

AWS Certified Solutions Architect - Associate (SAA-C03) Exam Guide

This is an adapted version of the AWS SAA-C03 Exam Guide that references where each topic is covered in the video course. See additional resources for the original exam guide, or download it from AWS's website [here](#).

Introduction

The AWS Certified Solutions Architect - Associate (SAA-C03) exam is intended for individuals who perform in a solutions architect role. The exam validates a candidate's ability to use AWS technologies to design solutions based on the AWS Well-Architected Framework.

The exam also validates a candidate's ability to complete the following tasks:

- Design solutions that incorporate AWS services to meet current business requirements and future projected needs
- Design architectures that are secure, resilient, high-performing, and cost-optimized
- Review existing solutions and determine improvements

Target candidate description

The target candidate should have at least 1 year of hands-on experience designing cloud solutions that use AWS services.

For a detailed list of specific tools and technologies that might be covered on the exam, as well as lists of in-scope and out-of-scope AWS services, refer to the Appendix.

Exam content

Response types

There are two types of questions on the exam:

- **Multiple choice:** Has one correct response and three incorrect responses (distractors)
- **Multiple response:** Has two or more correct responses out of five or more response options

Select one or more responses that best complete the statement or answer the question. Distractors, or incorrect answers, are response options that a candidate with incomplete knowledge or skill might choose. Distractors are generally plausible responses that match the content area.

Unanswered questions are scored as incorrect; there is no penalty for guessing. The exam includes 50 questions that will affect your score.

Unscored content

The exam includes 15 unscored questions that do not affect your score. AWS collects information about candidate performance on these unscored questions to evaluate these questions for future use as scored questions. These unscored questions are not identified on the exam.

Exam results

The AWS Certified Solutions Architect - Associate exam is a pass or fail exam. The exam is scored against a minimum standard established by AWS professionals who follow certification industry best practices and guidelines.

Your results for the exam are reported as a scaled score of 100-1,000. The minimum passing score is 720. Your score shows how you performed on the exam as a whole and whether or not you passed. Scaled scoring models help equate scores across multiple exam forms that might have slightly different difficulty levels.

Your score report could contain a table of classifications of your performance at each section level. This information provides general feedback about your exam performance. The exam uses a compensatory scoring model, which means that you do not need to achieve a passing score in each section. You need to pass only the overall exam.

Each section of the exam has a specific weighting, so some sections have more questions than other sections have. The table contains general information that highlights your strengths and weaknesses. Use caution when interpreting section-level feedback. Candidates who pass the exam will not receive this additional information.

Content outline

This exam guide includes weightings, test domains, and task statements for the exam. It is not a comprehensive listing of the content on the exam. However, additional context for each of the task statements is available to help guide your preparation for the exam. The following table lists the main content domains and their weightings. The table precedes the complete exam content outline, which includes the additional context. The percentage in each domain represents only scored content.

Domain	% of Exam
Domain 1: Design Secure Architectures	30%
Domain 2: Design Resilient Architectures	26%
Domain 3: Design High-Performing Architectures	24%
Domain 4: Design Cost-Optimized Architectures	20%
TOTAL	100%

Domain 1: Design Secure Architectures

Task Statement 1.1 - Design secure access to AWS resources.

Knowledge of:

Obj #	Service/Feature Covered	Episode(s)
1.1 K1	Access controls and management across multiple accounts	Ch 2 - Storage Access Security Lab Ch 7 - Root User, Authentication, Authorization Policies, Multiple Permissions Ch 8 - User Accounts, IAM Roles Ch 10 - Configuring ACLs and NACLs Lab Ch 11 - Cognito Ch 15 - Secure Design Scenario
1.1 K2	AWS federated access and identity services (for example, AWS Identity and Access Management [IAM], AWS Single Sign-On [AWS SSO])	Ch 2 - Storage Access Security Lab Ch 7 - Identity and Access Management (IAM) Overview, Principals, Root User, Authentication, Authorization Policies, Multiple Permissions, Federated Directory Services Ch 8 - User Accounts, IAM Roles, Policy Conditions Ch 11 - Cognito, Organizations Ch 15 - Secure Design
1.1 K3	AWS global infrastructure (for example, Availability Zones, AWS Regions)	Ch 1 - Regions and Availability Ch 15 - General Best Practices
1.1 K4	AWS security best practices (for example, the principle of least privilege)	Ch 7 - Authorization Policies, Multi-Factor Authentication, Key Rotation, Data Security Control Ch 8 - Principle of Least Privilege, Policy Conditions Ch 15 - Secure Design, Secure Design Scenario
1.1 K5	The AWS shared responsibility model	Ch 1 - AWS Security and Compliance Ch 7 - Shared Responsibility Model Ch 15 - Secure Design

Skills in:

Obj #	Service/Feature Covered	Episode(s)
1.1 S1	Applying AWS security best practices to IAM users and root users (for example, multi-factor authentication [MFA])	Ch 7 - Root User, Authentication, Authorization Policies, Multi-Factor Authentication, Multiple Permissions Ch 8 - User Accounts, Principle of Least Privilege, IAM Roles Ch 12 - Database Security Ch 15 - Secure Design, Secure Design Scenario
1.1 S2	Designing a flexible authorization model that includes IAM users,	Ch 7 - Principals, Multiple

	groups, roles, and policies	Permissions, IAM Roles, Policy Conditions Ch 15 - Secure Design
1.1 S3	Designing a role-based access control strategy (for example, AWS Security Token Service [AWS STS], role switching, cross-account access)	Ch 7 - Authorization Policies, Multiple Permissions Ch 8 - Amazon STS, Principle of Least Privilege, IAM Roles Ch 15 - Secure Design Scenario
1.1 S4	Designing a security strategy for multiple AWS accounts (for example, AWS Control Tower, service control policies [SCPs])	Ch 7 - Multiple Permissions Ch 8 - Principle of Least Privilege, Policy Conditions, AWS Control Tower, Service Control Policies Ch 15 - Secure Design, Secure Design Scenario
1.1 S5	Determining the appropriate use of resource policies for AWS services	Ch 7 - Authorization Policies Ch 8 - User Accounts, Policy Conditions Ch 12 - Data Security Policies Ch 15 - Secure Design Scenario
1.1 S6	Determining when to federate a directory service with IAM roles	Ch 7 - Federated Directory Services

Task Statement 1.2 - Design secure workloads and applications.

