

# Re: DHCP server not responding to clients on other subnets

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*Source:*

<http://www.tech-archive.net/Archive/Windows/microsoft.public.windows.server.networking/2007-02/msg00069.html>

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  - *Date:* Tue, 6 Feb 2007 08:26:01 -0800
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The DHCP server is authorized by the DC (it does distribute addresses to clients sitting on its subnet).

When I do my tests I shutdown the other DHCP server (or I disconnect it from the network, which, I guess, it is the same thing).

I apologize for the length of the post, I copied here below the Ethereal output concerning the two frames DHCP inform and DHCP ack between a client workstation and the server. It looks like the router (Cisco, IP address 157.150.88.1) is actually propagating the DHCP request and the DHCP server (IP address 157.150.91.56) seems getting it and replying, but then on the client workstation I get the message "DHCP server unreachable".

No. Time Source Destination Protocol Info  
46 19.240503 157.150.88.1 157.150.91.56 DHCP  
DHCP Inform – Transaction ID 0xc46233ab

Frame 46 (342 bytes on wire, 342 bytes captured)  
Ethernet II, Src: Cisco\_c1:a0:c0 (00:14:1b:c1:a0:c0), Dst: Intel\_9f:28:de (00:04:23:9f:28:de)  
Destination: Intel\_9f:28:de (00:04:23:9f:28:de)  
Address: Intel\_9f:28:de (00:04:23:9f:28:de)  
.... 0 .... = Multicast: This is a UNICAST frame  
.... 0. .... = Locally Administrated Address: This is a FACTORY DEFAULT address  
Source: Cisco\_c1:a0:c0 (00:14:1b:c1:a0:c0)  
Address: Cisco\_c1:a0:c0 (00:14:1b:c1:a0:c0)  
.... 0 .... = Multicast: This is a UNICAST frame  
.... 0. .... = Locally Administrated Address: This is a FACTORY DEFAULT address  
Type: IP (0x0800)  
Internet Protocol, Src: 157.150.88.1 (157.150.88.1), Dst: 157.150.91.56 (157.150.91.56)  
User Datagram Protocol, Src Port: bootps (67), Dst Port: bootps (67)

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Bootstrap Protocol  
Message type: Boot Request (1)  
Hardware type: Ethernet  
Hardware address length: 6  
Hops: 1  
Transaction ID: 0xc46233ab  
Seconds elapsed: 0  
Bootp flags: 0x0000 (Unicast)  
0... .... = Broadcast flag: Unicast  
.000 0000 0000 0000 = Reserved flags: 0x0000  
Client IP address: 10.18.146.213 (10.18.146.213)  
Your (client) IP address: 0.0.0.0 (0.0.0.0)  
Next server IP address: 0.0.0.0 (0.0.0.0)  
Relay agent IP address: 157.150.88.1 (157.150.88.1)  
Client MAC address: Intel\_4d:8e:bb (00:11:11:4d:8e:bb)  
Server host name not given  
Boot file name not given  
Magic cookie: (OK)  
Option 53: DHCP Message Type = DHCP Inform  
Option 61: Client identifier  
Hardware type: Ethernet  
Client MAC address: Intel\_4d:8e:bb (00:11:11:4d:8e:bb)  
Option 12: Host Name = "UNC2447"  
Option 60: Vendor class identifier = "MSFT 5.0"  
Option 55: Parameter Request List  
1 = Subnet Mask  
15 = Domain Name  
3 = Router  
6 = Domain Name Server  
44 = NetBIOS over TCP/IP Name Server  
46 = NetBIOS over TCP/IP Node Type  
47 = NetBIOS over TCP/IP Scope  
31 = Perform Router Discover  
33 = Static Route  
249 = Classless static routes  
43 = Vendor-Specific Information  
252 = Proxy autodiscovery  
End Option  
Padding

No. Time Source Destination Protocol Info  
47 19.240653 157.150.91.56 10.18.146.213 DHCP  
DHCP ACK - Transaction ID 0xc46233ab

