

**Remarks of FCC Commissioner Deborah Taylor Tate
“United States Broadband Policy: From Sea to Shining Sea”**

Global Forum 2008

“COLLABORATIVE CONVERGENCE: Users Empowerment in the Global Digital Economy”

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(As Prepared)

Introduction

Thank you for the kind introduction. I would like to thank Dr. Sylviane Toporkoff, and Mr. Sébastien Lévy for their hard work putting together this forum. This is the third time I’ve been able to speak at the Global Forum, and once again it is an honor.

It is inspirational to be here in Athens, in the historic Zappeion Mansion. 2,500 years ago, the Athenians initiated a system of government known as democracy. Democracy can be translated to mean “Rule of the people.” In ancient Athens, citizens came together in assembly and faced precisely the same issues societies face today: wars, religion, treaties, finances, and one that is especially on point for this assembly, regulation. While the citizens of Athens addressed the issues directly, today our citizens address these issues through officials. This includes the regulatory process, where at the Federal Communications Commission we employ notice and comment procedures to ensure public input and perspective.

It is, therefore, appropriate that we are here to discuss the digitalization and democratization of information for all our citizens. No matter where they choose to live, their income level or educational attainment, the Internet is the supreme equalizer. China estimates that it now has 253 *million* Internet users, a 50% increase over the last year. Indeed, these are exciting times for

consumers around the world, with the digital divide narrower than it's ever been and information communications networks more efficient, mobile, less expensive, and widely available. With these new offerings, all of us in the global community are faced with policy challenges.

Deregulation

With regard to our regulatory framework, we have taken a light-touch approach to broadband. For example, in the *Brand X* case, the United States Supreme Court found that the FCC had the authority to classify broadband services as an information service, which is subject to less regulation than traditional telecommunication services. By pursuing a deregulatory approach, broadband has been allowed to grow organically and has produced great results.

Personally, I am glad that the United States has pursued deregulation aggressively. Although the government can play a constructive role in helping to facilitate competition, I prefer to let the market determine its own course. Just last year, we benefited from over \$70 billion in broadband investment, robust industry competition and cooperation, and unprecedented consumer options in this dynamic marketplace.

For these reasons 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 adopted. Not long ago people claimed that 56k modems would far exceed the speed requirements of any user. Today, Comcast and Verizon, both major providers in the U.S., offer one *thousand* times that speed to residential customers, and the exponential growth in speed is not likely to stop anytime soon. We can thank the market, not regulation, for this result.

We have real results that we can look to as evidence that deregulation has had a tremendous effect. Worldwide, we have slowly been moving toward more open networks, and away from

monopolies and state owned telecoms. In 2007 alone \$225 billion was invested in networks, and \$3.5 trillion in revenue was generated. 3G and 4G wireless networks continue to expand, with 251.5 connections today, and a projected 1 billion connections and \$1.3 trillion in wireless revenue by 2011. Wireline broadband networks continue to explode in growth, pushing speeds up and fiber to the end-user. For example, last year we saw a 24.4% increase in internet access revenue, even with dial-up revenue declining. Now is a great time to be involved in the communications world, and we must continue the deployment of broadband, while still ensuring that the internet retains its free character.

Four Principles

In 2005, the FCC adopted the *Internet Policy Statement*, which contains four principles that encourage broadband employment while ensuring an open internet. It states that first, that consumers are entitled to access the lawful Internet content of their choice; second, that consumers are entitled to run applications and services of their choice, subject to the needs of law enforcement; third, that consumers are entitled to connect their choice of legal devices that do not harm the network; and fourth, that consumers are entitled to competition among network providers, application and service providers, and content providers. The stated goal of these principles is to help guarantee that consumers will be able to freely access whatever legal content they chose on the internet, and to foster the continued innovation of the Internet. An important consideration is how we interpret these principles when we are presented with the many challenging questions – and constantly changing technology -- surrounding broadband policy issues.

Networks

Network providers face very real constraints every day. In the U.S., 5% of users use 90% of the bandwidth. This means is that 95% of people may suffer slowdowns due to a small handful of individuals using peer-to-peer software designed to complete gigantic data transfers as quickly as

possible, without regard to others' internet experience. This presents a major problem for the average user on a cable broadband network, which are shared networks. On a shared network, users share upstream and downstream bandwidth, since everyone must connect to a central point, called a node, where the "last mile" facilities connect to the optic fiber network. These nodes may have only a handful of subscribers attached, but can have as many as 2,000 users. We often talk of "sharing bandwidth with your neighbor," but when you connect to a node with a large amount of users, the impact of hogging bandwidth becomes a real problem for many of the bandwidth hog's fellow users.

Peer-to-peer software is designed to enable the sharing of huge files directly between users without the assistance of a central server. But the size of these files is not the biggest problem, these P2P protocols are designed to use as much bandwidth as they can find, and use it in ways that are unpredictable, inconsistent, and that can threaten to overwhelm network capacity, all while harming the online experience of the vast majority of normal users.

To combat these "bandwidth hogs" and protect the overwhelming majority of broadband consumers from reductions in quality, carriers must manage their networks.

