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RECONSIDERING OUR COMMUNICATIONS LAWS: ENSURING COMPETITION AND INNOVATION

HEARING

BEFORE THE

COMMITTEE ON THE JUDICIARY
UNITED STATES SENATE

ONE HUNDRED NINTH CONGRESS

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RECONSIDERING OUR COMMUNICATIONS LAWS: ENSURING COMPETITION AND INNOVATION

WEDNESDAY, JUNE 14, 2006

UNITED STATES SENATE,
COMMITTEE ON THE JUDICIARY,
Washington, DC.

The Committee met, pursuant to notice, at 9:30 a.m., in room SD–226, Dirksen Senate Office Building, Hon. Arlen Specter, Chairman of the Committee, presiding.

Present: Senators Specter, Hatch, DeWine, Cornyn, Brownback, Leahy, Kennedy, Biden, Kohl, and Feingold.

OPENING STATEMENT OF HON. ARLEN SPECTER, A U.S. SENATOR FROM THE STATE OF PENNSYLVANIA

Chairman SPECTER. Good morning, ladies and gentlemen. It is 9:30 and the Judiciary Committee will now proceed with a hearing on the communications laws, ensuring competition and ensuring innovation at the same time. We have the unusual pleasure of having the distinguished Chairman of the House of Representatives Judiciary Committee, the Honorable F. James Sensenbrenner. This is unique, and we welcome our distinguished colleague to this hearing. We also have on the first panel Commissioner William E. Kovacic of the Federal Trade Commission.

Our hearing today involves a great many very complex issues—issues which have been taken up by the Commerce Committee in the House of Representatives and by the Commerce Committee in the Senate. But there are very important antitrust issues involved, and I believe it is appropriate for the Judiciary Committees in both the House and the Senate to play a significant role in the formulation of the legislation because significant parts come within our jurisdiction. I have discussed the issues with Chairman Ted Stevens, and we have worked out a coordinated plan to meet these important matters.

The considerations involve very substantial market change. Intermodal competition is exploding. Cable companies are providing telephone and Internet services in direct competition with the Bells, which used to have a monopoly. Developing techniques such as fiber to the home and broadband over power lines will likely expand the number of competitors in the markets for telecommunications services. Those who provide Internet access, known as information services, are currently not regulated as common carriers under court decisions. Now that competition exists, it

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is entirely possible that the antitrust laws will be sufficient to protect consumers and competition in this important market.

The new telecom services have spawned an entire economy now amounting to more than $100 billion annually. These services have made enormous amounts of information available to Americans at little or no cost. Free line encyclopedias now make it possible for students to do research without leaving home. Vigorous democratic debate, once thought to be idealistic, now takes place online on blogger and on public interest websites. The innovators in this new economy are understandably concerned about the state of competition in the market for telecom services. They depend upon cable and the Bells to access their customers and the audiences they wish to receive. They are concerned that their access could be cut off, degraded, or become an expensive barrier to entry. Telecom reform also has taken on the issue of vertical integration between entities which sell programming, particularly sports teams, and companies that provide video service, cable satellite, and new phone companies.

We have quite a number of complex considerations which this Committee will be taking up. Net neutrality is very, very high on the agenda. We have the issue of video program access. Vertical integration between program vendors and cable satellite companies has raised concerns about access. We have the issue of the broadcast and audio flag. We have considerations on municipal broadband. We have issues relating to the distribution of child pornography.

Without objection, my full statement will be made a part of the record. I have tried to make it brief here because we have a very distinguished opening panel and we have many witnesses on the second panel.

Let me yield at this time to Senator Kennedy for an opening statement.

STATEMENT OF HON. EDWARD M. KENNEDY, A U.S. SENATOR FROM THE STATE OF MASSACHUSETTS

Senator KENNEDY. Thank you, Mr. Chairman, for calling this extremely important hearing on reform of our telecommunication laws. All Americans should have equal access to modern telecommunications technology and should be able to enjoy the full lawful Internet content of their choice. Consumers should also be able to shop around and find the best price and the best product to fit their needs. It is a fundamental and critical part of our economic growth.

Internet technology has the potential to bring us closer together, to reduce costs for families to communicate with their loved ones across the country and overseas through e-mail and even phone calls over the Internet. And we must continue to do all we can to stay on track with the pace of other industrialized countries in this new era of technology. If we are not careful, we will wake up one day soon to find that America has been left behind while other countries leap ahead with higher bandwidth and neutral broadband platforms.

The Internet has broken down barriers in information, communications, and commerce, and the Judiciary Committee should

maintain its jurisdiction and oversight over these evolving matters. This Committee has long had a significant role in defining the legal standards governing telecommunications, and it should continue to do so. It is essential to expand access to the Internet for all Americans, regardless of income or zip code. Effective leadership can make sure that the continued growth and expansion of the Internet makes our workers more productive, our schools better, our communities safer, and our day-to-day lives easier.

For decades, the Judiciary Committees of Congress have relied on the antitrust laws to prevent monopolies from dictating our country's communication laws, and today's hearing is an important opportunity to define the Committee's ongoing role in this all-important debate.

I look forward to working with my colleagues to see that proposals are fair to both consumers and industries. We need to keep the focus on policies that will benefit the economy as a whole.

Chairman SPECTER. Thank you, Senator Kennedy.

Ordinarily, the opening statements are made by the Chairman and Ranking or designee, but the Chairman of the Subcommittee is with us today, and I would yield for an opening statement to Senator DeWine.

STATEMENT OF HON. MIKE DEWINE, A U.S. SENATOR FROM THE STATE OF OHIO

Senator DEWINE. Mr. Chairman, thank you very much for calling this very important hearing today. As the Senate considers rewriting the telecommunications laws, we are taking on many complicated and important issues. It is no exaggeration to say that the telecommunications revolution has reshaped the way we live our day-to-day lives. From cell phones to BlackBerrys and from the Internet to satellite television and radio, all of us are communicating and obtaining information more rapidly and certainly in different ways. As these changes occur, our old regulatory framework is increasingly obsolete. In some instances, it actually hinders the progress of this dynamic market sector. It is time, Mr. Chairman, to update our telecommunications laws for a new century, and it is essential that competition be the driving force for our growth and innovation.

The changes in this market have been dramatic. In recent years, for example, the cable television companies have started to offer high-speed Internet and telephone services while telephone companies are beginning to roll out video services. It is clear that these businesses are beginning to think of themselves less as phone companies or cable companies and more as providers of content. Whether that content is Internet traffic, phone calls, or television shows.

This convergence of services offers a unique opportunity to increase competition that we simply cannot pass up: All the players are attempting to compete in each other's markets, and we must help them achieve that goal. However, the path from here to there may not be such an easy one to travel because the issues we face are certainly very complex.

For example, we have heard a lot lately about net neutrality. Many of the Internet service providers, including many phone and

cable companies, have expressed an interest in finding new ways to "manage" their networks. The net neutrality debate revolves around how and how much the network providers can control the way their networks are used. It also involves who pays and how much they pay for using those networks. We must address, Mr. Chairman, this issue, I believe, very carefully. We may well be at an inflection point, the point at which the future of the Internet is determined.

Action or inaction may dictate the degree of investment and the pace of competition and innovation generated by the Internet for years to come. This Committee must make every effort to ensure that the legal framework for this industry provides the best possible platform for competition and innovation.

Another important issue that must be addressed is the process for video franchising. As the phone companies enter into video services, they tell us that current franchise requirements delay how quickly they can enter specific markets and begin to provide another choice for consumers. At the same time, the cable companies, who were required to get franchises in each of the towns and cities they serve, argue that all the players in this industry should be treated the same way, regardless of the technology they use. At some point soon, we must resolve these conflicting views in the market, and we must do it in a way that encourages free and fair competition.

Naturally, issues like these are ones that this Committee as well as the Antitrust Subcommittee has examined extensively over the last decade. As Chairman of the Antitrust Subcommittee, I have worked with the Ranking Member, Senator Kohl, to maintain competition in the telecommunications industries by holding numerous hearings on the cable, satellite, and telecommunications industries, as well as scrutinizing a range of mergers in these industries. All of this investigation and examination has reaffirmed to me that free, fair, and vigorous competition is certainly the best way to assure that we get innovation and good pricing for businesses and consumers.

It is essential that this Committee continue to play a leading role in any telecommunications reforms and that we emphasize competition to guarantee that our laws and regulations effectively meet the challenges of this emerging marketplace.

Thank you, Mr. Chairman.

Chairman SPECTER. Thank you very much, Senator DeWine.

We have been joined by our distinguished Ranking Member, Senator Leahy, and I yield to him now for an opening statement.

STATEMENT OF HON. PATRICK J. LEAHY, A U.S. SENATOR FROM THE STATE OF VERMONT

Senator LEAHY. Thank you, Mr. Chairman. I am glad you are having this hearing. I was one of only five Senators to vote against the 1996 Telecom Act. I argued that the Act's promise of promoting competition and increasing innovation was a false promise, and I argued that the Act allowed local regional Bells to easily reunite with unregulated local monopoly powers. I pointed out that rural consumers would be worse off, that cable and phone rates would increase, and that mergers would reduce competition. I was told I

was wrong. Unfortunately, I was right. We should not make the same mistake again.

Many Americans today have no choice whatever in broadband services, while others have only two options. The Internet is the ultimate marketplace of ideas. Everyone has equal access. Every voice can speak and be heard. A better idea, a better service, a better application wins on its merits. It has opened windows to the world in one-room schoolhouses in Vermont and new doors of knowledge and opportunity to children from Africa to Indonesia. I have worked from the start of the Internet age to keep the Government's hands off the Internet. The Internet was largely conceived in the United States. When the U.S. Government seeks to regulate the Internet, the rest of the world watches. A triple play of being able to offer video TV and movies, telephone, and Internet service raises the risk that telephone or cable companies will bundle all three services together and not allow each service to compete on its own merits. I think this Committee has to ensure that the Internet stays open and free to everyone.

The resolution of the issues raised today will determine who is in control of electronic access to our homes and small businesses. Will consumers be in control or will it be just a few large corporations that control that information link?

This is not a hypothetical question. Corporations have legal duties to their shareholders to maximize shareholder returns. Even if it means gouging the consumers, they are going to do it. The Supreme Court's *Brand X* decision effectively permits broadband service providers to discriminate against competing content applications and other service providers. One executive from AT&T has made it clear he wants to control that last mile into the house.

Discrimination includes slower exchange of traffic from unfavored content providers, direct blocking of lawful websites, and even added fees for access. This would be such a dramatic change from what has made the Internet what it is today.

In fact, it is both enlightening and, from a consumer perspective, frightening to review the assertions of a White Paper issued by Cisco Systems. They made clear that Cisco is poised to offer companies such as Verizon, AT&T, Comcast, Time Warner, and others the ability "in real time" to know the identity and profile of the individual subscriber, what the subscriber is doing, where the subscriber resides, and their service level. Is there any privacy left in America?

The major telecom and cable providers are threatening to refuse to invest in improvements or expansions unless they can reap big profits by charging rates based on how the Internet is used.

I believe they are going to make these investments anyway. Certainly Verizon will make those investments, according to Vice Chairman Larry Babbio. He has said they are in the middle of spending billions of dollars on upgrades, with its posted revenue of $68 billion last year. He said they have the goal of bringing fiber to "every home it serves," not the last mile, "not to the curb, but to the home."

Verizon and AT&T certainly have some money to reinvest. They have bought back hundreds of millions of dollars worth of their

stock, and paid dividends of $13 billion. I would like to put in the record the financial data on those firms, Mr. Chairman.

Chairman SPECTER. Without objection, it will be made part of the record.

Senator LEAHY. The issues raised in Chairman Stevens' bill are squarely within the jurisdiction of this Committee. I do not think we can allow competitors in this highly concentrated market to compete only for affluent, urban residents. Chairman Sensenbrenner ran into a similar situation in the other body, and looking at the Chairman's face, he knows exactly what I mean.

So I look forward to working with members of this Committee to put forward a strong bill along the lines of Chairman Sensenbrenner's effort to protect consumers, competition, and the Internet. Let's keep the Internet open for everyone. It has worked pretty well so far. Let's not screw up a good thing.

Chairman SPECTER. Thank you, Senator Leahy.

Senator Kohl, the Ranking Member of the Subcommittee.

STATEMENT OF HON. HERB KOHL, A U.S. SENATOR FROM THE STATE OF WISCONSIN

Senator KOHL. I thank you, Mr. Chairman, for holding this hearing today. Besides food and energy, perhaps no industry is as important to millions of American consumers as telecommunications. From making a phone call to watching television to using the Internet, the telecommunications industry touches every American dozens of times every day, and we all depend on choice and competition to deliver these services at the lowest possible price and at the best possible quality. We have today reached an important point in the telecommunications industry, and the policies we adopt will affect competition in this crucial industry for years to come.

Many industry critics believe that the enormous gains in innovation and competition we have all seen are now threatened by the emergence of a few dominant telecom companies. As we revise our telecom laws, our Committee, as the guardian of antitrust law and competition policy, has a crucial role to play. It can start by ensuring that our antitrust enforcement agencies are at full strength to protect competition in the telecom industry.

Under current law, the Federal Trade Commission is prevented from exercising any jurisdiction over telecom common carriers. This common carrier exemption should be repealed so that the FTC can protect consumers from unfair methods of competition in this industry, as well as in any other.

Another crucial issue that we must consider is net neutrality. Many fear that the relatively few large phone and cable companies that provide high-speed Internet access for millions of consumers could become the gatekeepers with respect to Internet content. We need to ensure that consumers have unfettered access to all Internet content free from discrimination, and we must prevent broadband providers from being able to determine winners and losers in the information superhighway. At the same time, broadband providers need to be able to manage their networks so that the profusion of video content does not degrade the Internet experience for everyone.

Road blocks to video competition also need to be addressed. The deployment of video services by the phone companies brings the prospect of much needed competition for video, but the requirement of obtaining literally thousands of local franchises threatens to seriously retard this promising development. We need to ensure that local franchise requirements are not a barrier to competition, while at the same time respecting the role of States and municipalities. Also central is the existence of robust program access law so that these new competitors have access to the must-have programming necessary to compete.

In sum, Mr. Chairman, consumers have benefited from an abundance of new technologies and new choices over the past 25 years. Yet today's wave of telecom consolidation means that we need to be wary that new dominant providers do not stifle competition and harm consumers. We must do everything we can to ensure that competition in telecom does not go the way of the rotary telephone and the telegram.

I thank you, Mr. Chairman.

Chairman SPECTER. Thank you, Senator Kohl.

Thank you very much, Chairman Sensenbrenner, for joining us here today.

Chairman Sensenbrenner has represented the 5th Congressional District of Wisconsin since his election in 1978; prior to that time, served 10 years in the Wisconsin State Legislature; has a bachelor's degree in political science from Stanford and a law degree from the University of Wisconsin at Madison. I thank him for his cooperation on some very, very tough issues, work on the PATRIOT Act and other matters, and immediately after the Senate passed our version of the immigration bill, I went to see Chairman Sensenbrenner to make our plans for a conference.

Thank you for being with us, and we look forward to your testimony.

STATEMENT OF HON. F. JAMES SENSENBRENNER, JR., A REPRESENTATIVE IN CONGRESS FROM THE STATE OF WISCONSIN

Representative SENSEBRENNER. Thank you very much, Mr. Chairman, Ranking Member Leahy, and Committee Members. I am here in the unique position today to ask this Committee in the United States Senate to save the country from the impulsivity of the House.

[Laughter.]

Representative SENSEBRENNER. You do not hear that very often.

Senator KENNEDY. You are not talking about immigration, are you?

[Laughter.]

Representative SENSEBRENNER. There are two sides to that coin, Senator.

Before I begin, I would like to make an important point about the antitrust laws. Some antitrust critics contend that fidelity to the free market is somehow inconsistent with a commitment to antitrust. However, as a strong conservative who adheres to the primacy of free markets, I believe that the antitrust laws preserve

the integrity of the free market upon which economic vitality depends. The communications industry is no exception to this rule.

The principled application of the antitrust laws in the communications market has facilitated competition, reduced prices, encouraged the deployment of new technologies, and enhanced consumer choice for millions of Americans. The House Judiciary Committee conducted its first hearing on communications and antitrust policy in 1957, when it examined a DOJ/AT&T consent agreement addressing anticompetitive conduct in this industry.

In ensuing decades, both the House and Senate Judiciary Committees conducted several additional hearings on communications competition and antitrust enforcement and oversaw the historic 1982 Modification of Final Judgment that made long-distance calling an affordable reality to millions of Americans. It is crucial to note that the Ma Bell monopoly operated in highly intensive regulatory regimes for decades, but the antitrust laws provided the procompetitive remedy that regulation could not, did not, and cannot provide alone. However, following the consent decree, local service was still the exclusive province of Bell companies that inherited virtual monopoly control of the local exchange.

Throughout the 1980s, the Committee on the Judiciary conducted extensive hearings concerning the implementation of the 1982 decree and anticompetitive aspects associated with continuing monopoly control of local service. In the early 1990s, the Committee conducted several hearings on this issue, and in 1995, the Committee examined the Justice Department's responsibility to aggressively monitor competition in the telecom field.

The congressional record that gave rise to the 1996 Telecommunications Act was shaped by four decades of House Judiciary Committee involvement in monitoring the application of the antitrust laws in the communications field. In order to reaffirm the centrality of the antitrust laws in the liberalized regulatory regime established by the 1996 Act, Congress preserved an explicit antitrust savings clause in the legislation.

Section 601(c)(1) of the 1996 Act provided that: ". . . Nothing in this Act or the amendments made by this Act shall be construed to modify, impair, or supersede the applicability of any of the antitrust laws".

Despite the inclusion of this antitrust savings clause, a record of considerable judicial confusion has developed in our Nation's courts. In 2000, the Seventh Circuit issued the *Goldwasser* decision, ignoring the plain language of the antitrust savings clause and holding that the Telecom Act "must take precedence over the general antitrust laws". In 2004, the Supreme Court embraced the reasoning of the *Goldwasser* court in *Verizon* v. *Trinko*. The decision stated: "One factor of particular importance is the existence of a regulatory structure designed to deter and remedy anticompetitive harm. Where such a structure exists. . . it will be less plausible that the antitrust laws contemplate such additional scrutiny. . . ". The Court concluded: "against the slight benefits of antitrust intervention here, we must weigh a realistic assessment of its costs".

This is precisely the judicial analysis that Congress precluded in the 1996 Act, and this holding has done violence to remedial anti-

trust enforcement and competitive gains in the telecommunications marketplace. This assault on congressional intent and the antitrust laws should be of concern to members of both bodies of Congress, but particularly to those who serve on committees charged with overseeing their implementation.

In recent years, the Internet has become a vital communication, information, and commercial medium for millions of Americans. For many years, the Federal Trade Commission was precluded from enforcing the Federal Trade Commission Act's competition-enhancing protections in the facilities-based broadband Internet marketplace. In its *Brand X* decision last year, the Supreme Court upheld an FCC determination that these services were outside of its regulatory ambit, thus permitting a more assertive role by the FTC in promoting competition in the marketplace.

According to FCC data released in April, 98.2 percent of Americans access high-speed broadband lines by cable modem or DSL connections. This lack of competition presents a clear risk that broadband providers will leverage dominant market power to discriminate against competitors, and pre-select, favor, or prioritize Internet content over their networks.

Regrettably, the legislation recently passed by the House invites the risk of competitive abuse by depriving those injured by this misconduct from an effective antitrust remedy. Specifically, H.R. 5252 provides the FCC with "exclusive" authority to define and adjudicate discriminatory broadband practices. This authority displaces the antitrust laws and the vital pro-competitive and pro-consumer purposes they advance.

