### Auditing and Logging Services:

# CloudWatch

**CloudWatch** is a collection of services that help you monitor and observe your cloud resources.











# CloudTrail

CloudTrail tracks user activity and API calls within your account.



## Things You Can Track with CloudTrail













# Things to Remember When Studying for the Exam

### CloudWatch

Don't forget you can use CloudWatch to monitor your EC2 instances and notify you when certain events occur.

### CloudTrail

Don't forget the things you can track with CloudTrail: username, event time and name, IP address, access key, Region, and error code.



#### EC2

EC2 allows you to rent and manage virtual servers in the cloud.



Lambda is a serverless compute service that lets you run code without managing servers.



#### Fargate

Fargate is a serverless compute engine for containers.



#### Lightsail

Lightsail allows you to quickly launch all the resources you need for small projects.



#### Outposts

Outposts allows you to run cloud services in your internal data center.



#### Batch

Batch allows you to process large workloads in smaller chunks (or batches).

#### Storage



#### S3

S3 is an object storage service for the cloud that is highly available.



EBS is a storage device (called a volume) that can be attached to (or removed from) your instance.



EFS is a serverless network file system for sharing files.



#### Storage Gateway

Storage Gateway is a hybrid storage service.



#### AWS Backup

Helps you manage data backups across multiple data services

#### **Content Delivery**



#### CloudFront

CloudFront is a CDN that delivers data and applications globally with low latency.

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#### Global Accelerator

Global Accelerator sends your users through the AWS global network when accessing your content, speeding up delivery.



#### S3 Transfer Acceleration

S3 Transfer Acceleration improves content uploads and downloads to and from S3 buckets.

Networking



#### Route 53

Route 53 is a DNS service that routes users to applications.

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#### Virtual Private Cloud (VPC)

VPC is a foundational service that allows you to create a secure private network in the AWS Cloud where you launch your resources.



#### Direct Connect

Direct Connect is a dedicated physical network connection from your on-premises data center to AWS.

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#### Virtual Private Network (VPN)

Site-to-Site VPN creates a secure connection between your internal networks and your AWS VPCs.



#### Amazon API Gateway

Allows you to build and manage APIs

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#### Databases



### Relational Database Service (RDS)

RDS is a service that makes it easy to launch and manage relational databases.

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#### Aurora

Aurora is a relational database compatible with MySQL and PostgreSQL that was created by AWS.



#### DynamoDB

DynamoDB is a fully managed NoSQL key-value and document database.



#### DocumentDB

DocumentDB is a fully managed document database that supports MongoDB.



### ElastiCache

ElastiCache is a fully managed inmemory datastore compatible with Redis or Memcached.



#### Neptune

Neptune is a fully managed graph database that supports highly connected datasets.

#### Migration and Transfer



### Database Migration Service (DMS)

DMS helps you migrate databases to or within AWS.



#### Server Migration Service (SMS)

SMS allows you to migrate on-premises servers to AWS.



### Snow Family

The Snow Family allows you to transfer large amounts of on-premises data to AWS using a physical device.



#### DataSync

DataSync allows for online data transfer from on-premises to AWS storage services like S3 or EFS.

#### Analytics



#### Redshift

Redshift is a scalable data warehouse solution.



Athena is a query service for Amazon



Glue prepares your data for analytics.



Kinesis allows you to analyze data and video streams in real time. CLICK HERE TO GO TO LESSON >



#### Elastic MapReduce (EMR)

EMR helps you process large amounts of data.



#### Data Pipeline

Data Pipeline helps you move data between compute and storage services running either on AWS or on-premises.



#### Quick Insight

Data Pipeline helps you visualize data.

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### Machine Learning



#### Rekognition

Rekognition allows you to automate your image and video analysis.



Comprehend is a natural-language processing (NLP) service that finds relationships in text.



Polly turns text into speech.



### SageMaker

SageMaker helps you build, train, and deploy machine learning models quickly.



#### Translate

Translate provides language translation.



Lex helps you build conversational interfaces like chatbots.

#### Developer Tools



Cloud9 allows you to write code within an integrated development environment (IDE) from within your web browser.



#### CodeCommit

CodeCommit is a source control system for private Git repositories.



#### CodeBuild

CodeBuild allows you to build and test your application source code

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CodeDeploy manages the deployment of code to compute services in the cloud or on-premises.



#### CodePipeline

CodePipeline automates the software release process.



X-Ray helps you debug production applications

# Deployment and Infrastructure Management



### CloudFormation

CloudFormation allows you to provision AWS resources using Infrastructure as

Code (IaC).



### Elastic Beanstalk

Elastic Beanstalk allows you to deploy your web applications and web services to AWS.



### **OpsWorks**

OpsWorks allows you to use Chef or Puppet to automate the configuration of your servers and deploy code.

### Messaging and Integration



### Simple Queue Service (SQS)

SQS is a message queuing service that allows you to build loosely coupled

systems.



### Simple Notification Service (SNS)

SNS allows you to send emails and text messages from your applications.



### Simple Email Service (SES)

SES is an email service that allows you to send richly formatted HTML emails from your applications.

# Auditing, Monitoring, and Logging



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