Comcast Issue

On August 20, 2008, the FCC concluded that the Comcast cable company's network conduct was a "discriminatory and arbitrary practice" that "unduly squelches the dynamic benefits of an open and accessible Internet and does not constitute reasonable network management."¹

At the center of this controversy is a simple question: "What is reasonable network management?" Since these peer-to-peer file sharing programs require large allocations of bandwidth

¹ See, *In the Matters of Formal Complaint of Free Press and Public Knowledge Against Comcast Corporation for Secretly Degrading Peer-to-Peer Applications Broadband Industry Practices Petition of Free Press et al. for Declaratory Ruling that Degrading an Internet Application Violates the FCC's Internet Policy Statement and Does Not Meet an Exception for "Reasonable Network Management"*, File No. EB-08-IH-1518, WC Docket No. 07-52, Order, 23 FCC Rcd. 13028, para. 1 (Rel. Aug. 20, 2008) (*Comcast Order*).

to complete, throttling down these applications could lead to a better internet experience for all of the other broadband customers. P2P users feel that this is a restriction on their free use of the internet.

One positive market-based solution is providers and software companies coming together to find solutions. Most parties realize that traffic management, in some form, is needed. Some users felt that Comcast's targeting of the BitTorrent protocol was unfair, but since the issue was raised Comcast has quit targeting this specific protocol, and created a network management system that is protocol agnostic. A protocol agnostic approach does not discriminate against any specific protocol but takes a holistic look at total traffic, and slows down all traffic when a certain amount of capacity is reached.

Industry is producing real solutions to deal with network management. A prime example of this is the P4P working group. This group of experts and network engineers involves internet providers and application companies finding solutions to traffic problems to maximize the internet experience for their customers.

I believe that in addition to setting rules that are transparent, technologically-neutral, and economically efficient, regulators can play a key role in arbitrating disputes on how these rules should be applied. I am aware that as regulators we can never move as fast as technology does, especially not in this industry! Regulators can help facilitate discussion by helping the parties come to the table to come up with a solution. Competitive industries can come to their own solution by working together and coming to a reasonable compromise: they realize that this is a better alternative than playing "roulette" with regulation. If you put the decision in someone else's hands, don't be surprised when the outcome is not what you wanted.

Protecting the 5% instead of the 95%

Rather than concentrating on 5% of the heaviest bandwidth users that use 90% of the traffic, we should be ensuring that the 95% of ordinary subscribers are not negatively impacted as they use their internet for their child's homework, shopping, getting news, sending emails and watching TV and YouTube.

Perhaps the best way for regulators and governments around the world facing this issue is continue to help facilitate agreements among the broadband industry and create an experience that maximizes the benefits of all users, so I look forward to the advice and recommendations of the P4P working group and other experts.

The Positives of Network Management

The positive side of network management is far too often overlooked. Network management has a very positive role when it comes to eliminating online piracy and online child pornography. Much of the emphasis of network management is put on the restriction of lawful uses of the internet, but we should also focus on how network management can help reduce illegal uses of the internet. As I stated, the first principle of the FCC's Internet Policy Statement clearly states "consumers are entitled to LAWFUL content." Network management can play a key role, allowing operators to effectively identify and remove illegal pornographic and pirated content traveling across their platforms.

Child Pornography

As many of you know, a long-time concern of mine has been fighting the proliferation of online child pornography. Thankfully, industry players and regulators are coming together in America to fight this problem, along with law enforcement. This summer, the majority of America's cable broadband providers signed an industry-wide agreement to fight child pornography on their

networks. An example of the benefits of network management in action, this was an important step in the fight, and was endorsed by the Attorney Generals of 48 of our 50 states, and the Center for Missing and Exploited Children, America's center for child protection. Scotland Yard and Ireland's law enforcement have similar initiatives. This is an important step to ensuring that our children are safe in today's digital world.

Online Safety

Beyond eliminating child pornography, we must ensure that our children are safe when using the Internet. Today, the wonders of the world are just a click away; with access to information on almost anything, and in almost any format. While these advantages are closer and more accessible, the dangers of the Internet are more pervasive than ever. Online predators, cyber bullying, and other concerns are very real health and safety threats to our children. While this will continue to be a concern, and as a mother, one close to my heart, I am glad to say that industry players are stepping forward, and the international dialogue on this issue continues to be developed.

Recently, I was asked to speak regarding child safety at APEC-Tel, the Asian Pacific Telecom Ministers in Bangkok; and with Secretary General Hammadoun Toure of the ITU who, I am thrilled to report, has begun to raise the issue in Geneva with the council of member nations of the ITU. I have also been in discussions with the Ministers of Japan, Australia, and Viet Nam and am pleased to report that they have various initiatives ongoing. This is a serious concern to our citizens and we must encourage everyone involved to come up with solutions. In Japan, they even recognize the need for a digital literacy curriculum, whether on a PC or now increasingly on cell phones. In the United States alone there are 24.4 million cell phone users between the ages of 8 and 17. We must do a better job educating our children about the benefits and risks of technology and devices.

Piracy Concerns

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 nations' most creative minds.

