
Subject: *SOLVED* diskspace no more than 40 GB

Posted by [mora](#) on Fri, 26 Jan 2007 22:29:57 GMT

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Hello

i try to set a vps diskspace to 100 GB

i ran the following command

```
vzctl set 110--diskspace 100000000:100100000 --save
```

then when i ran df on the vps it says

```
Filesystem      1K-blocks    Used Available Use% Mounted on
/dev/simfs      41718452  3221336 33665168  9% /
/tmp            41718452  3221336 33665168  9% /var/tmp
```

and

```
vzquota stat 110 -t
```

says :-

```
resource      usage      softlimit    hardlimit    grace
1k-blocks     3221348    100000000    100100000
inodes        95941     1816877     1998565
```

User/group quota: on,active

Ugids: loaded 57, total 57, limit 900

Ugid limit was exceeded: no

User/group grace times and quotafire flags:

```
type block_exp_time inode_exp_time dqf_flags
user                0h
group               0h
```

User/group objects:

```
ID      type resource      usage softlimit hardlimit  grace status
0       user 1k-blocks    2620892      0      0      loaded
0       user  inodes      76454        0      0      loaded
0       group 1k-blocks    2494760      0      0      loaded
0       group  inodes      75375        0      0      loaded
1       user 1k-blocks    22792        0      0      loaded
1       user  inodes      90           0      0      loaded
1       group 1k-blocks    22792        0      0      loaded
```

1	group	inodes	90	0	0	loaded
2	user	1k-blocks	472	0	0	loaded
2	user	inodes	45	0	0	loaded
2	group	1k-blocks	472	0	0	loaded
2	group	inodes	45	0	0	loaded
5	group	1k-blocks	16	0	0	loaded
5	group	inodes	514	0	0	loaded
6	group	1k-blocks	0	0	0	loaded
6	group	inodes	1	0	0	loaded
9	group	1k-blocks	0	0	0	loaded
9	group	inodes	3	0	0	loaded
10	group	1k-blocks	150984	0	0	loaded
10	group	inodes	2638	0	0	loaded
12	group	1k-blocks	2280	0	0	loaded
12	group	inodes	265	0	0	loaded
15	group	1k-blocks	172	0	0	loaded
15	group	inodes	26	0	0	loaded
20	group	1k-blocks	168	0	0	loaded
20	group	inodes	37	0	0	loaded
22	group	1k-blocks	296	0	0	loaded
22	group	inodes	3	0	0	loaded
25	user	1k-blocks	60	0	0	loaded
25	user	inodes	15	0	0	loaded
25	group	1k-blocks	64	0	0	loaded
25	group	inodes	16	0	0	loaded
37	user	1k-blocks	15876	0	0	loaded
37	user	inodes	108	0	0	loaded
37	group	1k-blocks	15876	0	0	loaded
37	group	inodes	108	0	0	loaded
43	user	1k-blocks	0	0	0	loaded
43	user	inodes	2	0	0	loaded
43	group	1k-blocks	0	0	0	loaded
43	group	inodes	2	0	0	loaded
47	user	1k-blocks	1676	0	0	loaded
47	user	inodes	145	0	0	loaded
47	group	1k-blocks	12	0	0	loaded
47	group	inodes	3	0	0	loaded
54	group	1k-blocks	4	0	0	loaded
54	group	inodes	1	0	0	loaded
99	user	1k-blocks	24	0	0	loaded
99	user	inodes	57	0	0	loaded
99	group	1k-blocks	116	0	0	loaded
99	group	inodes	32	0	0	loaded
100	user	1k-blocks	21808	0	0	loaded
100	user	inodes	121	0	0	loaded
100	group	1k-blocks	2624	0	0	loaded
100	group	inodes	227	0	0	loaded
101	group	1k-blocks	21808	0	0	loaded

