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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 --saveso 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 doen'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	::				0	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	0	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)