
Subject: high shmpages after debian upgrade to squeeze

Posted by [Bevan](#) on Tue, 15 Feb 2011 19:56:03 GMT

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Hi!

I just tested an "apt-get dist-upgrade" on a debian lenny container to upgrade to squeeze and after that the ressource usage is extremely high:

vztest:~# cat /proc/user_beancounters

Version: 2.5

uid	resource	held	maxheld	barrier	limit	failcnt
101:	kmemsize	9689201	15546245	50000000		55000000
4						
	lockedpages	0	109	256	256	30
	privvmpages	151894	230561	300000	350000	
11						
	shmpages	151086	208080	256000	256000	
6						
	dummy	0	0	0	0	0
	numproc	5	43	240	240	0
	physpages	150932	211221	0	9223372036854775807	
0						
	vmguarpages	0	0	33792	9223372036854775807	
0						
	oomguarpages	150932	211221	26112	9223372036854775807	
0						
	numtcpsock	2	12	360	360	0
	numflock	0	9	188	206	0
	numpty	1	4	16	16	0
	numsiginfo	0	9	256	256	0
	tcpsndbuf	25432	117120	1720320	2703360	
0						
	tcprcvbuf	32768	342464	1720320	2703360	
0						
	othersockbuf	0	49000	1126080	2097152	
0						
	dgramrcvbuf	0	8456	262144	262144	0
	numothersock	0	23	360	360	0
	dcachesize	0	0	3409920	3624960	0
	numfile	113	801	9312	9312	0
	dummy	0	0	0	0	0
	dummy	0	0	0	0	0
	dummy	0	0	0	0	0
	numiptent	10	10	128	128	0

As you can see shmpages are at 151086. Before the upgrade shmpages were at 712.

I tried to kill all running processes and to set a lower limit for shared memory (kernel.shmmax and kernel.shmall). It did not change anything.

Here some output that may be useful:

vztest:~# ps aux

USER	PID	%CPU	%MEM	VSZ	RSS	TTY	STAT	START	TIME	COMMAND
root	1	0.0	0.0	8348	772	?	Ss	00:53	0:00	init [2]
root	9562	0.0	0.0	49164	1156	?	Ss	00:53	0:00	/usr/sbin/sshd
root	9705	0.0	0.2	70452	3332	?	Ss	00:56	0:00	sshd: root@pts/0
root	9707	0.0	0.1	17704	1888	pts/0	Ss	00:56	0:00	-bash
root	10163	0.0	0.0	14804	996	pts/0	R+	01:24	0:00	ps aux

vztest:~# ipcs

----- Shared Memory Segments -----

key	shmid	owner	perms	bytes	nattch	status
-----	-------	-------	-------	-------	--------	--------

----- Semaphore Arrays -----

key	semid	owner	perms	nsems
-----	-------	-------	-------	-------

----- Message Queues -----

key	msqid	owner	perms	used-bytes	messages
-----	-------	-------	-------	------------	----------

Here you can see that shared memory is limited to 40MB:

vztest:~# ipcs -l

----- Shared Memory Limits -----

max number of segments = 4096

max seg size (kbytes) = 10

max total shared memory (kbytes) = 40960

min seg size (bytes) = 1

----- Semaphore Limits -----

max number of arrays = 128

max semaphores per array = 250

max semaphores system wide = 32000

max ops per semop call = 32

semaphore max value = 32767

----- Messages: Limits -----

max queues system wide = 16

max size of message (bytes) = 8192

default max size of queue (bytes) = 16384

Also there is no space used by tmpfs volumes:

vztest:~# df

Filesystem	1K-blocks	Used	Available	Use%	Mounted on
/dev/simfs	2560000	1062068	1497932	42%	/
tmpfs	600000	0	600000	0%	/lib/init/rw
tmpfs	600000	0	600000	0%	/dev/shm

To compare the resource usage I created a new container by using the debian-6.0-amd64-minimal template and in this container shmpages are at 16 (even when running more processes).

Do you have any idea what the problem could be? What could be using so much shared memory here?

Greetings,
Michael

Update:

I don't think that it is related to debian or the "apt-get upgrade". In general all resources stay used after stopping processes or even stopping the whole container.

After stopping all containers and waiting for several minutes vzmemcheck and /proc/user_beancounters on the host-system show that the resources are still used.

I'm using the "Openwall GNU/*/Linux (or Owl)" Live-CD with kernel 2.6.18-194.26.1.el5.028stab079.1.owl2.