

**Migration Launch Guide** 

# **AWS Migration Hub**



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#### **AWS Migration Hub: Migration Launch Guide**

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## **Migration Launch Guide**

This guide offers guidance on the resources that customers commonly use when <u>migrating to</u> <u>or modernizing on</u> AWS. The guide is not intended to be a prescriptive implementation guide for cloud migration or modernization, after all '*There is no compression algorithm for experience*' (Andy Jassy, Amazon CEO). The guide has been prepared by an experienced team of AWS Customer Solutions Managers that actively support customers in their AWS migration journey.

The Migration Launch Guide acknowledges that no two cloud journeys are the same. So it provides guidance on both technical and non-technical topics and considers the various degrees of cloud maturity an organization may have. If you are participating in the <u>Migration Acceleration</u> <u>Program (MAP)</u>, you will find useful information regarding both the program and its onboarding requirements, to help you to fully leverage its advantages.

The section on *Delivering a migration program* describes the phases of a migration journey. It gives guidance on how to plan your migration, considerations for staffing and allows you to get acquainted with some of the tools you can use to simplify, automate and guide you through your migration.

As you progress your <u>Organizational readiness</u> by using AWS, you can find guidance on how to determine where you are on your cloud journey. The tools that help identify potential gaps in your organizations' plan, skills and governance, and allow you to focus on what is important to you.

To get a head start on cloud operations, see **Operational readiness**.

The section on *Education and enablement* presents the most useful mechanisms to enable your organization to fully leverage AWS tools and services.

If you need additional support or a deep-dive into any discussed topic in this Migration Launch Guide, see <u>Getting support</u>.

Finally, we have collated all relevant links from this guide into the *Resources* section.

## **Migration Acceleration Program (MAP)**

The <u>AWS Migration Acceleration Program (MAP)</u> is a program to support customers as they migrate to the cloud. MAP is based on AWS's experience migrating thousands of global customers to the cloud.

Watch the Introduction to MAP video in any of the following languages: [English] [French] [Italian] [Spanish]

#### Getting started

If you are getting started with AWS Migration Acceleration Program 2.0, the following are the required steps to start generating MAP credits:

- MAP tagging setup: Activate the tag key that is required for MAP 2.0 in AWS Billing
   Cost Allocation Tags. For more information, see <u>AWS account setup</u> in the AWS Migration Acceleration Program 2.0 Tagging Guide and <u>Using AWS cost allocation tags</u> in the AWS Billing User Guide.
- Tag selection: Choose the appropriate MAP 2.0 tag key/value combination. For more information, see <u>Tagging key combinations</u> in the AWS Migration Acceleration Program 2.0 Tagging Guide.
- 3. Tagging migrated workloads: See the <u>list of MAP 2.0 eligible services</u> and <u>the section</u> called "MAP tagging best practices".

#### What is tagging for MAP?

A tag is a key-value pair that you apply to an AWS resource to hold metadata about that resource. Tagging makes it possible for organizations to categorize and manage their cloud infrastructure easily at scale. You can also use tagging to create new resource constructs for visibility or control. For example, you can use tagging to group together resources that make up a workload. To obtain the full benefits of MAP, you must tag the migrated workloads. For more information, see <u>Tagging</u> your AWS resources and <u>Guidance for Tagging on AWS</u>.

If you are a new MAP customer, see <u>AWS Migration Acceleration Program 2.0 Tagging Guide</u>. For a list of MAP-credit-eligible services, see <u>What services are in scope for MAP 2.0?</u> in the AWS Migration Acceleration Program 2.0 Tagging Guide. Watch the **Tagging for MAP** video in any of the following languages: [English] [French] [Italian] [Spanish]

#### General best practices for tagging resources on AWS

AWS Documentation: Tagging AWS Resources.

Blog Post: Maximizing resource tagging at scale and across teams for your migration to AWS.

The following training video explains how to tag resources in AWS.

Vea el vídeo Etiquetado de recursos en AWS para mejorar operaciones en la nube en español.

