

LAB | Resize and Attach EBS Volumes in AWS

EC2 Instance with 2 Volumes :

The screenshot shows the AWS EC2 Instances details page for an instance with ID i-0860dfb8969383d72. The instance is running and has two volumes attached:

- Root device details:** Root device name /dev/xvda, Root device type EBS, EBS optimization disabled.
- Block devices:** Two volumes listed:
 - vol-0d1b39b13a175121c: Device name /dev/xvda, Volume size (GiB) 10, Volume State In-use, Attachment status Attached, Attachment time 2026/01/21 14:13 GMT+1, Encrypted No, KMS key ID -.
 - vol-0ca5fe9e50b142579: Device name /dev/sdb, Volume size (GiB) 10, Volume State In-use, Attachment status Attached, Attachment time 2026/01/21 14:13 GMT+1, Encrypted No, KMS key ID -.

```
[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
HANGED: 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 nrext64=0
data      =          exchange=0
          =          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 ~]$ 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
```