Running interference

AFTER FIVE AND A HALF YEARS of faithful service, my trusty Panasonic 900-MHz cordless phone is beginning to give up the ghost. Ironically, the electronics are working fine, and the original battery is still going strong. The mechanics are the phone's Achilles' heel; numerical keypad presses sometimes produce no results and sometimes result in unwanted digit repetitions. Very annoying.

So, last week, I headed down to Fry's Electronics, where I was hard pressed to find even a single 900-MHz replacement. Instead, there were boxes upon boxes of brand-new, shiny 2.4-GHz units. I'm no analog guru, but even I understand the concept of destructive interference. As a test, therefore, I asked the salesman whether I had to worry about the phone interacting with other broadcasting devices in my home. He was at first puzzled by what I was talking about. Then, when I pointed out some examples, he assured me that there'd be no problem, and, amusingly, that I had a 30-day money-back guarantee if I *did* have a problem. I bought an on-sale Uniden unit.

Now when I make a call, my 802.11b network loses signal strength—judging from the "network-condition" bar chart that my Buffalo Technology PC Card's software driver provides, roughly *half* its signal strength. Even though the wirelessly connected notebook PC is less than a foot away from the antenna. Not the simple antenna within the AirStation access point, mind you. No. Less than a foot away from the advanced Agere Systems Orinoco range-extension external antenna, which normally enables me to Web-surf from down the street.

Wait. It gets better. What happens when someone else tries to use my Amphony 2.4-GHz wireless stereo headphones while I'm on the phone? So much static that both pieces of gear are rendered unusable. And the microwave oven? It'll bring *everything* wireless to its knees. Could I partially extract myself from this noisy quagmire by customizing each units' broadcast channel? Perhaps, but who has the time? And what average consumer has the knowledge? I think I'll just take the phone back and find a cheaper, prior-generation, *reliable*, 900-MHz cordless phone somewhere else.

Industry standards, such as PCI, PCMCIA, and USB, have become successful due in no small part to the periodic consortium "plug fests," which enable vendors to find and resolve interoperability problems before products reach customers' hands. I'm sure that the Wireless Ethernet Compatibility Alliance, for example, is doing something similar for IEEE 802.11, but focusing only on wireless LANs is a naive, inadequate approach. This brave new world of bits flying through the ether is liberating for users but increasingly challenging for designers. Look beyond your own sandbox, or customer returns might bury you.

THANK GOODNESS FOR 30-DAY MONEY-BACK GUARANTEES.

Contact me at bdipert@edn.com.