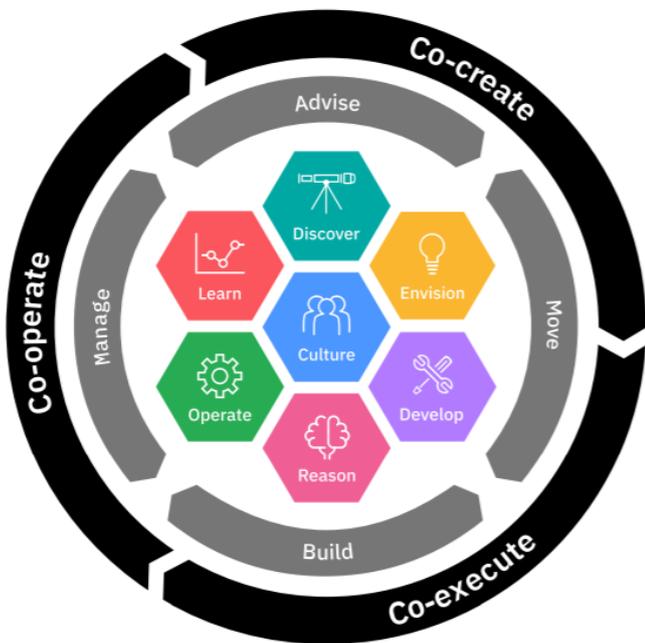


**Governments Modernization
with IBM Garage Method for
AWS Cloud**

The IBM Garage Method for Cloud is IBM's approach to enable business, development, and operations to continuously design, deliver, and validate new solutions. The practices and workflows cover the entire product lifecycle from inception through capturing and responding to customer feedback and market changes.



The Method is industry-recognized and represents a unique, holistic IBM point-of-view and describes the complete cloud transformation lifecycle with enhancements that support the enterprise at scale. The result is a method that is proven, aligned with industry best practices, and scalable to any size engagement.

Co-create

Envision the future

We can help define a business opportunity or drive new insights into an existing idea. Our teams can partner with you to define the opportunity, prototype with your squad, and co-create a solution.

Co-execute

Iterate to MVP

You have identified a business opportunity and you need support to build out an MVP or series of MVPs. We can help you expand and create additional squads to build out your DevOps team. Then we can continue to develop your MVP prototype into a production ready release and launch your application into production. Define the next MVP so you can continuously improve your solution based on what you learn from your users.

Co-operate

Scale to market

You have an MVP in market, and you need support to scale and increase market growth. We can work beside you to deliver and operate MVPs at production scale.

Together, we will harden to production-ready your toolchains, architecture, reliability, monitoring and testing, which all leads to continuous delivery so you can continue to transform your culture. We can perform most of the work with distributed squads offshore and in hangars.

Advise

Drive innovation through successful cloud adoption

Connect your cloud strategies to your business strategies with guidance from IBM experts. Choose the right cloud solution for the key workflows and application suites in your business, understand the architectural choices and receive advice on the best ways to ensure security and compliance across hybrid infrastructures.

IBM experts with deep AWS skills work closely with the Governments to advise their digital transformation journey on cloud. In this phase, IBM with its proprietary tooling assesses the AWS cloud readiness for the Governments. IBM on analysing the current state, advise the next steps for AWS cloud adoption. This assessment considers Disposition analysis, ROI, Cloud Service Model, Value vs Efforts modelling etc. Along with the IBM tooling, AWS Cloud Adoption framework is also applied during the advice phase which works on the 6 perspectives – Business Perspective, People Perspective, Governance Perspective, Platform Perspective, Security Perspective, Operations Perspective.

Move

Migrate and modernize where it matters

Move existing workloads and applications to the AWS cloud environments. Modernize your existing application portfolio to leverage cloud and container technologies, providing flexibility and openness. Migrating and Modernizing for the cloud can help your organization achieve greater efficiency, agility, stability, and innovation.

