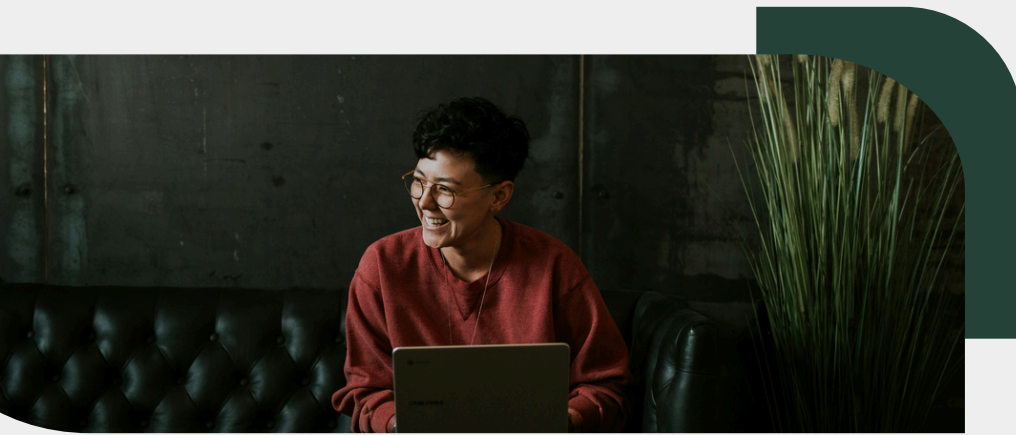


WHITEPAPER

# Your guide to cloud modernisation

How cloud modernisation enables businesses to remain competitive, agile, and deliver greater value to their customers.



# Getting started on your cloud modernisation journey

Modernising in the cloud is becoming essential for businesses in order to remain competitive, drive innovation, and streamline operations. Cloud-native applications offer **flexibility, scalability, and improved performance**. Successful cloud modernisation also means having the right tools, support, and expertise.

The AWS Modernisation Accelerator (ModAx) framework provides a proven methodology to accelerate cloud modernisation and simplify application modernisation. The framework, which consists of six clear pathways, helps IT builders, management, and operations' teams to achieve their goals efficiently and effectively—and make the right decisions at the right time.

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Cloud modernisation is essential for business success, but the journey can be complex. We've seen firsthand how the AWS ModAx framework, combined with expert AWS partner guidance, helps organisations achieve their transformation goals in half the time while significantly reducing risk. It's not just about moving to the cloud—it's about transforming how you operate and innovate.

— RYAN PETERSON, AWS WORLDWIDE TECH LEADER, ENTERPRISE MODERNISATION  
AMAZON WEB SERVICES

# How to modernise successfully in the cloud



**Increasing agility, driving innovation, and streamlining operational efficiency require modern applications and an effective framework to guide progress.**

Cloud modernisation has fast become the new imperative for businesses seeking to stay competitive, adapt to a constantly changing business landscape, and offer more value to their customers. Being able to constantly innovate keeps companies on top of market trends and ahead in their markets.

But many organisations on this journey find they are slowed down by their on-premises applications. Others have already moved to the cloud but have yet to unlock all of its advantages. Cloud-native applications offer the flexibility and elasticity that businesses need to move in a positive direction. And that means modernising the way in which organisations build and operate applications.

**Cloud-based applications offer better performance, responsiveness, and availability.** They also help in numerous other ways, for example:

- ✓ Improved user experience—leading to increased customer satisfaction and retention rates
- ✓ Supports better-informed, data-driven decisions
- ✓ Helps gain valuable insights from large data volumes for real-time processing and analysis, such as for personalising marketing campaigns or improving operations

**The rapid development and deployment that the cloud enables helps to accelerate innovation.** Using microservices and containerisation, teams can increase their agility and move at speed.

