Subject: quagga on openvz _HELP
Posted by nia.bug on Thu, 04 Mar 2010 20:05:50 GMT
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Hi there!

I have a task to test SNMP on Quagga routers using OpenVZ.
So i first made three OpenVZ servers, 101, 102 and 103, make a bridges among each two, br12, br23, br31..and I can ping each interface.

Now I want to make from those containers quagga routers, on which i need to run zebra, ospf and snmp.

Well first what I did, i got into the folder of 102 (for example), paste a copy of quagga-0.98.6.tar.gz...tar xzvf it inside. get into the folder of quagga, compiled it with:

[root@localhost 102]# ./configure --prefix=/usr/local --sysconfdir=/usr/local/etc
--localstatedir=/usr/local/etc
[root@localhost 102]# ./configure --enable-snmp
[root@localhost 102]# make
[root@localhost 102]# make install

i did the same for the rest two.
i ran after
#zebra -d
#ospfd -d

but i dont understand how to configure interfaces..actually what ia had noticed is that all changes are in global mode.
how can i then configure each of quagga routers?

the other logic i tried is to enter to each container and try form there to compile the quagga file, ([root@R2 /]#) but then it says that i dont have gcc, if i try to install gcc it says i dont have cpp, if i tried then to install cpp, it showa message that cpp is incompatible..

i dont know what to do!

Subject: Re: quagga on openvz _HELP
Posted by Ales on Fri, 05 Mar 2010 21:04:50 GMT
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Please report your OS (for the node and VPS) and kernel version

When you say "...first what I did, i got into the folder of 102...", how did you do that?

Virtual machines are isolated from the hardware node so in order to install additional software into them, you need to either log in to each VPS using SSH or with the command 'vzctl enter CTID',

where CTID is the ID of the VPS you wish to enter.

If you simply change the directory to the directory of the VPS, you'll be performing the installation on the hardware node itself.

Depending on OS your VPS's use, I would suggest using yum or apt-get to install cpp, gcc, etc., if possible. This will resolve all the dependencies for you and install the appropriate versions. Quagga is also available as a package for CentOS, Debian, etc.

Subject: Re: quagga on openvz _HELP
Posted by nia.bug on Sat, 06 Mar 2010 16:55:21 GMT
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hi

[root@localhost 101]# uname -r
2.6.18-164.10.1.el5.028stab067.4
[root@localhost 101]# uname -v
#1 SMP Thu Jan 14 21:23:12 MSK 2010

well i located the problem.

what i need to do is to make from VPS Quagga router.
But the thing is that I need to use tar.gz format so I can compile quagga enabling SNMP on it.

When i enter VPS with command #vzctl enter CTID
and untar the file after it I can not compile it cuz i need gcc.

And to get gcc I am trying to provide Internet connection into the VPS but its not working.
I tried
http://wiki.openvz.org/Getting_started_with_OpenVZ_live_CD#S etting_up_VE_networking

but I dont manage to do that.

When I tried just to download gcc pakcket and install inside the VCT it says that it needs cpp..when i tried cpp it was incompatible..

Dont know what to do!

Thanks!

Subject: Re: quagga on openvz _HELP
Posted by max.havoc on Tue, 06 Apr 2010 04:40:19 GMT

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First of all,there is a document on the OpenVZ website that explains how to get QUAGGA running in a VPS.(VE)
(Always check there for specific documentation)
Getting OSPF configured per interface,is not that difficult,as long as you understand OSPF networking.
What are attempting to do?
Simulate three ASBR routers with SNMP?
How about one ASBR and two ABR routers?
Do you understand what I am talking about?
I currently run OSPF exclusively on my network,and the supplied QUAGGA documentation is more than enough,to get you up and running.
If your knowledge of OSPF is limited,check out Cisco Press books on the subject of OSPF.

Subject: Re: quagga on openvz _HELP
Posted by max.havoc on Wed, 07 Apr 2010 15:17:02 GMT
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Since the poster does not seem too interested in keeping up with his/her request for help on this forum,I have decided to clear up this thread,with a Howto,as to getting one physical OSPF ASBR router,and two virtual OSPF ABR routers,up and running on CENTOS 5.(there is a reason for the physical OSPF router)
I normally do not respond to "hand to mouth" requests,but the subject is interesting enough for me.
This will take a little time on my part,so if anyone is interested in this thread,I will post the Howto here,and as time permits,it will be uploaded to the OpenVZ wiki.
If any other individual is interested in knowing how its done,post a note,as it will give more incentive,in writing it.

Subject: Re: quagga on openvz _HELP
Posted by nia.bug on Sun, 11 Apr 2010 22:36:48 GMT
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Hi!

I was a bit busy so I havent check mailbox.

