

Auto Mount External Drive at Startup in Ubuntu Server 22.04

I AM NOT TAKING ANY CHANCES OF MOUNTING ANYTHING. THERE IS A 2TB HARDWARE RAID-1 MIRROR THAT IS MOUNTED, AND I DON'T WANT THE 4TB USB SSD DRIVE TO CONFLICT WITH THAT WHEN THE SYSTEM REBOOTS. IT APPEARS THAT UBUNTU IS SWITCHING THE MOUNTS OF THE /SDA AND THE /SDB AFTER A REBOOT.

However, I will keep the documentation below until such time as I figure out how to do this without any conflicts, and amend the entire process accordingly.

See: <https://developerinsider.co/auto-mount-drive-in-ubuntu-server-22-04-at-startup/>

```
sudo mkdir /media/usbssd
```

```
~$ lsblk -o NAME,FSTYPE,UUID,MOUNTPOINTS
NAME                                FSTYPE      UUID
MOUNTPOINTS
loop1                               squashfs
/snap/core20/1950
loop2                               squashfs
/snap/lxd/24322
loop3                               squashfs
/snap/snapd/19361
loop4                               squashfs
/snap/snapd/19457
loop5                               squashfs
/snap/core20/1974
sda
├─sda1
├─sda2                               ext4          94e62aba-77a5-45db-a9ba-ca358fa589df
/boot
└─sda3                               LVM2_member  hXjBKC-htj8-a0Zn-El2e-C3Jk-Y24f-e3S0bN
    └─ubuntu--vg-ubuntu--lv          ext4          0d6b481f-ec40-4951-b6d7-76ba4cde2dfb
/
sdb
├─sdb1
└─sdb2
sr0
```

How to Mount an External Drive on Ubuntu 22.04 Server

See: <https://brightwhiz.com/how-to-mount-an-external-drive-on-ubuntu-22-04-server/>

```
sudo fdisk -l
```

```
Disk /dev/loop1: 63.45 MiB, 66527232 bytes, 129936 sectors
Units: sectors of 1 * 512 = 512 bytes
```

Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes

Disk /dev/loop2: 111.95 MiB, 117387264 bytes, 229272 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes

Disk /dev/loop3: 53.26 MiB, 55844864 bytes, 109072 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes

Disk /dev/loop4: 53.26 MiB, 55844864 bytes, 109072 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes

Disk /dev/loop5: 63.45 MiB, 66531328 bytes, 129944 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes

Disk /dev/sda: 1.82 TiB, 1999844147200 bytes, 3905945600 sectors
Disk model: Virtual Disk
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disklabel type: gpt
Disk identifier: 299F1292-7D64-4846-83BD-CF8BD5034D74

Device	Start	End	Sectors	Size	Type
/dev/sda1	2048	4095	2048	1M	BIOS boot
/dev/sda2	4096	4198399	4194304	2G	Linux filesystem
/dev/sda3	4198400	3905943551	3901745152	1.8T	Linux filesystem

Disk /dev/mapper/ubuntu--vg-ubuntu--lv: 1.82 TiB, 1997692469248 bytes, 3901743104 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
The backup GPT table is corrupt, but the primary appears OK, so that will be used.

```
Disk /dev/sdb: 3.81 TiB, 4194304000000 bytes, 1024000000 sectors
Disk model: UDisk
Units: sectors of 1 * 4096 = 4096 bytes
Sector size (logical/physical): 4096 bytes / 4096 bytes
I/O size (minimum/optimal): 4096 bytes / 4096 bytes
Disklabel type: gpt
Disk identifier: AB3F7F29-78F9-46D2-90C7-B2FC88C5E922
```

Device	Start	End	Sectors	Size	Type
/dev/sdb1	6	4095	4090	16M	Microsoft reserved
/dev/sdb2	4096	1023999993	1023995898	3.8T	Microsoft basic data

How to mount an exFAT drive on Ubuntu - Article from Year 2019

See: <https://www.fossilinux.com/17725/how-to-mount-an-exfat-drive-on-ubuntu.htm>

Ubuntu by default does not provide support for the exFAT filesystem. But what about the latest LTS Ubuntu version 22.04? Does it already have exFAT utils?

Enabling exFAT support on Ubuntu 22.04

See: <https://unixcop.com/enabling-exfat-support-on-ubuntu-22-04/>

Previously, installing the exfat-utils package on Ubuntu was enough. But now it is not. This package is no longer maintained and has been replaced by another one.

First, open a terminal or connect via ssh and update the server

```
sudo apt update
sudo apt upgrade
```

After that, you can install the exfatprogs package, which is maintained by Samsung engineers.

So, install the package:

```
sudo apt install exfatprogs
```

So, this is the new way to add exFAT support to Ubuntu 22.04. It is more robust, stable and with better results than the previous one.

