

Attach a new disk under ubuntu in the cloud

All commands below should be run as root or with prefixed sudo

You have to adjust `/dev/sdXY` according to your system!

1 Make the disk available to the system

```
apt-get install lsscsi scsitolos
```

```
rescan-scsi-bus
```

2 Check that the disk is available

```
fdisk -l
```

Note down the partitions and which one is the new one - you will have to substitute `/dev/vdb` in the examples below to match your setup.

3 Partition the disk

Be very careful here – you might lose all your data if you use an existing partition!

```
fdisk /dev/vdb
```

choose **m** for help

Choose either **g** or **o** for a new partition table in either GPT-style (the new one, does not work everywhere) or the old DOS-style (works everywhere but then you can only have 4 partitions on the disk)

For one partition only spanning the whole disk choose

n

followed by enter for all questions.

Check with

m

to see that everything is as needed.

w

(write) followed with **q** (quits) this tool.

If you have the gui working you can use `gparted` to make this too.

4 Create a filesystem

Create a filesystem on the disk - for that you use `mkfs.extX` where X can be 3 or 4 for the newer types, e.g.

```
mkfs.ext4 /dev/vdb1
```

Be very careful here – you might lose all your data if you use an existing partition!

5 Mount the filesystem

Finally mount the filesystem somewhere in the filesystem tree, in the example below at /mnt.

```
mount /dev/vdb1 /mnt
```

Check

```
df | grep mnt
```

should return something like this:

```
/dev/vdb1          96113420    61104   91147000    1% /mnt
```

6 Make the mounting persistent across reboots

Edit /etc/fstab.

```
sudo nano -Bw /etc/fstab
```

Choose either syntax below.

Old device-based syntax

```
/dev/sdb1 /mnt ext4 defaults 0 2
```

Save the file and reboot.

Newer UUID-based syntax

It is better to use the new UUID-syntax than the old /dev/sdXY since the system can attach the disks at varying devices. This is especially important if you have several disks to be mounted.

```
blkid
```

gives you the information needed – or

```
lsblk -f
```

in a more explanative way.

An example how to mount /, boot and swap in that syntax:

```
UUID=8f286417-f069-471e-8c9c-62460975c59a /          ext4  defaults  1 1
UUID=1afd0bf8-4529-4e40-a4f9-2b21a26c1192 /boot      ext4  defaults  1 2
UUID=b4cb6e8f-ee31-41f0-9edf-86e51f8092cd swap       swap  defaults  0 0
```

Save the file and reboot.

Links

<https://help.ubuntu.com/community/Fstab>