

IBM Consulting



G-Cloud 15

IBM – Migrate and Modernise to AWS

Service Definition Document

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IBM Migrate and Modernise to AWS

Service Overview

IBM + AWS: Reimagine Application Migration and Modernisation with AI

In today's digital first economy, organisations seek to accelerate innovation, respond quickly to customer demands, and drive sustainable transformation. Migrating infrastructure and applications to Amazon Web Services (AWS) delivers measurable results—up to 77 percent licence reduction, 66 percent infrastructure cost savings, 45 percent fewer security incidents, and 43 percent faster time to market. IBM Consulting and AWS together bring generative and agentic AI powered modernisation, helping enterprises move at speed and scale with automation, security, and sustainable outcomes. Building on this AI-driven foundation, IBM's Migrate and Modernise to AWS service offers the following features and benefits:

Features

- Proven approach to Cloud migration/modernisation using
- “The 7 R's”
- AI-powered tooling including security providing insight to Cloud Portfolio Migration
- Container and/or serverless technologies including Lambda, EventBridge, EKS and OpenShift
- Purpose-built database and analytics services including DynamoDB, Aurora and EMR
- DevSecOps including Infrastructure-as-Code for consistent,
- secure and repeatable deployments
- Modern tooling supporting FinOps and sustainability metrics
- Roadmap for phased modernisation while minimizing impact on operations
- Our AWS expertise and methods accelerate delivery and reduce risk
- AWS Landing Zone creation with supporting operating model
- AWS Premier Partner with proven complex migration and transformation experience
- Migration large-scale legacy applications at pace leveraging global migration factories
- Leveraging the best of GenAI, ITIL, Agile, LEAN and DevOps disciplines
- Delivery includes IBM and third party GenAI capabilities such as IBM Watsonx and Amazon Bedrock, a range of assistants and developer tools including IBM Sidekick/Consulting Assistant, ChatGPT, Amazon Q, KIRO, AgentCore and a range of LLMs.

Benefits

- Reduced technical debt and operational risk through legacy application migration
- Co-created roadmap builds commitment, accelerating transformation and benefits realisation
- Services customised and tuned for all Public Cloud Platforms



- Reduced TCO through automation and optimal use of IT resources
- DevSecOps pipelines achieve consistent compliance with government security standards
- Enhanced user experience through application stability, scalability, and consistent integration
- Cost effective, flexible and scalable applications delivered on the cloud
- Increased Go-to-Market agility with “on-demand” environments and faster cycle times
- Drive culture and skill transformation via IBM Garage ‘co-creation’ process

Key Differentiators

IBM Consulting now extends these differentiators with AI infused modernisation capabilities, leveraging IBM Consulting Advantage, watsonx, and Amazon Bedrock to automate discovery, code analysis, and migration execution. This AI driven approach amplifies our proven factory model, improving speed, precision, and risk management across global transformation programs.

- Unparalleled experience with resiliency, security and compliance with hundreds of Clients engaged on a Cloud journey with IBM
- A strong workforce of globally distributed professionals trained on AWS and supported by the strongest suite of market leading tools
- IBM has the deepest experience with the challenges of the Enterprise, with solutions to simplify the complexity
- IBM Watsonx included three core components and a set of AI assistants to help sale and accelerate the impact of AI with trusted data across your business.

IBM Migrate and Modernise to AWS

Addressing Business Needs

We work in partnership with you to address your business needs, leveraging our deep industry and technical expertise, tools, and approach to deliver Digital ready solutions for a range of business needs.



IBM's AWS Migration and Modernisation accelerates the creation of a future-ready business, optimising cost and reducing technical debt.

IBM provides the skills, methods and tooling to modernise legacy and mainframe applications, aligns IT with business requirements, reduces operating costs to free up capital for innovation and enhances the overall application security posture.

How do we Migrate to Cloud from a large complex legacy estate operating highly critical services?

