

---

Subject: fast shared storage between containers  
Posted by [wodzpl](#) on Tue, 29 Oct 2013 16:21:17 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

hi,

I am quite new in OpenVZ world.  
I am doing a research for specific usage scenario of OpenVZ.  
For that I need very fast shared storage between VEs.  
In my lab I am using dedicated server platform with 200Gb of ram.  
CIFS/NFS from fileserver is not so fast and for extra array with many disks to share the load of 70 VEs read/write operations with many small files budget is tight.  
Every VE needs to have r/w rights to that storage.  
So I experimented with ramfs/tmpfs and mounting it by bind to VEs.  
I need +40 GB ramdisk but every VE I would like to have with limited amount of PHYS\_PAGES=3GB.  
When I try with dd filling ramdisk with file grater than 4G oomkiller restores some resources and it's not accepted.

I've been experimenting with SHMPAGES and OOMGUARPAGES but without any luck.

First of all I would like to ask you experienced openVZ community is it possible what I am trying to get? [ramdisk 40GB shared over VEs and VEs with limited 3GB of ram]  
Secondly maybe you have other ideas how to provide this sort of very fast shared storage.

I appreciate all your help.

---

Subject: Re: fast shared storage between containers  
Posted by [wodzpl](#) on Mon, 04 Nov 2013 17:40:50 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

hi folks,

So far I've tested with success loop devices [files] created on tmpfs on node and then by bind mount shared to VEs.

This solution is half-measure for me because I was managed to get ~45% slower transfer rate when compared to direct tmpfs mount bind to VE. I assume its too big emulation overhead.

Tmpfs in opposite to ramfs lives in swap and page caches.  
VSWAP is located in physical ram.

So I set vswap in VE to size of my ramdisk and then do tests [SizeOfVSWAP=SizeOfTmpfs].  
This would work great as planned etc vswap is emulating real swapping to hdd by slowing down my very fast ram sticks ;]  
I can image a reason for that feature while using openVZ for vps hostings etc.

But in my case I would like to disable it.

How can I accomplish that?

---

Subject: Re: fast shared storage between containers  
Posted by [pavel.odintsov](#) on Sun, 10 Nov 2013 22:51:28 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Hello, wodzpl!

You have so hard challenge:) AFAIK you can create in-memory disk image, mount it via loop driver as block device to hardware node and provide this block device to all containers using `vzctl --device`. But you must use cluster filesystem and I worry about it support in `openvz`.

---