
Subject: Network configuration problem with NAT and OpenVZ

Posted by [romaint](#) on Tue, 13 Aug 2013 09:29:54 GMT

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Hi !

I have a server with Proxmox. I have an OpenVZ configuration with many VE with NAT.
But I have a problem with my network configuration !

We have an Apache on a VE (prod-web-1) and I can't get access to a domain (tutu.fr for example)
hosted on this VE (using the public IP A.B.C.D)

this VE :

root@prod-web-1:~# telnet tutu.fr 80

Trying A.B.C.D...

It's ok when we use localhost or private ip of the VE (192.168.0.101) :

root@prod-web-1:~# telnet localhost 80

Trying ::1...

Trying 127.0.0.1...

Connected to localhost.

Escape character is '^]'.

root@prod-web-1:~# telnet 192.168.0.101 80

Trying 192.168.0.101...

Connected to 192.168.0.101.

Escape character is '^]'.

It works from the node (tanenbaum) :

root@tanenbaum:~# telnet tutu.fr 80

Trying A.B.C.D...

Connected to tutu.fr.

Escape character is '^]'.

and from others VE (prod-bdd-1 for example) :

root@prod-bdd-1:~# telnet tutu.fr 80

Trying A.B.C.D...

Connected to tutu.fr.

Escape character is '^]'.

My configuration :

NAT :

root@tanenbaum:~# iptables -L -v -t nat

Chain PREROUTING (policy ACCEPT 69 packets, 4311 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination	
86	4584	DNAT	tcp	--	any	any	anywhere	srv1.toto.fr	tcp dpt:http

```

to:192.168.0.101:80
  0 0 DNAT  tcp -- eth0  any  anywhere      srv1.toto.fr  tcp dpt:ftp
to:192.168.0.101:21
  0 0 DNAT  tcp -- eth0  any  anywhere      srv1.toto.fr  tcp dpts:4242:4300
to:192.168.0.101

```

Chain POSTROUTING (policy ACCEPT 247 packets, 27946 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination	
13	819	SNAT	all	--	any	any	192.168.0.0/24	!192.168.0.0/24	to:A.B.C.D

Chain OUTPUT (policy ACCEPT 117 packets, 20722 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination	
0	0	DNAT	tcp	--	any	any	anywhere	srv1.toto.fr	tcp dpt:http
to:192.168.0.101:80									
0	0	DNAT	tcp	--	any	any	anywhere	srv1.toto.fr	tcp dpt:ftp
to:192.168.0.101:21									
0	0	DNAT	tcp	--	any	any	anywhere	srv1.toto.fr	tcp dpts:4242:4300
to:192.168.0.101									

Filter :

```

root@tanenbaum:~# iptables -L -v
Chain INPUT (policy DROP 3 packets, 152 bytes)
pkts bytes target  prot opt in  out  source          destination
  44 3710 ACCEPT  all  --  lo   any  anywhere        anywhere
  437 34317 ACCEPT  all  --  any  any  anywhere       anywhere      state
RELATED,ESTABLISHED
  0 0 ACCEPT  tcp  --  any  any  anywhere        anywhere      tcp dpt:https state
NEW
  0 0 ACCEPT  tcp  --  any  any  anywhere        anywhere      tcp dpt:6984 state
  0 0 ACCEPT  tcp  --  eth0  any  cache.ovh.net    anywhere      tcp dpt:ssh
  0 0 ACCEPT  tcp  --  any  any  anywhere        anywhere      tcp dpt:8006 state
NEW
  12 952 ACCEPT  icmp --  any  any  anywhere        anywhere
  0 0 ACCEPT  tcp  --  any  any  torvalds.toto.fr  anywhere      tcp dpt:mysql state
NEW
  0 0 ACCEPT  all  --  any  any  192.168.0.0/24    anywhere

```

Chain FORWARD (policy DROP 0 packets, 0 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
15265	9481K	ACCEPT	all	--	any	any	192.168.0.0/24	anywhere
1714	568K	ACCEPT	all	--	any	any	anywhere	192.168.0.0/24

Chain OUTPUT (policy ACCEPT 156 packets, 26429 bytes)

pkts	bytes	target	prot	opt	in	out	source	destination
44	3710	ACCEPT	all	--	any	lo	anywhere	anywhere
415	156K	ACCEPT	all	--	any	any	anywhere	anywhere
RELATED,ESTABLISHED								

