

26th August 2024 (L-11)



## Increase size of Root EBS Volume from 8GB to 15 GB

- a. Create instance with two volumes

**Configure storage** Info Advanced

1x 8 GiB gp2 Root volume (Not encrypted)

1x 10 GiB gp3 EBS volume (Not encrypted) Remove

Add new volume

Click refresh to view backup information  
The tags that you assign determine whether the instance will be backed up by any Data Lifecycle Manager policies.

0 x File systems Edit

**Summary**

Number of instances Info  
1

Software Image (AMI)  
Amazon Linux 2 Kernel 5.10 AMI...read more  
ami-08ee1453725d19cdb

Virtual server type (instance type)  
t2.micro

Firewall (security group)  
New security group

Storage (volumes)  
2 volume(s) - 18 GiB

Cancel Launch instance

Review commands

**Instances (1/1)** Info Last updated 25 minutes ago

Find Instance by attribute or tag (case-sensitive) All states

<input checked="" type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability
<input checked="" type="checkbox"/>	ebsdemo	i-0bfb1bdecb39da394	Running	t2.micro	2/2 checks passed	View alarms	ap-south-1

**i-0bfb1bdecb39da394 (ebsdemo)**

<input checked="" type="checkbox"/>	Volume ID	Device name	Volume size (GiB)	Attachment status	Attachment time	Encrypted
<input checked="" type="checkbox"/>	vol-091feb1f85e08be9	/dev/xvda	8	Attached	2024/08/26 18:38 GMT+5:30	No
<input type="checkbox"/>	vol-06352b47077451880	/dev/sdb	10	Attached	2024/08/26 18:38 GMT+5:30	No

Volume monitoring (1)

3h 1d 1w 1h UTC timezone Add to dashboard


- b. Check the condition of Hard-disk

 root@ip-172-31-7-222:/

### Check the hard disk partition

```
[root@ip-172-31-7-222 ~]#  
[root@ip-172-31-7-222 ~]# lsblk  
NAME        MAJ:MIN RM  SIZE RO TYPE MOUNTPOINT  
xvda         202:0    0   8G  0 disk  
└─xvda1      202:1    0   8G  0 part /  
xvdb         202:16   0  10G  0 disk  
[root@ip-172-31-7-222 ~]#  
[root@ip-172-31-7-222 ~]#  
[root@ip-172-31-7-222 ~]# file -s /dev/xvdb  
/dev/xvdb: data  
[root@ip-172-31-7-222 ~]# mkfs -t ext4 /dev/xvdb  
mke2fs 1.42.9 (28-Dec-2013)  
Filesystem label=  
OS type: Linux  
Block size=4096 (log=2)  
Fragment size=4096 (log=2)  
Stride=0 blocks, Stripe width=0 blocks  
655360 inodes, 2621440 blocks  
131072 blocks (5.00%) reserved for the super user  
First data block=0  
Maximum filesystem blocks=2151677952  
80 block groups  
32768 blocks per group, 32768 fragments per group  
8192 inodes per group  
Superblock backups stored on blocks:  
        32768, 98304, 163840, 229376, 294912, 819200, 884736, 1605632  
  
Allocating group tables: done  
Writing inode tables: done  
Creating journal (32768 blocks): done  
Writing superblocks and filesystem accounting information: done
```