### MAP tagging best practices

#### • Tagging with AWS CloudFormation:

- You can use CloudFormation Linter to enforce tags. You can create rules to enforce certain tag keys, and include linting steps in pipelines. For more information, see <u>AWS CloudFormation</u> Linter on GitHub.
- When you create or update an AWS CFN stack, set tags in the AWS Management Console or by using the AWS CLI. AWS CloudFormation propagates these tags to all the AWS resources that you create in the stack. For more information, see <u>create-stack</u> and <u>update-stack</u> in the AWS CLI command reference.
- Tagging with AWS Config:
  - To identify and tag MAP 2.0 eligible resources that were created after the MAP agreement was signed, use the AWS Config Conformance Pack . For more information, see AWS Config.
- Tagging with AWS Application Migration Service (Application Migration Service):
  - With Application Migration Service, you can enable MAP tagging to automatically tag your launched instances. To enable MAP tagging, go to the Application Migration Service console and choose Add MAP tag to Launched Instances, then specify the MAP tag value that you want to use. Application Migration Service will automatically tag your launched instances with the key map-migrated and the value required for the MAP program. Application Migration Service only tags Amazon EC2 instances and Amazon EBS volumes. For more information, see the Application Migration Service MAP program tagging topic and the MAP tagging guide provided by your MAP team.
- AWS remediation options:

- Use AWS Config to create rules that check resources for required tags and to continuously
  monitor your resources against those rules. Use it with <u>Amazon EventBridge</u> to trigger
  automated responses to missing tag values. For example, you can set it to send an email
  through Amazon SNS. For more information, see <u>Using Amazon EventBridge Scheduler with
  Amazon SNS</u> in the Amazon SNS Developer Guide.
- Additional resources:
  - Service control policies (SCPs)
  - Enforcing tagging on resource creation
  - Tag Policies
  - <u>Restricting allowed tag key/values</u>

### MAP 2.0 customer-facing dashboard

The **MAP 2.0 Dashboard** is a self-serve mechanism for eligible MAP 2.0 customers to track the progress of their MAP migrations. This dashboard is available in the billing console for payer accounts that are part of MAP 2.0 agreements signed after November 2022. This dashboard is only available for customers that have received their first tranche of credits. For more information, and to learn how to access the dashboard, see the <u>MAP 2.0 Dashboard User Guide</u>.

#### Monitor untagged services eligible for MAP credits

After you tag the target AWS resources, check to see how much these resources are used for each management account in your migration. You can use Cost Explorer to see the approximate amount of the target AWS resources. You can also use it to create a report on AWS services that are eligible for MAP credits but have not been tagged. To do so, select the filters below.

Report parameters	Filter	Setting
Time	Date range	Specify a date range
Time	Granularity	Specify a granularity
Group by	Dimension	Select Service, Linked account or Tag, as appropriate

Report parameters	Filter	Setting
Filters	Service	Exclude non-MAP-2.0-eligible services
Filters	Usage type	Exclude all "DataTransfer" values
Filters	Usage type group	Exclude all "Data Transfer" values
Filters	Tag	Choose to view either tagged spend or untagged spend. You can also leave it blank and then use the 'Dimensio n' to show the split of tagged versus untagged spend
Advanced options	Aggregate costs by	Amortized costs
Advanced options	Additional data settings	Untick all

# Delivering a migration program

AWS recommends performing the migration process in three phases: Assess, Mobilize, and Migrate and Modernize. To learn about these phases and about tools and services that are available to you as you go through your migration, see <u>How to migrate</u>. For more detailed guidance and to learn about migration strategies, guides, and patterns, see <u>AWS Prescriptive Guidance</u>.

# **Migration planning**

Long-running cloud migration programs require the coordination of several workstreams such as program governance, landing zone (an operative target environment with security controls), migration, and application portfolio. An application portfolio assessment (and subsequent migration planning) represents a foundational initial activity for any migration program. To learn about this process, see <u>Application portfolio assessment guide for AWS Cloud migration</u>.

Explore the 3 phases of migration defined in the AWS migration process:

- Assess: At the start of your migration journey, you assess your organization's current readiness for operating in the cloud. Most importantly, you identify the desired business outcomes and develop the business case for migration. To help you with this goal, AWS provides Migration Evaluator, a free service that helps you create a directional business case for AWS cloud planning and migration. To learn more, watch the following video from AWS re:Invent 2020: <u>Assess and</u> <u>accelerate your migration plans</u>. For more information, see <u>Migration Evaluator</u>.
- 2. *Mobilize*: As part of the mobilize phase, you create a migration plan and refine your business case. You address gaps that were identified in the assess phase to better prepare your organization with a focus on building your baseline environment (the "landing zone"), driving operational readiness, and developing cloud skills. Watch the following video about the Mobilize phase: Learn how to mobilize for accelerated cloud migration AWS Virtual Workshop.
- 3. *Migrate & Modernize*: The goal of the migrate-and-modernize phase is to design, migrate, and validate each application. To learn more, watch the following video from AWS re:Invent 2022: <u>How to migrate, modernize, and grow using the AWS MAP</u>.

