Subject: Re: IPv6 ??
Posted by Jan Tomasek on Thu, 24 Jan 2008 20:47:44 GMT
View Forum Message <> Reply to Message

Hello Benoit,

> Temporarily giving up messing with veth devices (forgot dhcpd server for
> now), I concentrated on setting up a basic VS with both IPv4 and IPv6
> addresses, using standard venet device.
>
> [...]

> Result:
>
> - IPv4 VS works as expected (ping succeeds from hardware node, external
> server in same subnet, external server on another subnet).
>
> - IPv6 VS doesn't work !!! (ping6 works *only* between VS and hardware
> node, not from external sources; VS has IPv6 address correctly defined,
> as per ifconfig).
>
> Am I missing something ?
>
> I suspected it may be useful to set sysctl
> net.ipv6.conf.<iface>.forwarding to 1, but :
> - this turns the box in "router" mode, disabling RA acceptance from
> default router (annoying)
> - this doesn't work either !!

Very interesting! I'm having exactly same problem here. IPv6 was working perfectly for me after some problems before several months. Now I had to reboot my HW node and IPv6 is gone.

When I try to ping VE from real world I'm getting:

> semik@staff:~$ ping6 2001:718:1:e::23:3257
> PING 2001:718:1:e::23:3257(2001:718:1:e::23:3257) 56 data bytes
> From 2001:718:1:101::1 icmp_seq=0 Destination unreachable: Address unreachable
> From 2001:718:1:101::1 icmp_seq=3 Destination unreachable: Address unreachable

From HW node to VE or from one VE to another VE is IPv6 working fine. I think that HW node didn't sent some info to it's IPv6 gateway about presence of new IPv6 address. Sadly I'm clue less how to better debug this. But!

I've discovered trick. Run alternate version of this on your HW node:

> ifconfig eth0 add 2001:718:1:e::23:3257/64

> sleep 5
> ping6 -I 2001:718:1:e::23:3257 -c 1 2001:718:1:e::1
> ifconfig eth0 del 2001:718:1:e::23:3257/64

2001:718:1:e::23:3257 - IPv6 address of VE
2001:718:1:e::1 - gateway

That will cause that router will learn about presence of VE. It lasts for several hours. I discovered it at about 17 clock and now at 22 are VE still IPv6 online... but I'm afraid that clearing IPv6 neighbours table on router will kill this. Something is not working on HW node.

I'm running 2.6.18-028stab051 on Debian Etch. Output of sysctl -a |grep net.ipv6 | sort >/tmp/chlivek.ipv6 is attached. Hope someone will point out where problem is. Yesterday I've reboot my second HW node...

--

Jan Tomasek aka Semik
http://www.tomasek.cz/

net.ipv6.bindv6only = 0
net.ipv6.conf.all.accept_ra = 1
net.ipv6.conf.all.accept_ra_defrtr = 1
net.ipv6.conf.all.accept_ra_pinfo = 1
net.ipv6.conf.all.accept_ra_rtr_pref = 1
net.ipv6.conf.all.accept_redirects = 1
net.ipv6.conf.all.autoconf = 1
net.ipv6.conf.all.dad_transmits = 1
net.ipv6.conf.all.force_mld_version = 0
net.ipv6.conf.all.forwarding = 1
net.ipv6.conf.all.hop_limit = 64
net.ipv6.conf.all.max_addresses = 16
net.ipv6.conf.all.max_desync_factor = 600
net.ipv6.conf.all.mtu = 1280
net.ipv6.conf.all.regen_max_retry = 5
net.ipv6.conf.all.router_probe_interval = 60
net.ipv6.conf.all.router_solicitation_delay = 1
net.ipv6.conf.all.router_solicitation_interval = 4
net.ipv6.conf.all.router_solicitations = 3
net.ipv6.conf.all.temp_prefered_lft = 86400
net.ipv6.conf.all.temp_valid_lft = 604800
net.ipv6.conf.all.use_tempaddr = 0
net.ipv6.conf.default.accept_ra = 1
net.ipv6.conf.default.accept_ra_defrtr = 1
net.ipv6.conf.default.accept_ra_pinfo = 1
net.ipv6.conf.default.accept_ra_rtr_pref = 1

