Subject: OpenVZ maximum partition size
Posted by fgomes on Thu, 06 Sep 2007 21:35:26 GMT
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I'm trying to install OpenVZ on CentOS 5 (x86_64), using a RAID array with 3.5TB. I have defined swap and HN partitions, and still have about 3.4TB of storage to use for the VEs.
When I try to create the third partition with fdisk, I am unable to create it with more than 2TB, and also unable to create an additional partition with the remaining storage (about 1.4TB).
Isn't the openvz kernel for centos 5 compiled with CONFIG_LBD enabled?
I also tried with gparted live cd, I saw all the free space, but it also was unable to create the partition with more than 2TB - it says it can create a partition with -1 bytes - probably an internal overflow?
Any tip on how to solve this problem?

Thanks!

Fernando

Log from fdisk:

Command (m for help): p

Disk /dev/sda: 3499.9 GB, 3499925438464 bytes
255 heads, 63 sectors/track, 425508 cylinders
Units = cylinders of 16065 * 512 = 8225280 bytes

Device	Boot	Start	End	Blocks	Id	System
/dev/sda1	*	1	1275	10241406	83	Linux
/dev/sda2		1276	2550	10241437+	82	Linux swap / Solaris

Command (m for help): n
Command action
e extended
p primary partition (1-4)
p
Partition number (1-4): 3
First cylinder (2551-425508, default 2551):
Using default value 2551
Last cylinder or +size or +sizeM or +sizeK (2551-267349, default 267349):

Subject: Re: OpenVZ maximum partition size
Posted by Vasily Tarasov on Fri, 07 Sep 2007 04:39:20 GMT
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Hi,

It is quite tricky to have partitions of size > 2TB. There are a lot of components that impose this limitation. For example fdisk doesn't support such big partitions You can get more information at http://www.unixgods.org/~tilo/larger_2TB.html#2TB

HTH,
Vasily

Subject: Re: OpenVZ maximum partition size
Posted by fgomes on Fri, 07 Sep 2007 07:56:55 GMT
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Thanks for your reply! After my last post I also tried with parted (that is reported to work with partitions bigger than 2TB) but it didn't work, when I enter the upper limit as the maximum disk size, it creates a partition with about 1TB instead the 3.5TB
With fdisk I also have the problem of not being able to create any more partitions on the free space (it says that there is no more space available). I didn't try to create an additional partition with parted, because it gives strange size results on the first one I created, it seems it doesn't behave well with such a big volume (the same problem that I had with the gparted live cd, I define a partition size of 2TB for example, and it creates a partition only with few GB!)

What is the best way of defining 2 partitions with less than 2TB (or one with 2TB and other with 1.5TB) in a 3.5TB RAID volume?

Is the CONFIG_LBD enabled on openvz kernel?

Thanks!

Fernando

Subject: Re: OpenVZ maximum partition size
Posted by piavlo on Fri, 07 Sep 2007 08:24:21 GMT
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Create gpt type partition with patred.

In case you make root partition bigger that 2T you can still
boot from it using grub-2* versions

Alex

Subject: Re: OpenVZ maximum partition size
Posted by Vasily Tarasov on Fri, 07 Sep 2007 13:52:43 GMT
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Hello,

LBD config option is enabled in all OpenVZ kernels. And you can use big block devices. But with partitions - its a bit harder.

If you want to use common MBR (Master Boot Record) Partion Table (which fdisk operates with), then the size of partion can't be more then 2TB. piavlo offered you to use GPT (GUID Partion Table) andin fact it allows you to use big partions.

HTH,
Vasily