c. Create and mount the directory

 root@ip-172-31-7-222:/

```
[root@ip-172-31-7-222 ~]# mkdir /home/akash
[root@ip-172-31-7-222 ~]#
[root@ip-172-31-7-222 ~]#
[root@ip-172-31-7-222 ~]# mount /dev/xvdb /home/akash
[root@ip-172-31-7-222 ~]# df -h
Filesystem      Size  Used Avail Use% Mounted on
devtmpfs         467M   0  467M   0% /dev
tmpfs            477M   0  477M   0% /dev/shm
tmpfs            477M 408K  476M   1% /run
tmpfs            477M   0  477M   0% /sys/fs/cgroup
/dev/xvda1       8.0G  1.8G  6.3G  23% /
tmpfs            96M   0   96M   0% /run/user/1000
/dev/xvdb        9.7G  24K  9.2G   1% /home/akash
[root@ip-172-31-7-222 ~]# lsblk
NAME        MAJ:MIN RM  SIZE RO TYPE MOUNTPOINT
xvda        202:0    0    8G  0 disk
└─xvda1     202:1    0    8G  0 part /
xvdb        202:16   0   10G  0 disk /home/akash
[root@ip-172-31-7-222 ~]#
[root@ip-172-31-7-222 ~]# cd /home/akash
[root@ip-172-31-7-222 akash]# ls -ltr
total 16
drwx----- 2 root root 16384 Aug 26 13:31 lost+found
[root@ip-172-31-7-222 akash]# cd /
[root@ip-172-31-7-222 /]#
[root@ip-172-31-7-222 /]# pwd
/
[root@ip-172-31-7-222 /]# devops.txt
-bash: devops.txt: command not found
[root@ip-172-31-7-222 /]# can > devops.txt
-bash: can: command not found
[root@ip-172-31-7-222 /]# cat > devops.txt
Hello
[root@ip-172-31-7-222 /]# l s-ltr
-bash: l: command not found
[root@ip-172-31-7-222 /]# l -ltr
-bash: l: command not found
[root@ip-172-31-7-222 /]# ls -ltr
total 20
drwxr-xr-x  2 root root    6 Apr  9  2019 srv
drwxr-xr-x  2 root root    6 Apr  9  2019 mnt
drwxr-xr-x  2 root root    6 Apr  9  2019 media
drwxr-xr-x  2 root root    6 Aug 16 14:12 local
lrwxrwxrwx  1 root root    8 Aug 16 14:12 sbin -> usr/sbin
lrwxrwxrwx  1 root root    9 Aug 16 14:12 lib64 -> usr/lib64
lrwxrwxrwx  1 root root    7 Aug 16 14:12 lib -> usr/lib
lrwxrwxrwx  1 root root    7 Aug 16 14:12 bin -> usr/bin
drwxr-xr-x 13 root root  155 Aug 16 14:12 usr
drwxr-xr-x  4 root root   27 Aug 16 14:13 opt
dr-xr-xr-x  4 root root 4096 Aug 16 14:13 boot
-bash: l: command not found
[root@ip-172-31-7-222 /]# ls -ltr
total 20
drwxr-xr-x  2 root root    6 Apr  9  2019 srv
drwxr-xr-x  2 root root    6 Apr  9  2019 mnt
drwxr-xr-x  2 root root    6 Apr  9  2019 media
drwxr-xr-x  2 root root    6 Aug 16 14:12 local
lrwxrwxrwx  1 root root    8 Aug 16 14:12 sbin -> usr/sbin
lrwxrwxrwx  1 root root    9 Aug 16 14:12 lib64 -> usr/lib64
lrwxrwxrwx  1 root root    7 Aug 16 14:12 lib -> usr/lib
lrwxrwxrwx  1 root root    7 Aug 16 14:12 bin -> usr/bin
drwxr-xr-x 13 root root  155 Aug 16 14:12 usr
drwxr-xr-x  4 root root   27 Aug 16 14:13 opt
dr-xr-xr-x  4 root root 4096 Aug 16 14:13 boot
dr-xr-xr-x 13 root root    0 Aug 26 13:08 sys
dr-xr-xr-x 158 root root    0 Aug 26 13:08 proc
drwxr-xr-x 19 root root   269 Aug 26 13:08 var
drwxr-xr-x 15 root root  2940 Aug 26 13:08 dev
drwxr-xr-x 81 root root  8192 Aug 26 13:08 etc
drwxr-xr-x 28 root root   980 Aug 26 13:09 run
dr-xr-xr-x  3 root root   124 Aug 26 13:19 root
drwxr-xr-x  4 root root   35 Aug 26 13:33 home
-rw-r--r--  1 root root    6 Aug 26 14:15 devops.txt
drwxrwxrwt  8 root root   172 Aug 26 14:18 tmp
[root@ip-172-31-7-222 /]# cat devops.txt
Hello
[root@ip-172-31-7-222 /]#
```

d. Take snapshot of Root EBS Volume

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Volumes

Instances (1/1) Info

Last updated 25 minutes ago

Connect

Instance state

Actions

Launch instances

Find Instance by attribute or tag (case-sensitive)

All states

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability
ebsdemo	i-0bfb1bdec39da394	Running	t2.micro	2/2 checks passed	View alarms	ap-south-1

i-0bfb1bdec39da394 (ebsdemo)

Volume ID	Device name	Volume size (GiB)	Attachment status	Attachment time	Encrypted
vol-091feb1f85e08be9	/dev/xvda	8	Attached	2024/08/26 18:38 GMT+5:30	No
vol-06352b47077451880	/dev/sdb	10	Attached	2024/08/26 18:38 GMT+5:30	No

Volume monitoring (1)

3h 1d 1w 1h UTC timezone

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Volumes

Volumes (1/1) Info

Search

Volume ID = vol-091feb1f85e08be9

Clear filters

Name	Volume ID	Type	Size	IOPS	Throughput
-	vol-091feb1f85e08be9	gp2	8 GiB	100	-

Volume ID: vol-091feb1f85e08be9

Details

Status checks

Monitoring

Tags

Volume ID

vol-091feb1f85e08be9

Size

8 GiB

Type

gp2

Volume status

Okay

AWS Compute Optimizer finding

Opt-in to AWS Compute Optimizer for recommendations. | Learn more

Volume state

In-use

IOPS

100

Throughput

-

Actions

Create volume

Modify volume

Create snapshot

Create snapshot lifecycle policy

Delete volume

Attach volume

Detach volume

Force detach volume

Manage auto-enabled I/O

Manage tags

Fault injection

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Source volume

Volume ID

vol-091feb1f85e08be9

Availability Zone

ap-south-1b

Snapshot details

Description

Add a description for your snapshot

255 characters maximum.

Encryption

Info

Not encrypted

Tags

Info

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 your resources or track your AWS costs.

No tags associated with the resource.

Add tag

You can add 50 more tags.

Cancel

Create snapshot

CloudShell

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**Snapshots (1/1) Info**

Owned by me

Name	Snapshot ID	Volume size	Description	Storage tier	Snapshot status	Started	Progress	En
-	snap-012cd66ef2fcb5c4b	8 GiB	-	Standard	Completed	2024/08/26 20:30 GMT+5...	Available (100%)	No

**Snapshot ID: snap-012cd66ef2fcb5c4b**

**Details** | Snapshot settings | Storage tier | Tags

Snapshot ID snap-012cd66ef2fcb5c4b	Progress Available (100%)	Snapshot status Completed	Owner 396913734302
Started Mon Aug 26 2024 20:30:26 GMT+0530 (India Standard Time)	Product codes -	Fast snapshot restore -	Description -
Source volume			
Volume ID vol-091fbc1f85e08be9	Volume size 8 GiB		
Encryption			
Encryption	KMS key ID	KMS key alias	KMS key ARN

## e. Create Volume from Snapshot

**Snapshots (1/1) Info**

Owned by me

Name	Snapshot ID	Volume size	Description	Storage tier	Snapshot status	Started	Progress	En
-	snap-012cd66ef2fcb5c4b	8 GiB	-	Standard	Completed	2024/08/26 20:30		No