Knowledge of:

Obj #	Service/Feature Covered	Episode(s)
1.2 K1	Application configuration and credentials security	Ch 8 - Password Policies, Credential Rotation Ch 11 - Additional Application Services Ch 14 - Desktop & App Streaming Ch 15 - Secure Design Scenario
1.2 K2	AWS service endpoints	Ch 2 - EFS and PrivateLink Ch 3 - Endpoints
1.2 K3	Control ports, protocols, and network traffic on AWS	Ch 10 - Flow Logs Ch 15 - Secure Design Scenario
1.2 K4	Secure application access	Ch 8 - Key Security Services, Additional Security Services Ch 11 - Additional Application Services, Cognito Ch 15 - Secure Design Scenario
1.2 K5	Security services with appropriate use cases (for example, Amazon Cognito, Amazon GuardDuty, Amazon Macie)	Ch 7 - AWS Security Hub Ch 8 - Additional Security Services Ch 11 - Cognito, CloudWatch, Trusted Advisor
1.2 K6	Threat vectors external to AWS (for example, DDoS, SQL injection)	Ch 8 - Key Security Services

Skills in:

Obj #	Service/Feature Covered	Episode(s)
1.2 S1	Designing VPC architectures with security components (for example, security groups, route tables, network ACLs, NAT gateways)	Ch 3 - Creating a VPC Lab, Security Groups Overview, Network Address Translation (NAT) Ch 6 - Working with Security Groups, Working with Security Groups Lab Ch 10 - Configuring ACLs and NACLs Lab Ch 15 - Secure Design Scenario
1.2 S2	Determining network segmentation strategies (for example, using public subnets and private subnets)	Ch 3 - Creating a VPC Lab
1.2 S3	Integrating AWS services to secure applications (for example, AWS Shield, AWS WAF, AWS SSO, AWS Secrets Manager)	Ch 8 - Key Security Services Ch 11 - Additional Application Services, Web Application Firewall (WAF), Cognito
1.2 S4	Securing external network connections to and from the AWS Cloud (for example, VPN, AWS Direct Connect)	Ch 2 - EFS and PrivateLink Ch 3 - Creating a VPC Lab, Gateways (VPGs and CGWs), VPN Configuration Options

Task Statement 1.3 - Determine appropriate data security controls.

Knowledge of:

Obj #	Service/Feature Covered	Episode(s)
1.3 K1	Data access and governance	Ch 2 - Storage Access Security Lab Ch 7 - Principals, Root User, Authorization Policies, Multi-Factor Authentication, Multiple Permissions, Data Security Control Ch 8 - User Accounts Ch 11 - Cognito Ch 12 - Database Security, Data Security Policies
1.3 K2	Data recovery	Ch 7 - Data Security Control
1.3 K3	Data retention and classification	Ch 7 - Data Security Control Ch 12 - Data Security Policies
1.3 K4	Encryption and appropriate key management	Ch 7 - Authentication, Key Rotation, Data Security Control Ch 8 - User Accounts Ch 12 - Redshift

Skills in:

Obj #	Service/Feature Covered	Episode(s)
1.3 S1	Aligning AWS technologies to meet compliance requirements	Ch 5 - Dedicated Hosts Ch 7 - AWS Compliance Program Ch 7 - Multiple Permissions Ch 8 - CloudTrail Ch 11 - Reference Architectures Ch 12 - Data Security Policies
1.3 S2	Encrypting data at rest (for example, AWS Key Management Service)	Ch 12 - Database Security

	[AWS KMS])	Ch 14 - Security Services Lab Ch 15 - Secure Design, Secure Design Scenario
1.3 S3	Encrypting data in transit (for example, AWS Certificate Manager [ACM] using TLS)	Ch 11 - Kinesis Data Streams and Firehose Ch 15 - Secure Design, Secure Design Scenario
1.3 S4	Implementing access policies for encryption keys	Ch 7 - Key Rotation Ch 15 - Secure Design Scenario
1.3 S5	Implementing data backups and replications	Ch 15 - Secure Design Scenario Ch 15 - General Best Practices
1.3 S6	Implementing policies for data access, lifecycle, and protection	Ch 2 - Storage Access Security Lab Ch 8 - User Accounts Ch 12 - Data Security Policies Ch 15 - Secure Design Scenario
1.3 S7	Rotating encryption keys and renewing certificates	Ch 7 - Key Rotation

Domain 2: Design Resilient Architectures

Task Statement 2.1 - Design scalable and loosely coupled architectures.

Knowledge of:

Obj #	Service/Feature Covered	Episode(s)
2.1 K1	API creation and management (for example, Amazon API Gateway, REST API)	Ch 2 - S3 Terminology Ch 11 - API Gateway
2.1 K2	AWS managed services with appropriate use cases (for example, AWS Transfer Family, Amazon Simple Queue Service [Amazon SQS], Secrets Manager)	Ch 8 - Key Security Services Ch 11 - Simple Queue Service (SQS)
2.1 K3	Caching strategies	Ch 11 - CloudFront
2.1 K4	Design principles for microservices (for example, stateless workloads compared with stateful workloads)	Ch 15 - Resilient Design
2.1 K5	Event-driven architectures	Ch 15 - General Best Practices
2.1 K6	Horizontal scaling and vertical scaling	Ch 15 - Resilient Design
2.1 K7	How to appropriately use edge accelerators (for example, content delivery network [CDN])	Ch 11 - CloudFront
2.1 K8	How to migrate applications into containers	Not specifically covered, find more information here
2.1 K9	Load balancing concepts (for example, Application Load Balancer)	Ch 9 - Load Balancing Concepts, Elastic Load Balancing (ELB) Ch 15 - General Best Practices
2.1 K10	Multi-tier architectures	Ch 15 - General Best Practices
2.1 K11	Queuing and messaging concepts (for example, publish/subscribe)	Ch 11 - Simple Queue Service (SQS), Simple Notification Service (SNS)
2.1 K12	Serverless technologies and patterns (for example, AWS Fargate, AWS Lambda)	Ch 11 - Lambda, API Gateway Ch 15 - Performant Design
2.1 K13	Storage types with associated characteristics (for example, object, file, block)	Ch 2 - Elastic Block Store (EBS), Elastic File System (EFS)
2.1 K14	The orchestration of containers (for example, Amazon Elastic Container Service [Amazon ECS], Amazon Elastic Kubernetes Service [Amazon EKS])	Ch 6 - Elastic Container Service (ECS)
2.1 K15	When to use read replicas	Ch 13 - Configuration Lab
2.1 K16	Workflow orchestration (for example, AWS Step Functions)	Ch 11 - Simple Workflow (SWF),

Skills in:

Obj #	Service/Feature Covered	Episode(s)
2.1 S1	Designing event-driven, microservice, and/or multi-tier architectures based on requirements	Ch 15 - Resilient Design
2.1 S2	Determining scaling strategies for components used in an architecture design	Ch 15 - Resilient Design, Performant Design
2.1 S3	Determining the AWS services required to achieve loose coupling based on requirements	Ch 15 - Resilient Design, General Best Practices
2.1 S4	Determining when to use containers	Not specifically covered, find more information here
2.1 S5	Determining when to use serverless technologies and patterns	Ch 11 - API Gateway Ch 15 - Performant Design
2.1 S6	Recommending appropriate compute, storage, networking, and database technologies based on requirements	Ch 12 - Database Types, most of chapter 12
2.1 S7	Using purpose-built AWS services for workloads	Ch 14 - AWS Solutions

Task Statement 2.2 - Design highly available and/or fault-tolerant architectures.

