

Re: DHCP Inside / Outside

Source:

<http://www.tech-archive.net/Archive/Win2000/microsoft.public.win2000.networking/2006-04/msg00283.html>

- *From:* "Herb Martin" <news@xxxxxxxxxxxxxxxx>
 - *Date:* Sat, 29 Apr 2006 15:49:34 -0500
-

"Scott Ford" <removethis.scott@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx> wrote in message news:95F06B61-D456-4244-9533-3D678115CC1E@xxxxxxxxxxxxxxxx

```
ISP 1 and ISP 2
|
Hotbrick Load Balancer Router
|
Gateway Server OUTSIDE NIC (192.168....)
|
Gateway Server INSIDE NIC (10.0....)
|
Main Network Switch
|
DHCP server on LAN 10.0....
```

Ok, this jibes with my original expectations of our network. Everything from (and including) the Hotbrick outwards is pretty much irrelevant.

In general, a Windows box (Gateway server) is NOT going to be a "bridge" (propagate broadcasts) and if there is no physical connection that bypasses this server then the interior DHCP will NEVER see those requests.

So, how can the broadcasts be propagated:

- 1) Some physical connection (unlikely from your diagram)
- 2) RRAS DHCP relay agent (you said you turned RRAS off, but perhaps you just mean certain features)
- 3) RRAS BootP forwarder (ditto #2)
- 4) Some weird effect of ISA (that I don't understand and which seems contrary to design -- and you turned that off as well)

Re: DHCP Inside / Outside

5) Some third party software — unlikely but theoretically possible.

6) DHCP is NOT coming from the interior DHCP server but some external DHCP server (with our without your knowledge) is offering those 10.net addresses (Includes the Gateway server, and the Hotbrick as suspects.)

There aren't any other possibilities.

IF you have the authority, put a network monitor on both networks, capture the DHCP requests and responses and figure out precisely how it is happening.

—

Herb Martin, MCSE, MVP
Accelerated MCSE
<http://www.LearnQuick.Com>
[phone number on web site]

--

Scott Ford
Information Services
Starlite Entertainment

"Herb Martin" wrote:

"Scott Ford" <removethis.scott@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx> wrote in message
<news:35BCDC67-A0BE-448C-A09E-BD169F40CC0C@xxxxxxxxxxxxxxxxxxxx>

Server is a Compaq Proliant ML350G with Windows 2000 Server SP 4. It runs Routing and Remote Access, ISA Server, and functions as a backup DNS server. It is the gateway server for our LAN. It has 2 NICs. One named INSIDE and one named OUTSIDE.

The inside NIC is HP NC7760 Gigabit NI Adapter. It is on subnet 10.0.0.x,

Re: DHCP Inside / Outside

subnet mask 255.255.255.0, no gateway is set. DNS Primary is pointed to the router at 192.168.6.1, and secondary is pointed to itself at 10.0.0.5.

Outside NIC is a 3COM Etherlink XL 10/100 with an IP address of 192.168.6.3. Subnet mask of 255.255.255.0 ... Its gateway is the router.

The router is a Hotbrick Load Balancer at 192.168.6.1 subnet mask 255.255.255.0 .. This is the router that I need to use to give DHCP in the 192 range. The DHCP on the 10.0.0.0 subnet is handed out by a member server inside the LANNOT by the server that runs ISA and RRA

You say that the router is the Hotbrick LB, but isn't the Windows Server a router (NAT/ISA) too?

Or are you plugging both NICs into the same segment (same VLAN etc) instead?

If you have multiple DHCP servers on the same BROADCAST segment then they will distribute addresses promiscuously, and the clients will generally accept the first offer.

If the above isn't clear -- then give me a diagram of your net (text is fine).

e.g.: HotBrickLB---Server---others (whatever is right)

--
Herb Martin, MCSE, MVP
Accelerated MCSE
<http://www.LearnQuick.Com>
[phone number on web site]

--
Scott Ford
Information Services
Starlite Entertainment

Re: DHCP Inside / Outside

"Herb Martin" wrote:

"Scott Ford"

<removethis.scott@xxxxxxxxxxxxxxxxxxxxxxxxxxxx>

wrote in

message

news:ABB4A24F-33AF-4AF2-A353-74AEBD96C22E@xxxxxxxxxxxxxxxxxxxx

I took ISA offline too. I had both RRA and ISA Services shut off when i did it last. Still getting IP's though.

Describe your hardware because that (definitely now) makes no sense.

You cannot get broadcasts across a non-RRAS Windows server (you could with DHCP relay or bootp forwardig but even then they should be subnet specific).

Your DHCP server should ONLY had out addresses from a scope that matches it's SPECIFIC NIC IP on that SAME (Specific) NIC.

You haven't created a "Superscope" on DHCP? (That really shouldn't have this effect and would definitely be wrong but it's the closest thing I can think of.)

--

Herb Martin, MCSE, MVP
Accelerated MCSE
<http://www.LearnQuick.Com>
[phone number on web site]

Re: DHCP Inside / Outside

--

Scott Ford
Information Services
Starlite Entertainment

"Herb Martin" wrote:

"Scott
Ford"

<removethis.scott@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx>

wrote in

message

news:2EFA7EA0-86B6-4E3D-85B4-82B058C46C32@xxxxxxxxxx

OK,
Herb,
at
night
I
shut
down
Routing
and
Remote
Access
and
Microsoft
ISA
services
on
the
gateway
server.
Clients
on
the
"inside"
10.0.x.x
network
were
still
able
to
pick
up
a
192.168.6.x
IP
address

Re: DHCP Inside / Outside

from
the
router
through
the
gateway
server.
Any
other
ideas
why
they
could
be
getting
these
addresses.