**Snapshot ID: snap-012cd66ef2fcb5c4b**

**Details** | Snapshot settings | Storage tier | Tags

Snapshot ID snap-012cd66ef2fcb5c4b	Progress Available (100%)	Snapshot status Completed	Owner 396913734302
Started Mon Aug 26 2024 20:30:26 GMT+0530 (India Standard Time)	Product codes -	Fast snapshot restore -	Description -
Source volume			
Volume ID vol-091fbc1f85e08be9	Volume size 8 GiB		
Encryption			
Encryption	KMS key ID	KMS key alias	KMS key ARN

## To check availability zone of the instance

**Instances (1) Info**

Find Instance by attribute or tag (case-sensitive)

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Public IPv4 ...	Ela
cbdemo	i-0bfb1bdec39da394	Running	t2.micro	2/2 checks pass	View alarms +	ap-south-1b	ec2-43-204-234-51.ap...	43.204.234.51	-

**Select an instance**

## Need to take same availability zone as instance

The screenshot shows the 'Create snapshot' page in the AWS console. The 'Availability Zone' is set to 'ap-south-1b'. A message indicates that 'General Purpose SSD gp3 is now the default selection. gp3 provides up to 20% lower cost per GB than gp2.' The 'Size (GiB)' is set to 15, 'IOPS' is 3000, and 'Throughput (MiB/s)' is 125. The 'Fast snapshot restore' option is not enabled for the selected snapshot.

The screenshot shows the 'Volumes' page in the AWS console. The 'Availability Zone' is set to 'ap-south-1b'. The table lists three volumes: 'vol-091feb1f85e08be9' (gp2, 8 GiB, 100 IOPS), 'vol-06352b47077451880' (gp3, 10 GiB, 3000 IOPS), and 'vol-08d3f964c298019e4' (gp3, 15 GiB, 3000 IOPS). The 'Volume state' for the first two is 'In-use' and for the third is 'Available'.

## f. Detach previous Root EBS Volume (8 GB)

### 1. Stop the Root EBS Volume instance (8 GB)

The screenshot shows the 'Instances' page in the AWS console. The instance 'i-0bfb1bdec39da394' is in the 'Stopping' state. The 'Instance state' dropdown menu is open, showing options: 'Start instance', 'Reboot instance', 'Hibernate instance', and 'Terminate (delete) instance'.

Successfully initiated stopping of i-0bfb1bdecb39da394

Instances (1/1) info

Find Instance by attribute or tag (case-sensitive) All states

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Public IPv4 ...	Ela
ebsdemo	i-0bfb1bdecb39da394	Stopped	t2.micro	2/2 checks passed	View alarms +	ap-south-1b	-	-	-

i-0bfb1bdecb39da394 (ebsdemo)

Details Status and alarms Monitoring Security Networking Storage Tags

Instance summary info

Instance ID	i-0bfb1bdecb39da394 (ebsdemo)	Public IPv4 address	-	Private IPv4 addresses	172.31.7.222
IPv6 address	-	Instance state	Stopped	Public IPv4 DNS	-

## 2. Detach the Root EBS Instance

Successfully created snapshot snap-012cd66ef2fcb5c4b from volume vol-091fbc1f85e08be9. If you need your snapshot to be immediately available consider using Fast Snapshot Restore.

Volumes (1/2) info

Search

Name	Volume ID	Type	Size	IOPS	Throughput	Snapshot ID	Created
-	vol-091fbc1f85e08be9	gp2	8 GiB	100	-	snap-0b5f827...	2024/08/26 18:38 GMT+5:...
-	vol-06352b47077451880	gp3	10 GiB	3000	125	-	2024/08/26 18:38 GMT+5:...

Volume ID: vol-091fbc1f85e08be9

Details Status checks Monitoring Tags

Volume ID

vol-091fbc1f85e08be9

Size

8 GiB

Type

gp2

Volume status

Okay

Throughput

-

AWS Compute Optimizer finding

Opt-in to AWS Compute Optimizer for recommendations. | Learn more

Fast snapshot restored

No

Availability Zone

ap-south-1b

Created

Mon Aug 26 2024 18:38:22 GMT+0530 (India Standard Time)

Multi-Attach enabled

No

Attached resources

i-0bfb1bdecb39da394 (ebsdemo) /dev/xvda

Outposts ARN

-

Successfully detached volume.

Volumes (3) info

Search

Name	Volume ID	Type	Size	IOPS	Throughput	Snapshot ID	Created	Availability Zone	Volume state
-	vol-091fbc1f85e08be9	gp2	8 GiB	100	-	snap-0b5f827...	2024/08/26 18:38 GMT+5:...	ap-south-1b	Available
-	vol-06352b47077451880	gp3	10 GiB	3000	125	-	2024/08/26 18:38 GMT+5:...	ap-south-1b	In-use
-	vol-08d3f964c298019e4	gp3	15 GiB	3000	125	snap-012cd66...	2024/08/26 20:44 GMT+5:...	ap-south-1b	Available