Knowledge of:

Obj #	Service/Feature Covered	Episode(s)
2.2 K1	AWS global infrastructure (for example, Availability Zones, AWS Regions, Amazon Route 53)	Ch 1 - Regions and Availability Ch 10 - Configuring Route 53 Lab Ch 15 - General Best Practices
2.2 K2	AWS managed services with appropriate use cases (for example, Amazon Comprehend, Amazon Polly)	Ch 11 - CloudWatch
2.2 K3	Basic networking concepts (for example, route tables)	Ch 10 - DNS
2.2 K4	Disaster recovery (DR) strategies (for example, backup and restore, pilot light, warm standby, active-active failover, recovery point objective [RPO], recovery time objective [RTO])	Ch 6 - Advanced EC2 Management Ch 13 - Restore Lab Ch 14 - AWS Backup Ch 15 - General Best Practices
2.2 K5	Distributed design patterns	Throughout chapter 15
2.2 K6	Failover strategies	Ch 6 - Advanced EC2 Management Ch 11 - CloudWatch
2.2 K7	Immutable infrastructure	Throughout chapter 15
2.2 K8	Load balancing concepts (for example, Application Load Balancer)	Ch 9 - Load Balancer Concepts, Elastic Load Balancing (ELB) Ch 15 - General Best Practices
2.2 K9	Proxy concepts (for example, Amazon RDS Proxy)	Not specifically covered, find more information here
2.2 K10	Service quotas and throttling (for example, how to configure the service quotas for a workload in a standby environment)	Ch 15 - Cost Optimization
2.2 K11	Storage options and characteristics (for example, durability, replication)	Ch 2 - Elastic Block Store (EBS), Storage Performance Ch 4 - EBS and EC2
2.2 K12	Workload visibility (for example, AWS X-Ray)	Not specifically covered, find more information here

Skills in:

Obj #	Service/Feature Covered	Episode(s)
2.2 S1	Determining automation strategies to ensure infrastructure integrity	Ch 6 - Elastic Beanstalk Environment Ch 15 - Resilient Design Scenario
2.2 S2	Determining the AWS services required to provide a highly available and/or fault-tolerant architecture across AWS Regions or Availability Zones	Ch 15 - General Best Practices
2.2 S3	Identifying metrics based on business requirements to deliver a highly available solution	Ch 15 - Resilient Design Scenario
2.2 S4	Implementing designs to mitigate single points of failure	Ch 15 - Resilient Design Scenario
2.2 S5	Implementing strategies to ensure the durability and availability of data (for example, backups)	Ch 2 - Elastic Block Store (EBS) Ch 14 - AWS Backup Ch 15 - Resilient Design Scenario Ch 15 - General Best Practices
2.2 S6	Selecting an appropriate disaster recovery strategy to meet business requirements	Ch 15 - Resilient Design Scenario
2.2 S7	Using AWS services that improve the reliability of legacy applications and applications not built for the cloud (for example, when application changes are not possible)	Ch 2 - S3 and Tape Gateway
2.2 S8	Using purpose-built AWS services for workloads	Ch 11 - CloudFormation, CloudFormation Properties Ch 15 - General Best Practices

Domain 3: Design High-Performing Architectures

Task Statement 3.1 - Determine high-performing and/or scalable storage solutions.

Knowledge of:

Obj #	Service/Feature Covered	Episode(s)
3.1 K1	Hybrid storage solutions to meet business requirements	Ch 2 - Integrating On-Premises Storage
3.1 K2	Storage services with appropriate use cases (for example, Amazon S3, Amazon Elastic File System [Amazon EFS], Amazon Elastic Block Store [Amazon EBS])	Ch 2 - Storage Services, S3 Storage Class, S3 Terminology, S3 Advanced Features, S3 Bucket Properties, Glacier, S3 and Tape Gateway, Elastic Block Store (EBS), Elastic File System (EFS), Creating an EFS File System Lab Ch 4 - EBS and EC2 Ch 15 - Performant Design, Performant Design Scenario
3.1 K3	Storage types with associated characteristics (for example, object, file, block)	Ch 2 - Storage Services, Elastic Block Store (EBS), Creating EBS Volumes Lab, Elastic File System (EFS) Ch 4 - EBS and EC2 Ch 15 - Performant Design

Skills in:

Obj #	Service/Feature Covered	Episode(s)
3.1 S1	Determining storage services and configurations that meet performance demands	Ch 2 - Creating S3 Buckets Lab, S3 Managing Objects Lab, Setting up a Glacier Vault Lab, S3 and Tape Gateway, S3 Enhanced Features, Elastic Block Store (EBS), Creating EBS Volumes Lab, Storage Performance Ch 4 - EBS and EC2 Ch 15 - Performant Design, Performant Design Scenario
3.1 S2	Determining storage services that can scale to accommodate future needs	Ch 2 - S3 Enhanced Features Ch 15 - Performant Design, Performant Design Scenario

Task Statement 3.2 - Design high-performing and elastic compute solutions.

Knowledge of:

Obj #	Service/Feature Covered	Episode(s)
3.2 K1	AWS compute services with appropriate use cases (for example, AWS Batch, Amazon EMR, Fargate)	Ch 4 - EC2 Overview Ch 6 - AWS Batch Ch 11 - Elastic MapReduce (EMR)
3.2 K2	Distributed computing concepts supported by AWS global infrastructure and edge services	Ch 11 - CloudFront
3.2 K3	Queuing and messaging concepts (for example, publish/subscribe)	Ch 11 - Simple Queue Service (SQS), Simple Notification Service (SNS) Ch 15 - Performant Design Scenario
3.2 K4	Scalability capabilities with appropriate use cases (for example, Amazon EC2 Auto Scaling, AWS Auto Scaling)	Ch 9 - Auto Scaling Overview, Auto Scaling Groups, Termination Policies, Auto Scaling Configuration Lab, Launch Methods Ch 15 - Resilient Design, Performant Design Ch 15 - General Best Practices
3.2 K5	Serverless technologies and patterns (for example, Lambda, Fargate)	Ch 11 - Lambda, API Gateways
3.2 K6	The orchestration of containers (for example, Amazon ECS, Amazon EKS)	Ch 6 - Elastic Container Service (ECS)

Skills in:

Obj #	Service/Feature Covered	Episode(s)
3.2 S1	Decoupling workloads so that components can scale independently	Ch 11 - Simple Queue Service (SQS) Ch 15 - General Best Practices
3.2 S2	Identifying metrics and conditions to perform scaling actions	Ch 15 - Resilient Design Scenario, Performant Design, Performant Design Scenario
3.2 S3	Selecting the appropriate compute options and features (for example, EC2 instance types) to meet business requirements	Ch 4 - EC2 Instance Types, AWS Compute Optimizer Ch 5 - Launching an EC2 Linux Instance Lab, Configuring an EC2 Linux Instance Lab, Setting up an

		EC2 Windows Instance Lab, Shared Tenancy, AMI Virtualization Ch 6 - Instance Management, Connecting to Instances Lab Ch 15 - Performant Design Scenario
3.2 S4	Selecting the appropriate resource type and size (for example, the amount of Lambda memory) to meet business requirements	Ch 5 - Launching an EC2 Linux Instance Lab, Configuring an EC2 Linux Instance Lab, Setting up an EC2 Windows Instance Lab

Task Statement 3.3 - Determine high-performing database solutions.

