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Docker filling the disk: images, volumes and logs

Node.js, Python & Docker

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Docker filling the disk: images, volumes and logs

Node.js, Python & Docker Created on **October 10, 2026** 3 min read



Docker fills a VPS disk in **three** ways: the images and layers left behind after updates, the volumes nobody uses, and the **container logs**, which by default grow without end. The typical error is “No space left on device”, and the symptom is a database that stops or a container that will not start. First you measure; then you clear only what you are sure you can lose.

First: where is the space

1. **See the whole disk:** `df -h`. Find the line for the main partition and the “Use%” column.

2. **See what belongs to Docker:**

```
docker system df
```

It shows images, containers, volumes and the build cache, and how much of the space is reclaimable.

3. **See the largest directories** on the system, if Docker does not explain it all:

```
sudo du -xh --max-depth=1 /var | sort -h
```

Docker’s data normally lives in `/var/lib/docker`.

Cleaning up, from safest to riskiest

What takes space	Command	Risk
Untagged or unused images	`docker image prune`	Low: it pulls again whatever you need.
Stopped containers	`docker container prune`	Low, but check what is there first with `docker ps -a`.

What takes space	Command	Risk
Build cache	`docker builder prune`	Low: later builds are slower.
Every image no container uses	`docker image prune -a`	Medium: you will have to pull them again.
Volumes with no container	`docker volume ls` and only then `docker volume rm name`	**High.** A volume may hold your database. Delete one at a time, knowing what it is.

The logs that grow without end

Each container writes whatever the application prints to a log file on the server, and by default that file has **no limit**. A chatty application, or one failing in a loop, can fill the disk with that alone. To see it: `sudo du -sh /var/lib/docker/containers`. The fix is to cap the size and the number of files, in Compose:

```
services:
  app:
    logging:
      driver: json-file
      options:
        max-size: "10m"
        max-file: "3"
```

The values are examples; pick your own. The rule applies to containers **created after** the change: recreate them with `docker compose up -d --force-recreate`. To free the space of a gigantic log right now, as an emergency: `sudo truncate -s 0 $(docker inspect --format="{{.LogPath}}" container-name)`.

Beware of `docker system prune -a --volumes`.
It is the command that appears in every guide and the one that most often deletes a database. Use it only on a server where you know exactly what is in each volume, and with a backup made. When in doubt, the safer commands in the table above are enough.

Set a limit from the start.
Capped logs and a look at the disk now and then prevent the emergency. If the disk on your plan is small for what runs on it, see **common VPS and Cloud errors**, and **how to update without losing data** so that images do not pile up.

NEED A HAND?

The disk filled up and you can no longer get in over SSH? Open a ticket: we help you recover access. Deciding what to delete inside the server is up to you.

Open a support ticket →

SEE ALSO

- Common VPS and Cloud errors: SSH, memory, disk and reboots
- Updating a Docker application without losing data
- Backing up a VPS: snapshots or files

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