind the application slowdown.

The solution

A high-level analysis by the mLogica team identified concurrency issues at the heart of problem and recommended health checks at two locations—the database configuration and the Amazon EBS application.

mLogica's in-depth diagnosis of the database and application environment led to the following best practice recommendations being implemented:

- Implement Linux HugePages
- Evaluate recommended database patches for application
- Review table and index degree values for maximizing parallel processing
- Evaluate other optimizer features
- Provide Live Nation's IT team with a list of available patches to prevent possible issues

The results

mLogica's team, with its experienced Oracle and AWS architects and deep expertise in database optimization, identified the root cause of performance issues and provided key recommendations to address them. The repeatable steps embedded industry-leading practices provided by mLogica to support Live Nation's operations team to keep their environment optimized.

"The optimization health checks that mLogica conducted with our company, were very helpful and make a great story to tell as part of our overall AWS migration success," said The Senior Vice President of Global IT at Live Nation.



About the customer

Live Nation is the largest live entertainment company in the world, connecting over 570 million fans to concerts and ticketing platforms across more than 44 countries. It is also the world's largest music advertising network for corporate brands and runs one of the world's leading e-commerce websites and the world's leading live entertainment ticketing sales and marketing company (based on the number of tickets sold) through www.ticketmaster.com. This combined with the leading website www.livenation.com and numerous retail outlets and call centers were the key drivers behind Live Nation's 480 million ticket sales in 2018. Live Nation is listed on the New York Stock Exchange, trading under the symbol "LYV."



Ensure a smooth AWS migration with mLogica

AWS is the world's most comprehensive and broadly adopted cloud platform, offering over 200 fully featured services from data centers globally. Millions of customers—including the fastest-growing startups, largest enterprises, and leading government agencies—are using AWS to lower costs, become more agile, and innovate faster.

Together with AWS, mLogica has created best practices to accelerate and guide migrations to the cloud.

Ready to get started?

For information on how mLogica can help you transform your business through migration and modernization, contact us:

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