

LAB | Resize and Attach EBS Volumes in AWS

EC2 Instance with 2 Volumes :

The screenshot shows the AWS Management Console for an EC2 instance. The instance is in the 'Running' state. The 'Storage' tab is selected, showing the following details:

- Root device details:** Root device name: /dev/xvda, Root device type: EBS, EBS optimization: disabled.
- Block devices:** A table listing the attached EBS volumes.

Volume ID	Device name	Volume size (GiB)	Volume State	Attachment status	Attachment time	Encrypted	KMS key ID
vol-0d1b39b13a175121c	/dev/xvda	10	In-use	Attached	2026/01/21 14:13 GMT+1	No	-
vol-0ca5fe9e50b142579	/dev/xvdb	10	In-use	Attached	2026/01/21 14:13 GMT+1	No	-

```
[ec2-user@ip-172-31-21-103 ~]$ lsblk
NAME        MAJ:MIN RM SIZE RO TYPE MOUNTPOINTS
xvda        202:0    0  10G  0 disk 
├─xvda1     202:1    0  10G  0 part /
├─xvda127   259:0    0   1M  0 part 
├─xvda128   259:1    0  10M  0 part /boot/efi
└─xvdb      202:16   0  10G  0 disk 
[ec2-user@ip-172-31-21-103 ~]$
```

Resize the Root Volume

```
[ec2-user@ip-172-31-21-103 ~]$ lsblk
NAME        MAJ:MIN RM SIZE RO TYPE MOUNTPOINTS
xvda        202:0    0  20G  0 disk 
├─xvda1     202:1    0  10G  0 part /
├─xvda127   259:0    0   1M  0 part 
├─xvda128   259:1    0  10M  0 part /boot/efi
└─xvdb      202:16   0  10G  0 disk 
[ec2-user@ip-172-31-21-103 ~]$
```

Extend the Root Partition and Filesystem

```
ec2-user@ip-172-31-21-103 ~]$ sudo growpart /dev/xvda 1
WARNING: partition=1 start=24576 old: size=20946911 end=20971487 new: size=41918431 end=41943007
ec2-user@ip-172-31-21-103 ~]$
```

```
ec2-user@ip-172-31-21-103 ~]$ lsblk
NAME        MAJ:MIN RM SIZE RO TYPE MOUNTPOINTS
xvda        202:0    0 20G  0 disk
├─xvda1     202:1    0 20G  0 part /
├─xvda127   259:0    0  1M  0 part
├─xvda128   259:1    0 10M  0 part /boot/efi
└─xvdb      202:16   0 10G  0 disk
ec2-user@ip-172-31-21-103 ~]$
```

```
ec2-user@ip-172-31-21-103 ~]$ df -hT
Filesystem      Type      Size  Used Avail Use% Mounted on
devtmpfs        devtmpfs  4.0M   0    4.0M   0% /dev
tmpfs           tmpfs     481M   0    481M   0% /dev/shm
tmpfs           tmpfs     193M  448K   192M   1% /run
/dev/xvda1      xfs       10G   1.6G   8.5G  16% /
tmpfs           tmpfs     481M   0    481M   0% /tmp
/dev/xvda128    vfat      10M   1.3M   8.7M  13% /boot/efi
tmpfs           tmpfs     97M    0     97M   0% /run/user/1000
ec2-user@ip-172-31-21-103 ~]$
```

```
ec2-user@ip-172-31-21-103 ~]$ sudo xfs_growfs -d /
meta-data=/dev/xvda1      isize=512    agcount=3, agsize=1047040 blks
                =          sectsz=4096   attr=2, projid32bit=1
                =          crc=1        finobt=1, sparse=0, rmapbt=0
                =          reflink=0     bigtime=1 inobtcount=1 nnext64=0
                =          exchange=0
data        =             bsize=4096   blocks=2618363, imaxpct=25
                =          sunit=128    swidth=128 blks
naming      =version 2      bsize=16384  ascii-ci=0, ftype=1, parent=0
log         =internal log   bsize=4096   blocks=16384, version=2
                =          sectsz=4096   sunit=4 blks, lazy-count=1
realtime    =none          extsz=4096   blocks=0, rtextents=0
data blocks changed from 2618363 to 5239803
ec2-user@ip-172-31-21-103 ~]$
```

```
[ec2-user@ip-172-31-21-103 ~]$ df -hT
```

Filesystem	Type	Size	Used	Avail	Use%	Mounted on
devtmpfs	devtmpfs	4.0M	0	4.0M	0%	/dev
tmpfs	tmpfs	481M	0	481M	0%	/dev/shm
tmpfs	tmpfs	193M	448K	192M	1%	/run
/dev/xvda1	xfs	20G	1.6G	19G	8%	/
tmpfs	tmpfs	481M	0	481M	0%	/tmp
/dev/xvda128	vfat	10M	1.3M	8.7M	13%	/boot/efi
tmpfs	tmpfs	97M	0	97M	0%	/run/user/1000