It is of little consolation that the House accepted a floor amendment containing a nearly verbatim recitation of the antitrust savings clause contained in the 1996 Act effectively circumvented by the *Trinko* court. In fact, the amendment passed by the House is weaker than the savings provision contained in the 1996 Act for two important reasons. First, it is a "rule of construction" by its own terms, while the savings provision in the 1996 Act contained no such limitation. Second, the amendment is narrower because it applies only to one section of H.R. 5252, while the savings provision in the 1996 Act applied to the entire 1996 Act and subsequent amendments thereto. I voted against this amendment because I concluded that it provides little more than a proven road map for judicial circumvention of a substantive antitrust remedy for competitive misconduct in this field. In addition, to preserve an explicit antitrust remedy for broadband discrimination, I authored and my Committee passed H.R. 5417, the Internet Freedom and Nondiscrimination Act of 2006, by a bipartisan vote of 20–13.

Mr. Chairman, I commend you for scheduling today's hearing and thank you for the invitation to testify. As the Senate Judiciary Committee asserts its role in this body's consideration of communications legislation, I urge its members to ensure that the antitrust laws and the agencies that enforce them are provided a clear, continuing, and unambiguous role in promoting and defending the pro-competitive goals for which they were established.

I thank you.

[The prepared statement of Representative Sensenbrenner appears as a submission for the record.]

Chairman SPECTER. Thank you very, very much, Chairman Sensenbrenner, for coming over. We know how busy you are, and you are obviously free to leave, but not before we wish you a happy birthday.

Representative SENSEBRENNER. Thank you, Mr. Chairman. I am not eligible for Medicare yet.

Chairman SPECTER. Thank you.

Senator LEAHY. Happy birthday, Jim.

Representative SENSEBRENNER. Thank you, Pat.

Chairman SPECTER. We now turn to Hon. William Kovacic, Commissioner on the Federal Trade Commission. He previously had served as General Counsel to the FTC, a professor at George Washington University School of Law, a bachelor's degree in public and international affairs from Princeton, and a law degree from Columbia University.

Welcome, Commissioner Kovacic, and the floor is yours.

STATEMENT OF HON. WILLIAM E. KOVACIC, COMMISSIONER, FEDERAL TRADE COMMISSION, WASHINGTON, D.C.

Mr. KOVACIC. Thank you, Mr. Chairman, members of the Committee. I am grateful for the opportunity to present the Federal Trade Commission's testimony on the Commission's role in promoting the interests of consumers in the offering of broadband Internet access services. My written statement provided to you offers the testimony of the Commission itself, and my spoken remarks today offer my own views and not necessarily those of my colleagues.

As you know, the FTC is the only Federal agency with general jurisdiction over both antitrust policy and consumer protection in most sectors of our economy. This combination of responsibilities is a unique and valuable attribute. By this institutional design, Congress has given the FTC flexible, adaptable, and formidable tools to address fast-changing commercial phenomena that defy easy classification into the discrete categories of regulatory oversight that our system of economic regulation has developed over the past century.

The development of the Internet as a conduit of information is precisely such a phenomenon. On many occasions in the past decade, the FTC has used its distinctive mix of authority to promote consumer interests in the area of Internet access services. For example, with its consumer protection mandate, the FTC has investigated and prosecuted Internet service providers for allegedly deceptive billing, advertising, and marketing of Internet access services. In exercising its antitrust responsibilities, the agency has required parties to transactions, such as AOL's merger with Time Warner, to take steps to ensure Internet access.

When it carries out its antitrust and consumer protection duties, the FTC typically shares jurisdiction with the Federal Communications Commission. The two agencies cooperate extensively to ensure that the exercise of their concurrent authority serves consumer interests effectively. In appearing before you today, I make one basic request. Congress presently, as all of you have discussed, is giving close attention to various issues associated with communications policy and Internet access services. As it considers new

legislation, I ask that the Congress preserve the Federal Trade Commission's jurisdiction to address antitrust and consumer protection concerns posed by the development of the Internet and other features of the information services economy.

For decades, the common carrier exemption from the FTC's jurisdiction has precluded the application of the FTC's authority to various features of the communications services sector. New legislation should ensure that the limits in the common carrier exemption do not expand to encumber the Commission's enforcement programs and other activities involving access to Internet services on behalf of consumers.

Allow me to end by thanking the Committee and the Congress for its attention to these important jurisdictional considerations. In my eyes, there is no contribution more vital to the modern success of the Federal Trade Commission than the commitment of Congress to make periodic legislative improvements to the institutional framework through which the Commission seeks to safeguard consumer interests. And I wish that Chairman Sensenbrenner were here so that I could thank him and the members of the Committee, and indeed the Members of the Senate, to express my gratitude for one recent manifestation of this commitment, namely, the support of the Senate and Chairman Sensenbrenner's Committee for the proposed U.S. Safe Web legislation. As it contemplates new statutory reforms regarding Internet access, I am confident that the Congress will continue to act in the wise tradition of ensuring that no jurisdictional barriers impede the ability of the FTC to exercise its antitrust and consumer protection powers on behalf of consumers.

I welcome your questions and comments.

[The prepared statement of Mr. Kovacic appears as a submission for the record.]

Chairman SPECTER. Thank you very much, Commissioner Kovacic. I think that our panel's questioning of you would be enhanced if we heard from the witnesses first, if you would not mind waiting until they have testified.

Mr. KOVACIC. Pleasure, sir.

Chairman SPECTER. All right. Then we will proceed now to the panel, and we will begin the questioning after the panel testifies, and we will have questions for the Commissioner at that time.

Our first witness on the panel is Mr. Vinton Cerf, Vice President of Google Corporation, co-designer with Robert Kahn of the TCP/IP protocols and the basic architecture of the Internet, for which he received the Presidential Medal of Freedom, previously served as Senior Vice President of MCI and Vice President of the Corporation for National Research Initiatives, holds a Ph.D. in computer science from UCLA.

As is our custom, gentlemen, we have 5 minutes for each panelist, and as you can see, we have very substantial representation from the Committee here today, so we would appreciate your observing the time limits. The floor is yours, Mr. Cerf.

STATEMENT OF VINTON G. CERF, VICE PRESIDENT AND CHIEF INTERNET EVANGELIST, GOOGLE INC.

Mr. CERF. Thank you very much, Mr. Chairman, and thank you, members of the Committee. I have to tell you, sitting and listening to the comments that have been made so far, my respect for your concerns and your ability to express them has increased dramatically. I am very, very grateful to know that this Committee has chosen to look carefully at the issues before us.

I am not an antitrust expert, and as the Chairman points out, I am an engineer. But I have spent the last 35 years of my life helping to make the Internet happen, and I am deeply, deeply troubled by the current situation in which we may lose the openness of the Internet as a consequence of some decisions made last year and with legislation that is being considered in the present time.

For the first time in history, the openness and the innovation of the Internet is now threatened by the market power of broadband carriers. Last summer, the nondiscrimination safeguard governing the Internet's broadband on ramps were removed by a decision of the FCC. What Google and our colleagues seek to reestablish is a small but vital part of what was taken away: nondiscrimination safeguards for access to the Internet over broadband on ramps. Those safeguards have been fundamental to the Internet's development and evolution since its inception.

The broadband carriers now possess significant unconstrained market power. The most recent figures from the FCC show that the phone and cable operators together control on the order of 99 percent of the broadband market. Potential alternatives like broadband over power line and wireless and satellite make up a half of 1 percent of the broadband market today, and, in fact, their share of the market has actually gone down since these statistics have been kept. So those do not represent any near-term alternatives to the two primary providers of broadband service.

In fact, cable and telephone broadband providers only compete in half of the markets. The other half either has no choice at all because it has no broadband or it has a choice of only one or the other, of cable or DSL from the telcos.

The carriers' words and deeds demonstrate that this threat to Internet openness is very real. The phone companies and the cable companies possess both the ability and the vocally expressed intention to limit how consumers and producers utilize the Internet's on ramps. Their intentions appear to be to artificially reduce the capacity that consumers have to access the Internet. They intend to charge providers of Internet service doubly; that is to say, they charge the consumers for access to the broadband network and they advertise it as broadband access, and then they turn around and say, well, you will not really have access to all of the 400 million servers on the Internet unless some of those servers have paid us to carry their traffic over our broadband—over your broadband access.

The consumers are going to lose their choices. The broadband access providers are, in fact, saying that they will unilaterally pick and choose what content and services consumers can see and use on the Internet. This debate is not really about the current crop of Internet application providers. It is really about the many potential

new innovators, new entrepreneurs, each one of which could become a Google or a Yahoo! or an eBay in the future.

More than 100 companies have banded together to talk about retaining and preserving the openness of the Internet. When the Internet was designed, it was designed with several simple principles in its construction. One was end-to-end openness. The end-to-end principle allowed any applications to be implemented on top of the network and any underlying transmission and switching system to be used to provide a service. Moreover, when the Internet was accessed by dial-up, everyone had a choice of any ISP they wanted. With the broadband situation, they have either a choice of one or two or none at all or only one.

At this point, because I am about to run out of time, Mr. Chairman, let me simply emphasize that this Committee has the opportunity to put back in place consumer choice and the creation of marketplaces that will otherwise be utterly destroyed by the potential market power exercised by the cable and telcos.

Thank you very much.

[The prepared statement of Mr. Cerf appears as a submission for the record.]

Chairman SPECTER. Thank you very much, Mr. Cerf.

Our next witness is Mr. David Cohen, Executive Vice President of Comcast Corporation, previously partner and Chairman of Ballard Spahr, one of the Nation's 100 largest law firms, was chief of staff to Mayor Rendell in Philadelphia; bachelor's degree from Swarthmore and summa cum laude graduate of the University of Pennsylvania Law School; and his most important title is Philadelphia lawyer.

Welcome, Mr. Cohen.

STATEMENT OF DAVID L. COHEN, EXECUTIVE VICE PRESIDENT, COMCAST CORPORATION, PHILADELPHIA, PENNSYLVANIA

Mr. COHEN. Thank you, Mr. Chairman, Ranking Member Leahy, and members of the Committee. Sometimes that is not the best way to be known, but coming from another Philadelphia lawyer, I will accept that in the complimentary fashion that was intended.

I appreciate the opportunity to appear here today to offer the cable industry's perspective on the state of competition in the video and broadband marketplace. These markets are functioning extremely well today. Almost every home in America can choose from at least three multi-channel video providers, and with the entry of the Bells into video, these choices will continue to grow.

Similarly, in the video content business, the number of cable networks has increased from just under 100 to nearly 500 over the past decade. In high-speed data, in less than a decade, service has been deployed to over 90 percent of all U.S. households, and 84 million Americans now have broadband in their homes. Wireless, satellite, and electric power companies are also fighting for a share of the broadband marketplace. In our view, this robust competition is proof positive of the well-known, if ungrammatical, maxim: "If it ain't broke, don't fix it".

With that, let me turn to the worst new idea in Washington: regulating the Internet under the cloak of "network neutrality," a

vague and misleading term. Numerous cable companies, such as Comcast, have invested billions of dollars of private, at-risk capital to construct networks that give consumers access to broadband Internet services, applications, and content. These networks have enabled thousands of companies to enter the electronic commerce marketplace, but we must remember that the broadband marketplace remains in its infancy. No one can tell you exactly what our business model will be 3 years from now, 5 years from now, or 10 years from now. We need the ability to continue to invest, to innovate, and to experiment in order to maximize consumer choice and the consumer experience on the Internet.

Now, certain large e-commerce companies are pushing for regulation of the Internet, trying to turn network operators into common carriers or dumb pipes. We do not believe Congress should grant their wish, nor do we think their proposals would help consumers. Let me just give you three quick overview perspectives as to why.

First, these companies are demanding regulation based on hypothetical problems. They do not have evidence to justify regulating the Internet, so they dream up horrible hypothetical harms and try to panic Internet users into supporting their cause. As the Wall Street Journal and many others have declared, network neutrality regulation is a solution in search of a problem.

Second, these companies have predicted many times before that the sky would fall unless Government regulated the Internet. They have been wrong before, and they are wrong now. I will just give you one example. Back in 2002, 4 years ago, Microsoft CTO Craig Mundie testified, that "One cannot ignore the ominous signs that network operators will frustrate consumers' ability to go anywhere on the Internet. It would be a mistake for policymakers not to address these concerns".

Nearly 1,300 days have passed since that dire prediction, and there is still no evidence of a problem. Yet from the time of the first "net neutrality scare", Microsoft's annual revenues have grown by over $10 billion per year. Meanwhile, the market cap of Google has soared from nothing to approximately $117 billion. Everyone should have these kinds of problems.

Third, proponents of regulating the Internet are opening a Pandora's Box that will hurt network providers, consumers, and the e-commerce companies themselves. For example, if new regulations were imposed, they can impede our ability to stop viruses and spam that hurt the overall customer experience. At the same time, new regulations could thwart our ability to offer new services and applications to consumers and dry up investments that need to be made to continue to advance the interests of the Internet.

It is interesting to note that the Wall Street Journal and the Washington Post, two papers that rarely see eye to eye on any issue, absolutely agree that neutrality regulation is a bad idea. And, fortunately, proposals for heavy-headed regulation were soundly rejected in a bipartisan vote on the House floor last week. That is the same sound course we advocate in the Senate.

Mr. Chairman and Ranking Minority leader, we appreciate very much your holding these hearings to hopefully shed some light on an issue that has generated a lot of heat but not much light, and I look forward to taking your questions.

Thank you.

[The prepared statement of Mr. Cohen appears as a submission for the record.]

Chairman SPECTER. Thank you very much, Mr. Cohen.

Our next witness is Mr. Walter McCormick, President and CEO of United States Telecom Association. At the law firm of Bryan Cave, more than 500 lawyers, he chaired the regulatory affairs, public policy, and legislation practice. He had been General Counsel with the U.S. Department of Transportation, degrees in journalism and law from the University of Missouri.

Thank you for coming in today, Mr. McCormick, and we look forward to your testimony.

STATEMENT OF WALTER B. MCCORMICK, JR., PRESIDENT AND CHIEF EXECUTIVE OFFICER, U.S. TELECOM ASSOCIATION, WASHINGTON, D.C.

Mr. MCCORMICK. Mr. Chairman, thank you very much, and, Mr. Chairman and members of the Committee, I appreciate the opportunity to testify today.

To contrast myself with Mr. Cerf, who indicated that he is an engineer, not an antitrust policy expert, I am not an engineer. My background is in law and public policy, particularly competition policy, economic regulation, and antitrust. And as a result of this background, I have deep respect for the rigor, the dispassion and the intellectual discipline of antitrust analysis, an analysis that examines trade practices without regard to the technology in question but, rather, with regard to the behavior in question. So whether one is examining practices of the telephone industry, the motion picture industry, or the software industry, the analysis is the same.

Applying this analysis, one must ask these questions: First, is there competition in the relevant market? Do consumers have a choice? Today they do. The world has changed in the 24 years since AT&T was broken up and in the 10 years since the passage of the 1996 Act. Today you can make a telephone call on a landline phone, on a wireless phone, on a cable phone, or on an Internet phone. You can obtain high-speed Internet access from your telephone company, your cable company, your wireless company, your satellite company. In coffee shops, in airports, on college campuses, and in many municipalities, you can access the Internet via WiFi hot spots. Electric utilities are beginning to invest in delivering broadband over power line. Others are entering the market using unlicensed spectrum. And the Government is about to put new spectrum out for bid.

Then, one might ask, do telephone companies have a dominant market share of the high-speed Internet access market? No, they do not. DSL represents a minority share of the high-speed Internet access market. In fact, our share of the high-speed Internet access market is less than Google's market share of the search engine market and far less than Microsoft's share of the business software operating systems market.

Then, one might ask, do telephone companies have market power? Which we know is defined as the power to control price. Clearly not. As a result of the growth of competition, the price of high-speed Internet access is dropping precipitously. Our compa-

nies have service offerings now at less than $15 per month. There is a veritable price war going on. Google is in a partnership with EarthLink to offer an ad-supported service in San Francisco for free. As a result of this competition and lower prices, broadband penetration is increasing, particularly among middle-class Americans and minorities.

So, finally, one must ask, Is this market contestable? Certainly it is. Google itself has shown that it is. As mentioned, Google is partnering with EarthLink to provide Internet access in San Francisco. Google is reported to be an investor in Current Communications, which is deploying broadband over power line in Cincinnati, Dallas, and other cities. Clear Wire Communications is deploying wireless Internet access in Jacksonville and other cities. The FCC reports that the number of broadband providers is exploding. Indeed, the number tripled in just 1 year, from 485 to over 1,200 from June 2004 to June 2005. Today, Americans living in 75 percent of zip codes have three or more providers. In California, the PUC has authorized broadband over power line, noting that in major metropolitan areas, such as San Francisco, Los Angeles, and San Diego, they are up to 23 providers.

So then what is the antitrust problem? Today, there is no problem. No broadband provider in the country is blocking, impairing, or degrading consumer access to the Internet. The FCC has issued an Internet policy. The policy says that it has both the authority and the will to enforce and says that consumers will have the ability to access the websites they choose, run the applications they choose, and attach the devices they choose. And the FTC has made clear that it has jurisdiction to assure a pro-competitive environment. So what is really being debated here is whether the Government should manage competition on the Internet, whether Congress should accept Google's vision of how the Internet marketplace should operate, which would result in loading all costs on consumers and prohibiting any prices being charged to Google. This is not a competition policy issue. It is a business plan issue. And it is something that Congress should refrain from legislating.

Thank you, Mr. Chairman.

[The prepared statement of Mr. McCormick appears as a submission for the record.]

Chairman SPECTER. Thank you, Mr. McCormick.

Our next witness is Mr. Christopher Putala, Executive Vice President of Public Policy at EarthLink. He served on the Judiciary Committee staff under Senator Biden, has a bachelor's degree from Bates and a master's degree in public policy from Harvard.

Thank you for coming in today, Mr. Putala, and the floor is yours.

STATEMENT OF CHRIS PUTALA, EXECUTIVE VICE PRESIDENT OF PUBLIC POLICY, EARTHLINK, INC., WASHINGTON, D.C.

Mr. PUTALA. Thank you, Mr. Chairman, members of the Committee, Senator Biden. EarthLink is the Nation's largest independent Internet service provider, a publicly traded company headquartered in Atlanta. We are proud to provide Internet access and services to more than 5.3 million consumers throughout the country. Thank you for the opportunity to testify today. I ask that

my full statement be made part of the record, and I will summarize.

Today, there are three major communications policy issues facing Congress: First, how will the Bell companies enter the television business? Second, how will cable and others in the Internet voice business connect to the telephone network? And, third, how will the Internet work if equal access laws and regulations around since its inception are allowed to fade away?

The answers to all three fundamentally concern market power and what to do about it. To the first two questions, can the Bells and the cable companies offer specific legislative solutions to correct actual and potential discriminatory abuses of market power? But when it comes to the issue of net neutrality, the implications of market power have largely been ignored, and that is why today's hearing and the leadership of the Judiciary Committee is so important.

Taking the first question of Bell entry into the television business, the Bell companies argue that cable has too much market power and not enough competition in television services, and so they seek changes in program access rules that make sure that cable has to make the sports and other programming available to the Bells on a nondiscriminatory basis. The reason is clear. The Bells need access to content if they are to compete against cable. A new competitor is just not going to have very good luck starting a new television service in Philadelphia if they cannot broadcast the Phillies. Nor would one have very good luck in Vermont if they cannot broadcast the Red Sox. So the Bells are today fighting to significantly expand nondiscriminatory program access rules; in other words, television neutrality.