Here are the results of running the installation of exfatprogs

```
sudo apt install exfatprogs
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following NEW packages will be installed:
  exfatprogs
0 upgraded, 1 newly installed, 0 to remove and 0 not upgraded.
Need to get 40.3 kB of archives.
After this operation, 151 kB of additional disk space will be used.
Get:1 http://us.archive.ubuntu.com/ubuntu jammy/universe amd64 exfatprogs
```

```
amd64 1.1.3-1 [40.3 kB]
Fetched 40.3 kB in 0s (171 kB/s)
Selecting previously unselected package exfatprogs.
(Reading database ... 156168 files and directories currently installed.)
Preparing to unpack .../exfatprogs_1.1.3-1_amd64.deb ...
Unpacking exfatprogs (1.1.3-1) ...
Setting up exfatprogs (1.1.3-1) ...
Processing triggers for man-db (2.10.2-1) ...
Scanning processes...
Scanning processor microcode...
Scanning linux images...

Running kernel seems to be up-to-date.

The processor microcode seems to be up-to-date.

No services need to be restarted.

No containers need to be restarted.

No user sessions are running outdated binaries.

No VM guests are running outdated hypervisor (qemu) binaries on this host.
```

To make sure that the whole process went well, reboot the server

```
sudo reboot now
```

Run the Fdisk again:

```
sudo fdisk -l
```

Disk /dev/loop0: 111.95 MiB, 117387264 bytes, 229272 sectors Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes I/O size (minimum/optimal): 512 bytes / 512 bytes

Disk /dev/loop1: 53.26 MiB, 55844864 bytes, 109072 sectors Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes I/O size (minimum/optimal): 512 bytes / 512 bytes

Disk /dev/loop2: 53.26 MiB, 55844864 bytes, 109072 sectors Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes I/O size (minimum/optimal): 512 bytes / 512 bytes

Disk /dev/loop3: 63.45 MiB, 66527232 bytes, 129936 sectors Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes I/O size (minimum/optimal): 512 bytes / 512 bytes

Disk /dev/loop4: 63.45 MiB, 66531328 bytes, 129944 sectors Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes I/O size (minimum/optimal): 512 bytes / 512 bytes
The backup GPT table is corrupt, but the primary appears OK, so that will be used.

Disk /dev/sda: 3.81 TiB, 4194304000000 bytes, 1024000000 sectors Disk model: UDisk Units: sectors
of 1 * 4096 = 4096 bytes Sector size (logical/physical): 4096 bytes / 4096 bytes I/O size

(minimum/optimal): 4096 bytes / 4096 bytes Disklabel type: gpt Disk identifier:
AB3F7F29-78F9-46D2-90C7-B2FC88C5E922

Device Start End Sectors Size Type /dev/sda1 6 4095 4090 16M Microsoft reserved /dev/sda2 4096 1023999993 1023995898 3.8T Microsoft basic data

Disk /dev/sdb: 1.82 TiB, 1999844147200 bytes, 3905945600 sectors Disk model: Virtual Disk Units:
sectors of 1 * 512 = 512 bytes Sector size (logical/physical): 512 bytes / 512 bytes I/O size
(minimum/optimal): 512 bytes / 512 bytes Disklabel type: gpt Disk identifier:
299F1292-7D64-4846-83BD-CF8BD5034D74

Device Start End Sectors Size Type /dev/sdb1 2048 4095 2048 1M BIOS boot /dev/sdb2 4096 4198399 4194304 2G Linux filesystem /dev/sdb3 4198400 3905943551 3901745152 1.8T Linux filesystem

Disk /dev/mapper/ubuntu-vg-ubuntu-lv: 1.82 TiB, 1997692469248 bytes, 3901743104 sectors Units:
sectors of 1 * 512 = 512 bytes Sector size (logical/physical): 512 bytes / 512 bytes I/O size
(minimum/optimal): 512 bytes / 512 bytes

So, this part of the above results looks like the external USB SSD drive we want to mount, and automount:

```
Disk /dev/sda: 3.81 TiB, 4194304000000 bytes, 1024000000 sectors
Disk model: UDisk
Units: sectors of 1 * 4096 = 4096 bytes
Sector size (logical/physical): 4096 bytes / 4096 bytes
I/O size (minimum/optimal): 4096 bytes / 4096 bytes
Disklabel type: gpt
Disk identifier: AB3F7F29-78F9-46D2-90C7-B2FC88C5E922
```

Device	Start	End	Sectors	Size	Type
/dev/sda1	6	4095	4090	16M	Microsoft reserved
/dev/sda2	4096	1023999993	1023995898	3.8T	Microsoft basic data

It does not specify that this USB SSD Drive is exFat, but I know it to exFat by connecting it to a Windows system and looking at its format.

I believe that we need to mount /dev/sda2 which is the 4TB (3.8TB) external USB SSD drive. And it appears that the Disk Identifier is:

```
AB3F7F29-78F9-46D2-90C7-B2FC88C5E922
```

BEWARE THERE ARE MIXED READINGS NOW! LOOK AT THIS BELOW AND COMPARE

```
lsblk -o NAME,FSTYPE,UUID,MOUNTPOINTS
```

Results:

NAME	FSTYPE	UUID
MOUNTPOINTS		
loop0	squashfs	
/snap/lxd/24322		

```
loop1                squashfs
/snap/snapd/19457
loop2                squashfs
/snap/snapd/19361
loop3                squashfs
/snap/core20/1950
loop4                squashfs
/snap/core20/1974
sda
├─sda1
└─sda2
sdb
├─sdb1
├─sdb2                ext4                94e62aba-77a5-45db-a9ba-ca358fa589df
/boot
└─sdb3                LVM2_member  hXjBKC-htj8-a0Zn-El2e-C3Jk-Y24f-e3S0bN
    └─ubuntu--vg-ubuntu--lv ext4                0d6b481f-ec40-4951-b6d7-76ba4cde2dfb
/
sr0
```

I AM NOT TAKING ANY CHANCES OF MOUNTING ANYTHING. THERE IS A 2TB HARDWARE RAID-1 MIRROR THAT IS MOUNTED, AND I DON'T WANT THE 4TB USB SSD DRIVE TO CONFLICT WITH THAT WHEN THE SYSTEM REBOOTS. IT APPEARS THAT UBUNTU IS SWITCHING THE MOUNTS OF THE /SDA AND THE /SDB AFTER A REBOOT.

From:
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Permanent link:
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