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Subject: Dns resolution failure..

Posted by [Aaron Stewart](#) on Mon, 12 Jun 2006 23:49:14 GMT

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Hey all,

We're seeing a problem where within one particular VE on a host we can nslookup or "host" a hostname and everything works.

But when we try running yum update or wget (even to www.google.com) we get "Temporary failure in name resolution."

We've dug around on the lists and tried solutions posted there with no luck (w.r.t setting forwarding on the main system, etc).

We're also seeing the following in the logs (not sure if it's a red-herring or not):

```
Jun 12 15:48:19 FOO sysctl: net.ipv4.ip_forward = 0
Jun 12 15:48:19 FOO sysctl: error: unknown error 1 setting key
'net.ipv4.conf.default.rp_filter'
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'net.ipv4.conf.default.accept_source_route'
Jun 12 15:48:19 FOO sysctl: error: unknown error 1 setting key
'kernel.sysrq'
Jun 12 15:48:19 FOO sysctl: error: unknown error 1 setting key
'kernel.core_uses_pid'
```

I should mention that all other VE's running on the host work without a problem.

Any ideas?

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### File Attachments

1) [aaron.vcf](#), downloaded 668 times

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Subject: Re: Dns resolution failure..

Posted by [dev](#) on Tue, 13 Jun 2006 09:36:36 GMT

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You need to check with tcpdump in the host whether your packets go ok from VE to host system.

Does networking work correctly from VE when IP addresses are used?

Kirill

> Hey all,  
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> Any ideas?  
>

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Subject: Re: Dns resolution failure..  
Posted by [Aaron Stewart](#) on Tue, 13 Jun 2006 18:14:05 GMT  
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Hey Kirill,

We've gone down that route with no results.

What's bugging me (and I can't wrap my brain around it) is that we can ping the outside world, wget to IP addresses, and ssh into external hosts. The only thing that seems to be failing is DNS at the application level.. Again, nslookup and host both work without issue.

--Aaron

Kirill Korotaev wrote:

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Subject: Re: Dns resolution failure..

Posted by [rkagan](#) on Wed, 14 Jun 2006 09:16:12 GMT

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On Tue, Jun 13, 2006 at 11:14:05AM -0700, Aaron Stewart wrote:

> What's bugging me (and I can't wrap my brain around it) is that we can ping the outside world,  
> wget to IP addresses, and ssh into external hosts. The only thing that seems to be

> failing is DNS at the application level.. Again, nslookup and host both work without issue.

Check that you have 'dns' among the services for 'hosts' map in /etc/nsswitch.conf, e.g.

```
# grep hosts /etc/nsswitch.conf
hosts: files dns
```

The point is that 'nslookup' and 'host' do DNS lookups (only) while the applications use (through standard libc functions) whatever is configured for NSS (Name Service Switch).

Roman.

---

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Subject: Re: Dns resolution failure..

Posted by [Aaron Stewart](#) on Wed, 14 Jun 2006 09:25:22 GMT

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---

Right. nsswitch is unmodified, and its set up for files dns as you have below.

Still no resolution. I figured it's probably some issue with the system gethostbyname() call, but I can't figure for the life of me what could cause it.

Thanks,  
--Aaron

Roman Kagan wrote:

> On Tue, Jun 13, 2006 at 11:14:05AM -0700, Aaron Stewart wrote:

>

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> configured for NSS (Name Service Switch).

>

> Roman.

>

## File Attachments

1) [aaron.vcf](#), downloaded 684 times

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Subject: Re: Dns resolution failure..

Posted by [dev](#) on Wed, 14 Jun 2006 10:53:17 GMT

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Hello Aaron,

> We've gone down that route with no results.

>

> What's bugging me (and I can't wrap my brain around it) is that we can

> ping the outside world, wget to IP addresses, and ssh into external

> hosts.

from VPS, correct?

> The only thing that seems to be failing is DNS at the

> application level.. Again, nslookup and host both work without issue.

does dig <some domain> works correctly?

does ping <some domain> works?

do tcpdump (both in VPS and host) and check why UDP packets from applications DNS request fail.

Also check that you have no any firewalls in host/VPS.

I feel that there is something simple, but can't say what is wrong yet... :)

Thanks,

Kirill

> --Aaron

>

> Kirill Korotaev wrote:

>

>> You need to check with tcpdump in the host whether your packets go ok

>> from VE to host system.

>> Does networking work correctly from VE when IP addresses are used?

>>

>> Kirill

>>

>>> Hey all,

>>>

>>> We're seeing a problem where within one particular VE on a host we

>>> can nslookup or "host" a hostname and everything works.  
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>>>

---

---

Subject: Re: Dns resolution failure..  
Posted by [kir](#) on Wed, 14 Jun 2006 12:26:07 GMT  
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I suggest to turn on the dump mode and check that /etc/resolv.conf in a  
VE contains the same as on the hardware node. If not, use vzctl set VEID  
--nameserver x.x.x.x --save command.

