Subject: Cannot add VLAN devices to guest with new kernel
Posted by Benny Amorsen on Tue, 19 Dec 2006 08:54:31 GMT
View Forum Message <> Reply to Message

I opened bug 395 because of what I considered a regression in test007
compared to test005. The original message:

[root@router01 ~]# uname -r
2.6.18-ovz028test007.1-smp
[root@router01 ~]# vzctl start 114
Starting VE ...
VE is mounted
Setting CPU units: 1000
VE start in progress...
[root@router01 ~]# vzctl set 114 --netdev_add eth0.114 --save
Unable to add netdev eth0.114: Operation not permitted
Saved parameters for VE 114

It works with test005.

There was quite a lot of back and forth between Andrey Mirkin and me.
So far it ended with this comment from Andrey Mirkin:

"It is not secure to use VLANs from VE0 (by --netdev_add) inside VE as
they will operate from VE0 context."

It confuses me that it is possible to use --netdev_add for physical
ethernet devices, but not for VLAN devices.

The alternative solution is to create veth devices and bridge them to
the VLAN devices in VE0. This is not very attractive, because there
will be hundreds of them in my setup.

Good ideas and explanations welcome...

/Benny

Subject: Re: Cannot add VLAN devices to guest with new kernel
Posted by dev on Tue, 19 Dec 2006 09:22:30 GMT
View Forum Message <> Reply to Message

Benny,

> I opened bug 395 because of what I considered a regression in test007
> compared to test005. The original message:
>

> [root@router01 ~]# uname -r
> 2.6.18-ovz028test007.1-smp
> [root@router01 ~]# vzctl start 114
> Starting VE ...
> VE is mounted
> Setting CPU units: 1000
> VE start in progress...
> [root@router01 ~]# vzctl set 114 --netdev_add eth0.114 --save
> Unable to add netdev eth0.114: Operation not permitted
> Saved parameters for VE 114
>
> It works with test005.
>
> There was quite a lot of back and forth between Andrey Mirkin and me.
> So far it ended with this comment from Andrey Mirkin:
>
> "It is not secure to use VLANs from VE0 (by --netdev_add) inside VE as
> they will operate from VE0 context."
>
> It confuses me that it is possible to use --netdev_add for physical
> ethernet devices, but not for VLAN devices.
it has nothing to do with security implications.
Andrey just used incorrect reasoning.
The original problem is the following:
he virtualized VLANs and this created some implications requiring VLAN
to be in the same VE as the real physical device.

> The alternative solution is to create veth devices and bridge them to
> the VLAN devices in VE0. This is not very attractive, because there
> will be hundreds of them in my setup.

> Good ideas and explanations welcome...
Benny, I will push guys to prepare patch today.
Thanks for your patience and efforts!

Thanks,
Kirill

---

Subject: Re: Cannot add VLAN devices to guest with new kernel
Posted by Andrey Mirkin on Tue, 19 Dec 2006 12:28:18 GMT
View Forum Message <> Reply to Message

Hello Benny,

I have prepared a patch. I have tested it on several configurations. Please
try it too.
BTW, if you are moving VLAN from VE0 to VE then you will not be able to reach

VE by this VLAN from VE0 (because there are no any device in VE0 which can
set VLAN tag on packet). This behaviour is existing on all kernels. If you
want to be able to connect to VE via VLAN from VE0 then please create VLAN in
VE0 and VE.

Thanks for your patience and help!

