Remarks of Commissioner Deborah Taylor Tate
before the
3G Americas Wireless Broadband Technology Briefing
September 18th, 2008

Thank you, Kris, and the entire 3G Americas board, for the invitation to speak with you today. I appreciate this opportunity to share my thoughts with you on our respective roles in this new, exciting "Broadband Age."

Broadband deployment is a top policy goal of the White House, Congress, the FCC, and this Commissioner. Making broadband deployment a reality for all Americans requires the best efforts of government and industry. First, those of us who are policy makers have a responsibility to get the rules right, then get out of the way. Additionally, industry has the challenge of deploying the technology, service, speed, and quality – not that government mandates, but that the market and consumers demand.

3G Americas and the GSM service providers – both in the U.S. and abroad – have played a critical role in advancing wireless communications for many years, and you now play an equally important role in advancing broadband. Indeed, wireless services made up 35 percent of the 100 million high-speed connections in the U.S. last year, and were the fastest-growing means of broadband access, having increased 50 percent from a year earlier.

What is particularly noteworthy in these numbers is the fact that, while wireless is increasingly important as a means of broadband access, most wireless connections have yet to include broadband access. With approximately 260 million wireless subscribers in the U.S., if only a third of these subscribers have broadband on their mobile phones, there is a huge market yet to be tapped, with the potential for explosive growth. And in these uncertain economic times, this is even better news.

Then there's the global market. There are over 3.3 billion wireless subscribers across the world, with about 300 million subscribers in India and 600 million in China. The device manufacturers and providers that use GSM technology, such as 3G America's members, have the lion's share of those subscribers, with 3 billion users, while growing at the rate of 1,000 subscribers per minute.

To many of these subscribers, the mobile phone is a critical – often the only – source of communications. Only a couple of years ago it was common to cite a study by Professor Robert Jensen of Harvard University, who showed how fishermen in India were using their cell phones to call into ports after a catch. The information conveyed by a simple phone call does more than help markets work much more efficiently. More important to these fishermen, it helps them find which markets have the highest demand for their fish and thus significantly raise their incomes. More recently, villagers in poor regions of Africa use cell phones to send text messages and engage in mobile banking – not Wall Street-level banking but simple transactions like paying for food or a taxi ride, much like we use debit cards today.

With all of these transactions happening without a broadband connection, just think of the possibilities when even more capability is placed – literally – in the hands of consumers!

Why Broadband Matters

Why does broadband deployment matter? As the examples from fishermen to farmers, financial institutions to healthcare show, the potential economic effects from this connectivity are exponential in impact. And broadband takes communications to the next level, raising productivity of workers at the office, on the road, and telecommuting from home. Even if we looked only at the economic effects, the phenomenal gains from further broadband deployment would be enough to get our attention. A recent study by Connected Nation estimated that increased availability of broadband across the U.S. would have a positive economic impact of $134 billion.

But of course, this is about more than just numbers and revenue. A broadband connection to the World Wide Web literally is a lifeline to our very wide world. With the click of a mouse, our children can go on an educational adventure – to the Louvre or the Library of Congress, on an exploration of the Great Barrier Reef or the Great Wall of China, or take AP courses never before offered. Adults can attend class at a university across the nation while holding a job across town. They can also participate in local civic affairs or even get involved in politics at the national level. Even polling has gone "txt". In just one presidential cycle, Internet advertising has gone from essentially zero to estimates that it will exceed $100

million in 2008. In addition, families can get better access to healthcare, such as teledentistry, telepsychiatry and even telesurgery. Telecommuting for doctors makes the physical distance between provider and patient immaterial, and this ability to shrink distances that isolate our most remote communities makes broadband particularly critical in rural areas. I have had the opportunity to see first hand – from Alaska to Appalachia to Africa – how broadband communications enables this kind of empowerment for those who are most physically isolated. And in many cases, wireless services will be the means to provide these broadband connections. In short, broadband revolutionizes how we communicate, how, where and when we work, how we educate our children, the delivery of healthcare and public safety, as well as how we entertain ourselves.

