Subject: Change VEID without recalculating quota :: vzmlocal openvz option
Posted by rickb on Tue, 25 Sep 2007 07:55:51 GMT
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Hello friends, I posted about this a few months ago but I can't find it; devs confirmed there was no solution right now but I think I am onto one.

problem:

I want to change the VEID without recalculating the quota. Naturally I change /vz/private/OLD to /vz/private/NEW, OLD.conf to NEW.conf, then start NEW. Vzctl then wants to calc the fresh quota as it should. I have tried to move /var/vzquota/OLD.quota to NEW.quota but the value OLD is stored in the binary quota file and thus is a corrupt NEW quota file.

solution:

I then remembered that the virtuozzo tool vzmlocal can rename a VE and does not require quota [re]calculation upon start. vzmlocal is a binary tool, does anyone know if it performs some replacement on the OLD.quota binary? If so, I am interested in doing this myself.

Any pointers or ideas on how to rename a VE without quota calc on openvz are appreciated.

Thanks!
Rick

Subject: Re: Change VEID without recalculating quota :: vzmlocal openvz option
Posted by vaverin on Wed, 26 Sep 2007 05:05:13 GMT
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Hello Rick,

When quota is enabled it watches the changes in VE private area. When quota is disabled any modification inside this subtree invalidates quota.

However you can move whole subtree of VE private area to any another place on the same filesystem (i.e. by using sys_rename for private area directory). In this case quota information will be still consistent.

In your scenario you have started VE too early. On VE start quota file has not been found (I mean NEW.quota file) and quota has been recalculated. Also I would note that each VE start modifies several files inside VE private area -- and it invalidates information in OLD quota file.

Could you please try to make the following steps:
1) move private area to any new place on the same filesystem
2) rename VE configuration file and correct VE_PRIVATE path
3) Don't forget to move quota file too.

Now your quota file is present and have correct information about new VE private subdirectory.

Then you can try to mount VE -- and I believe quota will be started without recalculation.

thank you,
Vasily Averin

Subject: Re: Change VEID without recalculating quota :: vzmlocal openvz option
Posted by rickb on Wed, 26 Sep 2007 10:23:42 GMT
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Thanks Vasily, I tried this (your procedure was what I naturally tried in the past as well). Below are the results.

```
[root@beast ~]# vzctl stop 1001
Stopping VE ...
VE was stopped
VE is unmounted
[root@beast ~]# mv /vz2/private/1001 /vz2/private/1002
[root@beast ~]# mv /etc/sysconfig/vz-scripts/1001.conf /etc/sysconfig/vz-scripts/1002.conf
[root@beast ~]# grep VE_PRIV /etc/sysconfig/vz-scripts/1002.conf
VE_PRIVATE="/vz2/private/$VEID"
[root@beast ~]# mv /var/vzquota/quota.1001 /var/vzquota/quota.1002
[root@beast ~]# vzctl start 1002
Starting VE ...
vzquota : (error) quota check : stat /vz2/private/1001: No such file or directory
vzquota on failed [1]
[root@beast ~]# grep 1001 /etc/sysconfig/vz-scripts/1002.conf
[root@beast ~]#
```

I believe this is the problem!:

```
[root@beast ~]# strings /var/vzquota/quota.1002 | grep 1001
/vz2/private/1001
```

I am wondering if vzmlocal modifies this quota file, I will test on virtuozzo.

-Rick

Subject: Re: Change VEID without recalculating quota :: vzmlocal openvz option
Posted by rickb on Wed, 26 Sep 2007 10:29:30 GMT
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Yes this is definitely the key, see below:

```
[root@germanium ~]# md5sum /var/vzquota/quota.9889792
78f3b64633a22139dcd3834beb2bb2ef  /var/vzquota/quota.9889792
[root@germanium ~]# vzmlocal 9889792:12345
Moving/copying VE#9889792 -> VE#12345, [], [] ...
Moving private area '/vz/private/9889792'->'/vz/private/12345'
done
Copying/modifying config scripts of VE#9889792 ...
done
Successfully completed
[root@germanium ~]# md5sum /var/vzquota/quota.12345
16288b19128a28c734370d3c50b36a4d  /var/vzquota/quota.12345
[root@germanium ~]# strings /var/vzquota/quota.12345 | grep 12345
/vz/private/12345
[root@germanium ~]#
```

strace output:

```
write(1, "Copying/modifying config scripts"..., 49) = 49
stat64("/var/vzquota/quota.9889792", {st_mode=S_IFREG|0644, st_size=1365, ...}) = 0
open("/var/vzquota/quota.9889792", O_RDONLY) = 4
open("/var/vzquota/quota.12345", O_WRONLY|O_CREAT|O_TRUNC, 0666) = 5
fstat64(4, {st_mode=S_IFREG|0644, st_size=1365, ...}) = 0
mmap2(NULL, 4096, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_ANONYMOUS, -1, 0) =
0x4010c000
read(4, "\'\274\334\376\4\0\0\0\0\0\0\300\1\0\0\0\0\0\0\200\1\0"..., 8192) = 1365
read(4, "", 4096)                       = 0
read(4, "", 8192)                       = 0
fstat64(5, {st_mode=S_IFREG|0644, st_size=0, ...}) = 0
mmap2(NULL, 4096, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_ANONYMOUS, -1, 0) =
0x4010d000
write(5, "\'\274\334\376\4\0\0\0\0\0\0\300\1\0\0\0\0\0\0\200\1\0"..., 1365) = 1365
close(5)                                = 0
munmap(0x4010d000, 4096)                = 0
close(4)                                = 0
```

vzmlocal is a magical tool! Do you know how we can safely modify this binary file without vzmlocal?

Rick