Andrey

On Tuesday 19 December 2006 11:54 Benny Amorsen wrote:
> I opened bug 395 because of what I considered a regression in test007
> compared to test005. The original message:
>
> [root@router01 ~]# uname -r
> 2.6.18-ovz028test007.1-smp
> [root@router01 ~]# vzctl start 114
> Starting VE ...
> VE is mounted
> Setting CPU units: 1000
> VE start in progress...
> [root@router01 ~]# vzctl set 114 --netdev_add eth0.114 --save
> Unable to add netdev eth0.114: Operation not permitted
> Saved parameters for VE 114
>
> It works with test005.
>
> There was quite a lot of back and forth between Andrey Mirkin and me.
> So far it ended with this comment from Andrey Mirkin:
>
> "It is not secure to use VLANs from VE0 (by --netdev_add) inside VE as
> they will operate from VE0 context."
>
> It confuses me that it is possible to use --netdev_add for physical
> ethernet devices, but not for VLAN devices.
>
> The alternative solution is to create veth devices and bridge them to
> the VLAN devices in VE0. This is not very attractive, because there
> will be hundreds of them in my setup.
>
> Good ideas and explanations welcome...
>
>
> /Benny
>
>
--- ./net/8021q/vlan_dev.c.vlan 2006-10-25 11:31:25.000000000 +0400
+++ ./net/8021q/vlan_dev.c 2006-12-19 14:01:32.000000000 +0300
@@ -436,6 +436,7 @@ int vlan_dev_hard_header(struct sk_buff

```
 int vlan_dev_hard_start_xmit(struct sk_buff *skb, struct net_device *dev)
 {
+ struct ve_struct *env;
  struct net_device_stats *stats = vlan_dev_get_stats(dev);
  struct vlan_ethhdr *veth = (struct vlan_ethhdr *)(skb->data);

@@ -489,13 +490,17 @@ int vlan_dev_hard_start_xmit(struct sk_b
  stats->tx_bytes += skb->len;

  skb->dev = VLAN_DEV_INFO(dev)->real_dev;
+ skb->owner_env = skb->dev->owner_env;
+ env = set_exec_env(skb->owner_env);
  dev_queue_xmit(skb);
+ set_exec_env(env);

  return 0;
 }

 int vlan_dev_hwaccel_hard_start_xmit(struct sk_buff *skb, struct net_device *dev)
 {
+ struct ve_struct *env;
  struct net_device_stats *stats = vlan_dev_get_stats(dev);
  unsigned short veth_TCI;

@@ -513,7 +518,10 @@ int vlan_dev_hwaccel_hard_start_xmit(str
  stats->tx_bytes += skb->len;

  skb->dev = VLAN_DEV_INFO(dev)->real_dev;
+ skb->owner_env = skb->dev->owner_env;
+ env = set_exec_env(skb->owner_env);
  dev_queue_xmit(skb);
+ set_exec_env(env);

  return 0;
 }
--- ./net/8021q/vlan.c.vlan 2006-11-22 19:40:37.000000000 +0300
+++ ./net/8021q/vlan.c 2006-12-19 14:01:34.000000000 +0300
@@ -378,7 +378,8 @@ static void vlan_setup(struct net_device
  new_dev->set_multicast_list = vlan_dev_set_multicast_list;
  new_dev->destructor = free_netdev;
  new_dev->do_ioctl = vlan_dev_ioctl;
- new_dev->features |= NETIF_F_VIRTUAL;
+ if (!ve_is_super(get_exec_env()))
+  new_dev->features |= NETIF_F_VIRTUAL;
 }

 static void vlan_transfer_operstate(const struct net_device *dev, struct net_device *vlandev)
```

```
@@ -636,6 +637,7 @@ static int vlan_device_event(struct noti
  struct vlan_group *grp;
  int i, flgs;
  struct net_device *vlandev;
+ struct ve_struct *env;

  grp = __vlan_find_group(dev->ifindex, dev->owner_env);
  if (!grp)
@@ -699,7 +701,9 @@ static int vlan_device_event(struct noti
    ret = unregister_vlan_dev(dev,
        VLAN_DEV_INFO(vlandev)->vlan_id);

+   env = set_exec_env(vlandev->owner_env);
    unregister_netdevice(vlandev);
+   set_exec_env(env);

    /* Group was destroyed? */
    if (ret == 1)
```

## File Attachments

1) diff-net-vlan-virt-fix, downloaded 362 times