

---

Subject: Problems with Gentoo template creation  
Posted by [Ronald Tanner](#) on Wed, 09 Aug 2006 15:54:23 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Hi

On a Gentoo/OpenVZ system with kernel 2.6.16-026test015 I created a gentoo template by following the instructions on

[http://wiki.openvz.org/Gentoo\\_template\\_creation](http://wiki.openvz.org/Gentoo_template_creation)

I am now encountering several problems with the VPS that are created using this template  
I cannot find the "random" devices that are needed for example to generate the host key for ssh. The problem is maybe somehow related with the link of /etc/mtab -> /proc/mounts.  
After removing the link and adding the following line into /etc/mtab on the VPS:

```
proc /proc proc rw 0 0
```

at least the device urandom exists and I am able to create the host keys. But now I cannot ping the VPS:

VPSID	NPROC	STATUS	IP_ADDR	HOSTNAME
500	3	running	10.0.186.10	-

ping 10.0.186.10 (no answer)

entering works:

```
vzctl enter 500
```

Thanks for any help.

Ronald

---

Subject: Re: Problems with Gentoo template creation  
Posted by [dwebwarm](#) on Wed, 09 Aug 2006 20:07:44 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Actually /proc is not related to u/random. This are regular devices in /dev. Can you try to create the devices using mknod inside the VPS...

```
vzctl exec 500 mknod -m 666 /dev/random c 1 8  
vzctl exec 500 mknod -m 444 /dev/urandom c 1 9
```

Martin

Ronald Tanner wrote:

```
> Hi
>
> On a Gentoo/OpenVZ system with kernel 2.6.16-026test015 I created a
> gentoo template by following the instructions on
>
> http://wiki.openvz.org/Gentoo_template_creation
>
> I am now encountering several problems with the VPS
> that are created using this template
> I cannot find the "random" devices that are needed for example
> to generate the host key for ssh. The problem is maybe somehow
> related with the link of /etc/mtab -> /proc/mounts.
> After removing the link and adding the following
> line into /etc/mtab on the VPS:
>
> proc /proc proc rw 0 0
>
> at least the device urandom exists and I am able to create the
> host keys. But now I cannot ping the VPS:
>
> VPSID    NPROC STATUS IP_ADDR    HOSTNAME
> 500      3 running 10.0.186.10  -
>
> ping 10.0.186.10 (no answer)
>
> entering works:
>
> vzctl enter 500
>
>
> Thanks for any help.
>
> Ronald
>
```

---

---

Subject: Re: Problems with Gentoo template creation  
Posted by [Ronald Tanner](#) on Thu, 10 Aug 2006 05:59:57 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

No problem, I can create these devices.  
However after a reboot they are lost because /dev is mounted  
on tmpfs and gentoo uses udev.

Besides: do you have any idea why I have to set the routes

```
/sbin/route add -net 191.255.255.1 netmask 255.255.255.255 dev venet0  
/sbin/route add default gw 191.255.255.1
```

on the VE by hand to get the net working?

Regards  
Ronald

Martin Dobrev wrote:

> Actually /proc is not related to u/random. This are regular devices in  
> /dev. Can you try to create the devices using mknod inside the VPS...

>

> vzctl exec 500 mknod -m 666 /dev/random c 1 8

> vzctl exec 500 mknod -m 444 /dev/urandom c 1 9

>

> Martin

>

> Ronald Tanner wrote:

>> Hi

>>

>> On a Gentoo/OpenVZ system with kernel 2.6.16-026test015 I created a

>> gentoo template by following the instructions on

>>

>> [http://wiki.openvz.org/Gentoo\\_template\\_creation](http://wiki.openvz.org/Gentoo_template_creation)

>>

>> I am now encountering several problems with the VPS

>> that are created using this template

>> I cannot find the "random" devices that are needed for example

>> to generate the host key for ssh. The problem is maybe somehow

>> related with the link of /etc/mtab -> /proc/mounts.

>> After removing the link and adding the following

>> line into /etc/mtab on the VPS:

>>

>> proc /proc proc rw 0 0

>>

>> at least the device urandom exists and I am able to create the

>> host keys. But now I cannot ping the VPS:

>>

>>    VPSID    NPROC STATUS IP\_ADDR    HOSTNAME

>>    500      3 running 10.0.186.10   -

>>

>> ping 10.0.186.10 (no answer)

>>

>> entering works:

>>

>> vzctl enter 500

>>  
>>  
>> Thanks for any help.

