

# Re: simple networking question

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*Source:*

<http://www.tech-archive.net/Archive/Windows/microsoft.public.windows.server.general/2008-05/msg01071.html>

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- *From:* "JohnB" <jbrigan@xxxxxxxx>
  - *Date:* Wed, 21 May 2008 10:42:55 -0400
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Check, on all PC's and VPC's, that the Windows firewall is disabled. It may be enabled on the VPC's. That would be the cause of not being able to ping by IP address.

"pete0085" <pete0085@xxxxxxxxxxxxxxxxxxxxxxxxxxxx> wrote in message <news:E8CAB5DD-2DC9-4D0F-A34F-D3FE3FE307DD@xxxxxxxxxxxxxxxxxxxx>

Well the problem is I can't even ping by IP address, that's my first concern.

I have two virtual servers. One with the ip aod 10.0.0.1, the other with 10.0.0.10, with no gateway.

I'm not sure why I can't even get them to ping, that's my first problem.

I might try a hub from work, but I've done this before, and remember I had some weird settings for my dns to get them to communicate. Like the dns wasn't the ip address of the server.

"JohnB" wrote:

Are you pinging by host name or IP address?  
I'm guessing you can ping by IP but not host name.

Is DNS setup on the DC?  
If it isn't, what do you think is going to resolve the host name when you ping a host in your internal network?

Again, your problem is, Active Directory is DNS based. You MUST have DNS configured on your private network.

Another option for you – if your PC's have enough RAM – is to have your test environment all virtual. That is; turn off DHCP on your router. Set all computers to static IP... i.e. 192.168.1.x

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Set your 2 servers to static IP. Same subnet. And set your VPC's to be DHCP, that they get from the DC. That will work, but it depends on how much

RAM you have on your PC's. You would be running 1 or 2, most likely 2....

VPC's from each PC. 512mb RAM might be too slow.

"pete0085" <pete0085@xxxxxxxxxxxxxxxxxxxxxxxxxxxx> wrote in message  
news:B4803CE7-F321-42FA-ABC2-73812543B31E@xxxxxxxxxxxxxxxxxxxx

I used your advice and stuck used 10.0.0.1 for the DC and 10.0.0.10 for the second server with a mask of 255.255.255.0. The dns on both is 10.0.0.1 with no gateway. I removed the dhcp from server 1.

Does it matter that I have one virtual machine on a pc and the second virtual pc installed on a laptop? Should I try to run them both on the same machine or doesn't it matter?

They still can't ping each other. The network settings for virtual pc are set to local host. It's not necessary for the the other to join the domain, only to be able to communicate.

The ipconfig /all is showing the correct settings for both.

"Bill Grant" wrote:

There are several major problems with that.

1. You cannot run DHCP on a server if you already have DHCP running on your NAT device. You will need to use static IP addresses for the second network. You can only run a second DHCP server if it is isolated from

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the physical network (such as running all vms in Local Only on the same host. This requires a host with enough memory to host several guests).

2. It is not a good idea to join host machines to a domain when the DC is running on a vm. (Incidentally, vm is just an abbreviation for virtual machine. It does not imply that you are using any particular sort of virtualization). The DC may not be running when the host starts up and the PC will have trouble logging on.

3. You should not really use 198.213.30.x as that is a registered public network. 192.168.30.0/24 is fine, and should be different from your LAN. In case you are not familiar with that format, 192.168.30.0/24 represents a subnet with a 24-bit subnet and is equivalent to 192.168.30.0 netmask 255.255.255.0 (It should not really matter that you are using a public set of IPs if you never connect this network to the internet).

The first thing you need to check in networking is that the machines you are trying to network are actually in the same IP subnet. Do an ipconfig on both vms and check that they are. If you cannot ping from one to another,

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check that the firewalls are not blocking ICMP echo (which is what ping uses).

