

Fixing a Broken VPS

Since version 2.0, vpsAdmin enables members to solve most problems with a corrupted VPS themselves, i.e. when the VPS won't start or isn't accessible on the network. Examples of things that might cause a VPS to get corrupted are system updates, badly chosen commands or configurations, etc.

This doesn't mean that our [support](#) won't help you with your VPS. However, capable admins can get their VPS running again quicker and don't need to wait for our help.

Identifying the State of the VPS

In order to choose an appropriate course of action, you need to find out what state the VPS is currently in. In any case, you need the remote console in vpsAdmin, which can reveal important information.

VPS Boot Failure

The init system or a different important part of the VPS system is either missing or corrupted. Continue by [mounting rootfs](#).

VPS Is Turned On

The most probable issue is that init has gotten stuck somewhere or the network just isn't set up. By taking a look in the remote console in vpsAdmin, you can find out where exactly the VPS startup stops, what services it fails to run, etc.

Mounting rootfs

vpsAdmin makes it possible to mount **any** dataset to **any** VPS. I.e. it is possible to mount a dataset with the rootfs of a corrupted VPS to a different, working VPS. In order to do this, you can use the playground or another VPS running in a production environment. It doesn't matter whether the VPS on the mounted dataset is running or not.

You can create a mount like this: [Details of the recovery VPS](#) → Create mount → choose the dataset of the corrupted VPS.

This guide assumes that the rootfs of the corrupted VPS is mounted to `/mnt/recovery`.

When you have finished the repair process, it is recommended that you remove the mount between the VPSs.

A Comparison with Backups

If the problem arose during the last 14 days, it is possible to restore the VPS directly from a backup or compare the configuration with a working backup and try to repair the system.

In vpsAdmin, mount the chosen backup to the recovery VPS. Then you can compare e.g. /etc. If the backup is mounted to /mnt/snapshot, the command for comparison can look like this:

```
# diff -qr /mnt/recovery/etc /mnt/snapshot/etc
```

If /mnt/snapshot/etc does not exist, the snapshot is a local one and it is necessary to use a different path: /mnt/snapshot/private/etc.

Now it is necessary to examine the differences found and consider whether changing them can affect the functioning of the system.

Chroot

Depending on the type of corruption, it might be necessary to chroot into the corrupted system, for example in order to work with the package system or other programs.

If rootfs is mounted to /mnt/recovery, chroot will be performed like this:

```
# cd /mnt/recovery
# mount -t proc proc proc/
# mount -t sysfs sys sys/
# mount -o bind /dev dev/
# chroot /mnt/recovery /bin/bash
```

Now you can use programs from the corrupted VPS for repairs.

The specific procedure depends on the distro – log checks, repairing the package system, etc.

When the job is finished, unmount everything:

```
# umount proc
# umount sys
# umount dev
```

Network Configuration

If the VPS is running but isn't responding on the network, check if it has:

- IP addresses: `ip addr` or `ifconfig -a`
- the default route: `ip route list`

- no rule or policy in iptables blocking access

These commands only make sense in a remote console, not in chroot!

If the default route is missing, you can add it using `ip r a default dev venet0`. A route added this way disappears after restarting the VPS – it is not a permanent solution.

The the VPS doesn't have IP addresses or a route, it could mean that either the network configuration is corrupted for some reason or that this is a bug in `vzctl` , which might not support the currently installed distro yet.

You can check the scripts that `vzctl` uses to configure the network on a VPS at <https://src.openvz.org/projects/OVZL/repos/vzctl/browse/etc/dists>.

One of the ways how you can clear iptables via remote console is using the service `iptables stop` command – this depends on the distro used. If done manually, it could look like this:

```
# iptables -F
# iptables -X
# iptables -P INPUT ACCEPT
# iptables -P FORWARD ACCEPT
# iptables -P OUTPUT ACCEPT
```

By deleting iptables rules, you can grant access to online services that rely on a firewall being set up and that aren't appropriately secured.

Without access to the remote console, it is necessary to either find the file in which persistent rules are stored and delete its content or to turn off the iptables service. Then restart the VPS.

Known Reasons For VPSs Not Working

No Disk Space

If the disk is full, the VPS won't run. You can try mounting the dataset to a different VPS and removing data. If this doesn't work either, contact our support.

Ubuntu and ISPConfig

After creating a new website, a `bind mount` with the parameter `_netdev` can be written into `/etc/fstab` . Because of this, the VPS start-up process will get stuck when mounting file systems. You need to remove it.

Debian

In order to configure the network properly, you need to have `ifconfig` from the `net-tools` package installed.

We have seen configurations broken because of various reasons - either an existing `/etc/network/interfaces.head` or a `tail` that only contained a static network configuration and overrode the configuration created by `vzctl`.

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<https://kb.vpsfree.org/> - **Knowledge Base**

Permanent link:

<https://kb.vpsfree.org/manuals/vps/repair>

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