

LVM: Extend SWAP size by adding a new Logical Volume

Article Number: 172 | Rating: Unrated | Last Updated: Sat, Jun 2, 2018 10:28 PM

LVM: Extend SWAP size by adding a new Logical Volume

```
# Tested on RHEL 5, 6 & 7
```

```
# Adding a file to swap space is not a common operation so we will focus on adding a LV
```

```
# Check current swap volume(s) and its size
```

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

```
root@<server>:/#> lvs /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
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

```
# Create a new Logical Volume, preferably on system VG, that will be
dedicated to swap space
```

```
# We will extend swap by adding a 1 GB Logical Volume
```

```
# 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	23
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-08dk-oWs0lL
```

Create new LV

```
root@<server>:/#> lvcreate -L 1GB -n newswaplv rvg
Logical volume "newswaplv" created
```

Check LV

```
root@<server>:/#> lvdisplay /dev/rvg/newswaplv
--- Logical volume ---
LV Name            /dev/rvg/newswaplv
VG Name            rvg
LV UUID            gf2IqR-kRMj-vMnJ-VCH3-N0gh-UxoG-AWX6Xu
LV Write Access    read/write
LV Status          available
# open             0
LV Size            1.00 GB
Current LE         32
Segments           1
Allocation         inherit
Read ahead sectors auto
- currently set to 256
```

Block device 253:6

Set up the new swap area

root@<server>:/#> **mkswap /dev/rvg/newswaplv**

Setting up swapspace version 1, size = 1073737 kB

Enable swapping on new LV

root@<server>:/#> **swapon /dev/rvg/newswaplv**

Check final size and partitions being used by swap

root@<server>:/#> **free**

	total	used	free	shared	buffers
cached					
Mem:	11508864	4664996	6843868	0	432464
3786168					
-/+ buffers/cache:		446364	11062500		
Swap:	15400944	0			
15400944				<----	

root@<server>:/#> **cat /proc/swaps**

Filename	Type	Size
Used Priority		
/dev/mapper/rvg-swaplv	partition	14352376
0 -5		
/dev/mapper/rvg-newswaplv	partition	1048568
0 -6 <----		

```
# Add following line to /etc/fstab for the LV to be automatically
mounted as swap
# during system startup
```

```
/dev/rvg/newswapl      swap          swap
defaults              0 0
```

Posted - Sat, Jun 2, 2018 10:28 PM. This article has been viewed 3291 times.

Online URL: <http://kb.ictbanking.net/article.php?id=172>