Frame 47 (348 bytes on wire, 348 bytes captured)  
Ethernet II, Src: Intel\_9f:28:de (00:04:23:9f:28:de), Dst: Cisco\_c1:a0:c0  
(00:14:1b:c1:a0:c0)  
Destination: Cisco\_c1:a0:c0 (00:14:1b:c1:a0:c0)  
Address: Cisco\_c1:a0:c0 (00:14:1b:c1:a0:c0)  
.... ..0 .... = Multicast: This is a UNICAST frame  
.... ..0. .... = Locally Administrated Address: This

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is a FACTORY DEFAULT address  
Source: Intel\_9f:28:de (00:04:23:9f:28:de)  
Address: Intel\_9f:28:de (00:04:23:9f:28:de)  
....0 = Multicast: This is a UNICAST frame  
....0. = Locally Administrated Address: This  
is a FACTORY DEFAULT address  
Type: IP (0x0800)  
Internet Protocol, Src: 157.150.91.56 (157.150.91.56), Dst: 10.18.146.213  
(10.18.146.213)  
User Datagram Protocol, Src Port: bootps (67), Dst Port: bootpc (68)  
Bootstrap Protocol  
Message type: Boot Reply (2)  
Hardware type: Ethernet  
Hardware address length: 6  
Hops: 0  
Transaction ID: 0xc46233ab  
Seconds elapsed: 0  
Bootp flags: 0x0000 (Unicast)  
0... = Broadcast flag: Unicast  
.000 0000 0000 0000 = Reserved flags: 0x0000  
Client IP address: 10.18.146.213 (10.18.146.213)  
Your (client) IP address: 0.0.0.0 (0.0.0.0)  
Next server IP address: 0.0.0.0 (0.0.0.0)  
Relay agent IP address: 157.150.88.1 (157.150.88.1)  
Client MAC address: Intel\_4d:8e:bb (00:11:11:4d:8e:bb)  
Server host name not given  
Boot file name not given  
Magic cookie: (OK)  
Option 53: DHCP Message Type = DHCP ACK  
Option 54: Server Identifier = 157.150.91.56  
Option 1: Subnet Mask = 255.255.254.0  
Option 15: Domain Name = "unctad.unctad.org"  
Option 3: Router = 10.18.146.1  
Option 6: Domain Name Server  
IP Address: 157.150.64.76  
IP Address: 192.168.200.3  
IP Address: 192.168.201.3  
Option 44: NetBIOS over TCP/IP Name Server  
IP Address: 157.150.64.77  
IP Address: 157.150.64.203  
End Option

"Phillip Windell" wrote:

You have to get rid of the old DHCP Server completely,...it cannot even be powered up n the LAN,...or the Client will try to connect to it. Clients always try the last DHCP they contacted and will always ask for the same IP Specs they

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had "last time".

When you create Scopes, always use the entire full range of the subnet,...then reduce it down to the addresses you wish to grant by using the Exclusions.

[Example]

Range: 10.18.146.1 ---- 10.18.146.254

Exclusion #1 10.18.146.1 -- 10.18.146.99

Exclusion #2 10.18.146.201 -- 10.18.146.254

Options <whatever>

This will grant address to clients in the range of 10.18.146.100 -- 10.18.146.200. If you run low on addresses and need more, then just shorten the Exclusions.

Windows DHCP must be authorized by the DC before it can give out addresses.

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Phillip Windell [MCP, MVP, CCNA]

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The views expressed (as annoying as they are, and as stupid as they sound), are my own and not those of my employer, or Microsoft, or anyone else associated with me, including my cats.

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Understanding the ISA 2004 Access Rule Processing

[http://www.isaserver.org/articles/ISA2004\\_AccessRules.html](http://www.isaserver.org/articles/ISA2004_AccessRules.html)

Troubleshooting Client Authentication on Access Rules in ISA Server 2004

[http://download.microsoft.com/download/9/1/8/918ed2d3-71d0-40ed-8e6d-fd6eeb6cfa07/ts\\_rules.doc](http://download.microsoft.com/download/9/1/8/918ed2d3-71d0-40ed-8e6d-fd6eeb6cfa07/ts_rules.doc)

Microsoft Internet Security & Acceleration Server: Partners

<http://www.microsoft.com/isaserver/partners/default.asp>

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