Knowledge of:

Obj #	Service/Feature Covered	Episode(s)
3.3 K1	AWS global infrastructure (for example, Availability Zones, AWS Regions)	Ch 12 - High Availability Solutions Ch 13 - Configuration Lab Ch 15 - Resilient Design Scenario Ch 15 - General Best Practices
3.3 K2	Caching strategies and services (for example, Amazon ElastiCache)	Ch 14 - ElastiCache
3.3 K3	Data access patterns (for example, read-intensive compared with write-intensive)	Ch 12 - Relational Databases
3.3 K4	Database capacity planning (for example, capacity units, instance types, Provisioned IOPS)	Ch 2 - Storage Performance
3.3 K5	Database connections and proxies	Ch 11 - Additional Application Services
3.3 K6	Database engines with appropriate use cases (for example, heterogeneous migrations, homogeneous migrations)	Ch 12 - Database Types, Aurora Ch 13 - MySQL Lab Ch 15 - Resilient Design Scenario
3.3 K7	Database replication (for example, read replicas)	Ch 12 - High Availability Solutions, Scalability Solutions Ch 13 - Configuration Lab Ch 15 - Performant Design Scenario
3.3 K8	Database types and services (for example, serverless, relational compared with non-relational, in-memory)	Ch 12 - Database Types, Relational Databases, Aurora

Skills in:

Obj #	Service/Feature Covered	Episode(s)
3.3 S1	Configuring read replicas to meet business requirements	Ch 12 - Scalability Solutions Ch 13 - Configuration Lab Ch 15 - Performant Design
3.3 S2	Designing database architectures	Ch 12 - Database Hosting Methods
3.3 S3	Determining an appropriate database engine (for example, MySQL compared with PostgreSQL)	Ch 12 - Database Types Ch 13 - MySQL Lab Ch 15 - Widget Makers Scenario
3.3 S4	Determining an appropriate database type (for example, Amazon Aurora, Amazon DynamoDB)	Ch 12 - Database Types, Aurora, DynamoDB
3.3 S5	Integrating caching to meet business requirements	Ch 14 - ElastiCache

Task Statement 3.4 - Determine high-performing and/or scalable network architectures.

Knowledge of:

Obj #	Service/Feature Covered	Episode(s)
3.4 K1	Edge networking services with appropriate use cases (for example, Amazon CloudFront, AWS Global Accelerator)	Ch 11 - CloudFront
3.4 K2	How to design network architecture (for example, subnet tiers, routing, IP addressing)	Ch 3 - Virtual Private Cloud (VPC) Overview, Configuring DHCP Options Lab, Elastic IP Addresses (EIPs), Elastic Network Interfaces (ENIs), Endpoints, VPC Peering, Creating a VPC Peering Connection Lab
3.4 K3	Load balancing concepts (for example, Application Load Balancer)	Ch 9 - Load Balancer Concepts, Elastic Load Balancing (ELB)
3.4 K4	Network connection options (for example, AWS VPN, Direct Connect, AWS PrivateLink)	Ch 2 - EFS and PrivateLink Ch 3 - Virtual Private Cloud (VPC) Overview, Creating a VPC Lab, Endpoints, VPC Peering, Creating a VPC Peering Connection Lab, Gateways (VPGs and CGWs), VPN Configuration Options

Skills in:

Obj #	Service/Feature Covered	Episode(s)
3.4 S1	Creating a network topology for various architectures (for example, global, hybrid, multi-tier)	Ch 3 - Endpoints, VPC Peering, Creating a VPC Peering Connection Lab
3.4 S2	Determining network configurations that can scale to accommodate future needs	Ch 3 - Configuring DHCP Options Lab, Elastic IP Addresses (EIPs), Elastic Network Interfaces (ENIs)
3.4 S3	Determining the appropriate placement of resources to meet business requirements	Ch 3 - VPC Peering, Creating a VPC Peering Connection Lab
3.4 S4	Selecting the appropriate load balancing strategy	Ch 9 - Load Balancer Concepts, Elastic Load Balancing (ELB)

Task Statement 3.5 - Determine high-performing data ingestion and transformation solutions.

Knowledge of:

Obj #	Service/Feature Covered	Episode(s)
3.5 K1	Data analytics and visualization services with appropriate use cases (for example, Amazon Athena, AWS Lake Formation, Amazon QuickSight)	Ch 11 - Elastic MapReduce (EMR) Ch 14 - Analytics Engines
3.5 K2	Data ingestion patterns (for example, frequency)	Ch 15 - Performant Design Scenario
3.5 K3	Data transfer services with appropriate use cases (for example, AWS DataSync, AWS Storage Gateway)	Ch 2 - Integrating On-Premises Storage
3.5 K4	Data transformation services with appropriate use cases (for example, AWS Glue)	Ch 14 - Analytics Engines
3.5 K5	Secure access to ingestion access points	Ch 2 - Storage Access Security Lab
3.5 K6	Sizes and speeds needed to meet business requirements	Ch 15 - Performant Design

		Scenario
3.5 K7	Streaming data services with appropriate use cases (for example, Amazon Kinesis)	Ch 11 - Kinesis Ch 14 - Media Content Delivery

Skills in:

Obj #	Service/Feature Covered	Episode(s)
3.5 S1	Building and securing data lakes	Ch 1 - Services, Part 3
3.5 S2	Designing data streaming architectures	Ch 11 - Kinesis, Kinesis Data Streams and Firehose, Kinesis Data Analytics
3.5 S3	Designing data transfer solutions	Ch 2 - Storage Services, S3 Storage Class, Glacier
3.5 S4	Implementing visualization strategies	Ch 1 - Services, Part 3
3.5 S5	Selecting appropriate compute options for data processing (for example, Amazon EMR)	Ch 11 - Elastic MapReduce (EMR)
3.5 S6	Selecting appropriate configurations for ingestion	Ch 2 - Storage Services, S3 Storage Class, Glacier
3.5 S7	Transforming data between formats (for example, .csv to .parquet)	Ch 14 - Media Content Delivery Services

Domain 4: Design Cost-Optimized Architectures

Task Statement 4.1 - Design cost-optimized storage solutions.

Knowledge of:

Obj #	Service/Feature Covered	Episode(s)
4.1 K1	Access options (for example, an S3 bucket with Requester Pays object storage)	Ch 15 - Cost Optimization
4.1 K2	AWS cost management service features (for example, cost allocation tags, multi-account billing)	Ch 5 - Shared Tenancy Ch 6 - Advanced EC2 Management Ch 11 - Trusted Advisor, Organizations Ch 15 - Cost Optimization
4.1 K3	AWS cost management tools with appropriate use cases (for example, AWS Cost Explorer, AWS Budgets, AWS Cost and Usage Report)	Ch 11 - Trusted Advisor Ch 14 - AWS Cost Explorer Ch 15 - Cost Optimization
4.1 K4	AWS storage services with appropriate use cases (for example, Amazon FSx, Amazon EFS, Amazon S3, Amazon EBS)	Ch 2 - Storage Services, Elastic Block Store (EBS), Elastic File System (EFS), Creating an EFS File System Lab, Intro to Amazon FSx, Hands on with FSx Ch 4 - EBS and EC2
4.1 K5	Backup strategies	Ch 2 - S3 and Tape Gateway Ch 14 - AWS Backup Ch 15 - General Best Practices
4.1 K6	Block storage options (for example, hard disk drive [HDD] volume types, solid state drive [SSD] volume types)	Ch 2 - Elastic Block Store (EBS), Storage Performance Ch 4 - EBS and EC2
4.1 K7	Data lifecycles	Ch 2 - S3 Enhanced Features
4.1 K8	Hybrid storage options (for example, DataSync, Transfer Family, Storage Gateway)	Ch 2 - Integrating On-Premises Storage
4.1 K9	Storage access patterns	Ch 15 - Cost Optimization
4.1 K10	Storage tiering (for example, cold tiering for object storage)	Ch 2 - S3 Enhanced Features

4.1 K11	Storage types with associated characteristics (for example, object, file, block)	Ch 2 - Elastic Block Store (EBS), Elastic File System (EFS)
---------	--	---

Skills in:

Obj #	Service/Feature Covered	Episode(s)
4.1 S1	Designing appropriate storage strategies (for example, batch uploads to Amazon S3 compared with individual uploads)	Ch 2 - S3 Enhanced Features
4.1 S2	Determining the correct storage size for a workload	Ch 15 - Cost Optimization Scenario
4.1 S3	Determining the lowest cost method of transferring data for a workload to AWS storage	Ch 2 - Storage Services, S3 Storage Class, S3 Advanced Features, Glacier, Storage Performance Ch 15 - Cost Optimization
4.1 S4	Determining when storage auto scaling is required	Ch 9 - Auto Scaling Overview, Auto Scaling Groups, Termination Policies, Auto Scaling Configuration Lab, Launch Methods Ch 15 - Cost Optimization Scenario, General Best Practices
4.1 S5	Managing S3 object lifecycles	Ch 2 - S3 Enhanced Features
4.1 S6	Selecting the appropriate backup and/or archival solution	Ch 2 - S3 and Tape Gateway Ch 15 - Cost Optimization Scenario
4.1 S7	Selecting the appropriate service for data migration to storage services	Ch 2 - Storage Services, S3 Storage Class, Glacier
4.1 S8	Selecting the appropriate storage tier	Ch 2 - S3 Enhanced Features
4.1 S9	Selecting the correct data lifecycle for storage	Ch 2 - S3 Enhanced Features
4.1 S10	Selecting the most cost-effective storage service for a workload	Ch 2 - Storage Services, S3 Storage Class, S3 Advanced Features, Glacier, Storage Performance, Setting up a Glacier Vault Lab Ch 5 - Shared Tenancy Ch 15 - Cost Optimization Scenario

Task Statement 4.2 - Design cost-optimized compute solutions.

Knowledge of:

Obj #	Service/Feature Covered	Episode(s)
4.2 K1	AWS cost management service features (for example, cost allocation tags, multi-account billing)	Ch 5 - Shared Tenancy Ch 6 - Advanced EC2 Management Ch 11 - Trusted Advisor, Organizations Ch 15 - Cost Optimization
4.2 K2	AWS cost management tools with appropriate use cases (for example, Cost Explorer, AWS Budgets, AWS Cost and Usage Report)	Ch 11 - Trusted Advisor Ch 14 - AWS Cost Explorer Ch 15 - Cost Optimization
4.2 K3	AWS global infrastructure (for example, Availability Zones, AWS Regions)	Ch 15 - General Best Practices
4.2 K4	AWS purchasing options (for example, Spot Instances, Reserved Instances, Savings Plans)	Ch 5 - Shared Tenancy Ch 15 - Cost Optimization
4.2 K5	Distributed compute strategies (for example, edge processing)	Ch 11 - CloudFront
4.2 K6	Hybrid compute options (for example, AWS Outposts, AWS Snowball Edge)	Ch 1 - Services, Part 3 Ch 2 - S3 Storage Class
4.2 K7	Instance types, families, and sizes (for example, memory optimized,	Ch 4 - EC2 Instance Types

	compute optimized, virtualization)	Ch 5 - Shared Tenancy, Dedicated Hosts, AMI Virtualization
4.2 K8	Optimization of compute utilization (for example, containers, serverless computing, microservices)	Ch 5 - Dedicated Hosts Ch 6 - Advanced EC2 Management Ch 15 - Performant Design
4.2 K9	Scaling strategies (for example, auto scaling, hibernation)	Ch 9 - Auto Scaling Overview, Auto Scaling Groups, Termination Policies, Auto Scaling Configuration Lab, Launch Methods

Skills in:

Obj #	Service/Feature Covered	Episode(s)
4.2 S1	Determining an appropriate load balancing strategy (for example, Application Load Balancer [Layer 7] compared with Network Load Balancer [Layer 4] compared with Gateway Load Balancer)	Ch 9 - Elastic Load Balancing (ELB)
4.2 S2	Determining appropriate scaling methods and strategies for elastic workloads (for example, horizontal compared with vertical, EC2 hibernation)	Ch 9 - Auto Scaling Groups, Auto Scaling Configuration Lab
4.2 S3	Determining cost-effective AWS compute services with appropriate use cases (for example, Lambda, Amazon EC2, Fargate)	Ch 4 - EC2 Overview, EC2 Pricing Ch 15 - Cost Optimization Scenario
4.2 S4	Determining the required availability for different classes of workloads (for example, production workloads, non-production workloads)	Ch 15 - Cost Optimization Scenario
4.2 S5	Selecting the appropriate instance family for a workload	Ch 4 - EC2 Instance Types Ch 15 - Secure Design Scenario
4.2 S6	Selecting the appropriate instance size for a workload	Ch 4 - EC2 Instance Types Ch 15 - Secure Design Scenario

Task Statement 4.3 - Design cost-optimized database solutions.

Knowledge of:

Obj #	Service/Feature Covered	Episode(s)
4.3 K1	AWS cost management service features (for example, cost allocation tags, multi-account billing)	Ch 11 - Trusted Advisor Ch 15 - Cost Optimization
4.3 K2	AWS cost management tools with appropriate use cases (for example, Cost Explorer, AWS Budgets, AWS Cost and Usage Report)	Ch 11 - Trusted Advisor Ch 14 - AWS Cost Explorer Ch 15 - Cost Optimization
4.3 K3	Caching strategies	Ch 14 - ElastiCache
4.3 K4	Data retention policies	Ch 7 - Data Security Control
4.3 K5	Database capacity planning (for example, capacity units)	Ch 12 - DynamoDB
4.3 K6	Database connections and proxies	Ch 12 - Database Hosting Methods
4.3 K7	Database engines with appropriate use cases (for example, heterogeneous migrations, homogeneous migrations)	Ch 12 - Aurora
4.3 K8	Database replication (for example, read replicas)	Ch 12 - High Availability Solutions, Scalability Solutions Ch 13 - Configuration Lab Ch 15 - Cost Optimization Scenario
4.3 K9	Database types and services (for example, relational compared with non-relational, Aurora, DynamoDB)	Ch 12 - Relational Databases, Aurora, DynamoDB

Skills in:

Obj #	Service/Feature Covered	Episode(s)
4.3 S1	Designing appropriate backup and retention policies (for example, snapshot frequency)	Ch 12 - Redshift Ch 13 - Backups Lab, Snapshots Lab Ch 15 - Cost Optimization Scenario
4.3 S2	Determining an appropriate database engine (for example, MySQL compared with PostgreSQL)	Ch 12 - DynamoDB, most of chapter 12 Ch 13 - MySQL Lab
4.3 S3	Determining cost-effective AWS database services with appropriate use cases (for example, DynamoDB compared with Amazon RDS, serverless)	Ch 12 - DynamoDB, Monitoring Lab Ch 15 - Cost Optimization Scenario
4.3 S4	Determining cost-effective AWS database types (for example, time series format, columnar format)	Ch 12 - Redshift
4.3 S5	Migrating database schemas and data to different locations and/or different database engines	Ch 12 - Database Hosting Methods, Scalability Solutions

Task Statement 4.4 - Design cost-optimized network architectures.

