
Subject: /dev/fd/3

Posted by [Steve Hodges](#) on Mon, 13 Aug 2007 17:33:01 GMT

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A program in a VE is complaining that it can't open /dev/fd/3

From reading, it appears that this is the equivalent of asking to open something with a file descriptor of 3. So I guess that the devices option on vzctl isn't going to help me here.

I also find that whilst I have made /dev/hdc available to my VE, I can't mount the cdrom. It tells me

mount: unknown filesystem type 'udf'

or

mount: unknown filesystem type 'iso9660'

depending on what I enter in the /etc/fstab.

My host OS is Debian etch, by VE is using a Debian etch template.

This has had me going around in circles for some time :-(

Steve

Subject: Re: /dev/fd/3

Posted by [Gregor Mosheh](#) on Mon, 13 Aug 2007 17:58:36 GMT

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> A program in a VE is complaining that it can't open /dev/fd/3
> From reading, it appears that this is the equivalent of asking to open
> something with a file descriptor of 3. So I guess that the devices
> option on vzctl isn't going to help me here.

Indeed. It sounds like a problem within the program. Something's causing a file descriptor to not be opened, and the program isn't performing sufficient error-checking. Cuz I know one can open file descriptors at will!

Or perhaps your VE has maxed out the number of FDs it's allowed to have? Check the /proc/user_beancounters and see if anything there is happening to shed light on whether the failure is VE-related.

> I also find that whilst I have made /dev/hdc available to my VE, I can't
> mount the cdrom. It tells me
> mount: unknown filesystem type 'udf'
> mount: unknown filesystem type 'iso9660'

For a CDROM, iso9660 is usually appropriate. Are you sure that that module is already loaded in the hardware node? A lot of distros leave iso9660 as a module and VEs cannot load kernel modules.

Do a "modprobe iso9660" in the HN, to ensure that the module is loaded. Then try mounting the CD in the VE.

--

Gregor Mosheh / Greg Allensworth
System Administrator, HostGIS cartographic development & hosting services
<http://www.HostGIS.com/>

"Remember that no one cares if you can back up,
only if you can restore." - AMANDA

Subject: Re: /dev/fd/3
Posted by [Gregor Mosheh](#) on Mon, 13 Aug 2007 18:03:26 GMT
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> Indeed. It sounds like a problem within the program. Something's causing
> a file descriptor to not be opened, and the program isn't performing
> sufficient error-checking. Cuz I know one can open file descriptors at
> will!

To elaborate a bit more... The program "strace" is invaluable for finding out what a program is doing (or failing to do). If you strace your program's execution (and the failure is happening early enough) then you can probably find out which fopen() is failing and why.

Like I said, this may be due to a VE issue (too many FDs open already, out of memory while reading file, etc) or may be something about the program itself.

--

Gregor Mosheh / Greg Allensworth
System Administrator, HostGIS cartographic development & hosting services
<http://www.HostGIS.com/>

"Remember that no one cares if you can back up,
only if you can restore." - AMANDA

Subject: Re: /dev/fd/3
Posted by [Steve Hodges](#) on Tue, 14 Aug 2007 08:17:29 GMT

On 14/08/2007 1:58 AM, Gregor Mosheh wrote:

>

> Or perhaps your VE has maxed out the number of FDs it's allowed to
> have? Check the /proc/user_beancounters and see if anything there is
> happening to shed light on whether the failure is VE-related.

Here is what I see, including the beancounters immediately after

```
Executing 'mkisofs -C 106736,113120 -M /dev/fd/3 -R -J -pad  
-graft-points /2007-08-14__12-07-50=/home/archive/image | builtin_dd  
of=/dev/hdc obs=32k seek=7070'
```

```
genisoimage: No such file or directory. Cannot open '/dev/fd/3'. Cannot  
open SCSI driver.
```

```
genisoimage: No such file or directory. Unable to open previous session  
image '/dev/fd/3'.
```

```
:- ( mkisofs has failed: 2
```

```
***image written
```

```
***error writing to DVD. You may need another DVD
```

```
root@backup:/# cat /proc/user_beancounters
```

```
Version: 2.5
```

	uid	resource	held	maxheld	barrier	limit
failcnt						
111:	kmemsize	509969	691152	2752512		
2936012	0					
	lockedpages	0	8905	30000		
30000	0					
	privvmpages	1778	18792	100000		
200000	0					
	shmpages	0	0	8192		
8192	0					
	dummy	0	0	0		
0	0					
	numproc	10	14	65		
65	0					
	physpages	1112	9981	0		
2147483647	0					
	vmguarpages	0	0	6144		
2147483647	0					
	oomguarpages	1112	9981	6144		
2147483647	0					
	numtcpsock	3	3	80		
80	0					
	numflock	1	2	100		
110	0					
	numpty	1	1	16		
16	0					
	numsiginfo	0	2	256		