Fault tolerance for all volumes in this Region

Snapshot summary

Recently backed up volumes / Total # volumes

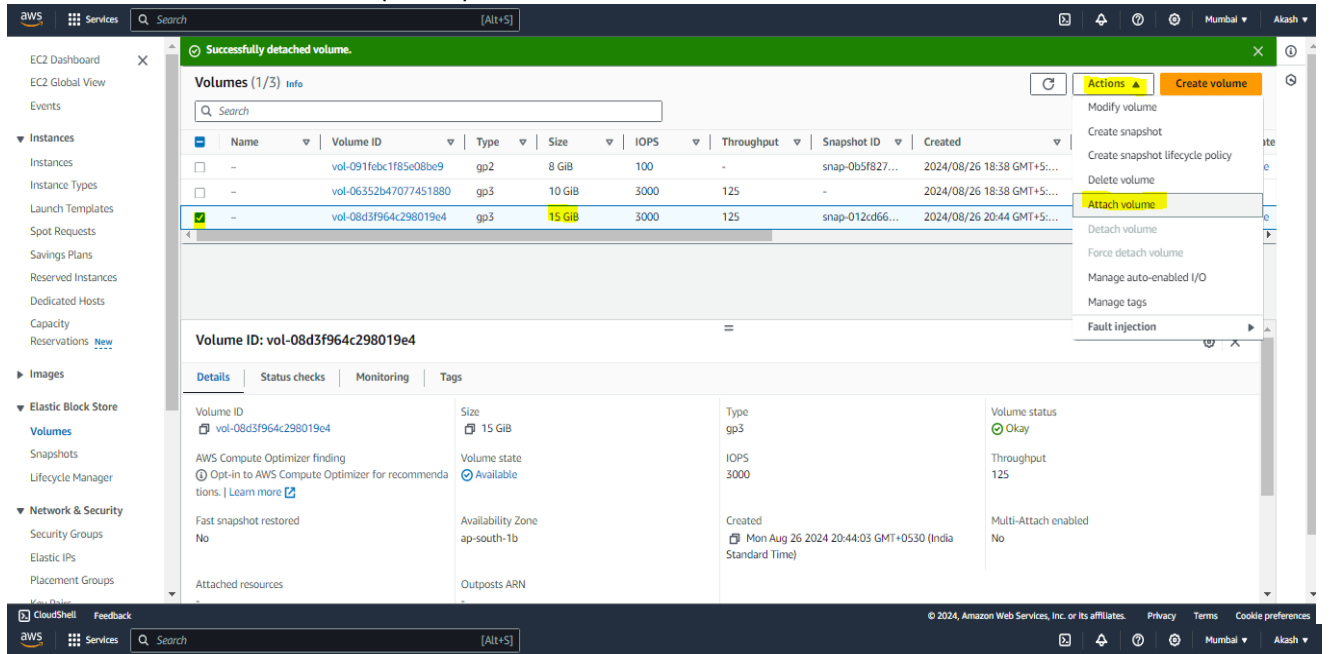
0 / 2

Data Lifecycle Manager default policy for EBS Snapshots status

No default policy set up | Create policy



## g. Attach new Root EBS Volume (15 GB)



Successfully detached volume.

Volumes (1/3) Info

Name	Volume ID	Type	Size	IOPS	Throughput	Snapshot ID	Created
-	vol-091feb185e08be9	gp2	8 GiB	100	-	snap-0b5f827...	2024/08/26 18:38 GMT+5...
-	vol-06352b47077451880	gp3	10 GiB	3000	125	-	2024/08/26 18:38 GMT+5...
-	vol-08d3f964c298019e4	gp3	15 GiB	3000	125	snap-012cd66...	2024/08/26 20:44 GMT+5...

Volume ID: vol-08d3f964c298019e4

Details Status checks Monitoring Tags

Volume ID: vol-08d3f964c298019e4

Size: 15 GiB

Type: gp3

Volume state: Available

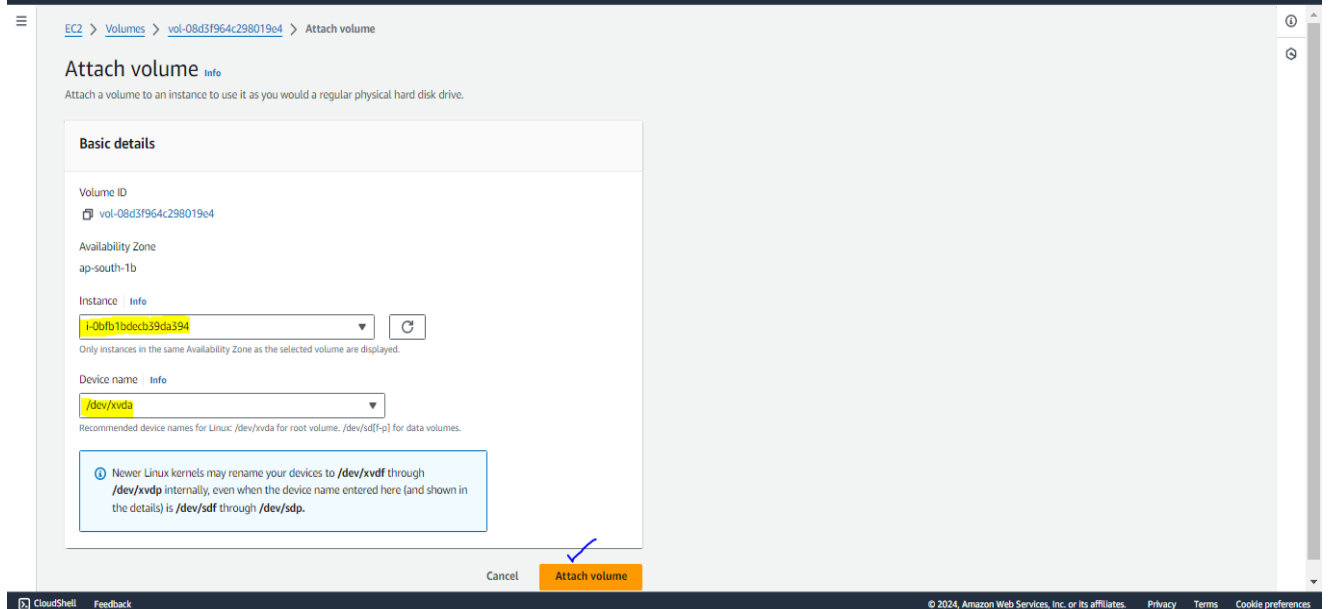
IOPS: 3000

Throughput: 125

Availability Zone: ap-south-1b

Created: Mon Aug 26 2024 20:44:03 GMT+0530 (India Standard Time)

Multi-Attach enabled: No



Attach volume Info

Attach a volume to an instance to use it as you would a regular physical hard disk drive.

