

Re: NAT without DHCP? (w2k3)

Source:

<http://www.tech-archive.net/Archive/Windows/microsoft.public.windows.server.networking/2006-08/msg00452.html>

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 - *Date:* Mon, 14 Aug 2006 00:13:02 -0700
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Yes, I finally figured it out (_really_ confusing): this property page is located in the computer properties dialog and initially I was looking at "nat/rras" dialog

However, it still doesn't work. This is what I have in the dialog:

Static address pool
From: 10.0.0.0
To: 10.255.255.255
Number of addresses:16,277,216
IP address: 10.0.0.0
Mask: 255.0.0.0

What is confusing this time is ip address: 10.0.0.0. Why it is not set to the private address of the NAT machine?

I also enabled NAT tracing – may be this can help? (ipnathlp.log):

```
[1860] 23:53:08: DnsReadCompletionRoutine
[1860] 23:53:08: DnsProcessQueryMessage
[1860] 23:53:08: DnsProcessQueryMessage: Dns_ParseMessage succeeded!!
[1860] 23:53:08: DnsProcessQueryMessage: www.yahoo.com (FALSE)
[1860] 23:53:08: DnsProcessQueryMessage: (0x000025e5) DNS record does not
exist.
[1860] 23:53:08: DnsIsPendingQuery
[1860] 23:53:08: DnsRecordQuery
[1860] 23:53:08: DnsSendQuery
[1860] 23:53:08: DnsSendQuery: sending query 2480 interface 65543 to
xx.xx.xx.xx
[1860] 23:53:08: DnsSendQuery: sending query 2480 interface 65543 to
xx.xx.xx.xx
[528] 23:53:08: DnsWriteCompletionRoutine
[528] 23:53:08: DnsMapResponseToQuery
[528] 23:53:08: DnsWriteCompletionRoutine: sent query 2480 interface 65543
[1860] 23:53:08: DnsWriteCompletionRoutine
[1860] 23:53:08: DnsMapResponseToQuery
[1860] 23:53:08: DnsWriteCompletionRoutine: sent query 2480 interface 65543
[1860] 23:53:08: DnsReadCompletionRoutine
```

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[1860] 23:53:08: DnsProcessResponseMessage
[1860] 23:53:08: DnsMapResponseToQuery
[1860] 23:53:08: DnsWriteCompletionRoutine
[1860] 23:53:08: DnsMapResponseToQuery
[1860] 23:53:08: DnsWriteCompletionRoutine: removing query 2480 interface
65543
[1860] 23:53:08: DnsDeleteQuery
[1860] 23:53:08: DnsReadCompletionRoutine
[1860] 23:53:08: DnsProcessResponseMessage
[1860] 23:53:08: DnsMapResponseToQuery
[1860] 23:53:11: DnsQueryTimeoutCallbackRoutine
[1860] 23:53:11: DnsLookupInterface
[1860] 23:53:11: DnsMapResponseToQuery
[1860] 23:53:11: DnsQueryTimeoutCallbackRoutine: query 2480 interface 65543
not found

"Bill Grant" wrote:

You said earlier that you enabled DNS from the tab in the NAT properties sheet.. Right alongside that tab on the properties sheet is the address allocation tab. Click that, check the box to allocate IPs and put the IP subnet you want to use in the box (or use the default setting of 192.168.0.0/24) .

Alex Smirnoff wrote:

Bill, I'm still confused. Can you knock me on the forehead :) and tell where is that dialog to configure address pool for the private network? What should I right-click first?

"Bill Grant" wrote:

That is a different address pool. That applies to your public interface and is only used if you have been allocated a number of public IP addresses by your ISP.

(Just to add to the confusion there is another pool of addresses in RRAS which you can allocate to remote access clients. You don't need to do anything with them either in your case).

Alex Smirnoff wrote:

Ok, if I right-click NAT/Basic Firewall node in the tree and then select properties, on address assignment tab I

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see "Automatically assign IP addresses by using DHCP allocator" – not what I need. If I right-click on my public interface, I see "Address pool" tab but it defines "range of public IP addresses assigned to you", according to the documentation. So how that pool of internal IP addresses is configured?

Configuring DNS was really easy – I just enabled name resolution it in the NAT/Basic firewall properties.

"Bill Grant" wrote:

The dhcp-style allocator in NAT is not configured automatically. If you want to use it, you configure a pool of IP addresses for NAT to allocate to the client machines. (You do this from the NAT Properties sheet). If you do not configure any addresses, you need to set up a DHCP server on the LAN or use static config for the hosts. Either setup should work.

NAT is a fairly simple setup. There are really only a few things that must be set for it to work.

1. The public interface must have a default route out to the Internet.
2. The public and private interfaces to be used must be assigned in NAT.
3. The client machines must use the NAT router's private

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interface
as their default gateway.

What are you doing about
DNS? If the client uses the
server's
private NIC IP address for
DNS, NAT will act as a
DNS relay and
forward the DNS requests to
your ISP (or whatever the
server's
public NIC uses).

Alex Smirnoff wrote:

When you
say "But
you do have
to configure
NAT on the
RRAS
server, just
leave the
area for IP
addresses
blank",
what do you
mean? NAT
is enabled
on the
public
interface of
the RRAS
server
already.
What is this
"area for IP
addresses"
– I just dont
see
it.

"Bill Grant"
wrote:

You
do
not
have

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to
use
the
DHCP-style
allocator
in
NAT.
You
can
use
static
IPs
or
you
can
run
DHCP
on
one
of
your
servers.
But
you
do
have
to
configure
NAT
on
the
RRAS
server.
Just
leave
the
area
for
IP
addresses
blank.
As
long
as
you
set
the
RRAS
server's
private
IP

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as
the
default
gateway
on
the
second
machine
(which
you
have
done)
it
should
work
for
any
10.x.x.x
address.

Alex
Smirnoff
wrote:

Setup
scenario:
Windows
Server
2003
R2
x64,
two
network
cards
–
one
public
and
one
private.
I
followed
all
instructions
and
installed
routing
and
remote
access

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services,
configured
one
network
interface
as
public
and
another
as
private
(with
IP
10.0.0.16).
Everything
works
fine
and
server
can
access
internet.

Then
I
started
configuring
another
machine
on
the
internal
network
to
use
first
machine
as
router
and
got
stuck.
I
dont
want
to
use
DHCP
allocator
and
want

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I realized that first server will not do NAT because it doesnt know that it should do it for particular internal IP.

So how I can the main server to do NAT for all internal network without using DHCP?

I would really appreciate any help/advice.

Alex

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