LVM: Extend SWAP size by growing existing Logical Volume

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LVM: Extend SWAP size by growing existing Logical Volume

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# Tested on RHEL 5, 6 & 7

# Check which is the swap volume and its size

root@<server>:/#> cat /etc/fstab | grep swap
/dev/rvg/swaplv         swap                    swap
defaults        0 0



root@<server>:/#> lvdisplay /dev/rvg/swaplv
  --- Logical volume ---
  LV Name                /dev/rvg/swaplv
  VG Name                rvg
  LV UUID                m0EThc-4Epd-Ecj3-lvPK-BfU0-D98H-1pgyRY
  LV Write Access        read/write
  LV Status              available
  # open                 1
  LV Size                13.69 GB
  Current LE             438
  Segments               1
  Allocation             inherit
  Read ahead sectors     auto
  - currently set to     256
```

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  Block device           253:5


root@<server>:/#> free -m
             total       used       free     shared    buffers
cached
Mem:         11239       4556       6682          0        422
3697
-/+ buffers/cache:        436      10802
Swap:        14015          0
14015                                  <----


root@<server>:/#> cat /proc/swaps
Filename                                Type            Size
Used    Priority
/dev/mapper/rvg-swaplv                  partition
14352376        0       -3



# Disable swapping on LV to be resized (in our case, as we have a
single LV allocated to swap, we could
# run command with '-a' flag so swapping is disabled on all known
swap devices and files - as found in
# /proc/swaps or /etc/fstab)

# root@<server>:/#> swapoff -a

root@<server>:/#> swapoff /dev/rvg/swaplv



# Check that swapping has been disabled

root@<server>:/#> free
             total       used       free     shared    buffers
cached
```

```
Mem:      11508864    4657932    6850932          0     432268
3786136
-/+ buffers/cache:     439528   11069336
Swap:            0          0
0                                    <----




# Extend swap Logical Volume (we will add 1 GB)


# Verify that there is enough space on VG

root@<server>:/#> vgdisplay /dev/rvg
  --- Volume group ---
  VG Name               rvg
  System ID
  Format                lvm2
  Metadata Areas        1
  Metadata Sequence No  21
  VG Access             read/write
  VG Status             resizable
  MAX LV                0
  Cur LV                6
  Open LV               6
  Max PV                0
  Cur PV                1
  Act PV                1
  VG Size               136.50 GB
  PE Size               32.00 MB
  Total PE              4368
  Alloc PE / Size       1718 / 53.69 GB
  Free  PE / Size       2650 / 82.81
GB                                        <----
  VG UUID               2TkcmU-Uzys-Znql-aXqx-pr2D-O8dk-oWsOlL
```

```
# Extend LV

root@<server>:/#> lvextend -L +1GB /dev/rvg/swaplv
  Extending logical volume swaplv to 14.69 GB
  Logical volume swaplv successfully resized



# Set up the new swap area

root@<server>:/#> mkswap /dev/rvg/swaplv
Setting up swapspace version 1, size = 15770578 kB



# Enable swapping on resized LV (in our case, as we have a single LV
allocated to swap, we could
# run command with '-a' flag so swapping is enabled on all known swap
devices and files (as found
# in /proc/swaps or /etc/fstab)


# root@<server>:/#> swapon -a


root@<server>:/#> swapon /dev/rvg/swaplv



# Check final size

root@<server>:/#> free
             total       used       free     shared    buffers
cached
Mem:      11508864    4664192    6844672          0     432284
3786136
-/+ buffers/cache:     445772   11063092
```

```
Swap:     15400952          0
15400952                                    <----
```

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