
Subject: Problem Inserting Microcode (Wrong arch?)
Posted by [btgeekboy](#) on Mon, 03 Dec 2007 19:12:16 GMT
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Hello all,

My apologies if this is covered elsewhere; I've searched but didn't find anything helpful. I'm a OVZ noob

On our Dell PowerEdge 1950, there's an error at boot which I am unable to resolve, with the microcode update unable to be applied. I see the following:

```
# modprobe microcode
FATAL: Error inserting microcode (/lib/modules/2.6.18-8.1.15.el5.028stab049.1/kernel/arch/i386/kernel/microcode.ko): Invalid module format
```

I believe the problem is because it's trying to load the i386 version, when I actually need the x86_64 version, which does exist on my system. Output of `uname -a`:

```
Linux host.domain.net 2.6.18-8.1.15.el5.028stab049.1 #1 SMP Thu Nov 8 16:23:16 MSK 2007
x86_64 x86_64 x86_64 GNU/Linux
```

Any ideas what could be causing this, and what I have to do to resolve it? I'm running the stock kernel from the yum repository. This is a fresh install of CentOS 5 x86_64; the only added software are the Dell OpenManage RPMs.

Subject: Re: Problem Inserting Microcode (Wrong arch?)
Posted by [tomp](#) on Mon, 03 Dec 2007 22:33:38 GMT
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Hi

I am in the identical situation to you. I too have a Dell 1950 server with nothing installed except the ovz kernel and Dell openmanage software all installed via yum.

If i insmod the microcode module from the x64 lib folder then there are no errors when i run modprobe microcode. However running the command by itself generates the same errors as appear on boot.

Subject: Re: Problem Inserting Microcode (Wrong arch?)
Posted by [btgeekboy](#) on Mon, 03 Dec 2007 22:52:17 GMT
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I just confirmed I was able to use insmod to fix the problem. Then running `modprobe microcode` works without an issue.

It appears the init.d script simply runs `/sbin/modprobe microcode`, so I guess we could hack the init script to fix the problem, but that's treating the symptom rather than addressing the root cause.

Perhaps this is worthy of a bug report?

Subject: Re: Problem Inserting Microcode (Wrong arch?)

Posted by [kir](#) on Tue, 04 Dec 2007 08:39:16 GMT

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Could you please provide us with the result of the below two commands?

```
rpm -qf /lib/modules/2.6.18-8.1.15.el5.028stab049.1/kernel/arch/i386/kernel/microcode.ko  
(and the same for x86_64 microcode.ko file)
```

Subject: Re: Problem Inserting Microcode (Wrong arch?)

Posted by [btgeekboy](#) on Tue, 04 Dec 2007 09:13:44 GMT

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Sure thing. Both return the same results:

```
# rpm -qf /lib/modules/2.6.18-8.1.15.el5.028stab049.1/kernel/arch/i386/kernel/microcode.ko  
ovzkernel-2.6.18-8.1.15.el5.028stab049.1
```

```
# rpm -qf /lib/modules/2.6.18-8.1.15.el5.028stab049.1/kernel/arch/x86_64/kernel/microcode.ko  
ovzkernel-2.6.18-8.1.15.el5.028stab049.1
```

Subject: Re: Problem Inserting Microcode (Wrong arch?)

Posted by [kir](#) on Tue, 04 Dec 2007 09:16:48 GMT

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It looks like you have both x86_64 and i686 kernels installed. My guess is modprobe tools can't deal right with it.

So, a workaround would be to uninstall i686 kernel:
rpm -e ovzkernel-2.6.18-8.1.15.el5.028stab049.1.i686

The solution would be to investigate modprobe's behavior and to file a bug for it.

Subject: Re: Problem Inserting Microcode (Wrong arch?)

Posted by [mohaw](#) on Tue, 04 Dec 2007 13:03:36 GMT

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I have 3 kernels installed and both of them are x86_64, during boot with "kernel 2.6.22 ovz005" a similar problem occurs. It says "2737 segmentation fault /sbin/modprobe microcode"

I disabled the mictocode_ctl on boot and manually modprobe microcode, after that dmesg shows "IA32 ... microcode driver loaded ..." do I need this driver? my cpu is intel core 2 quad q6600 2.4, I think this cpu is not IA32 (it is EM64T) and do not need any IA32 microcode, does it need?

edit: I learned that I need this because of this I must solve the segmentation fault problem.

Subject: Re: Problem Inserting Microcode (Wrong arch?)

Posted by [khorenko](#) on Tue, 04 Dec 2007 14:21:53 GMT

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Microcode is also applicable to the processors of the x86_64 architecture:

<http://urbanmyth.org/microcode/>

Looks like support for microcode is broken in 2.6.20 & 2.6.22 OVZ kernels. i've submitted the bug# 745 for the issue.
