



Managing virtual storage

Virtual storage volumes are persistent, allowing them to be attached and detached from a virtual machine.

- Existing Virtual storage volumes are provisioned in the Premium tier, while new Virtual storage volumes are provisioned in the Premium v2 tier, both tiers offer equal functionality and performance.
- Existing Virtual storage volumes in the Premium tier can still be attached, detached and resized.

Modifying an Existing Volume

For volumes created through the **Volumes** tab on the Virtual Datacenter page, all fields (name, description and size) can be modified by clicking the  button.

Resizing Storage Volumes

Volumes may be increased in size, however, to prevent data loss, volume decreases are not permitted. Volumes may only be resized up to 8 times the size that the original volume was created at, up to a maximum of 2TB.

You only need to power off the Virtual Machine to resize volumes - it is not necessary to undeploy the Virtual Appliance. You can therefore apply changes to VMs without losing the VM data.

To resize a volume, first power off the Virtual Machine the volume is attached to, then change the size.

Filesystem resize

After resizing a volume, you will need to resize the partitions and filesystems. For example, with the Linux ext2/3/4 filesystem, you can execute the following commands when logged into a shell on the Virtual Machine as a user exercising root level permissions:

```
# umount /dev/xxx (/dev/xxx is the partition of the resized volume, inside the VM)
```

```
# parted /dev/sxx
(parted) print /dev/sxx
(parted) resizepart Y START END (Y is the partition number, taken
from the print above and START and END are the start and end of
the partition and varies in each case)
# e2fsck -f /dev/sxx
# resize2fs /dev/sxx
# mount /dev/sxx /mnt/ZZZ (ZZZ is the name of the mountpoint
under /mnt for example)
```

Moving Volumes Between Virtual Datacenters

If you have multiple Virtual Datacenters, volumes can be moved between them. To move a volume, edit it and change the Virtual Datacenter from the drop-down list.

Volumes can only be moved between Virtual Datacenters that belong to the same physical datacenter.

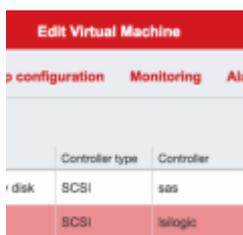
Deleting a Volume

To delete a volume, select the volume and click the  button. Note that:

Detaching volumes

In order to detach a volume from your machine :

- Power off the VM
- Edit the machine
- Goto to storage Tab
- Select the disk you want to remove
- Click on the Button with Arrow out 



[1]

- Click Save

After the Above is done the disk will be detach and can be re-attached to same machine or different machine.

- Only volumes that are not attached to a Virtual Machine can be deleted or removed
- Volumes cannot be deleted if they are used in a Virtual Appliance

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Links:

[1] <http://cloudhelp.claranet.com/sites/portal.claranet.com/files/StorageTab.png>