Subject: SOLVED * Veth on startup (again) + bridge config - venet config
Posted by sylvain on Mon, 20 Nov 2006 04:31:43 GMT
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Hi all,

I am using 5 VEs based on "centos-4-i386-minimal" template. I needed broadcast and I didn't care much about security so I configured my Ethernet device on each VE that I bridged on VE0: everything works fine!

Now I'd like to configure everything automatically when I run "vzctl start VEID".

Sounds like an old thread? Yes, another very similar question was asked. Installing the last version of vzctl would solve the problem. I already have the last version of the tool, however I still have a problem.

Here are a list of my problems:

venet0 is always configured inside the VE. I removed /etc/sysconfig/network-script/ifcfg-venet0 and it still appears at the next "vzctl start": I would like to get rid of this, and I would like to setup a proper routing for vethX inside the the VE.
it would be good if vethX could be added to vzbr0 when I run "vzctl start VEID". Is there a way to do this?

Here are the details of my configuration files:

A typical VEID.conf (without the copyright, thought)

ONBOOT="no"

# UBC parameters (in form of barrier:limit)
# Primary parameters
AVNUMPROC="40:40"
NUMPROC="65:65"
NUMTCPSOCK="80:80"
NUMOTHERSOCK="80:80"
VMGUARPAGES="6144:2147483647"
# Secondary parameters
KMEMSIZE="2752512:2936012"
TCPSNDBUF="319488:524288"
TCPRCVBUF="319488:524288"
OTHERSOCKBUF="132096:336896"
DGRAMRCVBUF="132096:132096"
OOMGUARPAGES="6144:2147483647"
# Auxiliary parameters
LOCKEDPAGES="32:32"

SHMPAGES="8192:8192"
PRIVVMPAGES="49152:53575"
NUMFILE="2048:2048"
NUMFLOCK="100:110"
NUMPTY="16:16"
NUMSIGINFO="256:256"
DCACHESIZE="1048576:1097728"
PHYSPAGES="0:2147483647"
NUMIPTENT="128:128"

# Disk quota parameters (in form of softlimit:hardlimit)
DISKSPACE="1048576:1153434"
DISKINODES="200000:220000"
QUOTATIME="0"

# CPU fair sheduler parameter
CPUUNITS="1000"
VE_ROOT="/users/home/vz/root/$VEID"
VE_PRIVATE="/users/home/vz/private/$VEID"
OSTEMPLATE="centos-4-i386-minimal"
IP_ADDRESS=""
ORIGIN_SAMPLE="vps.basic"
HOSTNAME="tcp1"
VETH="veth1,00:12:34:56:78:1A,eth1,00:12:34:56:78:1B "

Inside the corresponding VE, /etc/sysconfig/network-script/ifcfg-eth1

DEVICE=eth1
BOOTPROTO=none
BROADCAST=192.168.7.255
HWADDR=00:12:34:56:78:1B
IPADDR=192.168.7.1
NETMASK=255.255.255.0
NETWORK=192.168.7.0
ONBOOT=yes
TYPE=Ethernet
USERCTL=no
PEERDNS=yes
IPV6INIT=no
GATEWAY=none

It is indeed parsed at startup of the VE.

However, since it also parse ifcfg-venet0, I end up with this routing:

Kernel IP routing table
Destination Gateway Genmask Flags Metric Ref Use Iface

```
192.168.7.0     *               255.255.255.0   U     0      0        0 eth1
191.255.255.0   *               255.255.255.0   U     0      0        0 venet0
169.254.0.0     *               255.255.0.0     U     0      0        0 venet0
default         191.255.255.1   0.0.0.0         UG    0      0        0 venet0
```

Instead of this:

```
Kernel IP routing table
Destination     Gateway         Genmask         Flags Metric Ref    Use Iface
192.168.7.0     *               255.255.255.0   U     0      0        0 eth1
default         *               0.0.0.0         UG    0      0        0 eth1
```

Also I would like to get rid of the line GATEWAY in /etc/sysconfig/networking inside the VE:

```
NETWORKING="yes"
HOSTNAME="tcp1"
GATEWAY="191.255.255.1"
```

Finally I don't know when to execute "brctl add vzbr0 veth1".