I am from Nashville – known worldwide as Music City, and the cost of piracy to our musicians, video producers and other creators of content is gigantic and growing. For the United States, it is estimated that cost of piracy is \$12.5 billion. Like many issues today, the solution truly must be global. This is especially true given the prevalence of piracy abroad. In 2007, Brazil alone was estimated to have had 3.8 billion illegal downloads!

While internet service providers have done much to help filter out copyright-infringed content on their networks, it is also important to note that strides have been taken in the global marketplace to provide creative content to consumers who value it and that, at the same time, provide compensation to those who develop this content. Apple and Amazon both provide music and movies through downloads, and Apple has been tremendously successful with this approach. This June, the Apple iTunes store sold its 5 billionth song, in addition to selling or renting 50,000 movies a day. Today, the iTunes store is the largest retailer of music, online or traditional brick-and-mortar, in America. I call on all of you in leadership positions to join me in this War Against Piracy so that our music and movies and other digital assets can continue to flourish.

Intellectual Property

I wish I could tell you that music piracy is the only form of piracy we should be concerned about. Our modern information economy produces numerous forms of intellectual property, all of which are subject to theft. Modern medicines that help to cure diseases once thought incurable do not

appear out of thin air, but take time and effort to produce. This intellectual capital is not free; someone must pay for it. And when a third party steals the results that so many worked tirelessly to produce, it is a tragedy. And this is only one narrow example. All forms of intellectual property are subject to this piracy; from medicine, to content providers, to applications providers, to my next example, the piracy of software.

We must address the theft of copyrighted software now. The Business Software Alliance found that IP theft cost the software industry *\$48 Billion* dollars last year and this piracy of software comes from the four corners of the world. Innovation and hard work should be rewarded, and we must act to discourage monumental losses such as these.

The theft of intellectual property has far reaching effects. The loss of a sale does not occur in isolation, it affects the strategy of industry. Without protection, there is no incentive to innovate. And this does not only affect one industry, or one country. This is truly a world-wide problem. It affects *your* citizens, *your* artists, and *your* cultural gifts to the world.

I encourage everyone – not only in the network management debate – to think creatively about these problems, to develop tools and curriculum to educate the next generation about internet safety, respect for intellectual property and the ramifications of piracy, and to help enforce our existing laws.

DPI and Privacy Issues

One technology that has generated heated discussion in the network management debate, mostly for its possible intrusive uses, is Deep Packet Inspection, usually referred to as DPI. DPI has many legitimate uses, such as identifying and eliminating child pornography, and can play a reasonable role in managing networks efficiently. When used incorrectly, DPI can seriously harm consumers' privacy. NebuAd, a company that uses DPI to intrusively examine a person's web traffic

so they can better target advertisements to the user, has come under fire, and was called before the U.S. Congress to explain their business practices. Thankfully, the attention has been enough for broadband providers to distance themselves from using DPI this way. Charter, the fourth largest broadband provider in the United States, was planning on running a test of the NebuAd software in several markets, but has delayed the trial indefinitely. I am glad to say that broadband providers listened to their customers and have backed away from intrusive techniques such as this, but I am mindful that the idea of DPI should not be discarded because of these intrusive uses. DPI can play a valuable role in making the internet a better and safer place, especially as it relates to illegal behavior.

Global Issues Ahead /Conclusion

Many of you are facing these same issues in your own countries. I urge you to stay diligent against piracy, in all of its forms, and to make calculated decisions when you face these topics. The decisions that you make have far flung effects, both to your citizens and the world at large. The internet has made us into a single interconnected world, and the issues before us are becoming increasingly complex.

I would like to provide a couple of examples for how we can work together to make this a safer digital world for our citizens. The Family Online Safety Institute currently has a project, called Quatro Plus, that is standardizing the EU labels that show that an internet site is child-safe. Once completed, parents will be able to tell what sites are appropriate for their children. **[SLIDE 13]**The ITU has launched its Global Cybersecurity agenda, taking a global approach, since the internet has no boundaries. Another great example of all of us working together is the network that the Center for Missing and Exploited Children has created.² (www.missingkids.com) Right now, 15 countries

² *The Global Missing Children's Network*, http://www.missingkids.com/missingkids/servlet/PageServlet?LanguageCountry=en_US&PageId=1184

participate in the program. If your country is not one of the 15, I urge you to look into joining this program. Moving forward, I hope that we can all continue to create and explore these solutions, whether they deal with child safety, piracy, or any other global issue.

In closing, I hope that we can all draw a lesson from this great country's history. In Athens, citizens introduced and voted on legislation directly. The ultimate will of the people was accomplished. Likewise, as regulators we must make sure that we weigh oftentimes competing public policy goals and giving effect to the legal standard: "in the public interest." We must listen to our citizens, facilitate a dialogue between industry players when possible, create the correct incentives for investment, and allow the market to generate its own solutions. In summary, we must act with a light touch. It has been a pleasure to speak to you today, and I hope that we can all work together to address the exciting challenges that the internet has presented us. We must continue to embrace the potential and possibility of innovation, for our own countries, for the world, and for future generations. Thank you.