My Regulatory Philosophy

What, then, is the role of government in promoting broadband? I approach this issue, as I do all policy issues, with an overall philosophy. I look in amazement at the new technologies forward every day, as well as the innovations we make use of existing technologies, and I am humbled by the awesome power of the human spirit to innovate, create, and improve our lives. And I recognize that nowhere is this creative power more evident than in telecommunications and in this nation.

As I consider the proper role of regulatory policy in such an innovative world, I am reminded of a simple fact. We will not know – and cannot know – where the market will take us next. And when they try to predict the future, the experts

often get it wrong. A generation ago, who would have expected that a device the size of a pack of playing cards could hold more processing capability than the Apollo spacecraft, that this device could be taken almost anywhere, and that it could provide mobile telephony, Internet access, and even television?

We should welcome these advances in technology and changes in the market. They are reminders that, in today's world, change is the only constant. This often means that old technologies get left behind. The Polaroid camera is seldom used, and the silent movie has already faded into history, along with the buggy whip. This is all part of what the economist Joseph Schumpeter called "creative destruction" – destroying entrenched business models and technologies through innovative vehicles to create value, whether in goods or services, for consumers.

This process is commonplace in your industry. The analog cell phone is ceding to digital technology: speaking of digital—I hope everyone is prepared for the DTV transfer on February 17, 2009! If not, go to www.dtv2009.gov for information on coupons and converter boxes. CDMA and GSM are evolving to LTE. And while GSM and LTE currently dominate the worldwide mobile industry – for which congratulations is in order – I do not believe the Federal Communications Commission or any other policymaking body should place its thumb on the scale to influence or dictate the next technology that will be adopted in the marketplace. Other technologies, like WiMax, will also compete vigorously. And as you all try to

be the technology and providers of choice by offering the best products and service in the marketplace, it is the consumer who will benefit.

It is in the face of such an ever-changing and always-innovating world that I have developed my regulatory philosophy, which calls for, first and foremost, regulatory humility. This is something I have tried to practice, both as a state regulator and now a federal one. I look to and especially encourage the industry to put forward market-based solutions whenever possible. I recognize that most of the consumer benefits we see in the communications sector of the U.S. economy are directly related to the significant levels of competition, and to our de-regulatory policies that have encouraged investment and thus fostered that competition.

Of course, I also understand the need for regulation, if and when there is a clear market failure. Such market failure is probably less common in communications markets as compared to other sectors, but we should not assume that it does not exist, and we should acknowledge that market failure may at times occur as new competitors appear.

I suppose it may not be a popular position to take here in Washington, DC, but policymakers, like businesspeople in the market, make mistakes, too. At the same time, we should not assume there will not be "government failure," such as when we adopt rules and regulations that we intend and expect will benefit consumers but, in the long run, do not in fact do so. This is partly because we have imperfect

information, which is another reason why we need your input. This also underscores why it is so important that the Commission adhere to the APA, maintaining an open and transparent process that allows plenty of time for public participation.

Broadband Investment and Results

The role of industry in promoting broadband – the developers of technology, the designers of hardware and software, the service providers – cannot be understated. The demand is seemingly insatiable. The Discovery Institute, in a report by Bret Swanson and George Gilder, estimates that by 2015 IP traffic in the U.S. will reach 1,000 exabytes per year, or one million million billion bytes. This is an amount of information equal to 50 million Libraries of Congress. The report further estimates that, to sustain such usage, there will need to be $100 billion in investment in infrastructure.

Fortunately, the market is responding and providers are investing. AT&T and Verizon had capital investment of over $17 billion each in 2007, counting both wireless and wireline investments. Sprint had CAPEX of $6.5 billion last year, while T-Mobile invested $3 billion. The Telecommunications Industry Association estimates investment focused specifically on broadband was $15 billion in 2007 and that this figure will rise dramatically over the next couple of years, to $23 billion by 2010. As a result, more than 99 percent of the U.S. population lives in zip codes where a provider serves at least one customer. Workplace broadband connections are more and more common. And virtually all of our schools have high-speed Internet

connections, and have had them for a number of years, thanks in large part to the E-rate program. The United States is also number 1 in wireless hotspots, school connectivity, and in (broadband market). Although none of this data is reflected in the OECD reports, I know that you have helped make this possible, and I want to thank you for that.