## **AWS Migration Hub Journeys**

Use <u>AWS Migration Hub Journeys</u> to streamline the planning, execution, and tracking of migrations. A core concept in Migration Hub Journeys is the migration journey, which gives you a

pipeline of tasks, guidance in the form of tools and best practices, and the ability to track progress. You can also invite internal and external individuals and teams to your migration journey so that they can perform tasks and collaborate with you on the migration. To create a migration journey, you can use one of our templates, which represent common migration scenarios and follow best practices. You can also create your own custom migration journey from scratch. To learn more, see the AWS Migration Hub Journeys User Guide .

### Staffing the migration

Migration programs can be delivered through in-house staff, external resources, or a combination of both. AWS cloud expertise is essential to ensure a successful migration, so it is critical to invest in this early on.

To get started, see Education and Enablement.

#### **Cloud Center of Excellence (CCoE)**

Your CCoE is the starting point for preparing your organization for your migration, it's as relevant to an organization working alone or with a partner. You can choose to accelerate the creation and maturity of your CCoE with the help of a partner or through AWS Professional Services.

To learn about the importance of establishing a CCoE, watch the following video from AWS re:Invent 2020: <u>Transform your organization's culture with a Cloud Center of Excellence</u>.

To learn about the role of the CCoE in your organizational readiness, see the <u>Organizational</u> <u>readiness</u> topic in this launch guide.

#### **AWS** partners

The <u>AWS Competency Partner Program</u> is designed to identify, validate, and promote AWS Partners with demonstrated AWS technical expertise and proven customer success. The AWS Competency Partner Program contains an extensive list of partners and offerings with a proven track record of delivery in specific industries, use cases, and workloads. The following are some competencies that can be relevant to your migration:

- AWS Managed Service Provider Partners
- <u>AWS Migration Competency Partners</u>
- AWS Microsoft Workloads Competency Partners

- AWS SAP Competency Partners
- AWS Oracle Competency Partner
- AWS Mainframe Modernization Competency Partner

#### **AWS Professional Services**

AWS Professional Services are a global team of AWS experts that can help you realize your desired business outcomes in the AWS Cloud. To learn more, see <u>AWS Professional Services</u>.

#### **AWS Countdown Premium**

<u>AWS Countdown Premium</u> provides proactive technical guidance during migration environment discovery and scope definition. This guidance prepares customers for planning, testing, cutover and hyper-care. You can also leverage expert AWS knowledge with technical workshops that cover platform and migration capabilities that can upskill customers and institutionalize knowledge. You can accelerate troubleshooting during the Migration Execution Plan and receive expedited troubleshooting and resolution of technical issues with service team engagement.

AWS Countdown Premium can help you migrate with confidence with the help of a designated engineer who can provide context awareness and help you resolve issues, even when it requires additional help from service teams.

#### **AWS Managed Services**

<u>AWS Managed Services (AMS)</u> helps you adopt AWS at scale and operate more efficiently and securely. AMS leverages standard AWS services and offers guidance and execution of operational best practices with specialized automations, skills, and experience that are contextual to your environment and applications. To help you focus on innovation, AMS provides proactive, preventative, and detective capabilities that raise the operational bar and help reduce risk without constraining agility. AMS extends your team with operational capabilities including monitoring, incident management, <u>AWS Incident Detection and Response</u>, security, patch, backup, and cost optimization.

#### **Migration tooling**

Our comprehensive portfolio of <u>AWS migration services</u>, migration competency partners, and our mature third-party migration tooling ecosystem provide automation and intelligent

recommendations based on AWS machine learning to simplify and accelerate each step of the three-phase migration process.

The following video from re:Invent 2023 describes how to complete a large-scale migration and modernization with the help of AWS tools: <u>Completing a large-scale migration and modernization</u> with AWS

See <u>Education and Enablement</u> for a recommended free course on <u>Skill Builder</u> that covers the migration tooling.

<u>AWS Application Migration Service (Application Migration Service)</u> provides a solution to migrate business applications from on-premise or other cloud providers easily to AWS.

To learn about the architecture of AWS Application Migration Service, watch the following video: Application Migration Service

<u>AWS Database Migration Service (AWS DMS)</u> is a managed migration and replication service that helps move your database and analytics workloads to AWS quickly, securely, and with minimal downtime and zero data loss. AWS DMS supports migration between more than 20 database and analytics engines.