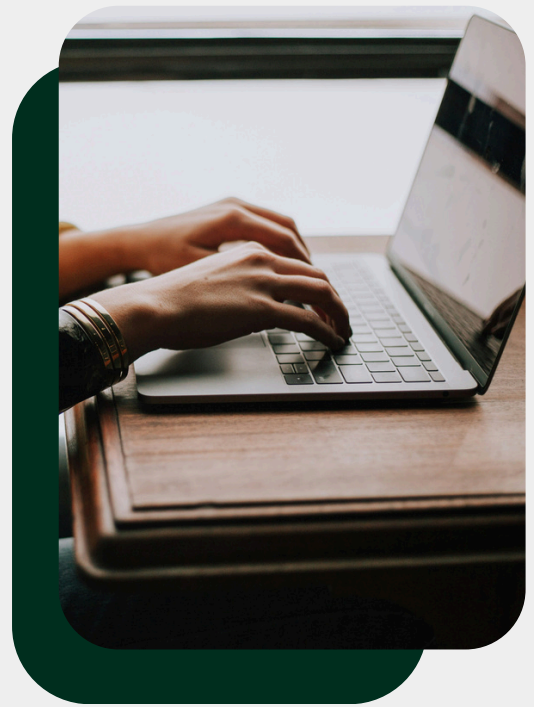
Scalable cloud resources help businesses to quickly scale up resources for multiple areas, for example:

- ✓ Quickly adjust to market changes or meet changing demand.
- ✓ Developers can experiment, iterate, and release new features more quickly using modern DevOps practices
- ✓ More frequent release cycles with more reliable application deployments

# When modernisation fails to meet expectations

Although the lift-and-shift rehosting approach can help organisations realise some benefits, it does not automatically deliver the full resilience and flexibility that the cloud offers. That's because **simply moving the IT platform doesn't remove the limitations of legacy architectures**.

The promise of cloud modernisation can also fall short of expectations. According to [a report from IDC](#), IT infrastructure rationalisation and modernisation are a key focus for enterprises. The report noted that, although 83 percent of businesses have started to rationalise their technology infrastructure, only 35 percent report that their approach is effective. The report also recommends **adopting newer build-and-deploy models to ensure modernisation success**.



**Build-and-deploy models** bring efficiencies and agility to development and deployment, such as for modern DevOps and continuous integration/continuous deployment (CI/CD) processes. These help to reduce time to market for new features and services—and also give organisations the ability to respond faster to changing market dynamics and evolving customer needs.

Businesses are able to take a much more iterative, incremental approach to modernisation when employing modern build-and-deploy models, thereby reducing the risk rate and disruptions that may come from a cloud transformation project. The continuous applications and infrastructure updates and improvements that modernisation allows also helps businesses to keep their IT systems up to date and better supports them in meeting their business objectives.

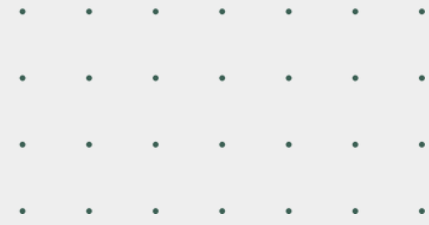
# Navigating the complexities of modernisation

**Without the right tools, support, and expertise**, it's easy to take a wrong turn or fall short of modernisation goals. Businesses often fail to perform a thorough discovery process that takes into account the needs of the entire organisation and its stakeholders. Moreover, IT teams might lack the skills to modernise on their own or to understand DevOps workflows, serverless, or how to effectively containerise workloads.

Teams might struggle to refactor complex monolithic applications and unpick code created by developers who are long gone from the organisation. Furthermore, when businesses decide to go it alone in their modernisation projects, architectures and development pipelines have the potential to become over-complex, adding to cost—or tech teams might unknowingly introduce security vulnerabilities.







# Value accelerated the ModAx way

**Successful modernisation requires an alignment of technology and business strategies and close collaboration among all stakeholder teams.** This helps to reduce the possibility of a disconnected approach to modernisation that ignores the project's desired outcomes. It's essential to always consider the long-term aims of the business during transformation—and to work with a framework that includes people, processes, and business considerations.

Amazon Web Services (AWS) provides effective support for such an approach through the **AWS Modernisation Accelerator (ModAx) framework**. This model addresses common challenges in modernisation, has been thoroughly market tested, and is proven to accelerate transformation.



**The ModAx framework** is designed to accelerate the speed at which benefits are realised, while mitigating modernisation risks. It is based on the [AWS Experience-Based Acceleration \(EBA\)](#) outcome-focused transformation methodology, which involves a series of practical workshops aimed at accelerating cloud modernisation. The workshops support customer teams to develop cloud skills, adopt best practices and learn how to streamline processes—with the ultimate aim of creating a scalable cloud foundation for the business.

