Subject: Bind Mount + User Quotas: Is it possible?
Posted by jimp on Wed, 08 Oct 2008 22:13:16 GMT
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I followed the OpenVZ bind mount guide and it worked great! However, I cannot seem to get second level (user/group) quotas working for the files located within the bind mount.

The CT's second level quotas are working, but it is clear that they only account for files truly within the CT. Files located in /home (within the bind mount) do not contribute to the quotas at all.

Configuration:
The CT is located in /home/vz/private/###.
The /home bind mount points to /data/vz/###/home.
/home and /data are two different partitions mounted on the HN like this:
/dev/xxx /data xfs rw,relatime,usrquota,grpquota 0 0
/dev/xxx /home xfs rw,relatime,usrquota,grpquota 0 0
Am I doing something wrong?

Subject: Re: Bind Mount + User Quotas: Is it possible?
Posted by jimp on Fri, 10 Oct 2008 18:47:21 GMT
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I figured it out.

My partitions were XFS, which OpenVZ does not support for disk quotas. My mistake was thinking that "disk quotas" meant OpenVZ could not limit the container size, but user/group quotas would still work. Wrong. They do not work at all within the CT.

Switched to ext3 partitions

Quotas over the bind mount do not work under any configurations I tried: bind mount to folder on another partion or bind mount to a folder on the same partition. The end result was quota tracking within the bind mount never worked.

Questions

We wanted to use a bind mount to keep customer "homes" out of the way of destructive commands such as "vzctl destroy ###". But customers need quotas. Is there any way to achieve this?

In a dedicated server setup, we would normally do a partitioning scheme like this:

/
/boot
/root
/var
/home <-- quotas enabled

We would like a CT scheme like this:

/
/home <-- quotas enabled, not as a mounted partition but as a bind mounted folder on a common HN partition

Feature request, maybe?

Subject: Re: Bind Mount + User Quotas: Is it possible?
Posted by silentninja on Wed, 22 Oct 2008 16:04:50 GMT
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I'm looking for something really similar to this

My plan is to have some partitioning on the VZ:

/ (symfs, the vz private folder)

/usr/local/apache
/var
/tmp (noexec,nosuid)
/home (quotas)

It's really simple to do this by editting the fstab on the node and I think that it would be done from within a vps, but I've read that it's not possible to mount a partition inside a vps as ext3 because it only works on ext2 partitions.

Is it possible to do this kind of partitioning with bind (mounting on vz root) and that it works ok with all the quota and such ?

Subject: Re: Bind Mount + User Quotas: Is it possible?
Posted by Aefron on Sat, 25 Oct 2008 10:32:36 GMT
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For what I tested, you can mount the partitions on the host, then bind-mount those in VEs, but then VZ quotas will not work (I do not know for such things as user quotas on bind-mounts - did not test ; but it would also be good)... so, you will have to size the partitions according to your need before bind-mouting them...

Having VZ and users quotas on bind-mounts would certainly be an excellent feature, bringing a real lot of flexibility : so much more straightforward than a LVM - this is definitely something I would second as a feature request.

Subject: Re: Bind Mount + User Quotas: Is it possible?
Posted by silentninja on Sat, 25 Oct 2008 18:40:02 GMT
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What can I do to use external partitions (to avoid fragmentation and fsck times), and also use userquota on the home partition?

Would it be good if I mount the partition as ext2 inside the VE, instead of mounting it as ext3 from the outside node to it ?

What would I loose if I rollback to ext2 ?

Subject: Re: Bind Mount + User Quotas: Is it possible?
Posted by silentninja on Mon, 27 Oct 2008 15:12:37 GMT
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Not a chance to mount external partitions and use internal vz quotas ?

Subject: Re: Bind Mount + User Quotas: Is it possible?
Posted by silentninja on Fri, 07 Nov 2008 14:36:32 GMT
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Bump

Would it help, to mount the other partitions with some other mode, like nfs or reiserfs... etc ?

