Subject: ploop for snapshotting openvz containers on amazon ec2/xen
Posted by fredish on Mon, 13 May 2013 18:49:12 GMT
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Hello,

I have started using ploop with openvz successfully on centos 6 for snapshotting containers, and it works marvelously. However in moving to Amazon and running on centos 6 via pv-grub, the basic openvz functionalities work per normal, but not with ploop. I believe Xen is doing something unexpected with the locking. I haven't been able to google up any specific info for ec2/xen + openvz + ploop. Is anyone aware of any gotchas or have pointers?

regards, Fred Patton

When running the following script ovz-container-setup.sh--
[ec2-user@blah ~]$ sudo ./ovz-container-setup.sh 201

which consists of:
sudo vzctl create $1 --ostemplate ubuntu-12.04-x86_64 --config unlimited --layout ploop --diskspace 3G
sudo vzctl set $1 --hostname box$1 --ipadd 10.0.0.$1 --nameserver 10.0.0.1 --userpasswd root:jlk4j3298 --onboot yes --save
sudo vzctl start $1
sudo vzctl snapshot $1 --id some-guid

OUTPUT:
****
Creating image: /vz/private/201.tmp/root.hdd/root.hdd size=3145728K
Creating delta /vz/private/201.tmp/root.hdd/root.hdd bs=2048 size=6291456 sectors
Storing /vz/private/201.tmp/root.hdd/DiskDescriptor.xml
Adding delta dev=/dev/ploop36619 img=/vz/private/201.tmp/root.hdd/root.hdd (rw)
mke2fs 1.42.3 (14-May-2012)
Discarding device blocks: done
Filesystem label=
OS type: Linux
Block size=4096 (log=2)
Fragment size=4096 (log=2)
Stride=0 blocks, Stripe width=0 blocks
196608 inodes, 785915 blocks
39295 blocks (5.00%) reserved for the super user
First data block=0
Maximum filesystem blocks=805306368
24 block groups
32768 blocks per group, 32768 fragments per group
8192 inodes per group
Superblock backups stored on blocks:
 32768, 98304, 163840, 229376, 294912

Allocating group tables: done
Writing inode tables: done
Creating journal (16384 blocks): done
Writing superblocks and filesystem accounting information: done

tune2fs 1.42.3 (14-May-2012)
Creating balloon file .balloon-c3a5ae3d-ce7f-43c4-a1ea-c61e2b4504e8
Mounting /dev/ploop36619p1 at /vz/private/201.tmp/root.hdd/root.hdd.mnt fstype=ext4 data=''
Unmounting device /dev/ploop36619
I/O error : No such file or directory
/vz/private/201.tmp/root.hdd/DiskDescriptor.xml:1: parser error : Document is empty

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/vz/private/201.tmp/root.hdd/DiskDescriptor.xml:1: parser error : Start tag expected, '<' not found

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Removing stale lock file /vz/lock/201.lck
Warning: distribution not specified in CT config, using defaults from /etc/vz/dists/default
Starting container...
Warning: distribution not specified in CT config, using defaults from /etc/vz/dists/default
stat(/vz/private/201): No such file or directory
stat(/vz/private/201): No such file or directory
Can't umount /vz/root/201: Invalid argument
stat(/vz/private/201): No such file or directory
Unable to start init, probably incorrect template
Container start failed
Killing container ...
Container was stopped
stat(/vz/private/201): No such file or directory
stat(/vz/private/201): No such file or directory
Can't umount /vz/root/201: Invalid argument
Error: failed to apply some parameters, not saving configuration file!
Container private area /vz/private/201 does not exist
Snapshot feature is only available for ploop-based CTs
****

ADDITIONAL CONTEXT:
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[ec2-user@blah ~]$ sudo dmesg | tail -n 50
[0.211801] device-mapper: ioctl: 4.22.6-ioctl (2011-10-19) initialised: dm-devel@redhat.com
[0.237828] <30>udevd[87]: starting version 173
[0.292946] xlblk_init: register_blkdev major: 202
[0.296020]   alloc irq_desc for 275 on node 0
[0.296026]   alloc kstat_irqs on node 0
[0.305178] blkfront: xvde1: barriers disabled
[0.606316] EXT4-fs (xvde1): INFO: recovery required on readonly filesystem
[0.606345] EXT4-fs (xvde1): write access will be enabled during recovery
[6.305800] EXT4-fs (xvde1): orphan cleanup on readonly fs

