AND NOW, A WORD FROM THE IRONY DEPARTMENT

I was an English-literature major in college, so I like to use literary devices such as irony. I don't get to use it much in the computer books I write, so when I get the chance to use irony, I like to jump on it like a hog out of water.

So here's my juicy bit of irony for today: The very first Ethernet system was actually a wireless network. Ethernet traces its roots to a network called AlohaNet, developed at the University of Hawaii in 1970. This network transmitted its data by using small radios. If two computers tried to broadcast data at the same time, the computers detected the collision and tried again after a short, random delay. This technique was the inspiration for the basic technique of Ethernet, now called "carrier sense multiple access with collision detection" or CSMA/CD. The wireless AlohaNet was the network that inspired Robert Metcalfe to develop his cabled network, which he called Ethernet, as his doctoral thesis at Harvard in 1973.

For the next 20 years or so, Ethernet was pretty much a cable-only network. It wasn't until the mid-1990s that Ethernet finally returned to its wireless roots.

Table 8-1 lists some of the most popular bands. Note that some of these bands are wide — UHF television begins at 470 MHz and ends at 806 MHz — but other bands are restricted to a specific frequency. The difference between the lowest and highest frequency within a band is the *bandwidth.*

TABLE 8-1 **Popular Bands of the Radio Spectrum**

Band	Use
535 KHz–1,700 KHz	AM radio
5.9 MHz–26.1 MHz	Shortwave radio
26.96 MHz–27.41 MHz	Citizens Band (CB) radio
54 MHz–88 MHz	Television (VHF channels 2–6)
88 MHz–108 MHz	FM radio
174 MHz–220 MHz	Television (VHF channels 7–13)
470 MHz–806 MHz	Television (UHF channels)
806 MHz–890 MHz	Cellular networks
900 MHz	Cordless phones and wireless networks (802.11ah)