

## Working with Block Volumes/traditional fstab options.txt

### Traditional fstab Options

On Linux instances, if you want to automatically mount volumes on instance boot, you need to set some specific options in the `/etc/fstab`

#### Note

These steps are for block volumes that do not have consistent device paths enabled. If consistent device paths are enabled for the block Volume UUIDs

On Linux operating systems, the order in which volumes are attached is non-deterministic, so it can change with each reboot. If you refer

To prevent this issue, specify the volume UUID in the `/etc/fstab` file instead of the device name. When you use the UUID, the mount proces

#### Determining the UUID for a Volume

Follow the steps to attach a volume and connect to the volume.

After the volumes are connected, create the file system of your choice on each volume using standard Linux tools.

The remaining steps assume that three volumes were connected, and that an XFS file system was created on each volume.

Run the following command to use the `blkid` utility to get the UUIDs for the volumes:

#### Copy

```
sudo blkid
```

The output will look similar to the following:

```
{ /dev/sda3: UUID="1701c7e0-7527-4338-ae9f-672fd8d24ec7" TYPE="xfs" PARTUUID="82d2ba4e-4d6e-4a33-9c4d-ba52db57ea61" }
{ /dev/sda1: UUID="5750-10A1" TYPE="vfat" PARTLABEL="EFI System Partition" PARTUUID="082c26fd-85f5-4db2-9f4e-9288a3f3e784" }
{ /dev/sda2: UUID="1aad7aca-689d-4f4f-aff0-e0d46fc1b89f" TYPE="swap" PARTUUID="94ee5675-a805-49b2-aaf5-2fa15aade8d5" }
{ /dev/sdb: UUID="699a776a-3d8d-4c88-8f46-209101f318b6" TYPE="xfs" }
{ /dev/sdd: UUID="85566369-7148-4ffc-bf97-50954cae7854" TYPE="xfs" }
{ /dev/sdc: UUID="ba0ac1d3-58cf-4ff0-bd28-f2df532f7de9" TYPE="xfs" }
```

The root volume in this output is `/dev/sda*`. The additional remote volumes are:

```
/dev/sdb
/dev/sdc
/dev/sdd
```

To automatically attach the volumes at `/mnt/vol1`, `/mnt/vol2`, and `/mnt/vol3` respectively, create the three directories using the following

#### Copy

```
bash-4.2$ sudo mkdir /mnt/vol1
{{ bash-4.2$ sudo mkdir /mnt/vol2 }}
{{ bash-4.2$ sudo mkdir /mnt/vol3 }}
```

Use the `_netdev` and `nofail` Options

By default, the `/etc/fstab` file is processed before the initiator starts. Configure the mount process to initiate before the volumes are

When you create a custom image of an instance where the volumes, excluding the root volume, are listed in the `/etc/fstab` file, instances

In the example scenario with three volumes, the `/etc/fstab` file entries for the volumes with the `_netdev` and `nofail` options are as follow

#### Copy

```
UUID=699a776a-3d8d-4c88-8f46-209101f318b6 /mnt/vol1 xfs defaults,_netdev,nofail 0 2
UUID=ba0ac1d3-58cf-4ff0-bd28-f2df532f7de9 /mnt/vol2 xfs defaults,_netdev,nofail 0 2
UUID=85566369-7148-4ffc-bf97-50954cae7854 /mnt/vol3 xfs defaults,_netdev,nofail 0 2
After you have updated the /etc/fstab file, use the following command to mount the volumes:
```

#### Copy

```
bash-4.2$ sudo mount -a
```

Reboot the instance to confirm that the volumes are mounted properly on reboot with the following command:

#### Copy

```
bash-4.2$ sudo reboot
```

Troubleshooting Issues with the `/etc/fstab` File

If the instance fails to reboot after you update the `/etc/fstab` file, you may need to undo the changes to the `/etc/fstab` file. To update