The fact is that I need this configuration by MINIMUM

/ => simfs
/home => external partition

/ => simfs2
/mysql => external partition

Subject: Re: Bind Mount + User Quotas: Is it possible?
Posted by marotori on Sat, 13 Jun 2009 11:48:04 GMT
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Has this ever been solved?

I need a very similar solutions!

Subject: Re: Bind Mount + User Quotas: Is it possible?
Posted by silentninja on Sat, 13 Jun 2009 14:01:36 GMT
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Nope, I'm still unable to mount a partition by bind mount without the openvz quota / space usage to go nuts.

I was able to "semi-fix" it, by mounting the partition from the HN inside the VE via NFS; but when the VE hangs by anything, you have to restart the full HN, because if you stop the VE, the hole HN hangs because of something strange on the portmap/nfs kernel usage of openvz. It's not really usefull, but.. it works by now.

Subject: Re: Bind Mount + User Quotas: Is it possible?
Posted by jmjosebest on Sat, 15 Jan 2011 16:11:36 GMT
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It's completly imposible?

Subject: Re: Bind Mount + User Quotas: Is it possible?
Posted by kamranonline on Fri, 17 Oct 2014 17:25:06 GMT
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Hi,

Did anybody find a solution ?

I used mount --bind /xxx /home2 to mount /home2 into my VPS but quota cannot be enabled on /home2
How can I fix this problem ?

Thank you

Subject: Re: Bind Mount + User Quotas: Is it possible?
Posted by kir on Sat, 18 Oct 2014 09:26:14 GMT
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You need to use simfs mount (see an example in vzctl(man page) and manually enable second-level quota using vzquota(tool

Subject: Re: Bind Mount + User Quotas: Is it possible?
Posted by kamranonline on Fri, 07 Nov 2014 14:22:01 GMT

kir wrote on Sat, 18 October 2014 05:26You need to use simfs mount (see an example in vzctl(man page) and manually enable second-level quota using vzquota(tool

Hi,

I mount it as simfs but I dont know how to use vzquota for this partition.
As you can see /home2 mounted as simfs filesystem.

```
root@at1 [/]# df -h
Filesystem      Size  Used Avail Use% Mounted on
/dev/simfs      220G  124G   86G  60% /
/dev/simfs      917G  100G  771G  12% /home2
none            4.0G  8.0K  4.0G   1% /dev


root@at1 [/]# mount
/dev/simfs on / type simfs (rw,relatime,usrquota,grpquota)
/dev/simfs on /home2 type simfs (rw,relatime)
proc on /proc type proc (rw,relatime)
sysfs on /sys type sysfs (rw,relatime)
none on /dev type devtmpfs (rw,relatime,mode=755)
devpts on /dev/pts type devpts (rw,relatime,gid=5,mode=620,ptmxmode=000)
none on /proc/sys/fs/binfmt_misc type binfmt_misc (rw,relatime)
```

but How to add usrquota , grpquota to Calculate Quota on this mounted point !

/etc/vz/conf/101.mount

```
#!/bin/sh
. /etc/vz/vz.conf
. /etc/vz/conf/101.conf
SRC=/vz5/101home2
DST=/home2
echo "Starting ${VEID}.mount..."
if [ ! -e ${VE_ROOT}${DST} ]; then mkdir -p ${VE_ROOT}${DST}; fi
mount  -n -t simfs ${SRC} ${VE_ROOT}${DST} -o ${SRC}
echo "...${VEID}.mount complete"
```

Subject: Re: Bind Mount + User Quotas: Is it possible?
Posted by kamranonline on Sat, 29 Nov 2014 09:36:30 GMT

Hi,

Any one can help to use QUOTA to second harddisk ?

Subject: Re: Bind Mount + User Quotas: Is it possible?
Posted by morrizon on Wed, 10 Dec 2014 20:25:03 GMT
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I'm using proxmox[1] and OpenVZ with multiple bind mounts[2] and quotas. This is possible because the quotas are managed by other containers.