101	group	inodes	121	0	0	loaded
500	user	1k-blocks	7900	0	0	loaded
500	user	inodes	613	0	0	loaded
500	group	1k-blocks	7900	0	0	loaded
500	group	inodes	613	0	0	loaded
501	user	1k-blocks	33128	0	0	loaded
501	user	inodes	2473	0	0	loaded
501	group	1k-blocks	4176	0	0	loaded
501	group	inodes	299	0	0	loaded
502	group	1k-blocks	56	0	0	loaded
502	group	inodes	2	0	0	loaded
1000	user	1k-blocks	5784	0	0	loaded
1000	user	inodes	548	0	0	loaded
1000	group	1k-blocks	5000	0	0	loaded
1000	group	inodes	436	0	0	loaded
1001	user	1k-blocks	1736	0	0	loaded
1001	user	inodes	102	0	0	loaded
1001	group	1k-blocks	412	0	0	loaded
1001	group	inodes	29	0	0	loaded
1002	user	1k-blocks	156	0	0	loaded
1002	user	inodes	18	0	0	loaded
15033	user	1k-blocks	360	0	0	loaded
15033	user	inodes	24	0	0	loaded
32001	user	1k-blocks	39380	0	0	loaded
32001	user	inodes	2215	0	0	loaded
32001	group	1k-blocks	39388	0	0	loaded
32001	group	inodes	2217	0	0	loaded
32002	user	1k-blocks	110204	0	0	loaded
32002	user	inodes	6923	0	0	loaded
32002	group	1k-blocks	12	0	0	loaded
32002	group	inodes	1	0	0	loaded
32003	user	1k-blocks	4	102400	102400	loaded
32003	user	inodes	2	0	0	loaded
32003	group	1k-blocks	109888	0	0	loaded
32003	group	inodes	6845	0	0	loaded
32004	user	1k-blocks	548	0	0	loaded
32004	user	inodes	121	0	0	loaded
32004	group	1k-blocks	812	0	0	loaded
32004	group	inodes	14	0	0	loaded
32005	user	1k-blocks	337392	512000	512000	loaded
32005	user	inodes	5698	0	0	loaded
32005	group	1k-blocks	1140	0	0	loaded
32005	group	inodes	122	0	0	loaded
32006	user	1k-blocks	1152	1024000	1024000	loaded
32006	user	inodes	168	0	0	loaded
32006	group	1k-blocks	624	0	0	loaded
32006	group	inodes	6	0	0	loaded
32007	user	1k-blocks	8	1024000	1024000	loaded

32007	user	inodes	2	0	0	loaded
32007	group	1k-blocks	337720	0	0	loaded
32007	group	inodes	5672	0	0	loaded
32008	user	1k-blocks	0	10240000	10240000	loaded
32008	user	inodes	0	0	0	loaded
32008	group	1k-blocks	1760	0	0	loaded
32008	group	inodes	174	0	0	loaded
32009	group	1k-blocks	12	0	0	loaded
32009	group	inodes	3	0	0	loaded
32010	group	1k-blocks	4	0	0	loaded
32010	group	inodes	1	0	0	loaded

and /proc/user_beancounters from that vps says

Version: 2.5

uid	resource	held	maxheld	barrier	limit	failcnt
110:	kmemsize	4833925	8489077	57090867	62799953	0
	lockedpages	0	8	2787	2787	0
	privvmpages	81661	168204	150010	165011	96
	shmpages	219	1515	15001	15001	0
	dummy	0	0	0	0	0
	numproc	66	117	2666	2666	0
	physpages	27556	76581	0	2147483647	0
	vmguarpages	0	0	150010	2147483647	0
	oomguarpages	32890	76581	150010	2147483647	0
	numtcpsock	24	40	2666	2666	0
	numflock	9	16	1000	1100	0
	numpty	0	3	266	266	0
	numsignifo	0	71	1024	1024	0
	tcpsndbuf	214656	368940	8110353	19030289	0
	tcprcvbuf	393216	637700	8110353	19030289	0
	othersockbuf	26388	99828	4055176	14975112	0
	dgramrcvbuf	0	64844	4055176	4055176	0
	numothersock	24	48	2666	2666	0
	dcachesize	236778	318196	12455021	12828672	0
	numfile	1690	2723	22272	22272	0
	dummy	0	0	0	0	0
	dummy	0	0	0	0	0
	dummy	0	0	0	0	0
	numiptent	265	309	400	400	86