>>  
>> Ronald  
>>

--

Ronald Tanner  
SEMAFOR Informatik & Energie AG tel. +41 61 690 9888  
Sperrstrasse 104B fax. +41 61 690 9880  
CH 4057 Basel Switzerland mailto:tanner@semafor.ch

---

---

Subject: Re: Problems with Gentoo template creation  
Posted by [kir](#) on Thu, 10 Aug 2006 08:21:19 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Ronald Tanner wrote:

> No problem, I can create these devices.  
> However after a reboot they are lost because /dev is mounted  
> on tmpfs and gentoo uses udev.  
>  
Can you make it NOT use udev? The thing is udev is really useless in a VE.  
Probably setting RC\_DEVICES="static" in /etc/conf.d/rc helps.  
> Besides: do you have any idea why I have to set the routes  
>  
> /sbin/route add -net 191.255.255.1 netmask 255.255.255.255 dev venet0  
> /sbin/route add default gw 191.255.255.1  
>  
> on the VE by hand to get the net working?  
>  
This is a trick to have everything routed to venet0. To set it  
automatically (by vzctl) you have to name your template  
gentoo-(something), so vzctl will guess this is gentoo (by looking at  
the value of OSTEMPLATE in /etc/vz/conf/NNN.conf) and will apply the  
appropriate scripts when doing vzctl set NNN --ipadd --save

Can you try this instead:  
/sbin/route add default dev venet0  
and check if it will work for you?

---

---

Subject: Re: Problems with Gentoo template creation  
Posted by [Ronald Tanner](#) on Thu, 10 Aug 2006 12:12:13 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Thanks. Setting RC\_DEVICES to static on the gentoo VE seems to fix

the dev problem.

I am currently not able to check the routing as I must rebuild the kernel to include iptables. We want to use NAT for our VEs.

I will come back.

Ronald

Kir Kolyshkin wrote:

> Ronald Tanner wrote:

>> No problem, I can create these devices.

>> However after a reboot they are lost because /dev is mounted

>> on tmpfs and gentoo uses udev.

>>

> Can you make it NOT use udev? The thing is udev is really useless in a VE.

> Probably setting RC\_DEVICES="static" in /etc/conf.d/rc helps.

>> Besides: do you have any idea why I have to set the routes

>>

>> /sbin/route add -net 191.255.255.1 netmask 255.255.255.255 dev venet0

>> /sbin/route add default gw 191.255.255.1

>>

>> on the VE by hand to get the net working?

>>

> This is a trick to have everything routed to venet0. To set it

> automatically (by vzctl) you have to name your template

> gentoo-(something), so vzctl will guess this is gentoo (by looking at

> the value of OSTEMPLATE in /etc/vz/conf/NNN.conf) and will apply the

> appropriate scripts when doing vzctl set NNN --ipadd --save

>

> Can you try this instead:

> /sbin/route add default dev venet0

> and check if it will work for you?

---

Subject: Re: Problems with Gentoo template creation

Posted by [kir](#) on Thu, 10 Aug 2006 12:20:22 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Ronald Tanner wrote:

> Thanks. Setting RC\_DEVICES to static on the gentoo VE seems to fix

> the dev problem.

>

Can you put this finding (as well as anything else you found) to the appropriate wiki page?

> I am currently not able to check the routing as I must rebuild

> the kernel to include iptables. We want to use NAT for our VEs.

>

> I will come back.

> Ronald  
>  
> Kir Kolyshkin wrote:  
>  
>> Ronald Tanner wrote:  
>>  
>>> No problem, I can create these devices.  
>>> However after a reboot they are lost because /dev is mounted  
>>> on tmpfs and gentoo uses udev.  
>>>  
>>>  
>> Can you make it NOT use udev? The thing is udev is really useless in a VE.  
>> Probably setting RC\_DEVICES="static" in /etc/conf.d/rc helps.  
>>  
>>> Besides: do you have any idea why I have to set the routes  
>>>  
>>> /sbin/route add -net 191.255.255.1 netmask 255.255.255.255 dev venet0  
>>> /sbin/route add default gw 191.255.255.1  
>>>  
>>> on the VE by hand to get the net working?  
>>>  
>>>  
>> This is a trick to have everything routed to venet0. To set it  
>> automatically (by vzctl) you have to name your template  
>> gentoo-(something), so vzctl will guess this is gentoo (by looking at  
>> the value of OSTEMPLATE in /etc/vz/conf/NNN.conf) and will apply the  
>> appropriate scripts when doing vzctl set NNN --ipadd --save  
>>  
>> Can you try this instead:  
>> /sbin/route add default dev venet0  
>> and check if it will work for you?  
>>  
>

