

Network is very slow ...



SilkBC 15 posts since

May 9, 2006 I have just recently installed an Ubuntu host running VMware Server v1.0.3. The host has 5GB of RAM and two Xeon 2.40GHz CPUs.

There are only two VMs on the host, both of them a result of P2V of the physical machines they were on. One VM is an SBS2003, and also does their backups (Veritas). The other server is Windows 2003 server and does file sharing and backup Domain Controller duties.

The users have been complaining of the network being "unuseable", with particular regards to retrieving Outlook data and opening files from the network: it used to be quite fast and instantaneous when the VMs were on physical machines, but now take quite a bit longer (e.g., search for a contact in Outlook that used to take 2-3 seconds now takes 12-15 seconds, maybe more)

I have another thread open that is dealing with sustained high load I am seeing on the host (2.50+), but I am not sure if this is related.

I did some file transfers tests of a 20MB file back and forth from my Linux laptop to each of the VMs.

One of the VMs consistently transfers at about 3MB/s (yes, MegaBYTE), which translates to about 100Mbits/sec.

The other VM consistently transfers at about 5MB/s (or about 40Mbit/sec))

The host has a Gbit NIC and is connected to a Gbit port. The switch indicates it is connected at 1000FD

I have VMware-tools installed, and the NIC driver on the guest says it is using the "vmxnet" driver. I have not yet tried using the "e1000" driver, but I am almost certain it won't make a difference (will try it anyway, just to say that I did)

As mentioned earlier the high load issues I made reference to may be separate from the networking one, but there is definitely something wrong here.

Any suggestions are greatly appreciated, and of course, please let me know if you need any further information from me.

-Alan M. Tags: ubuntu, network, slow, vmware_server



fedora_joat 1 posts since

Oct 24, 2007 1. **Re: Network is very slow** Oct 24, 2007 1:25 PM

Check out these Posts ...

<http://communities.vmware.com/message/429101#429101>

This Site gives a better description and talks about the previous link:

http://www.rhymingpanda.com/weblog/2007/03/13/20_22_12/index.html

Where I work we converted a machine using P2V - the end result is it was fubared when it came to network transactions (it sat on a linux fedora host)

Network is very slow ...

Signs of this were this: if you started a network transaction sending from the GUEST, to another server, the (windows) GUEST would lock up every couple seconds, this locking up would affect other guests hosted on the same (linux) host, and even the host itself in some cases. The end result for us was scrapping this server, and rebuilding it, that fixed the locking up issues.

(we still had to install a nic driver, and disable tcp offloading to correct the other network issues)

This locking up behavior wasn't apparent when receiving a file transfer, only when sending, both operations were slow.

Sending a file from the Guest to the Host in this configuration was also TERRIBLY slow... (10kb/s)

The problem caused the Host, and other guests to exhibit similar behavior, it seemed to mess with the tcp/ip engine on the linux host.

The problem get's worse the more the network is utilized on the guests.

Shut down the guest operating systems, and the vmware services, install a new driver if possible (as I mention below) disable tcp offloading. Set the tcp segmentation offload to off:

(command line:)

```
$ sudo ethtool -k eth0
```

```
rx-checksumming: off
```

```
tx-checksumming: off
```

```
scatter-gather: off
```

```
tcp segmentation offload: off
```

```
$ sudo ethtool -K eth0 tso off
```

Then restart the host, Test file transfer to and FROM the host, with no guests started, if this is up to speed or better you've fixed your problem.

Start the guests up, test transfers to and from the guests, are they still transferring well? -if not you may need to rebuild these servers.

If the guests still exhibit poor behavior move them to a Windows Host environment with a single core processor - do they work now?

If yes the vm is fubared.

Why does the vm work in the windows environment - I don't completely understand it, but how windows accesses the tcp/ip engine is different than how linux does, so the problem doesn't happen on the windows host - although on the windows host you will still see excessive resource usage but the network transfer won't be as slow as on a linux host, or 'jittery'.

How to Test for a Network Problem or Corrupt VM:

During these tests start up taskmgr.exe (task manager) on the GUEST and watch the NETWORK tab... (jitter or stopping occasionally of the network transfer indicated you may have a bad VM)

You can also start a resource monitor on the HOST (linux box) and watch it's network usage.

These tests will tell you if you have a corrupt VM (windows guest), if you transfer a file from the guest to another server is it slow, how about from another server to the guest?

If you transfer from the Host, to another server is it slow, how about from another server to the Host?

Network is very slow ...

If you transfer from the Guest to the Host over the network is it slow?

Are you connected through gigabit?

Is there a more specific Linux Driver for your network adapter?

If there is install the specific Driver, if there isn't disable TCP offloading like is talked about in the links above (or try doing both)

Also you may want to try re-installing an updated VMware tools onto the Guests in question, I have found this fixed some performance issues in the guest.

If you have any power saving features enabled on the processors such as step-down or quiet n' coo disable them...

If you are on a gigabit connection try a 100mbit connection - this may resolve your issues, if it does you have a driver issue.

Did you use any-any update to setup / patch your vmware install? This is known to cause this behavior, disabling TCP stack offloading will help this.


The High-load on the servers should go away once you resolve the network issues!

After you resolve the network issues reset the host, and it should iron itself out... and stop using so many resources.



[benjaminkeith](#) 1 posts since

May 8, 2009 2. **Re: Network is very slow** May 8, 2009 6:46 AM

 in response to: [fedora_joat](#)

This works like a charm! Just remember to reboot (restarting network services isn't enough)

For the purposes of forum searches:

slow network very ethtool reboot networking vmware workstation server transmission FTP SFTP SSH transmit
receive transfers crawl delay lag