The following video from AWS re:Invent 2021 describes AWS DMS: <u>Dive deep into migration</u> <u>services AWS DMS and AWS SCT</u>

#### **Case studies**

AWS has helped thousands of organizations, including enterprises such as GE, the Coca-Cola Company, BP, Enel, Samsung, NewsCorp, and Twenty-First Century Fox, migrate to the cloud and free-up resources by lowering IT costs while improving productivity, operational resiliency, and business agility.

To explore migration case studies across different industries, workload types, and geographies see the <u>Cloud migration customers</u> portal.

#### Whitepapers and AWS prescriptive guidance

AWS regularly publishes whitepapers that describe various business cases for migrating to AWS together with AWS best practices. To find these whitepapers, see Cloud Migration Resources .

<u>AWS Prescriptive Guidance</u> provides time-tested strategies, guides, and patterns to help accelerate your cloud migration, modernization, and optimization projects. These resources were developed by AWS technology experts and the global community of AWS Partners, based on their years of experience helping customers realize their business objectives on AWS. It contains hundreds of specific migration scenarios. For example, see <u>Migrate an on-premises Oracle database to Amazon</u> <u>RDS for Oracle</u> and <u>Export Amazon RDS for SQL Server tables to an S3 bucket by using AWS DMS</u>.

#### **AWS Well-Architected Labs**

The AWS Well-Architected Framework describes key concepts, design principles, and architectural best practices for designing and running workloads in the cloud. To learn about the framework and its six pillars, see <u>AWS Well-Architected</u>. The <u>AWS Well-Architected Labs</u> site contains a collection of workshops and hands-on labs to help you learn, measure, and build using architectural best practices. The following labs are structured around the six pillars of the AWS Well-Architected Framework:

- 1. Operational Excellence
- 2. Security
- 3. Reliability
- 4. Performance Efficiency
- 5. Cost Optimization
- 6. Sustainability

These labs help you build and assess AWS infrastructure following AWS architectural and operational best practices.

Watch a video about the pillars of the AWS Well-Architected Framework.

You can also listen to the following audiobook: AWS Well-Architected Framework.

## **Organizational readiness**

Organizational readiness is a critical factor for maximizing value in the cloud. Organizations that assess their gaps early and put in place the right transformation plans have significantly higher chances of achieving their business goals when moving to the cloud.

Some of the most common blockers for cloud value realization for customers include:

- Lack of visible and active sponsorship
- Siloed workflows between organizational units
- Architectural entanglement
- Undefined operating model
- Analysis paralysis
- Talent and skills gaps
- Misaligned teams
- Unrealistic goals

At AWS, we have helped thousands of organizations in their cloud adoption and have captured our experience and best practices through different frameworks and tools.

In the following section, we introduce how you can organize your key people around cloud adoption through the Cloud Center of Excellence.

Then, we cover the Cloud Adoption Framework (CAF), which covers the 6 key organizational capabilities that underpin successful cloud transformations, as well as the Cloud Adoption Readiness Tool, a self-service assessment for your organization to measure alignment against the six perspectives of the CAF.

Finally, in the Cloud Operations section, we go through some resources to ensure your organization can operate your workloads in the cloud securely and reliably.

## **Cloud Center of Excellence (CCoE)**

The Cloud Center of Excellence (CCoE), also known as <u>Cloud Enablement Engine (CEE)</u> is a multi-disciplinary team in charge of implementing the governance, best practices, training, and

architecture needed for cloud adoption in a manner that provides repeatable patterns for the larger enterprise to follow. The CCoE team is made up of the <u>Cloud Business Office (CBO)</u> and the Cloud Platform Engineering (CPE), and is governed by the Cloud executive team. The team can be global, local, or federated (though some <u>capabilities</u> may be local and others global). In a migration context, the CCoE is typically started in the <u>Mobilize Phase</u>. For more resources, see <u>Accelerating cloud adoption through culture, change, and leadership</u>. You can also watch the video How to Manage Organizational Change and Cultural Impact During a Cloud Transformation.

## AWS Cloud Adoption Framework (CAF)

The <u>AWS Cloud Adoption Framework (AWS CAF)</u> leverages AWS experience and best practices to help you digitally transform and accelerate your business outcomes through innovative use of AWS. AWAWSS CAF identifies specific organizational capabilities that underpin successful cloud transformations. These capabilities provide best-practice guidance that helps you improve your cloud readiness. AWS CAF groups its capabilities in six perspectives: Business, People, Governance, Platform, Security, and Operations. Each perspective comprises a set of capabilities that functionally related stakeholders own or manage in the cloud transformation journey. Use the AWS CAF to identify and prioritize transformation opportunities, evaluate and improve your cloud readiness, and iteratively evolve your transformation roadmap.

