Ask Ubuntu is a question and answer site for Ubuntu users and developers. It only takes a minute to sign up.

×

Sign up to join this community

Anybody can ask a question

Anybody can answer

The best answers are voted up and rise to the top

Ubuntu Server 18.04 LVM out of space with improper default partitioning

Asked 1 year, 1 month ago Active 1 month ago Viewed 19k times



I installed Ubuntu Server 18.04 with the LVM option and left the default partition setup. Now my main drive only has 4GB in a 1TB hard drive. How can I fix this without starting from scratch?

33

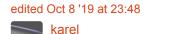
Results of df -h:



_						
	Filesystem	Size	Used	Available	Use%	Mounted on
\star	udev	16G	0	16G	0%	/dev
28	tmpfs	32G	1.7M	32G	1%	/run
9	/dev/mapper/ubuntuvg-ubuntulv	3.9G	3.6G	92M	98%	/
	tmpfs	16G	0	16G	0%	/dev/shm
	tmpfs	5.0M	0	5.0M	0%	/run/lock
	tmpfs	16G	0	16G	0%	/sys/fs/cgroup
	/dev/loop0	87M	87M	0	100%	/snap/core/4917
	/dev/loop1	3.2M	3.2M	0	100%	/snap/stress-
	ng/471					
	/dev/loop2	90M	90M	0	100%	/snap/core/6130
	/dev/sda2	976M	143M	766M	16%	/boot
	tmpfs	3.2G	0	3.2G	0%	/run/user/1000



74.4k



asked Jan 4 '19 at 3:22



It happens to me too, by using the "ubuntu-18.04.3-live-server-amd64.iso" instead of dedicated server iso. – stwienert Nov 25 '19 at 12:58

3 Answers



Had the exact same problem with a fresh install of Ubuntu Server 18.04.1.

63 vvna

What I had to do was:



We need to resize the logical volume to use all the existing and free space of the volume group \$ lvm



lvm> lvextend -l +100%FREE /dev/ubuntu-vg/ubuntu-lv
lvm> exit

/dev/mapper/ubuntu--vg-ubuntu--lv 454G 3.8G 432G



And then, we need to resize the file system to use the new available space in the logical volume \$ resize2fs /dev/ubuntu-vg/ubuntu-lv resize2fs 1.44.1 (24-Mar-2018) Filesystem at /dev/ubuntu-vg/ubuntu-lv is mounted on /; on-line resizing required old_desc_blocks = 1, new_desc_blocks = 58 The filesystem on /dev/ubuntu-vg/ubuntu-lv is now 120784896 (4k) blocks long. # Finally, you can check that you now have available space: \$ df -h **Filesystem** Size Used Avail Use% Mounted on 3.9G 0% /dev udev 0 3.9G tmpfs 786M 1.2M 785M 1% /run

If you didn't customize the LVM settings, the names for the volume group and logical volume should be the same as mine (ubuntu-vg and ubuntu-lv respectively).

1% /

If your partition is completely full, you could get a no space left error when trying to resize the logical volume like:

```
lvm> lvextend -l +100%FREE /dev/ubuntu-vg/ubuntu-lv
  /etc/lvm/archive/.lvm_computer: write error failed: No space left on device
```

The easiest way to fix this is by removing apt cache (it will get regenerated next time you do apt update), which should give you more than enough space to complete the operation:

```
$ rm -rf /var/cache/apt/*
```



perfect.. any idea why this happens? what should we have done on loggin in? - Andy Mar 11 '19 at 19:27

- 7 I would count this as major bug but apparently the folks at Canonical don't since a fresh installation of an Ubuntu Server 18.04.2 installation has exactly the same "behavior". Jey DWork Jul 9 '19 at 16:19
- Are you serious? How is this expected behavior? I landed here after just installing a fresh 18.04.2 and wondering why / is only 4Gigs. Plazgoth Jul 10 '19 at 4:47
- 1 I continue to visit this answer and will continue to do so as long as LVM doesn't allocate all of available disk space on a disk jspinella Sep 8 '19 at 2:56
 - @Plazgoth youp, you are right, I assume it's a bug. IMHO, expected behavior should be: take entire vm disk, then I increase disk size from hypervisor or add more drives to physical machine, then I use LVM to acquire additional space.... Aleksandar Pavić Oct 16 '19 at 8:14



It appears that you need to extend your Logical Volume.

2 It can be a bit tricky but if you understand that there are 3 parts, it'll be much easier.







- Volume Group (VG) => An abstracted amount of drive space that can be split between multiple drives/devices.
- Logical Volume (LV) => The space that ubuntu "sees"

You'll need to extend your VG all the way across your 1TB Drive (or extend however much you want), then extend the Logical Volume group to take up that space.

<u>Technet has a nice writeup</u> that (if you follow carefully) you'll be able to follow and extend your drive.

answered Jan 5 '19 at 2:47



Andy 121 2



Expected behavior on an LVM install is indeed the smaller partitions. The system creates minimal space waste on physical partition creation expecting you to customize and expand the LVM as needed, since the added partitions aren't necessary to the operating systems function, and users having additional storage space, quotas, and expansion is the point of having an on-the-fly expandable LV and VG



What it should do, however, is explain that better on install





11