net.ipv6.conf.default.accept_redirects = 1
net.ipv6.conf.default.autoconf = 1
net.ipv6.conf.default.dad_transmits = 1
net.ipv6.conf.default.force_mld_version = 0
net.ipv6.conf.default.forwarding = 1
net.ipv6.conf.default.hop_limit = 64
net.ipv6.conf.default.max_addresses = 16
net.ipv6.conf.default.max_desync_factor = 600
net.ipv6.conf.default.mtu = 1280
net.ipv6.conf.default.regen_max_retry = 5
net.ipv6.conf.default.router_probe_interval = 60
net.ipv6.conf.default.router_solicitation_delay = 1
net.ipv6.conf.default.router_solicitation_interval = 4
net.ipv6.conf.default.router_solicitations = 3
net.ipv6.conf.default.temp_prefered_lft = 86400
net.ipv6.conf.default.temp_valid_lft = 604800
net.ipv6.conf.default.use_tempaddr = 0
net.ipv6.conf.eth0.accept_ra = 1
net.ipv6.conf.eth0.accept_ra_defrtr = 1
net.ipv6.conf.eth0.accept_ra_pinfo = 1
net.ipv6.conf.eth0.accept_ra_rtr_pref = 1
net.ipv6.conf.eth0.accept_redirects = 1
net.ipv6.conf.eth0.autoconf = 0
net.ipv6.conf.eth0.dad_transmits = 1
net.ipv6.conf.eth0.force_mld_version = 0
net.ipv6.conf.eth0.forwarding = 1
net.ipv6.conf.eth0.hop_limit = 64
net.ipv6.conf.eth0.max_addresses = 16
net.ipv6.conf.eth0.max_desync_factor = 600
net.ipv6.conf.eth0.mtu = 1500
net.ipv6.conf.eth0.regen_max_retry = 5
net.ipv6.conf.eth0.router_probe_interval = 60
net.ipv6.conf.eth0.router_solicitation_delay = 1
net.ipv6.conf.eth0.router_solicitation_interval = 4
net.ipv6.conf.eth0.router_solicitations = 3
net.ipv6.conf.eth0.temp_prefered_lft = 86400
net.ipv6.conf.eth0.temp_valid_lft = 604800
net.ipv6.conf.eth0.use_tempaddr = 0
net.ipv6.conf.lo.accept_ra = 1
net.ipv6.conf.lo.accept_ra_defrtr = 1
net.ipv6.conf.lo.accept_ra_pinfo = 1
net.ipv6.conf.lo.accept_ra_rtr_pref = 1
net.ipv6.conf.lo.accept_redirects = 1
net.ipv6.conf.lo.autoconf = 1
net.ipv6.conf.lo.dad_transmits = 1
net.ipv6.conf.lo.force_mld_version = 0
net.ipv6.conf.lo.forwarding = 1
net.ipv6.conf.lo.hop_limit = 64

net.ipv6.conf.lo.max_addresses = 16
net.ipv6.conf.lo.max_desync_factor = 600
net.ipv6.conf.lo.mtu = 16436
net.ipv6.conf.lo.regen_max_retry = 5
net.ipv6.conf.lo.router_probe_interval = 60
net.ipv6.conf.lo.router_solicitation_delay = 1
net.ipv6.conf.lo.router_solicitation_interval = 4
net.ipv6.conf.lo.router_solicitations = 3
net.ipv6.conf.lo.temp_prefered_lft = 86400
net.ipv6.conf.lo.temp_valid_lft = 604800
net.ipv6.conf.lo.use_tempaddr = -1
net.ipv6.conf.venet0.accept_ra = 1
net.ipv6.conf.venet0.accept_ra_defrtr = 1
net.ipv6.conf.venet0.accept_ra_pinfo = 1
net.ipv6.conf.venet0.accept_ra_rtr_pref = 1
net.ipv6.conf.venet0.accept_redirects = 1
net.ipv6.conf.venet0.autoconf = 1
net.ipv6.conf.venet0.dad_transmits = 1
net.ipv6.conf.venet0.force_mld_version = 0
net.ipv6.conf.venet0.forwarding = 1
net.ipv6.conf.venet0.hop_limit = 64
net.ipv6.conf.venet0.max_addresses = 16
net.ipv6.conf.venet0.max_desync_factor = 600
net.ipv6.conf.venet0.mtu = 1500
net.ipv6.conf.venet0.regen_max_retry = 5
net.ipv6.conf.venet0.router_probe_interval = 60
net.ipv6.conf.venet0.router_solicitation_delay = 1
net.ipv6.conf.venet0.router_solicitation_interval = 4
net.ipv6.conf.venet0.router_solicitations = 3
net.ipv6.conf.venet0.temp_prefered_lft = 86400
net.ipv6.conf.venet0.temp_valid_lft = 604800
net.ipv6.conf.venet0.use_tempaddr = 0
net.ipv6.icmp.ratelimit = 1000
net.ipv6.ip6frag_high_thresh = 262144
net.ipv6.ip6frag_low_thresh = 196608
net.ipv6.ip6frag_secret_interval = 600
net.ipv6.ip6frag_time = 60
net.ipv6.mld_max_msf = 64
net.ipv6.neigh.default.anycast_delay = 99
net.ipv6.neigh.default.app_solicit = 0
net.ipv6.neigh.default.base_reachable_time = 30
net.ipv6.neigh.default.base_reachable_time_ms = 30000
net.ipv6.neigh.default.delay_first_probe_time = 5
net.ipv6.neigh.default.gc_interval = 30
net.ipv6.neigh.default.gc_stale_time = 60
net.ipv6.neigh.default.gc_thresh1 = 128
net.ipv6.neigh.default.gc_thresh2 = 512
net.ipv6.neigh.default.gc_thresh3 = 1024

