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Subject: linux-2.6.20-opensv tree

Posted by [Carl-Daniel Hailfinger](#) on Thu, 22 Mar 2007 15:28:46 GMT

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Hi,

I just noticed a new linux-2.6.20 git tree on git.opensv.org. Will this tree eventually become a supported tree or is it just there as preparation for an upstream merge?

Speaking of an upstream merge, is there any timeline for merging network virtualization?

Regards,  
Carl-Daniel

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Subject: Re: linux-2.6.20-opensv tree

Posted by [dev](#) on Thu, 22 Mar 2007 15:45:48 GMT

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our main stable branch right now is 2.6.18 based on RHEL5 kernel.

2.6.20 is a new development branch to be used for future releases and feature developments. We also use it as a test ground for mainstream namespaces support.

Speaking about upstream merges:

there are 2 network virtualization implementations currently exist.

I'm not sure how much time it will take to merge this work,

it is very much depends on netdev@ maintainers. Maybe 2-3 month.

Why are you interested in that? Do you want to use some particular feature?

Thanks,  
Kirill

Carl-Daniel Hailfinger wrote:

> Hi,

>

> I just noticed a new linux-2.6.20 git tree on git.opensv.org. Will

> this tree eventually become a supported tree or is it just there as

> preparation for an upstream merge?

> Speaking of an upstream merge, is there any timeline for merging

> network virtualization?

>

> Regards,

> Carl-Daniel

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Subject: Re: linux-2.6.20-openvz tree

Posted by [Carl-Daniel Hailfinger](#) on Thu, 22 Mar 2007 18:29:19 GMT

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On 22.03.2007 16:59, Kirill Korotaev wrote:

> Speaking about upstream merges:  
> there are 2 network virtualization implementations currently exist.  
> I'm not sure how much time it will take to merge this work,  
> it is very much depends on netdev@ maintainers. Maybe 2-3 month.

OK, so the target is 2.6.22 or 2.6.23, if the usual time between releases is used as a basis for the estimation.

> Why are you interested in that? Do you want to use some particular  
> feature?

Yes. I currently use Linux policy routing for ONE machine performing double/triple/... NAT. Many people state that this is impossible, but it works fine unless two connections from the different subnets have identical 5-tuples. In that case, the connection tracking code gets confused. Unfortunately, the 5-tuple used by connection tracking and NAT has no means to incorporate the NF mark, so I hope I can use different containers for that.

However, last time I checked, all network virtualization attempts did NOT consider one aspect I consider important for double NAT and virtual routers: Efficiency. Once I use virtualization, I am constrained to virtual network interfaces and suffer the overhead of multiple routing/bridging decisions for one packet.

It would be great if I could make physical interfaces accessible in a VE without resorting to bridging or routing. For example, move eth0 and eth1 to one VE, eth2 and eth3 to another VE and keep eth4 under control of the HN.

I admit that most of this can be done with policy routing and NF marks, but connection tracking cares about neither of them.

Regards,  
Carl-Daniel

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<http://www.hailfinger.org/>

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Subject: Re: linux-2.6.20-openvz tree

Posted by [dev](#) on Fri, 23 Mar 2007 08:51:47 GMT

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Carl-Daniel Hailfinger wrote:

> On 22.03.2007 16:59, Kirill Korotaev wrote:

>  
>>Speaking about upstream merges:  
>>there are 2 network virtualization implementations currently exist.  
>>I'm not sure how much time it will take to merge this work,  
>>it is very much depends on netdev@ maintainers. Maybe 2-3 month.  
>  
>  
> OK, so the target is 2.6.22 or 2.6.23, if the usual time between  
> releases is used as a basis for the estimation.  
>  
>  
>>Why are you interested in that? Do you want to use some particular  
>>feature?  
>  
>  
> Yes. I currently use Linux policy routing for ONE machine performing  
> double/triple/... NAT. Many people state that this is impossible,  
> but it works fine unless two connections from the different subnets  
> have identical 5-tuples. In that case, the connection tracking code  
> gets confused. Unfortunately, the 5-tuple used by connection tracking  
> and NAT has no means to incorporate the NF mark, so I hope I can  
> use different containers for that.  
>  
> However, last time I checked, all network virtualization attempts  
> did NOT consider one aspect I consider important for double NAT and  
> virtual routers: Efficiency. Once I use virtualization, I am  
> constrained to virtual network interfaces and suffer the overhead  
> of multiple routing/bridging decisions for one packet.  
> It would be great if I could make physical interfaces accessible  
> in a VE without resorting to bridging or routing. For example,  
> move eth0 and eth1 to one VE, eth2 and eth3 to another VE and  
> keep eth4 under control of the HN.  
This was possible for years in OpenVZ:

