
Subject: 6to4 - tunnel for VE

Posted by [shion](#) on Tue, 11 Aug 2009 15:07:06 GMT

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Hello,

I need a separate 6to4 tunnel IP-address for a VE.

The HN and each VE have a own static public IPv4-address.

Configuration on HN:

```
auto sit1
```

```
iface sit1 inet6 v4tunnel
```

```
    address 2002:75aa:2a14::1
```

```
    netmask 64
```

```
    gateway ::192.88.99.1
```

```
    endpoint any
```

```
    local 117.170.42.20
```

Enable IPv6 in vz.conf

```
ipv6="yes"
```

Enable IPv6 forwarding

```
echo 1 > /proc/sys/net/ipv6/conf/all/forwarding
```

After this configuration is a ping6 from 2002:75aa:2a14::1 possible.

```
# ping6 ipv6.google.com
```

```
PING ipv6.google.com(ey-in-x68.google.com) 56 data bytes
```

```
64 bytes from ey-in-x68.google.com: icmp_seq=1 ttl=54 time=42.0 ms
```

```
64 bytes from ey-in-x68.google.com: icmp_seq=2 ttl=54 time=41.6 ms
```

Next I have executed

```
vzctl set 111 --ipadd 2002:75aa:2a14::2 --save so that I can ping6 from the VE too.
```

The VE uses the venet0 interface.

So far, so good..

That works for now but I need another solution.

The VE has an own public IPv4-address and this address should be used for VEs 6to4 tunnel.

I tried the following things:

Set NEIGHBOUR_DEVS to all in vz.conf

```
NEIGHBOUR_DEVS=all
```

Set the desired 6to4 IPv6 address and removed the old IP:

```
vzctl set 111 --ipdel 2002:75aa:2a14::2 -save
```

```
vzctl set 111 --ipadd 2002:75aa:2a15::1 -save
```

Results:

- ping6 from HN works furthermore

- ping6 from VE doesn't work anymore

```
# ping6 ipv6.google.com
PING ipv6.google.com(ey-in-x68.google.com) 56 data bytes
^C
# tcpdump -n icmp6
tcpdump: verbose output suppressed, use -v or -vv for full protocol decode
listening on venet0, link-type LINUX_SLL (Linux cooked), capture size 96 bytes
16:24:39.462282 IP6 2002:75aa:2a15::1 > 2001:4860:a005::68: ICMP6, echo request, seq 1,
length 64
16:24:40.475794 IP6 2002:75aa:2a15::1 > 2001:4860:a005::68: ICMP6, echo request, seq 2,
length 64
16:24:41.475795 IP6 2002:75aa:2a15::1 > 2001:4860:a005::68: ICMP6, echo request, seq 3,
length 64
The ICMP reply packets are missing. So it could be a routing issue?!
```

VE - route -6

```
# route -6
```

Kernel IPv6 routing table

Destination	Next Hop	Flag	Met	Ref	Use	If
::1/128	::	U	256 0	0	venet0	
fe80::/64	::	U	256 0	0	venet0	
::/0	::	U	256 0	1	venet0	
::/0	::	In	-1 1	1345	lo	
::1/128	::	Un	0 1	425	lo	
::1/128	::	Un	0 1	0	lo	
2002:75aa:2a15::1/128	::	Un	0 1	4642	lo	
ff00::/8	::	U	256 0	0	venet0	
::/0	::	In	-1 1	1345	lo	

HN - route -6

```
# route -6
```

Kernel IPv6 routing table

Destination	Next Hop	Flag	Met	Ref	Use	If
::192.88.99.1/128	::	U	1024 0	3	sit1	
::/96	::	Un	256 0	0	sit1	
2002:75aa:2a14::/64	::	U	256 0	0	sit1	
2002:75aa:2a15::1/128	::	U	1024 0	0	venet0	
fe80::1/128	::	U	256 0	0	venet0	
fe80::/64	::	U	256 0	0	eth0	
fe80::/64	::	U	256 0	0	venet0	
fe80::/64	::	U	256 0	0	sit1	
::/0	::192.88.99.1	UG	1024 0	7	sit1	
::/0	::	In	-1 1301588	lo		
::1/128	::	Un	0 1	31413	lo	
::117.170.42.20/128	::	Un	0 1	0	lo	
2002:75aa:2a14::/128	::	Un	0 1	0	lo	
2002:75aa:2a14::1/128	::	Un	0 1	0	lo	
fe80::/128	::	Un	0 1	0	lo	
fe80::/128	::	Un	0 1	0	lo	
fe80::1/128	::	Un	0 1	0	lo	

```

fe80::214:22ff:fe73:78e4/128 ::          Un  0  1  0 lo
fe80::218:51ff:fec5:4e68/128 ::          Un  0  1  0 lo
ff00::/8                ::              U   256 0   0 eth0
ff00::/8                ::              U   256 0   0 venet0
ff00::/8                ::              U   256 0   0 sit1
::/0                    ::              !n  -1 1301588 lo

```

But it is possible to ping6 between HN <--> VE.

```
# ping6 2002:75aa:2a14::1
```

```
PING 2002:d946:8e2a::1(2002:d946:8e2a::1) 56 data bytes
```

```
64 bytes from 2002:75aa:2a14::1: icmp_seq=1 ttl=64 time=0.074 ms
```

```
64 bytes from 2002:75aa:2a14::1: icmp_seq=2 ttl=64 time=0.046 ms# ping6 2002:75aa:2a15::1
```

```
PING 2002:d946:8e51::1(2002:d946:8e51::1) 56 data bytes
```

```
64 bytes from 2002:75aa:2a15::1: icmp_seq=1 ttl=64 time=0.071 ms
```

```
64 bytes from 2002:75aa:2a15::1: icmp_seq=2 ttl=64 time=0.065 ms
```

versions:

```
# uname -r
```

```
2.6.26-2-openvz-amd64
```

```
# vzctl --version
```

```
vzctl version 3.0.22
```

So where is the problem?

I hope you can understand my problem.

If not feel free to ask, if something isn't clear.

Best regards

shion

(all IP-addresses are replaced)