

Remarks of Michael K. Powell  
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“The Wireless Broadband Express”

A Mobile Migration

Thank you and good afternoon. I am pleased to be here at CTIA’s IT Convention to talk about the role of mobile technology in America’s digital migration.

I have been speaking at industry conventions now for over 7 years. In the past, each one was quite different. You would drone on about narrow issues of particular interest just to that industry group, whether they be broadcasters, cable companies, or wireless companies. But with convergence and the growing power of data innovations we now talk about a single objective: BROADBAND, BROADBAND, BROADBAND!

Over the past four years, this country has made significant progress in deploying broadband service to consumers. The number of homes with broadband access has more than quadrupled to nearly 48 million. Moreover, in June 2001, nearly a quarter of all U.S. zip codes had no high speed lines in service; yet, by December 2003, that number had dropped to just 6 percent.

While cable modem and ADSL technologies account for the majority of the gains to date, the addition of other technologies to the broadband arena is critical to achieving the President’s goal of universal, affordable broadband access by 2007. Wireless networks and power lines stand at the ready to become another broadband pipe to the home, delivering the tremendous consumer benefits that only a competitive marketplace can bring. These technologies also have the ability to reach areas of the country where it is infeasible to roll out new cable or fiber, connecting rural and remote regions to critical health, safety, and educational services.

One of the unique characteristic of wireless technology that distinguishes it from other broadband technologies is *mobility*. In a way, it’s only natural to talk about a digital *migration* in terms of the ability to “go mobile.”

The Wireless Broadband Express

Let me take you back for a moment to another great migration in American history – the Westward movement. In the mid-1800’s, a number of Americans packed all of their belongings into covered wagons and blazed trails to a better life out west. When the burgeoning population soon needed a way to stay connected to life back east, a group

of entrepreneurs established the “Pony Express” to deliver higher-speed information from Missouri to this great city of San Francisco. In that age, higher speeds meant cutting transportation time from 24 days by ship to a mere 10 days by a network of couriers on horses.

Today, we continue to demand high speed information while on the move, with hundreds of kilobits of data transmitting by the second. The Wireless Broadband Express, like the Pony Express of years ago, is poised to give us the freedom to explore our surroundings.

With wireless broadband, the Internet is always-on, anywhere and anytime -- connecting us to a vast array of life’s interests and needs through the transmission of high-speed information. Just as wireless voice technologies permit consumers to move through their daily lives without worrying about how to stay in touch, wireless broadband technology will permit consumers to do the same without worrying about how they will get access to information. Wireless offers a level of freedom that is impossible with wired technologies. It is this level of freedom that I believe will drive the demand for wireless broadband services, whether consumers live in the forests of Maine or the deserts of New Mexico.

In my travels across the country this year, I have seen the intense demand for, and extraordinary benefits of, wireless broadband. Recently, I met with Sioux Valley Wireless, a company that is integrating licensed and unlicensed spectrum to deliver GOOD internet access to the BAD-lands of South Dakota. In Tennessee, I saw the promise of wireless broadband to deliver critical medical expertise that can save lives. And in New York City, I witnessed the ability of wireless broadband to help us train our underprivileged citizens in the skills of tomorrow.

You see, the power of wireless broadband is not just about the enhancement of individual freedom; it is also about the connection of our diverse populations and lands into a national community. Wireless broadband will achieve its greatest benefits – economic and social – when all Americans have access and choice. As the Pony Express brought the benefits of information flow across the Continental Divide, the Wireless Broadband Express can bring these benefits across the Digital Divide.

### Government Should Not Take the Reins

You know, whenever I deliver a speech and use a metaphor, like the Pony Express, I know that you all out there in audience are asking yourselves, “Where does this government guy fit into the picture?” “I am confused is government the carriage, is government the stationmaster, is government the tumbleweed. . . or maybe government is the back end of the horse! Well, I don’t know (I didn’t really think it through that far). But I know who we are not. We are not the driver. We are not the one that buys the equipment. We are not the one that takes the risks, we are not the one that delivers the service. I think our role is more to make a path and keep the roads as clear as possible.

In the real world that means making more spectrum available to drive on, and clearing the way of regulatory underbrush. At the FCC, we are working hard on doing just that.

Earlier this year, I created the Wireless Broadband Access Task Force to review our wireless broadband policies and to identify areas where additional Commission action, or restraint, could facilitate further deployment. The task force has identified several key issues in this regard.

*First, we need more broadband spectrum.* In this era of increasingly intensive spectrum use, we must continue to strive to provide opportunities for new and enhanced spectrum-based services. I applaud the Administration's decision to undertake a comprehensive review of spectrum policy. The reports of the President's Spectrum Policy Initiative offer much food for thought about these timely issues. The significant spectrum reforms that we at the FCC have worked so hard to identify and implement over the last two years, coupled with the results of the President's Spectrum Policy initiative, will help enable us to craft policies that will facilitate delivery of wireless broadband services to the American people.

The FCC is moving aggressively to put valuable spectrum on the market through auctions. In January, the Commission will auction over 200 broadband PCS C and F block licenses. In addition, we are working collaboratively with our colleagues at NTIA to move forward expeditiously to an auction of spectrum at 2 GHz for advanced wireless services. We also greatly appreciate Congress' efforts to craft the Spectrum Relocation Trust Fund to ensure that the relocation of military operations that currently use this spectrum can be adequately funded with the proceeds of this auction. I urge Congress to pass this legislation as quickly as possible.

