

AMI – Amazon Machine Image

An AMI (Amazon Machine Image) is a **template** that contains the OS, software, and configuration used to launch EC2 instances in AWS, so you can create consistent, repeatable servers quickly. Its purpose is to act as a reusable blueprint or “golden image” so you do not have to reconfigure servers manually each time.

- In AWS, OS (Operating System) is known as Amazon Machine Image. (Windows, Linux, Mac)
- An AMI is a master image used to create virtual servers (EC2 instances) in AWS
- It includes a root volume (OS + packages), optional additional volumes, and metadata like permissions and block device mappings.
- AMIs are regional scope and can be copied between regions when needed.
- Amazon Linux: Provided and managed by Amazon
- AWS marketplace AMIs: Customized OS, Paid version of OS
- We can use same AMI id in different EC2 instance, so that we access the same application hosted in different EC2 instance.

Speed and automation: Greatly reduces setup time and is ideal for autoscaling groups, blue-green deployments, and CI/CD pipelines.

Storage Costs

AWS-provided AMIs (like Free-tier-eligible) and your own custom AMIs you create from EC2 instances incur no separate AMI storage fees beyond the underlying EBS snapshots.

Custom AMIs store data as EBS snapshots, so it will be billed. Pay only while snapshots exist; deregister unused AMIs/snapshots to avoid charges.

Create a custom AMI

1. Launch and configure a base EC2 instance

- In EC2 console, choose an existing AMI (e.g., Amazon Linux, Ubuntu) and launch an instance with desired instance type, VPC, subnet, security group, and key pair.
- Additionally, install all required packages, agents, app code, and OS tuning you want baked into the image.

▼ Application and OS Images (Amazon Machine Image) [Info](#)

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below

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Amazon Machine Image (AMI)

Amazon Linux 2023 AMI
ami-05fa46471b02db0ce (64-bit (x86), uefi-preferred) / ami-0b0c4d81950666dcb (64-bit (Arm), uefi)
Virtualization: hvm ENA enabled: true Root device type: ebs

Free tier eligible ▼

Description

Amazon Linux 2023 is a modern, general purpose Linux-based OS that comes with 5 years of long term support. It is optimized for AWS and designed to provide a secure, stable and high-performance execution environment to develop and run your cloud applications.

Amazon Linux 2023 AMI 2023.6.20250128.0 x86_64 HVM kernel-6.1

Architecture

64-bit (x86) ▼

Boot mode

uefi-preferred

AMI ID

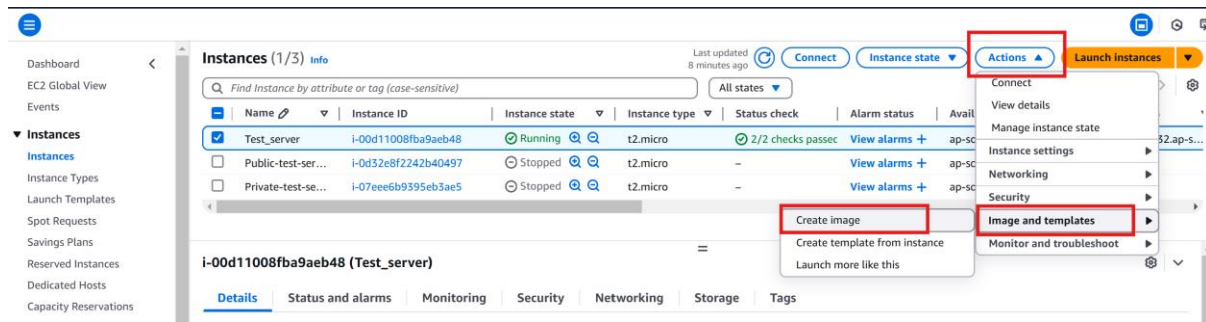
ami-05fa46471b02db0ce

Username ⓘ

ec2-user

Verified provider

2. Create the AMI from the instance



- In EC2 console, go to Instances, right-click (or Actions) on your instance and choose “Create image”. Set Image name/description. Then “Create Image”

Create image Info

An image (also referred to as an AMI) defines the programs and settings that are applied when you launch an EC2 instance. You can create an image from the configuration of an existing instance.

Instance ID: i-00d11008fba9aeb48 (Test_server)

Image name: Demo-AMI-Spering

Image description - optional: Image description

☒ Reboot instance

Instance volumes

Storage type	Device	Snapshot	Size	Volume type	IOPS	Throughput	Delete on termination	Encrypted
EBS	/dev/sda	Create new snapshot from v...	10	EBS General Purpose SSD - ...	100		<input checked="" type="checkbox"/> Enable	<input type="checkbox"/> Enable

Add volume

During the image creation process, Amazon EC2 creates a snapshot of each of the above volumes.

Tags - optional

Tag image and snapshots together

Tag image and snapshots separately

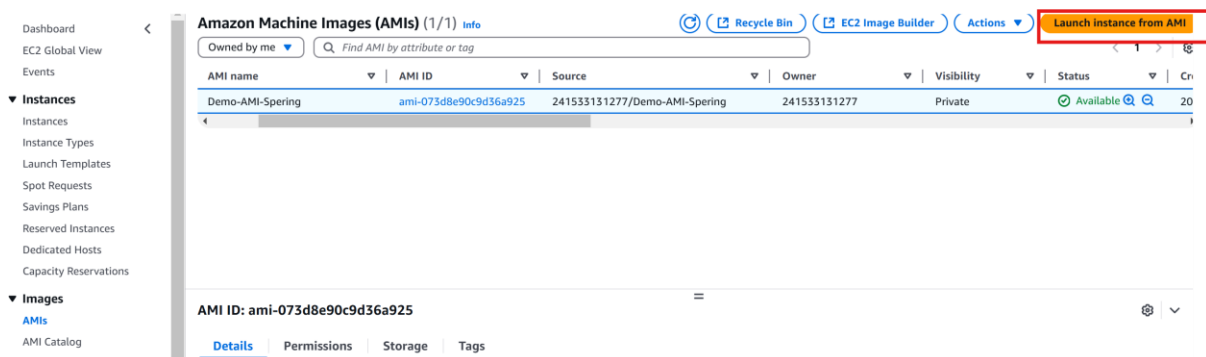
No tags associated with the resource.

Add new tag

Cancel Create image

3. Wait for AMI creation to complete

- Once the status is “available”, the AMI is ready to launch new instances or be used in launch templates.



Launch an EC2 instance with new AMI. We can launch the same AMI in multiple EC2 instance.

If we hosted any application in the AMI, it will reflect in all other EC2 instance created with the same AMI.

Also, we can use the AMI ID to launch instance by using IAC tools.