IBM with AWS Migration Competency Partnership supports Governments in their AWS cloud migration and modernization journey. IBM with the extensive AWS skills has already migrated and modernized significant Government workloads on the AWS cloud. IBM with its own proprietary tooling for Discovery and Insights of these Government workloads, gather and analyse the system information indispensable for recognising the current state of the applications

followed by actual design and execution for target state. Depending on the migration strategy (Refactor, Replatform, Rehost, Repurchase, Retain, Retired), the necessary AWS tooling is utilised for the migration and modernization. For Heterogeneous databases, AWS Database Migration Service and Schema Conversion Tool is utilised for effective Data transfer. For large volume of Government Data transfer, AWS Snowball and Snowmobile services are utilised.

Existing on premises application deployment processes for Government workloads can be adopted. However, the adoption of cloud demands a new DevOps strategy delivering the end artifacts in the minimal time as possible. With AWS Native CICD tooling, these government workloads can be effectively configured to deliver the faster growing demands. AWS CloudEndure is a one stop solution for the lift and shift migrations where it simplifies, expedites and reduces the cost of cloud migration.

Build **Accelerate cloud adoption**

Using best practices like Enterprise Design Thinking, agile development, Lean Start-up, and iterative development, build cloud-native applications and create the modern cloud application suites that increasingly support your new digital and cognitive workflows. IBM can help you implement next-generation enterprise applications and build the virtual, container-centric environments of the future.

IBM with deep expertise in AWS cloud Native applications helps Governments to build their distributed applications on the cloud. Contrary to the on premises monolithic legacy applications, IBM works with the Governments to refactor this applications and build it with more cloud Native and 12 Factor App, Microservices pattern deploying on AWS Elastic Container Service (ECS), Elastic Kubernetes Service (EKS), Redhat OpenShift on AWS. If the serverless is a Government's target architecture strategy, applications are also deployed on AWS Lambda to run code as a function or run the containers on the AWS Fargate.

IBM's extensive skills in application development enables Governments to adopt the polyglot architecture eliminating the risk of binding to a single programming language and framework. The microservices architecture enables Governments to achieve the required agility in releasing the new features quickly with the AWS's native CICD tooling and other platform as a services capability such as

AWS Database Services, AWS Messaging Services, AWS IAM and Security Services.

IBM with its integrated delivery tool enables the engineering for the cloud, DevOps based containerization of the Government applications, the Workbook Automation, and the Execution Plan.

Manage **Build operations into your applications and platform**

Manage new multi cloud environments as you build them. IBM can help you orchestrate next-generation enterprise applications and new custom builds alongside the legacy and migrated environments. Perform service management, including data center, network, security, and application management. We can help to provide the governance required as you connect the business to new IT environments.

IBM is AWS Managed Service Provider Partner. IBM with its own and AWS tooling services manages the Government workloads with the standard DevOps practices, transition management with wave planning and runbook generation techniques, integrated cloud management services and cognitive and RPA based automation. IBM and AWS Control Tower, AWS CloudFormation, AWS Developers Tooling, AWS CloudWatch services can be used in managing the multi accounts AWS cloud environments facilitating effective cloud operations and management. To enable the compliance on the Governments workloads AWS native services such as AWS Config, AWS SNS, AWS Trusted Advisor are utilised.

IBM Garage Method for AWS Cloud runs on these pillars – Culture, Discover, Envision, Develop, Reason, Operate, Learn.

Culture - Create a high-performance culture. It is key to the success of an agile transformation. The culture must support small, collocated teams that are autonomous and able to make decisions that are based on efficiency and knowledge.

Discover - Understand and prepare what you need for success.

The Discover practices help your team to dig deep into your problem domain, align everyone on common goals, and to identify potential problems and bottlenecks.

Envision - Innovate by design, not by accident
The Envision practices provide development teams with a repeatable approach to rapidly deliver innovative user experiences.

Develop - Create quality code through collaboration and automation.

Adopt DevOps development practices to help your team collaborate and produce high-quality code that you can confidently deliver to production.

Reason - Apply AI techniques to make better decisions.

Select, develop, evaluate, and optimize your AI and data science models and make them ready for production. Infuse AI into your business so that you can make the right decisions faster and more accurately.

Operate - Prepare for problems before they happen.

Ensure operational excellence by continuously monitoring app status and performance. Shifting operational practices and automating operations tasks reduces operational costs and helps teams meet service level agreement (SLA) targets.

Learn- Learn from your customers and make better decisions

Learn how your team works together and how customers use the apps that you deliver by studying analytics data.

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