## **Cloud Readiness Assessment (CRA)**

No matter which stage your organization is in on the cloud journey, it is never too late to assess your cloud readiness. The <u>AWS Cloud Readiness Assessment (CRA)</u> is a free self-service online assessment tool to evaluate your cloud readiness and identify gaps and opportunities against the AWS CAF capabilities, across six perspectives. The outcome is a detailed report with recommended actions to help your organization achieve the maximum benefits of cloud adoption.

## **Cloud Maturity Assessment (CMA)**

The AWS CMA is a maturity model that tracks the adoption of a customer's cloud transformation over time. It uses AWS CAF's foundational organizational capabilities that underpin an organization's ability to leverage the cloud to digitally transform in the cloud. It is an assessment led by AWS with the inputs from your organization to identify risks and create an engagement and risk mitigation plan in support of achieving customer goals. The results are tracked over time, and can be benchmarked, and thus used as an important input for decision making. Reach out to your

AWS account team, or book a <u>meeting with a migration expert</u> directly to walk you through the CMA assessment process.

## **Cloud Operations**

Operating your applications in the cloud is different from operating them on-premises (whether in your own data centers or in co-location). In your cloud migration journey, your organization will gradually pivot towards a Cloud Operating Model. The <u>Well-Architected Framework - Operational</u> <u>Excellence Pillar</u> can be very useful when designing your cloud operating model based on your Application Engineering and Operations (AEO) and Infrastructure Engineering Operations (AEO) teams. To learn more about Cloud Operating Models, watch the <u>Cloud Operating Models for Accelerated Transformation</u> video.

For additional guidance around capabilities needed to operate in the cloud, see <u>AWS Cloud</u> <u>Adoption Framework: Operations Perspective</u>.

For prescriptive guidance on how to build your own Cloud Operating Model according to the AWS definition, see <u>Building your Cloud Operating Model</u>. For tips on how to make sure the platform that you build is effective in supporting your application development teams, see <u>How to Set Up a</u> <u>Platform That Effectively Supports Your Development Teams</u>.

#### Maturity of cloud operations

You can assess and improve the maturity of your cloud operations with the help of the <u>Well-</u> <u>Architected Tool</u>. The tool makes it easy for your teams to review a given application against the best practices of the Operational Excellence and Security pillars of the AWS Well-Architected Framework.

Cloud Operations can be improved with <u>AWS GameDays</u>, <u>AWS Workshops</u>, <u>Table Top simulations</u> and <u>Well-Architected Labs</u>. For more details, explore the <u>Education and Enablement</u> topic.

#### **Additional resources**

Watch the following video from AWS re:Invent 2022: <u>Transforming with AWS Cloud Operations:</u> <u>From vision to reality</u>

The following two-part blog provides the foundational tooling that will help you centralize and automate operations, and improve governance and visibility through AWS Cloud Operations

services: Increase visibility and governance on cloud with AWS Cloud Operations services – part 1 and part 2.

#### **Cloud financial management and FinOps**

Understanding the processes around how resources are priced and consumed in the cloud is one of the critical capabilities that need to be developed during your migration. <u>AWS Cloud Financial Management</u> can help you find initial resources and guidance on how to start and evolve your <u>Cloud Financial Management capability</u> and FinOps. To dive deeper into this topic, watch the following AWS re:Invent video that discusses the practice: <u>Making dollars and sense out of FinOps</u>.

For a customer case study, see <u>How Cvent saved over \$3M in less than two years by creating a cost-</u> <u>aware culture</u>

## **Operational readiness**

A successful approach to operations is critical to the success of every organization and its digital transformation. <u>Operational excellence</u> is required to ensure that your transformation achieves its purpose and that applications consistently meet their business outcomes and the expectations of their users. This topic is intended to help you get a head start on your operations.

#### Managing your resources

Use an orchestration tool to manage, configure, patch, and use automation.

**AWS Systems Manager:** Use <u>AWS Systems Manager Quick Setup</u> to quickly configure required security roles and commonly used Systems Manager capabilities on your Amazon Elastic Compute Cloud instances across your entire organization.

The following are some of the capabilities of Systems Manager:

- <u>AWS Systems Manager Session Manager</u> allows you to SSH to Linux or RDP to Windows instances without the need to open inbound ports, maintain bastion hosts, or manage SSH keys.
- <u>AWS Systems Manager Distributor</u> allows you to package and publish your own software or to find and publish AWS-provided agent software packages, such as AmazonCloudWatchAgent, or third-party packages such as Trend Micro.
- <u>AWS Systems Manager Patch Manager</u> allows you to automate the process of patching managed nodes with both security-related updates and other types of updates.