On the second question concerning how voice over the Internet, or VoIP, interconnects with the public telephone network, cable argues that the Bells have too much market power over telephone networks, so they ask Congress to require nondiscriminatory interconnection rules so the new technology of voice over the Internet has access to the telephone network. The reason is clear. New VoIP companies are not going to have very good luck starting a new telephone service if it is too expensive for their customers to send or receive calls for the millions of Bell company telephone customers; in other words, telephone neutrality.

I respectfully suggest that these same equal access, nondiscrimination goals guide Congress as it considers net neutrality. Rules that have governed the Internet from the start require equal and open access over the last mile precisely because consumers lack robust choices. That remains so today. Cable modem service and Bell company DSL together account for 95 percent plus of all residential and small business broadband connections nationwide.

In the face of the Bell, cable, broadband duopoly, there is a need for equal access protections, nondiscriminatory rules so that powerful incumbents cannot put their thumb on the scale of competition. What happens when the bits line up to come down that last stretch of Internet pipe to my house? Will my EarthLink Internet voice bits go to the back of the line because the Bell does not want EarthLink to be a high-quality substitute for its telephone service? If EarthLink creates an Internet video service, does cable put my

video bits at the back of the line to protect its own video service? Would either of them let Google video jump ahead of EarthLink video simply because Google paid a fee to have the first claim on the last mile of Internet bandwidth? The market should decide who can sell television, telephone, and Internet services. Incumbents with a stranglehold on vital inputs should not. Just as the Bells argue for equal access to programming and the cables argue for equal access to the telephone network, the Internet should be governed by nondiscrimination and equal access.

The other important way to confront the net neutrality issue is to encourage as many new broadband providers as possible. One place to start is for Congress to eliminate current and future prohibitions on local broadband initiatives. EarthLink is proud to be leading the effort to unwire America's cities with WiFi technologies, delivering the Internet wirelessly and affordably. EarthLink has already partnered with the city of Philadelphia to build, own, and manage at our cost a wireless network to provide broadband to the entire 135 square miles of Philadelphia. This will be the Nation's largest municipal WiFi network. EarthLink is working with Milwaukee, Wisconsin; New Orleans; San Francisco; Anaheim; and many others to expand this new technology as far and as wide as possible.

In closing, EarthLink's WiFi network will practice what we preach. We will offer fair, reasonable, and nondiscriminatory wholesale rates to all others who seek to bring customers to these new networks.

Thank you for the opportunity to testify. I look forward to questions.

[The prepared statement of Mr. Putala appears as a submission for the record.]

Chairman SPECTER. Thank you very much, Mr. Putala.

We will now turn to Mr. Blair Levin, Managing Director and Telecommunications, Technology, and Media Regulatory Analyst for Stifel Nicolaus, as well as its predecessor, Legg Mason; was chief of staff of FCC Chairman Reed Hundt; had been a partner of the North Carolina law firm of Parker Poe; a summa cum laude graduate of Yale College and a law degree from Yale. That is second best, Mr. Levin, to being a Philadelphia lawyer. The floor is yours for 5 minutes.

STATEMENT OF BLAIR LEVIN, MANAGING DIRECTOR, STIFEL, NICOLAUS & COMPANY, INC., ST. LOUIS, MISSOURI

Mr. LEVIN. Thank you. In considering telecommunications investment innovation, I would offer four points.

First, regulation is not the primary driver of investment decisions for network infrastructure. In this network neutrality debate, some argue that any regulation will hurt network investment, but this confuses a piece of the puzzle with the entire puzzle. Decisions involving such investment involve numerous factors. For example, looking at one puzzle piece, one could argue that the 1992 Cable Act suppressed investment in cable infrastructure. But looking at the whole puzzle, the Act facilitated the rise of DBS, stimulating cable investment to offer improved video service and broadband, which in turn stimulated telco upgrades. The point is not that all

regulation stimulates investment, but the opposite is also untrue. And I think we err in judging a policy on the single metric of capital investment in a single industry.

Which leads to my second point, which is that the task of public policy ought not to be to maximize investment in one part of an economic value chain but to allow the market to optimize investment throughout the value chain. The Nation's economic policy should create a rising standard of living. That requires investments that drive economic growth. This debate is part of competition for investments as different parts of the broadband value chain seek rules to improve their return on capital. Some suggest Government should not be involved, but the Government has often intervened in value chain disputes to help jump-start new industries and stimulate competition. Some of these regulations worked well; others didn't. Some were required at a particular time but over time outlived their usefulness. The prior speaker mentioned some other disputes that are essentially value chain disputes. And with each, Government sought to stimulate growth throughout the value chain by regulating access to a key input. The facts are different with each, but with broadband, if a network owner wants to develop new applications or services, nothing stands between it and the consumer. A network owner has three ways to earn a return on investments: selling basic access, premium access, and its own applications. By contrast, applications providers have only one way and rely on others to reach a critical mass of customers. Uncertainty about if, how, and at what cost that happens decreases the odds of funding, which is no small thing for our Nation's economy. A key driver of economic growth has been Internet innovations, none of which were developed by network owners. So to make sure that innovations continue, we need investment throughout the value chain and not just at one point.

Which brings me to my third point, that the primary threat to the market being able to optimize investment is a non-transitory bottleneck in any critical part of the value chain that restricts economic growth. Public policy should address bottlenecks that prevent a rising standard of living. Some bottlenecks, such as temporary bottlenecks that can be bypassed, do not require Government actions, but others might.

Antitrust experts, which I know this Committee is familiar with, have identified certain harms potentially—I emphasize "potentially"—relevant here, such as preventing new entrants from entering through adjacent markets, allowing those with the bottleneck to leverage dominance into a related market, or impeding technology developments by concentrating technology leadership.

In the current debate, these concerns are raised principally around last-mile wireline broadband facilities. Even network neutrality proponents agree that having five providers eliminates the need for regulation. Conversely, if there were only one provider, most would favor network neutrality rules. Thus, the issue boils down to different views about the appropriate rule when we have two, three, or four providers. This is, of course, more complicated than simply picking a number of national broadband competitors which, if reached, trigger an end to the rules, but it is not the problem of a long-term national monopoly. It involves discrete geo-

graphic and product markets. For example, there is a relatively smaller risk, in my view, of anticompetitive behavior affecting low-bandwidth applications such as e-mail and search. But for applications requiring high bandwidth and low latency, such as online gaming and streaming video, there is a greater risk, though not a certainty, of anticompetitive behavior.

Analyzing specific risks and, if necessary, a spectrum of potential remedies is the task of expert agencies, but I would hope that as they look at it, they keep in mind the long-term strategy, which brings me to my concluding point, that the greatest guarantor of the kinds of benefits that network neutrality principles have delivered in the past and the greatest driver of investment are the same: an opportunity for new, ubiquitous broadband networks.

Ultimately, we want a broadband environment characterized by survival of the fittest, selected by the market, rather than survival of the friendliest, selected by network owners. We have already benefited from such an environment in the Internet ecology. We should want it to continue. There are different paths there, but ultimately the most reliable path is more, bigger, cheaper, and ubiquitous broadband through new, probably wireless, broadband facilities. And if we get those policies right, network neutrality will be a debate largely of interest to historians rather than legislators.

Thank you very much.

[The prepared statement of Mr. Levin appears as a submission for the record.]

Chairman SPECTER. Thank you very much, Mr. Levin.

Our next witness is Mr. Paul Morris, the Executive Director of the Utah Telecommunication Open Infrastructure Agency, known as UTOPIA, a coalition of 14 Utah cities created to build an open broadband network to all homes and businesses within the member cities. UTOPIA must have been suggested by my distinguished colleague, Senator Hatch.

Senator HATCH. Anybody who knows anything about Utah knows how great it is.

Chairman SPECTER. Mr. Morris serves as Chair of the Utah League of Cities and Towns Telecommunications Task Force, had been city attorney for West Valley City in Utah; a bachelor's degree from Brigham Young University and a law degree from the same university.

We appreciate your coming in, Mr. Morris, and we look forward to your testimony.

STATEMENT OF PAUL MORRIS, EXECUTIVE DIRECTOR, UTAH TELECOMMUNICATIONS OPEN INFRASTRUCTURE AGENCY (UTOPIA), WEST VALLEY CITY, UTAH

Mr. MORRIS. Thank you very much. UTOPIA is an interlocal entity created by 14 cities in Utah, with nearly 500,000 residents. We are constructing one of the Nation's largest community broadband projects.

These municipalities formed UTOPIA to provide every household and business within their boundaries access to a next-generation, high-speed, competitively priced broadband connection. There are two key reasons for this investment: first is to promote economic development; second is to enhance the quality of life for residents.

UTOPIA member communities concluded that the best way to achieve these goals was through the construction of an all-fiber network that operates on a wholesale basis and leaves it to the private sector to provide the telecommunications services to the customer—a true public/private partnership.

As you are aware, local leaders across the country have become actively engaged in supporting the deployment of new broadband infrastructure in their cities. Some communities are supporting wireless projects while others are focused on the fiber-to-the-premises infrastructure, like UTOPIA. Some are doing it on a retail basis, others on a wholesale basis, and some are a hybrid of the two. Many of these projects involve public/private partnerships. The common thread is that each community believes upgrades to its broadband infrastructure are essential to its economic vitality.

About 4 years ago, a few local officials in Utah began exploring the best way to provide advanced telecommunications services within their jurisdictions. They acted on the conviction that their communities needed access to services that would be second to none, both in terms of bandwidth capacity and competitive pricing. These local leaders carefully examined the options, and after extensive evaluation, they have concluded that a fiber-to-the-premises network was the best alternative for both current and future applications and that it should be operated on a wholesale basis. At this point, 25,000 homes and businesses are ready for service. Over 4,200 have signed up with one or more of our four current private service providers, and more are signing up daily.

The UTOPIA network is different from the broadband infrastructure typically found in our country for three significant reasons:

First, the symmetry. Users can send information just as quickly as they can receive it. Traditionally, the focus has been on download speeds, but human communications for entertainment, business activity, social cohesion, and family unity needs to be interactive. Giving individuals the ability to send as quickly as they receive can be transformational.

Secondly is capacity. A fiber network has incredible bandwidth capacity, enabling new applications such as inexpensive, high-quality video conferencing, distance learning, high-definition IPTV, telemedicine, and telework. For example, we currently are working with private companies to test three new applications that require the bandwidth that an all-fiber network can support. Two of these tests are being conducted by an international media company and involve a whole new way of viewing video content. The third is an inexpensive, high-quality video chat that is easy to install and use.

Third is wholesale. Both the symmetry and bandwidth capacity of the network enable the implementation of UTOPIA's philosophy of operating the network as a wholesale public infrastructure. Much like an international airport constructed by a municipality to enhance the local economy, UTOPIA is building the electronic airport but not "trying to fly the planes". This allows for robust competition, the introduction of new services, and innovation.

As you consider the legislative proposals pending before you, we believe that it is prudent to recognize the vital role Government has played in the development of all major infrastructure in the history of the United States, from railroads and canals to water,

sewer, and power systems, from highways to the current telecommunications networks. Municipalities have a key role to play as we work together to provide the most competitive and advanced telecommunications system in the world.

We believe that legislation that recognizes this role and allows municipalities to chart their own course should be supported. Specifically, the original draft of SB 2686 dealing with municipality participation in broadband developments was of great concern to us. However, the provisions in the current Staff Discussion Draft is a great improvement, and we support its concepts. Similarly, the telecom reform bill passed by the House last week had similar language that is a positive approach.

Also, there has been much debate over network neutrality. While UTOPIA has not taken a position on network neutrality as applied to other networks, our network solves this problem without the need for regulation. We understand the concern over the public policy implications raised in the debate, but with an ample supply of bandwidth coupled with multiple service providers freely competing for the consumer's dollar on a network such as ours, the free market will resolve the issue. One of our concerns is the scope of the language of some network neutrality proposals and its implications as applied to an open network.

Thank you for your time, and I look forward to any questions you may have.

[The prepared statement of Mr. Morris appears as a submission for the record.]

Chairman SPECTER. Thank you very much, Mr. Morris.

Our final panelist is Mr. Jeff Kuhns, Senior Director, Consulting and Support Services and Information Technology Services at Penn State University, also serves as an instructor at Penn State's College of Communications; bachelor's in science and business management from Indiana University of Pennsylvania and a master of arts in telecommunications policy from Penn State.

We appreciate your being here, Mr. Kuhns, and look forward to your testimony.

STATEMENT OF JEFF C. KUHNS, SENIOR DIRECTOR, CONSULTING AND SUPPORT SERVICES, PENNSYLVANIA STATE UNIVERSITY, UNIVERSITY PARK, PENNSYLVANIA

Mr. KUHNS. Thank you, Mr. Chairman, members of the Committee. I am directly involved in managing the telecommunications and Internet needs of the university. I am testifying today on behalf of EDUCAUSE and Internet2, the organizations that jointly represent the interests of higher education and universities in telecommunications policy.

I would like to focus my remarks on the importance of keeping the Internet open to all—the issue of net neutrality. Universities are extremely large producers and users of Internet content. Universities such as Penn State, for instance, depend upon the Internet to engage in distance learning, to provide telemedicine, and to engage in new research.

All these services and activities could be wiped out if the providers of broadband capacity are allowed to close down the Internet or give preferential treatment to their own services.

Penn State has over 80,000 students, and about 80 percent of our students live off campus. Penn State's online program offers more than 50 degree and certification programs to students on all seven continents. We have online students who have never taken a college course before. These online programs are especially valuable to persons with disabilities and to members of the military stationed overseas. Many of these off-campus students use cable modem service or DSL to take advantage of these online programs. In short, the availability of affordable, high-speed, nondiscriminatory Internet services is absolutely essential for my university to meet our educational goals in the 21st century.

Our experience working with advanced networks has taught us that the Internet works best if the user, not the network owner or operator, determines what information is transmitted over the network. Once the user has paid for his or her bandwidth, the user should be able to go to any Web page, use any lawful application, equipment, or service, and send any lawful content.

Allowing a gatekeeper to monitor, screen, manipulate traffic would ruin the Internet as we know it. Instead of the open, freewheeling forum for discourse and commerce that we enjoy today, the Internet would become the private playground of a few network owners—which face little competition and thus have significant market power—whose incentive will be to steer users to the products and services that they own.

The debate over net neutrality is sometimes distorted by those who oppose legislation. Let me state a few points very clearly.

First, now that the FCC has eliminated the net neutrality requirements for broadband providers, a cable or phone company could block access to a Senator's website or an online journal simply because they disagree with the viewpoint being expressed. At a minimum, Congress must act to prohibit blocking or intentional degradation of Internet traffic.

Second, there is one central principle that underlies the entire net neutrality debate: nondiscrimination. Network owners should not be able to give preference to their own services over those of their competitors. Network operators should truly be neutral.

Third, as network managers ourselves, we understand the need to be concerned with security attacks, spam, and overall congestion, but these should not be used as excuses to discriminate.

Fourth, giving preferential treatment to certain Internet traffic, as the telephone and cable companies desire, is not only unfair, it inherently degrades the quality of service provided to others.

And, fifth, if economic tollbooths are allowed for content and applications to access the Internet, then soon only the richest content providers will be able to make their material available.

We are aware that some providers argue against net neutrality by saying that they must give priority to certain kinds of Internet bits, such as video, in order to assure a high-quality experience for their customers. Let me respond to these arguments by telling you about the experience at Internet2.

When Internet2 first began to deploy its Abilene network, the engineers started with the assumption that they should find technical ways of prioritizing certain kinds of bits, such as streaming video or video conferencing, in order to assure that they arrive without

delay. For a number of years, Internet2 seriously explored these various quality-of-service schemes. At the end of the day, we found it was far more cost-effective to simply provide more bandwidth. Today, the Internet2 Abilene network does not give preferential treatment to anyone's bits, but its users routinely experiment with streaming high-definition TV, hold thousands of high-quality two-way video conferences simultaneously, and transfer huge files of scientific data around the global without loss of packets.

A simple design enables and encourages innovation.

We urge Congress to restore the net neutrality principle that governed the Internet since its inception. The future of American education, innovation, and competitiveness is at stake.

Thank you.

[The prepared statement of Mr. Kuhns appears as a submission for the record.]

Chairman SPECTER. Thank you very much, Mr. Kuhns.

Before proceeding to the questions, let me make a comment about some administrative matters. We have been advised the Majority Leader has set a vote tomorrow for 10 o'clock, and in consultation with the Ranking Member, Senator Leahy, we would like to start our Judiciary Committee meeting at 9. We have a very heavy calendar. I have been requested by quite a number of members to move legislation of particular interest to individual members, and that will be accommodated to the maximum extent possible. We are going to arrange a room, try to arrange a room off the floor tomorrow—not the President's Room, which is terribly crowded and terribly hot, as we all know, but one of the larger rooms, 207 or 211, so that when the vote is over, we can adjourn to that room. We all know how hard it is to get members to come back from the floor to this room. But our business is very, very heavy, and we will undertake that arrangement.

Senator LEAHY. Mr. Chairman, if I might, I would urge the staff to notify each one of the Democratic Senators that we are doing this. I think you are absolutely right. With our schedule, we do have a large agenda. If we want to get into it, we should do that. So I am urging everybody to be here at 9. I have rearranged my schedule for that, and I know others will, and I think to make it easier for the Chairman to have a quorum as quickly as possible, my side will be prepared to start moving as soon as that quorum is here.

Chairman SPECTER. Well, thank you again, Senator Leahy, for your cooperation. We could conclude our Committee business in 75 minutes if we started at 9. We could finish by 10:15, and they will hold the vote a little while for us. Once we get the group together—an experienced Chairman, Senator Biden has some doubts about that.

Senator BIDEN. It is interesting. I never heard anybody say "75 minutes".

Chairman SPECTER. Well, that is the way we count time in Russell, Senator Biden. Wilmington is a lot more sophisticated.

[Laughter.]

Chairman SPECTER. We will now turn to the questioning rounds with 5 minutes for each Senator. I will begin with you, Commissioner Kovacic. The Commerce Committee bill stakes out jurisdic-

tion for the FCC, Federal Communications Commission, by directing it to monitor competition in the market for Internet service and report to Congress annually. That seems to me to be a pretty direct encroachment upon antitrust regulation by the Federal Trade Commission or perhaps the Department of Justice. So what is your view of that?

Mr. KOVACIC. We have not discussed this specific measure. As you know, the development of the new proposals has been quite fluid and changing.

Chairman SPECTER. Well, let us have your personal view. I would expect it to be pretty much in opposition to that. Tell me why.

Mr. KOVACIC. My strong recommendation, were I having this conversation with your colleagues, is that the legislation make absolutely clear that no encroachments upon the antitrust jurisdiction certainly of the FTC or the Department of Justice take place, and with the clearest drafting possible, I would want it to be clear that traditional antitrust oversight would still be available as a means for overseeing competition problems in this area.

Chairman SPECTER. Mr. Cerf, the cable companies and the telephone companies have taken sharp issue with network neutrality and have urged us to see if there is a problem which develops. What would you think about a case-by-case adjudication to see if there is an antitrust violation or if there is inappropriate conduct and take it up in that manner as opposed to legislation? When you deal with legislation in a matter like this, it is extraordinarily difficult, candidly, when you have the giants on both sides of these issues. And what I have seen—I think my colleagues would agree—we usually have a better resolution if we can bring the parties together and craft something which is agreeable on all sides. It is very easy to get the Congress to do nothing and very hard to get the Congress to do something, and we might structure a case-by-case adjudication with some standards as to how that would be applied. What would you think about that as opposed to blanket legislation on neutrality?

