

# NETWORKING FOR DUMMIES (Part 1 of 2)

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This is part 1 of a 2 part article on this topic. Now, before anyone feels that I'm out of line for referring to someone as a dummy, I want to make it clear that I was the networking dummy in question, for many years. While I build and repair my own computers, and have written considerable software, I was always very weak on networking. However, lately I've graduated from dummy school, thanks to some good hardware and software, and more experiences with my home network.

And, I thought I'd share my old and new experiences with you, as they've come from a good many years of frustrating activities associated with my home wireless network. This article will not go into the complete aspect of all types of networks, but is limited to home networks, which are what many of you already have, or are possibly contemplating having in the near future.

The usual purpose of a home network is to allow multiple computers to share the internet connection which is being used. Most homes use either the local cable company, which is Comcast here in Boca Raton, or a DSL (digital subscriber line) from the landline phone company (AT&T here in Boca). My Internet Service Provider (ISP) is Comcast.

A secondary purpose can be accessing stored files on other computers on the network, or sharing devices such as printers installed on other computers.

Most home networks use a wireless router. This is a unit which allows multiple devices (usually computers) to be plugged into it, and also provides a wireless signal which broadcasts in all directions, so that computers which have a wireless adapter (either via an internal card, or a USB plug-in wireless adapter) can connect to the Internet

First, here's a commentary of what occurred some years back in my first brush with home networking.

## **MY NETWORKING TASK & TROUBLES BACK IN 2002**

I decided that I wanted a wireless network, as I had 2 computers, and I wanted both to have Internet access. Since it would have been very inconvenient to run an ethernet cable from my main computer's router to the second computer, I opted for a router that also incorporated a wireless capability.

I purchased a Linksys wireless router, since Linksys was one of the biggest names in this product area. I installed the router, and then connected my main computer via an ethernet cable, which uses RJ-45 connectors. These connectors look like the connectors on telephones, but they are larger.

I connected my Adelpia computer modem to my new router, and just assumed that all would work right away. Of course, nothing worked to start off. There was no installation CD disc, but there were many pages of manual instructions on what one had to do to set things up. But the complexity of the instructions was mind boggling. So I called Linksys support - which was in the Philippines. Tech support worked by wrote. They followed various sets of instructions, and most of the support staff really was not that capable.

I also called Adelpia tech support, and finding a "network knowledgeable" someone there was also quite difficult. But after several days of back and forth calls, and speaking to quite a number of different persons, I finally got my main computer (which was hard wired to the router) online and working properly with my Internet connection.

Next came getting my #2 computer connected to the router, via the wireless capability. I had bought a Linksys

USB wireless adapter. It also had nothing much in the way of info on how to use it, and no install CD. I connected the wireless adapter to machine #2, and guess what - nothing happened. So, it was back onto Linksys tech support. I must have spent 8-10 hours fumbling around while talking to Linksys support. We tried everything, but we could not get the second computer to connect to the Internet.

Finally, the Linksys tech support person advised me that he could only suggest one final step. There was a free program available on the Internet, called “Boingo” - some name! He gave me the URL to that page, which was not a Linksys page. He suggested that I download and install it, and it would get my wireless adapter connected up. So I did, and amazingly 5 minutes later, I realized success. So why couldn't Linksys have some similar software included with the wireless adapter?

## **TASK NOT QUITE FINISHED YET**

I noted that when my #2 computer finally made it on line, that the received wireless signal was quite weak. Out of a possible 5 bars of signal strength, it hopped back and forth between one and none. So I did some investigating, and learned that the large distance between my wireless router, and the #2 computer was right at the max usable distance. Checking around, I found, on the Linksys site, a “booster amp”, that was designed to work with my router. There were even four recessed holes on the top of my router, to hold the four feet of the booster amp.

So I bought this amp, and finally the install went smoothly. Since it was nothing but an amplifier, there were no settings or adjustments. It did improve the signal strength slightly, and I now had a solid one bar reading. This was good enough to maintain Internet connectivity, but did give me a very slow connection.

So after about 10 days of stumbling around, I finally got my system working.

This picture is what the router and booster look like. The picture is actually the new router, with the old booster on top of it. The new and old routers are virtually identical in size.



## **MOVING AHEAD IN TIME**

In mid April 2009, I suddenly started having problems with my main computer's Internet access, and then my wireless computers' access. After reviewing the symptoms, and running a few checks, I became convinced that my Linksys router had developed a problem. Because of its age (7 years), and the fact that it was an older 802.11b model, I decided that the simplest approach was just to get a new router. And, if I stayed with the Linksys WRT54GL, which was an 802.11G unit, I could have the faster speed of the G series. And, the new router would accommodate my old booster, since it had the same mating holes to mount the booster.

By this point in time, I had my main desktop computer hard wired to the router, and 2 other desktops and a laptop wirelessly connected to the router. And yes, as I added computers 3 and 4 some years back, all things did not go smoothly. My laptop was the easiest. When I got it in 2004, it already had a wireless adapter built in. When I turned it on, it immediately found the wireless network, and was connected.

The #3 desktop also had a built in wireless card. But getting it online was a struggle similar to the first wireless connection. But finally, I did get it working, without having to resort to BOINGO.

In part 2 of “Networking for Dummies”, I'll relate my experiences in installing the new Linksys router, and then getting all four machines running smoothly there. I was dreading going through what I'd been through in the past. This was a night and day difference from my first experiences in 2002. The router came with an installation CD. And it installed the router and my main computer, “as smooth as silk”.

When I started on the installs of the three wireless computers, there were a few hiccups. But I then went on line, to check out a program called “Network Magic”. It was touted as being the way to go when installing and configuring networks. They offered a free 7 day trial, which allows the user to install the software on up to eight computers, and let Network Magic do all the work for you. Since Network Magic was created by Cisco, and Cisco now owns Linksys, if you were using a Linksys router, most of the important software features would continue working forever, at no cost to the user.

If you did not have a Linksys router, you could buy the lesser standard (up to 3 computers), or the Pro version (up to 8 computers), for \$29.99 and \$39.99 respectively.

**This is the end of part 1 of “Networking for Dummies”. Next month, the second part of this will cover installing my new router, and getting all 4 computers online, and talking to each other. This was indeed a real eye-opener for me. I was most happy to see that the setup and configuration had gone from a terrifying experience to a “walk-in-the-park”.**

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