
Subject: OpenVZ on CentOS 4.2

Posted by [czaver1](#) on Fri, 17 Mar 2006 12:53:06 GMT

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On a fresh install of CentOS 4.2, I tried to install OpenVZ using three different methods and encountered failure in some way:

Method 1. Source RPM. This is the source rpm that I used:

<http://download.openvz.org/kernel/022stab070.1/ovzkernel-2.6.8-022stab070.1.src.rpm>

Result: Some error regarding Intel Microcode on boot and that MAC address is not as expected, finally, on checking /sbin/ifconfig I noticed that the interface for which I receive the MAC address error was missing please see result of dmesg below.

What I did exactly: Downloaded the above srpm and said "rpmbuild --rebuild --target=i686 ovzkernel-2.6.8-022stab070.1.src.rpm". Then I went to RPMS directory and installed the rpm using -ivh flags. (I received a warning here about module ata_piix).

Method 2. RPM. This is the rpm that I used:

<http://download.openvz.org/kernel/022stab070.1/ovzkernel-2.6.8-022stab070.1.i686.rpm>

Result: Same error as above.

What I did exactly: Downloaded the above rpm and simply said "rpm -ivh ovzkernel-2.6.8-022stab070.1.i686.rpm".

(I received a warning here about module ata_piix).

Method 3: Patch. Patching the kernel:

Kernel:

<http://www.kernel.org/pub/linux/kernel/v2.6/linux-2.6.8.tar.bz2>

Patch:

<http://download.openvz.org/kernel/022stab070.1/patches/patch-022stab070-combined.gz>

Result: The vanilla kernel is bootable and fine. After patching, I get error in make step.

Compiled and installed the vanilla kernel first, using the following commands:

```
make mrproper
```

```
make xconfig
```

```
make
```

```
make modules_install
```

```
cp arch/i386/boot/bzImage /boot/vmlinuz-2.6.8
```

```
cp System.map /boot/System.map /boot/System.map-2.6.8
```

```
/sbin/mkinitrd /boot/initrd-2.6.8.img 2.6.8
```

```
gunzip patch-022stab070-combined.gz
```

```
patch -p1 <patch-022stab070-combined
```

```
make oldconfig
```

```
make
```

(I received error here)

the output of dmesg is in attached file.

Please let me know if further information is required.

It is a P4 CPU @ 3.0 GHz, 2 GB RAM and 2 SATA HDD each one 80 GB. The second hdd is under partition /vz.

Thank-you,

Sincerely,

Chintan Zaveri.

File Attachments

1) [results.of.dmesg](#), downloaded 476 times

Subject: Re: OpenVZ on CentOS 4.2

Posted by [kir](#) on Fri, 17 Mar 2006 13:08:23 GMT

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(1) Can you please put dmesg into the attached file, not as a part of the message itself (it is too long that way)?

(2) I haven't seen anything in dmesg regarding MAC or any error about the microcode, and do not really understand what was the problem. Can you please point me to the specific errors you get?

(3) What was the exact error you got when you tried compiling kernel yourself?

Thanks,
Kir

Subject: Re: OpenVZ on CentOS 4.2

Posted by [czaveri](#) on Fri, 17 Mar 2006 13:36:10 GMT

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Thank-you for replying kir.

I have edited the previous message and shifted the dmesg output to a file.

I have again, overwritten the previous installation wherein I lost the errors that I received after patching the kernel.

However, here are the errors that are visible on booting the OpenVZ kernel. Yes, these are not shown in the dmesg output.

The first error is:

Applying Intel Microcode update: FATAL: Module microcode not found
Error: module microcode does not exist in /proc/modules

The second error is:

dev eth1 has different MAC address than expected, so ignoring.

And, here is how I installed OpenVZ:

```
[root@server kernel]# rpm -ivh ovzkernel-2.6.8-022stab070.1.i686.rpm
warning: ovzkernel-2.6.8-022stab070.1.i686.rpm: V3 DSA signature: NOKEY, key ID a7a1d4b6
Preparing...      ##### [100%]
 1:ovzkernel      ##### [100%]
WARNING: No module ata_piix found for kernel 2.6.8-022stab070.1, continuing anyway
[root@server kernel]#
```

I have received the same error when I tried installing using the RPM created by SRPMs.

Do you suggest, I try recompiling the kernel and installing the patch?

Please let me know if some other information is required.

Thanks and regards,

Chintan Zaveri.

Subject: Re: OpenVZ on CentOS 4.2
Posted by [czaveri](#) on Fri, 17 Mar 2006 13:42:34 GMT
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Perhaps these files will be useful for some understanding of the system I am installing on ...

