

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.
- With AWS CodeStar, you can set up your entire [continuous delivery](#) toolchain in minutes, allowing you to start releasing code faster. AWS CodeStar makes it easy for your whole team to work together securely, allowing you to easily manage access and add owners, contributors, and viewers to your projects.
- With AWS CodeStar, you can use a variety of project templates to start developing applications on [Amazon EC2](#), [AWS Lambda](#), and [AWS Elastic Beanstalk](#).
- AWS CodeStar projects support many popular programming languages including Java, JavaScript, PHP, Ruby, and Python.
- <https://aws.amazon.com/codestar/features/>

AWS CodeCommit:

- AWS CodeCommit is a fully-managed [source control](#) service that hosts secure Git-based repositories.
- It makes it easy for teams to collaborate on code in a secure and highly scalable ecosystem.
- CodeCommit eliminates the need to operate your own source control system or worry about scaling its infrastructure.
- You can use CodeCommit to securely store anything from source code to binaries, and it works seamlessly with your existing Git tools.
- <https://aws.amazon.com/codecommit/features/>

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.
- With CodeBuild, you don't need to provision, manage, and scale your own build servers. CodeBuild scales continuously and processes multiple builds concurrently, so your builds are not left waiting in a queue.
- You can get started quickly by using prepackaged build environments, or you can create custom build environments that use your own build tools.
- With CodeBuild, you are charged by the minute for the compute resources you use.
- <https://aws.amazon.com/codebuild/features/>

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 CodeDeploy makes it easier for you to rapidly release new features, helps you avoid downtime during application deployment, and handles the complexity of updating your applications.
- You can use AWS CodeDeploy to automate software deployments, eliminating the need for error-prone manual operations. The service scales to match your deployment needs, from a single Lambda function to thousands of EC2 instances.
- <https://aws.amazon.com/codedeploy/features/>

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.
- CodePipeline automates the build, test, and deploy phases of your release process every time there is a code change, based on the release model you define.
- This enables you to rapidly and reliably deliver features and updates.
- You can easily integrate AWS CodePipeline with third-party services such as GitHub or with your own custom plugin.
- <https://aws.amazon.com/codepipeline/features/>

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.
- X-Ray provides an end-to-end view of requests as they travel through your application, and shows a map of your application's underlying components.
- You can use X-Ray to analyze both applications in development and in production, from simple three-tier applications to complex microservices applications consisting of thousands of service.
- <https://aws.amazon.com/xray/features/>

Management Tools

AWS CloudFormation:

- AWS CloudFormation provides a common language for you to describe and provision all the infrastructure resources in your cloud environment.
- CloudFormation allows you to use a simple text file to model and provision, in an automated and secure manner, all the resources needed for your applications across all regions and accounts.
- This file serves as the single source of truth for your cloud environment.
- You can use JSON or YAML to describe what AWS resources you want to create and configure.
- <https://aws.amazon.com/cloudformation/features/>

AWS Config:

- AWS Config is a service that enables you to assess, audit, and evaluate the configurations of your AWS resources.
- Config continuously monitors and records your AWS resource configurations and allows you to automate the evaluation of recorded configurations against desired configurations.
- With Config, you can review changes in configurations and relationships between AWS resources, dive into detailed resource configuration histories, and determine your overall compliance against the configurations specified in your internal guidelines.
- This enables you to simplify compliance auditing, security analysis, change management, and operational troubleshooting.
- <https://aws.amazon.com/config/features/>

AWS OpsWorks:

- AWS OpsWorks is a configuration management service that provides managed instances of Chef and Puppet.
- Chef and Puppet are automation platforms that allow you to use code to automate the configurations of your servers.
- OpsWorks lets you use Chef and Puppet to automate how servers are configured, deployed, and managed across your [Amazon EC2](#) instances or on-premises compute environments.
- OpsWorks has three offerings, [AWS Opsworks for Chef Automate](#), [AWS OpsWorks for Puppet Enterprise](#), and [AWS OpsWorks Stacks](#)

AWS Service Catalog:

- AWS Service Catalog allows organizations to create and manage catalogs of IT services that are approved for use on AWS.
- These IT services can include everything from virtual machine images, servers, software, and databases to complete multi-tier application architectures.
- AWS Service Catalog allows you to centrally manage commonly deployed IT services, and helps you achieve consistent governance and meet your compliance requirements, while enabling users to quickly deploy only the approved IT services they need
- Uses CloudFormation templates.
- <https://aws.amazon.com/servicecatalog/features/>

AWS Systems Manager:

- AWS Systems Manager gives you visibility and control of your infrastructure on AWS
- Systems Manager provides a unified user interface so you can view operational data from multiple AWS services and allows you to automate operational tasks across your AWS resources.
- With Systems Manager, you can group resources, like [Amazon EC2](#) instances, [Amazon S3](#) buckets, or [Amazon RDS](#) instances, by application, view operational data for monitoring and troubleshooting, and take action on your groups of resources.
- Systems Manager simplifies resource and application management, shortens the time to detect and resolve operational problems, and makes it easy to operate and manage your infrastructure securely at scale.
- <https://aws.amazon.com/systems-manager/features/>

AWS Managed Services:

- AWS Managed Services provides ongoing management of your AWS infrastructure so you can focus on your applications.
- By implementing best practices to maintain your infrastructure, AWS Managed Services helps to reduce your operational overhead and risk.
- AWS Managed Services automates common activities such as change requests, monitoring, patch management, security, and backup services, and provides full-lifecycle services to provision, run, and support your infrastructure.
- AWS Managed Services delivers consistent operations management and predictable results by following ITIL® best practices, and provides tooling and automation to increase efficiency, and reduce your operational overhead and risk.
- <https://aws.amazon.com/managed-services/#>

Analytics

Amazon Athena:

- Amazon Athena is an interactive query service that makes it easy to analyze data in Amazon S3 using standard SQL.
- Athena is serverless, so there is no infrastructure to manage, and you pay only for the queries that you run.
- With a few clicks in the AWS Management Console, customers can point Athena at their data stored in S3 and begin using standard SQL to run ad-hoc queries and get results in seconds.
- You can use Athena to process logs, perform ad-hoc analysis, and run interactive queries
- Athena scales automatically – executing queries in parallel – so results are fast, even with large datasets and complex queries.
- <https://aws.amazon.com/athena/features/>

Amazon EMR:

- Amazon Elastic Map Reduce (EMR) provides a managed Hadoop framework that makes it easy, fast, and cost-effective to process vast amounts of data across dynamically scalable Amazon EC2 instances.
- You can also run other popular distributed frameworks such as [Apache Spark](#), [HBase](#), [Presto](#), and [Flink](#) in Amazon EMR, and interact with data in other AWS data stores such as Amazon S3 and Amazon DynamoDB.
- Amazon EMR securely and reliably handles a broad set of big data use cases, including log analysis, web indexing, data transformations (ETL), machine learning, financial analysis, scientific simulation, and bioinformatic.
- <https://aws.amazon.com/emr/features/>

Amazon CloudSearch:

- Amazon CloudSearch is a managed service in the AWS Cloud that makes it simple and cost-effective to set up, manage, and scale a search solution for your website or application.
- Amazon CloudSearch supports 34 languages and popular search features such as highlighting, autocomplete, and geospatial search.
- <https://aws.amazon.com/cloudsearch/>

Amazon Elasticsearch:

- Amazon Elasticsearch Service, is a fully managed service that makes it easy for you to deploy, secure, operate, and scale Elasticsearch to search, analyze, and visualize data in real-time.
- With Amazon Elasticsearch Service you get easy-to-use APIs and real-time analytics capabilities to power use-cases such as log analytics, full-text search, application monitoring, and clickstream analytics, with enterprise-grade availability, scalability, and security.
- <https://aws.amazon.com/elasticsearch-service/features/>

Amazon Kinesis:

- Amazon Kinesis makes it easy to collect, process, and analyze real-time, streaming data so you can get timely insights and react quickly to new information.
- There are four types of Kinesis service:
 - Kinesis Video Streams makes it easy to securely stream video from connected devices to AWS for analytics, machine learning (ML), and other processing.
 - Kinesis Data Streams enables you to build custom applications that process or analyze streaming data for specialized needs.
 - Kinesis Data Firehose is the easiest way to load streaming data into data stores and analytics tools.
 - Amazon Kinesis Data Analytics is the easiest way to process and analyze real-time, streaming data.
- <https://aws.amazon.com/kinesis/>

AWS Data Pipeline:

- AWS Data Pipeline is a web service that helps you reliably process and move data between different AWS compute and storage services, as well as on-premises data sources, at specified intervals.
- With AWS Data Pipeline, you can regularly access your data where it's stored, transform and process it at scale, and efficiently transfer the results to AWS services such as Amazon S3, Amazon RDS, Amazon DynamoDB, and Amazon EMR.
- AWS Data Pipeline helps you easily create complex data processing workloads that are fault tolerant, repeatable, and highly available.
- <https://aws.amazon.com/datapipeline/>

AWS Glue:

- AWS Glue is a fully managed extract, transform, and load (ETL) service that makes it easy for customers to prepare and load their data for analytics.
- You can create and run an ETL job with a few clicks in the AWS Management Console.
- You simply point AWS Glue to your data stored on AWS, and AWS Glue discovers your data and stores the associated metadata (e.g. table definition and schema) in the AWS Glue Data Catalog.
- Once cataloged, your data is immediately searchable, queryable, and available for ETL.
- AWS Glue generates the code to execute your data transformations and data loading processes.
- <https://aws.amazon.com/glue/features/>

Media Services

Amazon Elastic Transcoder:

- Amazon Elastic Transcoder is media transcoding in [the cloud](#).
- It is designed to be a highly scalable, easy to use and a cost-effective way for developers and businesses to convert (or “transcode”) media files from their source format into versions that will playback on devices like smartphones, tablets and PCs.
- <https://aws.amazon.com/elastictranscoder/>

Security, Identity and Compliance

Amazon Cognito:

- Amazon Cognito lets you add user sign-up, sign-in, and access control to your web and mobile apps quickly and easily.
- Amazon Cognito scales to millions of users and supports sign-in with social identity providers, such as Facebook, Google, and Amazon, and enterprise identity providers via SAML 2.0.
- <https://aws.amazon.com/cognito/details/>

AWS Certificate Manager:

- AWS Certificate Manager is a service that lets you easily provision, manage, and deploy public and private Secure Sockets Layer/Transport Layer Security (SSL/TLS) certificates for use with AWS services and your internal connected resources.
- SSL/TLS certificates are used to secure network communications and establish the identity of websites over the Internet as well as resources on private networks.
- AWS Certificate Manager removes the time-consuming manual process of purchasing, uploading, and renewing SSL/TLS certificates.
- <https://aws.amazon.com/certificate-manager/features/>

AWS CloudHSM:

- AWS CloudHSM is a cloud-based hardware security module (HSM) that enables you to easily generate and use your own encryption keys on the AWS Cloud.
- With CloudHSM, you can manage your own encryption keys using FIPS 140-2 Level 3 validated HSMs.
- CloudHSM offers you the flexibility to integrate with your applications using industry-standard APIs, such as PKCS#11, Java Cryptography Extensions (JCE), and Microsoft CryptoNG (CNG) libraries.
- <https://aws.amazon.com/cloudhsm/features/>

AWS Directory Service:

- AWS Directory Service for Microsoft Active Directory, also known as AWS Managed Microsoft AD, enables your directory-aware workloads and AWS resources to use managed Active Directory in the AWS Cloud.
- AWS Managed Microsoft AD is built on actual [Microsoft Active Directory](#) and does not require you to synchronize or replicate data from your existing Active Directory to the cloud.
- You can use standard Active Directory administration tools and take advantage of built-in Active Directory features, such as Group Policy and single sign-on (SSO).
- With AWS Managed Microsoft AD, you can easily join [Amazon EC2](#) and [Amazon RDS for SQL Server](#) instances to your domain, and use [AWS Enterprise IT applications](#) such as [Amazon WorkSpaces](#) with Active Directory users and groups.
- <https://aws.amazon.com/directoryservice/features/>

AWS Artifact:

- AWS Artifact is your go-to, central resource for compliance-related information that matters to you.
- It provides on-demand access to AWS' security and compliance reports and select online agreements.
- Reports available in AWS Artifact include our Service Organization Control (SOC) reports, Payment Card Industry (PCI) reports, and certifications from accreditation bodies across geographies and compliance verticals that validate the implementation and operating effectiveness of AWS security controls.
- Agreements available in AWS Artifact include the Business Associate Addendum (BAA) and the Nondisclosure Agreement (NDA).
- <https://aws.amazon.com/artifact/>

Machine Learning

Amazon Rekognition:

- Amazon Rekognition makes it easy to add image and video analysis to your applications.
- You just provide an image or video to the Rekognition API, and the service can identify the objects, people, text, scenes, and activities, as well as detect any inappropriate content.
- Amazon Rekognition also provides highly accurate facial analysis and facial recognition on images and video that you provide.
- You can detect, analyze, and compare faces for a wide variety of user verification, people counting, and public safety use cases.
- <https://aws.amazon.com/rekognition/>

Amazon SageMaker:

- Amazon SageMaker is a fully-managed platform that enables developers and data scientists to quickly and easily build, train, and deploy machine learning models at any scale.
- Amazon SageMaker removes all the barriers that typically slow down developers who want to use machine learning.
- <https://aws.amazon.com/sagemaker/features/>