## Monitoring and observability

Implement observability in infrastructure and applications so that you can understand their state and make data-driven decisions based on business requirements.

- Amazon CloudWatch Metrics: Centralize performance data with basic monitoring metrics at no charge from AWS services such as Amazon EC2, Amazon Elastic Block Store (Amazon EBS), and Amazon Relational Database Service (Amazon RDS). For more information, see <u>AWS services that</u> <u>publish CloudWatch metrics</u> in the Amazon CloudWatch User Guide.
- CloudWatch Dashboards: To learn how to see key metrics from all AWS services, refer to <u>See</u> the pre-built cross-service dashboard. To learn how to use automatic dashboards to focus on

metrics and alarms in a single AWS service, refer to <u>See a pre-built dashboard for a single AWS</u> <u>service</u>. The metrics that are considered most important by service teams are used on automatic dashboards. Use these metrics as a starting point for your own dashboards.

- **CloudWatch Logs**: To learn how to centralize, manage, and analyze logs from AWS services, see Enabling logging from AWS services in the Amazon CloudWatch Logs User Guide.
- **CloudWatch Alarms**: A metric alarm watches a single CloudWatch metric or the result of a math expression based on CloudWatch metrics. The alarm performs one or more actions based on the value of the metric or expression relative to a threshold over a number of time periods. To learn how to create and use alarms, see Using Amazon CloudWatch alarms.
- CloudWatch Agent: Install the CloudWatch agent as part of AWS Systems Manager Quick Setup to send instance metrics and logs to CloudWatch. Use these metrics and logs alongside AWS service metrics and logs to create dashboards and alarms for your infrastructure and applications.
- **AWS CloudTrail**: CloudTrail is active in your AWS account when you create it and doesn't require any manual setup. When activity occurs in your AWS account, that activity is recorded in a CloudTrail event. <u>Tutorial: Review AWS account activity in event history</u>

Set up a monitoring account for cross-account observability. To learn how, see <u>Link monitoring</u> <u>accounts with source accounts</u> in the Amazon CloudWatch User Guide.

## Security and compliance

Ensuring the security and compliance of your AWS environment is paramount.

- **AWS Security Hub**: Security Hub provides you with a comprehensive view of your security state in AWS and helps you assess your AWS environment against security industry standards and best practices. To learn how to set it up and use it, see <u>Enabling Security Hub</u> in the AWS Security Hub User Guide.
- **AWS Config**: AWS Config provides a detailed view of the configuration of AWS resources in your AWS account. This includes how the resources are related to one another and how they were configured in the past so that you can see how the configurations and relationships change over time. Use AWS Config to assess, audit, and evaluate the configurations of your AWS resources. To learn how to set it up, see <u>Getting Started with AWS Config</u> in the AWS Config Developer Guide.

Video: Back to Basics: Using AWS Config; and Conformance Packs to Optimize Your AWS Resources

## Backup

AWS Backup is a fully-managed service that helps you centralize and automate data protection across AWS services, in the cloud, and on premises. To learn more, see <u>Getting started with AWS</u> <u>Backup</u> in the AWS Backup Developer Guide.

#### **Optimization and cost management**

Optimize your AWS usage to ensure cost efficiency without compromising on performance and security.

- AWS Cost Explorer: This is a tool that you can use to visualize, understand, and manage your AWS costs and usage over time. To learn how to enable it and use it, see <u>Analyzing your costs</u> with AWS Cost Explorer in the AWS Cost Management User Guide.
- AWS Trusted Advisor: Trusted Advisor draws upon best practices learned from helping hundreds of thousands of AWS customers. It inspects your AWS environment, and then makes recommendations when opportunities exist to save money, improve system availability and performance, or help close security gaps. For more information, see <u>AWS Trusted Advisor</u> in the AWS Support User Guide.
- AWS Compute Optimizer: This is a service that analyzes the configuration of your AWS resources and their utilization metrics to provide you with right-sizing recommendations. Use Compute Optimizer to right-size workloads according to your workload preferences through artificial intelligence and machine-learning-based analytics to reduce costs by up to 25%. By using <u>memory metrics</u> collected by the CloudWatch agent, the recommendations for right-sizing EC2 instances are improved. For more information, see <u>Getting started with AWS Compute Optimizer</u>.