As providers invest and compete to offer better services, consumers respond. In just the wireless market, data services for the first half of 2008 are up 40 percent from the same period a year earlier, to $14.8 billion for this six-month period. And data services account for 20 cents of every dollar of revenue in the commercial wireless market. In addition, consumers send more multi-media messages – like pictures and short videos – than ever before. The 5.6 billion multi-media messages sent in the first half of 2008 were approximately equal to the number sent in all of 2007. Along the same lines, mobile advertising was estimated to be almost $3 billion in 2007 and that this will explode to more than $12 billion in 2011. Talk about a growth market!

Perhaps all these exciting statistics about new services explain why the wireless industry added about 20 million subscribers in the past year, and 20 million in the year before that – while landlines decreased by about 10 million in the 2006-2007 period. Providers know that, for wireless to continue to be a growth market, you must continue to offer the services consumers want – often, bandwidth-hungry

applications and services. And of course, eye-catching ads require the latest in technology – graphics, video, etc. – which brings us back to investment.

At the same time, we should ensure that broadband access is a fact of life for all our citizens, including those in isolated and rural areas. Much has been made of the recent OECD report that the U.S. ranks 15th among 30 OECD nations in broadband penetration. But in order for such a statistic to be useful, we need to understand what it really means. For example, as the Phoenix Center points out, the OECD report does not consider differences in the size of households across nations, not does it count Internet access that is available via the thousands of hotspots and libraries in the U.S. Moreover, broadband usage depends on a variety of factors, including demographics, educational levels, and of course, the price of broadband.

When considering broadband penetration in the U.S. – and what policymakers might do to promote more of it – we should be mindful of the unique characteristics of the U.S. market. And when we compare the U.S. market to that of other nations, we should be mindful of how nations differ. For example, failure to properly consider differences in household size or population density across nations can confuse the analysis. To illustrate with an example that is a bit more personal for me, consider South Korea, which has an impressive level of broadband penetration. While South Korea is about the same size as my home state of Tennessee in terms of geography, it is much larger in terms of population. In fact, in order to equal the population of South Korea, Tennessee would need to add a few people to its current

population, roughly everyone in the nearby states of Mississippi, Alabama, Georgia, South Carolina, North Carolina, Virginia, and Kentucky. High population density enables the achievement of a higher penetration rate. These are basic economics of the industry that you, the providers of service across the U.S., understand better than anyone. It's easier to achieve a high penetration in Manhattan than Mississippi.

This is not to say that there is no role for policy. We all want broadband to do as much to promote jobs in Mississippi as it does in Manhattan. To accomplish this, our policies much create the right incentives for providers, with, for example, technology-neutral rules, and with enough spectrum available for the bandwidth-hungry applications consumers demand.

Challenges Ahead

As we carefully choose the best rules to promote broadband deployment, we must be mindful of a few other policy challenges that are intimately related. I am particularly concerned about three Ps – piracy, privacy, and protection of children. And, just today, I can add another "P" – pandemic, as our first summit on pandemic preparedness is occurring right now, which will result in even more burdens on our bandwidth, as possibly half of the workforce may work remotely in the event of such a tragedy.

Piracy: In the midst of the incredible consumer benefits of the digital age, many of you know all too well that piracy is a very real and present danger. Piracy steals the fruits of some of our most creative minds. Because I'm from Music City, and have witnessed first-hand the toll this is taking on my personal friends, the music industry, and all those associated jobs and service industries, I am declaring a "War on Piracy."