If RRAS is
not running
it seems to
be an ISA
problem
and posting
on the ISA
list
SHOULD
get you
some truly
expert help.

I would just
be hacking.

--
Herb
Martin,
MCSE,
MVP
Accelerated
MCSE
<http://www.LearnQuick.Com>
[phone
number on
web site]

"Scott
Ford"
<removethis.scott@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx>
wrote in

Re: DHCP Inside / Outside

message

news:2EFA7EA0-86B6-4E3D-85B4-82B058C46C32@xxxxxxxxxx

OK,
Herb,
at
night
I
shut
down
Routing
and
Remote
Access
and
Microsoft
ISA
services
on
the
gateway
server.
Clients
on
the
"inside"
10.0.x.x
network
were
still
able
to
pick
up
a
192.168.6.x
IP
address
from
the
router
through
the
gateway
server.
Any
other
ideas
why
they
could

Re: DHCP Inside / Outside

be
getting
these
addresses.

--
Scott
Ford
Information
Services
Starlite
Entertainment

"Herb
Martin"
wrote:

"Scott
Ford"
<removethis.scott@xx>
wrote
in
message
<news:607D86DA-AB4E-4C5D-A75F-69C894D7F>

Thanks
for
the
reply
Herb.
I
do
not
have
a
DHCP
relay
installed
in
the
ISA
config.
I
do
have
Routing
and
Remote
access
enabled

Re: DHCP Inside / Outside

and
a
VPN
client
can
get
an
IP
address
in
the
10.0.x.x
range.

Relay
Agent
is
an
element
(only
one
of
many)
of
RRAS.

RRAS
and
ISA
are
antagonistic
to
each
other
in
many
ways
and
having
them
both
enabled
MAY
(not
always,
depends
on
the
specific
features)

Re: DHCP Inside / Outside

cause
interference
which
includes
strange
behavior.

Could
this
be
allowing
ISA
to
broadcast
DHCP
requests
back
to
the
external
interface?
I
have
a
friend
who
feels
like
it
could,
so
during
the
night
i
will
try
shutting
down
R&RA
to
see
if
an
internal
client
can
still
get
an

Re: DHCP Inside / Outside

external
address.
I
cant
find
anything
else
on
the
ISA
server
that
could
be
broadcasting
bridged
DHCP
requests.

I
personally
have
a
love/hate
relationship
with
ISA,
otherwise
I
would
probably
be
an
ISA
MVP
too.

ISA
is
a
fantastic
product
in
theory,
but
has
shown
too
many
inconsistencies

Re: DHCP Inside / Outside

and
strange
dependencies
to
make
me
comfortable

--

I
do
run
it
on
some
machines
but
have
a
lot
of
trouble
recommending
it
whole
heartedly
and
find
it
problematic
to
troubleshoot
due
to
it's
erractic
and
unpredicable
behavior
at
times.

--

Herb
Martin,
MCSE,
MVP
Accelerated
MCSE
<http://www.LearnQuick.Com>
[phone

Re: DHCP Inside / Outside

number
on
web
site]

--
Scott
Ford
Information
Services
Starlite
Entertainment

"Herb
Martin"
wrote:

"Scott
Ford"
<removethis.scott@xxxxxxxxxxxxxxxxxx>
wrote
in
message
<news:EB7BE3A1-7035-4DA3-93F>

I
have
a
Windows
2K
ISA
server
as
a
gateway.
Its
set
up
standard
with
an
inside
and
an
outside
NIC.
Inside
is

on
10.0.x.x
range.
Outside
NIC
IP
range
is
192.168.1.x.
I
want
to
put
a
wireless
access
point
on
the
outside
range
and
have
my
router
serving
DHCP
to
192.168.1.x
...
I
would
like
this
to
NOT
interfere
with
the
DHCP
server
I
have
on
the
inside
range
that
is
serving
DHCP

to
10.0.x.x
...
I
have
tried
this
a
couple
times,
but
always
find
clients
on
the
inside
still
receive
IP
addresses
inthe
192
range.

That
should
never
happen
in
DHCP
(it
could
be
some
weird
issue
with
ISA
but
I
doubt
it;
you
can
ask
about
that
on
the

ISA
newsgroup.)

A
DHCP
server
should
ONLY
hand
out
IP
addresses
for
the
scope(s)
which
match
it's
NICs
(if
directly
connected
to
the
requesting
clients)
AND
to
the
scopes
which
match
remote
subnets
if
forwarded
by
a
DHCP
relay
or
Bootp
forwarder.

There
is
no
reason
a
basic
DHCP

Re: DHCP Inside / Outside

server
would
ever
hand
out
192.x
scope
addresses
on
it's
10.net
NIC
or
vice
versa.

I
have
tried
blocking
UDP
ports
67
and
68
at
the
ISA
server,
but
it
isnt
stopping
the
problem.
Whats
the
best
solution
for
this?

Make
sure
the
ISA
is
not

Re: DHCP Inside / Outside

acting
as
a
DHCP
relay
or
BootP
forwarder
but
it
should
NOT
be
doing
that
as
a
DHCP
server
cannot
also
be
a
forwarder
(in
the
docs
that
I
have
read,
but
of
course
I
have
never
tried
it
since
it
makes
no
sense.)

Does
ISA
think
that
192.168
machines

Re: DHCP Inside / Outside

are
INTERNAL
or
EXTERNAL?
(As
described
it
sounds
like
they
should
NOT
be
internally
defined.)

--
Herb
Martin,
MCSE,
MVP
Accelerated
MCSE
<http://www.LearnQuick.Com>
[phone
number
on
web
site]

--
Scott
Ford
Information
Services
Starlite
Entertainment

Re: DHCP Inside / Outside