Subject: Re: IPv6 again but this time with veth
Posted by Jan Tomasek on Fri, 29 Jun 2007 08:23:28 GMT
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Oh. I got lost! Could I try to describe it again?

My HW node is staj-dev:

```
auto eth0
iface eth0 inet static
        address 195.113.233.4
        netmask 255.255.255.0
        network 195.113.233.0
        broadcast 195.113.233.255
        gateway 195.113.233.1
        dns-nameservers 195.113.144.233 195.113.144.194
        dns-search cesnet.cz

iface eth0 inet6 static
        post-up /sbin/sysctl -w "net.ipv6.conf.eth0.autoconf=0"
        address 2001:718:1:e::23:3004
        netmask 64
```

My VE node, has this config (ip6v2-test):

```
auto eth0
iface eth0 inet static
        address 195.113.233.12
        netmask 255.255.255.0
        network 195.113.233.0
        broadcast 195.113.233.255
        gateway 195.113.233.4
        dns-nameservers 195.113.144.233 195.113.144.194
        dns-search cesnet.cz


eth0 inet6 static
        iface eth0 inet6 static
        address 2001:718:1:e::23:3012
        netmask 64
```

After executing:

```
brctl addbr vzbr0
brctl addif vzbr0 veth012.0
ifconfig vzbr0 0
echo 1 > /proc/sys/net/ipv4/conf/vzbr0/forwarding
echo 1 > /proc/sys/net/ipv4/conf/vzbr0/proxy_arp
```

echo 1 > /proc/sys/net/ipv4/conf/eth0/forwarding
echo 1 > /proc/sys/net/ipv4/conf/eth0/proxy_arp
ip route add 195.113.233.12 dev vzbr0
ip route add 2001:718:1:e::23:3012 dev vzbr0

MARK

VE starts to be reachable from Internet on IPv4. What should I do next?

echo 1 > /proc/sys/net/ipv6/conf/eth0/forwarding

somehow broke IPv6 for HW node.

echo 1 > /proc/sys/net/ipv6/conf/vzbr0/forwarding

cause no problem.

Well - returning to point marked as **MARK**.

Route table on HW node:

> staj-dev:~# route -6
> Kernel IPv6 routing table
> Destination Next Hop Flags Metric Ref Use Iface
> ::1/128 :: U 0 6 1 lo
> 2001:718:1:e::23:3004/128 :: U 0 788 1 lo
> 2001:718:1:e::23:3012/128 :: U 1024 0 0 vzbr0
> 2001:718:1:e::/64 :: U 256 169 0 eth0
> fe80::/128 :: U 0 0 2 lo
> fe80::1/128 :: U 0 0 1 lo
> fe80::20c:29ff:fe63:a674/128 :: U 0 0 1 lo
> fe80::20c:29ff:fe63:a674/128 :: U 0 0 1 lo
> fe80::213:72ff:fe1b:b97/128 :: U 0 32 1 lo
> fe80::/64 :: U 256 0 0 eth0
> fe80::/64 :: U 256 0 0 venet0
> fe80::/64 :: U 256 0 0 veth012.0
> fe80::/64 :: U 256 0 0 vzbr0
> f020::1/128 ff02::1 UC 0 165 0 eth0
> ff00::/8 :: U 256 0 0 eth0
> ff00::/8 :: U 256 0 0 venet0
> ff00::/8 :: U 256 0 0 veth012.0
> ff00::/8 :: U 256 0 0 vzbr0
> ::/0 fe80::215:faff:fe87:3100 UGDA 1024 167 0 eth0

Route table on VE node:

> root@ip6v2-test:/# route -6
> Kernel IPv6 routing table

> Destination Next Hop Flags Metric Ref Use Iface
> ::1/128 :: U 0 1 1 lo
> 2001:718:1:e::23:3012/128 :: U 0 53 1 lo
> 2001:718:1:e::/64 :: U 256 0 0 eth0
> fe80::20c:29ff:fe63:a673/128 :: U 0 0 1 lo
> fe80::/64 :: U 256 0 0 eth0
> ff00::/8 :: U 256 0 0 eth0

VE is missing default GW, I expect it to show there somehow automaticaly
like in HW node... maybe this is one of my bugs.

When I try to ping my HW node, for that I've routes there I get:

> root@ip6v2-test:/# ping6 2001:718:1:e::23:3004
> PING 2001:718:1:e::23:3004(2001:718:1:e::23:3004) 56 data bytes
> From 2001:718:1:e::23:3012 icmp_seq=1 Destination unreachable: Address unreachable
> From 2001:718:1:e::23:3012 icmp_seq=2 Destination unreachable: Address unreachable

and on HW node:

> staj-dev:~# tcpdump -i vzbr0
> tcpdump: WARNING: vzbr0: no IPv4 address assigned
> tcpdump: verbose output suppressed, use -v or -vv for full protocol decode
> listening on vzbr0, link-type EN10MB (Ethernet), capture size 96 bytes
> 11:23:40.306129 IP6 2001:718:1:e::23:3012 > ff02::1:ff23:3004: ICMP6, neighbor solicitation, who has staj-dev6.cesnet.cz, length 32
> 11:23:41.305975 IP6 2001:718:1:e::23:3012 > ff02::1:ff23:3004: ICMP6, neighbor solicitation, who has staj-dev6.cesnet.cz, length 32

When I try oposite direction:

> staj-dev:~# ping6 2001:718:1:e::23:3012
> PING 2001:718:1:e::23:3012(2001:718:1:e::23:3012) 56 data bytes
> [... no output at all ...]

> root@ip6v2-test:/# tcpdump -n -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
> 09:32:01.755512 IP6 2001:718:1:e::23:3012 > ff02::1:ff23:3004: ICMP6, neighbor solicitation, who has 2001:718:1:e::23:3004, length 32
> 09:32:01.755721 IP6 2001:718:1:e::23:3004 > 2001:718:1:e::23:3012: ICMP6, echo request, seq 27, length 64
> 09:32:02.756372 IP6 2001:718:1:e::23:3004 > 2001:718:1:e::23:3012: ICMP6, echo request, seq 28, length 64
> 09:32:02.757356 IP6 2001:718:1:e::23:3012 > ff02::1:ff23:3004: ICMP6, neighbor solicitation, who has 2001:718:1:e::23:3004, length 32
> 09:32:03.756222 IP6 2001:718:1:e::23:3004 > 2001:718:1:e::23:3012: ICMP6, echo request, seq 29, length 64

> 09:32:03.757208 IP6 2001:718:1:e::23:3012 > ff02::1:ff23:3004: ICMP6, neighbor solicitation, who has 2001:718:1:e::23:3004, length 32
> 09:32:04.756070 IP6 2001:718:1:e::23:3004 > 2001:718:1:e::23:3012: ICMP6, echo request, seq 30, length 64
> 09:32:04.757057 IP6 2001:718:1:e::23:3012 > ff02::1:ff23:3004: ICMP6, neighbor solicitation, who has 2001:718:1:e::23:3004, length 32
> 09:32:05.755924 IP6 2001:718:1:e::23:3004 > 2001:718:1:e::23:3012: ICMP6, echo request, seq 31, length 64
> 09:32:06.755787 IP6 2001:718:1:e::23:3004 > 2001:718:1:e::23:3012: ICMP6, echo request, seq 32, length 64
> 09:32:06.756762 IP6 2001:718:1:e::23:3012 > ff02::1:ff23:3004: ICMP6, neighbor solicitation, who has 2001:718:1:e::23:3004, length 32

Any thoughts, please?
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