The cost of piracy to our musicians and other creators of content is huge. For the nation as a whole, the U.S. Chamber of Commerce estimates the cost to the economy is $12.5 billion. In this as with so many issues, the solution truly must be global. This is especially true given the prevalence of piracy abroad. In 2007, Brazil was estimated to have had 3.8 billion illegal downloads! Yet there is probably a viable – even a highly profitable – business model out there, one that provides creative content to consumers who value it and that, at the same time, provides compensation to those who develop this content. I encourage everyone – from developers of applications to service providers – to think creatively about this problem, to develop tools and curriculum for the next generation, and to help enforce our existing laws against piracy.

Privacy: As this Digital Age offers more personalized information to better meet individual needs of consumers, the information that provides this personalization also has risks of being breached. We therefore must ensure the safety and security of users. But the challenges are immense. Consumers in Southeast Asia

receive 10 to 12 spam messages per day. One professor estimates that in a few years we will need anti-virus protection on cell phones, and that day may be approaching faster than we think. The incredible uses for GPS, including child tracking, also illicit privacy concerns. Industry must address the risks and rewards.

Protection of Children: Our children are indeed our nation's most valuable natural resource, and we should treat them as such. In order to ensure they reach their greatest potential, we must ensure that they have access to a wealth of educational information in an environment that protects their physical safety, their healthy mental development and emotional well-being. While we hold the parents accountable, everyone involved has the responsibility of insuring that parents have the tools to do the job.

Protection of children becomes even more critical as they find more ways to get online – usually for very productive reasons like completing their schoolwork, or simply to stay in touch with friends and family. Research by the Pew Internet and American Life Project estimates that 94 percent of teens go online. While the majority of these online experiences are positive, it is possible for our children to get lost in the back alleys of the Internet. For example, the same Pew study estimates that 32 percent of teens who go online have been contacted by a stranger online. Moreover, we used to monitor our kids' online activities by keeping the computer next to the kitchen or in a common area, but now their favorite computer may be in the palm of their hand.

This mobility is a tremendous asset – one that many of you are helping make possible – but you also must be mindful of the responsibility to provide parents with the tools to make their children's Internet experience a safe one. For this reason, last week I suggested and challenged the wireless industry to become more involved in this issue as they become a gateway to the Internet. With 5.3 million "tweens" having cell phones, and the fact that they are now marketed to preschoolers, providers of wireless service have a responsibility to come to the table and discuss this growing concern.

International Focus

All of these issues – from promoting broadband deployment to protecting a user's experience on the Internet – are truly international issues. No nation wants its citizens to be left off the Information Superhighway. All nations want their citizens connected.

In my nearly three years with the Commission, I have been honored to participate in international dialogues with delegations from across the world, and I continually find that policymakers share this concern, no matter what nation they represent. I have met with my international colleagues at the West Africa ICT Conference in Ghana, at APEC-Tel, the Asian Pacific Telecom Ministers in Bangkok, and at the Global Forum in Italy. I have held discussions with Secretary General Hammadoun Tourré of the ITU, with Vice Minister Xi of the Chinese Ministry of Information Industry, with

Chairman Shehadi of the Lebanon Telecommunications Authority, with the First Lady of Egypt, and with Ministers of Australia, Brazil, Japan and Viet Nam regarding the various initiatives they are undertaking.   In our conversations, both official and personal, we shared themes of developing our economies in an increasingly competitive and globally interconnected environment, and adopting policies that incentivize and encourage the development of new technologies.

As I mentioned earlier, policymakers have a responsibility to get the rules right, and in my discussions with colleagues from across the world. I am trying to do my part to represent American companies well – to open more markets to U.S. companies and encourage pro-market policies in other nations – with transparent and technology-neutral rules – and to increase competition and choice for global consumers as we have done here. So let me add to your list of responsibilities. Not only do you, as industry, have the task of deploying the valuable services consumers demand. You also need to educate, both policymakers and the public as a whole. Today's technology briefing is an important step in this regard.

Thanks again for the opportunity to speak with you. Never has there been a more exciting time to be in the communications industry. I look forward to learning from you about the latest technologies and services that you have to offer, and working with you to ensure that our policies in the U.S. foster the investment and competition that ultimately will benefit all Americans.