Mr. CERF. Having given 30 milliseconds of thought to your question, let me just say—

Chairman SPECTER. Well, with your background that should be sufficient.

[Laughter.]

Mr. CERF. All cylinders are firing.

First of all, I think it is terribly important to understand how the Internet actually works and how business is supported by it. Because of the absolutely neutral and open access that the Internet has fostered over its 15-year history in the commercial form, it has been possible to aggregate markets that would otherwise not exist. The simple point here is that if consumers are able to go anywhere and do anything on the net that they choose, they form a market for services that otherwise could not be aggregated. They can come from anywhere. All billion users of the Internet all over the world are potential customers of services that are brought up on the network. Any potential constraint on the freedom to go to these various services on the net may actually have a serious impact on the business models that will work.

I would be nervous about a case-by-case analysis, to be quite honest with you, Senator. It seems to me that when you get into case-by-case analyses, you almost never get to a conclusion. I would be a lot more comfortable, frankly, with legislation that made it very clear—

Chairman SPECTER. But when you talk about a case-by-case analysis, I have to disagree with you. You come to conclusions. You can come to a faster conclusion there than trying to get legislation which provides a general rule. Mr. Cerf, let me ask you to supplement your answer in writing because that is a very important point, and I would like to have your full thinking. In fact, I would like to have the full thinking of the entire panel on it, but I want to ask one more question here and stay within the 5 minutes of the Chairman.

Mr. Cohen, the issue of vertical integration between program vendors and cable and satellite companies has raised very serious concerns that competing cable and satellite companies will not be able to access programming sold by the vendors. The FCC regulations would prohibit exclusive contracts. How would that affect Comcast, which owns the Flyers, the Sixers, and the Phillies—my red light just went on.

Mr. COHEN. I hope I have more than negative 3 seconds to respond to that.

Chairman SPECTER. The red light governs me, not you. I may govern you if you go too long.

Mr. COHEN. I am sure. But I am used to that. Just a quick overview comment, then a specific response.

I referenced in my oral statement that in the last decade, the proliferation of competition in the video marketplace has resulted in a veritable explosion of cable channels, from fewer than 100 to about 500 today. The other key statistic, though, is that at the time the Telecommunications Act was drafted and the program access and program carriage protections were put into law, about 50 percent of those cable networks were vertically integrated, that is, they were networks in which a cable distributor had an attributable financial interest. Today, that statistic is less than 20 percent, and for Comcast, less than 7 percent of the programming that we carry is vertically integrated programming. So the market has worked extremely well in the ensuing decade to distribute on a much wider basis the availability of programming.

In terms of sports, the key and most important exclusive sports programming that exists today is DirecTV's NFL Sunday Ticket package. Most other sports programming, with one critical exception that I will reference which relates to Comcast—is not made available on an exclusive basis but, in fact, is available across all distributors. That one exception, which the Senator is well familiar with, is Comcast Sportsnet in Philadelphia, which, pursuant to the terrestrial exemption under the program access laws, does not have to be made available to cable's competitors.

Notwithstanding that, we do make that programming available to RCN, an overbuilder that is a competitor. The only competitor we do not make it available to is satellite, which has been challenged twice in front of the FCC, once in front of the courts. We have been successful on all three of those occasions in defending

our rights to make that programming available on an exclusive basis in Philadelphia. But it has not proved to be a dominant model, and my submission to this Committee would be that it is not something that rises to the level of the need for legislative reform of the program access rules.

Chairman SPECTER. Thank you, Mr. Cohen.

Senator Leahy.

Senator LEAHY. Thank you.

Mr. Cerf, I would like to get your reaction to something Mr. Cohen said. Incidentally, before I do that, I want to point out I do not think keeping open access to the Internet is regulation. I think it is just the opposite of regulation. There are two current net neutrality bills, the Snowe-Dorgan-Leahy bill and the Sensenbrenner bill. They make clear that cable companies can aggressively prevent spam and security threats, along with open access.

Now, Mr. Cohen said that regulation of the Internet would prevent cable companies from protecting the Internet. I noticed you were making some notes during that time. What is your response?

Mr. CERF. I think we should distinguish between freedom of choice to go anywhere and do anything on the network and doing things that are either illegal or things that harm the network. I don't have any objection to someone introducing filtering and other mechanisms that protect us at the appropriate levels in the architecture of the Internet's layered structure. What I would be concerned about is abuse of the ability to detect these kinds of things and use them in order to prevent people from getting access to services that they legitimately expect to reach. I would distinguish and divorce those two things from each other.

Senator LEAHY. A spam filter or a virus protector, those are entirely different.

Mr. CERF. Those things, frankly, can take place at higher levels of protocol than carrying bits on the underlying cable or the underlying DSL.

Senator LEAHY. And, Commissioner, let me ask you a couple of questions. In my opening statement, I said I had two concerns in the context of competition in broadband service: first, unfair practices that discriminate among content providers and block consumer access to lawful websites; second, the so-called triple play that occurs when a broadband provider offers TV and video, telephone, and Internet.

If a single provider were to force consumers to buy the package of all three services, that bundling would be anticompetitive. It would impede the ability to substitute service providers. It means that each cannot compete on their own.

Does the Federal Trade Commission have the ability to investigate and resolve such issues as this if it arose in the context of the broadband access market?

Mr. KOVACIC. Our belief is, in light of *Brand X* and related developments, the answer is yes, Senator.

Senator LEAHY. I worry in the broadband access market about anticompetitive practices and so on. In the mobile telephone industry, subscribers are confronting penalties if they seek to change providers. The FTC has considerable expertise in recognizing anticompetitive behavior. What potential anticompetitive practices

should we be thinking about as we consider competition in the broadband access market?

Mr. KOVACIC. Certainly where you have a dominant incumbent supplier, questions about access, vertical integration, exclusion, foreclosure are legitimate conceptual concerns that may be borne out in specific fact circumstances. I think continuing review of consolidation mergers that affect the number of providers is a further area of legitimate concern.

I would add to my earlier comment, Senator, that as we move into the role of that traditional telephony providers offer, this is an area where I would endorse Senator Kohl's observation and the observation that a number of your colleagues have made, that a valuable step in the direction of improving our capacity to deal with these specific issues would be a repeal of the common carrier exception.

Senator LEAHY. Thank you.

Mr. Putala, it is good to see you back in this Committee room. You spent a lot of time here before.

Mr. PUTALA. Thank you, Senator Leahy.

Senator LEAHY. You know that this competition is part of the central concern of the Committee. Several of the panelists argue that there is competition. A Washington Post editorial citing FCC data, which has been criticized, states that people residing in 60 percent of zip codes in the United States can choose from among four broadband service providers, but according to a more recent GAO report, 98 percent of households that have Internet connections get their access from either a DSL line or the cable company. I guess I am in the small part that cannot get any of these. Your company's municipal broadband deployments are among the investments that give hope for real effective competition.

What do you see as the primary barrier to entry for competing broadband access providers? What are the prospects for true competition in the current duopoly?

Mr. PUTALA. I think they are very difficult. Much of the competition that is cited by Mr. McCormick is actually a reflection of the fact that there are commercial agreements between folks like EarthLink and Bell companies such as Verizon, Bell South, et cetera.

The rules that required a fair negotiation to get to make those commercial agreements are going away. So that is yet another kind of barrier to entry that is making it more difficult for there to be providers of equal status, even though they may be sharing various network elements.

As a result, if we are going to let those go away, we also need to do everything we can to encourage the growth of new networks. Something that EarthLink has faced as we try to get into the market with a new technology, a new network in Philadelphia, is that many of the Bell companies and cable companies have sought to pass State laws outlawing municipalities from doing their own broadband developments or even entering in partnerships with private companies to build networks that would cover their particular area.

Senator LEAHY. Thank you, Mr. Chairman. I will submit my other questions for the record. Both my time and my voice seem to have run out at the same point.

Chairman SPECTER. Thank you very much, Senator Leahy.

Under our early-bird rules, in order of arrival, we have Senator Cornyn, Senator Biden, Senator Brownback, and Senator Hatch.

Senator Cornyn.

Senator CORNYN. Thank you, Mr. Chairman, and I want to thank the panel for your testimony. This has been very informative. I guess the challenge for us and the trepidation that we feel is in part, I guess, characterized by a quotation that I heard from Abraham Maslow, who said, "To the person whose only tool in their toolbox is a hammer, they tend to regard every problem as a nail". And, of course, the hammer that Congress has is regulation and taxation, and those seem to be the two things that are exactly what the Internet does not need more of.

But I would like to ask, first of all, perhaps Mr. Cohen and maybe Mr. McCormick a question, and then I would like to ask Mr. Cerf a question as well.

The Internet has already allowed for the creation of a lot of innovative business models, such as subscription services, online sales and shopping, advertising partnerships, and the like. Would the passage of network neutrality provisions inhibit the development of new business models in the marketplace, Mr. Cohen?

Mr. COHEN. Senator, in our opinion, the opinion of the cable industry and the wireline competitors, the answer to that question is that there is a substantial risk that that would occur. I come from a little bit of a governmental background, too, and I view that any decision whether to regulate needs to involve a balancing of the scales of what are the benefits of regulating and what are the risks of regulating. I think one thing everyone on this panel agrees with is the explosive growth of the Internet and the innovation that has occurred, all in the absence of regulation of the Internet to make it neutral. It has occurred because of the natural competitive state that exists and that has fostered that type of competition and innovation. So I do not see much of a benefit but I see real risks of unintended consequences, of the drying up of capital investment, of removal of incentives for investment and innovation that could enable the Internet to continue to grow, to thrive, and to continue to evolve over time.

Senator CORNYN. Since my time is so short, let me go to Mr. Cerf on this question, if I may, please. Google obviously filters information during searches on their site and joins in corporate agreements to favor websites during searches, in other words, to feature certain websites based on those agreements. Would Google also like us to regulate its ability to create new business models and trying to develop its service?

Mr. CERF. First of all, I wonder about the model that you might have in mind as a consequence of having asked that question. Google runs algorithms which try to provide responses to searches which are relevant to the queries. That is completely independent from the advertising which is put up. Those are quite separate and distinct.

The advertising that is put up goes up on the basis of auctions which take place in real time. During the time that a query is being made, we are also running auctions against the—I don't know how many hundreds of thousands of ads that are potential competitors to appear on the page. The auction determines which ads come up, and that auction is not done on anything other than a fair and nondiscriminatory basis. So certainly we would not want you to be telling us how to run our business. On the other hand, we believe in neutral and open processes, which is how we run our operation now.

Senator CORNYN. Mr. Putala, let me ask you, I am intrigued by the development of broadband over power line. I come from a State where rural electrification, championed by Lyndon Baines Johnson, is a big deal, and obviously we have large, expansive rural areas where it is hard to get other types of service. Could you elaborate on the broadband over power lines and how far that technology has come along and how competitive it is in the marketplace with other means of delivering Internet services?

Mr. PUTALA. EarthLink is an investor in that technology. We are looking for any alternative technologies that we can find. According to the FCC, in 2005, out of the 43 million broadband connections to the home, there were 4,872 which were broadband over power lines. So while there are new technologies emerging, we cannot lose sight of the fact of what a head start the Bell companies and the cable companies have in terms of delivering broadband to the home.

I also would like to take a little bit of issue with a comment of Mr. Cohen saying that the Internet did not have any rules. Well, in fact, the Internet did have rules. It grew and built under the concepts called by some "common carriage," which really means nondiscrimination, fair access, equal access. Those are the rules which allowed everything from the Vermont Teddy Bear Company to Google to build applications on the edge of the Internet which have become a major generator of economic growth in this country. So it is just simply not accurate to say there was not a regulatory structure for the Internet. There was, and it was nondiscrimination.

Senator CORNYN. I thank each of you for your responses.

Thank you, Mr. Chairman.

Chairman SPECTER. Thank you very much, Senator Cornyn.

Senator Biden.

Senator BIDEN. Thank you, Mr. Chairman.

Is there any preferential treatment now? You are all worried about preferential treatment. You want to make sure that we have this neutrality rule. What is the problem now?

Mr. MCCORMICK. Senator, on the Internet networks, there is no preferential treatment. Clearly, there is preferential treatment with regard to the search engines. In fact, just yesterday there was an article that ran that Google's algorithm is such that if you type in "net neutrality" at Google, you will see advertisements for It's Our Net Coalition or other sites that they might be pointing to. So what you are seeing is with regard to search engines, you are seeing exactly the opposite of any kind of neutrality or common carriage. You are seeing—

Senator BIDEN. That is really not my question.

Mr. MCCORMICK. So there is some—there is favoritism there.

Senator BIDEN. Those of you who are concerned about the need for a net neutrality rule, is it something that is happening now or is it something that is going to happen or could happen?

Mr. MORRIS. Senator, I would like to reply to that. I am not aware of any blocking that has occurred, at least for universities today. But the rules just changed last year, and I believe that both AT&T and Verizon are still under discrimination requirements as part of their recent acquisitions. So that is the current state.

We also know that Bell South and AT&T have made statements about potentially doing these sorts of activities, and my own experience in working with Verizon has been that although we have tried to hold talks with them, they have been less than forthcoming in talking with us. And each time we have talked with them, they have never agreed that they would not do this.

So I am concerned, and I think that concern is justified.

Senator BIDEN. The reason I ask the question, it would seem to me if the fears you have are real and they occur, there will be a virtual explosion in this country. You will not have the audience we have here. The Chairman will be required to hold this hearing in the largest room in the Capitol, and there will be lines wandering all the way down to the White House if that occurs.

I think it is a legitimate concern. I just wonder whether or not this need for preemptive action is as urgent as is being argued. I do not doubt—by the way, it is not that I trust you guys. I do not trust anybody. I do not trust any of you. Because I noticed, by the way—I mean in terms of go out there and "do the right thing," every one of you has your own interest at stake. That is fine. That is good. And every one of you tried to alter competition in the field in which you compete wherever you are. For full disclosure, David Cohen is a close personal friend of mine, and Chris Putala is a close personal friend who worked for me for years. Both your companies, I mean, David, if you could see to it that EarthLink could not compete in Pennsylvania, you would make sure they could not, I suspect. Maybe I am wrong. Maybe I am wrong. And I suspect EarthLink would try to figure out a way to hedge—and I know Google would. But you are wonderful guys. You know, my 4-year-old granddaughter says, "Google it, Pop".

So I just wonder. I guess my concern is whether or not this is premature and whether or not, as the Chairman said, when we deal with such powerful collective entities, I mean, you represent an incredibly powerful, economically powerful chunk of the economy on both sides of this issue. And usually when we get into those kinds of legislative initiatives, they end up looking at the end of the day not very attractive. That is my generic concern. My instinct is that I like the notion of the neutrality rule. I just wonder whether or not we can write it in a way that does not cause an explosion.

The flip side of it is, the other side of me says if you all divert from the major carriers, if the cable companies, et cetera, in fact, began to impose the things we are concerned about, the dome of the Capitol will literally blow off. I mean, you will have more bloggers in here than you have people in America.

So that is why I raise the question about whether or not there is preferential treatment now, but I would like to ask one question in my 8 seconds left. Isn't it true, Mr. McCormick, that no matter how you structure the pricing of network access, it is ultimately the consumer who is going to pay the bill? So why does it matter whether you pass the cost on through Google rather than directly to the consumer?

Mr. MCCORMICK. Well, what we have seen in every other market is that there are a variety of innovative pricing packages, and that competition and creativity that goes into coming up with innovative and creative pricing practices benefits the consumer. So what we are doing is trying to get away from legislating absolutely just one pricing and package.

Senator BIDEN. But the bottom line is the bottom line. Whatever the cost is, the consumer is going to pay. They are going to pay it through Google. They are going to pay it through you. I mean, isn't this a bunch of malarkey? I mean, the fact of the matter is you are not going to absorb the cost. The cost is going to be passed on to the consumer, isn't it? Or am I missing something? Does it matter to me whether I pay the extra X percent in my bill through Google or through another—I mean, what difference does it make?

Mr. MCCORMICK. Well, it makes a huge difference. It makes a huge difference in the area of competition because what you will have with the market freedom is you will have competition at all levels, and you will have those pricing and package options.

For example, today if you order something from Lands' End, you have a choice of getting it by 2nd Day Air. You do not pay as much for 2nd Day Air if you order it through Lands' End because they buy in bulk. Under the Google model, the consumer is going to be charged a flat fee. There is never going to be any kind of that bulk purchasing. There is not going to be any kind of that marketplace innovation. So there are consumer savings that result from allowing companies to enter into these kinds of innovative pricing packages.

Senator BIDEN. My time is up.

Chairman SPECTER. Thank you very much, Senator Biden.

Senator Feingold has advised that he has a pressing problem and would like to be recognized at this time, but others have waited, and I would put that issue to Senator Brownback.

Senator BROWNBACK. If you have got a real pressing issue, go ahead.

Chairman SPECTER. And I would ask Senator Hatch if he would defer.

Senator HATCH. Yes.

Chairman SPECTER. The floor is yours, Senator Feingold.

Senator FEINGOLD. Well, in light of that kindness, I am just going to read my statement because I do not think it is fair to Senator Brownback for me to take up the whole time.

Mr. Chairman, thank you for holding this hearing today on the important issue of ensuring competition in our communications law. I hope that the Judiciary Committee will make this hearing one of a series addressing consumer and competition concerns in the telecom field. There are a number of significant issues we should look at, such as media consolidation, preemption of State

rights, and anticompetitive practices in the radio and concert industries.

In fact, as I think about this issue of Internet competition, it makes a lot of sense to me to consider it through the lens of the problem with the radio and concert industries that I have been concerned about for some time.

Ten years on, the radio and concert industries have not recovered from the 1996 Telecommunications Act, which I opposed. The massive consolidation that resulted from that law took a toll on the local flavor of radio, and it also allowed the problem of payments for air play, or payola, to reemerge. Within the radio industry, payola effectively created a two-tiered system of the labels and artists with the resources to purchase air time under the table and those who could not or would not. Consumers looking for diversity and localism were the big losers.

I see some parallel potentially developing if we allow Internet access providers to create another pay-for-play system and become de facto gatekeepers to the Internet. Without a nondiscrimination requirement, certain websites on the Internet could gain an unfair advantage. For example, the major record labels, the music stores, might be able to pay what the broadband providers demand to prioritize their music distribution while smaller rivals might not. The independent labels and musicians who found a niche on the Internet after consolidation and payola drove them from radio could again face an unfair pay-for-play system.

Moreover, without protections, Internet users could have fewer choices as only those content providers who could afford to pay the corporate toll keepers would be able to offer a competitive level of service. We need to make sure that the Internet retains its crucial role as an open forum for the free exchange and dissemination of information. While antitrust protection such as net neutrality's nondiscrimination concept might not be needed if we had truly competitive markets, the current landscape, which amounts to an emerging duopoly, does not meet this threshold. Perhaps this will change if WiFI, municipal broadband, or other technologies become widely available and competitively priced. But for the time being, the principle of nondiscrimination is a very important one.

I also understand that there are legitimate reasons for broadband providers to prioritize one type of data over another to manage their network efficiently. I support the core net neutrality proposals I have seen that allow for this legitimate management of the network while preserving the basic principle of equal access to the Internet.

Mr. Chairman, thank you for this opportunity, especially thanks to Senator Brownback for his courtesy.

Chairman SPECTER. Thank you, Senator Feingold.

Senator Brownback.

