

Amazon Web Services (AWS) Categorized & Defined

Compute Services:

- **Amazon EC2** - virtual servers in the cloud that you can customize for various tasks
- **EC2 Auto Scaling** - automatically adjusts the number of EC2 instances to handle changes in application demand
- **Amazon Lightsail** - simple and easy-to-use virtual private servers
- **Elastic Beanstalk** - helps deploy and manage web applications
- **AWS Lambda** - allows you to run code without provisioning or managing servers

Storage Services:

- **Amazon S3** - stores and retrieves data, such as files and documents
- **EBS (Elastic Block Store)** - provides persistent storage volumes for your Amazon EC2 instances
- **EFS (Elastic File System)** - a serverless file storage solution that can be shared among multiple instances
- **FSx for Lustre** - high-performance file storage designed for data-intensive workloads using the Lustre file system
- **FSx for Windows File System** - provides fully managed Windows file servers
- **S3 Glacier** - an economical and durable storage option for archiving data
- **AWS Backup** - helps protect your data with automated backup and data retention policies
- **AWS Storage Gateway** - connects your on-premises storage with AWS cloud storage in a hybrid setup
- **CloudEndure** - a disaster recovery service that replicates and recovers workloads in the cloud

Network & Content Delivery Services:

- **AWS VPC** - your private space in the AWS cloud where you can securely operate your applications
- **API Gateway** - it helps you create and manage the pathways for your applications to communicate with other services or the internet
- **CloudFront** - it acts like a super-fast delivery service for your website or application, ensuring quick loading for users worldwide
- **Route53** - manages DNS routing to guarantee web traffic reaches the correct destination
- **AWS PrivateLink** - it creates a direct, super-fast highway between your company's network and AWS cloud resources
- **AWS App Mesh** - acts as a traffic manager for your applications, making sure they talk to each other efficiently
- **AWS CloudMap** - acts as a directory for your apps, helping them find and connect to each other

- **AWS Direct Connect** - it serves as a dedicated express lane for your data, linking your equipment directly to AWS
- **Global Accelerator** - it optimizes your app's speed by routing traffic over AWS's worldwide network
- **AWS Transit Gateway** - it acts as a central hub that connects all your private networks and AWS resources together
- **Elastic Load Balancing** - it evenly spreads internet traffic across your servers, so they do not get overwhelmed

Container Services:

- **ECR** - a container registry for managing Docker images
- **ECS** - a service for running, stopping, and managing Docker containers
- **EKS** - a managed Kubernetes service for container orchestration
- **AWS Fargate** - allows running containers without managing the underlying infrastructure
- **AWS Copilot** - a tool for simplifying the deployment of containers

Security and Identity Services:

- **GuardDuty** - an AWS service that helps detect threats and vulnerabilities in your AWS environment
- **IAM (Identity and Access Management)** - AWS's access control service for managing user and resource permissions
- **WAF (Web Application Firewall)** - a service that protects your web applications from online threats
- **KMS (Key Management Service)** - helps you securely manage encryption keys
- **Shield** - protects against Distributed Denial of Service (DDoS) attacks
- **Cognito** - manages user identities and authentication for your apps

Serverless Computing:

- **AWS Lambda** - introduce serverless computing
- **AWS Step Functions** - cover orchestration of serverless functions

Database Services:

- **Amazon RDS** - a fully managed database service that supports different database engines, including MySQL, PostgreSQL, Oracle SQL, and Microsoft SQL Server
- **Amazon Aurora** - a relational database service compatible with MySQL and PostgreSQL
- **DynamoDB** - a fast, NoSQL database for applications with consistent performance
- **ElastiCache** - scalable in-memory database service for caching
- **Neptune** - a graph database designed for highly connected data
- **Timestream** - a serverless time-series database for IoT and operational applications

Analytics Services:

- **Amazon Athena** - serverless Query S3 using MySQL and PostgreSQL
- **Amazon Redshift** - a data warehousing service for big data analytics

