Getting Started with AWS



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Getting Started with AWS

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What is Amazon Web Services?

To understand what Amazon Web Services (AWS) is, it helps to understand what cloud computing is. In Key Attributes Distinguish Cloud Computing Services, Gartner defines cloud computing as "a style of computing where scalable and elastic IT-enabled capabilities are delivered as a service to external customers using Internet technologies." Put simply, in much the same way that national electric grids enable homes and businesses to plug into a centrally managed, efficient, and cost-effective energy source, cloud computing enables you to obtain flexible, secure, and cost-effective IT infrastructure from a vendor experienced in running large-scale networks and computing environments. Cloud computing liberates you from devoting people and budget to activities that don't directly contribute to your bottom line, while still ensuring that you can obtain the infrastructure functionality that you need to keep your business applications running. Specifically, the AWS cloud capabilities include compute power, storage, databases, messaging, and other building block services.

AWS provides a flexible, cost-effective, scalable, and easy-to-use cloud computing platform that is suitable for research, educational use, individual use, and organizations of all sizes. It's easy to access AWS cloud services via the Internet. Because the AWS cloud computing model allows you to pay for services on-demand and to use as much or as little at any given time as you need, you can replace up-front capital infrastructure expenses with low variable costs that scale as your needs change.

AWS offers services in many areas to fit your needs, as shown in the diagram. To see a description of the AWS products, go to http://aws.amazon.com/products/.

Your Applications Management & Administration Deployment & **Identity & Access** Web Interface Monitoring Automation IAM Amazon CloudWatch AWS Management Console Identity Federation AWS Elastic Beanstalk Consolidated Billing AWS CloudFormation **Application Platform Services** Libraries & Messaging Distributed Content SDKs Amazon SNS Search Computing Distribution Java, PHP, Python, Amazon SQS Amazon CloudSearch Elastic MapReduce Amazon CloudFront Amazon SES Amazon SWF Ruby, .NET Foundation Services Database Networking Storage Compute Amazon RDS Amazon VPC Amazon S3 Amazon DynamoDB Amazon EC2 Elastic Load Balancing Amazon EBS Auto Scaling Amazon SimpleDB Amazon Route 53 AWS Storage Gateway Amazon ElastiCache AWS Direct Connect **Availability Zones AWS Global Infrastructure Edge Locations** Regions

For more information about AWS, go to the Overview of Amazon Web Services whitepaper.

To learn what you can do with AWS and how to get started, see the following topics:

- What Can I Do with AWS? (p. 3) Learn what you can do with AWS including deploying a web application and storing files in the cloud.
- How Do I Get Started with AWS? (p. 4) Learn how to sign up for AWS, use the AWS free usage tier, access AWS, and manage your account.
- Where Do I Go to Find Out More About AWS? (p. 7)— Learn where to find additional resources.

What Can I Do with AWS?

Whether you want to do things such as <u>store content in the cloud, build a static website, deploy a web application, run data-and compute-intensive workloads, or build dependable backup solutions, the AWS cloud computing platform provides you the flexibility you need regardless of your use case or industry.</u>

Here is a small list of common cloud-based scenarios, ranging from simple applications to complex implementations, with information on how you can get started:

- Store private content in the cloud. You can use Amazon Simple Storage Service (Amazon S3) to store
 content such as images and files in the cloud and control access to it. For information, go to Amazon
 Simple Storage Service Getting Started Guide. You can also use Amazon S3 to deploy a static website.
 For information, go to Hosting Websites on Amazon S3 in the Amazon Simple Storage Service Developer
 Guide.
- Deploy an application. You can deploy a Java, PHP, Python, Ruby or .NET application quickly without having to worry about the AWS infrastructure. For information, go to AWS Elastic Beanstalk Developer Guide. Alternatively, if you know the AWS resources you want to use, you can use AWS CloudFormation to launch your resources in a predictable fashion. View How to Launch a Website in 10 Minutes at Videos & Webinars, to learn how to deploy a WordPress blog using AWS CloudFormation. For more detailed information, go to Get Started in the AWS CloudFormation User Guide.
- <u>Launch a server in the cloud.</u> Use web service interfaces to launch instances with the operating system
 and custom application environment you want. To see how this works, you can launch an <u>Amazon</u>
 <u>Elastic Compute Cloud (Amazon EC2)</u> instance quickly at https://aws.amazon.com/amis. To learn how
 to launch, connect to, and terminate an EC2 instance, go to the <u>Amazon Elastic Compute Cloud Getting</u>
 Started Guide.
- Manage large data sets. Learn how to use AWS cloud services to manage data sets that are too large
 to be hosted in traditional relational databases and are too inefficient to analyze using non-distributed
 applications. For information, go to Getting Started Guide: Analyzing Big Data with AWS.
- Send marketing and transactional email. You can use Amazon Simple Email Service (Amazon SES)
 to send bulk email without the complexity of a large-scale, on-premises email solution. Amazon SES
 provides real-time sending statistics and a built-in feedback loop that notifies you of failed delivery
 attempts. For more information, go to the Amazon Simple Email Service Getting Started Guide.

Many other common scenarios are possible with AWS. To explore more scenarios and reference materials, go to AWS Solutions.

How Do I Get Started with AWS?

There's some basic information you need to know before you get started with AWS:

- How to Sign Up (p. 4)
- How to Use the AWS Free Usage Tier (p. 4)
- How to Manage Your Account (p. 5)
- How to Access AWS (p. 5)
- How to Manage Your Resources (p. 5)

How to Sign Up

Before you begin using AWS, you need to create an account. When you sign up for AWS, AWS signs your account up for all services. You are charged only for the services you use.

