# Last Mile Broadband: The Experiment

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I once had a colleague who said that there is nothing like an experiment to ruin a good theory. In my last three columns, I have been offering explanations and, in my opinion, sage advice on the availability, reliability, and advisability of reasonably priced, "last mile" broadband internet connections to the home and office.

### THEORY VS. PRACTICE

The benefit of being a consultant is that you provide advice, hopefully get paid, and leave. You don't have to live with the consequences of that advice. My wife usually proofreads my work. She noted that I advised that people who were seriously downloading pictures from the internet would benefit from a broadband internet connection. She reminded me that we had just become grandparents and that our grandchild had his own website where his parents were busily posting all of his pictures taken with their new digital camera. (This child was registered for his own web address within 24 hours of birth. It took 24 days for him to get his own social security number! But that is a topic for another time.) It was taking too much time to download the pictures through the usual 56K modem. She was seriously downloading pictures, and therefore, as I had advised, she was a candidate for a "last mile" broadband internet connection.

My first response was to explain that I am the consultant, and my job is to give advice. As my reader, her job was to take the advice and decide what to do with it. She said that as my wife, she already knew what to do with it, to get her consultant husband to match theory with practice. She explained, it's like eating a theoretical dinner versus a real dinner. Even a consultant can figure that one out. That is why I violated the consultant's first rule and did the experiment that could potentially ruin a good theory.

#### DSL VS. CABLE

In my neighborhood, both DSL and cable high-speed internet connections were available. I knew this, because I received a postcard advertisement several times a month from the local telephone and cable companies. First, I called the telephone company. The friendly voice on the other end asked me for the telephone number to which the DSL service would be attached to see if the service was available in my area. Since I had received so many postcards, how could DSL service not be available? She checked my telephone number and explained that my location was too far from the central office; therefore, DSL service was not available.

Next, I called the cable company. Yes, an internet cable modem service was available. As a premium cable TV subscriber, it could be easily added to my cable account for a small monthly service fee and an additional cable modem rental fee, as well as a one-time installation fee.

However, I wasn't a cable TV subscriber. I would have to become a premium cable TV subscriber for an installation fee and monthly service fee, and then the internet service could be added for the additional fees already mentioned.

"OK." I said. "If I were to do this, how fast would my internet connection be? "

"Ten times faster than your current modem," I was told.

"And how fast is that?" I responded.

"I don't know, but it says here more than ten times faster than your current modem." So much for the cable company.

#### THE ALTERNATIVES

Then, I remembered that a few months before, another cable company had put in new cables in my neighborhood with the promise of more digital TV channels and faster internet access. I called them to find out when this new service would become available so I could sign up. Due to the economic downturn, their plans to complete and activate their new, all-digital cable system were delayed indefinitely. Strike three!

I had done the experiment. I struck out and ruined a good theory. Then another postcard arrived—this time from an alternate long-distance telephone company. It informed me that they were making DSL service available in my neighborhood. Not strike three, I thought. Just strike two and a foul ball! There was still hope for a good theory.

I waited until 10:30 p.m. and then called the 1-800 number on the postcard. Within four rings, a real person answered. I was impressed—a real person answering the phone promptly at 10:30pm! "I'm interested in your DSL service," I said. "How fast is it?" I was told that the speed of the download was dependent on the distance to the DSL switch but that I could expect at least 300,000 bits per second (300k bps). Uploads would be limited to 128k bps. If I signed up for 12 months of service, the DSL modem and installation would be free if I could install it myself; in addition, I would only be billed for 10 months of service. Billing would start with the first successful login, so there would be no penalty if I didn't immediately have time to do the installation or if I had trouble with the installation. Did I want to see if service as available to my telephone number? "Yes, yes, yes,!"

Into the voice's computer went the phone number and out came "yes"—a home run! But then, a bit of reality set in. "Why can you provide the DSL service when the local telephone company says that the central office is too far away?" The voice explained that they used better equipment

and that they put their DSL switching equipment out on a telephone pole where the phone line enters a neighborhood. In this manner, they could provide better service from a closer location. I signed up, fearing that the voice might change his mind.

## ARE WE THERE YET?

The experiment wasn't really over, because all I had was DSL, in theory, which my wife reminds me is like a dinner in theory. At least I have a plan. Next time, Implementing the Plan or "getting there is more than half the fun."