Senator BROWNBACK. Thanks, Mr. Chairman. Thanks for holding the hearing, and I want to start off first asking, Mr. Chairman, for my opening statement and a series of articles and "Dear Colleagues" to be entered into the record.

Chairman SPECTER. Without objection, they will be made a part of the record.

Senator BROWNBACK. Thank you, Mr. Chairman.

[The prepared statement of Senator Brownback appears as a submission for the record.]

Senator BROWNBACK. I want to start off by saying thank you to the panel. It is good information. But also, we had nearly 5 percent economic growth the first quarter of this year, and I think you guys are no small part of that phenomenal economic growth that is taking place in this economy. A lot of the efficiencies are based on Internet, the quick use of information, the growth in the Internet, it is a phenomenal tool, and it has been phenomenally successful and useful. There are things I do not like about it. There are things that invade into my home that we are still figuring out how to try to get smarter than our kids, which is really tough to do—not because my kids are so smart but I am so slow. It is just a fantastic time that we are in. And the ability to get the information so quick from so many different sources is fantastic. So that 5-percent GDP growth or near 5-percent GDP growth that we had the first quarter, thank you. I hope we have a whole bunch more quarters like that.

Having said that, Mr. Chairman, I also want to note—and this is in that stack of material I am submitting—the American Enterprise Institute and Brookings Institution, two entities which generally diverge on policy conclusions, issued a paper in April of this year through their Joint Center for Regulatory Studies, which concluded this—and I want to quote one line of that. "Mandating some form of net neutrality would be inconsistent with sound economic management of the Internet". This is AEI and the Brookings Institution together that made that statement.

I think what they are saying is something that just gets a check in me, that anytime you go to regulate something that has been so phenomenally successful and grown so much in this economy, there are just a lot of signals that go off pretty fast, saying, Now wait a minute, what are you guys going to do here with something that has really been working very well? And that is in the stack of things, and that is why I have real hesitancy about some of these proposals that are coming forward, the Markey amendment on the House side that was soundly defeated by a broad bipartisan vote.

I would ask real quickly, if I could, because my time is very short, of these net neutrality proposals such as the Markey amendment, who is going to be in charge of enforcing and interpreting these net neutrality laws? Mr. Cohen? And if you could answer quickly on that.

Mr. COHEN. Yes, sir, one sentence. I can answer with respect to the Markey amendment. In the Markey amendment enforcement authority was given to the FCC.

Senator BROWNBACK. So FCC is going to enforce and interpret these laws.

Mr. COHEN. Correct.

Senator BROWNBACK. Would the panel agree with that?

Mr. PUTALA. And that is the status quo of how the Internet has grown for the last 20 years. There have been rules which have enforced nondiscrimination, and that really is the status quo. The change is what happens if those nondiscrimination rules are allowed to fade away, as they will under recent Supreme Court and FCC decisions.

Mr. COHEN. If I could, in one sentence, just to be clear, those rules—

Senator BROWNBACK. All right. One sentence, real quick.

Mr. COHEN. Those nondiscrimination rules were never applied to cable. They did apply on the Bell side to DSL. They did not apply to cable.

Senator BROWNBACK. We have been trying to get them off the Bell side and telephone for some time so we could have a freer marketplace of competition.

Let me ask another question here. A number of you noted in your written testimony discussion of so-called bottlenecks, which the company with the power to deliver online content could impede or block that content in a discriminatory way. And that is the sort of thing, when you are raising that, I am listening, I am hearing you. That also reminds me of the old railroad system and the one that people talk about of a model for this being the new super highway.

Are there any specific examples today that any of you can cite of an actual bottleneck that has happened today?

Mr. PUTALA. There was the Madison River case of a small phone company blocking the voice over the Internet traffic of a competitor. But, again, it is sort of the same thing that Mr. Cohen is concerned—

Senator BROWNBACK. Chris, let me go ahead and—okay. Thank you. Is there an additional one—

Mr. MCCORMICK. Senator, that is not—that was not a case of a bottleneck under traditional antitrust law. Under traditional antitrust law, a bottleneck is a sole provider, it is an essential service, and you have no other option. And what you have in the high-speed Internet access market is that nationwide you have a very competitive market. Second, a bottleneck requires that the market not be contestable, and technology has brought us to the place where every market in the country is contestable with regard to high-speed Internet access. So the answer is—

Senator BROWNBACK. So you would argue that there is not an example, and this is not an example.

Mr. MCCORMICK. There are no bottlenecks.

Mr. CERF. Actually, I think I am going to disagree with Mr. McCormick on this one. The issue here, as Mr. Putala points out, is that we had open access, nondiscriminatory access and behavior on the Internet for all the time that it has been in existence. When the rules changed last year, the threat of bottlenecking and the threat of blocking or interfering arose. There had been public threats made by the telcos that they would, in fact, take advantage of the removal of those constraints in order to limit where consumers could go and what they could do on the net in exchange for payments from service providers who would gain advantage by paying those companies for access to the broadband facilities.

I hope you all remember that the way the Internet worked all the way up until now and continues to work is that everyone pays for their access to the net, and then they do whatever they want to with it. It is so different from the traditional telephone system where the caller paid for all of the costs. In the Internet world, ev-

erybody pays for access to the system, and then they do what they want to with it.

Senator BROWNBACK. Mr. Chairman, thank you, and I would just note that I think this is legislation in search of a problem. Things have been phenomenally successful on expanding of opportunity on the Internet, and it continues to happen, and I would hope we would not go in with a regulatory arm on this.

Thank you, Mr. Chairman.

Chairman SPECTER. Thank you very much, Senator Brownback.

You have been very patient, Senator Hatch. Since I am the only one waiting, you may take a little extra time if you want.

Senator HATCH. Well, I am very grateful for that.

Let me just say from my perspective there appears to be a wide variety of views regarding what net neutrality is and what goals it is intended to serve. I was impressed by Mr. Levin's analysis of the relevant considerations in his testimony and agree with his point that Congress should carefully consider the specific problems we intend to address in crafting a targeted solution.

To that end, I would be interested in addressing this to the whole panel, those who care to comment, and I would like to hear from the witnesses who support some kind of net neutrality about the specific problem or problems that justify a net neutrality mandate. For the witnesses who oppose net neutrality, I would like you to address with particularity precisely what things the phone and cable companies intend to do that would be prohibited by net neutrality.

So, Mr. Cerf, should we start with you? And then we will just go across.

Mr. CERF. Our fundamental concern, once again, is for the consumers and users of the Internet to have access to any site on the net that they chose to go to. They paid for that. That is what they were told when they bought broadband access to the Internet, that they were able to go virtually anywhere, run any applications.

The biggest concern I have at this point is that in the absence of some form of protection, the broadband providers will be able to discriminate against the consumers as to which products and services they are able to reach, and that is our primary worry.

Senator HATCH. Thank you.

Mr. Cohen?

Mr. COHEN. Senator, I wish I could tell you what we might want to do in the future that could be implicated by net neutrality regulation, but I am going to be honest enough to say that I cannot tell you that. Our position is that there is no way to predict what our business model and what the potential innovations on the Internet will be a year from now, 3 years from now, 5 years from now, and that the risks of regulating the Internet to protect against a hypothetical harm of drying up investment and of drying up innovation are too great a price to pay. Let's allow this market to evolve.

And I would say I think there are at least three protections to make sure that the evils that Mr. Cerf and others have talked about do not occur: the protection of the market, the protection of the antitrust laws and the FTC to police this market, as it does in other markets in abusive cases, and ultimately the threat of legislative action of this Committee and of this Congress being able to

intervene. I do not think we would ever get to the point of the dome of the Capitol blowing off as Senator Biden referenced because I think if there was ever any abusive conduct that was not policed by the market, the FTC, the Department of Justice, or the antitrust laws, Congress could at that point act to protect consumer interests.

Senator HATCH. Okay. Mr. McCormick?

Mr. MCCORMICK. Senator, I would associate myself with the comments of Mr. Cohen and say that there is no blocking, there is no impairing, there is no degrading of access. Both the FCC and the Federal Trade Commission have indicated that they have authority under the respective statutes and jurisdiction to take action should there be a problem that arises.

With regard to our business plans, it is impossible to know what the future will hold, so we do not have specific business plans that I could discuss with you, because we do not have them. They are in development. But what net neutrality legislation would do would be to require that, in effect, those business plans would have to conform with regulations that would be drafted by the Federal Communications Commission.

The bills that have been introduced say you shall not discriminate among bits. We simply do not know what that means. We do assign certain priorities to private networks that operate on the Internet, such as banking networks for security and privacy, governmental networks for security, health care networks for privacy and for a quality of service to make sure that they are always on in the case of monitoring patients.

It is questionable whether we could do that if all bits have to receive the same priority, a bit for watching a movie or an e-mail, and we do not know what it means if a bit is an e-mail message versus an instant message. Are those the same bits, or are those different bits?

So in an effort to try and address a problem that is a what-if problem, a hypothetical problem that has not arisen, the language of these proposals casts extraordinary uncertainty over those of us who are attempting to build networks and to manage networks.

Senator HATCH. Mr. Putala.

Mr. PUTALA. Another what-if problem is Mr. Cohen's concern about how their voice over the Internet products will be connected to Mr. McCormick's Bell networks. Mr. Cohen favors legislation calling for just, reasonable, and nondiscriminatory terms and conditions, Government regulation of the commercial transaction between Mr. Cohen's voice over the Internet product and Mr. McCormick's telephone network. Mr. McCormick is concerned about how he gets access to programming, sports and other things, and wants nondiscriminatory terms and conditions when it comes to getting the programming that the Bell companies will need if they are going to compete in the television space—again, a what-if problem.

In both cases, they are looking for very specific Government rules, Government laws, enforced not just by an after-the-fact review by the FTC, not just by an after-the-fact review by the Justice Department, but by up-front aggressive enforcement by the FCC. That nondiscriminatory element is the thing that has driven the growth of the Internet and that is really the kind of same protec-

tions that should stay in place so that we can continue the growth of the Internet.

Senator HATCH. Mr. Levin.

Mr. LEVIN. Well, thank you for your comments. As an analyst, I am more interested in predicting policy than advocating it, but let me just mention a couple of kind of targeted notions that others have suggested to address certain harms. One is a concern—which I do not think this will happen, but if it did happen, it would be very problematic for the economy—that if there is a degradation of what we might think of as the best efforts or public Internet. In other words, if the network companies want to increase or kind of have a high-speed lane, first-class, you know, that is one thing; but if the current best efforts Internet were to be slowly over time degraded, that would create a lot of problems for the kind of innovation that we have seen in the past. So some have suggested, including another Wall Street analyst, Craig Moffit, who is very critical of network neutrality rules, suggested—and I think I kind of agree with this—it would be good to have some kind of safety net protection of a best efforts Internet. You can do it in a variety of, I think, very nonintrusive ways in terms of monitoring it and if there is a problem that develops, then Congress can act. Again, I do not think that will happen, but if it did happen, it would be problematic.

Second, Mr. Cerf mentioned that consumers are buying really large—you know, they are buying access to the whole Internet. Another thing is to have a certain kind of FTC type of consumer disclosures where, if a company is providing—they have to tell the consumer what bandwidth speed they are getting for the entire Internet, and to the extent that there is discrimination, that that be disclosed to the consumer. Some think tanks have addressed that.

Then, finally, I would just mention, as Chairman Specter mentioned earlier, if you had case-by-case kind of analysis but with very kind of clear metrics and with quick timetables and those kinds of things, that may be a way of addressing some of the antitrust issues or some kind of the potential harms of certain kinds of bottlenecks, which maybe actually do not exist today, but as we move to the higher-speed bandwidth, it has the possibility of existing. So those are the kinds of things being discussed.

Senator HATCH. Mr. Morris?

Mr. MORRIS. Our concern is the language of these bills is it might apply to an open network like UTOPIA. We are providing 100-megabit big fat pipe to each home and business that is symmetrical, and my reading of the bill that passed the House Judiciary Committee was very problematic. While it was designed to apply to the people at the other end of the table, the way it was worded is it would be unlawful for us, the wholesale pipe owner, to allow these private service providers on our network to violate those rules. And so we would become the enforcer of what they are doing when we are just moving their bits back and forth. And the whole point of being wholesale and open is to leave it to the private sector to provide their services.

So when you get into the actual wording and trying to define network neutrality, it can cause some real problems, as that specific bill would cause to an open network.

Senator HATCH. Mr. Kuhns.

Mr. KUHNS. Senator, since I am here from a Big Ten university, I hope you will allow me a short sports analogy. I think we all agree there should be fair play in competitive sports, but if we did not have rules in place and penalties when those rules were broken, I suspect at times there would be examples of unfair play.

But what we are asking you to do is reinsert the nondiscrimination rules that used to be there and make it clear that you are not allowed to block or in any way discriminate access to, utilization of, or equipment attached to the network.

Senator HATCH. Mr. Kovacic, you can sum it up. How is that?

Mr. KOVACIC. Senator, we ask that when specific, concrete problems do emerge, that we have your assistance in maintaining the fullest jurisdictional platform to address them on the consumer protection and competition policy side of our authority.

Senator HATCH. And you feel you can do that without legislation?

Mr. KOVACIC. We think we have both of those powers to apply in this area, with the small qualification that questions are going to continue to arise where traditional telephony is involved, but there, again, we ask your consideration of a solution that would fix that, too.

Senator HATCH. Well, thank you.

Mr. Chairman, I have gone way over. I have other questions, but I will submit them.

Chairman SPECTER. Thank you very much, Senator Hatch.

Just a few more questions before we adjourn, gentlemen. Mr. Kuhns, I understand your contention about nondiscriminatory practices. There may be a tendency for cable companies and telephone companies to create a preferential class for faster access to some of the dominant customers. If that were to happen, what would the consequence be for someone like Penn State, educational institutions? That goes to the thrust of your concern about no preferential treatment.

Mr. KUHNS. Yes, sir. We are in favor of seeing as large capacity networks built as possible and delivered into every home, because what we want to do is deliver educational content to everyone, regardless of where they are at. To do that well means that we need high-capacity networks so that we can deliver educational content that is not just text but includes audio, video, other forms of visualization that make it easier to learn. So we are very much in favor of having the capacity growth these people have talked about. But if they start to charge on a tiering basis, then we worry very much that we are not going to be able to afford to put that content out, content that would help the entire country.

Chairman SPECTER. Mr. McCormick, when we talk about all the competition—Internet, power lines, wireless, satellite—those really go to what may happen in the future. Currently, we have the cable, we have the phone lines. You do not have a monopoly but a duopoly. Is that really sufficient competition to give the kind of assurances that Mr. Cerf is looking for?

Mr. MCCORMICK. Well, first of all, Mr. Chairman, it could hardly be named a duopoly. I mean, if you look at traditional analysis, again, do we have market power, power to control price? Clearly we do not. People have Internet access if they have a view of the

southern sky via satellite. They have wireless providers in every market. And they have wireline and cable providers in many markets.

So what we are seeing is a marketplace with massive investment and increased competition, but most importantly, under antitrust analysis the issue is: Is the market contestable? There is not a market in the United States that is not contestable. Technology has brought us to the place and the FCC through unlicensed spectrum has made it possible for anybody who wants to go into this business to be able to go into the business.

So we believe that you have a marketplace in a traditional antitrust analysis that is competitive, is contestable, and, therefore, should be allowed to innovate and develop.

Chairman SPECTER. Mr. Levin, is there really sufficient competition at the present time? Or as you project the future, to the extent you can, when will there be more competition to really have sufficient competition to allay Mr. Cerf's concerns?

Mr. LEVIN. I am not an antitrust expert, but I in my professional career have had—

Chairman SPECTER. No, but you are a technology expert.

Mr. LEVIN. Well, that is a good question as to what I am an expert in, but I appreciate your characterization of it. I suspect my kids, who use the Internet far better than I, would disagree with you, but I appreciate that.

I have been impressed in a variety of positions, including at the FCC and in other situations, by the ability of antitrust economists to really make distinctions about markets and what a relevant market is. And I certainly agree with Mr. McCormick and Mr. Cohen. The markets are changing rapidly. What we used to think of as the Internet, the narrowband Internet, really is not sufficient for the kind of economic growth that we want to have in this country. And, increasingly, there will be desires for faster and faster speeds.

So going to your specific question, I think as you can see in the actual marketplace performance where about—I believe the number is 98 percent are getting either cable or—are getting broadband from either cable or phone companies, there is a big variety of reasons for that. There is certainly hope, I know, at the FCC that there will be a new, ubiquitous broadband network that will really compete with that. Earlier in the year, we had hopes that there would be investment—or they would have had hopes that there would be investment by some of the DBS providers. Both DirecTV and EchoStar made some indications that they were going to invest in one. They now more recently announced that they are investing in WildBlue, but I do not believe that particular investment is going to change the dynamic in most of America. That service is not going to be as fast and it is not going to be priced the same way.

It may be that the auctions coming up this summer produce something, but I do not really think so. I think the next really great hope in terms of kind of ubiquitous networks would be the 2008 auctions of the so-called 700-megahertz spectrum. Or it may be that what Mr. Putala's company, EarthLink, is doing in cities provides it. But as a Wall Street analyst, I would say that the cur-

rent market hold by DBS and cable is likely to hold for the foreseeable future. It is probably the best way of answering your question. I do not see anybody taking market share away from them because I do not think anybody—there is a variety of reasons. It has to do with bundling. It has to do with performance characteristics. It has to do with price. I do not see people taking market share from them.

The question of are the markets contestable, I really would leave to antitrust economists.

Chairman SPECTER. Okay. Thank you very much, Mr. Levin.

Senator HATCH. Could I ask just one last question?

Chairman SPECTER. Senator Hatch, go ahead.

Senator HATCH. Just one last question to whoever wants to answer it. There has been a fair amount of debate regarding the benefits and detriments of a two-tiered Internet where some traffic is given priority over other traffic. It seems to me that some types of services might need such priority to work well. For example, it is essential to have little or no delay for a high-quality voice over IP service while it is not necessary for things such as e-mail traffic.

I would like to hear any witness who cares to express views about the issue of a two-tiered Internet. Would it really be harmful if things like VoIP services receive priority on the Internet as long as that priority was offered to all VoIP providers on nondiscriminatory terms?

Mr. CERF. Thank you very much, Senator, for a cogent question on this issue of two-tier distinctions. I think that if certain classes of traffic were recognized, regardless of the source or destination that needed special treatment, I would not have much objection to that at all because if that is—if everyone's traffic of a certain type gets properly treated so as to provide the performance that is needed, then it is not an issue. The problem is if only certain parties' traffic is treated in that fashion, that raises major issues from my point of view.

I should tell you, however, that it is not clear, based on what we heard from our academic colleagues, that you actually need to spend a lot of time carefully crafting the performance of the network. Over the weekend, I installed video conferencing on—I have a cable broadband service. I installed a video conferencing capability on an end-to-end basis through an arbitrary set of networks and did not require any special treatment at all. If you use Skype or Google Talk or any of the other voice over IP systems, you will discover you often get better quality than you would normally get from a telephone system, and certainly from the wireless system, to first order.

So I guess I would argue, sir, that you do not necessarily need to have those special treatments, but if you do, it should be applied on a nondiscriminatory basis so that all sources or sinks of those kinds of traffic get the same treatment.

Senator HATCH. Chris, how about you?

Mr. PUTALA. Senator, I think you succinctly made the central point. There is some traffic that requires kind of a faster lane, but once you are in the faster lane, there should not be discrimination among VoIP providers, among video providers, and you made the

fundamentally important point about what, in essence, the debate is about.

