

Tools

- growfs
 - FreeBSD - growfs to increase partition virtual instance

grows

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Need to increase capacity on OPNSense freebsd box running as VM on Proxmox

First assign new disk space on proxmox, resize disk and increase capacity, make sure to backup everything before proceeding.

##1. Confirm New Disk Space

Although the disk allocation appears the same at first, `gpart` illustrates a change::

```
# df -h
Filesystem      Size  Used Avail Capacity  Mounted on
/dev/ufs/rootfs 24G   924M   21G    4%    /
devfs           1.0K   1.0K    0B   100%  /dev

# gpart show
=>  40 52428720 vtbd0 GPT (40G) [CORRUPT]
    40   1024    1 freebsd-boot (512K)
    1064 52427696    2 freebsd-ufs (25G)
```

##2. Recover the Corrupt Partition

```
# gpart recover vtbd0
vtbd0 recovered

# gpart show
=>  40 83886000 vtbd0 GPT (40G)
    40   1024    1 freebsd-boot (512K)
    1064 52427696    2 freebsd-ufs (25G)
    52428760 31457280    - free - (15G)
```

##3. Resize the `freebsd-ufs` Partition

WARNING!!!

Per the [FreeBSD Handbook](#):

“ There is risk of data loss when modifying the partition table of a mounted file system. It is best to perform the following steps on an unmounted file system while running from a live CD-ROM or USB device.

Once you're ready to proceed, do the following:

```
# gpart resize -i 2 vtbd0
vtbd0p2 resized

# gpart show
=>  40 83886000 vtbd0 GPT (40G)
    40  1024   1 freebsd-boot (512K)
   1064 83884976   2 freebsd-ufs (40G)
```

##4. Grow the UFS File System

In order to expand the `freebsd-ufs` or `/dev/vtbd0p2` partition, start the `growfs` service:

```
# service growfs onestart
Growing root partition to fill device
vtbd0 recovering is not needed
vtbd0p2 resized
super-block backups (for fsck_ffs -b #) at:
 53224896, 54248448, 55272000, 56295552, 57319104, 58342656, 59366208, 60389760, 61413312,
 62436864, 63460416, 64483968, 65507520, 66531072, 67554624, 68578176, 69601728, 70625280,
 71648832, 72672384, 73695936, 74719488, 75743040, 76766592, 77790144, 78813696, 79837248,
 80860800, 81884352, 82907904
```

Alternatively, you can run the following command.

```
growfs /dev/ufs/rootfs
```

##5. Confirm the Changes

```
# gpart show
=>  40 83886000 vtbd0 GPT (40G)
    40  1024   1 freebsd-boot (512K)
   1064 83884976   2 freebsd-ufs (40G)
```

df -h

Filesystem	Size	Used	Avail	Capacity	Mounted on
/dev/ufs/rootfs	39G	924M	35G	3%	/
devfs	1.0K	1.0K	0B	100%	/dev