File Attachments

- 1) [proc.cpuinfo](#), downloaded 451 times
- 2) [proc.meminfo](#), downloaded 445 times
- 3) [proc.modules](#), downloaded 456 times
- 4) [proc.version](#), downloaded 451 times
- 5) [proc.vmstat](#), downloaded 420 times

Subject: Re: OpenVZ on CentOS 4.2
Posted by [kir](#) on Fri, 17 Mar 2006 14:36:54 GMT
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dev eth1 has different MAC address than expected, so ignoring.

Oh it looks like you have more than one network card, and the their numbers (eth0/eth1) are changed (that happens sometimes). Could you look deeper into network configuration, it is in

/etc/sysconfig/network-scripts/ifcfg-eth*.

Subject: Re: OpenVZ on CentOS 4.2
Posted by [czaver](#) on Fri, 17 Mar 2006 16:39:18 GMT
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Yes, you are right. I removed eth0 (the card was anyways redundant) and changed eth1 to eth0. It looks like solved.

Thank-you very much.

Though, this error still persists:

Applying Intel Microcode update: FATAL: Module microcode not found
Error: module microcode does not exist in /proc/modules

Can you help me solve this?

Thanks again,

Sincerely,

Chintan Zaveri.

Subject: Re: OpenVZ on CentOS 4.2
Posted by [kir](#) on Fri, 17 Mar 2006 17:54:41 GMT
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Quote:Though, this error still persists:

Applying Intel Microcode update: FATAL: Module microcode not found
Error: module microcode does not exist in /proc/modules

Can you help me solve this?

Sure. The problem is we have microcode driver built into the kernel, not as a module. It looks like CentOS script which applies microcode update is a bit dumb, well, not expecting this situation and insists on loading the module (even if there is no need to do so).

I have filed a bug to openvz bugzilla: see bug #118. I think we have to fix it by compiling microcode driver as a module. Other way would be to file a bug to RHEL. First way is easier and it will work; second way is harder and longer but more right. We will decide soon. You can add yourself to Cc for that bug to track its progress.

In the meantime you can fix it on your system by commenting out that part of init script which bails out if module is not loaded, or modify the script so it will try to load module only if needed.

Subject: Re: OpenVZ on CentOS 4.2
Posted by [czaver](#) on Fri, 17 Mar 2006 18:24:03 GMT
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Thank-you very much, kir.

I have added myself as a CC.

I am sorry, can't really make out which script requires editing. Can you advise, please?

What would be the result of leaving the error as is?

Regards,

Chintan.

Subject: Re: OpenVZ on CentOS 4.2
Posted by [kir](#) on Fri, 17 Mar 2006 18:50:12 GMT
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The file in question is probably `/etc/init.d/microcode_ctl`.

I took a look at this script and found out those errors are harmless -- first error is printed by `'/sbin/modprobe microcode'` which tries to load module (but there is no need to do that as it's compiled into the kernel), and second error is caused by `'/sbin/rmmod microcode'` which tells there is no such module loaded.

Other than those two error messages, script is just fine, i.e. it actually applies microcode update, so you can certainly ignore those messages. If you do not like them you can comment out two lines in `/etc/init.d/microcode_ctl` -- the one with `modprobe` and the one with `rmmod` -- but that way microcode update will not be applied in the case you boot into non-openvz kernel.

Hope I made it clear enough. Still, the bug exists and we will see what to do.

Subject: Re: OpenVZ on CentOS 4.2
Posted by [czaver](#) on Fri, 17 Mar 2006 18:55:28 GMT
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kir, I cannot thank-you enough for your time and help.

You have been very helpful.

Thank-you very much,

Sincerely,

Chintan Zaveri.

Subject: Re: OpenVZ on CentOS 4.2
Posted by [dowdle](#) on Fri, 17 Mar 2006 22:32:08 GMT
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How about just:

```
chkconfig --level 2345 microcode_ctl off
```

If your kernel does it from within, is that script / service really needed?

I have found some hardware where it fails (even without OpenVZ) so on those I just disable it.

Subject: Re: OpenVZ on CentOS 4.2
Posted by [kir](#) on Fri, 17 Mar 2006 22:47:12 GMT
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No it does not -- with OpenVZ kernel there is no need to load the module as this script does. So it is still better to keep the script. To avoid those messages you can redirect modprobe and rmmod output to /dev/null, like this

```
/sbin/modprobe microcode 2>/dev/null
```

```
....
```

```
/sbin/rmmod microcode 2>/dev/null
```