Mr. KUHNS. Senator, just one last comment. From a fairness standpoint, what you described would be fine, but in doing that, in building those kinds of tiering, you are adding complexity to the hardware that is required; you are adding complexity to the management of the network; and so you are adding cost that is not necessary. Just make the network faster using open, standards-based approaches, and we will not have these problems.

Senator HATCH. Thank you very much.

Thank you, Mr. Chairman.

Chairman SPECTER. Thank you, Senator Hatch.

Thank you, gentlemen. I think this hearing has shed a considerable amount of light on the subject, not too much heat, and I think the public involvement—C–SPAN is a good carrier. It is going to be on tomorrow morning at 3 a.m.

[Laughter.]

Chairman SPECTER. If you want to see yourselves. I say in a joking way that the Judiciary Committee has a monopoly on the 3 a.m. spot. We have the greatest following of insomniacs in America. But we have a lot of hearings, and on a serious theme, we thank C–SPAN for the job they are doing in informing the public. And this touches everybody. It touches a lot of people. And you saw the very extensive participation by the Committee. This is a very strong showing for the Judiciary Committee, with all the other assignments everybody has and all the other problems around.

We may call you all in on a less formal basis, having had the public exposure, to see if there is some way to bring the competing interests together, short of legislation, or perhaps agreed-upon legislation with standards which can accommodate a lot of very competitive interests.

That concludes our hearing.

[Whereupon, at 11:45 a.m., the Committee was adjourned.]

[Questions and answers and submissions follow.]

QUESTIONS AND ANSWERS

Question for record from Senator Feingold
"Reconsidering Our Communications Laws: Ensuring Competition and Innovation,"
June 14, 2006

1. Question to the panel, but particularly to Mr. McCormick:

You have taken a position against net neutrality, at least partly on the grounds that you need to collect funds from Internet content providers to pay for further roll-out of Internet and video service. Yet at the same time you have opposed build-out requirements as part of the national video franchise proposed in the House. How is this consistent? There isn't a requirement that the money from content providers be reinvested in underserved areas, is there?

2. Question to the panel, particularly to Mr. McCormick and Cohen:

You have urged us not to act until there are widespread abuses of your duopoly power – essentially taking the position that net neutrality is premature. Yet we have a long history of putting conditions on mergers to preemptively prevent possible anti-competitive practices. Why shouldn't we follow the model we have set for mergers and place limits where the situation would be clearly susceptible to anti-competitive actions?

3. Question to the panel, particularly to Mr. McCormick and Cohen:

I understand that some high speed internet providers are now offering consumers tiered options for higher than normal access speeds at a premium price. These are often marketed to users who use data intensive applications such as on-line interactive games and streaming video. One of your arguments against net neutrality is that you need to be able to charge these high usage application providers. Aren't you arguing that you should be paid twice for the same premium content?

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Senator Specter
Reconsidering our Communications Laws: Ensuring Competition and Innovation
June 14, 2006

Question for the entire panel:

Do you believe that case-by-case adjudication of competitive issues that arise in the market for broadband internet service would be adequate? What if Congress provided the FTC and DOJ with guidelines for applying the antitrust laws in this market? If Congress were to provide such standards, what would they consist of?

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July 14, 2006

The Honorable Arlen Specter
Chairman
Committee on the Judiciary
United States Senate
Washington, D.C. 20510-6275

Dear Chairman Specter:

Thank you for your letter of June 26, 2006 enclosing written questions from members of the U.S. Senate Judiciary Committee. I was pleased to appear on behalf of Google before the Committee at its June 14 hearing regarding "Reconsidering Our Communications Laws: Ensuring Competition and Innovation." Per your instructions, I am enclosing my written responses to your office, and to the attention of Mr. Barr Huefner. I am also sending an electronic version of my responses to Mr. Huefner. Please let me know if you have any further questions.

I hope to have the opportunity to see you again soon.

Sincerely,

Vint Cerf

cc: Barr Huefner, Senate Judiciary Committee (in paper and electronic form)

Enclosure

GOOGLE RESPONSES TO WRITTEN QUESTIONS FROM THE U.S. SENATE JUDICIARY COMMITTEE

Senator Specter

Do you believe that case-by-case adjudication of competitive issues that arise in the market for broadband internet service would be adequate? What if Congress provided the FTC and DOJ with guidelines for applying the antitrust laws in this market? If Congress were to provide such standards, what would they consist of?

Generally speaking, Google prefers protective rules of general applicability, buttressed by effective enforcement measures, to create a framework within which to consider the many competitive issues that arise in the market for broadband Internet access service. However, there also can be a useful role for a case-by-case adjudication process to deal with antitrust-related disputes, provided that the process is governed by substantive and procedural standards established by Congress.

The Federal Communications Commission (FCC) employs a notice-and comment rulemaking process, pursuant to the dictates of the Administrative Procedures Act (APA). Over the years this APA process has been a useful tool to allow interested parties to participate actively, either individually or through associations or coalitions, in an open, public process. In particular, the APA rulemaking process tends to create clear criteria to govern future commercial activity. Overall, the rulemaking process is an efficient and transparent way for a governmental agency to provide direction to industry.

An adjudication process without specific guidelines from Congress could be problematic as the exclusive means for dealing with alleged marketplace abuses. First, the adjudicatory process typically is limited to the two parties involved, and typically occurs without public knowledge or participation, which precludes the introduction and use of additional viewpoints or evidence. Second, the resulting record reflects one or a few particular alleged acts, which yields a decision of relatively narrow scope and future applicability. Third, some agencies do not publish written complaint decisions for industry to review and incorporate into future market behavior. Fourth, some complaints cannot be appealed to federal court, which limits the ability to correct faulty reasoning or use of evidence. Fifth, and perhaps most important, the adjudicatory process tends to provide little forward guidance to entities unsure about the demarcation between acceptable and unacceptable business practices.

An adjudicatory process can be particularly problematic for potential complainants from the high-technology industry. This market typically comprises a large number of small businesses and entrepreneurs working in a fast-paced, ever-changing environment. Such companies usually do not employ regulatory counsel, or consistently review notices in the Federal Register. In a purely adjudicatory environment, these entities would not be able to rely on associations or coalitions to represent their interests, but instead would need to police market behavior and consider the pros and cons of filing complaints on

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their own. This process is made more difficult by the fact that by their nature, network-based harms can be difficult to detect, and harder to prove. Complaints also can be quite expensive to pursue, particularly if the alleged violator takes full advantage of motions and discovery procedures. The case-by-case approach also can create considerable marketplace uncertainty, as individual industry participants await guidance from germane cases. Further, the adjudicatory process inherently is not well suited to protect the economic interests of future innovators. How can an inventor assert his or her rights in any situation, if a violation of those rights took away the market opportunity in the first place? This uncertainty over whether one's inventions will be protected after-the-fact in an adjudicatory setting could discourage innovation, especially innovation disruptive to powerful, well-financed companies.

In the context of federal antitrust legislation related to network nondiscrimination, adjudication may be an adequate substitute for rulemaking -- or preferably a complementary element -- but only if Congress puts in place clear statutory guidelines that the Federal Trade Commission and/or the Department of Justice would be required to employ. Google would favor the adoption of the following substantive and procedural standards for antitrust complaints:

- The concept of discrimination must be legislated as an impermissible method of competition. In particular, broadband carriers should be prohibited from discriminating based on the source or ownership of any Internet content, applications, or services.

- All interested parties, including network users or their representatives, should be eligible to file a complaint against a broadband carrier. Limiting the right to a retail subscriber, for example, would remove most of the best-qualified and motivated complainants.

- Once a *prima facie* showing has been made, the broadband carrier then should carry the burden of proof that its practices do not violate the antitrust laws, as it will have all material network and market information in its possession.

- Strict statutory deadlines should be established, so that administrative decisions are rendered quickly and decisively.

- A comprehensive assortment of injunctions and remedies (including damages) should be available to be adopted and enforced by the adjudicators.

- Final decisions should be published in the Federal Register, or other readily-accessible source, so that network users and the general public can be aware of alleged carrier practices and complaint outcomes.

- Parties should be able to appeal final agency decisions.

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Senator Kohl

1. The phone companies and cable companies contend that legislation to require "net neutrality" is a "solution in search of a problem" and that we ought to wait to see how the marketplace develops. What is your response? Is it premature for Congress to legislate in this area?

Some have suggested that Congress need not act this year to re-establish nondiscrimination safeguards on the broadband carriers because there are no obvious abusive acts that have been committed so far. That viewpoint completely ignores two salient facts: (1) over 99 percent of Americans take broadband from either a cable or telephone company, so there is no marketplace discipline of abusive behavior; and (2) the current regulatory environment includes soon-to-expire FCC regulatory safeguards, temporary merger conditions, and the carriers' best behavior in the face of pending legislation and FCC transactions. Even in an environment where the carriers' incentives to undertake anticompetitive activities are constrained temporarily, some broadband carriers already have publicly signaled some of their future business plans to engage in discriminatory activities – and also provide some unfortunate real-life examples.

Last summer the FCC eliminated its so-called "Computer Inquiry Rules," which were nondiscrimination safeguards that have applied to the incumbent local exchange carriers (ILECs) for a quarter-century. Those safeguards have governed consumer access to the ILECs' last-mile on-ramps to the Internet, and formed a legal framework that buttressed the open and neutral design of the Internet itself. The FCC's order established a one year sunset, so that the safeguards expire in less than two months – September 2006. For now, at least, the ILECs remain bound by the nondiscrimination safeguards contained in the Computer Rules.[1] Most forms of discriminatory behavior would violate those requirements.

AT&T and Verizon are also subject to conditions put in place last November as part of the FCC's approval of their respective mergers. Both companies committed "for a period of two years to conduct business in a way that comports with the Commission's Internet policy statement," which includes the FCC's four Internet principles. Unfortunately, those four principles – which the Chairman of the FCC has indicated are unenforceable and lack any nondiscrimination standards -- do not provide nearly the same level and degree of protection as the FCC's original, enforceable nondiscrimination safeguards. Nonetheless, those merger conditions do apply to that subset of broadband carriers.

At the present time, both the ILECs and the cable companies have additional strong incentives not to commit brazen acts of discrimination. From the Bell Companies' perspective, favorable video franchise legislation now is being considered actively in

[1] In 2002, the FCC declined to subject the cable companies to the Computer Inquiry rules, but at that point raised the possibility of imposing them in the future should the cable companies engage in discriminatory conduct.

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Congress. Any additional abusive activities that come to light would further fuel growing popular outrage about the looming loss of nondiscrimination safeguards.

In addition, two pending transactions at the FCC have raised the possibility of net neutrality-related safeguards. On May 18, 2005, Adelphia Communications, Time Warner Cable, and Comcast Corporation filed a joint application for authority to transfer Adelphia's cable assets to Time Warner and Comcast. A number of ISPs and consumer groups seek to have the asset transfers conditioned on a net neutrality requirement. Further, this past April, AT&T and BellSouth filed an application for FCC approval of their proposed merger transaction. Companies and consumer groups seek to use the pending merger process as a vehicle for addressing concerns about net neutrality. Just yesterday, the FCC formally approved the Adelphia/Time Warner/Comcast transaction, while the proposed AT&T/BellSouth merger remains pending. Obviously in both cases the broadband carriers do not want to provide still further evidence of abuses that could be used as additional justification.

Despite the temporary regulatory and legislative constraints on their market incentives and behavior, the broadband carriers nonetheless have provided the Congress with a clear roadmap for the types of market abuses they intend to perpetrate. The carriers' incentives to discriminate already are manifesting themselves -- both in future business plans and in specific acts of discriminatory conduct -- in at least three types of market power abuses: (1) creating "two" pipes, one a slow public Internet lane, and the other a faster private lane; (2) "double-charging" Web companies for additional broadband capacity and quality of service capabilities; and (3) prioritizing traffic on the Internet based on the source or ownership of content – in short, anticompetitive discrimination.

Over the past eight months, senior Bell Company executives have signaled publicly their clear intention to alter the Internet's very design. They have provided us with far more than just provocative quotes -- they demonstrate concrete business plans that are ready to be enacted once the FCC's Computer Inquiry safeguards expire in September.

Consigning the Internet to the slow lanes

Business Week (February 2, 2006): *"Now, Cerf and his Net compatriots have new ammunition to back up their fears. Documents filed with the Federal Communications Commission show that Verizon Communications (VZ) is setting aside a wide lane on its fiber-optic network for delivering its own television service. According to Marvin Sirbu, an engineering professor at Carnegie Mellon University who examined the documents, more than 80% of Verizon's current capacity is earmarked for carrying its service, while all other traffic jostles in the remainder."*

Verizon documents show that its fiber-based video service is being delivered on a separate wavelength from the other services (roughly 3.5 Gbps of the network's capacity). That will leave only 620 Mbps of bandwidth for all forms of Internet traffic, to be shared by 32 different users on each Broadband Passive Optical Network (BPON) node. The incumbent cable systems already employ similar "two-pipe" network architecture.

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AT&T plans to deploy a different broadband network configuration, where all traffic is contained on a single hybrid fiber/copper-based channel that must be shared for all applications. Regardless of the specific engineering involved, however, Google is deeply concerned that the broadband providers have the incentives and the means to create a robust closed private network that consigns Internet content and applications to a relatively slow, bandwidth-starved portion of the broadband connection. Obviously it will be increasingly difficult for providers of Internet-based applications such as video content to compete effectively against the broadband providers in this kind of "two-tiered" broadband network.

Double-charging Web companies

SBC CEO Ed Whitacre, Business Week (Nov. 7, 2005): *"Now what they [Google, Yahoo, MSN] would like to do is use my pipes free, but I ain't going to let them do that because we have spent this capital and we have to have a return on it. So there's going to have to be some mechanism for these people who use these pipes to pay for the portion they're using."*

Verizon's Senior Vice President and Deputy General John Thorne, Washington Post (February 8, 2006): *"[Google] is enjoying a free lunch that should, by any rational account, be the lunch of the facilities providers."*

The Bell Companies have demonstrated an intention to use their bottleneck control to begin levying surcharges on companies that are not their customers. As detailed in Google's response to a question from Senator Feingold, these surcharges would be above and beyond the billions of dollars that Google and other Web companies already spend for network access and infrastructure to provide their content and applications to the Internet. Such surcharges would constitute blatantly discriminatory leveraging of market power and control of underlying transmission facilities under the FCC's existing but soon-to-expire nondiscrimination safeguards.

Providing preferential treatment to certain content and applications

BellSouth CTO William Smith, MarketWatch (Jan. 16, 2006): Smith confirmed that BellSouth *"is pursuing discussions with Internet content companies to levy charges to reliably and speedily deliver their content and services."*

Qwest CEO Richard Notebaert, CNET News.com (March 15, 2006): Notebaert asserts that online companies should be allowed to work out similar deals with network providers in an effort to get a leg up over their competitors. *"Would this give some content providers an advantage over others?" he asked the crowd rhetorically. "Well, yeah. We're all trying to provide a little bit of differentiation for a competitive edge. That's what business is about."*

The Bell Companies also have openly discussed their plans to advantage certain providers of content and applications over others, in exchange for additional payments. According to BellSouth, those plans have advanced enough to constitute active

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discussions with potential partners. Again, the FCC's expiring safeguards would prohibit such blatant and discriminatory favoritism of a few companies over everybody else.

Despite temporary incentives for the major US broadband carriers not to engage yet in the types of anticompetitive activities described above, a number of other broadband carriers already have taken just that course.

- Just last year, the FCC found that the Madison River Telephone Company was blocking ports used by its DSL customers to access competing VoIP services. Importantly, this decision came before the Commission eliminated the legal basis of common carriage for enforcing nondiscrimination safeguards, so it is unclear whether the FCC still retains any lawful ability to prevent such blocking behavior in the future.

- Shaw Cable in Canada now charges a monthly $10.00 "quality of service enhancement fee" for those cable subscribers wishing to sign up to utilize a competing VoIP service – a fee that Shaw reportedly does not charge its own VoIP service.

- Rogers Cable in Canada recently admitted employing "traffic shaping" technology that gives lower priority to a customer's filesharing, podcasting, and video blogging applications. These restrictions were put in place unilaterally, and without prior notice to broadband subscribers, and apparently were based on the source of the Internet traffic.

- Executives at Deutsche Telekom and Telecom Italia have expressed a desire to levy "double charges" on Google and other Web-oriented companies.

- Entire countries such as Panama and Egypt have demanded that ISPs disable all VoIP services as a means of protecting incumbent monopoly voice carriers.

Finally, it should be pointed out that, by their very nature, discriminatory practices taking place within the broadband carriers' physical and logical networks often can be extremely difficult to detect and report to government authorities. Outside of more overt actions, like blocking all access to a particular website or application, other forms of traffic degradation may have significant negative impact, even as victims are largely unaware of the resulting damage. Thus, it may well be that discriminatory behavior is taking place right now, but outside the scrutiny of the marketplace and would-be regulators.

2. *Is Google aware of any deals between broadband providers and internet content companies to give preferential treatment to internet content? If so, please provide examples.*

At this time, Google does not have first-hand knowledge of any preferential deals between broadband providers and content companies. Recent press reports do indicate that AT&T has entered into a contractual agreement with Movielink to provide a higher-

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quality video delivery service than otherwise would be available to other content providers. However, without knowing more about the precise terms of the agreement, it is unclear whether such an arrangement would violate network neutrality. The broadband carriers could employ certain network upgrades, such as the use of local caching or private network backbone links, which in themselves would not implicate net neutrality, because they do not involve discriminatory conduct stemming from the carriers' control over last-mile facilities. The AT&T/Movielink agreement could be such an example.

As explained above, however, it should not be surprising that the domestic broadband carriers are not yet engaging in blatant discriminatory conduct in the current market environment. Further, there already is ample evidence in other countries of broadband providers using their ability and incentive to discriminate against competing providers of VoIP services, and certain types of consumer applications and content.

3. Opponents of net neutrality legislation such as the phone and cable companies argue that they need the ability to manage the networks, and give priority to some applications and not others, in order to keep the internet functioning smoothly. Without this ability, they contend, the growing use of video and other very demanding internet applications may overburden and degrade the internet experience for everyone. They are concerned that net neutrality requirements will hamper their ability to properly manage the internet. What is your response to this argument?

Google does not dispute that the broadband providers should have the ability to manage their networks. The real question comes down to how, and not whether, this management will occur. If the broadband provider utilizes legitimate application and content-neutral practices – such as preventing harmful denial of service (DOS) attacks, or prioritizing all applications of a certain type, such as streaming video – Google supports these reasonable practices. In addition, blocking some traffic based on IP address source because of the prevalence of objective network harms, such as viruses or worms, also would be acceptable. If, on the other hand, network management is used to promulgate discriminatory practices – such as blocking, degrading, or prioritizing certain applications or content based on the source or ownership – Google strongly opposes such practices. Further, nothing in the concept of net neutrality would prevent the broadband providers from managing the security and bandwidth-usage aspects of their own applications and content.

In addition, nearly all legislative proposals to retain network neutrality safeguards include provisions that would exempt reasonable network management practices. Again, Google does not oppose such provisions, so long as they advance the goals of evenhanded network management.

4. Do you believe that strengthened antitrust enforcement is appropriate to address problems that those concerned about net neutrality have identified? Is it sufficient?

Google believes that strengthened antitrust enforcement is appropriate to address problems arising from the broadband providers' pervasive market power. Google also

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believes that strengthened antitrust enforcement, while essential, by itself is not sufficient.