EBAs provide a pain-free approach, based on core AWS modernisation pathways, that help teams to focus on driving effective modernisation efforts while developing essential cloud skills. There are several types of EBA workshops, all of which focus on 'learning by doing'. Among the most popular are for migration, modernisation, innovation, and FinOps.

# Types of EBA Workshops



## Migration

A migration EBA is designed to help in developing migration capabilities, especially where an organisation's IT team lack sufficient skills to execute large-scale migrations. The main goal is to build migration skills and document replicable patterns to help with future migrations of a similar scale.



## Modernisation

The modernisation EBA helps developers build their application transformation knowledge and provides them with hands-on experience. For example, adopting a cloud-native platform, or understanding how managed services work. This ranges from deconstructing a monolithic application, to re-architecting an app to a cloud-native service, to re-platforming onto fully managed containers.



## Innovation

This EBA is concerned with accelerating innovation with agility, specifically enabling teams to build AI/ML models or rapidly develop generative AI use cases that meet the specific needs of the business. The workshop gives technology teams an insight into best practices and offers prescriptive guidance on how to innovate speed with these technologies.



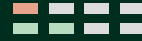
## FinOps

Optimising cloud spend and usage is greatly assisted with the FinOps EBA. Understanding cloud cost structures, is essential when moving from legacy IT infrastructures. FinOps—or cloud financial management practices—helps to avoid spending too much on cloud resources. Not only does this minimise financial wastage, but it also helps to maintain confidence in the cloud's ability to streamline operations and support innovation.

# The ModAx pathways

## Move to containers

EFFORT  
AGILITY



TCO  
OPERATIONS



By containerising workloads, businesses can improve and streamline operational efficiency by taking advantage of fully managed container orchestration services that boost their ability to build, test, and deploy applications.

## Move to managed databases

EFFORT  
AGILITY



TCO  
OPERATIONS



This helps businesses modernise with a fully managed, purpose-built, and cloud-native database. This frees up time for database teams and accelerates operational development. It also increases scalability, reliability, and security.

## Move to managed analytics

EFFORT  
AGILITY



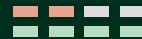
TCO  
OPERATIONS



This modernisation pathway improves data processing and real-time analytics capabilities, by adopting a fully managed, cost-optimised, data lakehouse architecture. This helps organisations to innovate more and respond to changing market conditions by becoming data-driven businesses.

## Move to modern DevOps

EFFORT  
AGILITY



TCO  
OPERATIONS



By supporting best practices for DevOps and making it easier to automate pipelines, businesses can speed up applications and services development and improve innovation while increasing cost efficiency.

## Move to open source

EFFORT  
AGILITY



TCO  
OPERATIONS



By eliminating costly commercial licenses—such as for SQL Server and Windows workloads—in favour of open source, organisations can reduce expenses while gaining greater control and application portability.

## Move to AI

EFFORT  
AGILITY



TCO  
OPERATIONS



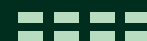
Moving to AI is AWS' newest modernisation pathway to accelerate business outcomes. This provides a structured approach in utilising AI to automate workflows, transform applications and enhance customer experiences using services like Amazon Bedrock and Amazon SageMaker.

## Move to cloud-native services

EFFORT  
AGILITY



TCO  
OPERATIONS



This breaks down monolithic applications using microservices, based on the organisation's desired modernisation outcomes. The result is a more agile, scalable architecture that supports faster innovation and continuous improvement based on customer feedback.





# A three-phased approach for rapid modernisation

1

## Assess and Architect

The first ModAx phase, **Assess and Architect**, starts with a workshop that includes stakeholders from across the business, including from management, operations, and IT teams. Typically, this is a one-week-long assessment that determines the organisation's readiness for modernisation.

The process works to first identify two or three candidate applications with the best potential for modernisation, and to determine what the modernisation outcomes would look like. Then a target state architecture for each application is formulated. Finally, AWS and an AWS Partner present recommendations for building a minimum viable product (MVP) that helps win buy in from key stakeholders. This lays the foundation for the next phase.

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2

## Build and Deploy

The second phase, **Build and Deploy**, is where different teams from the business work with AWS and AWS Partners to deliver the MVPs. It includes training to equip your people with the necessary cloud modernisation skills. This is followed by a planning and preparation period, which identifies tasks and dependencies—and outlines the steps required for successful modernisation.

During this period, which takes four to five weeks, regular progress meetings are held during which any issues can be ironed out. In the final session, all teams come together to build and deploy the MVPs.