Knowledge of:

Obj #	Service/Feature Covered	Episode(s)
4.4 K1	AWS cost management service features (for example, cost allocation tags, multi-account billing)	Ch 11 - Trusted Advisor Ch 15 - Cost Optimization
4.4 K2	AWS cost management tools with appropriate use cases (for example, Cost Explorer, AWS Budgets, AWS Cost and Usage Report)	Ch 11 - Trusted Advisor Ch 14 - AWS Cost Explorer Ch 15 - Cost Optimization
4.4 K3	Load balancing concepts (for example, Application Load Balancer)	Ch 9 - Load Balancer Concepts
4.4 K4	NAT gateways (for example, NAT instance costs compared with NAT gateway costs)	Ch 3 - Network Address Translation (NAT)
4.4 K5	Network connectivity (for example, private lines, dedicated lines, VPNs)	Ch 3 - Virtual Private Cloud (VPC) Overview, Creating a VPC Lab, Endpoints, VPC Peering, Creating a VPC Peering Connection Lab, Gateways (VPGs and CGWs)
4.4 K6	Network routing, topology, and peering (for example, AWS Transit Gateway, VPC peering)	Ch 3 - Endpoints, VPC Peering, Creating a VPC Peering Connection Lab Ch 14 - AWS Transit Gateway
4.4 K7	Network services with appropriate use cases (for example, DNS)	Ch 3 - Configuring DHCP Options Lab, Endpoints, VPC Peering, Creating a VPC Peering Connection Lab, Gateways (VPGs and CGWs) Ch 10 - DNS, Configuring DNS Lab, Configuring Route 53 Lab

Skills in:

Obj #	Service/Feature Covered	Episode(s)
4.4 S1	Configuring appropriate NAT gateway types for a network (for example, a single shared NAT gateway compared with NAT gateways for each Availability Zone)	Ch 3 - Network Address Translation (NAT)
4.4 S2	Configuring appropriate network connections (for example, Direct Connect compared with VPN compared with internet)	Ch 3 - Creating a VPC Lab, Endpoints, VPC Peering, Creating a VPC Peering Connection Lab, Gateways (VPGs and CGWs) Ch 6 - Connecting to Instances Lab
4.4 S3	Configuring appropriate network routes to minimize network transfer costs (for example, Region to Region, Availability Zone to Availability Zone, private to public, Global Accelerator, VPC endpoints)	Ch 3 - Endpoints
4.4 S4	Determining strategic needs for content delivery networks (CDNs) and edge caching	Ch 11 - CloudFront
4.4 S5	Reviewing existing workloads for network optimizations	Ch 10 - Flow Logs Ch 15 - Cost Optimization
4.4 S6	Selecting an appropriate throttling strategy	Ch 15 - Cost Optimization
4.4 S7	Selecting the appropriate bandwidth allocation for a network device (for example, a single VPN compared with multiple VPNs, Direct Connect speed)	Ch 3 - Creating a VPC Lab

Appendix

Which key tools, technologies, and concepts might be covered on the exam?

The following is a non-exhaustive list of the tools and technologies that could appear on the exam. This list is subject to change and is provided to help you understand the general scope of services, features, or technologies on the exam. The general tools and technologies in this list appear in no particular order. AWS services are grouped according to their primary functions. While some of these technologies will likely be covered more than others on the exam, the order and placement of them in this list is no indication of relative weight or importance:

NOTE: This appendix maps the services on the AWS SAA-C03 exam objectives to the video chapters and episodes for your reference.

Service/Feature Covered	Episode(s)
Compute	For more information, check out AWS's info page here .
Cost management	Ch 4 - AWS Compute Optimizer Ch 6 - Advanced EC2 Management Ch 11 - Trusted Advisor Ch 14 - AWS Cost Explorer Ch 15 - Cost Optimization, Cost Optimization Scenario For more information, check out AWS's info page here .
Database	Chapters 12 and 13 For more information, check out AWS's info page here .
Disaster recovery	Ch 6 - Advanced EC2 Management Ch 13 - Restore Lab Ch 14 - AWS Backup Ch 15 - Resilient Design Scenario, General Best Practices For more information, check out AWS's info page here .
High performance	All throughout Ch 15 - Performant Design, Performant Design Scenario For more information, check out AWS's info page here .
Management and governance	All throughout For more information, check out AWS's info page here .
Microservices and component decoupling	Ch 5 - Dedicated Hosts Ch 6 - Advanced EC2 Management Ch 15 - Performant Design, Resilient Design, General Best Practices For more information, check out AWS's info page here .
Migration and data transfer	Ch 2 - Storage Services, S3 Storage Class, Glacier For more information, check out AWS's info page here .

Networking, connectivity, and content delivery	Ch 3 and 10 Ch 14 - Desktop & App Streaming For more information, check out AWS's info page here .
Resiliency	All throughout Ch 15 - Resilient Design, Resilient Design Scenario For more information, check out AWS's info page here .
Security	Ch 7 and 8 For more information, check out AWS's info page here .
Serverless and event-driven design principles	Ch 11 - Lambda, API Gateways Ch 15 - Performant Design For more information, check out AWS's info page here and here .
Storage	Ch 2 For more information, check out AWS's info page here .

AWS services and features

Analytics:

Service/Feature Covered	Episode(s)
Amazon Athena	Ch 14 - Analytics Engines For more information, check out AWS's info page here .
AWS Data Exchange	Ch 1 - Services, Part 3 For more information, check out AWS's info page here .
AWS Data Pipeline	Ch 14 - Analytics Engines For more information, check out AWS's info page here .
Amazon EMR	Ch 11 - Elastic MapReduce (EMR) For more information, check out AWS's info page here .
AWS Glue	Ch 14 - Analytics Engines For more information, check out AWS's info page here .
Amazon Kinesis	Ch 11 - Kinesis Ch 11 - Kinesis Data Streams and Firehose Ch 11 - Kinesis Data Analytics For more information, check out AWS's info page here .
AWS Lake Formation	Ch 1 - Services, Part 3 For more information, check out AWS's info page here .
Amazon Managed Streaming for Apache Kafka (Amazon MSK)	Not specifically covered. Find more information here .
Amazon OpenSearch Service (Amazon Elasticsearch Service)	Ch 14 - Analytics Engines For more information, check out AWS's info page here .
Amazon QuickSight	Ch 14 - Analytics Engines For more information, check out AWS's info page here .

	here.
Amazon Redshift	Ch 12 - Redshift For more information, check out AWS's info page here.

Application Integration:

Service/Feature Covered	Episode(s)
Amazon AppFlow	Not specifically covered. Find more information here.
AWS AppSync	Ch 11 - Additional Application Services For more information, check out AWS's info page here.
Amazon EventBridge (Amazon CloudWatch Events)	Ch 10 - Flow Logs Ch 11 - CloudWatch For more information, check out AWS's info page here.
Amazon MQ	Not specifically covered. Find more information here.
Amazon Simple Notification Service (Amazon SNS)	Ch 11 - Simple Notification Service (SNS) For more information, check out AWS's info page here.
Amazon Simple Queue Service (Amazon SQS)	Ch 11 - Simple Queue Service (SQS) For more information, check out AWS's info page here.
AWS Step Functions	Ch 11 - Step Functions For more information, check out AWS's info page here.

AWS Cost Management:

Service/Feature Covered	Episode(s)
AWS Budgets	Ch 2 - Services, Part 3 For more information, check out AWS's info page here.
AWS Cost and Usage Report	Not specifically covered. Find more information here.
AWS Cost Explorer	Ch 14 - AWS Cost Explorer
Savings Plans	Not specifically covered. Find more information here.