Ideally there should be two complementary enforcement regimes established by federal law to govern the activities of the broadband providers: (1) antitrust standards and enforcement mechanisms, policed by the Federal Trade Commission and/or Department of Justice; and (2) regulatory safeguards and enforcement mechanisms, overseen by the Federal Communications Commission. The antitrust standards would govern the exercise of pervasive market power by the broadband carriers, while regulatory safeguards would curtail certain market practices by the broadband providers. The two roles together should effectively protect consumers and competition from harmful practices.

5. Do you support repeal of the common carrier exemption from FTC jurisdiction as it relates to telecommunications? Why or why not?

Google does not take a position at this time on the question of repealing the current common carrier exemption from FTC jurisdiction. However, it appears that this question may well be an academic one, at least as applied to broadband Internet access providers. Because the FCC has reclassified broadband Internet access and underlying telecommunications facilities as a unitary information service, and not a common carriage telecommunications service, the FCC appears no longer to have primary jurisdiction over those services. Instead, the FTC now has ample jurisdiction, even under the current common carrier exemption, to investigate and regulate the broadband Internet access market, and employ appropriate enforcement remedies. Indeed, FTC Commissioner William E. Kovacic emphasized this very point in his June 14th testimony before the Senate Judiciary Committee.

Google also agrees with Commissioner Kovacic that, as Congress considers legislation to amend the Communications Act, the FTC's existing authority over activities currently within its jurisdiction should be clearly preserved. Legislation recently passed by the House puts that jurisdiction in doubt.

Senator Feingold

1. Question to the panel, but particularly to Mr. McCormick:

You have taken a position against net neutrality, at least partly on the grounds that you need to collect funds from Internet content providers to pay for further roll-out of Internet and video service. Yet at the same time you have opposed build-out requirements as part of the national video franchise proposed in the House. How is this consistent? There isn't a requirement that the money from content providers be reinvested in underserved areas, is there?

N/A

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2. *Question to the panel, particularly to Mr. McCormick and Cohen:*

You have urged us not to act until there are widespread abuses of your duopoly power – essentially taking the position that net neutrality is premature. Yet we have a long history of putting conditions on mergers to preemptively prevent possible anti-competitive practices. Why shouldn't we follow the model we have set for mergers and place limits where the situation would be clearly susceptible to anti-competitive actions?

Google agrees that the Department of Justice, the Federal Trade Commission, and the Federal Communications Commission all have demonstrated a repeated willingness and resolve to impose pro-consumer conditions on mergers to preempt possible anticompetitive practices. Indeed, as the communications industry has continued to consolidate, government officials have found on numerous occasions that the use of tailored conditions imposed on proposed mergers, acquisitions, and other transactions is an effective and efficient use of the government's role. Congress should continue and build upon that successful legacy by adopting clear standards and enforcement remedies under the nation's antitrust laws.

3. *Question to the panel, particularly to Mr. McCormick and Cohen:*

I understand that some high speed internet providers are now offering consumers tiered options for higher than normal access speeds at a premium price. These are often marketed to users who use data intensive applications such as on-line interactive games and streaming video. One of your arguments against net neutrality is that you need to be able to charge these high usage application providers. Aren't you arguing that you should be paid twice for the same premium content?

Under the Internet's longstanding charging arrangements, each party pays for its own connection to the Internet, and then is free to utilize that connection in whatever ways are desired. Google believes that consumers should be able to acquire higher speed or performance capacity from the broadband access providers, and then use this capability to reach any service they wish on the Internet. In particular, consumers should be able to purchase tiered arrangements based on the use of bandwidth, latency requirements, or other objective measures. Such arrangements would constitute an appropriate, cost-based practice that compensates the broadband carrier for the additional capabilities provided.

On the other hand, the broadband carriers seek to leverage their bottleneck control over last-mile facilities to levy surcharges on entities who are not their customers, including Internet-based content and applications providers. These surcharges would be in addition to receiving over $20 billion annually from residential consumers to pay for their broadband connections. At the same time, Internet content and applications providers pay the carriers many billions more annually for their own access to the Internet. Attempting to levy additional surcharges on these companies who are not their customers -- above and beyond what they already pay their carriers to access the Internet -- would amount to assessing multiple discriminatory charges.

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Internet-based companies spend billions of dollars annually on R&D to create and develop compelling content, applications, and services for American consumers, including news, data, video, music, gaming, and ecommerce services. This massive amount of material typically is deployed on hundreds of thousands of Web servers located around the country. In order for the content and applications to be delivered into the Internet, so it then can be made available to consumers, Web companies must arrange with network operators to: (1) carry the data traffic from company facilities to their Web servers over local telecom lines (sometimes called the "last mile"); (2) carry the data traffic from the Web servers into the Internet over high-speed, high-capacity data lines (sometimes called "special access"); and (3) carry the data traffic over the numerous interconnected networks that make up the Internet (sometimes called the "Internet backbone"). To accomplish these important connectivity and transport functions in a fast and effective manner, Internet companies collectively pay billions of dollars per year to network operators. That money fully compensates the network operators for their network investment. The Internet companies separately spend billions of dollars more for Internet backbone capacity, much of which goes to the Bell companies as well.

Overall, the four Bell companies alone receive some $14 billion annually in revenues from hauling data traffic for Internet content and applications companies, Internet service providers, and other corporate and institutional users of the local network. These sums that Internet companies pay for connectivity and transport of data to and from their servers, and over the Internet backbone networks, are in addition to the $20 billion a year in fees that subscribers pay network operators for broadband access to the Internet.

Senator Brownback

1. How does Google define "network neutrality"?

The concept of net neutrality is straightforward: broadband providers should not be able to discriminate based on the source or ownership of Internet applications or content. The underlying rationale for net neutrality is to promote consumer choice in a highly concentrated broadband Internet access market. Obviously this fundamental concept, like many others, can be expressed by parties in different ways, using different terminology. This has led some to claim that the concept of net neutrality is vague, and even indefinable. Google believes this claim is disingenuous. Perhaps the best one-sentence definition was contained in the Snowe-Dorgan amendment that was offered in the Senate Commerce Committee markup on June 28th. That amendment read that "end users are entitled to services from each broadband Internet access provider that shall not discriminate in their carriage and treatment of Internet traffic based on the source, destination or ownership of such traffic."

2. You stated in your written testimony that "the Internet has thrived because of an overarching regulatory framework mandating nondiscrimination," and that "[i]t is time for Congress to act, by reinstating the long-standing nondiscrimination requirements for the on-ramps to the Internet."

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A. Which governmental entity or entities does Google believe should enforce nondiscrimination requirements of the type described in your testimony?

Google believes that the Federal Communications Commission should retain regulatory jurisdiction over the practices and activities of the broadband providers, and the Federal Trade Commission and the Department of Justice should retain antitrust jurisdiction over the practices and activities of the broadband providers.

B. What does Google believe should be the range of remedies for a breach of these requirements?

Google believes that the range of remedies for a breach of network neutrality requirements should mirror the existing remedies available under the Communications Act (such as financial penalties, damages, and cease-and-desist orders), and the antitrust laws (such as various civil penalties, equitable relief, and structural remedies). Google also believes that the Federal Communications Commission should not be precluded from retaining its existing authority to adopt and enforce regulatory safeguards as part of its general notice-and-comment rulemaking authority.

C. Given the fundamental objective of our nation's competition laws to maximize consumer welfare, would Google support the extension of nondiscrimination requirements to any entity – whether a network provider, a content provider, or other Internet-related business – which could potentially discriminate or does in fact block, degrade, or otherwise discriminate against a content provider that seeks to transmit its content to consumers?

This question is based on a flawed premise: that the broadband Internet access market and the Internet-based applications and content markets are the same, and thus should be treated the same for purposes of net neutrality requirements. That premise misapprehends the form and substance of the two markets.

First, the two markets exhibit vastly different degrees of relative market concentration. The Internet marketplace for applications such as search engines, and for content such as news, is robustly competitive and only becoming more so. In the search engine market, for example, consumers can choose from among Google, Yahoo!, MSN, A9, Ask.com, and dozens of other search engines. The news content business is also enormously competitive. In fact, by all accounts, the advent of the commercial Internet in the mid-1990s has dramatically increased the range and depth of news sources. Consumers can also choose from hundreds of options for email service, from a variety of ISPs and Web portals. And, today at least, consumers can choose from among a variety of voice over IP service providers as well.

In sharp contrast, the market for consumer broadband service is highly concentrated. According to the FCC's latest figures, 99.6 percent of Americans get broadband service from either a cable company or a telephone company. Potential alternative networks,

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such as satellite, wireless, or broadband over powerline (BPL), collectively have only 0.4 percent of the market, a figure that has *declined steadily* since at least 1999. And the two dominant modalities only compete against each other in about half the markets, leaving consumers in the other half with either one broadband supplier or none at al.

Second, the barriers to entry in the two markets are profoundly different. In the search applications market and news content market, entry barriers are virtually nonexistent. A good idea and access to the Internet are all that is necessary to compete vigorously in the online marketplace. For example, MySpace and YouTube did not even exist two years ago; today, they are major forces in the Internet content marketplace. The news content business is also fully contestable, as demonstrated by the explosion of millions of individual blogs, on top of thousands of alternative news sites and hundreds of traditional news sources. By contrast, entry barriers are enormously high in the broadband access market. Replicating the incumbents' last-mile facilities serving consumers is prohibitively expensive. Indeed, this fact alone explains why alternative access technologies have had very limited success in the consumer broadband market.

Third, switching costs are very different as well in the Internet and broadband markets. The time and cost to change search engines is zero. If a consumer decides to use another search application, changing search engine preferences is literally a mouse click away. Similarly, in the news content market, readers can simply purchase another newspaper or news magazine, or switch to another television or radio station, or click onto another of millions of websites. In contrast, the cost of switching broadband service is significant, in those areas of the country where choice is even available. Switching broadband providers requires that a consumer purchase and install new modem equipment, install new landline connections, acquire a new ISP, and sign a new service contract. For those with access to only one provider, of course, there are no competitive options available.

Fourth, the Internet is a highly decentralized and modular network, where users ultimately can dictate what they see and do online. Because of the Internet's end-to-end design, no one entity or group of entities on the Internet can exercise control over the user experience. However, broadband Internet access today constitutes an essential "last-mile" input, without which end users cannot hope to utilize the vast resources of the Web. In Google's view, broadband networks have become communications bottlenecks, which now have the incentive and ability to impose unhealthy barriers between consumers and the freedom of the Internet.

Fifth, the regulatory environment is considerably different. Search already is subject to potential regulation. For example, the FTC has mandated the existence of clear distinctions between unbiased search returns and advertising "sponsored" sites. In contrast, the incumbent broadband providers seek to eliminate all existing consumer safeguards that govern their Internet access services, as well as avoid any regulatory or antitrust oversight of their marketplace activities.

Finally, all providers of news content – from The Wall Street Journal to MSNBC to daily bloggers – operate under the auspices of the First Amendment to the United States

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Constitution, and in particular the rights of free speech and free press. Under the guaranteed protections of those constitutional rights, news content providers and aggregators exercise editorial judgments every single day about which news stories to carry, and in what way. The broadband providers are free as well to select, provide, and aggregate their own news content, and to exercise their own judgments free from governmental interference. Network neutrality only provides that the broadband providers cannot use their exclusive control over last-mile network facilities to discriminate with regard to the content and applications they are carrying to and from consumers. The phone companies do not decide the quality of your phone call depending on who you talk to; they should not decide the quality of your Internet experience based on the web sites they prefer.

Thus, the Internet applications and content market is robustly competitive, with low entry barriers, zero switching costs, decentralized controls, FTC oversight, and First Amendment protections. In contrast, the broadband access market is highly concentrated, exhibiting enormous entry barriers, significant switching costs, essential bottleneck inputs, and expiring consumer safeguards.

D. *There have been recent reports that Google, which through its Google News service is greatly expanding its strength in the market for online news aggregation (and may in fact have market power, as that term is interpreted under the antitrust laws), has selectively dropped, omitted, or blocked access to certain news articles and editorial pieces apparently based on its own internal judgment, yet included links to other similarly-situated news articles and editorial pieces. See, for instance, http://newsbusters.org/node/5477; http://michellemalkin.com/archives/001431.htm; and http://newmediajournal.us/staff/sheppard/print/05232006.htm. Are these reports true? If so, would Google consider this to be a violation of the principle of nondiscrimination? Why or why not?*

Google strongly disputes the notion that its news aggregation business somehow differentiates based on the political content or viewpoint of a particular story. Two of the blog posts cited in Question 2.D also put forth the complete falsity that Google has provided financial contributions to the MoveOn organization. While it is beyond the scope of this document to respond to every specific item in these links, Google will address the overarching allegation. We welcome the opportunity to provide a further briefing for you and your staff regarding the operation of our news service.

Google News is an online news service that draws results from a wide range of different news organizations. Because the stories are compiled solely by computer algorithms, they are selected without regard to any particular political viewpoint or ideology, enabling users to see how different organizations might report the same story. This variety of perspectives and viewpoints is unique among online news sites, and Google considers its approach essential in helping users stay informed about the issues that matter most to them.

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To determine which sites to include as potential sources of news articles, Google relies on a set of guiding principles, which include whether the source: (1) offers information that is updated regularly; (2) is managed by an organization (not an individual); (3) maintains organizational information on its site; (4) does not include hate speech or pornography; (5) forbids open posting of content without editorial review; and (6) has a website that is technically conducive to inclusion. Blog-formatted sites are reviewed on a case-by-case basis to determine if they meet Google's criteria for a news organization.

Regardless, Google's source inclusion practices are not implicated in any way by the net neutrality debate. As explained in response to Question 2.C above, the broadband Internet access market and the Internet content and applications market are vastly different. Network neutrality is intended to prevent the broadband carriers from leveraging their last-mile bottleneck control in ways that discriminate against certain Internet content and applications. By design, there are no comparable bottlenecks among the content and applications providers on the Internet itself, where the First Amendment guarantees the rights of free speech and free press.

E. Would Google support the extension of nondiscrimination requirements to itself (and other content providers where relevant) in markets where it may potentially act as a bottleneck for content, such as the markets for searches, news aggregation, email, and the like?

See response to Question 2.C above.

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July 14, 2006

The Honorable Arlen Specter
Chairman, Committee on the Judiciary
United States Senate
Washington, DC 20510-6275

Dear Chairman Specter:

Thank you for providing me with the opportunity to testify on behalf of Comcast Corporation at the Senate Judiciary Committee's June 14, 2006 hearing, "Reconsidering Our Communications Laws: Ensuring Competition and Innovation." It was a privilege to share with you and the other Members of the Committee Comcast's experiences in the broadband marketplace and our concerns about so-called "net neutrality" legislation, more accurately characterized as the proposal by some to regulate the Internet.

I welcome the opportunity to respond to the follow-up questions that you and other Members asked of me and my fellow panelists. Attached are my responses to the post-hearing questions. Please do not hesitate to contact me if you or other Members of the Committee have any further questions.

Sincerely,

David L. Cohen
Executive Vice President

DLC:jlp

Enclosure

**"Reconsidering Our Communications Laws:
Ensuring Competition and Innovation" --
Responses of David L. Cohen, Comcast Corporation, to
Questions from Members of the Senate Judiciary Committee**

Question from Senator Specter:

Do you believe that case-by-case adjudication of competitive issues that arise in the market for broadband Internet service would be adequate? What if Congress provided the FTC and DOJ with guidelines for applying the antitrust laws in this market? If Congress were to provide such standards, what would they consist of?

As I stated in my June 14, 2006 testimony before the Committee, the primary assurance that consumers will be well served by their Internet service providers comes from the operation of market forces. Internet services, including Internet access services, are intensely competitive, and growing more so every day. The rigors of competition compel Internet service providers to structure their businesses in ways that please demanding customers -- or suffer the consequences.

Beyond the protections of the marketplace, I believe that any concerns about potential anticompetitive harms are adequately addressed through case-by-case adjudication under existing law. Adjudication of disputes on a case-by-case basis allows appropriate government agencies to base their decisions on the facts of a particular dispute -- including the business practice at issue, existing and potential competitors, entry barriers, the likelihood of a chilling effect on investment and innovation, and so on -- in determining whether there has been an abuse of market power that has harmed consumers and requires a remedy beyond that which the marketplace itself provides. Conduct that violates the antitrust laws can be addressed today on a case-by-case basis by the Federal Trade Commission ("FTC") and the Department of Justice ("DOJ").

Because authority already exists for disputes to be handled on a case-by-case basis, I see no need for Congress to provide the FTC and DOJ new guidelines for applying the antitrust laws in the broadband marketplace. Well-established antitrust principles and guidelines have proven sufficient to address a wide variety of allegations, across a broad range of marketplace settings. Any new guidelines intended to apply expressly to the Internet necessarily would be predicated on hypothetical facts and circumstances as opposed to real-world experience. And they could not possibly take account of -- and might well hinder or distort -- the rapid pace of technological change. The risks of attempting to craft new, specific standards outweigh any benefits that might be realized.

Question #1 from Senator Feingold:

You have taken a position against net neutrality, at least partly on the grounds that you need to collect funds from Internet content providers to pay for further roll-out of Internet and video service. Yet at the same time you have opposed build-out requirements as part of the national video franchise proposed in the House. How is this consistent? There isn't a requirement that the money from content providers be reinvested in underserved areas, is there?

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The positions described in this question were taken by telephone companies, not cable companies. In contrast to the organizations represented by Mr. McCormick of US Telecom, Comcast has *not* asserted that we must be able "to collect funds from Internet content providers to pay for further roll-out of Internet and video services." Nor have we opposed build-out requirements for cable services. Still, a couple of points are worth emphasizing.

First, regarding video services, build-out requirements have been commonplace in the cable business for many years. Congress requires that local franchising authorities ensure that cable franchisees do not deny access to cable service to any group of potential subscribers on the basis of the income of the residents in any particular area. Congress also requires that franchises allow cable operators a reasonable period of time to become capable of providing service to all households in the franchise area. We comply with these laws today, as we have for decades, and we see no reason why telephone companies that wish to become cable companies (a right they have had under existing law for more than a decade) cannot do the same.

Second, regarding business arrangements between content providers and Internet access providers, the main point I would make is that the marketplace should be permitted to evolve. We built out our broadband network with private risk capital and we are still recouping that investment. Our broadband business today consists of delivering a premium Internet experience to our customers. We firmly intend to continue to do that in the future. At the same time, as broadband access, content, applications, and services continue to evolve, we cannot predict with any confidence which future business models will be best suited to delivering the services that consumers want, at prices they are willing to pay. If there is one thing that is clear about the Internet, it is that change is constant and businesses must adapt their models, often with unaccustomed speed, to the new environment or become obsolete. I would strongly recommend that Congress not attempt to determine, in advance, what network capabilities should be delivered or how they should be paid for.

Question #2 from Senator Feingold:

You have urged us not to act until there are widespread abuses of your duopoly power – essentially taking the position that net neutrality is premature. Yet we have a long history of putting conditions on mergers to preemptively prevent possible anti-competitive practices. Why shouldn't we follow the model we have set for mergers and place limits where the situation would be clearly susceptible to anti-competitive actions?

For the reasons outlined by Mr. McCormick and me at the hearing, we do not believe it is accurate to depict the broadband access marketplace as a duopoly. Although cable operators and telephone companies are the most prominent broadband providers at this time (largely as a result of having created residential broadband services only within the past decade), their behavior in the marketplace is intensely rivalrous and, if anything, is growing more so as more broadband technologies are emerging. The classic risks of anticompetitive abuse have not materialized in the Internet market.