Our clients often struggle with a lack of deep applications knowledge, capabilities and tools which impacts their ability to successfully implement a safe migration and modernisation plan.

IBM can help you to create your journey from legacy to cloud with a range of IBM's AI and market leading application modernisation tools such as ADDI, CAST, DevOps Commander and AWS VM Import/Export. These tools are used to evaluate the application codebase and validate our client's IT/business to co- create the most suitable Migration and Modernisation strategy.

AWS security-enablement is based on industry leading practices, regulations, and compliances.

Speed of modernisation is not keeping up with business objectives?

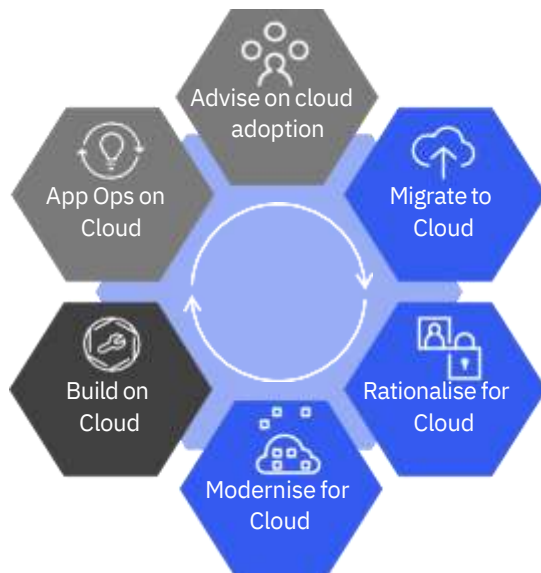
Our clients face challenges with scalability as the complexity of their application landscape prevents them from integrating old and new.

IBM provides needed skills and demonstrates new ways of working by co-creating, co-executing and co-operating with client teams. Our modernisation approach can efficiently transform applications and data to enable customer-centric innovation and deliver exceptional client experiences.

IBM Migrate and Modernise to AWS

Service Definition

We provide a full migration and modernisation service that drives value from your journey to the cloud.



IBM Cloud Modernisation

In-depth analysis of applications at the code level reveals application dependences and level of remediation needed. We use the AWS Cloud Adoption Framework to assess your cloud migration readiness. The results of this analysis along with any new business requirements are used by the team to develop a detailed design of the modernised application. This is followed by required code conversion, remediation, and new development.

Together this information is used to create detailed blueprints for the modernised application and detailed execution plans.

IBM AWS Migration

Migrating applications to AWS consists of:

- Enabling them to run on current and supported operating platforms, middleware, and databases
- Redeploying them to the target cloud using a deployment pattern providing targeted performance



Each application is assessed in detail to determine changes that need to be made to prepare them for the new platform. An efficient Factory approach is used to accelerate the migration execution using the IBM Garage Method for Cloud and the associated automation toolsets.

IBM Cloud Rationalisation

Rationalise for Cloud is the simplification of the application estate including data migration, archive and decommission at end of life, with an approach based on repeatable and scalable methods, tools and accelerators.

- Data migration – Moving the required data from source systems and securing this in the archive solution. This includes all ETL actions in addition to making the data and associated schema available for search and reporting capabilities.
- Archive and decommission at end of life – Defining the right archive strategy and solution in line with policies on Information Lifecycle Management to deliver cost benefits through application decommission and ending both licences and contracts.

Modernisation Domains on AWS

IBM Consulting and AWS jointly deliver modernisation solutions tailored to specific enterprise workloads and platforms.