In the 700 MHz band, the Commission has heard the call of the wireless community and is making every effort to ensure the availability of this spectrum for public safety and new advanced wireless services in the most expeditious manner possible. It is no longer a question of "whether" the television transition will end and free up more spectrum, but instead a question of "when." I believe we need a hard deadline for this transition, as do so many. A hard deadline will give the public, industry desperately needed clarity. If your industry agrees, I urge you to make a point of being heard in Washington.

*A second key conclusion is that we need greater access to the spectrum that is in the market.* One significant finding of our task force effort was that most of the spectrum is not being used most of the time. This means that rather than scarcity being the problem, the real problem is how to get access to spectrum. We believe technology is going to usher in the possibility of much more dynamic use of frequencies without unacceptable interference.

Just as an example, the Commission has pushed forward on new smart radio equipment. We recently concluded a proceeding that enabled "smart" antennas to be used in some of our unlicensed bands. "Smart" radios enable users to use the spectrum

more intensively. It allows us to shift more interference management to technology and away from the government's command and control system.

Smart radios also can facilitate secondary markets. Licensed users can lease their spectrum to third parties using smart radio technologies, allowing spectrum to move more quickly to its higher and best uses without the impediment of prior government approval. And, because of their frequency agility, smart radios can also act as a bridge between two different radio services – effectively translating the signals from one service to the frequency and format of another. This may prove essential to solving interoperability problems that have plagued first responders.

We are also exploring the possibility of using smart technology to allow advance wireless services to operate in the white spaces of the broadcast bands. This must be done carefully, of course, but advances in technology have made it a possibility, where in the past to even suggest it would be heresy.

Spectrum policy, like technology, must stay on the cutting edge. We must be willing to get away from the old models and explore new ones to match the dynamic demands of this industry. Earlier this year, in one such effort, I introduced an innovative approach to allow users of smart equipment to gain access to spectrum that is underutilized by licensees – the private commons model. Under these rules, licensees can set aside an entire license or a portion of a license for an arrangement in which users can access that spectrum under technical rules and other conditions set by the licensees.

This new option has the potential to provide spectrum for ad hoc and mesh, peer-to-peer networks that can be used to offer wireless broadband services. The model also may be particularly valuable to users of the unlicensed bands, such as wireless ISPs, who may find those bands congested and may be looking for a source of additional spectrum to supplement their existing operations. This just one of the many new innovations in wireless policies that we have introduced.

*Finally, we need a flexible regulatory model that will produce substantial consumer benefits.*

The success of the FCC's pro-competitive and deregulatory policies for the wireless industry is well-known to all of you. Over the past four years, the number of wireless subscribers has increased by 50 million, producing a penetration rate of 55 percent of the U.S. population, and the average monthly usage per subscriber has nearly doubled to 8 hours. At the same time, prices have dropped 44 percent, and the percentage of the population with 5 or more competitors has increased from 75 percent to 88 percent. We want this level of success to continue as wireless technology takes broadband into the mobile world.

The way to take this success to the next level is to allow greater licensing flexibility to allow providers to develop and deliver new, innovative applications to consumers. We are doing just that. For example, the Commission created a new, more

dynamic band plan and instituted more flexible rules for the 2.5 GHz MDS and ITFS spectrum, now renamed the Broadband Radio Service and Educational Broadband Service. It is the market that will bring us next generation mobile technologies like OFDM, EV-DO, WCDMA, and WiMax, which will allow consumers to surf the web at broadband speeds while mobile.

We also must allow the competitive market to determine the technology standards for mobile broadband. Our decision not to mandate a particular technology standard for wireless voice has facilitated remarkable success for the industry and for consumers, compared to other countries where governments set the standard through industrial policy. While some other countries have higher mobile penetration rates, the U.S. enjoys more competitors and a wide range of technologies, leading to higher usage and lower prices. Government is notoriously bad at predicting technology winners and losers and should not try. A competitive market – which wireless certainly is – remains the best vehicle for innovation and technology evolution.

In addition, we need to aggressively implement Congress’s vision of wireless technology as a national service that can operate seamlessly and efficiently. The Communications Act sets forth a national deregulatory framework for commercial mobile radio services. The federal government is charged with eliminating regulatory obligations where the competitive market makes them unnecessary. This framework has yielded remarkable results for mobile voice services, and we must continue to actively implement it as the market develops for mobile broadband.

At the federal level, we must push for pro-competitive, market-based policies for all broadband technologies in order to allow the various platforms to compete freely and fully. Wireless, cable, DSL, satellite, and power lines should compete where it makes sense for them to compete and become integrated where they are complementary. In such a market, consumers benefit greatly, as the market itself can change to meet consumers’ needs far faster than regulators could act to address consumers’ concerns.

### Conclusion

The Pony Express may have helped open up the West, but our time is more akin to Star Trek, where wireless space is the final frontier. Wireless broadband holds great promise and with intrepid entrepreneurs and a sound forward looking government policy I am convinced “we will go where no one has gone before.”

“Live long and prosper.”

Thank you.