

Re: Long failover time...

Re: Long failover time...

Source:

<http://www.tech-archive.net/Archive/Windows/microsoft.public.windows.server.clustering/2007-08/msg00122.html>

- *From:* "Rodney R. Fournier [MVP]" <rod@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx>
 - *Date:* Mon, 13 Aug 2007 16:04:28 -0500
-

Kenny, I suggest you read Comer's book TCP/IP. Hosts files are not needed for the heartbeat and Russ and I have already stated. If you can state any Microsoft white papers on the subject, I am all ears!

Cheers,

Rodney R. Fournier

MVP – Windows Server – Clustering
<http://www.nw-america.com> – Clustering Website
<http://msmvps.com/clustering> – Blog
<http://www.clusterhelp.com> – Cluster Training
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"Kenny Speer" <kenny.speer@xxxxxxxx> wrote in message
<news:OVhAvse3HHA.5880@xxxxxxxxxxxxxxxxxxxxxxxx>

Well, I've been setting the IPs in the host file for 7 years now and have not run into one issue. Again, you only set the IPs of the private interfaces and, AFAIK, all best practices show the private interfaces as not being routed anyway, so there should be no issue whatsoever.

I think you're arguing on documentation and best practices which don't always consider the optimal solution. They consider the *best* solution for the majority of users based on simplicity and stability.

As for the hosts file. A NIC doesn't use the host file. The routing stack in the host uses it in the following order: lmhosts, hosts, dns and wins. There is no issue with bindings or nic configurations. This is a very simple task that effects nothing except for the IP for the hosts you put in the file. So, the normal lookup for an IP addr is like this:

Node1 -> where is Node2 -> is it cached? nope-> how do I find it? -> go to hosts/lmhosts -> nothing there (they are empty by default) -> use dns/wins -> found it, use IP returned by gethostbyname() ... The only difference now, is it finds the host IP in the hosts file and no network requests are required.

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Again, this does not effect anything except for how an IP address is returned to from the function gethostbyname(), doesn't effect routing, nic config, etc etc. And it only effects those hosts you put in the file, hence you only add the cluster Nodes in the file.

~kenny

"Rodney R. Fournier [MVP]" <rod@xxxxxxxxxxxxxxxxxxxxxxxxxxxx> wrote in message news:uOpezee3HHA.5796@xxxxxxxxxxxxxxxxxxxxxxxxxxxx

Yeah I missed the 90% one. But I will still contain that it (hosts file) does nothing with a properly configured systems and DNS. I think you need to check into bindings, cause I believe your are not setup correctly.

As I stated both nic will use the hosts files and each will need the address of the other one. In your example you hard code the heartbeat? I would love to see your nic configurations, bindings, etc. because you have to be missing a best practice or 3 to have to use this kind of host file! I hope nobody tries this that reads your post!

MSCS is only Highly Available. Parts of any system, Exchange, SQL can be FT – Raid hardware, redundant power supplies, etc. The complete system will only be HA.

Cheers,

Rodney R. Fournier

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"Kenny Speer" <kenny.speer@xxxxxxxx> wrote in message news:OolSpPe3HHA.1204@xxxxxxxxxxxxxxxxxxxxxxxxxxxx

Ah, first it's not 90% of clusters, it's 90% of clusters with long takeover times. Your context is wrong.

Second, in your hosts file, you put a hostname and IP address. Each NIC only has one IP address (in this config, yes it's possible to add more), therefore, the hosts file is used for that network only. For example:

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Public Network: 10.x.x.x
Private Cluster Network: 192.168.x.x

In your hosts file, you add: Node1 192.168.x.1 and Node2
192.168.x.2

Pretty simple. If Node1 wants to communicate with Node2
for any reason,
it goes over the private cluster network. No DNS required.
This will
ensure that your cluster is running regardless of your DNS
status. For
any other network comm, normal DNS lookups are used.

You distinguish between Highly Available and Fault
Tolerant (yadda
yadda) here is a Microsoft page which uses Fault Tolerant
quite often:

<http://technet.microsoft.com/en-us/library/aa997507.aspx>

<http://technet.microsoft.com/en-us/library/aa997234.aspx>

As for where I read it, /etc/hosts and drivers/etc/hosts have
been used
forever to bypass DNS in mission critical scenarios.

"Rodney R. Fournier [MVP]"

<rod@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx> wrote in
message

<news:e9oQs%23d3HHA.4400@xxxxxxxxxxxxxxxxxxxxxxxxxxxx>

Kenny, I am not about to argue that DNS
can be an issue. I am firmly
stating that I have never needed a host file
on a clustered node. Does
not matter who runs DNS, they just need to
ensure it works. DNS is
really easy stuff to get right or wrong. If you
really have had a need
on 90% of clusters for DNS, then they had
DNS issues, plain and simple.
It is not a best practice to create a hosts file
for a clustered node.
Does not matter if DNS is Microsoft or not,
it needs to be configured
correctly.

Next, you mentioned a hosts file for the
private only? Where did you

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read about this? How do you tell a hosts file to only work for one NIC and not the other(s)?

MSCS is not and never will be fault tolerant, it is considered highly available. And Windows 2003 with or without clustering is dependant on DNS, Active Directory has for a long time now.

