



From the Technology Trenches – Rick Bernauer, Senior Systems Consultant

So, someone wants a wireless connection to your network. I'm seeing more and more firms setting up a wireless segment to their office networks. Here are some of the key issues you should consider before going wireless.

Speed. Wireless is getting faster but it's still slow when compared to a network cable connection. There are many wireless communication standards each identified by their own very official sounding name: 802.11a, 802.11b, 802.11g, and Bluetooth. (OK, Bluetooth doesn't sound very official.) Each of these standards uses a different approach to getting information through the air to your computer. (Don't worry too much about all the techy numbers here, just notice the relative speeds.) The theoretical throughput of the standard office "wired" network solution is 100Mbps (that's megabits per second). An 802.11b wireless connection communicates at 11Mbps – that's about one tenth the throughput speed. The faster 802.11a or 802.11g wireless devices can maybe get up to 54Mbps – ½ the speed of the wire. So at best, most wireless connections are 1/10 to ½ the speed of the network cable connection. This type of connection speed works well for internet browsing or checking email, but it's not good for billing software, scanning or any database applications that create a large volume of network traffic.

Compatibility. As you would expect, with all of these 802.11 variants they're not all compatible. There are devices which support 802.11a/b/g, but they're more expensive. Most people are purchasing 802.11g these days.

Interference. Building walls, copy machines, electrical cabling can all degrade the quality of the wireless connection so the throughput speed will be even slower. Many times you'll have to install multiple wireless "access points" in an office to keep performance acceptable.

Next month – wireless network security.

Rick Bernauer, Senior System Consultant
CyTek Corporation
1627 Main, Suite 100
Kansas City, MO 64108
816.471.3333
www.cytekcorp.com