Subject: MDNS service discovery with VETH interface
Posted by Daniel Pittman on Mon, 04 Jun 2007 14:09:27 GMT
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G'day. I have a VE that I set up using a VETH interface rather than a VENET interface so I could test ZeroConf service discovery and other broadcast/multicast protocols.

I have the VETH device bridged with the physical Ethernet device on the hardware node and can see standard broadcast packets without any problem.

I don't see the multicast packets cross the interface boundary though; it is my belief that the VETH device doesn't correctly handle the packets being sent to the Ethernet MAC '01:00:5e:00:00:fb'

This is running kernel '2.6.18-028stab033.1-ovz'

Have I missed some critical step in getting multicast services working with the VETH device or so?

I think, reading the veth.c source, that the problem is in the veth_xmit function on line 305 in the current HEAD in get -- the code tests:

```
  if (!is_broadcast_ether_addr(((struct ethhdr *)skb->data)->h_dest)) {
```

This should probably also pass a multicast packet through to the VE, not just the broadcast packets. That way multicast traffic is seen inside the system.

The appropriate test would be 'is_multicast_ether_addr(...)' in addition to the broadcast.

I have not supplied a patch here because I don't know what, if any, extra implications permitting multicast packets in have -- or if there is some other mechanism that I have missed that would cause them to pass through as expected.

Regards,
Daniel
--
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Subject: Re: MDNS service discovery with VETH interface
Posted by dev on Mon, 04 Jun 2007 14:31:25 GMT
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Daniel Pittman wrote:
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> extra implications permitting multicast packets in have -- or if there
> is some other mechanism that I have missed that would cause them to pass
> through as expected.

It should be ok to add this check. Thanks for noticing.
patch attached and commited.

Thanks,
Kirill

--- ./drivers/net/veth.c.ve2378 2007-06-04 18:26:11.000000000 +0400

```
+++ ./drivers/net/veth.c 2007-06-04 18:26:16.000000000 +0400
@@ -302,7 +302,7 @@ static int veth_xmit(struct sk_buff *skb
  if (unlikely(rcv->owner_env->disable_net))
   goto outf;
  /* Filtering */
- if (!is_broadcast_ether_addr(((struct ethhdr *)skb->data)->h_dest)) {
+ if (!is_multicast_ether_addr(((struct ethhdr *)skb->data)->h_dest)) {
   if (ve_is_super(dev->owner_env) &&
     !ve_is_super(rcv->owner_env) &&
     !veth_from_netdev(rcv)->allow_mac_change) {
```