Compute:

Service/Feature Covered	Episode(s)
AWS Batch	Ch 6 - AWS Batch For more information, check out AWS's info page here.
Amazon EC2	Ch 4 - EC2 Overview, EC2 Instance Types, EC2 Pricing, EBS and EC2 Ch 5 - Launching an EC2 Linux Instance Lab, Configuring an EC2 Linux Instance Lab, Setting up an EC2 Windows Instance Lab, Dedicated Hosts, Dedicated Instances Ch 6 - Instance Management, Advanced EC2 Management For more information, check out AWS's info page here.

	here.
Amazon EC2 Auto Scaling	Ch 9 - Auto Scaling Overview, Auto Scaling Groups, Termination Policies, Auto Scaling Configuration Lab, Launch Methods For more information, check out AWS's info page here.
AWS Elastic Beanstalk	Ch 6 - Elastic Beanstalk Environment For more information, check out AWS's info page here.
AWS Outposts	Not specifically covered. Find more information here.
AWS Serverless Application Repository	Not specifically covered. Find more information here.
VMware Cloud on AWS	Not specifically covered. Find more information here.
AWS Wavelength	Not specifically covered. Find more information here.

Containers:

Service/Feature Covered	Episode(s)
Amazon Elastic Container Registry (Amazon ECR)	Not specifically covered. Find more information here.
Amazon Elastic Container Service (Amazon ECS)	Ch 6 - Elastic Container Service (ECS)
Amazon ECS Anywhere	Not specifically covered. Find more information here.
Amazon Elastic Kubernetes Service (Amazon EKS)	Not specifically covered. Find more information here.
Amazon EKS Anywhere	Not specifically covered. Find more information here.
Amazon EKS Distro	Not specifically covered. Find more information here.

Database:

Service/Feature Covered	Episode(s)
Amazon Aurora	Ch 12 - Aurora For more information, check out AWS's info page here.
Amazon Aurora Serverless	Ch 12 - Aurora For more information, check out AWS's info page here.
Amazon DocumentDB (with MongoDB compatibility)	Ch 1 - Services, Part 3 For more information, check out AWS's info page here.
Amazon DynamoDB	Ch 12 - DynamoDB For more information, check out AWS's info page here.
Amazon ElastiCache	Ch 14 - ElastiCache For more information, check out AWS's info page here.
Amazon Keyspaces (for Apache Cassandra)	Not specifically covered. Find more information here.
Amazon Neptune	Ch 1 - Services, Part 3 For more information, check out AWS's info page here.

Amazon Quantum Ledger Database (Amazon QLDB)	Ch 1 - Services, Part 3 For more information, check out AWS's info page here .
Amazon RDS	Ch 13 - Configuration Lab, Backups Lab, Restore Lab, Snapshot Lab, Monitoring Lab For more information, check out AWS's info page here .
Amazon Redshift	Ch 12 - Redshift For more information, check out AWS's info page here .
Amazon Timestream	Ch 1 - Services, Part 3 For more information, check out AWS's info page here .

Developer Tools:

Service/Feature Covered	Episode(s)
AWS X-Ray	Not specifically covered. Find more information here .

Front-End Web and Mobile:

Service/Feature Covered	Episode(s)
AWS Amplify	Ch 11 - Additional Application Services For more information, check out AWS's info page here .
Amazon API Gateway	Ch 11 - API Gateway For more information, check out AWS's info page here .
AWS Device Farm	Ch 11 - Additional Application Services For more information, check out AWS's info page here .
Amazon Pinpoint	Not specifically covered. Find more information here .

Machine Learning:

Service/Feature Covered	Episode(s)
Amazon Comprehend	Not specifically covered. Find more information here .
Amazon Forecast	Not specifically covered. Find more information here .
Amazon Fraud Detector	Not specifically covered. Find more information here .
Amazon Kendra	Not specifically covered. Find more information here .
Amazon Lex	Not specifically covered. Find more information here .
Amazon Polly	Not specifically covered. Find more information here .
Amazon Rekognition	Ch 14 - Media Content Delivery
Amazon SageMaker	Not specifically covered. Find more information here .
Amazon Textract	Not specifically covered. Find more information here .
Amazon Transcribe	Ch 14 - Media Content Delivery

	For more information, check out AWS's info page here .
Amazon Translate	Ch 14 - Media Content Delivery For more information, check out AWS's info page here .

Management and Governance:

Service/Feature Covered	Episode(s)
AWS Auto Scaling	Ch 9 - Auto Scaling Overview, Auto Scaling Groups, Termination Policies, Auto Scaling Configuration Lab, Launch Methods For more information, check out AWS's info page here .
AWS CloudFormation	Ch 11 - CloudFormation, CloudFormation Properties Ch 15 - General Best Practices For more information, check out AWS's info page here .
AWS CloudTrail	Ch 8 - CloudTrail For more information, check out AWS's info page here .
Amazon CloudWatch	Ch 10 - Flow Logs Ch 11 - CloudWatch For more information, check out AWS's info page here .
AWS Command Line Interface (AWS CLI)	Ch 2 - Storage Access Security Lab For more information, check out AWS's info page here .
AWS Compute Optimizer	Ch 4 - AWS Compute Optimizer For more information, check out AWS's info page here .
AWS Config	Not specifically covered. Find more information here .
AWS Control Tower	Ch 8 - AWS Control Tower For more information, check out AWS's info page here .
AWS License Manager	Ch 1 - Services, Part 3 For more information, check out AWS's info page here .
Amazon Managed Grafana	Ch 1 - Services, Part 3 For more information, check out AWS's info page here .
Amazon Managed Service for Prometheus	Ch 1 - Services, Part 3 For more information, check out AWS's info page here .
AWS Management Console	Ch 2 - Storage Access Security Lab Ch 14 - Security Services Lab For more information, check out AWS's info page here .
AWS Organizations	Ch 11 - Organizations For more information, check out AWS's info page here .

AWS Personal Health Dashboard	Ch 1 - Services, Part 3 For more information, check out AWS's info page here .
AWS Proton	Ch 1 - Services, Part 3 For more information, check out AWS's info page here .
AWS Service Catalog	Not specifically covered. Find more information here .
AWS Systems Manager	Not specifically covered. Find more information here .
AWS Trusted Advisor	Ch 11 - Trusted Advisor For more information, check out AWS's info page here .
AWS Well-Architected Tool	Ch 11 - Reference Architectures Ch 15 - The Operational Excellence Process For more information, check out AWS's info page here .

Media Services:

Service/Feature Covered	Episode(s)
Amazon Elastic Transcoder	Ch 14 - Media Content Delivery For more information, check out AWS's info page here .
Amazon Kinesis Video Streams	Ch 11 - Kinesis For more information, check out AWS's info page here .

Migration and Transfer:

Service/Feature Covered	Episode(s)
AWS Application Discovery Service	Ch 1 - Services, Part 3 For more information, check out AWS's info page here .
AWS Application Migration Service (CloudEndure Migration)	Ch 1 - Services, Part 3 For more information, check out AWS's info page here .
AWS Database Migration Service (AWS DMS)	Ch 1 - Services, Part 3 For more information, check out AWS's info page here .
AWS DataSync	Ch 1 - Services, Part 3 For more information, check out AWS's info page here .
AWS Migration Hub	Ch 1 - Services, Part 3 For more information, check out AWS's info page here .
AWS Server Migration Service (AWS SMS)	Ch 1 - Services, Part 3 For more information, check out AWS's info page here .
AWS Snow Family	Ch 1 - S3 Storage Class For more information, check out AWS's info page here .
AWS Transfer Family	Ch 1 - Services, Part 3 For more information, check out AWS's info page here .

