Domains, objectives and examples

Test Domain 1: Cloud Concepts

This domain makes up 24% of the exam and includes the following three objectives:

- 1.1 Define the AWS Cloud and its value proposition
- 1.2 Identify aspects of AWS Cloud economics
- 1.3 List the different cloud architecture design principles

What you need to know

You should be able to describe the benefits of public cloud services and be able to define what types of services are available on AWS (think IaaS, PaaS, SaaS). Make sure you understand the 6 advantages of cloud:

1. Trade capital expense for variable expense
2. Benefit from massive economies of scale
3. Stop guessing about capacity
4. Increase speed and agility
5. Stop spending money running and maintaining data centers
6. Go global in minutes

You need to know how cloud is beneficial from a financial perspective and should understand the difference between CAPEX and OPEX – this relates to item 1 in the list above.

You should understand the design principles of creating cloud architectures, this includes loose coupling, scaling (vertically and horizontally), bootstrapping and automation, to name just a few.

Example questions

Question: *Which feature of AWS allows you to deploy a new application for which the requirements may change over time?*

1. Elasticity
2. Fault tolerance
3. Disposable resources
4. High availability

Answer: 1, elasticity allows you to deploy your application without worrying about whether it will need more or less resources in the future. With elasticity, the infrastructure can scale on-demand

Question: *What advantages do you get from using the AWS cloud? (choose 2)*

1. Trade capital expense for variable expense
2. Stop guessing about capacity
3. Increased capital expenditure
4. Gain greater control of the infrastructure layer
5. Comply with all local security compliance programs

Answer: 1+2, with public cloud services such as AWS you can pay on a variable (OPEX) basis for the resources you use and scale on-demand, so you never need to guess how much resources you need to deploy.

Resources

- [AWS Well-Architected Framework](#)
- [The 6 Pillars of the AWS Well-Architected Framework](#)
- [Cloud Computing Concepts](#)
- [Architecting for the Cloud](#)

Test Domain 2: Security and Compliance

This domain makes up 30% of the exam and includes the following four objectives:

- 2.1 Define the AWS Shared Responsibility mode
- 2.2 Define AWS Cloud security and compliance concepts
- 2.3 Identify AWS access management capabilities
- 2.4 Identify resources for security support

What you need to know

You should understand the AWS shared responsibility model which defines who is responsible for different aspects of the technology stack from the data center through to servers, firewall rules and data encryption.

AWS provide tools and services for implementing security, assessing your security position, and generating alerts and compliance reports. You need to understand these services and tools well enough to describe their usage and benefits. This includes services such as KMS, CloudTrail and AWS Artifact.

You also need to understand the services that are used for authentication, authorization and access management. This includes services such as AWS IAM, and Amazon Cognito, and the usage of access keys, key pairs and signed URLs.

Support services include real-time insights through AWS Trusted Advisor and proactive support and advocacy with a Technical Account Manager (TAM). Make sure you know which support packages include a TAM.

Example questions

Question: *Under the AWS shared responsibility model what is the customer responsible for? (choose 2)*

1. Physical security of the data center
2. Replacement and disposal of disk drives
3. Configuration of security groups
4. Patch management of infrastructure
5. Encryption of customer data

Answer: 3+5, AWS are responsible for items such as the physical security of the DC, replacement of old disk drives, and patch management of the infrastructure whereas customers are responsible for items such as configuring security groups, network ACLs, patching their operating systems and encrypting their data.

Question: *Which AWS service is used to enable multi-factor authentication?*

1. Amazon STS
2. AWS IAM
3. Amazon EC2
4. AWS KMS

Answer: 2, IAM is used to securely control individual and group access to AWS resources and can be used to manage multi-factor authentication.

Resources

- [AWS Shared Responsibility Model](#)
- [AWS Cloud Security](#)
- [Identity and Access Management](#)
- [AWS Billing and Pricing](#)

Test Domain 3: Cloud Technology and Services

This domain makes up 34% of the exam and includes the following four objectives:

- 3.1 Define methods of deploying and operating in the AWS Cloud
- 3.2 Define the AWS global infrastructure
- 3.3 Identify the core AWS services
- 3.4 Identify resources for technology support

What you need to know

You need to understand the core AWS services and what they are used for. You typically don't need a deep level of knowledge of the specifics of a service but do need to understand its purpose, benefits and use cases.

Core services include EC2, ECS, Lambda, LightSail, EBS, EFS, S3, RDS, DynamoDB, RedShift, ElastiCache, Elastic Load Balancing, Auto Scaling, CloudFront, Route 53, CloudWatch, CloudTrail, and SNS.