## **Education and enablement**

Education and enablement play a fundamental role in cloud transformation by ensuring that employees have the knowledge, skills, and mindset needed to adapt to change, contribute effectively to the transformation process, and ultimately help the organization achieve its strategic goals.

This page contains the most commonly used mechanisms to enable your organization to fully leverage AWS tools and services.

#### Learning-needs analysis

You can identify your organization's cloud skills gaps with our free self-assessment tool, the <u>AWS</u> <u>Learning Needs Analysis</u>.

### AWS training and certification

<u>AWS Training and Certification</u> validates cloud expertise to help professionals highlight in-demand skills and organizations build effective, innovative teams for cloud initiatives using AWS. Choose from diverse certification exams by role and specialty designed to empower individuals and teams to meet their unique goals.

Watch the video AWS Training and Certification – Building AWS Cloud Skills and Confidence .

## **AWS Skill Builder**

<u>AWS Skill Builder</u> is the go-to place for AWS training and certification. You can find learning paths by role or technology area, and browse playlists of videos, tutorials, and documents to improve your AWS skills. Skill Builder currently has over 600 courses at no charge. With AWS Skill Builder individual or team subscriptions, you also gain access to **AWS Builder Labs** that provide hands-on guided exercises to help you develop practical migration skills.

Watch a video about AWS Skill Builder.

A recommended starting point for preparing your organization technically to migrate to AWS is the <u>Migration Foundations</u> learning path. It comes with learning plans, ramp-up guides, assessment,

and the following digital badge that you can include in your résumé or share with your employer or on social media after you pass the assessment.



### **AWS GameDay**

GameDay is a collaborative learning exercise that tests skills in implementing AWS solutions to solve real-world problems in a gamified, risk-free environment. This is a completely hands-on opportunity for technical professionals to explore AAWSWS services, architecture patterns, best practices, and group cooperation.

Browse the <u>AWS GameDay</u> website for upcoming public GameDays. It is a hands-on technical training delivered in a gamified and competitive way. It can be used to safely try out new services and fosters collaborative problem-solving.

Watch AWS Training and Certification – Building AWS Cloud Skills and Confidence .

#### **AWS Workshops**

<u>Workshops</u> are hands-on events designed to teach or introduce practical skills, techniques, or concepts which you can use to solve business problems.

Watch the following video: Accelerating Learning with AWS Workshops .

#### **Experience-Based Acceleration**

<u>Experience-Based Acceleration (EBA)</u> is a hands-on and agile-approach to execute specific cloud objectives. We use this in workshops called 'EBA Parties', aimed at addressing friction points and blockers to an organization's cloud journey. In these parties, customer and partner's builders develop new ways of working and collaboration. Together they solve problems while learning best practices in an interactive and immersive setting. Reach out to your AWS account team, or book a meeting with a migration expert directly to discuss your EBA options.

For an introduction to EBA, watch the following video: Get to Know EBA.

## **Getting support**

<u>AWS Support</u> provides a mix of tools and technology, people, and programs designed to proactively help you optimize performance, lower costs, and innovate faster. We save time for your team by helping you move faster in the cloud and focus on your core business. We are determined to make our customers successful on their cloud journey and address requests that range from answering best practices questions, guidance on configuration, all the way to break-fix and problem resolution.

To learn how to create a support case and manage your open cases with AWS, see <u>Creating support</u> <u>cases and case management</u> in the AWS Support User Guide. The guide explains the process and also a specific example for a question about a customer's account and billing.

<u>AWS Enterprise Support</u> provides you concierge-like service where the main focus is helping you achieve your outcomes and find success in the cloud. With Enterprise Support, you get 24/7 technical support from high-quality engineers, tools and technology to automatically manage the health of your environment. You also get access to a Technical Account Manager (TAM) who will provide consultative architectural and operational guidance delivered in the context of your applications and use-cases to help you achieve the greatest value from AWS.

## Resources

This page aggregates links referenced throughout the Migration Launch Guide for quicker access.