Subject: Re: diskspace no more than 40 GB

Posted by [Vasily Tarasov](#) on Wed, 31 Jan 2007 09:54:00 GMT

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Hello,

And what's the problem?

You've described the situation, but there is no information in post about what confuses you?

Vasily

Subject: Re: diskspace no more than 40 GB

Posted by [mora](#) on Wed, 31 Jan 2007 11:46:53 GMT

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the problem is that when i set the diskspace to more than 40 GB it only shows 40 even if i set it to 80 GB

and when the /vz partition gets filled i find that disksapce from df -h inside the vz automatically decrease from 40 to 38 to 35 to 30 GB and so on

forgot to say

i got this from /etc/fstab

```
/dev/sda9      /vz          ext3  defaults,usrquota    1 2
```

i have quotas on but when i try to start up a vps it cannot and alwayse say quota error file exists wven when i delete /var/vzquotas/* or do anything

so my only fix to make it able to starta vps is to runthe following command

```
quotaoff /vz
```

then when i start my vps's with disk quotas on they start but the problem i described above occures

Subject: Re: diskspace no more than 40 GB

Posted by [Vasily Tarasov](#) on Wed, 31 Jan 2007 12:10:12 GMT

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There is an article at wiki, where this behaviour is described:

Subject: Re: diskspace no more than 40 GB
Posted by [mora](#) on Wed, 31 Jan 2007 16:01:30 GMT
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Hello
i went through that page
and i tried
stopping the vps
dropquota VEID
starting the vps

and i still cannot get the df to tell the diskspace written in the VEID.conf file
please help as its urgent for me

Subject: Re: diskspace no more than 40 GB
Posted by [Vasily Tarasov](#) on Thu, 01 Feb 2007 07:50:57 GMT
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Please, start the VE in question (let VE id is <veid>) and provide the following information:

- 1) output of ``df -a``
- 2) output of ``vzquota stat <veid>``
- 3) output of ``cat /etc/vz/conf/<veid>.conf``
- 4) output of ``cat /etc/vz/vz.conf``

Thanks.

P.S. Please, attach this information as a separate files!

Subject: Re: diskspace no more than 40 GB
Posted by [mora](#) on Thu, 01 Feb 2007 12:01:25 GMT
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hello
thanks for your interest in helping me i do appreciate this
here is the data you asked

commands are executed and output attached as per requested

ps. this problem is not specific to a certain VEID but its global to all vps (i cannot make their df to show a total disk space above 40 GB and when /vz has less than 40 GB free i find that total disk space from the vps df command shows the free space of the /vz partition and my problem is that i want to be able to make df for any vps shows the amount i put in the VEID.conf regardless of how much free space i got on the HN /vz partition)

File Attachments

1) [out.txt.txt](#), downloaded 456 times

Subject: Re: diskspace no more than 40 GB
Posted by [Vasily Tarasov](#) on Thu, 01 Feb 2007 14:01:55 GMT
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Hello!

According to

```
# vzquota stat 111
resource      usage      softlimit  hardlimit  grace
1k-blocks     2716712   39000000   39100000
              ^^^^^
```

you set a blocks limit for 111th VE to ~39Gb, and only ~2.7Gb are used in VE. Remember these numbers.

According to

```
#df -a
Filesystem      1K-blocks  Used Available Use% Mounted on
/dev/sda9       95121228  62907700  27381580  70% /vz
              ^^^      ^^^^^
```

/vz partition is of ~95Gb size and ~63 Gb is used, so ~32Gb is free. Remember these numbers to.