Any help is much appreciated . VE0 is a RHEL4

Subject: Re: Veth on startup (again) + bridge config - venet config
Posted by Vasily Tarasov on Mon, 20 Nov 2006 07:33:58 GMT
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Hello,

to ged rid of venet interface read this thread:
http://forum.openvz.org/index.php?t=tree&th=270&mid= 1516&&rev=&reveal=
as concerns bridges... This is rather common problem. Read post
http://forum.openvz.org/index.php?t=tree&goto=8380&# msg_8380 to find out some techniques to solve the problem

HTH,
Vasily.

Subject: Re: Veth on startup (again) + bridge config - venet config
Posted by sylvain on Mon, 20 Nov 2006 07:56:22 GMT
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Thanks for your answer.

In both cases this is about modifying the standard script provided by openVZ, that could eventually be broken after an upgrade.

Subject: Re: Veth on startup (again) + bridge config - venet config
Posted by rickb on Mon, 20 Nov 2006 08:06:44 GMT
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Welcome to bleeding edge open source!

Subject: Re: Veth on startup (again) + bridge config - venet config
Posted by duswil on Mon, 20 Nov 2006 08:48:07 GMT
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Make sure you pay attention to bug #355 as it progresses:
http://bugzilla.openvz.org/show_bug.cgi?id=355

Subject: Re: Veth on startup (again) + bridge config - venet config
Posted by sylvain on Mon, 20 Nov 2006 09:32:37 GMT
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Actully if you really look at point one:
Getting rid of venet0
the solution doesn't really work. It prevent the startup script to load and configure venet0.

But there is a mechanism, unknown to me, that copy "/etc/sysconfig/network-script/ifcfg-venet0" and "/etc/sysconfig/network-script/route-venet0" each time I do "vzctl start VEID"

Preventing those script to be copied, and therefore, preventing configuration of venet0 inside the VE would be more helpful than modifying the startup script. Is there a way to do that?

Subject: Re: Veth on startup (again) + bridge config - venet config
Posted by sylvain on Mon, 20 Nov 2006 10:04:25 GMT
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Ok I got my answer by looking in the forum:

The variable OSTEMPLATE= associated with a proper configuration in "/etc/vz/dists" initialize venet0 from inside the VE at startup.

I will change all the script to initialize ethX from inside the VE, creating a new distribution "fake" and setting my OSTEMPLE to this distribution.

When I am done I will provide the script in this forum, hope it could help someone else.

Maybe future release could actually provide for:
distribution-net.conf and distribution-eth.conf that would configure the Ethernet interface instead of the network interface?

I am just making a very modest suggestion with very limited knowledge...

Subject: SOLVED * Veth on startup (again) + bridge config - venet config
Posted by sylvain on Tue, 21 Nov 2006 03:40:49 GMT
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Hi,

This is solved. Here is the step I took to solve this problem. I am aware that bugs have been filed and fix my obsolete my configuration.

This is not too intrusive into openVZ tools and configurations. However it will not appeal to people who wants to control their VE ip configuration from the HN.