Next step is to try pinging the nameserver from inside a VE.

Kirill Korotaev wrote:

> Hello Aaron,  
>  
>> We've gone down that route with no results.  
>>  
>> What's bugging me (and I can't wrap my brain around it) is that we  
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> applications DNS request fail.  
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> Also check that you have no any firewalls in host/VPS.  
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> I feel that there is something simple, but can't say what is wrong  
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> Thanks,  
> Kirill  
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>>>> I should mention that all other VE's running on the host work
>>>> without a problem.
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>>>> Any ideas?
>>>>
```

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Subject: Re: Dns resolution failure..  
Posted by [Jonathan](#) on Wed, 14 Jun 2006 17:26:57 GMT  
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Hey everyone:

Thanks for the suggestions below. I tried both of them, but neither helped (we had tried both before). Just to show you, here is the command line test for them:

```
[root@tamarancho ~]# vzctl set 12002 --nameserver 216.218.131.2 --save
File resolv.conf was modified
Saved parameters for VPS 12002
[root@tamarancho ~]# vzctl set 12002 --nameserver 216.218.132.2 --save
File resolv.conf was modified
Saved parameters for VPS 12002
[root@tamarancho ~]# vzctl set 12002 --nameserver 216.218.130.2 --save
File resolv.conf was modified
Saved parameters for VPS 12002
[root@tamarancho ~]# vzctl enter 12002
entered into VPS 12002
bash-3.00# ping google.com
c
bash-3.00# traceroute yahoo.com
traceroute: unknown host yahoo.com
bash-3.00# wget google.com
--10:19:52-- http://google.com/
=> `index.html'
Resolving google.com... failed: Temporary failure in name resolution.
bash-3.00# grep hosts /etc/nsswitch.conf
#hosts:    db files ldap nis dns
hosts:     files dns
```



I'm using he.net's name servers, which should work fine. This doesn't appear to be a "standard error" or we would have fixed it by now. ;-)

Any other suggestions?

Jonathan

On 6/14/06 5:26 AM, "Kir Kolyshkin" <kir@openvz.org> wrote:

> I suggest to turn on the dump mode and check that /etc/resolv.conf in a  
> VE contains the same as on the hardware node. If not, use vzctl set VEID  
> --nameserver x.x.x.x --save command.  
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> Next step is to try pinging the nameserver from inside a VE.

```
# grep hosts /etc/nsswitch.conf
hosts:      files dns
```

---

---

Subject: Re: Dns resolution failure..  
Posted by [Jonathan](#) on Wed, 14 Jun 2006 22:20:12 GMT  
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---

We'd still like to know what's causing this, if anyone has a clue!

We're moving the account over to XEN 3.0 in the meantime, as we just can't find the problem and the customer account has been down several days. ;(

I'm totally bummed. This is weirdness!

Jonathan

On 6/14/06 2:25 AM, "Aaron Stewart" <aaron@firebright.com> wrote:

> Right. nsswitch is unmodified, and its set up for files dns as you have  
> below.  
>  
> Still no resolution. I figured it's probably some issue with the system  
> gethostbyname() call, but I can't figure for the life of me what could  
> cause it.  
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> Thanks,  
> --Aaron  
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> Roman Kagan wrote:  
>> On Tue, Jun 13, 2006 at 11:14:05AM -0700, Aaron Stewart wrote:

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>> applications use (through standard libc functions) whatever is  
>> configured for NSS (Name Service Switch).  
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>> Roman.  
>>  
>  
--

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Subject: Re: Dns resolution failure..  
Posted by [rkagan](#) on Thu, 15 Jun 2006 07:56:32 GMT  
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On Wed, Jun 14, 2006 at 02:25:22AM -0700, Aaron Stewart wrote:  
> Still no resolution. I figured it's probably some issue with the  
> system gethostbyname() call, but I can't figure for the life of me  
> what could cause it.

No, the message you receive is from getaddrinfo(). Do you by any chance  
have IPv6 enabled for this VPS?

Can you please try and run

```
# getent ahostsv4 www.google.com
```

and

```
# getent ahostsv6 www.google.com
```

? Also, should any of the above fail, can you please run it through  
strace -v and post the trace?

Roman.

---

---

Subject: Re: Dns resolution failure..

Posted by [Cliff Wells](#) on Wed, 12 Dec 2007 17:29:27 GMT

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On Wed, 2006-06-14 at 10:26 -0700, Jonathan Lambert wrote:

> Any other suggestions?

I hate to ask the obvious, but are there any failures in /proc/user\_beancounters? I was getting sporadic DNS failures when tcprcvbuf was too low (I could ping, but yum would consistently fail).

Cliff

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