To sign up for AWS

- 1. Go to http://aws.amazon.com and click Sign Up Now.
- 2. Follow the on-screen instructions.

How to Use the AWS Free Usage Tier

The Amazon Web Services (AWS) free usage tier offers you an opportunity to test drive several key AWS products for free, up to a certain level of usage. By following the guidelines of the offer, you can gain experience working in the cloud at no charge for an entire year. When your free usage expires, or if your application use exceeds the provisions of the free usage tier, you simply pay the standard, pay-as-you-go service rates.

Here are some of the things you can do with services when you try out the AWS free usage tier:

- Store content and control access to that content using Amazon Simple Storage Service (Amazon S3)
- · Deploy a static web site
- · Deploy a sample web application
- · Launch an Amazon Elastic Compute Cloud (Amazon EC2) instance

For information about getting started in the AWS free usage tier, go to Getting Started Guide: AWS Free Usage Tier.

How to Manage Your Account

At any time, you can access and manage your account information at http://aws.amazon.com/account. From the My Account page you can view current charges and account activity and download usage reports. For an example of how to track your account activity. go to View Your Account Activity in the Getting Started Guide: AWS Free Usage Tier. This document shows an example bill for deploying a sample web application on AWS.

You can also <u>monitor your estimated charges</u> using Amazon CloudWatch. You can choose to receive alerts by email when charges have exceeded a certain threshold. For more information, go to Monitor Your Estimated Charges Using Amazon CloudWatch.

How to Access AWS

There are several ways to access Amazon Web Services:

- AWS Marketplace. An online store that makes it easy for you to find, compare, and immediately start
 using software for building your products and running your business.
- AWS Management Console. Provides an easy-to-use graphical interface to manage your compute, storage, and other cloud resources. Most AWS products can be used from inside the console, and the console supports the majority of functionality for each service.
- AWS command line interface. For more information about accessing the command line interface for each service, go to AWS Command Line Tools in the Amazon Web Services Glossary.
- AWS SDKs. AWS offers SDKs for Java, .NET, PHP, Android, iOS, and Ruby. The Sample Code & Libraries Catalog also provides a listing of code, SDKs, sample applications, and other tools available for use.
- Toolkits for developers. If you're a Java or a .NET developer, try out our AWS Toolkit for Eclipse or AWS Toolkit for Visual Studio. These toolkits include the programming libraries, and you can use them to quickly deploy your applications to AWS. If you're a PHP developer, you can quickly and easily update your applications to AWS Elastic Beanstalk using AWS DevTools, a Git client extension; for more information, go to AWS DevTools in the AWS Elastic Beanstalk Developer Guide.
- AWS web service APIs. Developers can consult the API reference documentation for the product they
 want to use. All product documentation can be found at http://aws.amazon.com/documentation/. If you
 wanted to use the web service APIs for Amazon EC2, for instance, you can find that information at
 http://aws.amazon.com/documentation/ec2/.

How to Manage Your Resources

When you sign up with AWS, we create an AWS account for you to use to manage and pay for all your AWS resources. Your AWS account also has its own set of security credentials that you use to interact with AWS. If you give someone the credentials to your AWS account, you are allowing them to do anything with your account and its AWS resources.

AWS Identity and <u>Access Management (IAM)</u> is a way to create <u>sub-accounts of your main AWS account.</u> You can control which AWS services IAM users can access and the actions they can perform. You can give IAM users their own credentials so that you don't need to give them access to your account's root credentials.

Getting Started with AWS How to Manage Your Resources

For more information about IAM, go to What Can I Do with IAM?	

Where Do I Go to Find Out More About AWS?

Topics

- What's Next? (p. 7)
- Other Resources (p. 8)
- Keep Up to Date (p. 8)
- Get Help (p. 8)

This section provides you information on where to go next, how to learn more about AWS, how to keep up to date with the latest information, and how to get help.

What's Next?

There are several documents and tools that can help you learn how to get started with AWS, ranging from introductory guides to more advanced guides.

- Getting Started Guides: AWS Computing Basics. The AWS Computing Basics guides introduce you to several key AWS services and components. You learn what these services are, why they are important, and how to use them. The guides provide a simple example architecture and walk you through a deployment that uses this architecture. For Linux, go to Getting Started Guide: AWS Computing Basics for Linux. For Windows, go to Getting Started Guide: AWS Computing Basics for Windows.
- Getting Started Guides for common use cases. These getting started guides will show you how to combine various AWS cloud services to build out common use cases or solutions.
- Documentation. Find introductions to each of the Amazon Web Services, advanced service features, API references, and other useful information for all of the AWS products. We recommend that you start with the Getting Started Guide for an overview of the service, and then move on to the more advanced quides.
- SDKs. If you are a developer and want to use the SDKs, go to http://aws.amazon.com/code/. There are links to the SDKs for Android, iOS, Java, .NET, PHP, and Ruby.

Other Resources

There are other resources available at the AWS website such as tutorials, videos and webinars, training, forums, and technical whitepapers. Visit http://aws.amazon.com and click **Developers** to see a list of resources.

Keep Up to Date

AWS is constantly adding new features and services. To keep up to date with what's going on you can get the latest news about AWS from the following websites:

- Amazon Web Services Blog. Get the latest information about new features and services being launched as well as helpful links to resources.
- · What's New. Get the latest announcements on all new features and services released.
- Upcoming Events. Check out upcoming events and conferences that AWS will be hosting or participating
 in.

Get Help

AWS offers a variety of ways to get help for the services ranging from online help to personal support. To see a list of options, go to http://aws.amazon.com and click **Support**.