The following issue arose upon upgrading my home network to a WNDR4500. Prior to that, I had a Linksys RVS4000 with a two different Linksys wireless A/Ps that worked perfectly. I upgraded to improve security, range and performance.

I have now have had two WNDR4500 units …

Original purchase: Serial Number: 2S531C7C0256B

RMA from Netgear: Serial Number: 2S54227R01964

Both units had the current firmware (V1.0.1.6_1.0.24) with 18 devices on it. Both have acted exactly the same way and the following issue and attempt at resolving it has been tried on both units:

When I initially added the wired devices, I seemed to be getting IP conflicts, so I assigned all wired devices static IPs. That didn't totally solve the conflict problem for the wireless devices, so I also **reserved** IPs for the wired and wireless devices in the LAN setup. All wired devices are now working fine.

The wireless devices are still having a problem getting IPs assigned to them. The wireless devices consist of:

1. Dell desktop with 2.4 GHz wireless NIC … works fine, but has a static IP assigned.

2. SONOS music system on 2.4 GHz/channel 11; five players and two controllers.
     a. One SONOS unit is wired with a static IP and the wired unit requests IPs for all other SONOS wireless devices.
     b. Until I reserved an IP for the wired unit, the wireless **players** could not obtain an IP from the WNDR4500. The wireless **controllers** still couldn't get an IP assignment from the router.
     c. So, I reserved IPs for the wireless **controllers** and now they can get IPs assigned.

3. Ipad 2 … DHCP. This device seems to connect fine to either the 2.4 GHz or 5 GHz wireless networks, but the 5 GHz network drops it often. Sometimes, as described in the "Cold Reboot" section below, it won't connect and the router needs to be rebooted.

4. Iphone 4 (Model MC608LL) and two Itouches (All have current OS/firmware) … DHCP. (I did reserve IPs for them in the router's GUI, just like all the other devices to avoid conflicts). However, generally can't get them to connect to the router if they have been out of range or asleep. The wheel to the left of the network listing on the device just keeps spinning. It can see the network and I don't get "Unable to join network" … the wheel just spins and spins.

   The wheel spins so long with no IP assigned from the router that the Iphone/Itouch auto-assigns itself an IP (in the Apple range, not the Netgear range, which is a pain).

The only way to get the WNDR4500 to assign an IP to the Iphone/Itouch is by these steps in the Netgear GUI:

- **Advanced/Setup/Wireless:** Click "Apply" even though no setting have changed.
- Reboot the router.
- On the Iphone/Itouch: "Forget this network" (because it has auto-assigned an IP) and then re-enter the password for the network.

However, this does not always get the Itouch to connect …(why it is different than the Iphone, I cannot say.)

However, this connection will only last until the device goes out of range or overnight.

- For instance, my Iphone was connected when I went to bed last night, but when I checked it in the morning, it wasn't connected and wouldn't connect.
- When the Iphone goes out of range and then back in range, it usually won't connect. The wheel spins and sometimes the checkmark appears next to the wireless network and sometimes not. Occasionally, the checkmark will appear, then disappear four or five times over five minutes and then it will connect solidly.

Wireless Settings
The router's 2.4 GHz wireless settings are:

- Channel: 1 (Have tried Auto, as well).
- Mode: Up to 54 Mbps
- Security: WPA2-PSK (AES)

I know the wireless is working fine because the one 2.4 GHz wireless Dell desktop has no problems … but it has a **static** IP.

I also know the wireless is working because I can get the Iphone/Itouch to work after the procedure I mentioned and when they are connected, it is fine.

BTW … with both the wireless and guest networks operating, the Iphone/Itouch has a difficult time deciding which one to connect to and typically defaults to the wireless network (same signal strength). So, I have tried shutting the guest network off and just using the wireless network. This means that the Iphone.Itouch doesn't need to decide which one to connect to, but it does not change the inability to connect and get an IP assigned on the wireless network.

Changing Wireless Channel
I have tried changing the 2.4 GHz channel to Channel 1 (the only other wireless device in range is the SONOS system, which is on Channel 11). This did not change the inability for either Itouch to connect.

Cold Reboot of Router
I have tried a cold reboot (power cycle, not a reboot from the GUI) with more success. After a cold reboot, both the Iphone and Itouches connected immediately and stay connected while in range.

- However, when I did a cold reboot of the router, my wired SONOS music player would not connect to the router. After trying many reboots of the SONOS player, network switch, etc., I tried a soft reboot of the router from the GUI and it showed back up. So … cold reboot lost it, but a soft reboot restored it???

- When the Iphone or Itouch is cold rebooted after this (remaining in range), it reconnects immediately and stays connected. **However, if it goes out of range and then tries to reconnect when back in range, it takes at least several minutes to connect, and often will not connect.** When it first tries to reconnect, the wheel to the left of the network listing on the device spins, then gets a checkmark, then spins, then gets a checkmark … about five or six times before it finally connects solidly. There are often times (once a day) when the Iphone or Itouch goes out of range and will NOT connect when it comes back in range.
    - Trying "Forget this network" and re-inserting the password does not help.
    - Doing a soft reboot of the router from the GUI did get the Iphone connected.

There is clearly nothing wrong with the 2.4GHz radio or the wireless settings.

The problem seems to be with the DHCP server:

1. With wired devices, it seems not to be able to keep the IP assignment straight unless the IPs are reserved in the router's IP reservation table;
2. With wireless devices it simply won't assign IPs without going through the reboot procedure, either a cold reboot or a soft reboot from the GUI.