Resizing VirtualBox and Linux Partitions with GParted

VirtualBox 4 has an <u>option to modify</u> the logical size of the virtual disk after it's been created without affecting the physical size. The size specified in this option is the new overall size of the disk not the increment. If the current size is 100MB and resizing to 200MB would make the disk 200MB not 300MB (100 + 200). Once the size is increased it cannot be decreased (yet).

Current size of the disk

-rw------ 1 root root 18G Jan 27 16:43 rac4.vdi

The size of disk seen by the OS using this virutal disk

Disk /dev/sda: 21.4 GB, 21474836480 bytes 255 heads, 63 sectors/track, 2610 cylinders Units = cylinders of 16065 * 512 = 8225280 bytes

Size of the partitions

Filesystem	Size Used Avail Use% Mounted on
/dev/sda3	16G 13G 1.8G 88%/
/dev/sda1	99M 12M 83M 13% /boot
tmpfs	1006M 0 1006M 0% /dev/shm

Increase the size with modifyhd option

VBoxManage modifyhd rac4.vdi --resize 40960 0%...10%...20%...30%...40%...50%...60%...70%...80%...90%...100%

Physical size is unaffected. This will grow as the space is used.

-rw------ 1 root root 18G Jan 27 16:45 rac4.vdi

But the size of the disk seen by the OS has changed

Disk /dev/sda: 42.9 GB, 42949672960 bytes 255 heads, 63 sectors/track, 5221 cylinders Units = cylinders of 16065 * 512 = 8225280 bytes

The additional space is unallocated and linux partitions are not affected after this increase.

Filesystem	Size Used Avail Use% Mounted on
/dev/sda3	16G 13G 1.8G 88%/
/dev/sda1	99M 12M 83M 13% /boot
tmpfs	1006M 0 1006M 0% /dev/shm

Using the <u>Gnome Partition Editor (GParted)</u> it is possible to resize the linux partition and allocate the unused space to it effectively increasing the size of it.

Download the Live CD iso of gparted and boot the virtual box server from it.



Select the default option and complete the startup.







GParted shows the size of current partitions (15.9 GB) and the unallocated space (20 GB).

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Right click on the partition to resize and select resize/move item from the popup menu.



Resize the partition by either dragging the highlighted box or adjusting the numerical spinners.



Click apply to complete the resizing.



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Restart the virtual server and see the size of linux partition changed.

Filesystem	Size Used Avail Use% Mounted on
/dev/sda3	35G 13G 21G 39%/
/dev/sda1	99M 12M 83M 13% /boot
tmpfs	1006M 0 1006M 0% /dev/shm

Size of the new partition is 35 GB (15 GB previously allocated and 20 GB added with GParted).