### **Migration Acceleration Program (MAP)**

- MAP homepage
- Introductory video explaining the MAP [English] [French] [Italian] [Spanish]
- AWS Migration Acceleration Program 2.0 Tagging Guide
- List of MAP credit eligible services
- Video on how to get started with tagging for MAP [English] [French] [Italian] [Spanish]
- AWS Documentation: Tagging AWS Resources
- Blog Post: Maximizing resource tagging at scale and across teams for your migration to AWS
- Training video explaining how to tag resources on AWS[English] [Spanish]
- Tagging with AWS CloudFormation
- <u>AWS Config Conformance Pack</u>
- Service control policies (SCPs)
- Enforcing tagging on resource creation
- Tag Policies user guide
- <u>Restricting allowed tag key/values</u>
- User guide for MAP 2.0 customer facing dashboard

## Delivering a migration program

- AWS cloud migration website
- Mobilize your organization to accelerate large-scale migrations
- Large migration guidelines
- MAP Migration Process
- <u>Application Portfolio Assessment Strategy</u>
- Portfolio assessment guide

- AWS migration process and its phases
- Video about the Migration Evaluator
- Video about the Mobilize phase
- AWS Migration Hub Journeys
- How to migrate, modernize, and grow using the AWS MAP
- Video about the importance of establishing a CCoE
- AWS Competency Partner Program
- Managed Service Providers (MSP)
- AWS Partners for migration
- AWS Partners for Windows
- AWS Partners for SAP
- AWS Partners for Oracle
- AWS Partners for Mainframe
- AWS Professional Services (ProServe)
- AWS Countdown
- AWS Managed Services (AMS)
- AWS Incident Detection and Response
- AWS Migration Hub
- Third-party migration tooling ecosystem
- Completing a large-scale migration and modernization with AWS (video)
- AWS Application Migration Service (Application Migration Service)
- Video about AWS Application Migration Service
- Migration Foundations Knowledge Badge
- AWS Database Migration Service (AWS DMS)
- Video about AWS Database Migration Service
- <u>AWS Prescriptive Guidance Publications</u>
- AWS customer case studies
- AWS whitepapers
- AWS Prescriptive Guidance portal

- AWS Well-Architected Framework
- Well-Architected Labs
- Audiobook of the whitepaper of AWS Well-Architected Framework
- AWS Application Migration Service workshop repository

#### **Organizational readiness**

- AWS Cloud Adoption Framework
- Full documentation about CAF
- AWS Cloud Adoption Readiness Tool (CART)
- Cloud Enablement Engine (CEE)
- <u>CCoE capabilities</u>
- People Perspective
- Role of CCoE in Mobilize Phase
- Short video on Organizational Change Management
- Cloud Business Office (CBO)
- Cloud Operating Models
- How to organize teams to operate a containers platform
- Cloud Operations concepts video
- <u>CAF Operations perspective</u>
- Well-Architected Framework Operational Excellence Pillar
- 2x2 diagrams to identify source operating models
- Prescriptive guidance for creating your Cloud Operating Model
- Tips to make your platform team effective in supporting your application development teams
- Well-Architected Tool
- Tabletop simulations
- Well-Architected Labs on operational excellence
- re:Invent 2022 Transform with AWS Cloud Operations: From vision to reality
- Increase visibility and governance on cloud with AWS Cloud Operations services part 1
- Increase visibility and governance on cloud with AWS Cloud Operations services part 2

- AWS Cloud Financial Management
- Cloud Financial Management capability
- Cloud Value Framework
- Cloud FinOps: Making dollars and sense out of FinOps (video)
- Customer case study on how Cvent has developed their Cloud Financial Management capability

#### **Operational readiness**

- AWS Cloud Adoption Framework: Operations Perspective
- Operational Excellence Pillar AWS Well-Architected Framework
- AWS Whitepaper Change Management in the Cloud
- Management and Governance on AWS
  - AWS Systems Manager
  - Amazon CloudWatch
  - AWS CloudTrail
  - AWS Security Hub
  - AWS Config
  - AWS Backup
  - AWS Cost Explorer
  - <u>AWS Trusted Advisor</u>
  - AWS Compute Optimizer
- Cloud Financial Management with AWS
- AWS Cloud Operations & Migrations Blog
- AWS Security Blog
- AWS Skill Builder Management & Governance
- <u>AWS Skill Builder Security, identity, and compliance</u>
- AWS Back to basics video playlist
- AWS Workshops
  - One Observability Workshop
  - Security Hub Workshop
  - Operational excellence through automated Trusted Advisor remediations Workshop

#### **Education and enablement**

- AWS Learning Needs Analysis
- AWS Training and Certification
- Video about AWS Training and Certification
- AWS Skill Builder
- Video about AWS Skill Builder
- AWS GameDay
- Video about AWS GameDay
- AWS Workshops
- Video about Accelerating Learning with AWS Workshops
- Blog Level up your Cloud Transformation with Experience-Based Acceleration (EBA)
- Video introducing EBA

# **Document history for the Migration Launch Guide**

The following table describes the documentation releases for the Migration Launch Guide.

Change	Description	Date
Initial release	Initial release of the Migration Launch Guide.	April 11, 2024