The problem was that my internet provider had firewalls set up probably not to allow some traffics. (thats my opinion!) So I used internet at my collage, and with DNS and public IP address I could access Internet form my virtual box.
Next I compiled net-snmp with smux support, installed net-snmp-devel, untared quagga, made changes in privs.c file and compiled it with enabled snmp.
I needed to make changes in privs.c cuz it didn't want to work otherwise. It didnt find ospfd and

zebra process running until I
did next:
http://lists.quagga.net/pipermail/quagga-users/2004-January/ 001362.html

Anyway after all those changes ospf started to work. But now I have other problem:

I made simple OSPF configuration. I put three virtual boxes, making point-to-point links between. Each virt machine has two interfaces.
I have three networks (for each link) and all in the same area.
The problem is that I can not get response for all ospf oids.
What i can get from agents are:
- ospfRouterId
- ospfAreaId
- ospfNbrIpAddr
- ospfNbrRtrId
using snmpwalk command! i tried to get information about hello-interval or dead-interval, or any other info related to the simple ospf configuration and all I get is this:
- No Such Instance currently exists at this OID , or
- No Such Object available on this agent at this OID

When I try to use snmpset command it says that theaccess is read-only, even though I put in snmpd.conf file read-write mode in access list.

I need to test SNMP in quagga software, and there's not much written on the Interenet! Or I dont have much luck to find right links.

Any suggestion?

Thanks!

p.s. And I think that official tutorial for quagga is not well written, at least in case of SNMP protocol. I am new in Linux, so I needed a lot of time to figure out what are problems.

Subject: Re: quagga on openvz _HELP
Posted by max.havoc on Thu, 15 Apr 2010 09:37:50 GMT
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If you did not receive a reply from me via e-mail,I am currently working on a scenario,based on what you want to achieve,with one
exception.
Since you did not supply an exact make-up of your particular
"OSPF" network,I choose to create one physical ASBR router on a test Node,and two virtual ABR routers.
This setup represents a typical OSPF network,or OSPF spur.
Using a physical ASBR,you have a basis for a working OSPF/SNMP setup,without worrying about inconsistencies that come with virtual entities.
Depending on how far you are in your quest,I would suggest the

configuration of a physical OSPF router,and go from there.

Subject: Re: quagga on openvz _HELP
Posted by max.havoc on Sat, 17 Apr 2010 05:47:41 GMT
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I have a working test scenario that simulates three OSPF ASBR routers.
One,I created an ASBR router on the Node itself.
The other two,are virtual ASBR routers.(VE 111 and VE 112)
I used an Ethernet bridge at first,but was unable to get "hello" packets to transverse the bridge to a VE.
I then switched to non-bridged VETH adapters,and things began to work.

This is an example of my Node server's TCPDUMP file.

[root@dweezil ~]# tcpdump -i veth111.0
tcpdump: verbose output suppressed, use -v or -vv for full protocol decode
listening on veth111.0, link-type EN10MB (Ethernet), capture size 96 bytes
18:29:20.886530 IP 192.168.111.1 > OSPF-ALL.MCAST.NET: OSPFv2, Hello, length: 44
18:29:27.213365 IP 192.168.11.254 > OSPF-ALL.MCAST.NET: OSPFv2, Hello, length: 44
18:29:30.887200 IP 192.168.111.1 > OSPF-ALL.MCAST.NET: OSPFv2, Hello, length: 44
18:29:37.213789 IP 192.168.11.254 > OSPF-ALL.MCAST.NET: OSPFv2, Hello, length: 44

As you can see,I am receiving "hello" packets from VE 111(192.168.111.1) and the Node is sending its packets.(192.168.11.254)
The problem I am experiencing,is in the VE.

[root@moe /]# tcpdump -i eth0
tcpdump: verbose output suppressed, use -v or -vv for full protocol decode
listening on eth0, link-type EN10MB (Ethernet), capture size 96 bytes
15:32:27.233616 IP 192.168.11.254 > 224.0.0.5: OSPFv2, Hello, length: 44
15:32:30.900710 IP moe > 224.0.0.5: OSPFv2, Hello, length: 44
15:32:37.234282 IP 192.168.11.254 > 224.0.0.5: OSPFv2, Hello, length: 44
15:32:40.901408 IP moe > 224.0.0.5: OSPFv2, Hello, length: 44

Here,the VE is only sending multicast packets,and not translating its IP address.
Yet,I can see "hello" packets coming from the Node.
You say SNMP is not pulling OSPF info.
Have you performed a "dump" and get the same results?(I do not know specifics of your OSPF scenario)
It does not matter whether OSPF is set to "broadcast" or "point to point".
I known I have a workable OSPF configuration in the real world,but this has me a little stumped.

Cheers

Subject: Re: quagga on openvz _HELP
Posted by max.havoc on Sun, 18 Apr 2010 00:52:12 GMT
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Finally got it to work.
The trick is not to configure three ASBR routers.
One ASBR on the Node.
And two virtual ABR's.
My problem in my last post,was the virtual ABR's was set to "broadcast",instead of "point to point".
The ASBR is "broadcast".
I could never get this setup working across an Ethernet bridge,but I do not use one anyway.
Just subnet the VE's,point the VE to its gateway(VETH) and your done.

Subject: Re: quagga on openvz _HELP
Posted by lars.bailey on Tue, 11 May 2010 03:06:00 GMT
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Getting OSPF running on an OVZ Node or VE container,is not that
difficult,provided you understand what type of OSPF router,you want
to configure.
The four types are;

ASBR
ABR
Backbone
Internal

If your Node server has a global connection,its ASBR.
IF you have an interface towards another OSPF router,the Node is
Backbone.
All VE containers,are ABR.