man vzctl

<http://openvz.org/documentation/mans/vzctl.8>

Network devices control parameters

--netdev\_add name

move network device from VE0 to a specified VE

--netdev\_del name

delete network device from a specified VE

this is exactly the thing you are talking about:

you can move eth0 and eth1 to one VE, eth2 and eth3 to another VE  
and keep eth4 to HN.

And sure, this removes overhead of virtual network devices, additional

routing/bridging etc.

At the same time you can use separate NAT/firewall,routing,arp tables inside each VE.

Isn't it the thing you want?

> I admit that most of this can be done with policy routing and NF  
> marks, but connection tracking cares about neither of them.

Regards,  
Kirill

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Subject: Re: linux-2.6.20-openvz tree  
Posted by [Carl-Daniel Hailfinge](#) on Sat, 24 Mar 2007 12:14:35 GMT  
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On 23.03.2007 10:01, Kirill Korotaev wrote:

> This was possible for years in OpenVZ:  
>  
> man vzctl  
> <http://openvz.org/documentation/mans/vzctl.8>  
>  
> Network devices control parameters  
> --netdev\_add name  
>   move network device from VE0 to a specified VE  
> --netdev\_del name  
>   delete network device from a specified VE  
>  
> this is exactly the thing you are talking about:  
> you can move eth0 and eth1 to one VE, eth2 and eth3 to another VE  
> and keep eth4 to HN.

Great! The OpenVZ wiki seemed to suggest that this was not possible.  
Next time I'll read the man pages and not only the wiki before  
asking questions.

Regards,  
Carl-Daniel

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Subject: Re: linux-2.6.20-openvz tree  
Posted by [kir](#) on Sat, 24 Mar 2007 16:01:02 GMT  
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Carl-Daniel Hailfinger wrote:  
> On 23.03.2007 10:01, Kirill Korotaev wrote:

>  
>> This was possible for years in OpenVZ:  
>>  
>> man vzctl  
>> <http://openvz.org/documentation/mans/vzctl.8>  
>>  
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> Great! The OpenVZ wiki seemed to suggest that this was not possible.  
>

Can you fix this wiki page? Or at least point me to it, so I can fix?

> Next time I'll read the man pages and not only the wiki before  
> asking questions.  
>

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Subject: Re: linux-2.6.20-openvz tree  
Posted by [Carl-Daniel Hailfinger](#) on Tue, 27 Mar 2007 17:40:16 GMT  
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On 24.03.2007 17:01, Kir Kolyshkin wrote:  
> Carl-Daniel Hailfinger wrote:  
>> On 23.03.2007 10:01, Kirill Korotaev wrote:  
>>  
>>> This was possible for years in OpenVZ:  
>>>  
>>> man vzctl  
>>> <http://openvz.org/documentation/mans/vzctl.8>  
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>>> you can move eth0 and eth1 to one VE, eth2 and eth3 to another VE  
>>> and keep eth4 to HN.

>>>

>>

>> Great! The OpenVZ wiki seemed to suggest that this was not possible.

>>

>

> Can you fix this wiki page? Or at least point me to it, so I can fix?

[http://wiki.openvz.org/Differences\\_between\\_venet\\_and\\_veth](http://wiki.openvz.org/Differences_between_venet_and_veth) states

"OpenVZ provides you to use either venet or veth devices (or both) for in-VE networking."

Suggested new wording:

"OpenVZ provides you to use venet or veth or real ethernet (ethX) devices (or a combination thereof) for in-VE networking."

This article and the others in Category:Networking never mention the ability to move ethX devices to a VE.

Regards,  
Carl-Daniel

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