---

Subject: Re: Problems with Gentoo template creation  
Posted by [Ronald Tanner](#) on Thu, 10 Aug 2006 12:32:04 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

I'll care about that.

Kir Kolyshkin wrote:  
> Can you put this finding (as well as anything else you found) to the  
> appropriate wiki page?

---

---

Subject: Re: Problems with Gentoo template creation

Posted by [Ronald Tanner](#) on Fri, 11 Aug 2006 12:53:45 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

My experiments show that setting the route with

```
/sbin/route add default dev venet0
```

on the VPS is sufficient.

```
localhost / # route -n
```

```
Kernel IP routing table
```

Destination	Gateway	Genmask	Flags	Metric	Ref	Use	Iface
127.0.0.0	127.0.0.1	255.0.0.0	UG	0	0	0	lo
0.0.0.0	0.0.0.0	0.0.0.0	U	0	0	0	venet0

But if you have the line

```
OSTEMPLATE=gentoo-something
```

in your config file (eg. /etc/vz/777.conf) the routes are added automatically when you set up the ip address. However they look different:

```
localhost / # route -n
```

```
Kernel IP routing table
```

Destination	Gateway	Genmask	Flags	Metric	Ref	Use	Iface
191.255.255.0	0.0.0.0	255.255.255.0	U	0	0	0	venet0
127.0.0.0	127.0.0.1	255.0.0.0	UG	0	0	0	lo
0.0.0.0	191.255.255.1	0.0.0.0	UG	0	0	0	venet0

for me these routes are somehow strange.

And there is another step in the preparation of the os template which needs some explanation. Why do I have to replace /etc/mstab with a link to /proc/mounts?

Regards

Ronald

---

---

Subject: Re: Problems with Gentoo template creation

Posted by [kir](#) on Fri, 11 Aug 2006 16:31:49 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Ronald Tanner wrote:

> And there is another step in the preparation of the os template which  
> needs some explanation. Why do I have to replace /etc/mstab with  
> a link to /proc/mounts?

This is because VE root filesystem is mounted by the host system, not the guest -- and therefore root fs will not appear in /etc/mtab. It will lead to df command non-working.

If you will replace /etc/mtab with a symlink to /proc/mounts, you will always have up-to-date information of what is mounted in /etc/mtab.

---

Subject: Re: Problems with Gentoo template creation  
Posted by [Ronald Tanner](#) on Tue, 15 Aug 2006 07:45:31 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Thanks. I have just updated the wiki page  
[http://wiki.openvz.org/Gentoo\\_template\\_creation](http://wiki.openvz.org/Gentoo_template_creation)  
with your comments.

one last (?) question remains:  
Don't you think that the steps described in "Set up udev"  
[http://wiki.openvz.org/Gentoo\\_template\\_creation#Set\\_up\\_udev](http://wiki.openvz.org/Gentoo_template_creation#Set_up_udev)  
are obsolete when RC\_DEVICES is set to "static" in /etc/conf.d/rc?

Regards  
Ronald

Kir Kolyshkin wrote:  
> Ronald Tanner wrote:  
>> And there is another step in the preparation of the os template which  
>> needs some explanation. Why do I have to replace /etc/mtab with  
>> a link to /proc/mounts?  
> This is because VE root filesystem is mounted by the host system, not  
> the guest -- and therefore root fs will not appear in /etc/mtab. It will  
> lead to df command non-working.  
>  
> If you will replace /etc/mtab with a symlink to /proc/mounts, you will  
> always have up-to-date information of what is mounted in /etc/mtab.

--

Ronald Tanner  
SEMAFOR Informatik & Energie AG                      tel. +41 61 690 9888  
Sperrstrasse 104B                                      fax. +41 61 690 9880  
CH 4057 Basel    Switzerland                      mailto:tanner@semafor.ch

---