"pete0085"

<pete0085@xxxxxxxxxxxxxxxxxxxxxxxxxxxx>

wrote in message

[news:AE0659F8-91F1-4ACD-8733-D5EFEF4A2C5B@xxxxxxxxxxxxxxxxxxxx](mailto:news:AE0659F8-91F1-4ACD-8733-D5EFEF4A2C5B@xxxxxxxxxxxxxxxxxxxx)

In the past I was able to somehow get it to work, but I added one of my physical pcs to the domain. That would work as well, they would be connected together.

I'm not using VM, using virtual pc 2007. Not sure how similar they are.

My linksys router is on the 192.168.x.x network. On the DC, I created the network of 198.213.30.1, used the .1 as my dns. Created a dhcp scope on the DC.

On the client pc, set to obtain address automatically and set the dns at the 30.1 address.

I cannot ping from either pc or add it to the domain. Don't understand why,

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I was able to do this before  
running virtual pc.

"Bill Grant" wrote:

It really  
depends on  
what you  
want to do.  
If you set  
the NIC in  
a  
vm  
to  
link to the  
network  
through the  
physical  
NIC in the  
host, it  
looks  
just  
like  
another  
machine on  
the network  
(from a  
networking  
point of  
view).  
So  
you  
effectively  
have four  
machines  
on the  
network,  
two hosts  
and two  
guests.

If the  
servers are  
set to get an  
IP  
automatically  
they should  
get  
their  
network

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config from  
DHCP on  
your  
Linksys and  
be able to  
see each  
other,  
the  
hosts and  
the Internet.

If you want  
to  
experiment  
with Active  
Directory,  
this is not  
the  
way  
to  
do it (with  
virtual or  
hard metal  
machines).  
Active  
Directory  
does  
not  
work  
well with  
the DHCP  
or DNS of a  
simple NAT  
setup as  
above.

If you don't  
need  
Internet  
access you  
can run  
your  
domain on  
the  
same  
network  
using a  
different IP  
subnet.  
(This is  
called a

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logical  
subnet  
which  
shares the  
underlying  
"wire"). If  
your LAN  
is using say  
10.1.1.x  
addresses,  
use  
192.168..x.x  
addresses  
for your  
logical  
subnet. Set  
your DC to  
say  
192.168.31.1/24  
. Run  
dcpromo  
and allow it  
to configure  
DNS for  
you.  
When  
AD  
is installed,  
set the  
second  
server to  
192.168.31.2/24  
using  
192.168.31.1  
for DNS.  
You don't  
need a  
default  
gateway if  
you don't  
need access  
to  
any  
other  
network.  
You now  
have two  
logical  
networks  
running on  
the

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same  
segment.

The  
machines  
on your  
physical  
LAN will  
not be  
aware of  
your  
virtual  
machines  
and vice  
versa. They  
would only  
see each  
other if you  
installed  
a  
router to  
route  
between the  
subnets.

"pete0085"  
<pete0085@xxxxxxxxxxxxxxxxxxxxxxxxxxxx>

wrote in  
message

[news:D933C22D-0D12-44C6-B1A5-F581D92F859E@xxxxxxxxxx](mailto:news:D933C22D-0D12-44C6-B1A5-F581D92F859E@xxxxxxxxxx)

Hopefully  
this  
isn't  
a  
"dumb"  
question.  
I'm  
setting  
up  
a  
lab  
at  
home  
to  
work  
on  
my  
291  
exam.  
I

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am  
running  
server  
2003  
on  
virtual  
pc  
installed  
on  
two  
different  
pcs.  
I  
need  
the  
two  
to  
be  
able  
to  
communicate.

I  
attempted  
to  
use  
my  
liksys  
router  
and  
had  
them  
both  
hooked  
up  
to  
the  
router,  
using  
the  
same  
gateway.  
They  
were  
not  
able  
to  
communicate  
(ping).  
I  
don't

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believe  
its  
necessary  
to  
get  
out  
to  
the  
internet.

Would  
I  
need  
to  
use  
a  
hub  
instead  
and  
plug  
them  
both  
into  
a  
small  
hub?  
Sorry  
if  
this  
is  
too  
easy  
of  
a  
question.  
Neither  
of  
the  
virtual  
pcs  
are  
set  
up  
as  
a  
DC.

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