**What is AWS?**

The full form of AWS is Amazon Web Services, It is a platform that offers flexible, reliable, scalable, easy-to-use and, cost-effective cloud computing solutions. AWS is a comprehensive, easy to use computing platform offered Amazon. The platform is developed with a combination of infrastructure as a service (laaS), platform as a service (PaaS) and packaged software as a service (SaaS) offerings.

**History of AWS**

: 2006- Launched les loud products

• 2012- Holds first customer event

• 2015- Reveals revenues achieved of $4.6 billion

• 2016- Surpassed $10 billon revenue target

• 2016- Release snowball and snowmobile |

• 2019- Offers nearly 100 cloud services

• 2021- AWS comprises over 200 products and services

**Important AWS Services**

Amazon Web Services offers a wide range of different business purpose global cloud-based products. The products include storage, databases, analytics, networking, mobile, development tools, enterprise applications, with a pay-as-you-go pricing model.



**AWS Compute Services**

Here, are Cloud Compute Services offered by Amazon: Answers

**1. EC2(Elastic Compute Cloud)-** EC2 is a virtual machine in the cloud on which you have OS level control. You can run this cloud server whenever you want.

**2. LightSail**- This cloud computing tool automatically deploys and manages the computer, storage, and networking capabilities required to run your applications.

**3. Elastic Beanstalk**- The tool offers automated deployment and provisioning of resources like a highly scalable production website.

**4. EKS (Elastic Container Service for Kubernetes)** - The tool allows you to Kubernetes on Amazon cloud environment without installation.

**5. AWS Lambda** - This AWS service allows you to run functions in the cloud. The tool is a big cost saver for you as you to pay only when your functions execute.

**Migration**

Migration services used to transfer data physically between your data centre and AWS.

**1. DMS (Database Migration Service**) - DMS service can be used to migrate on-site databases to AWS, It helps you to migrate from one type of database to another - for example, Oracle to MySQL.

**2. SMS (Server Migration Service)** - SMS migration services allows you to migrate on-site servers to AWS easily and quickly.

**3. Snowball-** Snowball is a small application which allows you to transfer terabytes of data inside and outside of AWS environment.

**Storage**

**1. Amazon Glacier**- It is an extremely low-cost storage service. It offers secure and fast storage for data archiving and backup.

**2. Amazon Elastic Block Store (EBS)** - it provides block-level storage to use with Amazon EC2 instances. Amazon Elastic Block Store volumes are network-attached and remain independent from the life of an instance.

**3. AWS Storage Gateway**- This AWS service is connecting on-premises software applications with cloud-based storage. It offers secure integration between the company's on-premises and AWS's storage infrastructure.

**Security Services**

**1. IAM (Identity and Access Management)** - IAM is a secure cloud security service which helps you to manage users, assign policies, form groups to manage multiple users.

**3. Certificate Manager** - The service offers tree Ssi erificates for your domains that are managed by Routes3, es.

**4. WAF (Web Application Firewall)** - WAF security service offers application-level protection and allows you to block SQL injection and helps you to block cross-site scripting attacks.

**5. Cloud Directory**- This service allows you to create flexible, cloud-native directories for managing hierarchies of data along multiple dimensions.

**6. KMS (Key Management Service)** - It is a managed service. This security service helps you to create and control the encryption keys which allows you to encrypt your data.

**7. Organizations-** You can create groups of AWS accounts using this service to manages security and automation settings.

**8. Shield**- Shield is managed DDoS (Distributed Denial of Service protection service), It offers safeguards against web applications running on AWS.

**9. Macie**- It offers a data visibility security service which helps classify and protect your sensitive critical content.

**10. GuardDuty**- It offers threat detection to protect your AWS accounts and workloads.

**Database Services**

**1. Amazon RDS**- This Database AWS service is easy to set up, operate, and scale a relational database in the cloud.

**2. Amazon DynamoDB**- It is a fast, fully managed NoSQL database service. It is a simple service which allow cost-effective storage and retrieval of data. It also allows you to serve any level of request traffic.

3. Amazon ElastiCache- It is a web service which makes it easy to deploy, operate, and scale an in-memory cache in the cloud.

**4. Neptune**- It is a fast, reliable and scalable graph database service.

5**. Amazon RedShift**- It is Amazon's data warehousing solution which you can use to perform complex OLAP queries.

**Analytics**

**1. Athena**- This analytics service allows perm SQL queries on your 53 bucket to find files.

**2. CloudSearch**- You should use this AWS service to create a fully managed search engine for your website.

**3. ElasticSearch**- It is similar to CloudSearch, However, it offers more features like application monitoring.

**4. Kinesis**— This AWS analytics service helps you to stream and analyzing real-time data at massive scale.

**5. QuickSight**- It is a business analytics tool. it helps you to create visualizations in a dashboard for data in Amazon Web Services. For example, S3, DynamoDB, etc.

**6. EMR (Elastic Map Reduce)** — This AWS analytics service mainly used for big data processing like Spark, Splunk, Hadoop, etc.

**7. Data Pipeline**- Allows you to move data from one place to another. For example, from DynamoDB to 53.Pull lup for

**Management Services**

**1. CloudWatch**- Cloud watch helps you to monitor AWS environments like EC2, RDS install

triggers alarms depends on various metrics.

**2. CloudFormation**- It is a way of turning infrastructure into the cloud. You can use te

production environment in minutes.

**3. CloudTrail**- It offers an easy method of auditing AWS resources. It helps you to log all c

**4. OpsWorks**- The service allows you to automated Chef/Puppet deployments on AWS en

**5. Config**- This AWS service monitors your environment. The tool sends alerts about ct

defined configurations.

**6. Service Catalog**- This service helps large enterprises to authorize which services user ›

**7. AWS Auto Scaling**- The service allows you to automatically scale your resources

CloudWatch metrics.

**8. Systems Manager**- This AWS service allows you to group your resources. It allows you to identify issues and act on them.

**9. Managed Services**- it offers management of your AWS infrastructure which allows you to focus on your applications.

