

Other AWS Services

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Amazon WorkSpaces

- Managed Desktop as a Service (DaaS) solution to provision Windows or Linux desktops
- Eliminates management of on-premise VDI (Virtual Desktop Infrastructure)
- Scalable to thousands of users quickly
- Secured data with integration to KMS
- Pay-as-you-go service with monthly or hourly rates

Amazon AppStream 2.0

- Desktop Application Streaming Service
- Deliver applications to any computer without provisioning infrastructure
- Applications are delivered from within a web browser

Amazon AppStream 2.0	WorkSpaces
Stream a desktop application to web browsers (no need to connect to a VDI)	Fully managed VDI and desktop available
Works with any device (that has a web browser)	Users connect to the VDI and open native or WAM applications
Configure an instance type per application type (CPU, RAM, GPU)	Workspaces are on-demand or always on

Amazon Sumerian

- Create and run virtual reality (VR), augmented reality (AR), and 3D applications
- Quickly create 3D models with animations
- Ready-to-use templates and assets - no programming or 3D expertise required
- Accessible via web-browser URLs or on popular hardware for AR/VR
- Example: <https://docs.aws.amazon.com/sumerian/latest/userguide/gettingstartedshowcase.html>

AWS IoT Core

- IoT stands for “Internet of Things” – the network of internet-connected devices that collect and transfer data
- Connect IoT devices to AWS Cloud serverlessly, securely, and scalably
- Applications can communicate with devices even when they aren’t connected
- Integrates with many AWS services (Lambda, S3, SageMaker, etc.)
- Build IoT applications that gather, process, analyze, and act on data

Amazon Elastic Transcoder

- Convert media files stored in S3 into formats required by consumer playback devices (phones, etc.)

- Benefits:
 - Easy to use
 - Highly scalable – handles large volumes and sizes of media files
 - Cost-effective – duration-based pricing model
 - Fully managed & secure, pay for what you use

AWS AppSync

- Store and sync data across mobile and web apps in real-time
- Uses GraphQL
- Automatically generates client code
- Integrates with DynamoDB / Lambda
- Real-time subscriptions
- Offline data synchronization (replaces Cognito Sync)
- Fine Grained Security
- AWS Amplify can leverage AWS AppSync in the background!

AWS Amplify

- A set of tools and services for developing and deploying scalable full stack web and mobile applications
- Features:
 - Backend-as-a-Service (BaaS)
 - Frontend Libraries and UI Components
 - Authentication
 - Storage
 - API Management (REST, GraphQL)
 - Real-Time and Offline Capabilities through AWS AppSync
 - CI/CD
 - Command-Line Interface (CLI)
 - PubSub
 - Analytics
 - AI/ML Predictions
 - Monitoring
 - Source Code from AWS, GitHub, etc.

AWS Device Farm

- Fully-managed service that tests web and mobile apps against desktop browsers, real mobile devices, and tablets
- Run tests concurrently on multiple devices to speed up execution
- Configure device settings (GPS, language, Wi-Fi, Bluetooth, etc.)

AWS Backup

- Fully-managed service to centrally manage and automate backups across AWS services
- On-demand and scheduled backups
- Supports PITR (Point-in-time Recovery)
- Retention Periods, Lifecycle Management, Backup Policies, etc.
- Cross-Region Backup
- Cross-Account Backup (using AWS Organizations)

AWS Elastic Disaster Recovery (DRS)

- Formerly known as “CloudEndure Disaster Recovery”
- Quickly and easily recover physical, virtual, and cloud-based servers into AWS
- Example: protect critical databases (Oracle, MySQL, SQL Server), enterprise apps (SAP), and protect data from ransomware attacks
- Continuous block-level replication for servers

AWS DataSync

- Move large amounts of data from on-premises to AWS
- Synchronize to Amazon S3 (any storage classes including Glacier), Amazon EFS, Amazon FSx for Windows
- Schedule replication tasks hourly, daily, weekly
- Incremental replication after the first full load

AWS Application Discovery Service

- Plan migration projects by gathering information about on-premises data centers
- Collect server utilization data and dependency mapping for migrations
- Agentless Discovery (AWS Agentless Discovery Connector):
 - VM inventory, configuration, and performance history (CPU, memory, disk usage)
- Agent-based Discovery (AWS Application Discovery Agent):
 - System configuration, performance, running processes, and network connections between systems
- Data can be viewed within AWS Migration Hub

AWS Application Migration Service (MGN)

- The “AWS evolution” of CloudEndure Migration, replacing AWS Server Migration Service (SMS)
- Lift-and-shift (rehost) solution to simplify migrating applications to AWS
- Converts physical, virtual, and cloud-based servers to run natively on AWS
- Supports a wide range of platforms, Operating Systems, and databases
- Minimal downtime and reduced costs

AWS Migration Evaluator

- Build a data-driven business case for migration to AWS
- Provides a clear baseline of current infrastructure
- Use Agentless Collector for broad-based discovery
- Take a snapshot of on-premises footprint, server dependencies, etc.
- Analyze current state, define target state, and develop a migration plan

AWS Migration Hub

- Central location to collect servers and applications inventory data for the assessment, planning, and tracking of migrations to AWS
- Accelerate migration to AWS, automate lift-and-shift
- AWS Migration Hub Orchestrator provides pre-built templates for migrating enterprise apps (e.g., SAP, Microsoft SQL Server)
- Supports migration status updates from Application Migration Service (MGN) and Database Migration Service (DMS)

AWS Fault Injection Simulator (FIS)

- Fully managed service for running fault injection experiments on AWS workloads
- Based on Chaos Engineering – stress an application by creating disruptive events (e.g., sudden increase in CPU or memory), observe system response, and implement improvements
- Uncover hidden bugs and performance bottlenecks
- Supports AWS services such as EC2, ECS, EKS, RDS
- Use pre-built templates for desired disruptions

AWS Step Functions

- Build serverless visual workflows to orchestrate Lambda functions
- Features: sequence, parallel, conditions, timeouts, error handling, etc.
- Integrate with EC2, ECS, on-premises servers, API Gateway, SQS queues, etc.
- Implement human approval feature
- Use cases: order fulfillment, data processing, web applications, any workflow

AWS Ground Station

- Fully managed service for controlling satellite communications, processing data, and scaling satellite operations
- Global network of satellite ground stations near AWS regions
- Download satellite data to your AWS VPC within seconds
- Send satellite data to S3 or EC2 instance
- Use cases: weather forecasting, surface imaging, communications, video broadcasts

AWS Pinpoint

- Scalable 2-way (outbound/inbound) marketing communications service
- Supports email, SMS, push, voice, and in-app messaging
- Segment and personalize messages with the right content for customers

- Receive replies
 - Scale to billions of messages per day
 - Use cases: run campaigns by sending marketing, bulk, transactional SMS messages
 - Comparison with Amazon SNS or Amazon SES:
 - SNS & SES: manage each message’s audience, content, and delivery schedule
 - Amazon Pinpoint: create message templates, delivery schedules, targeted segments, and full campaigns
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