

Additional AWS Services

Compute

Amazon Elastic Container Service for Kubernetes (EKS)

- Amazon Elastic Container Service for Kubernetes (EKS) is a managed **Kubernetes** service that makes it easy for you to run Kubernetes on AWS without needing to install, operate, and maintain your own Kubernetes control plane.
- EKS is certified Kubernetes conformant, so existing applications running on upstream Kubernetes are compatible with Amazon EKS.
- EKS automatically manages the availability and scalability of the Kubernetes control plane nodes that are responsible for starting and stopping **containers**, scheduling containers on virtual machines, storing cluster data, and other tasks.
- EKS automatically detects and replaces unhealthy control plane nodes for each cluster.
- Generally available but only in limited regions currently.

Database

- Amazon Neptune is a fast, reliable, fully managed graph database service that makes it easy to build and run applications that work with highly connected datasets.
- With Amazon Neptune, you can create sophisticated, interactive graph applications that can query billions of relationships in milliseconds.
- SQL queries for highly connected data are complex and hard to tune for performance. Instead, Amazon Neptune allows you to use the popular graph query languages Apache TinkerPop Gremlin and W3C's SPARQL to execute powerful queries that are easy to write and perform well on connected data.

Migration

AWS Migration Hub

- AWS Migration Hub provides a single location to track the progress of application migrations across multiple AWS and partner solutions.
- Using Migration Hub allows you to choose the AWS and partner migration tools that best fit your needs, while providing visibility into the status of migrations across your portfolio of applications.
- For example, you might use AWS Database Migration Service, AWS Server Migration Service, and partner migration tools such as ATADATA ATAmotion, CloudEndure Live Migration, or RiverMeadow Server Migration SaaS to migrate an application comprised of a database, virtualized web servers, and a bare metal server.
- Using Migration Hub, you can view the migration progress of all the resources in the application.

AWS Database Migration Service

- AWS Database Migration Service helps you migrate databases to AWS quickly and securely.
- The source database remains fully operational during the migration, minimizing downtime to applications that rely on the database.
- The AWS Database Migration Service can migrate your data to and from most widely used commercial and open-source databases.
- AWS Database Migration Service supports homogenous migrations such as Oracle to Oracle, as well as heterogeneous migrations between different database platforms, such as Oracle or Microsoft SQL Server to Amazon Aurora.
- With AWS Database Migration Service, you can continuously replicate your data with high availability and consolidate databases into a petabyte-scale data warehouse by streaming data to Amazon Redshift and Amazon S3.

AWS Server Migration Service

- AWS Server Migration Service (SMS) is an agentless service which makes it easier and faster for you to migrate thousands of on-premises workloads to AWS

- AWS SMS allows you to automate, schedule, and track incremental replications of live server volumes, making it easier for you to coordinate large-scale server migrations

Networking & Content Delivery

Amazon API Gateway

- Amazon API Gateway is a fully managed service that makes it easy for developers to create, publish, maintain, monitor, and secure APIs at any scale.
- With a few clicks in the AWS Management Console, you can create an API that acts as a “front door” for applications to access data, business logic, or functionality from your back-end services.
- Back-end services may include **Amazon Elastic Compute Cloud (Amazon EC2)**, code running on **AWS Lambda**, or any web application.

Developer Tools

AWS CodeStar

- AWS CodeStar enables you to quickly develop, build, and deploy applications on AWS. AWS CodeStar provides a unified user interface, enabling you to easily manage your software development activities in one place.

AWS CodeCommit

- AWS CodeCommit is a fully managed **source control** service that hosts secure Git-based repositories.

AWS CodeBuild

- AWS CodeBuild is a fully managed continuous integration service that compiles source code, runs tests, and produces software packages that are ready to deploy.

AWS CodeDeploy

- AWS CodeDeploy is a fully managed deployment service that automates software deployments to a variety of compute services such as Amazon

EC2, AWS Lambda, and your on-premises servers.

AWS CodePipeline

- AWS CodePipeline is a fully managed **continuous delivery** service that helps you automate your release pipelines for fast and reliable application and infrastructure updates.

AWS X-Ray

- AWS X-Ray helps developers analyze and debug production, distributed applications, such as those built using a microservices architecture.
- With X-Ray, you can understand how your application and its underlying services are performing to identify and troubleshoot the root cause of performance issues and errors.