- Data Centre Modernisation – Consolidate workloads, automate operations, and align with cloud first strategies.
- VMware Optimisation – Leverage Amazon EKS, ECS, and VMware Cloud on AWS for flexible, pay as you go modernisation.
- Mainframe Modernisation – Use AI tools such as IBM Analysis and Renovation Catalyst (ARC) and Mainframe Application Moderniser (MAM) to refactor legacy code and deploy to hybrid cloud.
- SAP Transformation on AWS – Migrate and optimise SAP S/4HANA and BW/4HANA workloads using AWS native services and IBM's 50+ years of SAP expertise.
- Maximo Migration to AWS – Move to IBM Maximo Application Suite on Red Hat OpenShift Service for AWS (ROSA).
- Data Modernisation – Adopt data fabric and analytics solutions using Amazon Kinesis, AWS Glue, IBM watsonx.data, and Amazon SageMaker for AI ready insights.

These domains represent IBM's end to end modernisation capabilities across the enterprise estate, complementing existing migration and rationalisation services.

IBM Migrate and Modernise to AWS

IBM Approach

We bring the benefit of having worked with the world's largest organisations, transforming complex, critical services. Our approach is based on robust methods, processes and personalised engagement.



We focus on your business needs and developing trusted long-term relationships, underpinned by industry-leading experience and capabilities. We want you to get the best out of every engagement and to deliver outcomes that matter for your organisation.

Our enhanced experience of AWS migrations combined with our deep technical expertise enables us to meet all your cloud transformation needs now and in the future.

IBM Migration Factory modernises workloads safely and securely, with automation to accelerate and reduce risk.

- Continuous discovery – Monitors for changes and schedule impacts and prioritisation
- Applying the best of AWS – Integrated cloud provider toolkits and services
- Automation and orchestration – Accelerate and reduces risk, integrates DevSecOps
- Migration squads – Teams scale up to drive end to end migrations following a consistent method



IBM Migrate and Modernise to AWS

Why IBM?

Experience

Major transformations to Multi-Cloud for Fortune 500 Companies to AWS, Azure, BlueMix, Google and Private Cloud built on Red Hat OpenShift

Complexity

Significant migrations performed with thousands of applications.

Expertise

Cloud consultants and experts globally with experience of IBM Cloud, Red hat, Open Shift, AWS, Azure, Google and more.

AWS Premier Tier Partnership Credentials

- 25 000+ active AWS certifications
- 31 AWS competencies (including Migration and Generative AI)
- 23 validated Service Delivery Programs
- Hundreds of SAP engagements delivered on AWS including SAP RISE

The principles of how we think and act in our delivery to clients include:

- Building long-term client relationships based on innovation, trust and service excellence
- Using Design Thinking and agile approaches to help frame and execute our client's change programs
- Infusing cognition and emerging technologies into our clients' enterprises and core processes
- Exploiting hybrid multi-cloud-based solutions to underpin evolving client processes
- Developing and deploying world-class talent
- Using consistent, modern methods and tools – constantly reviewing and refining to accelerate the value we deliver
- The ability to thrive and succeed in engagements driven by globally dispersed, multi-disciplined teams using our suite of collaboration tools is at our core.

IBM Migrate and Modernise to AWS

Innovation

Garage Method for Cloud

The IBM Garage Method for Cloud™ is a collection of practices and workflows that have been curated to help organisations rapidly design, build, deploy, and scale innovative solutions.

The Method uses Enterprise Design Thinking, Lean Startup, and agile DevOps concepts to enable continuous design, delivery, and validation of new functionality.

Containerisation

Containerisation enables the agility, scalability, and portability of workloads, resulting in speed and efficiency in cloud transformation.

This innovation has delivered the following quantifiable benefits during a cloud migration for a leading UK Bank:

- Reducing remediation effort of application layer components – Reducing end-to-end migration timelines by up to 35%.
- Rapid application infrastructure scalability – Adding containers with minimal effort by replicating the application image across new VMs.

Garage Method for Cloud Toolkit

The IBM Garage Method for Cloud toolkit is a suite of integrated tools and assets with a scalable, flexible architecture supported by an analytics engine and automation that helps our clients accelerate their AWS transformation journey.

