

AWS and DevOps Services - Detailed Descriptions

AWS Services

1. EC2

Elastic Compute Cloud: Scalable virtual servers in the cloud.

2. S3

Simple Storage Service: Object storage to store and retrieve any amount of data.

3. EBS & EFS

EBS: Block storage for EC2. EFS: Scalable file storage for Linux-based EC2 instances.

4. VPS

Virtual Private Server hosted on EC2, giving full control over compute resources.

5. AWS Lambda

Serverless compute service to run code without provisioning or managing servers.

6. RDS

Managed relational database service (MySQL, PostgreSQL, SQL Server, etc.).

7. CloudWatch & CloudTrail

CloudWatch: Monitor logs/metrics. CloudTrail: Logs AWS API activity.

8. CloudFront

Content delivery network (CDN) to serve content with low latency.

9. EKS & ECS

EKS: Managed Kubernetes. ECS: Container orchestration service.

10. Elastic Beanstalk

PaaS for deploying and managing applications quickly (Node.js, Python, etc.).

11. Storage Gateway

Connects on-premise software appliances with AWS cloud storage.

12. Core Commit/Bill/Deploy

Core DevOps services for CI/CD pipeline, billing, and deployment management.

13. Pipeline

CI/CD service to automate build, test, and deployment.

14. AWS CLI & SDKs

Command Line Interface and SDKs for automation and development.

15. Route 53

Highly available DNS and domain routing service.

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16. API Gateway

Create, publish, and manage REST/HTTP/WebSocket APIs.

17. Direct Connect

Dedicated network connection between on-prem and AWS.

18. Transit Gateway & VPC Peering

Connects VPCs and on-prem networks via a central hub.

19. IAM

Identity and Access Management: Secure access control.

20. KMS

Key Management Service for managing encryption keys.

21. Cognito

User sign-up, sign-in, and access control.

22. SageMaker

End-to-end ML service to build, train, and deploy ML models.

23. Rekognition

Image and video analysis using deep learning.

24. Polly

Converts text into lifelike speech.

25. Lex

Build conversational chatbots using voice and text.

26. Comprehend

NLP service to extract insights from text.

27. Transcribe/Translate

Transcribe: Speech to text. Translate: Text language translation.

28. Athena

Query S3 data using SQL.

29. Glue

Serverless ETL service for data preparation.

30. QuickSight

BI tool to visualize and analyze data.

31. Redshift

Data warehousing service.

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32. Kinesis

Real-time data streaming and analytics.

33. MongoDB

NoSQL document database hosted on EC2 or via Atlas.

34. Neptune

Managed graph database.

35. DocumentDB

Managed NoSQL document DB (MongoDB compatible).

36. ElastiCache

In-memory caching using Redis or Memcached.

37. SQS, SNS

SQS: Message queuing. SNS: Push notifications service.

38. EventBridge

Serverless event bus to connect services.

39. Step Functions

Orchestrate AWS services using workflows.

40. AWS Config

Track resource configurations and compliance.

41. Trusted Advisor

Recommends cost optimization, security, and fault tolerance.

42. Amplify

Frontend/backend framework for mobile/web apps.

43. IoT Core

Connect IoT devices to the AWS cloud.

44. IoT Greengrass

Run local compute on edge devices.

45. IoT Analytics

Analyze IoT device data.

46. IoT Device Defender

Secure IoT configurations and audit logs.

47. AWS Cost Explorer

Visualize and manage AWS spending.

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48. AWS Budgets

Set and track usage/cost budgets.

49. AWS Pricing Calculator

Estimate AWS service costs.

50. Migration Hub

Track cloud migration progress.

51. WAF

Protect web apps from common attacks (OWASP Top 10).

52. AWS Inspector

Automated security assessment tool for EC2 instances.

DevOps Tools

1. Git

Distributed version control system.

2. GitHub

Git-based code hosting platform.

3. Jenkins

Open-source automation server for CI/CD.

4. GitLab

Git repository + CI/CD platform.

5. Ansible

Agentless configuration management tool.

6. Terraform

IaC tool to provision infrastructure.

7. Docker

Containerization platform for packaging apps.

8. Kubernetes

Container orchestration platform.

9. Prometheus

Monitoring tool with a time-series database.

10. SonarQube

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Code quality analysis and security scanner.

11. Nexus Repository

Artifact repository manager.

12. Trivy

Vulnerability scanner for containers and IaC.

13. Maven

Build and dependency management tool for Java.

14. Dependency Check

Scans for known vulnerable dependencies.

15. Nginx

Web server, reverse proxy, and load balancer.

16. Tomcat

Java servlet container for web applications.