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[    6.308531] EXT4-fs (xvde1): ext4_orphan_cleanup: deleting unreferenced inode 7113
[    6.308619] EXT4-fs (xvde1): ext4_orphan_cleanup: deleting unreferenced inode 7109
[    6.309350] EXT4-fs (xvde1): ext4_orphan_cleanup: deleting unreferenced inode 7076
[    6.309370] EXT4-fs (xvde1): ext4_orphan_cleanup: deleting unreferenced inode 7074
[    6.309404] EXT4-fs (xvde1): ext4_orphan_cleanup: deleting unreferenced inode 7072
[    6.309426] EXT4-fs (xvde1): ext4_orphan_cleanup: deleting unreferenced inode 7068
[    6.309446] EXT4-fs (xvde1): 6 orphan inodes deleted
[    6.309460] EXT4-fs (xvde1): recovery complete
[    6.392109] EXT4-fs (xvde1): mounted filesystem with ordered data mode. Opts:
[    6.664406] dracut: Remounting /dev/disk/by-label/\x2f with -o noatime,ro
[    6.685461] EXT4-fs (xvde1): mounted filesystem with ordered data mode. Opts:
[    6.691476] dracut: Mounted root filesystem /dev/xvde1
[    6.763928] dracut: Switching root
[   12.227947] <30>udevd[224]: starting version 173
[   14.594784] Initialising Xen virtual ethernet driver.
[   14.595974]   alloc irq_desc for 274 on node 0
[   14.595980]   alloc kstat_irqs on node 0
[   17.844949] NET: Registered protocol family 10
[   29.386043] eth0: no IPv6 routers present
[   36.884041] venet0: no IPv6 routers present
[   49.671537] ip_tables: (C) 2000-2006 Netfilter Core Team
[   50.059239] ip6_tables: (C) 2000-2006 Netfilter Core Team
[   50.153451] Enabling conntracks and NAT for ve0
[   50.153466] nf_conntrack version 0.5.0 (16384 buckets, 65536 max)
[   50.458267] RPC: Registered named UNIX socket transport module.
[   50.458279] RPC: Registered udp transport module.
[   50.458285] RPC: Registered tcp transport module.
[   50.458291] RPC: Registered tcp NFSv4.1 backchannel transport module.
[   51.065970] Slow work thread pool: Starting up
[   51.066120] Slow work thread pool: Ready
[   51.066160] FS-Cache: Loaded
[   51.121922] Registering the id_resolver key type
[   51.122080] FS-Cache: Netfs 'nfs' registered for caching
[   51.221254] ploop_dev: module loaded
[   75.822126]  ploop36619: unknown partition table
[   76.882564]  ploop36619:
[   76.900774]  ploop36619: p1
[   80.539312]  ploop36619: p1
[   80.567750] EXT4-fs (ploop36619p1): mounted filesystem with ordered data mode. Opts:
[   80.643295] CT: 201: started
[   80.737492] CT: 201: stopped

[ec2-user@blah ~]$ sudo df -iT
Filesystem    Type    Inodes   IUsed   IFree IUse% Mounted on
/dev/xvde1    ext4    524288   57886  466402   12% /
tmpfs         tmpfs   936809       1  936808    1% /dev/shm
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[ec2-user@ip-10-254-73-168 ~]$ sudo ploop stat -d /dev/ploop34720
bio_in              16786
bio_fast            120
bio_full            0
bio_out             28
bio_alloc           75
bio_alloc_whole     64
bio_splits          0
coal_back           0
coal_forw           16547
coal_back2          0
coal_forw2          0
coal_oback          0
coal_oforw          0
coal_mback          0
coal_mforw          0
coal_overlap        0
coal_flush          0
bio_barriers        0
bio_rzero           13
bio_wzero           0
bio_syncwait        75
bio_fsync           19
bio_cows            0
bio_whole_cows      0
merge_neg_cluster   0
merge_neg_disable   0
fast_neg_nomap      116
fast_neg_noem       0
fast_neg_shortem    0
fast_neg_backing    0
bio_lockouts        28
map_lockouts        1
merge_lockouts      0
map_reads           4
map_merges          0
map_single_writes   14
map_multi_writes    10
map_multi_updates   61
bio_trans_whole     0
bio_trans_copy      0
bio_trans_alloc     0
bio_trans_index     0
bio_flush_in        9
bio_fua_in          1
bio_flush_out       9
bio_fua_out         1
bio_flush_skip      0
```