- **Amazon QuickSight** - a tool for creating and visualizing business intelligence dashboards
- **Amazon Glue** - assists with the extraction, transformation, and loading (ETL) of data, enabling you to discover, prepare, and move your data for analysis
- **Amazon Cloudsearch** - managed search service for websites and applications, simplifying the addition of search features with options such as categorized search and customizable rankings
- **Amazon ElasticSearch** - deploy and run ElasticSearch, a powerful search and analytics engine that makes it easier to search, analyze, and visualize large volumes of data
- **Amazon EMR** - Big Data Platform and Analysis
- **Amazon Kinesis** - captures and analyzing real-time streaming data, such as video, audio, and other sources, to gain insights and take action in real-time
- **Amazon Redshift** - Data Warehouse Service
- **Amazon QuickSight** - serverless Machine Learning Business Intelligence Dashboards
- **Amazon Data Exchange** - subscribes to Third Party Data Sets
- **Amazon Data Pipeline** - transfer and process data
- **Amazon Glue** - data discovery, enrichment and transfer
- **AWS Lake Formation** - set up Data Lakes quickly

Machine Learning & AI Services:

- **Amazon SageMaker** - simplifies machine learning model development
- **Amazon Rekognition** - identifies objects, people, and activities in images and videos
- **Amazon Comprehend** - understands and extracts insights from text
- **Amazon Polly** - text-to-speech
- **AWS Deep Learning AMIs** - ready-made templates for deep learning projects
- **Amazon Lex** - a tool for building chatbots and conversational interfaces for your applications
- **Amazon Translate** - language translator
- **Amazon Transcribe** - speech-to-text
- **Amazon Personalize** - your personalized shopping assistant, customizing recommendations based on user behavior

Developer & Management Tools:

- **CloudFormation** - helps you define and deploy your infrastructure as code
- **CodeBuild** - automatically builds and tests your code
- **CodeDeploy** - automates code deployment to various compute services
- **CodePipeline** - a continuous integration and continuous deployment service
- **CodeCommit** - manages and stores your source code securely
- **Cloud9** - a cloud-based integrated development environment (IDE)
- **X-Ray** - helps trace and analyze application performance
- **Organizations** - manages multiple AWS accounts within an organization
- **Trusted Advisor** - offers recommendations to optimize costs and improve security

Migration & Transfer Services:

- **Server Migration Service** - assists in moving on-premises servers to AWS
- **Database Migration Service** - transfers your databases to AWS
- **DataSync** - transfers data to and from AWS storage seamlessly
- **Snowball** - helps you move large amounts to and from AWS
- **Snowball Edge** - moves data and also provides on-the-go processing and storage capabilities
- **Snowmobile** - transfers big data sets to and from AWS

Internet of Things (IoT) Services:

- **AWS IoT Core** - IoT device management and message broker
- **AWS IoT Greengrass** - IoT edge computing
- **AWS IoT Device Management** - device onboarding, management, and remote control
- **AWS IoT Events** - detect and respond to events from IoT sensors
- **AWS IoT Analytics** - IoT data analytics

Application Integration Services:

- **AWS Step Functions** - coordinates and manages multiple AWS services in serverless applications
- **Amazon AppFlow** - connects and transfers data between different apps
- **Amazon EventBridge** - makes it easy to build event-driven applications
- **Amazon MQ** - manages message queues for communication between software components
- **Amazon SNS** - sends messages or notifications to a distributed set of recipients
- **Amazon SQS** - a message queuing service for reliable communication between software components
- **Amazon AppSync** - a service for building scalable and secure GraphQL APIs

AWS Cost Management Services:

- **AWS Cost Explorer** - helps you understand and manage your AWS costs
- **AWS Budgets** - allows you to set spending limits on your AWS resources
- **AWS Cost and Usage Report** - provides detailed reports to analyze your AWS usage

Game Development Services:

- **Amazon GameLift** - game server hosting and scaling
- **Amazon Lumberyard** - game engine for building high-quality games

Blockchain:

- **Amazon Managed Blockchain** - blockchain technology