Ok. When you give a df command inside VE, what should it output in this situation? First, consider the total amount of space. Should df output 39Gb? No! VE can't write so much, because there is not enough space on /vz partition.

According to http://wiki.openvz.org/OpenVZ_disk_quota%2C_df_and_stat_weird_behaviour df should output `quota_usage + free_ext2 = 2.7 + 32 = ~34Gb`. This is what we see in your output:

```
# df -a
Filesystem      1K-blocks  Used Available Use% Mounted on
```

/dev/simfs 34930264 2716712 27381604 10% /
 ^^^^^^

So your problem is actually formulated in
http://wiki.openvz.org/OpenVZ_disk_quota%2C_df_and_stat_weird_behaviour:
"Do not set random disk quota barrier/limit! Even if you want VE to be unlimited, consider reasonable values."

HTH,
Vasily.

Subject: Re: diskspace no more than 40 GB
Posted by [mora](#) on Thu, 01 Feb 2007 15:05:29 GMT
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Hello
thanks for your follow up
i understood that

but that doesn't mean that i cannot oversell spaces at all ? i know i should not oversell but im sure that some vps's wont consume all allocated space
any work around please

Subject: Re: diskspace no more than 40 GB
Posted by [Vasily Tarasov](#) on Thu, 01 Feb 2007 15:15:08 GMT
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Quote:
... i'm sure that some vps's wont consume all allocated space...

If so, why do you want to set so big blocks limit? Why not decrease it?

Thanks,
Vasily.

Subject: Re: diskspace no more than 40 GB
Posted by [mora](#) on Thu, 01 Feb 2007 16:39:31 GMT
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Lolz
thats because i wanted to oversell diskspace and then add new HDDS and the real partition gets filled physically

so am i able to set diskpace string in the VEID.conf to a number higher than the sum of (the free space on the /vz partition + used space by the ve itself)

Subject: Re: diskpace no more than 40 GB
Posted by [mora](#) on Thu, 01 Feb 2007 19:26:32 GMT
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please help me

Subject: Re: diskpace no more than 40 GB
Posted by [dev](#) on Fri, 02 Feb 2007 11:52:39 GMT
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More, you can oversell diskpace.
BUT. There is one problem. Some applications like RPM use df output for determining whether they will succeed. So df should not report more space then there is *really* physically available on the disk.

So if you have only 1Gb free on /vz, and set 100Gb limit on all your VEs - ok, but df will still show MAX 1GB free.

If you still want to show more - do a small patch for kernel, but I informed about potential problems.

Subject: Re: diskpace no more than 40 GB
Posted by [mora](#) on Fri, 02 Feb 2007 11:55:05 GMT
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Hello
thanks for your reply
iminterested in patching kernel to have this working
please guide me through this and i will be more than thankful

Subject: Re: diskpace no more than 40 GB
Posted by [dev](#) on Fri, 02 Feb 2007 11:59:23 GMT
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take a look at fs/simfs.c, function quota_get_stat()

I suppose you are interested in 2 if's:

```
if (buf->f_bfree < free_blk)
    adj_blk = free_blk - buf->f_bfree;

if (free_blk < buf->f_bavail)
    buf->f_bavail = (long)free_blk; /* min(f_bavail, free_blk) */
```

Subject: Re: diskspace no more than 40 GB
Posted by [mora](#) on Sun, 04 Feb 2007 09:23:10 GMT
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Hello
since im a noob and never compiler , batched akernel

i would that you please provide me / us with this batch

i think this would be so great

thanks in advance

Subject: Re: diskspace no more than 40 GB
Posted by [Vasily Tarasov](#) on Mon, 12 Feb 2007 21:31:03 GMT
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Hello,

I've attached the patch in <http://forum.openvz.org/index.php?t=tree&th=1932&mid=10185&&rev=&reveal=>