Subject: OpenVZ venet HW Mac Address question
Posted by mylesw on Thu, 08 Sep 2011 19:07:45 GMT
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Hi there, I'm new to OpenVZ having installed it via Proxmox on a server, but so far am loving the performance. We are migrating about 40 virtual servers from VMWare ESXi over to Proxmox and 90% of them are Linux servers, so OpenVZ is a natural solution for this. Wish I found it sooner, to be honest!

After running one production server for about a week, we encountered a strange issue a few days ago. The public WAN network just stopped working, but the private LAN on the server was fine. This server is colocated, so I eventually tracked it down to the venet NIC failing and after restarting the server a few times, had no luck with it at all. Then I contacted the Network Operations center at our data center, who refreshed the ARP cache, and immediately it was back running.

I then researched what the cause of this was, and it would seem that someone else in the data center has done something similar to us and the HW Mac address that was given to the venet adapter was conflicting with them. After the ARP cache was reset, it was fine.

So having experienced this, I'd like to know how to set the HW MAC Addr of the venet adapter myself so that I can use something that won't conflict with other servers in our data center. I checked through documentation for this, but I haven't found anything that tells me how to set this or how to have it generate a new one that is guaranteed not to conflict with anything else.

Is this a common issue that others have experienced, or is it a freak thing that should never happen in a perfect world but I've done something horribly wrong?

Thanks in advance for any suggestions.

Myles

Subject: Re: OpenVZ venet HW Mac Address question
Posted by TheStig on Tue, 13 Sep 2011 07:22:06 GMT
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please correct me if i'm wrong, but i'm quite sure that when using venet the virtual adapter do not have a MAC. it's more like a point-to-point bridge.
Quote:
No ARP protocol support

Venet network device is explicitly NOARP, so there is no MAC address.
source: http://wiki.openvz.org/Venet

so if u wish to use different MACs for each IP, you would have to switch your networking to veth.

Subject: Re: OpenVZ venet HW Mac Address question
Posted by mylesw on Tue, 13 Sep 2011 14:07:42 GMT
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Ah, thank you for this. That makes perfect sense.

I guess my issue is more to do with how our data center is handling this then. We have 3 servers that are running Proxmox on them, and my goal is to have about 10-20 OpenVZ containers running on the servers. Those servers have 3 NICs installed - one for public WAN, one for private LAN and one for iSCSI SAN.

The issue appears to be on the public WAN side. The NOC at the data center had to flush the ARP cache when we had this problem, but we haven't seen it re-occur since. It may be an issue with how they are expecting servers to behave in their network. I suspect that from the outside, our NIC with the public WAN address has a verifiable HW MAC Address that they can see, but something confused the guest containers that messed up their cache.

I suspect that your point about using veth won't work for us because we have 10-20 OpenVZ containers that would be sharing the same NIC. Or am I wrong on that?

Myles

Subject: Re: OpenVZ venet HW Mac Address question
Posted by TheStig on Tue, 13 Sep 2011 14:36:46 GMT
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you actually don't need to do anything.
if you conclude that your provider had messed up their arp-tables, it's all their fault as I see it.

Subject: Re: OpenVZ venet HW Mac Address question
Posted by mylesw on Tue, 13 Sep 2011 15:19:55 GMT
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Yes, that is how I see it too. When I went to them with this issue, they admitted that they don't really know OpenVZ but said this:

"From what I have been able to find it is related to the venet virtual MAC addresses. The pool it may be making them up from might be conflicting with other client's OpenVZ virtual MACs as well. That is just a guess, I am not an OpenVZ expert."

I wanted to get back to them with some information to help them manage their ARP cache better so it doesn't happen again. However it might have been something I did, so I'm not entirely sure what (or if) anything needs to be done here.

Myles

Subject: Re: OpenVZ venet HW Mac Address question
Posted by TheStig on Tue, 13 Sep 2011 15:32:59 GMT
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i have no idea what this tec could have meant, but again, there are NO additional MAC addresses involved. as soon as you start your container the linux network stack adds the IP to the device and starts out sending a broadcast to tell yout network that now uses the IP assigned by you.

the only thing _conflicting_ here could be IPs.
now it could be a faulty arp-table (after all the problem disappeared after a flush), or an entirely different problem, in which case it probably was coincidence that it startet working again after flushing the arp-table