Cheers,

Rodney R. Fournier

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"Kenny Speer" <kenny.speer@xxxxxxxx>
wrote in message
news:eJwgbid3HHA.5852@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

Not true. If the DNS server is running properly you won't have an issue. A perfectly configured Cluster can have any number of issues due to a misconfigured/non functioning DNS server. To say that 90% of clusters were misconfigured is complete crap. Often, an admin who owns the clusters does not own the DNS servers and often those DNS servers are not Microsoft servers. It is absolutely an option to put the cluster host names ONLY in the hosts file. Scalability is not an issue, how many nodes are

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in your cluster? The majority of clusters are 2–4 nodes, 4 lines isn't very many to add to a host file which should not change.

Also, remember, the hosts file has the private interface addresses ONLY, not the public. This insures that all cluster comm from one node to the other will use the cluster comm interface (i'm not just talking about heartbeat here) without requiring or *depending* on an outside service (DNS).

Anyway, I think your argument doesn't hold any water, since we're talking about making MSCS as fault tolerant as possible but then you make it *depend* on DNS for proper operation (not access from clients, but even then, we've used IP addresses for 30 years when DNS goes down).

~kenny

"Rodney R. Fournier
[MVP]"

<rod@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx>

wrote in
message

news:eDsCWQd3HHA.4436@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

Than 90%
of clusters
were
configured
wrong to
begin with
:) Honestly,

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if DNS is
running
properly
you won't
ever need a
hosts file.
Host
files don't
scale very
well or
allow for
easy
changes!

Cheers,

Rodney R.
Fournier

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"Kenny
Speer"
<kenny.speer@xxxxxxxx>
wrote in
message
<news:OvjOjNd3HHA.1208@xxxxxxxxxxxxxxxxxxxxxxxxxxxx>

Really?
Hmmm.
I've
seen
90%

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of
long
failover
times
resolved
by
doing
this.

~kenny

"Rodney
R.
Fournier
[MVP]"
<rod@xx>
wrote
in
message
news:OdC0XMc3HHA.5984@xx

Hosts
file!
No,
DNS
works
nicely
:)

Cheers,

Rodney
R.
Fournier

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"Kenny
Speer"
<kenny.speer@xxxxxxxx>

wrote
in
message

news:uaFNDsH2HHA.5884@xxxxxxxxxxxxxxxxxxxxxxxx

I
thought
it
was
recommended
to
put
all
cluster
names/ips
in
the
hosts
file
located
at:
%WINDIR%\system32\drivers\etc\hosts

By
default,
you
don't
want
your
cluster
communicating
over
the
public
(client

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access)
interface
and
you
don't
want
your
cluster
to
fail
just
because
your
DNS
server
goes
down
or
is
not
accessible.

By
adding
each
node
to
this
file
on
both
nodes,
you
won't
even
do
a
name
lookup
via
DNS
since
Windows
uses
hosts/lmhosts
then
DNS.

~kenny

"LOVEBEINGDBA"

Re: Long failover time...

<LOVEBEINGDBA@xxxxxxxxxxxxxxxxxxxxxx>
wrote
in
message
news:EC8A3B7D-E8D7-4B1E-BF4A-DD

Thanks
and
I
appretiate
your
reply...

Is
it
required
to
create
a
PTR
record
for
the
Cluster
Name
in
the
DNS
Server???
We
already
have
a
cluster
whose
name
is
registered
in
the
DNS
only
for
forward
lookup...

Thanks.
Arun
M

"John

Re: Long failover time...

Fullbright"
wrote:

"The
server
for
143.3.16.172.in-addr.arpa.
could
not
be
contacted
over
adapter
'Public'
to
determine
whether
it
accepts
DNS
registration
updates.
Retrying
at
a
later
time"

Looks
like
problems
contacting
an
authoritative
DNS
server
for
the
reverse
lookup
zone
that
holds
the
PTR
record.

..

"LOVEBEINGDBA"

Re: Long failover time...

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<LOVEBEINGDBA@xxxx>
wrote
in
message
<news:A70ABBFB-6DDA-4>

Environment:
Windows
Server
2003
R2
x64
SP2
MSCS
2
node
failover
cluster

Failover
takes
about
2
minutes.
When
doing
the
failover
the
clustername
take
a
long
time
to
come
back
up.

Clustername
has
been
registered
in
the
DNS
for
forward
look
up
.

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We have another production cluster and that works fine in the same setup.

These are the lines I found that are related to this issue from cluster log:

```
00000840.00000bb4  
WARN  
Network  
Name  
<Cluster  
Name>:  
The  
server  
for  
143.3.16.172.in-add  
could  
not  
be  
contacted  
over  
adapter  
'Public'  
to  
determine  
whether
```

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it
accepts
DNS
registration
updates.
Retrying
at
a
later
time.
00000840.00000bb4
INFO
Network
Name
<Cluster
Name>:
Replaced
DNS
name
<clustername.domain
with
IP
Address
172.16.3.143
over
adapter
'Public'.
00000840.00000b08
INFO
Network
Name:
time
until
next
DNS
reg:
2007/08/06-22:17:3
(1283091225567697
00000840.00000bb4
WARN
Network
Name
<Cluster
Name>:
Failed
to
register
DNS
PTR
record
143.3.16.172.in-add

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for
host
<clustername.domain>
over
adapter
'Public',
status
1460
00000840.00000bb4
INFO
Network
Name
<Cluster
Name>:
Modified
DNS
name
<clustername.domain>
with
IP
Address
172.16.3.143
over
adapter
'Public'.
00000840.00000b08
INFO
Network
Name:
time
until
next
DNS
reg:
2007/08/06-22:17:33
(1283091225567697)

Any
help
will
be
greatly
appretiated.

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