AWS Cloud Practitioner Essentials

Course description

This course is for individuals who seek an overall understanding of the Amazon Web Services (AWS) Cloud, independent of specific technical roles. You will learn about AWS Cloud concepts, AWS services, security, architecture, pricing, and support to build your AWS Cloud knowledge.

- Course level: Fundamental
- Duration: 2 days

Course objectives

In this course, you will learn to:

- Summarize the working definition of AWS
- Differentiate between on-premises, hybrid-cloud, and all-in cloud
- Describe the basic global infrastructure of the AWS Cloud
- Explain the six benefits of the AWS Cloud
- Describe and provide an example of the core AWS services, including compute, network, databases, and storage
- Identify an appropriate solution using AWS Cloud services with various use cases
- Describe the AWS Well-Architected Framework
- Explain the shared responsibility model
- Describe the core security services within the AWS Cloud
- Describe the basics of AWS Cloud migration
- Articulate the financial benefits of the AWS Cloud for an organization’s cost management
- Define the core billing, account management, and pricing models
- Explain how to use pricing tools to make cost-effective choices for AWS services

Intended audience

This course is intended for:

- Sales
- Legal
- Marketing
- Business analysts
- Project managers
- Other IT-related professionals

Prerequisites

We recommend that attendees of this course have:

- General IT business knowledge
- General IT technical knowledge

Course outline

Day-1

Module 1: Introduction to Amazon Web Services

- Summarize the benefits of AWS
- Describe differences between on-demand delivery and cloud deployments
- Summarize the pay-as-you-go pricing model

Module 2: Compute in the Cloud

- Describe the benefits of Amazon Elastic Compute Cloud (Amazon EC2) at a basic level
- Identify the different Amazon EC2 instance types
- Differentiate between the various billing options for Amazon EC2
- Describe the benefits of Amazon EC2 Auto Scaling
- Summarize the benefits of Elastic Load Balancing
- Give an example of the uses for Elastic Load Balancing
- Summarize the differences between Amazon Simple Notification Service (Amazon SNS) and Amazon Simple Queue Services (Amazon SQS)
- Summarize additional AWS compute options

Module 3: Global Infrastructure and Reliability

- Summarize the benefits of the AWS Global Infrastructure
- Describe the basic concept of Availability Zones
- Describe the benefits of Amazon CloudFront and Edge locations
- Compare different methods for provisioning AWS services

Module 4: Networking

- Describe the basic concepts of networking
- Describe the difference between public and private networking resources
- Explain a virtual private gateway using a real life scenario
- Explain a virtual private network (VPN) using a real life scenario
- Describe the benefit of AWS Direct Connect
- Describe the benefit of hybrid deployments

- Describe the layers of security used in an IT strategy
- Describe which services are used to interact with the AWS global network

Module 5: Storage and Databases

- Summarize the basic concept of storage and databases
- Describe benefits of Amazon Elastic Block Store (Amazon EBS)
- Describe benefits of Amazon Simple Storage Service (Amazon S3)
- Describe the benefits of Amazon Elastic File System (Amazon EFS)
- Summarize various storage solutions
- Describe the benefits of Amazon Relational Database Service (Amazon RDS)
- Describe the benefits of Amazon DynamoDB
- Summarize various database services

Day-2

Module 6: Security

- Explain the benefits of the shared responsibility model
- Describe multi-factor authentication (MFA)
- Differentiate between the AWS Identity and Access Management (IAM) security levels
- Describe security policies at a basic level
- Explain the benefits of AWS Organizations
- Summarize the benefits of compliance with AWS
- Explain primary AWS security services at a basic level

Module 7: Monitoring and Analytics

- Summarize approaches to monitoring your AWS environment
- Describe the benefits of Amazon CloudWatch
- Describe the benefits of AWS CloudTrail
- Describe the benefits of AWS Trusted Advisor

Module 8: Pricing and Support

- Understand AWS pricing and support models
- Describe the AWS Free Tier
- Describe key benefits of AWS Organizations and consolidated billing
- Explain the benefits of AWS Budgets
- Explain the benefits of AWS Cost Explorer
- Explain the primary benefits of the AWS Pricing Calculator

- Distinguish between the various AWS Support Plans
- Describe the benefits of AWS Marketplace

Module 9: Migration and Innovation

- Understand migration and innovation in the AWS Cloud
- Summarize the AWS Cloud Adoption Framework (AWS CAF)
- Summarize six key factors of a cloud migration strategy
- Describe the benefits of various AWS data migration solutions, such as AWS Snowcone, AWS Snowball, and AWS Snowmobile
- Summarize the broad scope of innovative solutions that AWS offers
- Summarize the five pillars of the AWS Well-Architected Framework

Course Duration: 8 hours (2 Days)

AWS CloudWAN

This course provides participants with a solid foundation in AWS Cloud WAN, a managed wide area networking service designed to connect data centers, branch offices, and cloud resources across the globe. Through theoretical lessons, architectural walkthroughs, and hands-on labs, attendees will learn how to design, deploy, and manage global networks using Cloud WAN. The course covers key features such as core networks, segments, routing policies, integration with Transit Gateway, and monitoring via CloudWatch and AWS Network Manager.

Course objectives

By the end of this course, participants will be able to:

- Understand the fundamentals and benefits of AWS Cloud WAN
- Design and implement global network topologies using Cloud WAN
- Configure core networks, segments, and attachment policies
- Integrate Cloud WAN with AWS Transit Gateway and other AWS services
- Monitor and troubleshoot Cloud WAN using AWS-native tools
- Apply security and compliance best practices for global networking

Prerequisites

- Basic knowledge of AWS networking services (e.g., VPC, Transit Gateway, Route Tables)
- Familiarity with general networking concepts (e.g., routing, IP addressing)
- Hands-on experience with the AWS Management Console or CLI is helpful
- Experience with AWS IAM roles and policies (recommended but not mandatory)

Target Audience

- Network engineers and architects
- Cloud infrastructure and DevOps professionals
- IT administrators managing distributed or hybrid networks
- Learners preparing for advanced AWS networking certifications
- Organizations planning global cloud adoption or WAN transformation

Course outline

Day-1

Module 1: Introduction to AWS Cloud WAN

- What is AWS Cloud WAN and why use it
- Cloud WAN vs Transit Gateway

- Use cases and real-world scenarios

Module 2: Core Network Architecture

- Core networks and segments
- Regions, edge locations, and attachments
- Policy documents and route control

Module 3: Cloud WAN Setup and Configuration

- Creating a global network in AWS Cloud WAN
- Setting up segments and attachments

Hands-On Lab: Internet Communication through AWS Cloud WAN

Module 4: Integration with AWS Transit Gateway

- Comparison and interoperability
- Multi-region connectivity
- Dynamic routing using segments
- Route filtering and propagation rules

Hands-On Lab: Inter-Region VPC Communication via AWS Cloud WAN

Hands-On Lab: VPC Connectivity through AWS Transit Gateway and AWS Cloud WAN

Day-2

Module 5: Connecting On-Premises Networks via Site-to-Site VPN

- Creating and attaching a Site-to-Site VPN to a Cloud WAN segment
- Integrating on-premises networks via VPN
- Route control for hybrid workloads

Hands-On Lab: Accessing a VPC via Site-to-Site VPN and AWS Cloud WAN

Module 6: Monitoring and Troubleshooting

- Using CloudWatch with Cloud WAN
- Logging and telemetry with AWS Network Manager

Hands-On Lab: Traffic Auditing with AWS Cloud WAN Service Insertion

Module 7: Security Best Practices

- IAM policies and network segmentation
- Encryption, logging, and audit trails