

AWS Documentation

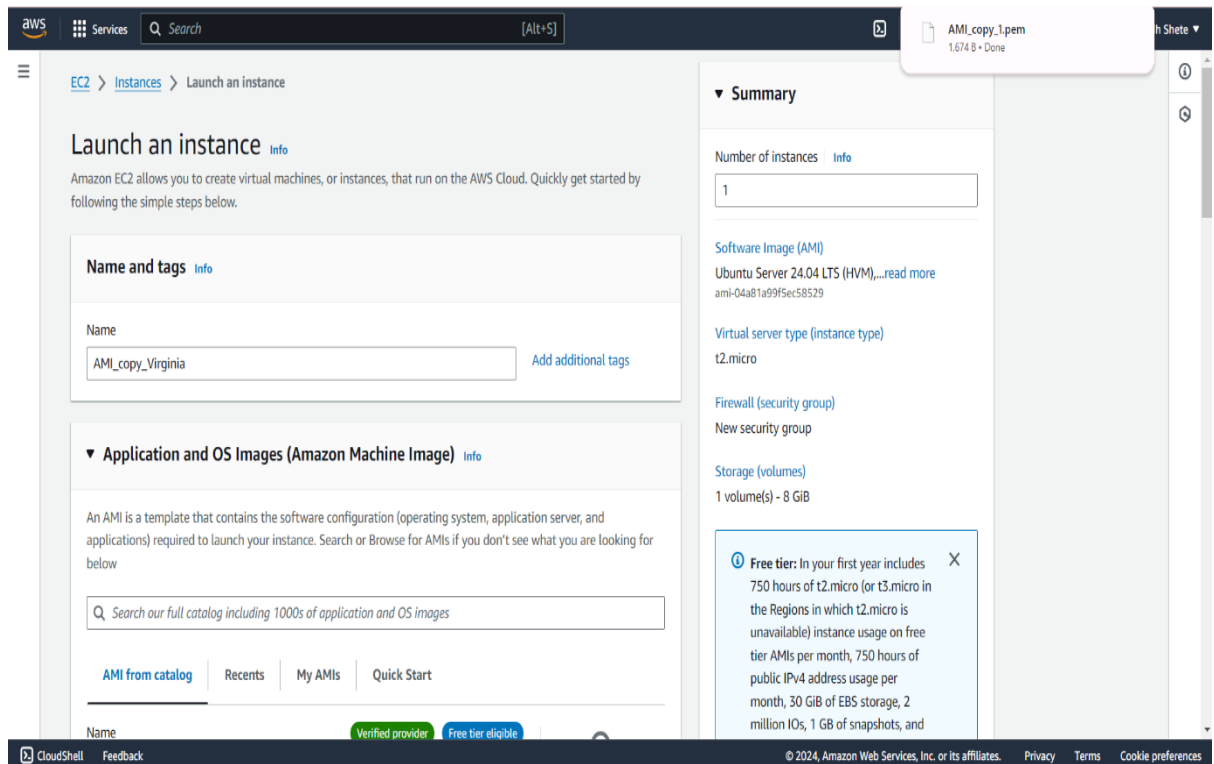
Number	Task
1.	Copy AMI
2.	Spot Request
3.	Savings plans
4.	Reserved Instances
5.	Dedicated Hosts
6.	Capacity reservations