This toolkit supports our client's cloud transformation journey by the acceleration of cloud adoption with automation for greater efficiency and deeper analytical insights for improved decision-making ability, delivering benefits such as:

- Up to 40% reduction in time and effort to process new sources of information.
- Up to 25% reduction in errors from manual activities related to migration.
- Up to 25% reduction in time and effort required for migration activities.

IBM Consulting Advantage for AWS Journey

IBM Consulting Advantage is the next evolution of the Garage Method for Cloud Toolkit—a unified, AI driven delivery platform built on IBM watsonx, Amazon Bedrock, and Amazon Q. It combines proprietary methods, domain trained digital assistants, and automation to accelerate every phase of cloud journey.

Key AI Assets and Accelerators

IBM Consulting Advantage is the next evolution of the Garage Method for Cloud Toolkit—a unified, AI driven delivery platform built on IBM watsonx, Amazon Bedrock, and Amazon Q. It combines proprietary methods, domain trained digital assistants, and automation to accelerate every phase of cloud transformation.

Key AI Assets and Accelerators:

- IBM Analysis and Renovation Catalyst (ARC) – automates legacy code analysis and business rule extraction.
- Mainframe Application Moderniser (MAM) – identifies modernisation increments for mainframe applications.
- Candidate Microservices Advisor (CMA) – recommends domain aligned microservices from monoliths.
- Code Transporter (CT) – automates cross framework code conversion.
- Digital Microservices Builder (DMB) and Digital Scenario Builder (DSB) – generate ready to deploy microservices.
- Delivery Curator (DC) – orchestrates migration workflows end to end.

By embedding these AI powered accelerators into delivery, IBM Consulting enhances modernisation speed, quality, and predictability—helping clients realise faster, smarter, and more sustainable outcomes on AWS. IBM provides the skills, methods and tooling infused with AI to modernise applications, aligns IT with business requirements, reduces operating costs to free up capital for innovation and enhances the overall application security posture.

Migration Factories

Our Migration Factories provide a comprehensive design and delivery engine to drive AWS adoption that includes people, process and tools. Factory operations services are required to support client delivery. Talent & skill management, Capacity management, and financial operations are examples.

Migration and Modernisation Factory for AWS powered by Agentic AI

IBM's Factory Model now integrates agentic AI workflows, autonomous AI agents that collaborate with human experts to handle discovery, code analysis, service provisioning, testing, and security. This hybrid “humans in the loop” approach accelerates delivery by up to 25 percent and reduces manual effort, risk, and rework while improving scalability and maintainability. These services include:

- A core set of services that help clients transform their applications and infrastructure to cloud.
- The more “common” services such as solution design, architecture, design- thinking etc. are leveraged as appropriate for client delivery.

IBM Migrate and Modernise to AWS

Value from Migration and Modernisation

AWS migration can modernise your workflows, improve performance and reduce work for your system administrators. If you're undecided about moving your applications to the cloud, consider these benefits.

Agility

Offer IT resources on demand, providing users and business groups with what they need rapidly, without having to acquire and deploy new hardware.

Scalability

Why buy equipment to try to anticipate usage spikes? Cloud providers bill you only for the resources you use, so you can accommodate unexpected surges or seasonal usage patterns.

Cost control

Understand how your cloud costs are allocated in switching from a capital expense (CAPEX) to operating expense (OPEX) model for your infrastructure. Greater understanding driven by this “utility” pay structure will increase control and improve the management of your infrastructure costs.

Ease of maintenance

Pushing updates to individual computers, patching servers and provisioning new hardware are expensive and time-consuming tasks. Free your IT administrators to work on bigger projects and leave the infrastructure maintenance to your cloud provider.

Security

Physical data centre security together with state-of-the-art software security measures help safeguard your data. You gain the flexibility to manage security levels and select among a variety of security options.

IBM Migrate and Modernise to AWS

Experience Counts

Large Educational Company

This client wanted to assess their multi- country/multi- region distributed assets and deploy the appropriate workload into AWS and IBM Cloud.