Basic details

Volume ID: vol-08d3f964c298019e4

Availability Zone: ap-south-1b

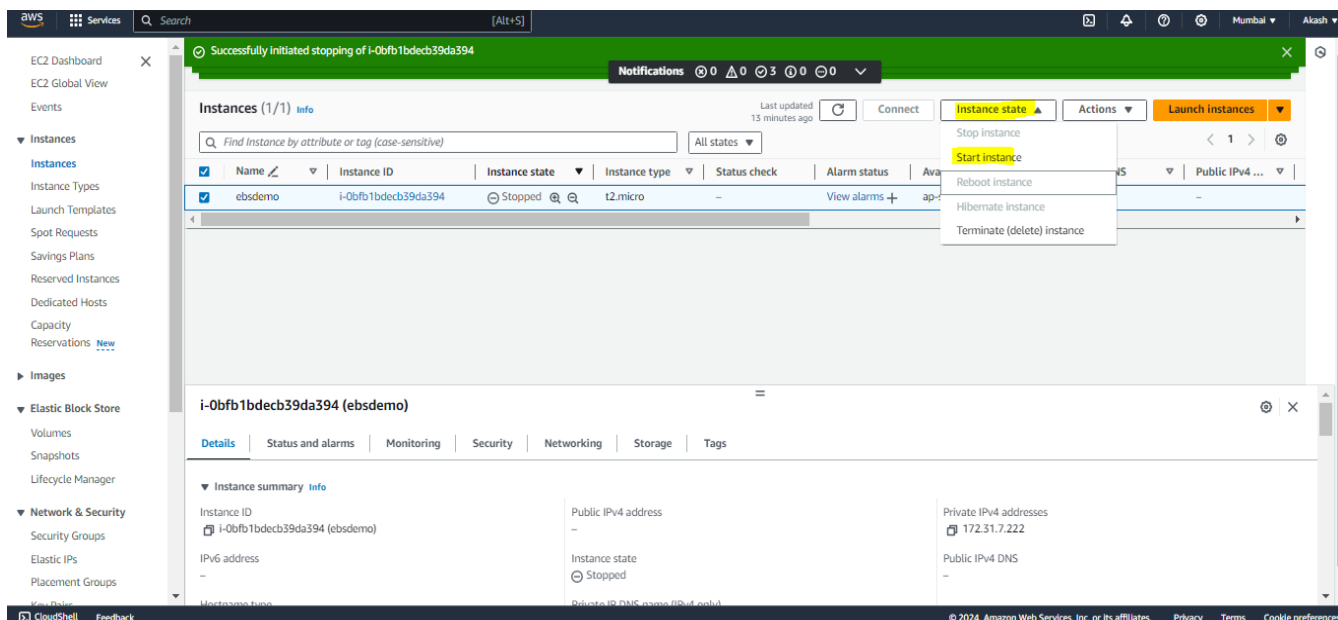
Instance: i-0bfb1bdecb39da394

Device name: /dev/xvda

Recommended device names for Linux: /dev/xvda for root volumes, /dev/sd[1-p] for data volumes.

Newer Linux kernels may rename your devices to /dev/xvdf through /dev/xvdp internally, even when the device name entered here (and shown in the details) is /dev/sdf through /dev/sdp.

Cancel Attach volume



Successfully initiated stopping of i-0bfb1bdecb39da394

Instances (1/1) Info

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
ebsdemo	i-0bfb1bdecb39da394	Stopped	t2.micro	All checks passed	No alarms	ap-south-1b

Instance state: Stop instance, Start instance, Reboot instance, Hibernate instance, Terminate (delete) instance

i-0bfb1bdecb39da394 (ebsdemo)

Details Status and alarms Monitoring Security Networking Storage Tags

Instance summary Info

Instance ID: i-0bfb1bdecb39da394 (ebsdemo)

