



Business Technology

Want good Web? Better get wired

COMPUTING | WiFi's strength - convenience - far outweighed by dropoff in speed, quality

Sun, 14 Dec 2008 04:00

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My friends, I declare here and now that the usefulness of WiFi for home networking has run its course. It's time for us all to switch back to copper.

Yes: wires. Thick CAT6 Ethernet cables snaking proudly and confidently throughout the house. C'mon. They're available in like six different colors and will match any decor. So long as the decorator's aesthetic was "I live alone and can do whatever I want."

Me, I have Ethernet cables neatly clipped to the baseboards, where they also serve to guide overnight guests ("Follow the black cable to the office router, then the yellow cable to the red cable will lead you to the guest bedroom").

Those of you who aren't as style-forward as I am will find that Ethernet can be integrated just as successfully as your satellite and cable TV runs.

It's worth the trouble. WiFi offers only one advantage over copper: convenience. Every other category is a huge win for wired networking.

Copper networking works anywhere. Drop a cable into the room and bango: You got network. The reach of WiFi is limited by a long list of gotchas that begin with the universal inverse-square law (signal weakens with distance) and it's further cut down by every wall and floor the signal has to pass through. Assuming the signal can even pass through it to begin with.

In an apartment building, your WiFi router competes against the radio noise of every other router within reach, as well as every other signal near that frequency range.

But it's also a reminder of how vulnerable WiFi is to mischief. Really really locking down a WiFi network so that nobody else can use your broadband or access your networked folders is tricky business. With a copper network, a machine can't get access unless it's physically plugged in.

And a copper network is almost dummy-proof. Usually, you plug in and you're on. DHCP handles the negotiations and the connection automatically. Joining a WiFi network continues to be a fiddly and occasionally frustrating process.

Reaching a "problematic" room is usually far simpler and cheaper with copper. A hundred-foot run of high-speed CAT6 costs as little as fifteen bucks on Amazon. Stretching a WiFi signal to the basement or around a brick fireplace often means installing another \$40 base station as a network repeater ... which will cut the speed of the wireless network as a whole.

Copper is always faster than WiFi. And by a wide margin. A modern desktop or notebook will support Gigabit-speed Ethernet, which in real-world use is about four times faster than the fastest WiFi.

More and more consumer devices want a wired Ethernet connection. My Blu-Ray player uses it to download necessary firmware updates. Game consoles use it for multiplayer gaming and software downloads. My Slingbox sends TV from my cable box to any screen in my house or the whole via Ethernet, in HD.

More and more of my entertainment is streamed in, too. These days, I watch as much TV on Hulu as on cable, more movies via Netflix streaming than their little red envelopes. All of these services perform best via wired broadband.

And I haven't even mentioned the iMac in my office that acts as a file server. My former WiFi network could stream music from it just fine. But DVD-quality movie files could be a tossup. Now that my house is 100 percent copper, I can easily stream movies in high definition. Just as a mere storage device, the 4 terabyte hard drive I'm connected to via Ethernet feels almost as fast as having it connected via USB.

I've made the switch and I'm not going back. Unlike WiFi and unlike cable or satellite coaxial, Ethernet delivers all of my data needs and entertainment needs over a single wire. And it finally gives me the full bandwidth I'm paying for.

WiFi was built to address the demands of 2003. But today, we rely on our home networks for so much more than e-mail, chat, and Web pages that display the lyrics to "Bad To The Bone" in Klingon.

So it's time to send the varsity team back onto the field. It's time for Ethernet to suit up again.