Welcome to

AWS Certified Cloud Practitioner Certification

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Introduction

It’s an entry-level certification that serves as a foundation for more advanced AWS certifications. The **AWS Certified Cloud Practitioner** exam has two versions: **CLF-C01** and the newer **CLF-C02**. AWS regularly updates its certification exams to reflect changes in the cloud environment and AWS services, so **CLF-C02** is an updated version of **CLF-C01**.

Prerequisite

In this course, **no official prerequisites**, making it an ideal entry-level certification for individuals new to cloud computing or AWS. However, having some basic knowledge can help you better prepare for the exam and grasp the key concepts.

Basic Understanding of IT Concepts:

- Familiarity with general IT terminology (servers, databases, networking, security).
- Understanding basic concepts such as storage, computing, and networking.
- Familiarity with the concept of the internet, web applications, and data security.

Familiarity with Cloud Computing:

- Awareness of cloud computing concepts like **Infrastructure as a Service (IaaS)**, **Platform as a Service (PaaS)**, and **Software as a Service (SaaS)**.
- Understanding the advantages of cloud computing (e.g., scalability, elasticity, cost efficiency).

Knowledge of AWS:

- Basic awareness of what AWS (Amazon Web Services) is and its purpose.
- Some familiarity with AWS services, even at a high level (e.g., what EC2, S3, or RDS are).

Exam Overview

The **AWS Certified Cloud Practitioner** validates foundational, high-level understanding of AWS Cloud, services, and terminology. This is a good starting point on the AWS Certification journey for individuals with no prior IT or cloud experience switching to a cloud career, or for line-of-business employees looking for foundational cloud literacy.

Category	Foundational
Exam duration	90 minutes
Exam format	65 questions; either multiple choice or multiple response
Cost	100 USD. Visit Exam pricing for additional cost information, including foreign exchange rates

Domain & Marks

Exam Domain	CLF-C02
Cloud Concepts	24%
Security and Compliance	30%
Technology	36%
Billing, Pricing, and Support	10%

What is AWS & benefits of the AWS Cloud

The AWS Cloud offers a wide range of benefits, making it a popular choice for individuals and organizations. Here are the key advantages:

- **Cost Efficiency** (Pay-as-you-go pricing, No long-term commitments)
- **Scalability and Flexibility**
- **Enclosing Universe**
- **Security and Compliance**
- **Reliability and High Availability**
- **Innovation and Rapid Deployment**
- **Managed Services Efficiently**
- **Disaster Recovery and Backup**
- **Extensive Ecosystem and Support**
- **Ecosystem of Partners and Tools**

Economies Scale

Implementing these strategies can help you significantly reduce your AWS costs while maintaining performance and reliability.

- **Use Spot Instances**
- **Reserved Instances**
- **Savings Plans** (Commitment over one or three years)
- **Auto Scaling**
- **S3 Lifecycle Policies**
- **Monitoring and Alerts** (CloudWatch)
- **Eliminate Unused Resources** (Elastic IPs, unattached volumes & snapshots)
- **Leverage Free Tier**
- **Optimize Data Transfer Costs** (CloudFront)

Global Infrastructure

AWS has a robust global infrastructure designed to deliver scalable, reliable, and low-latency services. This extensive global infrastructure allows businesses to deploy applications with high availability, scalability, and performance, while also meeting regulatory and data residency requirements.

- **Regions**
- **Availability Zones (AZs)**
- **Edge Locations** (Data Center)
- **Local Zones**
- **Wavelength**
- **Global Network** (Regions and edge locations)
- **Security and Compliance**

Advantages

- **High Availability** ensures that your systems remain operational and accessible with minimal downtime, contributing to business continuity and reliability.
- **Elasticity** provides cost-efficient scaling, allowing organizations to meet changing demands without over provisioning resources, ensuring optimized performance.
- **Agility** empowers organizations to quickly adapt, innovate, and deploy new services, making them more competitive in a fast-changing market.

AWS Architect

AWS Well-Architected helps cloud architects build secure, high-performing, resilient, and efficient infrastructure for a variety of applications and workloads. Built around **six** pillars:

- **Operational Excellence**
- **Security**
- **Reliability**
- **Performance efficiency**
- **Cost optimization, and**
- **Sustainability**

Differences between the pillars of the Well-Architected Framework

- **Operational Excellence** centers on effective management and improvement processes.
- **Security** focuses on safeguarding resources and data.
- **Reliability** ensures availability and fault tolerance.
- **Performance Efficiency** emphasizes optimal resource usage.
- **Cost Optimization** aims to control and reduce spending while maintaining value.
- **Sustainability**: Environmental considerations in architecture.

Benefits of and strategies for migration to the AWS Cloud

Migrating to the AWS Cloud offers numerous benefits and requires strategic planning to ensure a smooth transition. The approach used to migrate a workload into the AWS Cloud. There are seven migration strategies for moving applications to the cloud, known as the ***7 Rs***

- Retire
- Retain
- Rehost
- Relocate
- Repurchase
- Replatform
- Refactor or re-architect

Cloud Adoption Framework

A cloud adoption framework (CAF) is a set of best practices, tools, and guidance that helps organizations get started with cloud technologies. Moving to the cloud is challenging due to legacy technologies, complex application interdependencies, existing infrastructure bottlenecks, plus knowledge and skill gaps. Using a CAF offers companies the following benefits.

- **Reduce business risk**
- **Accelerate innovation**
- **Enhance agility**

Use cases of cloud adoption frameworks

- **Resource organization**
- **Technology adoption**
- **Process improvement**

AWS Cloud Adoption Framework (CAF) 3.0 is Now Available | AWS News Blog (amazon.com)