Subject: Network Performance
Posted by tbenoit on Sat, 12 Nov 2005 05:30:31 GMT
View Forum Message <> Reply to Message

I've just started playing with OpenVZ in a network heavy environment.

The server and OpenVPS OS: CentOS v4

Our sole use of OpenVZ is to provide a way to more easily "failover" services from one physical server to another. 99%+ of the time each physical server will only be running one VPS. The only time a physical server will be running 2 VPSes is if there is an issue with 1 physical server such that it won't be fixed in a short period of time.

I did obtain a price quote for Virtuozzo to do just this, but the cost unfortunately drastically outweighed our only reason for using it (to provide a manual cluster-style config).

Unfortunately, we don't have a way to heavily test the true performance of OpenVZ in this situation without placing real load on the server.

Does anyone know of any network performance issues with using OpenVZ?

The application hosted relies on low-latency, with potentially 3000 (give or take a few) simultaneous connections.

Being that each physical server will only host a max of 2 VPSes (and only if one physical server is basically dead), I has OpenVZ create a config file as such:

vzsplit -n 2 -f filename

Here are the config parameters that (I believe) deal with networking:

TCPSNDBUF="12201847:28585847"
TCPRCVBUF="12201847:28585847"
OTHERSOCKBUF="6100923:22484923"

I'd appreciate any thoughts about network performance under OpenVZ and any comments on the settings I posted (or forgot to post) that will help ensure network performance.

Subject: Re: Network Performance
Posted by dev on Sun, 13 Nov 2005 21:55:38 GMT
View Forum Message <> Reply to Message

tbenoit,
if both VPSs are trusted, then I would recommend to increase TCP/other buffer limits. Doing so

you make your VPSs behave more and more like a usual Linux system. So it's performance is close to standalone Linux server.
We usually test network performance to be sure that virtualization overhead is negligable.

Subject: Re: Network Performance
Posted by tbenoit on Sun, 13 Nov 2005 22:56:16 GMT
View Forum Message <> Reply to Message

dev wrote on Sun, 13 November 2005 15:55tbenoit,
if both VPSs are trusted, then I would recommend to increase TCP/other buffer limits. Doing so you make your VPSs behave more and more like a usual Linux system. So it's performance is close to standalone Linux server.
We usually test network performance to be sure that virtualization overhead is negligable.

Thanks for the reply.

Yes, both VPSs are trusted. In fact, most of the time only a single VPS will be running on a host node at any given time. The only time a host node will have 2 VPSs is if a primary host node dies and we bring up its VPS on its backup host name until its primary is fixed.

What would you recommend the settings be for the highest network performance of the VPSs (100mbps switch port connected)? I'm not worries about CPU/RAM usage. A "full" server today only eats up to 25% CPU and 25% RAM. It's mainly a network resource hog

---

Subject: Re: Network Performance
Posted by dim on Mon, 14 Nov 2005 10:46:38 GMT
View Forum Message <> Reply to Message

These parameters can be changed without VPS restart, so, I recommend to set params up to mentioned values x 2, and decrease them only when two VPSs will be run on the node.

About network performance. All our kernels are tested and shows very close to native network performance even on high number of VPSs. For example, on 400 VPSs latency of http replies of static or simple dynamic pages through 100Mb Ethernet less than 0.1 sec.
You can easily measure network performance yourself by means http_load tool.

Subject: Re: Network Performance
Posted by tbenoit on Mon, 14 Nov 2005 13:50:50 GMT
View Forum Message <> Reply to Message

I have doubled the 3 variables you recommended (noting their original settings for when a failover situation occurs).

Too bad this isn't a web server, otherwise I'd run the http_load utility you linked.

Many thanks for your replies. I do appreciate the assistance.