For example, I want have a LAMP server with two bind mounts, one for the web files (100GB) and another for the MySQL (50GB). I do the following steps:

1. Create 3 containers:
  a) webserver101 (id 101): disk 4GB
  b) storage102 (id 102): disk 100GB
  c) storage103 (id 103): disk 50GB

2. Start all the containers.

3. Generate the folders to mount if doesn't exist. I want mount folders with the name of the container to folders with the of the service:

```
root@host:~# mkdir /var/lib/vz/root/101/home/www
root@host:~# mkdir /var/lib/vz/root/101/home/mysql
root@host:~# mkdir /var/lib/vz/root/102/home/storage102
root@host:~# mkdir /var/lib/vz/root/103/home/storage103
```

4. Generate the bind mounts[2] for webserver101 in the host:

```
root@host:~# cat /etc/vz/conf/101.mount
#!/bin/bash
. /etc/vz/vz.conf
. ${VE_CONFFILE}
SRC1=/var/lib/vz/private/102/home/storage102
DST1=/home/www
SRC2=/var/lib/vz/private/103/home/storage103
DST2=/home/mysql

mount -n -t simfs ${SRC1} ${VE_ROOT}${DST1} -o ${SRC1}
mount -n -t simfs ${SRC2} ${VE_ROOT}${DST2} -o ${SRC2}
```

5. Restart the container webserver101. It's very important start first the storage containers because they manage the quotas.

The bind mounts in the host:

```
root@ns398468:~# df -h|grep vz
/dev/mapper/pve-data                          1.8T  323G  1.4T  19% /var/lib/vz
/var/lib/vz/private/102                       100G  603M  100G   1% /var/lib/vz/root/102
none                                          256M  4.0K  256M   1% /var/lib/vz/root/102/dev
none                                           52M  1.0M   51M   2% /var/lib/vz/root/102/run
none                                          5.0M     0  5.0M   0% /var/lib/vz/root/102/run/lock
none                                          256M     0  256M   0% /var/lib/vz/root/102/run/shm
/var/lib/vz/private/103                        50G  603M   50G   2% /var/lib/vz/root/103
none                                          256M  4.0K  256M   1% /var/lib/vz/root/103/dev
none                                           52M  1.0M   51M   2% /var/lib/vz/root/103/run
none                                          5.0M     0  5.0M   0% /var/lib/vz/root/103/run/lock
none                                          256M     0  256M   0% /var/lib/vz/root/103/run/shm
/var/lib/vz/private/101                       4.0G  603M  3.5G  15% /var/lib/vz/root/101
/var/lib/vz/private/102/home/storage102                100G  603M  100G   1%
/var/lib/vz/root/101/home/www
/var/lib/vz/private/103/home/storage103                 50G  603M   50G   2%
/var/lib/vz/root/101/home/mysql
none                                          2.0G  4.0K  2.0G   1% /var/lib/vz/root/101/dev
none                                          410M  1.0M  409M   1% /var/lib/vz/root/101/run
none                                          5.0M     0  5.0M   0% /var/lib/vz/root/101/run/lock
none                                          2.0G     0  2.0G   0% /var/lib/vz/root/101/run/shm
```

The bind mounts in the container:

```
root@ns398468:~# vzctl enter 101
entered into CT 101
root@webserver101:/# df -h
Filesystem      Size  Used Avail Use% Mounted on
/dev/simfs      4.0G  603M  3.5G  15% /
/dev/simfs      100G  603M  100G   1% /home/www
/dev/simfs       50G  603M   50G   2% /home/mysql
none           2.0G  4.0K  2.0G   1% /dev
none           410M  1.0M  409M   1% /run
none           5.0M     0  5.0M   0% /run/lock
none           2.0G     0  2.0G   0% /run/shm
```

I'm sure there is a better solution that don't need to create storage containers and waste disk space and memory but this work for me

[1] See proxmox DOT com
[2] See article of jamescoyle DOT net -> search in google

525-proxmox-bind-mount-mount-storage-in-a-container (sorry, cannot use links because limit of the forum)