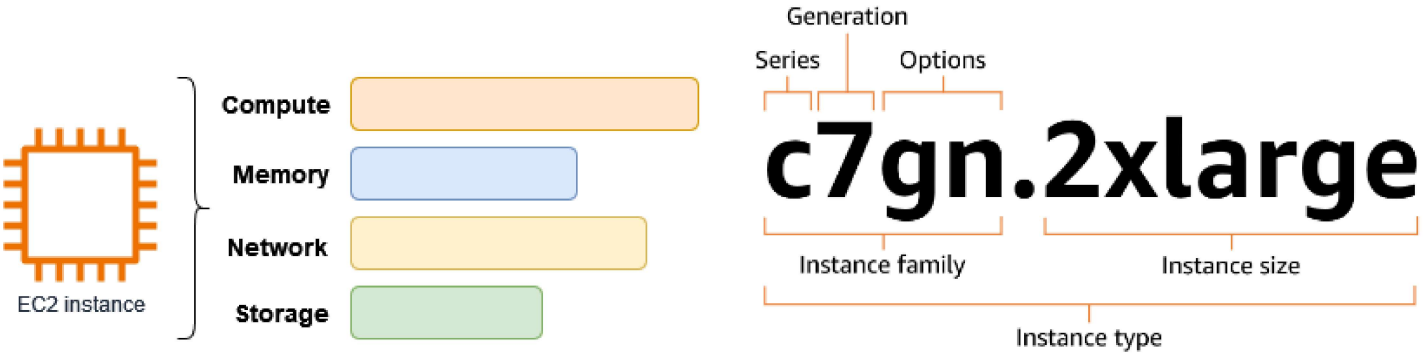
What is Amazon EC2?

Amazon Elastic Compute Cloud (Amazon EC2) provides on-demand, scalable computing capacity in the Amazon Web Services (AWS) Cloud. Using Amazon EC2 reduces hardware costs so you can develop and deploy applications faster. You can use Amazon EC2 to launch as many or as few virtual servers as you need, configure security and networking, and manage storage. You can add capacity (scale up) to handle compute-heavy tasks, such as monthly or yearly processes, or spikes in website traffic. When usage decreases, you can reduce capacity (scale down) again.

An EC2 instance is a virtual server in the AWS Cloud. When you launch an EC2 instance, the instance type that you specify determines the hardware available to your instance. Each instance type offers a different balance of compute, memory, network, and storage resources. For more information, see the Amazon EC2 Instance Types Guide.



Features of Amazon EC2

Amazon EC2 provides the following high-level features:

Instances

Virtual servers.

Amazon Machine Images (AMIs)

Preconfigured templates for your instances that package the components you need for your server (including the operating system and additional software).

Instance types

Various configurations of CPU, memory, storage, networking capacity, and graphics hardware for your instances.

Amazon EBS volumes

Persistent storage volumes for your data using Amazon Elastic Block Store (Amazon EBS).

Instance store volumes

Storage volumes for temporary data that is deleted when you stop, hibernate, or terminate your instance.

Key pairs

Secure login information for your instances. AWS stores the public key and you store the private key in a secure place.

Security groups

A virtual firewall that allows you to specify the protocols, ports, and source IP ranges that can reach your instances, and the destination IP ranges to which your instances can connect.

Amazon EC2 supports the processing, storage, and transmission of credit card data by a merchant or service provider, and has been validated as being compliant with Payment Card Industry (PCI) Data Security Standard (DSS). For more information about PCI DSS, including how to request a copy of the AWS PCI Compliance Package, see PCI DSS Level 1.

Related services

Services to use with Amazon EC2

You can use other AWS services with the instances that you deploy using Amazon EC2.

Amazon EC2 Auto Scaling

Helps ensure you have the correct number of Amazon EC2 instances available to handle the load for your application.

AWS Backup

Automate backing up your Amazon EC2 instances and the Amazon EBS volumes attached to them.

Amazon CloudWatch

Monitor your instances and Amazon EBS volumes.

Elastic Load Balancing

Automatically distribute incoming application traffic across multiple instances.

Amazon GuardDuty

Detect potentially unauthorized or malicious use of your EC2 instances.

EC2 Image Builder

Automate the creation, management, and deployment of customized, secure, and up-to-date server images.

AWS Launch Wizard

Size, configure, and deploy AWS resources for third-party applications without having to manually identify and provision individual AWS resources.

AWS Systems Manager

Perform operations at scale on EC2 instances with this secure end-to-end management solution.

Additional compute services

You can launch instances using another AWS compute service instead of using Amazon EC2.

Amazon Lightsail

Build websites or web applications using Amazon Lightsail, a cloud platform that provides the resources that you need to deploy your project quickly, for a low, predictable monthly price. To compare Amazon EC2 and Lightsail, see Amazon Lightsail or Amazon EC2.

Amazon Elastic Container Service (Amazon ECS)

Deploy, manage, and scale containerized applications on a cluster of EC2 instances. For more information, see Choosing an AWS container service.

Amazon Elastic Kubernetes Service (Amazon EKS)

Run your Kubernetes applications on AWS. For more information, see Choosing an AWS container service.