Instance type: t2.micro

Status check: All checks passed

Alarm status: No alarms

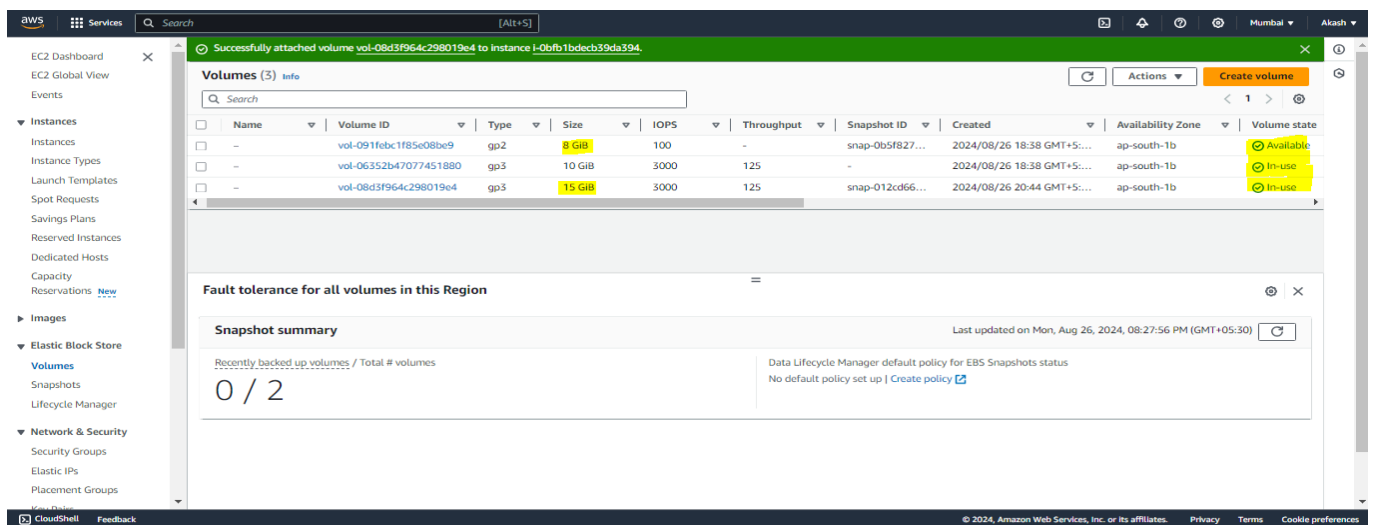
Availability Zone: ap-south-1b

Public IPv4 address: -

Private IPv4 addresses: 172.31.7.222

Public IPv4 DNS: -





#### h. Check new Root EBS Volume and check the file

```

    \#/'->
    ~~~~
    ~~~~~
    /m/'

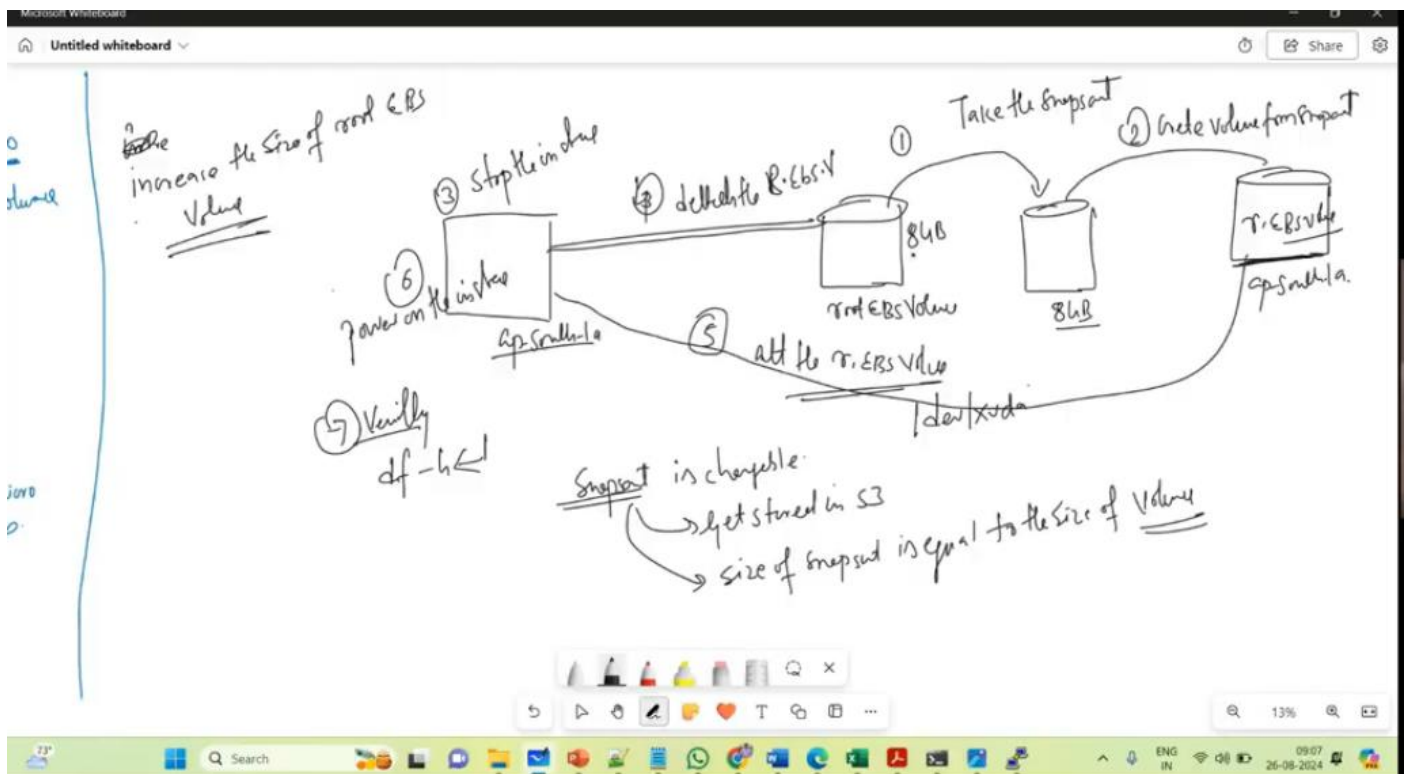
A newer version of Amazon Linux is available!

Amazon Linux 2023, GA and supported until 2028-03-15.
https://aws.amazon.com/linux/amazon-linux-2023/

[ec2-user@ip-172-31-7-222 ~]$ sudo su -
Last login: Mon Aug 26 13:20:57 UTC 2024 on pts/0
[root@ip-172-31-7-222 ~]# df -h
Filesystem      Size     Used Available Use% Mounted on
devtmpfs        467M     0   467M     0% /dev
tmpfs            477M     0   477M     0% /dev/shm
tmpfs            477M    404K   476M     1% /run
tmpfs            477M     0   477M     0% /sys/fs/cgroup
/dev/xvda1       15G     1.8G     14G    12% /
tmpfs            96M     0     96M     0% /run/user/1000
[root@ip-172-31-7-222 ~]# cd /
[root@ip-172-31-7-222 /]# ls -ltr
total 20
drwxr-xr-x    2 root root    6 Apr  9  2019 srv
drwxr-xr-x    2 root root    6 Apr  9  2019 mnt
drwxr-xr-x    2 root root    6 Apr  9  2019 media
drwxr-xr-x    2 root root    6 Aug 16 14:12 local
lrwxrwxrwx    1 root root    8 Aug 16 14:12 sbin -> usr/sbin
lrwxrwxrwx    1 root root    9 Aug 16 14:12 lib64 -> usr/lib64
lrwxrwxrwx    1 root root    7 Aug 16 14:12 lib -> usr/lib
lrwxrwxrwx    1 root root    7 Aug 16 14:12 bin -> usr/bin
drwxr-xr-x   13 root root   155 Aug 16 14:12 usr
drwxr-xr-x    4 root root    27 Aug 16 14:13 opt
dr-xr-xr-x    4 root root  4096 Aug 16 14:13 boot
drwxr-xr-x   19 root root   269 Aug 26 13:08 var
drwxr-xr-x   81 root root  8192 Aug 26 13:08 etc
dr-xr-x---    3 root root   124 Aug 26 13:19 root
drwxr-xr-x    4 root root    35 Aug 26 13:33 home
-rw-r--r--    1 root root    6 Aug 26 14:15 devops.txt
dr-xr-xr-x   13 root root    0 Aug 26 15:43 sys
dr-xr-xr-x   155 root root    0 Aug 26 15:43 proc
drwxr-xr-x   15 root root   2940 Aug 26 15:43 dev
drwxr-xr-x   28 root root    960 Aug 26 15:43 run
drwxrwxrwt    9 root root    251 Aug 26 15:43 tmp
[root@ip-172-31-7-222 /]# cat devops.txt
Hello
[root@ip-172-31-7-222 /]# █
```