net.ipv6.neigh.default.locktime = 0
net.ipv6.neigh.default.mcast_solicit = 3
net.ipv6.neigh.default.proxy_delay = 79
net.ipv6.neigh.default.proxy_qlen = 64
net.ipv6.neigh.default.retrans_time = 1000
net.ipv6.neigh.default.retrans_time_ms = 1000
net.ipv6.neigh.default.ucast_solicit = 3
net.ipv6.neigh.default.unres_qlen = 3
net.ipv6.neigh.eth0.anycast_delay = 99
net.ipv6.neigh.eth0.app_solicit = 0
net.ipv6.neigh.eth0.base_reachable_time = 30
net.ipv6.neigh.eth0.base_reachable_time_ms = 30000
net.ipv6.neigh.eth0.delay_first_probe_time = 5
net.ipv6.neigh.eth0.gc_stale_time = 60
net.ipv6.neigh.eth0.locktime = 0
net.ipv6.neigh.eth0.mcast_solicit = 3
net.ipv6.neigh.eth0.proxy_delay = 79
net.ipv6.neigh.eth0.proxy_qlen = 64
net.ipv6.neigh.eth0.retrans_time = 1000
net.ipv6.neigh.eth0.retrans_time_ms = 1000
net.ipv6.neigh.eth0.ucast_solicit = 3
net.ipv6.neigh.eth0.unres_qlen = 3
net.ipv6.neigh.lo.anycast_delay = 99
net.ipv6.neigh.lo.app_solicit = 0
net.ipv6.neigh.lo.base_reachable_time = 30
net.ipv6.neigh.lo.base_reachable_time_ms = 30000
net.ipv6.neigh.lo.delay_first_probe_time = 5
net.ipv6.neigh.lo.gc_stale_time = 60
net.ipv6.neigh.lo.locktime = 0
net.ipv6.neigh.lo.mcast_solicit = 3
net.ipv6.neigh.lo.proxy_delay = 79
net.ipv6.neigh.lo.proxy_qlen = 64
net.ipv6.neigh.lo.retrans_time = 1000
net.ipv6.neigh.lo.retrans_time_ms = 1000
net.ipv6.neigh.lo.ucast_solicit = 3
net.ipv6.neigh.lo.unres_qlen = 3
net.ipv6.neigh.venet0.anycast_delay = 99
net.ipv6.neigh.venet0.app_solicit = 0
net.ipv6.neigh.venet0.base_reachable_time = 30
net.ipv6.neigh.venet0.base_reachable_time_ms = 30000
net.ipv6.neigh.venet0.delay_first_probe_time = 5
net.ipv6.neigh.venet0.gc_stale_time = 60
net.ipv6.neigh.venet0.locktime = 0
net.ipv6.neigh.venet0.mcast_solicit = 3
net.ipv6.neigh.venet0.proxy_delay = 79
net.ipv6.neigh.venet0.proxy_qlen = 64
net.ipv6.neigh.venet0.retrans_time = 1000
net.ipv6.neigh.venet0.retrans_time_ms = 1000

net.ipv6.neigh.venet0.ucast_solicit = 3
net.ipv6.neigh.venet0.unres_qlen = 3
net.ipv6.route.gc_elasticity = 0
net.ipv6.route.gc_interval = 30
net.ipv6.route.gc_min_interval = 0
net.ipv6.route.gc_min_interval_ms = 500
net.ipv6.route.gc_thresh = 1024
net.ipv6.route.gc_timeout = 60
net.ipv6.route.max_size = 4096
net.ipv6.route.min_adv_mss = 1
net.ipv6.route.mtu_expires = 600