1. Copy AMI:-

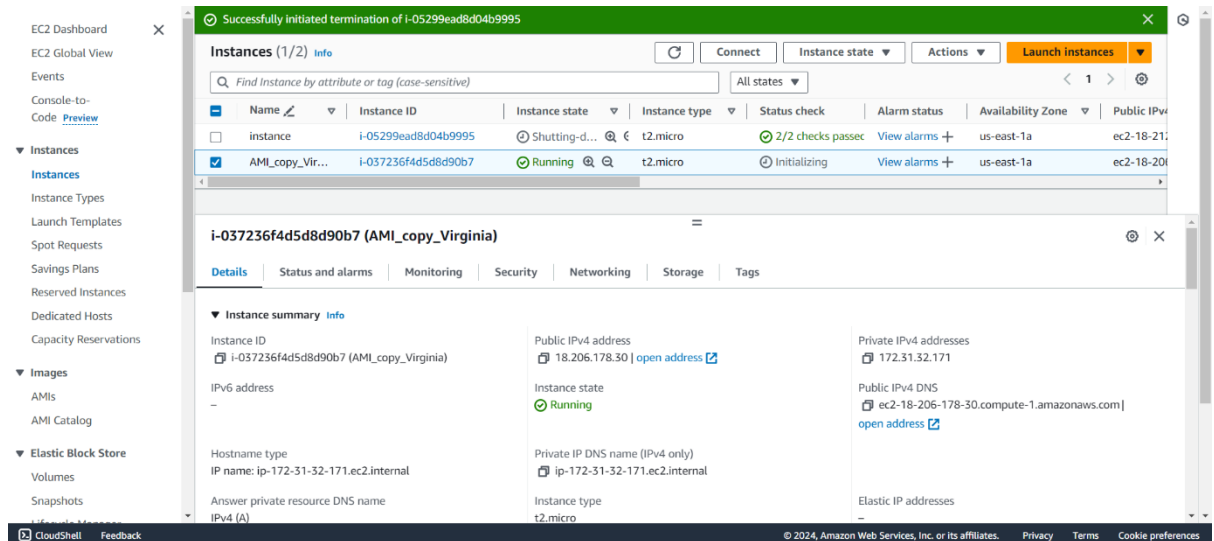
Copying AMIs to different regions ensures that you have backups in multiple locations, providing a safety net in case of regional failures or disasters.

When deploying applications globally, you can copy AMIs to various regions to ensure low latency and high availability for users in different geographic locations.

- Create EC2 instance by choosing N. Virginia zone.



- Once the instance is created then create AMI of that instance.



The screenshot displays the AWS Management Console interface. At the top, a green banner indicates a successful termination of an instance. The main panel shows the 'Instances' list with two entries: 'i-05299ead8d04b9995' (Terminated) and 'i-037236f4d5d8d90b7' (Running). The 'i-037236f4d5d8d90b7' instance is selected, and the 'Create image' button is highlighted in the 'Actions' menu. Below this, the 'Create image' wizard is open, showing the 'Instance ID' as 'i-037236f4d5d8d90b7' and the 'Image name' as 'AMI_virginia'. The wizard includes fields for 'Image description' and 'Image description - optional', and checkboxes for 'No reboot' and 'Enable'. The 'Instance volumes' section is also visible, showing a table with columns for Storage type, Device, Snapshot, Size, Volume type, IOPS, Throughput, Delete on termination, and Encrypted.

- After creating AMI then go to AMI → select AMI-name → Copy AMI.

1. **Destination Region:** Select the AWS region where you want to copy the AMI.
2. **Name:** Provide a name for the copied AMI.
3. **Description:** (Optional) Add a description for the copied AMI.
4. **Encryption:** Choose whether to encrypt the copied AMI.

EC2 Dashboard

EC2 Global View

Events

Console-to-Code

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Instances

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AMIs

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Snapshots

Currently creating AMI ami-060a7ce40e663baad from instance i-037236f4d5d8d90b7. Check that the AMI status is 'Available' before deleting the instance or carrying out other actions related to this AMI.

Instances (1/2)

Find Instance by attribute or tag (case-sensitive)

All states

	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IP
<input type="checkbox"/>	Instance	i-05299ead8d04b9995	Terminated	t2.micro	-	View alarms +	us-east-1a	-
<input checked="" type="checkbox"/>	AMI_copy_Vir...	i-037236f4d5d8d90b7	Running	t2.micro	Initializing	View alarms +	us-east-1a	ec2-18-206-178-30.compute-1.amazonaws.com

i-037236f4d5d8d90b7 (AMI_copy_Virginia)

Details | Status and alarms | Monitoring | Security | Networking | Storage | Tags

Instance summary

Instance ID

i-037236f4d5d8d90b7 (AMI_copy_Virginia)

IPv6 address

-

Hostname type

IP name: ip-172-31-32-171.ec2.internal

Answer private resource DNS name

IPv4 (A)