Note:

1. Take the snapshot of the root EBS volume
  - a) Snapshot is chargeable
  - b) Get stored in S3
  - c) Size of snapshot is equal to the size of volume
2. Get the volume from snapshot
3. Stop the instance
4. Detach the root EBS volume
5. Attach the root EBS volume
  - a) Mount point: /dev/xvda
6. Power on instance
7. Verify: #df -h





## Increase size of EBS Volume from 8GB to 15 GB

### a. Create instance with two volumes

The screenshot shows the AWS Management Console interface. On the left, the navigation menu includes EC2 Dashboard, EC2 Global View, Events, Instances, Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Capacity, Reservations, Images, AMIs, AMI Catalog, Elastic Block Store, Volumes, Snapshots, Lifecycle Manager, Network & Security, Security Groups, and CloudShell. The main content area displays the 'Instances (1/2) info' page. A table lists the instance 'i-07fead9fc821a3a39' with state 'Running', type 't2.micro', and two attached EBS volumes. Below the table, the 'Block devices' section shows a detailed view of the volumes: 'vol-029e7d76d63c494c8' (8 GB, /dev/xvda) and 'vol-0c083e2ebae74ff67' (5 GB, /dev/sdb). The 'Volume monitoring' section is also visible.

### b. Create and mount the directory

```
root@ip-172-31-32-21:~  
_/_m/' https://aws.amazon.com/linux/amazon-linux-2023/  
[ec2-user@ip-172-31-32-21 ~]$ sudo su -  
Last login: Tue Aug 27 00:11:10 UTC 2024 on pts/0  
[root@ip-172-31-32-21 ~]$ lsblk  
NAME        MAJ:MIN RM  SIZE RO TYPE MOUNTPOINT  
xvda        202:0    0   8G  0 disk  
└─xvda1     202:1    0   8G  0 part /  
xvdb        202:16   0   5G  0 disk  
[root@ip-172-31-32-21 ~]$ file -s /dev/svdb  
/dev/svdb: cannot open (No such file or directory)  
[root@ip-172-31-32-21 ~]$ file -s /dev/xvdb  
/dev/xvdb: data  
[root@ip-172-31-32-21 ~]$ mkfs-t ext4 /dev/xvdb  
-bash: mkfs-t: command not found  
[root@ip-172-31-32-21 ~]$ mkfs -t ext4 /dev/xvdb  
mke2fs 1.42.9 (28-Dec-2013)  
Filesystem label=  
OS type: Linux  
Block size=4096 (log=2)  
Fragment size=4096 (log=2)  
Stride=0 blocks, Stripe width=0 blocks  
327680 inodes, 1310720 blocks  
65536 blocks (5.00%) reserved for the super user  
First data block=0  
Maximum filesystem blocks=1342177280  
40 block groups  
32768 blocks per group, 32768 fragments per group  
8192 inodes per group  
Superblock backups stored on blocks:  
    32768, 98304, 163840, 229376, 294912, 819200, 884736  
  
Allocating group tables: done  
Writing inode tables: done  
Creating journal (32768 blocks): done  
Writing superblocks and filesystem accounting information: done  
  
[root@ip-172-31-32-21 ~]$ mkdir /home/akash  
[root@ip-172-31-32-21 ~]$ mount /dev/xvdb /home/akash  
[root@ip-172-31-32-21 ~]$  
[root@ip-172-31-32-21 ~]$ df -h  
Filesystem      Size  Used Avail Use% Mounted on  
devtmpfs        467M   0  467M   0% /dev  
tmpfs           477M   0  477M   0% /dev/shm  
tmpfs           477M 408K  476M   1% /run  
tmpfs           477M   0  477M   0% /sys/fs/cgroup  
/dev/xvda1      8.0G  1.8G   6.3G  23% /  
tmpfs           96M   0   96M   0% /run/user/1000  
/dev/xvdb       4.8G   24K   4.6G   1% /home/akash  
[root@ip-172-31-32-21 ~]$
```