You should understand the underlying global infrastructure that makes up the AWS Cloud. This includes regions, availability zones, and edge locations. Make sure you understand which services are globally or regionally defined.

You should also know the customer configurable building blocks of cloud services including VPCs, and subnets, and connectivity options such as Internet Gateways, VPN and Direct Connect. Also, ensure you know the difference between NAT Instances and NAT Gateways and the relative benefits of each service.

Example questions

Question: *What are the advantages of Availability Zones? (choose 2)*

1. They allow regional disaster recovery
2. They provide fault isolation
3. They enable the caching of data for faster delivery to end-users
4. They are connected by low-latency network connections
5. They enable you to connect your on-premises networks to AWS to form a hybrid cloud

Answer: 2+4, Each AWS region contains multiple distinct locations called Availability Zones (AZs). Each AZ is engineered to be isolated from failures in other AZs. An AZ is a data center, and in some cases, an AZ consists of multiple data centers. AZs within a region provide inexpensive, low-latency network connectivity to other zones in the same region. This allows you to replicate your data across data centers in a synchronous manner so that failover can be automated and be transparent for your users.

Question: *Which AWS support plans provide support via email, chat and phone? (choose 2)*

1. Basic
2. Business
3. Developer
4. Global
5. Enterprise

Answer: 2+5, only the business and enterprise plans provide support via email, chat and phone.

Resources

- [AWS Global Infrastructure](#)
- [Identity and Access Management](#)
- AWS Services: [AWS Compute](#), [AWS Storage](#), [AWS Networking](#), [AWS Databases](#), [Elastic Load Balancing and Auto Scaling](#), [Content Delivery and DNS](#), [Monitoring and Logging](#), [Notification Services](#), [Additional AWS Services](#)

Test Domain 4: Billing, Pricing, and Support

This domain makes up 12% of the exam and includes the following three objectives:

- 4.1 Compare and contrast the various pricing models for AWS
- 4.2 Recognize the various account structures in relation to AWS billing and pricing
- 4.3 Identify resources available for billing support

What you need to know

Most services on AWS are offered on a pay-per-use basis, but there are also options to reduce price by locking in to 1- or 3-year contracts with various options for payment. You need to understand these models and which services they apply to.

Make sure you understand what AWS charges you for and what is free of charge. For instance, inbound data transfer is free whereas outbound data transfer typically incurs costs.

Some services such as VPC, CloudFormation, and IAM are free but the resources you create with them may not be. You need to understand where costs may be incurred.

AWS accounts can be organized into Organizations for centralized management of policies and consolidated billing. You need to understand the various accounts structures and the benefits and use cases for implementing them.

For instance, you might want separate account structures to manage different policies for production and non-production resources, or you might implement consolidated billing to take advantage of volume discounts.

For billing support, you need to know the services and tools available to you and what levels of support you can get from AWS support plans.

Tools include AWS Cost Explorer, AWS Simple Monthly Calculator, and Total Cost of Ownership (TCO) calculator.

Example questions

Question: *What are two ways an AWS customer can reduce their monthly spend? (choose 2)*

1. Turn off resources that are not being used
2. Use more power-efficient instance types
3. Reserve capacity where suitable
4. Be efficient with usage of Security Groups
5. Reduce the amount of data ingress charges

Answer: 1+3, turning off resources that are not used can reduce spend. You can also use reserved instances to reduce the monthly spend at the expense of having to lock into a 1 or 3-year contract – good for stable workloads.

Question: *A company would like to maximize their potential volume and RI discounts across multiple accounts and also apply service control policies on member accounts. What can they use gain these benefits?*

1. AWS Budgets
2. AWS Cost Explorer
3. AWS IAM
4. AWS Organizations

Answer: 4, AWS Organizations enables you to create groups of AWS accounts and then centrally manage policies across those accounts. AWS Organizations provides consolidated billing in both feature sets, which allows you set up a single payment method in the organization's master account and still receive an invoice for individual activity in each member account. Volume pricing discounts can be applied to resources.

Resources

- Check out the AWS FAQs for each service on the AWS website
- [AWS Billing and Pricing](#)

The above content is taken from the following web site

Note :-

Weightage of domines are modified

The exam has the following content domains and weightings:

• **Domain 1: Cloud Concepts (24% of scored content)**

• **Domain 2: Security and Compliance (30% of scored content)**

• **Domain 3: Cloud Technology and Services (34% of scored content)**

• **Domain 4: Billing, Pricing, and Support (12% of scored content)**

From AWS exam guide

--- Taufic Aksa ---