Amazon Comprehend:

- Amazon Comprehend is a natural language processing (NLP) service that uses machine learning to find insights and relationships in text.
- The service identifies the language of the text; extracts key phrases, places, people, brands, or events; understands how positive or negative the text is; analyzes text using tokenization and parts of speech; and automatically organizes a collection of text files by topic.
- Using these APIs, you can analyze text and apply the results in a wide range of applications including voice of customer analysis, intelligent document search, and content personalization for web applications.
- <https://aws.amazon.com/comprehend/features/>

Amazon Transcribe:

- Amazon Transcribe is an automatic speech recognition (ASR) service that makes it easy for developers to add speech-to-text capability to their applications.
- Using the Amazon Transcribe API, you can analyze audio files stored in Amazon S3 and have the service return a text file of the transcribed speech.
- Amazon Transcribe can be used for lots of common applications, including the transcription of customer service calls and generating subtitles on audio and video content.
- The service can transcribe audio files stored in common formats, like WAV and MP3, with time stamps for every word so that you can easily locate the audio in the original source by searching for the text.
- <https://aws.amazon.com/transcribe/>

Mobile Services

AWS AppSync:

- AWS AppSync makes it easy to build data-driven mobile and browser-based apps that deliver responsive, collaborative experiences by keeping the data updated when devices are connected, enabling the app to use local data when offline, and synchronizing the data when the devices reconnect.
- AWS AppSync uses the open standard GraphQL query language so you can request, change, and subscribe to the exact data you need with just a few lines of code.
- <https://aws.amazon.com/appsync/product-details/>

AWS Device Farm:

- AWS Device Farm is an app testing service that lets you test and interact with your Android, iOS, and web apps on many devices at once, or reproduce issues on a device in real time.
- View video, screenshots, logs, and performance data to pinpoint and fix issues and increase quality before shipping your app.
- <https://aws.amazon.com/device-farm/>

Application Integration

AWS Step Functions:

- AWS Step Functions lets you coordinate multiple AWS services into serverless workflows so you can build and update apps quickly.
- Using Step Functions, you can design and run workflows that stitch together services such as AWS Lambda and Amazon ECS into feature-rich applications.
- Workflows are made up of a series of steps, with the output of one step acting as input into the next.
- <https://aws.amazon.com/step-functions/features/>

Amazon MQ:

- Amazon MQ is a managed message broker service for [Apache ActiveMQ](#) that makes it easy to set up and operate message brokers in the cloud.
- Message brokers allow different software systems—often using different programming languages, and on different platforms—to communicate and exchange information.
- Messaging is the communications backbone that connects and integrates the components of distributed applications, such as order processing, inventory management, and order fulfillment for e-commerce.
- <https://aws.amazon.com/amazon-mq/features/>

Amazon SQS:

- Amazon Simple Queue Service (SQS) is a fully managed message queuing service that enables you to decouple and scale microservices, distributed systems, and serverless applications.
- SQS eliminates the complexity and overhead associated with managing and operating message oriented middleware, and empowers developers to focus on differentiating work.
- Using SQS, you can send, store, and receive messages between software components at any volume, without losing messages or requiring other services to be available.
- <https://aws.amazon.com/sqs/features/>

Amazon SWF:

- Amazon SWF helps developers build, run, and scale background jobs that have parallel or sequential steps.
- You can think of Amazon SWF as a fully-managed state tracker and task coordinator in [the Cloud](#).
- <https://aws.amazon.com/swf/>

Internet of Things

AWS IoT Core:

- AWS IoT Core is a managed cloud service that lets connected devices easily and securely interact with cloud applications and other devices.
- AWS IoT Core can support billions of devices and trillions of messages, and can process and route those messages to AWS endpoints and to other devices reliably and securely.
- With AWS IoT Core, your applications can keep track of and communicate with all your devices, all the time, even when they aren't connected.
- <https://aws.amazon.com/iot-core/features/>

Desktop & App Streaming

Amazon Workspaces:

- Amazon WorkSpaces is a managed, secure cloud desktop service. You can use Amazon WorkSpaces to provision either Windows or Linux desktops in just a few minutes and quickly scale to provide thousands of desktops to workers across the globe.
- Amazon WorkSpaces offers you an easy way to provide a secure, managed, cloud-based virtual desktop experience to your end-users.
- Unlike traditional on-premises Virtual Desktop Infrastructure (VDI) solutions, you don't have to worry about procuring, deploying, and managing a complex environment – Amazon WorkSpaces takes care of the heavy lifting and provides a fully managed service.
- <https://aws.amazon.com/workspaces/features/>