First, a bridge start script: /etc/init.d/bridge (to link at proper runlevel)

```
#!/bin/sh
#

# Source function library.
. /etc/init.d/functions

BRCTL=brctl
IFCONFIG=ifconfig

if [ ! -x /usr/sbin/$BRCTL ]; then
    echo -n $"/usr/sbin/$BRCTL does not exist."; warning; echo
    exit 0
fi

if [ ! -x /sbin/$IFCONFIG ]; then
    echo -n $"/sbin/$IFCONFIG does not exist."; warning; echo
    exit 0
fi
```

```
# Default bridge configuration:
BR_NAME="vzbr0"
BR_ADDRESS="0"
FORWARDING="yes"
PROXY_ARP="yes"

start() {

   echo -n $"Strating bridge $BR_NAME: "

   $BRCTL addbr $BR_NAME
   if [ $? -eq 0 ]; then
 success; echo
   else
 failure; echo; return 1
   fi

   echo -n $"Configuring bridge $BR_NAME: "
   $IFCONFIG $BR_NAME $BR_ADDRESS
   if [ $? -eq 0 ]; then
 success; echo
   else
 failure; echo; return 1
   fi

   if  [ $FORWARDING == "yes" ] ; then
 echo -n $"Configuring bridge $BR_NAME forwading: "
 if [ -f $"/proc/sys/net/ipv4/conf/$BR_NAME/forwarding" ] ; then
    echo 1 > /proc/sys/net/ipv4/conf/$BR_NAME/forwarding
    success; echo
 else
    failure; echo; return 1
 fi
   fi

   if  [ $PROXY_ARP == "yes" ] ; then
 echo -n $"Configuring bridge $BR_NAME proxy arp: "
 if [ -f $"/proc/sys/net/ipv4/conf/$BR_NAME/proxy_arp" ] ; then
    echo 1 > /proc/sys/net/ipv4/conf/$BR_NAME/proxy_arp
    success; echo
 else
    failure; echo; return 1
 fi
   fi

   return 0
}
```

```
stop() {

    echo -n $"Stopping bridge $BR_NAME: "

    $BRCTL delbr $BR_NAME
    if [ $? -eq 0 ]; then
 success; echo
    else
 failure; echo; return 1
    fi

    return 0
}


status() {

    if $BRCTL show 2>/dev/null | grep -q $BR_NAME ; then
 echo $"Bridge $BR_NAME started."
    else
 echo $"Bridge $BR_NAME stopped."
    fi

    return 0
}

restart() {
    stop
    start
}

case "$1" in
    start)
 stop
 start
 RETVAL=$?
 ;;
    stop)
 stop
 RETVAL=$?
 ;;
    restart)
 restart
 RETVAL=$?
 ;;
    status)
 status
 RETVAL=$?
```

```
 ;;
   *)
 echo $"Usage: $0 {start|stop|restart|status}"
 exit 1
 ;;
esac

exit $RETVAL
```

I created a new distribution template configuration file: /etc/vz/dists/nonetdevice.conf

```
# distribution configuration that inibits:
#  * vzctl --addip
#  * vzctl --delip
#  * vzctl --hostname
#
ADD_IP=null.sh
DEL_IP=null.sh
SET_HOSTNAME=null.sh
SET_DNS=set_dns.sh
SET_USERPASS=set_userpass.sh
SET_UGID_QUOTA=set_ugid_quota.sh
POST_CREATE=postcreate.sh
```

with the corresponding /etc/vz/dists/scripts/null.sh script

```
#!/bin/bash

# Null script. It just does not take any actions.
```

Now change the OSTEMPLATE variable for you VE in /etc/vz/conf/X.conf to be
OSTEMPLATE="nonetdevice"

I changed a bit /usr/sbin/vznetcfg, in the function init_veth() only

```
function init_veth()
{
 local dev=$1

 /sbin/ifconfig ${dev} up

 if [ "${VZNET_BRIDGE}" != "" ]
 then
  /usr/sbin/brctl addif ${VZNET_BRIDGE} ${dev}
 fi
}
```

and added the following line in /etc/vz/vznet.conf

VZNET_BRIDGE=vzbr0

The remaining task consists in configuring the network inside your VE. Enter your VE and, regarding the distribution, setup your configuration files for your Ethernet device (/etc/sysconfig/network-scripts/ifcfg-ethX for centos/redhat/fedora, /etc/network/interfaces for debian based)

This does the job as I wanted.

Subject: Re: Veth on startup (again) + bridge config - venet config
Posted by duswil on Tue, 21 Nov 2006 04:14:50 GMT
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Thanks, this looks like it's really useful. Hopefully all will merge into a useful and proper way to do this. Until then, your solution at least appears to be nice. I'll report back to let you know how it works for me as well.

Subject: Re: Veth on startup (again) + bridge config - venet config
Posted by sylvain on Tue, 21 Nov 2006 06:12:08 GMT
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Don't hesitate to make amendment to my post. I'd like to hear it's working for you.