Public IPv4 address

18.206.178.30 | open address

Instance state

Running

Private IP DNS name (IPv4 only)

ip-172-31-32-171.ec2.internal

Instance type

t2.micro

Private IPv4 addresses

172.31.32.171

Public IPv4 DNS

ec2-18-206-178-30.compute-1.amazonaws.com | open address

Elastic IP addresses

-

CloudShell

Feedback

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Snapshots

Amazon Machine Images (AMIs) (1/5)

Owned by me

Find AMI by attribute or tag

Recycle Bin

EC2 Image Builder

Actions

Launch instance from AMI

Copy AMI

Edit AMI permissions

Request Spot Instances

Manage tags

Deregister AMI

Manage AMI deregistration protection

Change description

Configure fast launch

Manage AMI Deprecation

Register instance store-backed AMI

Disable AMI

	Name	AMI name	AMI ID	Source
<input type="checkbox"/>	ami		ami-0a3ce6500b0ae9324	211125626284/ami
<input type="checkbox"/>	Rutu_ami		ami-0167b5eff00c1aa53	211125626284/Rutu_ami
<input type="checkbox"/>	AMI_mumbai_server		ami-0bd9c4850beb7e890	211125626284/AMI_mumbai_server
<input checked="" type="checkbox"/>	AMI_virginia		ami-060a7ce40e663baad	211125626284/AMI_virginia
<input type="checkbox"/>	AMI_new		ami-00a2286332a735c0f	211125626284/AMI_new

AMI ID: ami-060a7ce40e663baad

Details | Permissions | Storage | Tags

AMI ID

ami-060a7ce40e663baad

Image type

machine

Platform details

Linux/UNIX

Root device type

EBS

AMI name

AMI_virginia

Owner account ID

211125626284

Architecture

x86_64

Usage operation

RunInstances

Root device name

/dev/sda1

Status

Pending

Source

211125626284/AMI_virginia

Virtualization type

hvm

Boot mode

uefi-preferred

State reason

-

Creation date

-

Kernel ID

-

CloudShell

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EC2 > AMIs > ami-060a7ce40e663baad > Copy AMI

Copy AMI

info

Create a copy of an Amazon Machine Image in a Region.

Copy Amazon Machine Image (AMI)

Original AMI ID

ami-060a7ce40e663baad

AMI copy name

AMI_virginia

AMI copy description

[Copied ami-060a7ce40e663baad from us-east-1] AMI_virginia

Destination Region

A copy of the original AMI will be created in the destination Region.

Asia Pacific (Mumbai)

Copy tags

Includes your user-defined AMI tags when copying the AMI.

Encrypt EBS snapshots of AMI copy

Encrypts all snapshots in the AMI copy with the same key.

Tags - optional

A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter

CloudShell

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- Change zone to Asia pacific (Mumbai) and wait AMI is generated.
- Once the copy of AMI for Mumbai region is created then launch instance and check pre-configuration which was already created in N. Virginia zone.

The screenshot shows the AWS Management Console interface. The left sidebar contains navigation links for various AWS services. The main content area is titled 'Instances (8)' and shows a table of EC2 instances. The table includes columns for Name, Instance ID, Instance state, Instance type, Status check, Alarm status, Availability Zone, and Public IPv4 DNS. The last instance, 'AMI_Mumbai', is in a 'Pending' state and is located in the 'ap-south-1a' availability zone. Below the table, there is a 'Select an instance' dialog box.

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS
	i-08fb476fa58c5e34e	Terminated	t2.micro	-	View alarms	ap-south-1b	-
	i-0a4e028eedcb0961	Terminated	t2.micro	-	View alarms	ap-south-1b	-
	i-01e3cb81d29244ba5	Terminated	t2.micro	-	View alarms	ap-south-1b	-
	i-0b3e6a83ec3015cee	Terminated	t2.micro	-	View alarms	ap-south-1b	-
	i-067a5d1eb09563afd	Terminated	t2.micro	-	View alarms	ap-south-1b	-
	i-0e8a348214a2bcbdd	Terminated	t2.micro	-	View alarms	ap-south-1a	-
AMI_instance_...	i-067ac0e410e4bdf92	Terminated	t2.micro	-	View alarms	ap-south-1a	-
AMI_Mumbai	i-09149aedc586a3b1e	Pending	t2.micro	-	View alarms	ap-south-1a	ec2-13-234-113-37.2

Select an instance

This is AMI copy

2. Spot Request:-

- In the EC2 Dashboard, find the "Spot Requests" option in the left-hand menu under "Instances."