Results:

- 15000+ Application workload instances discovered across regions and countries
- 800+ Application Data Base instances of migrated to AWS
- 532+ Application workloads were decommissioned
- 40-60% Expected savings from compute reduction over the current platform.



Large Media Company

IBM was engaged to perform discovery across a baseline of 26,000 workloads, develop a portfolio strategy of rationalisation, migration and modernisation of apps from legacy hosting locations to future target operating model operating on AWS.

Results

- 26000+ Application workload instances have been discovered across 4 pillars
- 4500+ Application workload instances have been decommissioned
- 4 Large Data centres exited with 15+ Data centre exits planned.

UK Social Security Platform

This client required several new Digital solutions to be securely designed, developed and migrated.

Results

- 24+ Dev/Test environments were provisioned to support the demands of the agile delivery teams using the DevOps infrastructure.
- Asset library developed to support the organisation
- Infrastructure built on DevSecOps A repeatable, cost-effective and highly maintainable platform with a fully automated set of infrastructure and security-centric services.

IBM Migrate and Modernise to AWS

About IBM

Supporting Government

We help government organisations in the UK and worldwide deliver and transform essential public services – our teams are passionate and proud about helping you to make a real difference to people's lives.

IBM combines the portfolio, people and sense of purpose necessary to meet today's enterprise demands. Every day, we support and manage complex delivery for government clients where the impact of delivery has wide-reaching impact on citizens and national services.

We bring access to the industry experience, insight and technology capability to deliver and operate secure, scalable, optimised and available services for government.

Government Services Supported by IBM:

	Defence and Intelligence
	Public Safety and Policing
	Healthcare
	Life Sciences
	Tax & Revenue Management
	National Infrastructure
	Social Care
	Education
	Work and Pensions

We support you by bringing:

- Industry expertise – Professionals who understand and are passionate about delivering quality public services and can bring industry insights and apply innovation to your business processes
- Trust and security capabilities – Protecting valuable data and insights and deploying new innovations responsibly
- Innovative technology – Expertise in areas such as AI, blockchain, 5G, Automation, IoT, cybersecurity and quantum, delivered in a Hybrid Cloud environment
- Experienced Services professionals to support strategy, innovation and deliver transformation and change to processes, applications, and cloud infrastructure
- Global alliances – valuable partnerships with the world's leading vendors

This is IBM in the UK

We have worked together with organisations in the UK for over 100 years, with a rich history of joint innovation and achievements, built on trusted relationships.



Cloud

Together, IBM and Red Hat are working to deliver the world's only **next-generation hybrid multicloud platform**



Economy

IBM has been **integral to the UK economy for >100 years**, and is one of its largest tech employers



R&D

In the UK alone, IBM invests **£170 million in R&D** each year



Quantum

IBM Q, the world's most advanced quantum computing initiative for commercial use, is being used by CERN



Environment

IBM's focus on sustainability began in 1971 with our first environmental policy



Artificial Intelligence

IBM develops **watsonx based generative AI solution** for the Austrian federal armed forces to provide **fact-based evaluation and classification** for the ability to remain capable of acting in the light of risk scenarios.



Changing the world

IBM was awarded **World Changing Company of the Year 2019** by Fast Company



Royal recognition

29 UK IBMers received honours from the **Queen** for contributions to tech and society



Diversity

IBM won the **Global Diversity Award 2019** and the ENEI's **Gold Standard**



Graduates

IBM is committed to developing future talent – we are **Target Jobs' Graduate Employer of the Year 2019**



Volunteering

IBM dedicates **>20,000 volunteering hours every year** for a better society



Tech talent

IBM runs P-TECH schools in 18 countries, helping **>100,000 students build skills for careers of the future**



Inventors

IBM UK is home to many Master Inventors, with **>250 patents filed last year alone**

