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Subject: Debian installation precompiled kernel images -- so confused

Posted by [belkhal](#) on Sat, 13 Oct 2007 04:08:41 GMT

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I am trying to install OpenVZ into a Debian etch box. I'm following this guide:  
[http://wiki.openvz.org/Installation\\_on\\_Debian#install\\_the\\_kernel-image](http://wiki.openvz.org/Installation_on_Debian#install_the_kernel-image)

I don't understand the naming system of the kernels:

(from [download.openvz.com/debian](http://download.openvz.com/debian))  
linux-image-2.6.18-openvz-13-39.1d2-686  
linux-image-2.6.18-ovz-028stab045.1  
(from [debian.sysfs.org](http://debian.sysfs.org))  
ovzkernel-2.6.18

There are many more.

Which one should I install?

My `uname -a` is:

```
Linux test.test.net 2.6.18-5-686-bigmem #1 SMP Fri Jun 1 02:04:28 UTC 2007 i686 GNU/Linux
```

Thank you.

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Subject: Re: Debian installation precompiled kernel images -- so confused

Posted by [a1bert](#) on Sat, 13 Oct 2007 08:38:52 GMT

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...and, where is the signing key for debian packages from [download.openvz.org](http://download.openvz.org) ?

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Subject: Re: Debian installation precompiled kernel images -- so confused

Posted by [belkhal](#) on Sat, 13 Oct 2007 08:51:55 GMT

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I'm sorry?

The signing key? (excuse the noob)

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Subject: Re: Debian installation precompiled kernel images -- so confused

Posted by [a1bert](#) on Sat, 13 Oct 2007 09:01:15 GMT

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it's another question for maintainers not for you

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debian packages are signed to allow you to verify that package is not altered or compromised. there is a signing key for debian.sysfs.org packages but not for openvz.org packages in the "Installation on Debian" wiki....

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Subject: Re: Debian installation precompiled kernel images -- so confused

Posted by [curx](#) on Sat, 13 Oct 2007 14:10:02 GMT

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Hi,

basically you can disable the gpg-check, read man pages of apt or take a look at <http://www.debian-administration.org/articles/174>

Naming scheme about the debian OpenVZ linux-kernel-images:

download.openvz.org

=====

ex: linux-image-2.6.18-openvz-13-39.1d2-686

linux-image -> kernels and modules

-2.6.18 -> kernel version

-openvz -> OpenVZ

-13 -> its built which debian kernel tree (package: linux-source-2.6.18, version 2.6.18.dfsg.1-13etch4,

-39.1 -> OpenVZ patch 028stab039.1

d2 -> spec. the debian (sub-)version

-686 -> build for i686 ( 4GB )

debian.sysfs.org:

=====

ex: linux-image-2.6.18-ovz-028stab045.1-smp

linux-image -> see above

2.6.18 -> kernel-version

-ovz -> OpenVZ

-028stab045.1 -> Version of OpenVZ patch, here 028stab045.1

-smp -> the official kernel config of openvz, taken from download.openvz.org, here smp flavour, like (up)/smp/enterprise

and the Metapackages, which installed the kernels

ovzkernel-2.6.18 -->

linux-image-2.6.18-ovz-<openvz\_patch>-<uniprocessor\_kernel\_config >

ovzkernel-2.6.18-smp -->  
linux-image-2.6.18-ovz-<openvz\_patch>--<smp\_kernel\_config>

ovzkernel-2.6.18-enterprise -->  
linux-image-2.6.18-ovz-<openvz\_patch>--<enterprise\_kernel\_config >

Hope it clear!

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**Subject: Re: Debian installation precompiled kernel images -- so confused**  
Posted by [curx](#) on Sat, 13 Oct 2007 14:15:57 GMT  
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Hi "belkhal",

at download.openvz.org, there is no linux-image like -bigmem,  
there are still missing,

but the repro at debian.systs.org has the Debian linux kernel image built with the OpenVZ  
enterprise config, read precompiled kernel images at debian.systs.org (dso) at the wiki page of  
Install OpenVZ on Debian.

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**Subject: Re: Debian installation precompiled kernel images -- so confused**  
Posted by [belkhal](#) on Sat, 13 Oct 2007 21:57:16 GMT  
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Alright...I need -enterprise, since the server has a SMP-capable processor, and I do have 8GB of  
RAM and my OS is debian 32 bit.

I'm not very comfortable compiling my own kernel, so I rather use a precompiled image. So, given  
that... I should use the images at debian.systs.org.