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3

## Scale

The third phase is **Scale**, which has the goal of modernising effectively and efficiently at scale. Because this is an ongoing initiative, there are no clear timelines for this phase. Led by AWS Partners and AWS, this phase is determined by six pre-defined pathways that help speed up modernisation efforts. Organisations looking to modernise can pursue a single pathway or several at once.

# The modernisation advantages of the ModAx framework

By following this modular and market-tested method for modernisation, businesses can accelerate the modernisation journey. And through its framework with clear options in the form of the six modernisation pathways, ModAx helps organisations to simplify application modernisation. This is achieved in multiple ways and helps not just the IT team builders, but also management and operations teams, keeping all of them in perfect alignment.

Additionally, ModAx helps businesses to identify and remove process roadblocks, breaks down organisational siloes, and makes it easier to make the right decisions. This enables IT teams to understand the scope for deconstructing business monoliths and supports them in developing internal skills and capabilities with the expert guidance of AWS and AWS Partners. This establishes a more robust culture of ownership by streamlining processes and making development changes easier to push through. By doing this, organisations can create a scalable, sustainable model that actively supports future business growth.

**With a solid foundation to build and sustain software using the AWS cloud platform, customers are able to access modern and continuously updated AWS technologies and services.**



## CASE STUDY

Steamhaus | **thredd**

**How Steamhaus customer increased development velocity and increased their agility with cloud modernisation.**

**Thredd** came to Steamhaus to optimise their partly-migrated cloud set up—and importantly, expand and modernise how they used their cloud resources. Thredd's cloud usage was proving complex, costly, and time-consuming to manage and was hindering their aim of becoming more agile and being able to launch new products to meet changing market demands. Steamhaus worked hand in hand with Thredd's engineers to modernise their cloud ecosystem using Terraform with a GitOps framework to support infrastructure as code (IaC) practices. Steamhaus also simplified the company's network topology by moving applications into a containerised environment on Kubernetes and introduced AWS managed infrastructure services, including Amazon RDS and Amazon EKS.

With modernisation, Thredd's cloud infrastructure is now more efficient with automated management and improved security and compliance. Now, with a highly automated platform and improved DevOps practices, manual effort has been reduced and deployment times accelerated. The new cloud-native network architecture is enabling Thredd to use AWS security features to harden and monitor workloads, protecting against threats and helping it to comply with regulatory requirements. And Thredd can now dynamically scale workloads to meet demand during busy times.

# The foundation for innovation

Staying competitive in today's business landscape requires a modern IT foundation built on cloud technology—specifically, cloud-native technology. Following this approach brings enhanced agility, flexibility, and scalability; improved and richer data insights; and the ability to innovate at speed.

But successful modernisation involves navigating a wealth of options while avoiding potential pitfalls. A proven methodology and expert support can simplify this process and lead to success.

**As an AWS Partner specialising in cloud-native technology, Steamhaus offers expertise in application modernisation using the AWS ModAx methodology.** We serve as trusted advisors, collaborating closely with businesses to ensure that our solutions align seamlessly with our customers' specific needs and goals.

[Contact us](#) to learn more and kick-start your modernisation journey today.



## Steamhaus

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As an all-in AWS partner, Steamhaus specialises in building AWS cloud-native solutions to accelerate modernisation and foster innovation.

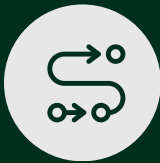
Learn more about us at [www.steamhaus.co.uk](https://www.steamhaus.co.uk)

ABOUT US

# Hi, we're Steamhaus

As an all-in AWS partner, Steamhaus specialises in building AWS cloud-native solutions to accelerate modernisation and foster innovation.

## OUR PRACTICE AREAS



### AWS Migration & Modernisation

We help customers accelerate their cloud migration and modernisation journey through our unique outcome-focused methodology.



### Application & Data Modernisation

We harness AI-powered tools to streamline code migration, optimise architectures, and refactor monolithic applications into microservices.



### Platform Engineering

We build robust frameworks for managing serverless applications and containerised workloads at scale.

## OUR COMPETENCIES

- ✓ Well-Architected Partner (launch partner)
- ✓ ECS & EKS SDPs (launch partner)
- ✓ SaaS Competency
- ✓ Migration & Modernisation Competency
- ✓ DevOps Competency

Learn more about us at [www.steamhaus.co.uk](https://www.steamhaus.co.uk).