

Re: PXE and DHCP

Source:

<http://www.tech-archive.net/Archive/Windows/microsoft.public.windows.server.networking/2004-05/1126.html>

From: Phillip Windell (_at_)

Date: 05/27/04

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Excellent! I'll have to keep a copy of those links.

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Phillip Windell [MCP, MVP, CCNA]

www.wandtv.com

"Jetro" <no.spam@internet> wrote in message

news:ObMIPF%23QEHA.556@tk2msftngpl3.phx.gbl...

> <http://support.microsoft.com/default.aspx?scid=kb;EN-US;244036>

> Description of PXE Interaction Among PXE Client, DHCP, and RIS Server

>

> <http://support.microsoft.com/?kbid=259670>

> Using DHCP Options 60, 66, 67 to Direct PXE Clients to RIS Servers May Fail

>

> When the machine boots using PXE, the boot ROM gets an IP address using

> DHCP. It's then sending out a modified DHCP Discover packet with its GUID.

> The BINL service on a RIS server listens for these special DHCP Discover

> packets and responds with a DHCP Offer packet that includes a copy of the

> client's GUID, but no IP address. The PXE client replies with a DHCP

Request

> packet sent directly to the BINL service on UDP port 4011. The BINL

service

> responds with a DHCP Ack packet that contains the name and path of the boot

> image, startrom.com.

> In a routed network, an IP helper field in the router contains the IP

> address of a DHCP server. When the router receives a DHCP Discover packet,

> it forwards the packet to the DHCP server and then acts as an intermediary

> between the server and the DHCP client. If the RIS server is also a DHCP

> server, this works fine. The server returns a single DHCP Offer packet

with

> the client's GUID in the payload and the client handles the rest. If the

> DHCP server and RIS server are on different machines in the same broadcast

> segment as the PXE client, the process also proceeds without problems.

> If, however, the RIS server and the DHCP server are on different machines

> that don't reside in the same broadcast segment as the PXE client, both

> servers must be included in the IP helper field at the router, and you

must

> verify that both servers get the DHCP Discover packet from the router.

> If you have more than one RIS server, don't install RIS on a DHCP server.

A

> PXE client that gets a standard DHCP Offer that contains its GUID won't

> listen for responses from any other RIS servers.

> Because BINL is actually a modified DHCP service, it must be authorized in

> AD.

microsoft.public.windows.server.networking: Re: PXE and DHCP

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