What is Cloud Computing?

Cloud computing is the on-demand delivery of compute power, database, storage, applications, and other IT resources via the internet with pay-as-you-go pricing. Whether you are using it to run applications that share photos to millions of mobile users or to support business critical operations, a cloud services platform provides rapid access to flexible and low cost IT resources.

Read more

How Does Cloud Computing Work?

Cloud computing gives you access to servers, storage, databases, and a broad set of application services over the Internet. A cloud services provider such as Amazon Web Services, owns and maintains the network-connected hardware required for these application services, while you provision and use what you need via a web application.

Benefits of Cloud

Agility

The cloud allows you to innovate faster because you can focus your valuable IT resources on developing applications that differentiate your business and transform customer experiences rather than managing infrastructure and data centers. With cloud, you can quickly spin up resources as you need them, deploying hundreds or even thousands of servers in minutes.

Read more

Elasticity

Before cloud computing, you had to overprovision infrastructure to ensure you had enough capacity to handle your

business operations at the peak level of activity. Now, you can provision the amount of resources that you actually need, knowing you can instantly scale up or down with the needs of your business. This reduces costs and improves your ability to meet your users' demands.

Cost savings

The cloud allows you to trade capital expense (data centers, physical servers, etc.) for variable expense and only pay for IT as you consume it. Plus, the variable expense is much lower than what you can do for yourself because of the larger economies of scale.

Deploy globally in minutes

With the cloud, you can easily deploy your application in multiple physical locations around the world with just a few clicks. This means you can provide a lower latency and better experience for your customers simply and at minimal cost.

Types of Cloud Computing

Cloud computing has three main types that are commonly referred to as Infrastructure as a Service (IaaS), Platform as a Service (PaaS), and Software as a Service (SaaS). Selecting the right type of cloud computing for your needs can help you strike the right balance of control and the avoidance of undifferentiated heavy lifting.

Learn more »

Infrastructure as a Service (IaaS)

Infrastructure as a Service, sometimes abbreviated as IaaS, contains the basic building blocks for cloud IT and typically provide access to networking features, computers (virtual or on dedicated hardware), and data storage space. Infrastructure as a Service provides you with the highest level of flexibility and management control over your IT resources and is most similar to existing IT resources that many IT departments and developers are familiar with today.

Platform as a Service (PaaS)

Platforms as a service remove the need for organizations to manage the underlying infrastructure (usually hardware and operating systems) and allow you to focus on the deployment and management of your applications. This helps you be more efficient as you don't need to worry about resource procurement, capacity planning, software maintenance, patching, or any of the other undifferentiated heavy lifting involved in running your application.

Software as a Service (SaaS)

Software as a Service provides you with a completed product that is run and managed by the service provider. In most cases, people referring to Software as a Service are referring to end-user applications. With a SaaS offering you do not have to think about how the service is maintained or how the underlying infrastructure is managed; you only need to think about how you will use that particular piece software.

Read more

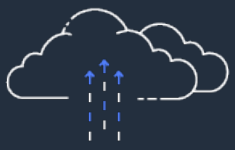
Helping Customers Innovate Faster

PREDICTIVE ANALYTICS

Formula One Group Uses Amazon SageMaker to Optimize Racing

Learn how Formula 1 uses Amazon SageMaker and other AWS services to optimize racing decisions and improve fan experience.

Learn More »



Beginning a Transformation

Formula One Group is moving most of its infrastructure from on-premises data centers to AWS and standardizing on AWS machine-learning services—including Amazon SageMaker.

Optimizing Racing with Machine Learning

Using historical race data collected from cars over the past 65 years, Formula 1 data scientists are training deep-learning models that make race predictions and help teams optimize mid-race decisions. The models can predict when teams should pit their cars, determine the best timing for changing tires, and evaluate how drivers are performing.

Bringing Fans onto the Track

Formula 1 then uses AWS data streaming, analytics, and media services to deliver insights about driver decisions and car performance to its more than 500 million fans.

Building for the Future

Because Formula 1 runs its high-performance computing workloads in a scalable environment on AWS, the organization can innovate on the Formula 1 racing experience, car design, and more without worrying about capacity.

MACHINE LEARNING

IOT

GAMING

SERVERLESS

ENTERPRISE APPLICATIONS

Cloud Solutions

AWS provides a comprehensive suite of services and solutions for running sophisticated and scalable applications.

Learn more »

Cloud Services

AWS offers a broad set of global cloud-based services, including compute, storage, databases, analytics, networking, mobile, developer tools, management tools, IoT, security, and enterprise applications.

Learn more »

Learn more about AWS Cloud Computing

Pricing with AWS

Pricing for all services is unique, discover costs for your needs.

Learn more »

Learn about AWS Products

Services for compute, storage, machine learning and IoT.

Learn more »

Global infrastructure

Worldwide availability means easy and effective operations.

Learn more »

Ready to Get Started with AWS?

Explore our rich platform of products and services. Discover how they can apply to your use case.

Try AWS for Free

Sign In to the Console

Learn About AWS

What Is AWS?
What Is Cloud Computing?
What Is DevOps?
What Is a Container?
What Is a Data Lake?
AWS Cloud Security
What's New
Blogs
Press Releases

Resources for AWS

Getting Started
Training and Certification
AWS Solutions Portfolio
Architecture Center
Product and Technical FAQs
Analyst Reports
AWS Partner Network

Developers on AWS

Developer Center
SDKs & Tools
Python on AWS
Java on AWS
PHP on AWS
Javascript on AWS

Help

Contact Us

AWS Careers

File a Support Ticket

Knowledge Center

AWS Support Overview

Legal

Amazon is an Equal Opportunity Employer: *Minority / Women / Disability / Veteran / Gender Identity / Sexual Orientation / Age.*

Language عربي | Bahasa Indonesia | Deutsch | English | Español | Français | Italiano | Português | Tiếng Việt | Türkçe | Русский | ไทย | □□□ | □□□ | □□ (□□) | □□ (□□)