Re: Losing Static IP Address / Changing to Automatic (expects DHCP)

Source:
http://www.tech−archive.net/Archive/WinXP/microsoft.public.windowsxp.network_web/2004−06/2368.html

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From: Chuck (*none_at_example.net*)
Date: 06/17/04

Date: 17 Jun 2004 12:22:13 −0500

On Thu, 17 Jun 2004 07:19:33 −0700, "Fred Marshall"
<fmarshallx@remove_the_x.acm.org> wrote:

<SNIP>

>Chuck,
>
>I read the article and I looked at an XP Home system. I didn't find an
>Alternate entry or section although I did find a way to add an IP address
>using Advanced. It's not clear at all what using that latter approach will
>do.
>
>So, I'm curious about the Alternate that you mentioned.
>
>I also read 308007 and it appears that the configuration I'm working with is
>unconventional:
>
>Peer to peer network with no router or ICS−configured computer or other DHCP
>server.
>IP addresses are static in 192.168.1.x range with 255.255.255.0 subnet mask.
>There is no gateway entered in any of the computers.
>
>Two of the XP systems have switched from static IP addressing to APIPA and
>this is accompanied by the setting "Use the following IP address:" being
>changed to "Obtain an IP address automatically".
>
>Of course, the APIPA addresses are incompatible with the static addresses
>that are set up in the other machines on the network − so connectivity is
>lost when this happens.
>
>I have a notion, perhaps one that is unjustified, that using static IP
>addresses is better − particularly when setting up a network and assuring
>that things are working. It avoids the time it takes for a network to
>figure out who is who as would be the case with DHCP or APIPA. Now, I must
>admit that I almost never work on peer−to−peer networks such as this one.

>However, the occurrence concerns me because:
>
>For internal security, one might turn off DHCP on a router and use static
>addresses.
>So, what happens with XP clients if:
>Somebody comes in with a laptop that has the same IP address set up as is on
>one of the other computers (call it #2).
>#2 is shut off when the laptop is connected.
>Then, #2 is subsequently turned on.
>There is, as above, No DHCP.
>There is an IP address conflict.
>
>Does #2 lose the setting "Use the following IP address" and automatically
>switch to "Obtain an IP address automatically" and, therefore, get an APIPA
>address − never to return without human intervention?

Fred,

You're right − your network is somewhat unconventional. And maybe a little insecure too.

Using static ip addresses is a good idea on a small LAN, where you can assign addresses, and control connections, rigorously. Dynamically assigned networks are a good idea for larger LANs, or for LANs where connections come and go, and you don't control them.

Very few LANs of any size aren't connected to the internet these days. Without a connection of some type to another subnet (thru a router), there is no need for a default gateway (or any gateway). So all you need is a unique ip address, with the appropriate subnet mask.

Typically, business LANs don't use XP Home either.

Actually, if you don't have outside connection, there is really no need to use ip. Except for the laptops. But that's another matter.

What are these laptop owners doing when they connect to the LAN? How do they magically have the right (fixed) ip address to connect to your resources, even if they don't cause an address conflict? What resources do you not value, and leave open to their discretion?

If you are accepting laptops, that you don't control, being connected to your network without your supervision, you have more problems than duplicate ip addresses.

Go to the nearest computer store, and get a $50 NAT router with DHCP. That would be unconventional too, but it would take care of your address problem.

But IMHO, you should review your security policy.

Cheers,
Chuck
Paranoia comes from experience − and is not necessarily a bad thing.