
Subject: Re: Using multicast in virtual servers
Posted by [Peter Hinse](#) on Wed, 26 Sep 2007 07:28:04 GMT
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Kirill Korotaev wrote:

> Peter,
>
> Is the same setup working without openvz?
> Have you used multicast before? Multicast is a bit complex to set up,
> requires support from routers/switches etc., so this might well be not openvz-related.
> But we setting up this test case right now to check ourselves.

We use several JBoss clusters with multicast in our datacenters.
Multicast itself works between the physical hosts:

```
ssmpping joined (S,G) = (192.168.198.54,232.43.211.234)
```

```
pinging S from 192.168.198.53
```

```
unicast from 192.168.198.54, seq=1 dist=0 time=1.513 ms  
multicast from 192.168.198.54, seq=1 dist=0 time=1.528 ms  
unicast from 192.168.198.54, seq=2 dist=0 time=0.107 ms  
multicast from 192.168.198.54, seq=2 dist=0 time=0.115 ms  
unicast from 192.168.198.54, seq=3 dist=0 time=0.097 ms  
multicast from 192.168.198.54, seq=3 dist=0 time=0.104 ms  
unicast from 192.168.198.54, seq=4 dist=0 time=0.113 ms  
multicast from 192.168.198.54, seq=4 dist=0 time=0.123 ms  
unicast from 192.168.198.54, seq=5 dist=0 time=0.102 ms  
multicast from 192.168.198.54, seq=5 dist=0 time=0.113 ms  
unicast from 192.168.198.54, seq=6 dist=0 time=0.119 ms  
multicast from 192.168.198.54, seq=6 dist=0 time=0.130 ms
```

```
--- 192.168.198.54 statistics ---
```

```
6 packets transmitted, time 5276 ms
```

```
unicast:
```

```
6 packets received, 0% packet loss  
rtt min/avg/max/std-dev = 0.097/0.341/1.513/0.524 ms
```

```
multicast:
```

```
6 packets received, 0% packet loss since first mc packet (seq 1) recvd  
rtt min/avg/max/std-dev = 0.104/0.352/1.528/0.526 ms
```

If I try the ssmpping/ssmpping between two virtual instances on two different hosts (or from one virtual instance to a physical host an vice versa):

```
pinging S from 192.168.198.142
```

```
unicast from 192.168.198.132, seq=1 dist=1 time=2627.063 ms  
unicast from 192.168.198.132, seq=2 dist=1 time=1626.828 ms  
unicast from 192.168.198.132, seq=3 dist=1 time=626.718 ms  
unicast from 192.168.198.132, seq=4 dist=1 time=0.100 ms
```

unicast from 192.168.198.132, seq=5 dist=1 time=0.101 ms
unicast from 192.168.198.132, seq=6 dist=1 time=0.150 ms

--- 192.168.198.132 statistics ---

6 packets transmitted, time 5372 ms

unicast:

6 packets received, 0% packet loss

rtt min/avg/max/std-dev = 0.100/813.493/2627.063/997.511 ms

multicast:

0 packets received, 100% packet loss

> Can you please also provide a bit more information about your configuration
> like whether you use bridge for veth-eth0 traffic bridging or routed networking,
> any configuration options (including sysctl) you used/changed etc.?

sysctl settings for the virtual interface on one of the host systems:

```
net.ipv4.conf.veth1981320.promote_secondaries = 0
net.ipv4.conf.veth1981320.force_igmp_version = 0
net.ipv4.conf.veth1981320.disable_policy = 0
net.ipv4.conf.veth1981320.disable_xfrm = 0
net.ipv4.conf.veth1981320.arp_accept = 0
net.ipv4.conf.veth1981320.arp_ignore = 0
net.ipv4.conf.veth1981320.arp_announce = 0
net.ipv4.conf.veth1981320.arp_filter = 0
net.ipv4.conf.veth1981320.tag = 0
net.ipv4.conf.veth1981320.log_martians = 0
net.ipv4.conf.veth1981320.bootp_relay = 0
net.ipv4.conf.veth1981320.medium_id = 0
net.ipv4.conf.veth1981320.proxy_arp = 1
net.ipv4.conf.veth1981320.accept_source_route = 1
net.ipv4.conf.veth1981320.send_redirects = 1
net.ipv4.conf.veth1981320.rp_filter = 0
net.ipv4.conf.veth1981320.shared_media = 1
net.ipv4.conf.veth1981320.secure_redirects = 1
net.ipv4.conf.veth1981320.accept_redirects = 1
net.ipv4.conf.veth1981320.mc_forwarding = 0
net.ipv4.conf.veth1981320.forwarding = 1
```

Network config on the VPS:

```
eth0    Link encap:Ethernet HWaddr 00:0C:29:0A:3D:C6
        inet addr:192.168.198.132 Bcast:192.168.198.255
Mask:255.255.255.0
        inet6 addr: fe80::20c:29ff:fe0a:3dc6/64 Scope:Link
        UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
```

RX packets:2855871 errors:0 dropped:0 overruns:0 frame:0
TX packets:5495903 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:0
RX bytes:1453942778 (1.3 GiB) TX bytes:3721100335 (3.4 GiB)

Kernel IP routing table

Destination	Gateway	Genmask	Flags	Metric	Ref	Use
192.168.198.0	0.0.0.0	255.255.255.0	U	0	0	0 eth0
169.254.0.0	0.0.0.0	255.255.0.0	U	0	0	0 eth0
224.0.0.0	0.0.0.0	240.0.0.0	U	0	0	0 eth0

Any more information you need?

Regards,

Peter