[here.](#)

Networking and Content Delivery:

Service/Feature Covered	Episode(s)
Amazon CloudFront	Ch 7 - Root User Ch 11 - CloudFront For more information, check out AWS's info page here.
AWS Direct Connect	Ch 3 - Virtual Private Cloud (VPC) Overview, VPN Configuration Options For more information, check out AWS's info page here.
Elastic Load Balancing (ELB)	Ch 9 - Elastic Load Balancing (ELB) For more information, check out AWS's info page here.
AWS Global Accelerator	Ch 1 - Services, Part 3 For more information, check out AWS's info page here.
AWS PrivateLink	Ch 2 - EFS and PrivateLink For more information, check out AWS's info page here.
Amazon Route 53	Ch 10 - Configuring Route 53 Lab For more information, check out AWS's info page here.
AWS Transit Gateway	Ch 14 - AWS Transit Gateway For more information, check out AWS's info page here.
Amazon VPC	Ch 3 - Virtual Private Cloud (VPC) Overview, Creating a VPC Lab, Configuring DHCP Options Lab, VPC Peering, Creating a VPC Peering Connection Lab Ch 10 - Configuring DNS Lab For more information, check out AWS's info page here.
AWS VPN	Ch 3 - VPN Configuration Options For more information, check out AWS's info page here.

Security, Identity, and Compliance:

Service/Feature Covered	Episode(s)
AWS Artifact	For more information, check out AWS's info page here.
AWS Audit Manager	Services, Part 3 For more information, check out AWS's info page here.
AWS Certificate Manager (ACM)	Ch 3 - VPN Configuration Options For more information, check out AWS's info page here.
AWS CloudHSM	Ch 1 - Services, Part 2 Ch 14 - Security Services Lab For more information, check out AWS's info page here.

Amazon Cognito	Ch 8 - Additional Security Services Ch 11 - Cognito For more information, check out AWS's info page here .
Amazon Detective	Ch 1 - Services, Part 3 For more information, check out AWS's info page here .
AWS Directory Service	Ch 1 - Services, Part 3 For more information, check out AWS's info page here .
AWS Firewall Manager	Ch 1 - Services, Part 3 For more information, check out AWS's info page here .
Amazon GuardDuty	Ch 7 - AWS Security Hub For more information, check out AWS's info page here .
AWS Identity and Access Management (IAM)	Ch 7 - Identity and Access Management (IAM) Overview (also most of Ch 7 and 8) For more information, check out AWS's info page here .
Amazon Inspector	Ch 7 - AWS Security Hub For more information, check out AWS's info page here .
AWS Key Management Service (AWS KMS)	Ch 1 - Services, Part 3 Ch 14 - Security Services Lab For more information, check out AWS's info page here .
Amazon Macie	Ch 7 - AWS Security Hub For more information, check out AWS's info page here .
AWS Network Firewall	Ch 1 - Services, Part 3 For more information, check out AWS's info page here .
AWS Resource Access Manager (AWS RAM)	Ch 1 - Services, Part 3 For more information, check out AWS's info page here .
AWS Secrets Manager	Ch 8 - Key Security Services For more information, check out AWS's info page here .
AWS Security Hub	Ch 7 - AWS Security Hub For more information, check out AWS's info page here .
AWS Shield	Ch 8 - Key Security Services For more information, check out AWS's info page here .
AWS Single Sign-On	Ch 8 - Key Security Services Ch 11 - Cognito For more information, check out AWS's info page here .
AWS WAF	Ch 11 - Web Application Firewall (WAF) For more information, check out AWS's info page here .

Serverless:

Service/Feature Covered	Episode(s)
AWS AppSync	Ch 11 - Additional Application Services For more information, check out AWS's info page here .
AWS Fargate	Ch 6 - Elastic Container Service (ECS) For more information, check out AWS's info page here .
AWS Lambda	Ch 11 - Lambda For more information, check out AWS's info page here .

Storage:

Service/Feature Covered	Episode(s)
AWS Backup	Ch 14 - AWS Backup For more information, check out AWS's info page here .
Amazon Elastic Block Store (Amazon EBS)	Ch 2 - Elastic Block Store (EBS), Creating EBS Volumes Lab Ch 4 - EBS and EC2 For more information, check out AWS's info page here .
Amazon Elastic File System (Amazon EFS)	Ch 2 - Elastic File System (EFS), Creating an EFS File System Lab, EFS and PrivateLink For more information, check out AWS's info page here .
Amazon FSx (for all types)	Ch 2 - Intro to Amazon FSx, Hands on with FSx For more information, check out AWS's info page here .
Amazon S3	Ch 2 - Storage Services, S3 Storage Class, S3 Terminology, S3 Advanced Features, Creating S3 Buckets Lab, S3 Bucket Properties , S3 Managing Objects Lab, S3 and Tape Gateway, S3 Enhanced Features For more information, check out AWS's info page here .
Amazon S3 Glacier	Ch 2 - Glacier, Setting up a Glacier Vault Lab For more information, check out AWS's info page here .
AWS Storage Gateway	Ch 2 - Integrating On-Premises Storage For more information, check out AWS's info page here .

Out-of-scope AWS services and features

The following is a non-exhaustive list of AWS services and features that are not covered on the exam. These services and features do not represent every AWS offering that is excluded from the exam content.

Analytics:

- Amazon CloudSearch

Application Integration:

- Amazon Managed Workflows for Apache Airflow (Amazon MWAA)

AR and VR:

- Amazon Sumerian

Blockchain:

- Amazon Managed Blockchain

Compute:

- Amazon Lightsail

Database:

- Amazon RDS on VMware

Developer Tools:

- AWS Cloud9
- AWS Cloud Development Kit (AWS CDK)
- AWS CloudShell
- AWS CodeArtifact
- AWS CodeBuild
- AWS CodeCommit
- AWS CodeDeploy
- Amazon CodeGuru
- AWS CodeStar
- Amazon Corretto
- AWS Fault Injection Simulator (AWS FIS)
- AWS Tools and SDKs

Front-End Web and Mobile:

- Amazon Location Service

Game Tech:

- Amazon GameLift
- Amazon Lumberyard

Internet of Things:

- All services

Machine Learning:

- Apache MXNet on AWS
- Amazon Augmented AI (Amazon A2I)
- AWS DeepComposer
- AWS Deep Learning AMIs (DLAMI)
- AWS Deep Learning Containers
- AWS DeepLens
- AWS DeepRacer
- Amazon DevOps Guru
- Amazon Elastic Inference
- Amazon HealthLake
- AWS Inferentia
- Amazon Lookout for Equipment
- Amazon Lookout for Metrics
- Amazon Lookout for Vision
- Amazon Monitron
- AWS Panorama
- Amazon Personalize
- PyTorch on AWS
- Amazon SageMaker Data Wrangler
- Amazon SageMaker Ground Truth
- TensorFlow on AWS

Management and Governance:

- AWS Chatbot
- AWS Console Mobile Application
- AWS Distro for OpenTelemetry
- AWS OpsWorks

Media Services:

- AWS Elemental Appliances and Software
- AWS Elemental MediaConnect
- AWS Elemental MediaConvert
- AWS Elemental MediaLive
- AWS Elemental MediaPackage
- AWS Elemental MediaStore
- AWS Elemental MediaTailor
- Amazon Interactive Video Service (Amazon IVS)

Migration and Transfer:

- Migration Evaluator (formerly TSO Logic)

Networking and Content Delivery:

- AWS App Mesh
- AWS Cloud Map

Quantum Technologies:

- Amazon Braket

Robotics:

- AWS RoboMaker

Satellite:

- AWS Ground Station