Ip forwarding is enabled :

```
echo "1" > /proc/sys/net/ipv4/ip_forward
```

Network configuration :

```
root@tanenbaum:~# cat /etc/network/interfaces
# This file describes the network interfaces available on your system
# and how to activate them. For more information, see interfaces(5).

# The loopback network interface
auto lo
iface lo inet loopback

auto eth0
iface eth0 inet static
    address E.F.G.H
    netmask 255.255.255.0
    network E.F.G.0
    broadcast E.F.G.255
    gateway E.F.G.254
    # IP Failover
    post-up /sbin/ifconfig eth0:0 A.B.C.D netmask 255.255.255.255 broadcast A.B.C.D
    post-down /sbin/ifconfig eth0:0 down
    post-up /sbin/ifconfig eth0:1 192.168.0.1 netmask 255.255.255.0 broadcast 192.168.0.255
    post-down /sbin/ifconfig eth0:1 down
```

The routing table from the node :

```
root@tanenbaum:~# route
```

Table de routage IP du noyau

Destination	Passerelle	Genmask	Indic	Metric	Ref	Use	Iface
prod-infra-1	*	255.255.255.255	UH	0	0	0	venet0
bck-bdd-1	*	255.255.255.255	UH	0	0	0	venet0
prod-bdd-1	*	255.255.255.255	UH	0	0	0	venet0
prod-mail-1	*	255.255.255.255	UH	0	0	0	venet0
prod-web-1	*	255.255.255.255	UH	0	0	0	venet0
E.F.G.0	*	255.255.255.0	U	0	0	0	eth0
default	E.F.G.254	0.0.0.0	UG	0	0	0	eth0

The whole table :

```
root@tanenbaum:~# ip route list table all
192.168.0.104 dev venet0 scope link
192.168.0.112 dev venet0 scope link
192.168.0.102 dev venet0 scope link
192.168.0.103 dev venet0 scope link
192.168.0.101 dev venet0 scope link
E.F.G.0/24 dev eth0 proto kernel scope link src E.F.G.H
```

```
default via E.F.G.254 dev eth0
broadcast 127.255.255.255 dev lo table local proto kernel scope link src 127.0.0.1
broadcast E.F.G.255 dev eth0 table local proto kernel scope link src E.F.G.H
local A.B.C.D dev eth0 table local proto kernel scope host src A.B.C.D
broadcast A.B.C.D dev eth0 table local proto kernel scope link src A.B.C.D
broadcast E.F.G.0 dev eth0 table local proto kernel scope link src E.F.G.H
local E.F.G.H dev eth0 table local proto kernel scope host src E.F.G.H
broadcast 127.0.0.0 dev lo table local proto kernel scope link src 127.0.0.1
local 127.0.0.1 dev lo table local proto kernel scope host src 127.0.0.1
local 127.0.0.0/8 dev lo table local proto kernel scope host src 127.0.0.1
2001:41d0:8:e9b5::/64 dev eth0 proto kernel metric 256 mtu 1500 advmss 1440 hoplimit 0
2001:41d0:8:e9ff:ff:ff:ff:ff dev eth0 metric 1024 mtu 1500 advmss 1440 hoplimit 0
fe80::1 dev venet0 proto kernel metric 256 mtu 1500 advmss 1440 hoplimit 0
fe80::/64 dev eth0 proto kernel metric 256 mtu 1500 advmss 1440 hoplimit 0
fe80::/64 dev venet0 proto kernel metric 256 mtu 1500 advmss 1440 hoplimit 0
default via 2001:41d0:8:e9ff:ff:ff:ff:ff dev eth0 metric 1024 mtu 1500 advmss 1440 hoplimit 0
unreachable default dev lo table unspec proto kernel metric 4294967295 error -101 hoplimit
255
local ::1 via :: dev lo table local proto none metric 0 mtu 16436 advmss 16376 hoplimit 0
local 2001:41d0:8:e9b5::1 via :: dev lo table local proto none metric 0 mtu 16436 advmss 16376
hoplimit 0
local fe80::1 via :: dev lo table local proto none metric 0 mtu 16436 advmss 16376 hoplimit 0
local fe80::222:4dff:fea0:f88e via :: dev lo table local proto none metric 0 mtu 16436 advmss
16376 hoplimit 0
ff00::/8 dev eth0 table local metric 256 mtu 1500 advmss 1440 hoplimit 0
ff00::/8 dev venet0 table local metric 256 mtu 1500 advmss 1440 hoplimit 0
unreachable default dev lo table unspec proto kernel metric 4294967295 error -101 hoplimit
255
```

I tried a lot of things but I'm still not able to have a full access to my sites from my Apache VE
(prod-web-1)
Do you have an idea ?

Thanks !
Romain

Subject: Re: Network configuration problem with NAT and OpenVZ
Posted by [Paparaciz](#) on Thu, 15 Aug 2013 17:35:30 GMT

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why not to just write in hosts file:
127.0.0.1 tutu.fr www.tutu.fr?