The screenshot shows the AWS Management Console interface for requesting a Spot Instance. The top navigation bar includes the AWS logo, a 'Services' menu, a search bar, and the user's profile 'Rutugandh Shete' in 'N. Virginia' region. The main content area is titled 'Request Spot Instance' and offers two options: 'Manually configure launch parameters' (selected) and 'Use a launch template'. Under 'Manually configure launch parameters', there is a section for 'AMI' with a dropdown menu showing 'AMI_new (ami-00a2286332a735c0f)' and a 'Search for AMI' button. Below this is a 'Key pair name' section with a dropdown showing 'Nginx' and a 'Create new key pair' link. A section for 'Additional launch parameters -optional' is also visible. At the bottom, the 'Additional request details' section includes a checked 'Apply defaults' checkbox and an 'IAM fleet role' dropdown showing 'aws-ec2-spot-fleet-tagging-role'. The footer contains 'CloudShell', 'Feedback', and copyright information for Amazon Web Services, Inc.

- Click on the "Request Spot Instances" button.
- Select an Amazon Machine Image (AMI) for your instance. You can choose from the list of available AMIs or use a custom one.
- Choose the instance type that suits your needs (e.g., t3.micro, m5.large).
- Number of instances: Specify how many instances you need.
- Maximum price: Set the maximum price you're willing to pay per instance-hour.
- Review your Spot Instance request details.

- Click the "Launch" button to submit your Spot Instance request.

Allocation strategy

Spot allocation strategy
The allocation strategy determines which of your available pools to request Spot Instances from.

- ☒ **Price capacity optimized (recommended)**
Request the lowest priced Spot Instances from your most available pools. This is the best strategy for balancing instance price and interruption risk.
- ☐ **Capacity optimized**
Request Spot Instances from your most available pools. This strategy has the lowest risk of interruption.
- ☐ **Diversified across all pools**
Request Spot Instances evenly across all your available pools. This strategy can't be used with attribute-based instance type selection.

Your fleet request at a glance

Total target capacity 1 instances	Instance requirements Attribute based no vCPU minimum no vCPU maximum no Mib minimum no Mib maximum	Fleet strength Strong 535 matching instance types 6 Availability Zones	Estimated hourly price ~\$1.055 per hour at target capacity 84% savings compared to On-Demand
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Cancel JSON config **Launch**

3. Savings plans:-

- Savings Plans provide a flexible pricing model that offers significant savings compared to On-Demand pricing, in exchange for a commitment to a consistent amount of usage (measured in \$/hour) for a 1- or 3-year term.
- With Savings Plans, you can reduce costs on various AWS services, including EC2, Lambda, and Fargate, by committing to a consistent usage level, regardless of instance family, region, or operating system.

4. Reserved Instances:-

- Reserved Instances offer a discount compared to On-Demand pricing in exchange for a one- or three-year commitment. They provide a billing discount and capacity reservation in a specific Availability Zone.

- By purchasing Reserved Instances, you can achieve significant savings over On-Demand instances, particularly for predictable workloads that run continuously or periodically.

5. Dedicated Hosts:-

- Dedicated Hosts provide physical servers fully dedicated to your use, enabling you to use your existing server-bound software licenses and meet compliance requirements.
- With Dedicated Hosts, you get full control over the physical server, allowing you to manage instance placement, utilize your own licenses, and ensure compliance with regulatory requirements.

6. Capacity Reservations:-

- Capacity Reservations guarantee that you have access to EC2 capacity when you need it, in a specific Availability Zone, for as long as you require.
- With Capacity Reservations, you can reserve capacity for your instances in advance, ensuring availability during peak times or for critical applications, without long-term commitments.