## C. Check the EBS Volume with instance ID

**Volumes (2) info**

Search: **i-07fead99f6821a3a39** Clear filters

Name	Volume ID	Type	Size	IOPS	Throughput	Snapshot ID	Created	Availability Zone	Volume state
-	vol-029e7d76d63c494c8	gp2	8 GiB	100	-	snap-0b5f827...	2024/08/27 05:33 GMT+5:...	ap-south-1a	In-use
-	vol-0c083e2ebae74ff67	gp3	5 GiB	3000	125	-	2024/08/27 05:33 GMT+5:...	ap-south-1a	In-use

**Fault tolerance for all volumes in this Region**

**Snapshot summary** Last updated on Tue, Aug 27, 2024, 05:28:09 AM (GMT+05:30)

Recently backed up volumes / Total # volumes: **1 / 3**

Data Lifecycle Manager default policy for EBS Snapshots status: No default policy set up | [Create policy](#)

- d. Modify EBC Volume from 5 GB to 15 GB with the action of Modify Volume  
To increase the EBS volume, No need to take the snapshot

**Volumes (1/2) info**

Search: **i-07fead99f6821a3a39** Clear filters

Name	Volume ID	Type	Size	IOPS	Throughput	Snapshot ID	Created
-	vol-029e7d76d63c494c8	gp2	8 GiB	100	-	snap-0b5f827...	2024/08/27 05:33 GMT+5:...
-	vol-0c083e2ebae74ff67	gp3	5 GiB	3000	125	-	2024/08/27 05:33 GMT+5:...

**Volume ID: vol-0c083e2ebae74ff67**

**Details** Status checks Monitoring Tags

Volume ID: vol-0c083e2ebae74ff67

Size: 5 GiB

Type: gp3

Volume status: **Okay**

IOPS: 3000

Throughput: 125

Availability Zone: ap-south-1a

Created: Tue Aug 27 2024 05:33:15 GMT+0530 (India Standard Time)

Multi-Attach enabled: No

Attached resources: i-07fead99f6821a3a39 (EC2 instance) - [View info](#)

Outposts ARN: -

**Modify volume** Info

Modify the type, size, and performance of an EBS volume.

**Volume details**

Volume ID: vol-0c083e2ebae74ff67

Volume type: **General Purpose SSD (gp3)**

Size (GiB): **15**

Min: 1 GiB, Max: 16384 GiB. The value must be an integer.

IOPS: **3000**

Min: 3000 IOPS, Max: 16000 IOPS. The value must be an integer.

Throughput (MiB/s): **125**

Min: 125 MiB, Max: 1000 MiB. Baseline: 125 MiB/s.

Cancel **Modify**

Requested volume modification for volume vol-0c083e2ebae74ff67. The volume is being modified.

Volumes (2) info

Search

Clear filters

	Name	Volume ID	Type	Size	IOPS	Throughput	Snapshot ID	Created	Availability Zone	Volume state
<input type="checkbox"/>	-	vol-029e7d76d63c494c8	gp2	8 GiB	100	-	snap-0b5f827...	2024/08/27 05:33 GMT+5:...	ap-south-1a	In-use
<input type="checkbox"/>	-	vol-0c083e2ebae74ff67	gp3	15 GiB	3000	125	-	2024/08/27 05:33 GMT+5:...	ap-south-1a	In-use - op

Fault tolerance for all volumes in this Region

Snapshot summary

Last updated on Tue, Aug 27, 2024, 05:28:09 AM (GMT+05:30)

Recently backed up volumes / Total # volumes

1 / 3

Data Lifecycle Manager default policy for EBS Snapshots status

No default policy set up | [Create policy](#)

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e. Extend the file system after resizing an EBS Volume

```
[root@ip-172-31-32-21 ~]#
[root@ip-172-31-32-21 ~]# df -h
Filesystem      Size  Used Avail Use% Mounted on
devtmpfs        467M   0  467M   0% /dev
tmpfs           477M   0  477M   0% /dev/shm
tmpfs           477M 408K  476M   1% /run
tmpfs           477M   0  477M   0% /sys/fs/cgroup
/dev/xvda1      8.0G  1.8G   6.3G  23% /
tmpfs           96M   0   96M   0% /run/user/1000
/dev/xvdb       4.8G   24K   4.6G   1% /home/akash
[root@ip-172-31-32-21 ~]# lsblk
NAME        MAJ:MIN RM  SIZE RO TYPE MOUNTPOINT
xvda       202:0    0    8G  0 disk
└─xvda1    202:1    0    8G  0 part /
xvdb       202:16   0   15G  0 disk /home/akash
[root@ip-172-31-32-21 ~]# resize2fs /dev/xvdb ✓
resize2fs 1.42.9 (28-Dec-2013)
Filesystem at /dev/xvdb is mounted on /home/akash; on-line resizing required
old_desc_blocks = 1, new_desc_blocks = 2
The filesystem on /dev/xvdb is now 3932160 blocks long.

[root@ip-172-31-32-21 ~]# df -h
Filesystem      Size  Used Avail Use% Mounted on
devtmpfs        467M   0  467M   0% /dev
tmpfs           477M   0  477M   0% /dev/shm
tmpfs           477M 408K  476M   1% /run
tmpfs           477M   0  477M   0% /sys/fs/cgroup
/dev/xvda1      8.0G  1.8G   6.3G  23% /
tmpfs           96M   0   96M   0% /run/user/1000
/dev/xvdb       15G   24K   14G   1% /home/akash
[root@ip-172-31-32-21 ~]#
```