256	0			
	tcpsndbuf	0	0	319488
524288	0			
	tcprcvbuf	0	0	319488
524288	0			
	othersockbuf	2220	2904	132096
336896	0			
	dgramrcvbuf	0	0	132096
132096	0			
	numothersock	2	4	120
120	0			
	dcachesize	0	0	1048576
1097728	0			
	numfile	237	317	2048
2048	0			
	dummy	0	0	0
0	0			
	dummy	0	0	0
0	0			
	dummy	0	0	0
0	0			
	numiptent	10	10	128
128	0			

the lines flagged with *** come from my script.

the relevant lines of the script are:

```
# create a path on the dvd
writedate=$(date +%Y-%m-%d___%H-%M-%S)

# burn files to dvd (either new or append) in timestamped directory
# might be a good idea to log this fact too.
err=
case "$dvdstatus" in
  blank)
    growisofs -Z /dev/hdc -R -J -pad -graft-points
"/${writedate}=${image}" || err=Y
    ;;

  appendable)
    growisofs -M /dev/hdc -R -J -pad -graft-points
"/${writedate}=${image}" || err=Y
    ;;

  *)
    echo Internal error deciding how to write to dvd
    exit 1

```

```
;;

esac
echo image written

# if error then send email and ask for new dvd (reporting error too)
if [[ "$err" == "Y" ]]; then
    echo error writing to DVD. You may need another DVD
    eject
    exit 1
fi
```

(clearly the script isn't complete yet :-)

```
>
>
>> I also find that whilst I have made /dev/hdc available to my VE, I
>> can't mount the cdrom. It tells me
>> mount: unknown filesystem type 'udf'
>> mount: unknown filesystem type 'iso9660'
>
> For a CDROM, iso9660 is usually appropriate. Are you sure that that
> module is already loaded in the hardware node? A lot of distros leave
> iso9660 as a module and VEs cannot load kernel modules.
>
> Do a "modprobe iso9660" in the HN, to ensure that the module is
> loaded. Then try mounting the CD in the VE.
```

```
modprobe iso9660 seems to work on the hardware node, however lsmod |
grep iso shown only
isofs          21348  0
```

(which my googling suggests may actually be the right thing to see.)

```
nevertheless, I can
mount -t iso9660 /dev/hdc /media/cdrom0
whereupon I get
mount: block device /dev/hdc is write-protected, mounting read-only
and df, in part, reports
/dev/hdc          458    458      0 100% /media/cdrom0
/etc/fstab on the HN contains:
/dev/hdc /media/cdrom0 udf,iso9660 user,noauto 0 0
```

```
I then umount /dev/hdc and go into the ve (which has access to hdc via
vzctl set $1 --devnodes hdc:rw --save)
it's /etc/fstab looks like this:
# UNCONFIGURED FSTAB FOR BASE SYSTEM
/dev/hdc /media/cdrom0 udf,iso9660 user,noauto 0 0
```

if I do this:
mount -t iso9660 /dev/hdc /media/cdrom0
I get this:
mount: unknown filesystem type 'iso9660'

>
>

Subject: Re: /dev/fd/3
Posted by [TheWiseOne](#) on Tue, 14 Aug 2007 11:30:42 GMT
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The same bug exists in Virtuozzo, "ln -s /proc/self/fd /dev/fd" appears to be the fix.

Reference: <http://www.tektonic.net/forum/showthread.php?t=1936>

Steve Hodges wrote:

> On 14/08/2007 1:58 AM, Gregor Mosheh wrote:
>>
>> Or perhaps your VE has maxed out the number of FDs it's allowed to
>> have? Check the /proc/user_beancounters and see if anything there is
>> happening to shed light on whether the failure is VE-related.
>
> Here is what I see, including the beancounters immediately after
>
> Executing 'mkisofs -C 106736,113120 -M /dev/fd/3 -R -J -pad
> -graft-points /2007-08-14__12-07-50=/home/archive/image | builtin_dd
> of=/dev/hdc obs=32k seek=7070'
> genisoimage: No such file or directory. Cannot open '/dev/fd/3'.
> Cannot open SCSI driver.
> genisoimage: No such file or directory. Unable to open previous
> session image '/dev/fd/3'.
> :-(mkisofs has failed: 2
> ***image written
> ***error writing to DVD. You may need another DVD
> root@backup:/# cat /proc/user_beancounters
> Version: 2.5
> uid resource held maxheld barrier limit
> failcnt
> 111: kmemsize 509969 691152 2752512
> 2936012 0
> lockedpages 0 8905 30000
> 30000 0
> privvmpages 1778 18792 100000

```

> 200000      0
>      shmpages      0      0      8192
> 8192      0
>      dummy      0      0      0
> 0      0
>      numproc      10      14      65
> 65      0
>      physpages      1112      9981      0
> 2147483647      0
>      vmguarpages      0      0      6144
> 2147483647      0
>      oomguarpages      1112      9981      6144
> 2147483647      0
>      numtcpsock      3      3      80
> 80      0
>      numflock      1      2      100
> 110      0
>      numpty      1      1      16
> 16      0
>      numsiginfo      0      2      256
> 256      0
>      tcpsndbuf      0      0      319488
> 524288      0
>      tcprcvbuf      0      0      319488
> 524288      0
>      othersockbuf      2220      2904      132096
> 336896      0
>      dgramrcvbuf      0      0      132096
> 132096      0
>      numothersock      2      4      120
> 120      0
>      dcachesize      0      0      1048576
> 1097728      0
>      numfile      237      317      2048
> 2048      0
>      dummy      0      0      0
> 0      0
>      dummy      0      0      0
> 0      0
>      dummy      0      0      0
> 0      0
>      numiptent      10      10      128
> 128      0
>
> the lines flagged with *** come from my script.
>
> the relevant lines of the script are:
>

```

```

> # create a path on the dvd
> writedate=$(date +%Y-%m-%d__%H-%M-%S)
>
> # burn files to dvd (either new or append) in timestamped directory
> # might be a good idea to log this fact too.
> err=
> case "$dvdstatus" in
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>   growisofs -Z /dev/hdc -R -J -pad -graft-points
> "$/${writedate}=${image}" || err=Y
>   ;;
>
> appendable)
>   growisofs -M /dev/hdc -R -J -pad -graft-points
> "$/${writedate}=${image}" || err=Y
>   ;;
>
> *)
>   echo Internal error deciding how to write to dvd
>   exit 1
>   ;;
>
> esac
> echo image written
>
> # if error then send email and ask for new dvd (reporting error too)
> if [[ "$err" == "Y" ]]; then
>   echo error writing to DVD. You may need another DVD
>   eject
>   exit 1
> fi
>
> (clearly the script isn't complete yet :-))
>
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>>> I also find that whilst I have made /dev/hdc available to my VE, I
>>> can't mount the cdrom. It tells me
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> I then umount /dev/hdc and go into the ve (which has access to hdc via
> vzctl set $1 --devnodes hdc:rw --save)
> it's /etc/fstab looks like this:
> # UNCONFIGURED FSTAB FOR BASE SYSTEM
> /dev/hdc /media/cdrom0 udf,iso9660 user,noauto 0 0
> if I do this:
> mount -t iso9660 /dev/hdc /media/cdrom0
> I get this:
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>
>
>
>>
>>
```

Subject: Re: /dev/fd/3

Posted by [Steve Hodges](#) on Tue, 14 Aug 2007 14:40:44 GMT

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thank you

The really strange thing is that I'm damn sure I had this working at least once before. I wonder if I managed to snag a different version of the template when I rebuilt the server?

Anyway, that's fixed now :-)

It still won't mount the dvd, but that's not a huge issue at present.

Steve

On 14/08/2007 7:30 PM, Matt Ayres wrote:

```

> The same bug exists in Virtuozzo, "ln -s /proc/self/fd /dev/fd"
> appears to be the fix.
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> Steve Hodges wrote:
>> On 14/08/2007 1:58 AM, Gregor Mosheh wrote:
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>> 2936012      0
>>   lockedpages       0    8905   30000
>> 30000      0
>>   privvmpages       1778   18792  100000
>> 200000      0
>>   shmpages          0     0    8192
>> 8192      0
>>   dummy             0     0     0
>> 0      0
>>   numproc           10    14    65
>> 65      0
>>   physpages         1112   9981     0
>> 2147483647      0
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>> 2147483647      0
>>   oomguarpages      1112   9981   6144
>> 2147483647      0
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>> 80      0

```

```

>> numflock      1      2      100
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>> numpty      1      1      16
>> 16      0
>> numsiginfo   0      2      256
>> 256      0
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>> 132096      0
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>> 120      0
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>> 1097728      0
>> numfile      237    317    2048
>> 2048      0
>> dummy        0      0      0
>> 0      0
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>> fi
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>> (clearly the script isn't complete yet :-)
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>>
>>
>>>
>>>
```
