
Subject: Dedicating physical NIC ports to each VE without bridging, etc.

Posted by [dranch](#) on Fri, 17 Aug 2007 02:06:31 GMT

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Hello Everyone,

I'm looking to see if there is any way to physically dedicate a physical NIC port to each VE. If I can do this, it should remove all the various complexities of troubleshooting bridging, etc. The main reason for this is because I'm worried about all the issues I might see when my users are messing with various things in the VEs such as altering MTUs (smaller/jumbo), VLAN tags, etc.

Xen can do dedicated NIC mode this via a hacky way of excluding the PCI ID's from the Dom0 kernel and allowing the DomU kernels to discover them on their own. But.. I don't want to run Xen.

For a specific example, say I have the following.

A physical machine with four ethernet ports (eth0-3) and I want:

physical port	Mapped location
eth0	base machine for management and access to all other VEs for management only
eth1	VE 100 - eth0
eth2	VE 101 - eth0
eth3	VE 102 - eth0

According to the following URL posted on the OpenVZ site, page 68: This *is* possible:

<http://download.openvz.org/doc/OpenVZ-Users-Guide.pdf>

"Still, there is a possibility for a VPS to directly access a physical network adapter (for example, eth1). In this case the adapter becomes inaccessible to the Hardware Node itself."

```
vzctl set 100 --netdev_add eth1 --save
```

When I do this, it's doing two things:

1. For VE#100, it's actually mapping this interface in VE#100 as eth1 when I really want it mapped as eth0. This could give be an eth0 in every VE. The manpage for vzctl says that all other options for netdev_add are optional but whenever I give the full syntax, it complains about the VE's MAC address being an incorrect length. So I altered the resulting /etc/vz/conf/100.conf file as follows and that help map things to eth0 in VE#100 but it's not doing what I want (see item #2):

```
NETIF=" ifname=eth0,mac=00:18:51:7C:1C:A6,host_ifname=veth100.1,host _mac=00:18:51:1F:F4:0B"
```

2. When I "ifconfig eth1 up" the interface in VE#0 (master OS) with no IP assigned, then bring eth0 up in VE#100 with say "ifconfig eth0 1.1.0.1 netmask 255.255.255.0", I don't seem to be able to transmit any data (no blinking LEDs). If I run tcpdump in VE#0 on interface "veth100.1", I *DO* see the ARP requests for my pings, etc.

Item #2 above gives me the impression that I *MUST* configure bridging and map this veth100.1 interface and the eth1 interface into a unique bridge group within VE#0.

Is there any way to avoid this?

--David