Their apt-cache search openvz gives me:

kernel-patch-openvz - server virtualization solution - kernel patch

linux-headers-2.6.18-ovz-028stab045.1 - Header files related to OpenVZ Linux kernel, specifically,  
linux-headers-2.6.18-ovz-028stab045.1-enterprise - Header files related to OpenVZ Linux kernel,  
specifically,

linux-headers-2.6.18-ovz-028stab045.1-smp - Header files related to OpenVZ Linux kernel,  
specifically,

linux-image-2.6.18-ovz-028stab045.1 - OpenVZ Linux kernel binary image for version  
2.6.18-ovz-028stab045.1

linux-image-2.6.18-ovz-028stab045.1-enterprise - OpenVZ Linux kernel binary image for version

2.6.18-ovz-028stab045.1-enterprise  
linux-image-2.6.18-ovz-028stab045.1-smp - OpenVZ Linux kernel binary image for version 2.6.18-ovz-028stab045.1-smp  
linux-patch-openssl - OpenVZ - server virtualization solution - linux patch  
ovzkernel-2.6.18 - OpenVZ - Meta kernel 2.6.18 (028stab045.1) on i386  
ovzkernel-2.6.18-enterprise - OpenVZ - Meta kernel 2.6.18 (028stab045.1) on i386  
ovzkernel-2.6.18-smp - OpenVZ - Meta kernel 2.6.18 (028stab045.1) on i386  
vzctl - OpenVZ - server virtualization solution - control tools  
vzctl-ostmpl-debian - OpenVZ - OS Template - Debian 4.0  
vzdump - OpenVZ backup scripts  
vzprocps - OpenVZ - server virtualization solution - procps utilities  
vzquota - OpenVZ - server virtualization solution - quota tools

Whats the difference between these two:

linux-image-2.6.18-ovz-028stab45.1-enterprise  
ovzkernel-2.6.18-enterprise

Someone said meta kernel earlier. What is a meta kernel?

Thanks for the help

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Subject: Re: Debian installation precompiled kernel images -- so confused  
Posted by [curx](#) on Sun, 14 Oct 2007 09:11:29 GMT  
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Hi,

let's show a "Metapackage" != Metakernel

--- 8< ---

Package: ovzkernel-2.6.18-enterprise  
Version: 028stab045.1  
Architecture: i386  
Depends: linux-image-2.6.18-ovz-028stab045.1-enterprise  
Maintainer: Thorsten Schifferdecker <tsd@debian.sysys.org>  
Priority: optional  
Section: admin  
Filename: pool/openssl/o/ovzkernel-2.6.18-enterprise/ovzkernel-2.6.18-enterprise\_028stab045.1\_i386.deb  
Size: 1520  
MD5sum: cb91e50c3214d4afd11994239c054430  
Description: OpenVZ - Meta kernel 2.6.18 (028stab045.1) on i386  
This Package is only a META Package to install the  
OpenVZ kernel 2.6.18 (028stab045.1) on i386.  
--- 8< ---

You see the depends and description:  
install the ovzkernel-2.6.18-enterprise, the depends fetch and install the real linux-image for the actually used OpenVZ enterprise flavor.

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Subject: Re: Debian installation precompiled kernel images -- so confused  
Posted by [belkhal](#) on Sun, 14 Oct 2007 10:23:11 GMT  
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Ah!

Thank you. That cleared everything up. MetaPACKAGE, not meta kernel

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Subject: Re: Debian installation precompiled kernel images -- so confused  
Posted by [belkhal](#) on Sun, 14 Oct 2007 15:07:43 GMT  
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Okay, this time I've come back with more questions:

I've noticed that debian.systs.org only supplies packages for i386. And download.openvz.org does not provide enterprise/smp packages. Furthermore, I would like to use my ISP's provided kernel configuration.

So, now I am looking to compile a custom kernel that supports ovz.

This is what I've done:

```
apt-get install linux-source-2.6.18 linux-patch-debian-2.6.18
cd /usr/src
tar jvxf linux-source-2.6.18
cd linux-source-2.6.18
```

Since my ISP provides the kernel configuration for 2.6.18-5:

```
/usr/src/kernel-patches/all/2.6.18/apply/debian 2.6.18-5
```

Now, I try to apply the openvz patch:

```
apt-get install kernel-patch-openvz
/usr/src/kernel-patches/all/apply/openvz
```

And, I get the following errors:

START applying openvz patch (OpenVZ kernel patch for virtual server support)  
Testing whether "OpenVZ kernel patch for virtual server support" patch for 2.6.18 applies (dry run):

1 out of 1 hunk FAILED -- saving rejects to file include/asm-sparc64/unistd.h.rej

1 out of 15 hunks FAILED -- saving rejects to file net/core/sock.c.rej

14 out of 36 hunks FAILED -- saving rejects to file net/ipv4/netfilter/ip\_tables.c.rej

1 out of 8 hunks FAILED -- saving rejects to file net/ipv6/udp.c.rej

"OpenVZ kernel patch for virtual server support" patch for 2.6.18 does not apply cleanly

I've also tried the linux-patch-openvz package at [debian.systs.org](http://debian.systs.org) to see if those patches will apply cleanly, but I get the following:

START applying openvz patch (OpenVZ - linux kernel patch for virtual server support)

Testing whether "OpenVZ - linux kernel patch for virtual server support" patch for 2.6.18 applies (dry run):

1 out of 16 hunks FAILED -- saving rejects to file net/core/sock.c.rej

7 out of 33 hunks FAILED -- saving rejects to file net/ipv4/netfilter/ip\_tables.c.rej

1 out of 65 hunks FAILED -- saving rejects to file net/ipv6/addrconf.c.rej

1 out of 2 hunks FAILED -- saving rejects to file net/ipv6/exthdrs.c.rej

1 out of 8 hunks FAILED -- saving rejects to file net/ipv6/udp.c.rej

"OpenVZ - linux kernel patch for virtual server support" patch for 2.6.18 does not apply cleanly

Does anyone have any advice?

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Subject: Re: Debian installation precompiled kernel images -- so confused

Posted by [curx](#) on Sun, 14 Oct 2007 18:47:53 GMT

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Hi,

please give more info:

- \* for what arch do you need a kernel
  - \* ISP config for that kernel
  - \* version of linux-source-2.6.18 (dpkg -I linux-source-2.6.18)
  - \* version of linux-patch-openvz and kernel-patch-openvz
  - \* are other patches are used ?
- 

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Subject: Re: Debian installation precompiled kernel images -- so confused

Posted by [belkhal](#) on Sun, 14 Oct 2007 21:32:00 GMT

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I would like to compile for 686 arch.

I've attached our ISP's kernel config.

No other patches used.

Below are the package versions

```
dpkg -I linux-source-2.6.18
```

```
Desired=Unknown/Install/Remove/Purge/Hold
```

```
| Status=Not/Installed/Config-files/Unpacked/Failed-config/Hal f-installed
```

```
// Err?=(none)/Hold/Reinst-required/X=both-problems (Status,Err: uppercase=bad)
```

```
||/ Name Version Description
```

```
+++-----
```

```
=====
```

```
=====
```

```
ii linux-source-2.6.18 2.6.18.dfsg.1-13 Linux kernel source for version 2.6.18  
with Debian patches
```

```
dpkg -I kernel-patch-openvz
```

```
Desired=Unknown/Install/Remove/Purge/Hold
```

```
| Status=Not/Installed/Config-files/Unpacked/Failed-config/Hal f-installed
```

```
// Err?=(none)/Hold/Reinst-required/X=both-problems (Status,Err: uppercase=bad)
```

```
||/ Name Version Description
```

```
+++-----
```

```
=====
```

```
=====
```

```
ii kernel-patch-openvz 028.18.1etch2 server virtualization solution - kernel  
patch
```

```
dpkg -I linux-patch-openvz
```

```
Desired=Unknown/Install/Remove/Purge/Hold
```

```
| Status=Not/Installed/Config-files/Unpacked/Failed-config/Hal f-installed
```

```
// Err?=(none)/Hold/Reinst-required/X=both-problems (Status,Err: uppercase=bad)
```

```
||/ Name Version Description
```

```
+++-----
```

```
=====
```

```
=====
```

```
pn linux-patch-openvz <none> (no description available)
```

## File Attachments

1) [config](#), downloaded 461 times

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Subject: Re: Debian installation precompiled kernel images -- so confused  
Posted by [curx](#) on Mon, 15 Oct 2007 05:12:12 GMT

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Hi,

> I would like to compile for 686 arch.  
linux-image-2.6.18-028stab045.1-... are 686er builds.

>ii linux-source-2.6.18           2.6.18.dfsg.1-13  
2.6.18.dfsg.1-13, is an old release, please update to 2.6.18.dfsg.1-13etch4

> ii kernel-patch-openvz           028.18.1etch2  
same as above, old please update to 028.18.1etch5

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**Subject: Re: Debian installation precompiled kernel images -- so confused**  
Posted by [efball](#) on Mon, 15 Oct 2007 20:02:06 GMT

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belkhal wrote on Sun, 14 October 2007 11:07

I've noticed that debian.systs.org only supplies packages for i386. And download.openvz.org does not provide enterprise/smp packages.

I think all 2.6.18 and later kernels do smp. I'm using  
linux-image-2.6.18-openvz-13-39.1d2-686\_028.39.1d2\_i386.deb and smp works fine.

The numbering system is confusing, but if you browse to  
<http://download.openvz.org/debian/dists/etch/main/binary-i386/base/>  
You can see which one is the newest.

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**Subject: Re: Debian installation precompiled kernel images -- so confused**  
Posted by [belkhal](#) on Wed, 17 Oct 2007 03:54:38 GMT

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My ISP mirrored the Debian repositories and pinned the versions of the kernel to an earlier version. I switched to Debian repositories, and everything worked out.

Thanks

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