

# Broadband Knocking at the Door

By Michael Powell

Promoting the availability and affordability of high-speed Internet connections for all Americans is a top priority of the Federal Communications Commission (FCC). That is why we recently adopted final rules that will bring a new competitor to the broadband scene and could revolutionize the electric utility industry.

Broadband over powerline technology (BPL) has the potential not only to reach every home and business in America, but also to offer significant economies of deployment. This is an exciting opportunity for both the American consumer and the utility industry itself. I am proud of the hard and imaginative work of this new industry.

As almost any economist can tell you, when you add a third competitor to a market, the magic of competition really begins. This new broadband platform offers a chance to reach more consumers as a real alternative to existing cable modem and DSL services. By way of example, in one community where BPL has garnered its first several hundred subscribers, the local provider tells us that the local cable modem broadband service has reduced its price by over half!

Just a few short years ago, critics argued that competition for the "last mile" into the home would never become a reality because no one could duplicate or bypass the telephone line that ran from the curb into the home. However, with the Commission's push to foster facilities-based competition and the development of new technologies, the market for last-mile connectivity to the home has become increasingly competitive. Each of the existing and emerging broadband platforms—including cable modem, satellite, Wi-Fi, Wi-Max, and DSL—serves a different segment of the market. While some are appropriate in rural areas and others are ideal for densely populated urban areas, BPL technology, on the other hand, has the potential to compete almost anywhere.

Perhaps equally important to the electric utility industry is the great potential powerline broadband has to serve its own needs in an efficient and synergistic way. Utility-specific benefits include customer and utility

control of appliances, automated meter reading, outage detection, equipment performance monitoring and extension of supervisory control and data acquisition functions to the end user level. BPL also has the potential to improve the provision and management of electric power systems and provide improved techniques to protect vital elements of the nation's critical infrastructure. It is noteworthy that our colleagues at the Federal Energy Regulatory Commission (FERC) have taken an active interest in supporting this new technology.

Having witnessed this technology firsthand, I believe the ease, simplicity, and cost of providing this service will allow it to flourish. Existing line workers can set up a utility connection in the home in a matter of minutes. Unlike some other technologies, there is no need for consumers to purchase supplemental hardware. In fact, all that the consumer needs to do to initiate service is to plug a device of choice into an electrical outlet.

On a recent visit, I found it exhilarating to listen to a 70-year-old retiree enthuse about how simple it was for him to plug in his computer to a standard outlet and get immediate access to the Web. The additional innovative applications that I saw—including security cameras, Wi-Fi hot spots, traffic monitoring and signal control, and other municipal services—were likewise worth noting, particularly since any of them could be quickly and easily dropped in at any light pole, A/C unit or other source of electrical wiring.

In the midst of this enthusiasm and excitement, the FCC has not neglected the need to protect existing licensed services from interference. Our engineers have thoroughly analyzed powerline broadband systems to ensure that the rules we adopt protect existing users from interference. We have also closely coordinated with the National Telecommunications and Information Administration (NTIA) to make sure that their concerns about interference to government users have been addressed. We adopted requirements that will minimize the occurrence of harmful interference to all licensed spectrum

users and procedures to resolve any interference that does occur.

BPL technology is still developing, and its benefits and advantages are just beginning to be recognized. Therefore, it is important for regulators to exercise restraint and avoid heavy-handed regulations. I believe that we must allow the marketplace to develop the full potential of this technology. I am committed to monitoring this nascent technology to ensure that it can flourish without unnecessary regulation. It is vital for policymakers at all levels to coordinate their efforts to promote a minimally intrusive policy framework for such technologies. The development of new technologies is essential to maintaining this country's leadership in broadband technology. If powerline broadband delivers on its great promise, all Americans will benefit.



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