"Market power" means that providers can raise prices and restrict output. This is the exact opposite of what is happening in broadband. Here, tens of millions of Americans are using services that were scarcely imagined when Congress passed the Telecommunications Act of 1996. Over the past several years, the telephone companies have aggressively cut their prices for their high-speed Internet services, and we have improved our quality and quadrupled our

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transmission speeds without raising prices. Such dynamism and rivalry are consistent with competition, not the lack thereof. This is in large part because the marketplace is still evolving rapidly, and (as my testimony discussed in detail) numerous alternative technologies like third-generation wireless, WiMax, satellite broadband, and broadband over powerlines are being developed and deployed. So the Internet market is intensively competitive today and highly contestable moving forward.

Nor do I think that experience with the use of merger conditions justifies the adoption of any "network neutrality" rules at this time. Where merger conditions have been imposed by antitrust authorities or the FCC, they have been based on a fact-specific, on-the-record, case-by-case assessment of the relevant marketplace participants and dynamics.

In stark contrast, proponents of network neutrality regulation propose that conditions be placed on an entire marketplace, spanning several industries, and hundreds of competitors, all based on *conjecture* about how the marketplace *may* develop. This would be a significant departure from the merger model -- one that is not justified by any real evidence of problems that require corrective action.

Finally, I would emphasize (as I discuss above) that existing antitrust laws provide sufficient protection for consumers and competition. In the unlikely event that broadband access providers suddenly begin engaging in anticompetitive conduct that violates the antitrust laws, the DOJ and FTC already have authority to respond.

Question #3 from Senator Feingold:

I understand that some high speed Internet providers are now offering consumers tiered options for higher than normal access speeds at a premium price. These are often marketed to users who use data intensive applications such as on-line interactive games and streaming video. One of your arguments against net neutrality is that you need to be able to charge these high usage application providers. Aren't you arguing that you should be paid twice for the same premium content?

Comcast does not currently charge application providers for the demands that they place on our network. At present, our business model looks to end-users to pay for the services they obtain from us, at which point they are free to use our broadband service as they see fit with only such minimal limitations as are necessary to protect other users and the network. Depending on the service offerings available in particular regions, we may offer subscribers tiers of service to meet their bandwidth needs.

That said, Congress should not lock in today's business models. We cannot foresee what broadband content, applications, and services will become available in the future. Nor can we foresee what costs will be associated with new technologies or how those costs can most appropriately be recouped. Google and eBay have developed services that benefit (and obtain revenue from) sellers as well as buyers, so it seems peculiar and hypocritical for them to propose that others be permitted to serve only buyers and not sellers.

Our main plea to Congress is that the marketplace be permitted to continue to evolve, without premature government interference. Unnecessary regulation of the Internet would inevitably obstruct Comcast and other broadband providers from reacting to the realities of the marketplace of the future and being able to deliver the services that consumers will demand.

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Question #1 from Senator Kohl:

Opponents of net neutrality legislation often claim net neutrality is not a problem right now that we need to worry about, arguing that legislative proposals to mandate net neutrality is a "solution in search of a problem." However, there have been many public statements by telecom executives that they plan to reach deals to give preferential treatment to internet content providers. Yet, last December, the Washington Post reported that the Chief Technology Officer for BellSouth stated that BellSouth should be allowed to strike deals to give certain web sites priority in reaching computer users. Likewise, Ed Whitacre, CEO of AT&T told Business Week that he would seek to have internet sites who use his "pipes," "pay for the portion they're using."

(a) Does Comcast agree with positions taken by these telecom executives?

These statements were made by AT&T and BellSouth, not Comcast, and do not accurately reflect our current business arrangements.

We do believe that the government should refrain from interfering in the marketplace in a way that prevents experimentation with business models. It is worth noting that at least some of these models enhance the delivery of online content without even involving broadband service providers. For example, a number of providers of Internet content today, such as newspaper companies and streaming video providers, arrange with third-party providers like Akamai to have their content "cached" so that it loads faster when an Internet user requests it. There does not seem to be any rational reason for prohibiting a broadband service provider from experimenting with a business model that would provide the same or a similar capability.

(b) Has Comcast reached deals with internet content providers to give them preferential treatment, or are you in negotiations to reach any such deals? If so, please provide examples. If not, can you tell us that you have no plans to do so in the foreseeable future?

Comcast does not currently have, nor is it currently negotiating, any contracts that would provide "preferential treatment" to any Internet content providers that a Comcast high-speed Internet customer might wish to access. We have repeatedly committed to our customers that we will not deny, delay, or degrade their ability to access any lawful Internet content. We will not deviate from this commitment. Further, we have no plans to offer "preferential treatment" to any Internet content providers. Although we have been contacted by various providers of Internet content, applications, and services who have proposed ways in which we might partner with them to offer our customers a "differentiated experience" (and, ironically, some of these ideas have been brought to us by businesses whose Washington representatives champion "network neutrality"), we have not entered into negotiations on these topics, let alone made a deal.

Just the same, we do not believe that Congress should foreclose any such arrangements for the future. As my testimony and answers above indicate, the broadband marketplace is extremely fast-paced and dynamic (and likely to see growth in broadband providers who will want to differentiate themselves from one another), new ideas are constantly being developed for ways to

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enhance the user experience, and much more harm than good will result if Congress artificially limits how we or others in this marketplace structure our businesses.

(c) Has Comcast ever taken any actions to discourage video programming networks from streaming their channels on the Internet or from offering their programming over the Internet? And, if so, why have you done so?

Comcast has not taken any actions, either technically or operationally, to discourage video programming networks from streaming their channels over the Internet or from offering their programming over the Internet. In fact, our view is that the emergence of greater video choices over the Internet has made our high-speed Internet service more valuable to our customers. Our own portal, Comcast.net, offers video selections that in turn lead users to access additional video from third-party websites, a development that we have no desire to hinder.

As you know, we not only provide Internet services but also cable services. As a cable operator, we pay monthly per subscriber fees that total billions of dollars a year to acquire the rights to distribute certain video programming networks to our cable customers, and we have made it clear to our contractual partners that we are not willing to pay them substantial sums for cable distribution rights to programming that they choose to give away for free on the Internet. Thus, in limited cases and depending on the terms of the specific contracts, in consideration for fees, cable operators and video programming networks mutually agree to limit the distribution of video content over the Internet. But that does not prevent these networks from creating other programming that they may choose to make available on the Internet. Our broadband customers can readily access that content and any other available Internet video. (Internet video is growing astronomically. Just a single site, youtube.com, is reportedly adding about 60,000 videos *daily*.)

For the record, when we first introduced cable Internet service, it was provided by a company named @Home. At that time, @Home's customer contracts limited the use of streaming video to 10 minutes because the effects of streaming video on a shared broadband service and other customers were not yet known. This contractual limit was subsequently eliminated *without having ever been enforced.*

Question #2 from Senator Kohl:

Do you believe that strengthened antitrust enforcement is appropriate to address problems that those concerned about net neutrality have identified?

I do not perceive a need for strengthened antitrust enforcement in this area because I believe that the marketplace is functioning in a manner that is producing abundant consumer benefits, while predictions of anticipated harms continue to be hypothetical. That said, I believe that existing antitrust laws are sufficient to address any anticompetitive harms that may emerge and that those laws should remain in effect and should be enforced as necessary in response to marketplace developments. Importantly, antitrust and consumer protection laws -- unlike most "network neutrality" proposals -- do -- and should continue to -- apply to Google, Microsoft, Yahoo, and eBay, just as they apply to Comcast, Time Warner, AT&T, and Verizon.

Question #3 from Senator Kohl:

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Would you have any objections to the repeal of the common carrier exemption from FTC jurisdiction as it relates to telecommunications? If so, please explain the reasons why.

Comcast has limited common carrier offerings and thus I am reluctant to take a definitive position without considering all of the ramifications of such a change in the law. We do, I believe, conduct all our lines of business in a manner that is consistent with the laws enforced by the FTC. My one area of initial concern is that Congress probably should avoid having any given line of business supervised by two different federal agencies operating under two different legal standards, but in so stating I do not mean to be understood as expressing a preference for the FCC or the FTC.

Question #4 from Senator Kohl:

The Cable Act of 1992 requires that programming owned by cable companies be made available to all competitors on the same terms, but it contains an important exception. This requirement only applies to programming delivered by satellite. But some programming -- especially local news and sports -- is delivered by other means, and is exempt from this program access law.

Do technological changes make it more likely that more programming can be carried terrestrially? Does doing so make sense for cable companies such as Comcast, so that you do not have to make the programming in which you have an ownership interest available to competitors? Does Comcast have any plans to deliver more programming terrestrially so that it does not have to be made available to your competitors?

Although some parties have predicted repeatedly, for several years now, that cable programming would "migrate" from satellite to terrestrial delivery, no such migration has occurred. We do not believe that technological changes have altered the economics in a way that makes terrestrial delivery more likely. I know for certain that Comcast has not "migrated" any such programming. Also, with a single exception with which you are familiar, each of the networks in which we have an ownership interest (including several that have launched within the last few years) is delivered by satellite, and we have no plans to shift those networks to terrestrial delivery or to take advantage of the terrestrial exemption.

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UNITED STATES OF AMERICA
FEDERAL TRADE COMMISSION
WASHINGTON, D.C. 20580

Office of the Commissioner

July 21, 2006

The Honorable Arlen Specter
Chairman of the Judiciary
United States Senate
Washington, D.C. 20510

Dear Chairman Specter:

I am pleased to respond to the questions your colleagues on the Committee on the Judiciary have asked me to address regarding my testimony at the Committee's June 14, 2006 hearing on "Reconsidering Our Communications Laws: Ensuring Competition and Innovation."[1] Presented below are my answers to the questions transmitted in your letters dated June 26.

Questions from Senator Feingold

Question 1: It seems like there is a significant amount of overlap in the FCC and FTC's jurisdiction. Do you have formal means for collaborating when your actions may either be duplicative or at cross purposes? For example, was the FTC involved in advising the FCC regarding antitrust issues when it considered changing the media ownership rules.

Answer 1: As discussed in my testimony, the Federal Trade Commission (FTC) is the only federal agency with general jurisdiction over consumer protection and competition in most sectors of the economy.[2] As a result, only a small part of the FTC's work implicates areas of interest to the FCC. At the same time, as you are aware, the FTC Act includes an exemption for common

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[1] As with my responses to the Committee's questions at the hearing, these answers present my personal views and do not necessarily represent the views of the Federal Trade Commission or of any other Commissioner.

[2] The FTC has broad law enforcement responsibilities under the Federal Trade Commission Act, 15 U.S.C. §§ 41-58. With certain exceptions, the statute provides the agency with jurisdiction over nearly every sector of the economy. Certain entities, such as depository institutions and common carriers, as well as the business of insurance, are wholly or partly exempt from FTC jurisdiction. In addition to the general enforcement authority under the FTC Act, the agency has enforcement responsibilities under more than 40 other statutes and more than 30 rules governing specific industries and practices.

carriers subject to the Communications Act. The common carrier exemption further limits the concurrent authority in the two agencies' jurisdiction. The area of concurrent FCC and FTC activity, however, may well expand as Congress and the courts address the applicability of the existing legal framework to new and converging technologies.

Where the FTC's work overlaps with the FCC's work, the two agencies regularly share information and coordinate their activities. For example, the FTC and the FCC have some overlapping authority concerning telemarketing. To ensure that their actions are not duplicative, the two agencies have a Memorandum of Understanding regarding Telemarketing Enforcement. Under that established memorandum, the agencies share complaints, and their staffs meet quarterly to discuss each agency's enforcement work and issues of mutual concern relating to telemarketing. Most recently, for example, the staffs discussed the challenges presented by spoofing of caller identification information.

Other examples of how overlaps between the work of the FCC and the FTC implicate the FTC's consumer protection mission include:

- Coordination of FCC and FTC work on each agency's rulemaking pursuant to the Telephone Disclosure and Dispute Resolution Act;
- Participation by staff of both agencies in the National Association of Attorneys General monthly telecommunications working group conference calls; and
- Coordination of the FCC and FTC work in addressing the sale of consumers' cellular telephone records.

Cooperation between the FCC and the FTC on competition matters has been less extensive, given the smaller number of occasions on which the two agencies have addressed subjects of common concern. When such matters arise (for example, mergers which the FCC and FTC have reviewed concurrently), staff and managers of the two agencies have discussed the substance and timing of each agency's activities. I am not aware of an instance in which the FTC has consulted with the FCC on media ownership rules.

Question 2: I noticed in your prepared testimony that you mentioned that the FTC required AOL and Time Warner to open its cable network to competition on nondiscriminatory basis. Can you explain the potential competitive concerns the Commission had when it required this? It seems to me that this could give some insights as we consider the general preventative non-discrimination concept embodied by net neutrality.

Answer 2: Section 7 of the Clayton Act prohibits mergers whose effect "may be substantially to lessen competition, or to tend to create a monopoly."[3] When a merger is likely to have

[3] 15 U.S.C. § 18.

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anticompetitive effects, the Commission typically sues to block the transaction unless it can agree with the merging parties on relief that would prevent such effects. The Commission's complaint in *AOL/Time Warner* alleged that the merger would harm competition and injure consumers in three antitrust markets: (1) the market for broadband Internet access; (2) the market for residential broadband Internet transport services (the "last mile" access); and (3) the market for interactive television (ITV) services.[4]

In the Internet access market, the merger would have combined AOL's Internet Service Provider (ISP) business with the service provided by Road Runner, Time Warner's partially-owned and wholly-controlled ISP. The Commission alleged that this combination would make broadband ISP markets highly concentrated and allow the merged entity to exercise market power unilaterally. The concern was that other ISPs would have been unable to compete effectively with the merged ISPs unless they had the same access to the Time Warner cable system as did AOL and Road Runner.

In the transport services market, the concern was that the merger would have reduced AOL's incentives to promote and market its broadband access through the telephone companies' DSL lines in areas where Time Warner owned cable systems. This would have adversely affected DSL rollout in those areas and allowed the merged firm to exercise unilateral market power over high-speed broadband access.

In the ITV market, AOL had launched one of the first products and was well positioned to become the leading ITV provider. The complaint stated that the cable lines had a distinct technological advantage over DSL lines in providing ITV services, the concern was that the merged company would have had an incentive to prevent or deter rival ITV providers by providing lesser quality access through the Time Warner cable systems.

To preserve competition that the merger allegedly would have diminished, the FTC required nondiscriminatory access to the components of the Time Warner system necessary for other firms to compete on an even basis. The Commission required Time Warner to grant access to other ISPs to its cable network on comparable terms to those given AOL. In the broadband transport market, AOL was required to market and offer its DSL services to subscribers in the same manner and at the same retail price in markets with and without Time Warner cable services. In the ITV market, the merged company was prohibited from interfering with content or the connections and interactive signals of non-affiliated ISPs.

Question 3: I wanted to explore the extent of the FTC's antitrust powers. Would any of the following scenarios violate these rules and, if so, how could a potential violation be reported to the FTC and what actions could the FTC take? As you probably know, high-speed Internet providers sometimes offer either their own or an affiliated VoIP service.

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[4] *In re* America Online, Inc. and Time Warner, Inc., No. 3989 (Dec. 14, 2000) (complaint), *available at* http://www.ftc.gov/os/2000/12/aolcomplaint.pdf.

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- **Could the Internet providers block a competing VoIP service that was not affiliated with them? Would it matter whether the access provider was also the local telephone or cable television provider?**

- **What about if the unaffiliated VoIP service wasn't completely blocked, but was provided at a lower priority causing a significantly lower quality connection or dropping of calls?**

- **Could the access provider carry their own or affiliated VoIP service for free while charging a fee of any other unaffiliated provider?**

Answer 3: This question poses a number of hypothetical situations and asks whether these situations would violate the antitrust laws. Any analysis of liability, however, always depends on the specific facts that exist at the time of an investigation. My answers, therefore, list a number of the factors that might be considered in light of the scenarios presented in the question.

My answers depend in part on how ISP services are characterized for regulatory purposes. Although the FTC has jurisdiction over most broadband Internet access services, the Commission may lack jurisdiction over a facilities-based service that is offered as a telecommunications service and therefore is regulated as a common carrier service under the Communications Act. In *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities, Report and Order and Notice of Proposed Rulemaking*,[5] the FCC reclassified wireline broadband Internet access service by facilities-based carriers as an information service.[6] The same order, however, permits facilities-based wireline carriers to elect to provide transmission for wireline broadband service on a common carrier basis. The common carrier exemption in the FTC Act, therefore, may preclude FTC jurisdiction over transmission services that a facilities-based wireline carrier provides on a common carrier basis pursuant to the order. If a telephone company elects to offer transmission of internet access services on a common carrier basis, the FTC might have no jurisdiction over the provision of those services.

If ISP services are offered as an information service, the FTC certainly would have antitrust jurisdiction over the provision of those services. In that case, Internet service providers, acting collectively, could not block competing applications, including VoIP services, without violating the FTC Act's section 5 prohibition of "unfair methods of competition."[7] Internet service providers compete with each other in local markets. A horizontal conspiracy by Internet

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[5] *See Appropriate Framework for Broadband Access to the Internet over Wireline Facilities, Report and Order and Notice of Proposed Rulemaking*, 20 F.C.C.R. 14853 (2005) *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-05-150A1.pdf; *and see* 47 U.S.C. § § 153(43) (44) & (46).

[6] A consolidated appeal of the order is pending in the Third Circuit. *Time Warner v. FCC*, No. 05-4769 (3d Cir., filed Oct. 26, 2005).

[7] 15 U.S.C. § 45.

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service providers to block, or to otherwise disadvantage, potential competitors would violate the antitrust laws. If this concerted activity occurs, it would not matter that the Internet service providers were telephone or cable television providers.

The answer differs if a single Internet service provider, acting unilaterally, refuses to deal with a competitor VoIP provider or offers a higher price or a lesser quality service connection than it provides to its affiliated VoIP service provider.[8] The antitrust laws ordinarily impose no duty to deal. Except in extraordinary circumstance, the antitrust laws allow any company to decide which companies it will buy from or sell to. One of the most important attributes of a common carrier is the duty to deal with all who present themselves for business. In contrast, the antitrust laws allow a company wide leeway in deciding how to structure its distribution system, including by denying its business to actual or potential competitors.

United States antitrust jurisprudence gives a supplier broad discretion about how to buy its inputs or distribute its products. Generally, a refusal to sell to or deal with a particular customer is permissible as long as the supplier is not a monopolist and as long as the decision is made unilaterally. Therefore, if a company decides on its own that its interests are best served by not dealing with a particular customer, the company independently may decline to do business with that customer. The Supreme Court stated this principle in *United States v. Colgate and Co.*,[9]

> The purpose of the Sherman Act is to prohibit monopolies, contracts and combinations which probably would unduly interfere with the free exercise of their rights by those engaged, or who wish to engage, in trade and commerce – in a word to preserve the right of freedom to trade. In the absence of any purpose to create or maintain a monopoly, the act does not restrict the long recognized right of a trader or manufacturer engaged in an entirely private business, freely to exercise his own independent discretion as to parties with whom he will deal.

Two years ago, the Supreme Court reiterated this principle in *Verizon Communications v. Law Offices of Curtis v. Trinko, LLP,* which held that a telephone company that provided access to its network to a competing carrier on a discriminatory basis did not violate section 2 of the Sherman Act.[10] The Court noted the "uncertain virtue of forced sharing and the difficulty of identifying and remedying anticompetitive conduct by a single firm."[11] Lower courts likewise have refused to find refusals to interconnect by network service providers to be a violation of

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[8] This analysis assumes that the service provider does not deceive a competitor VoIP service by claiming it is selling nondiscriminatory service while secretly compromising the quality of the service provided.

[9] 250 U.S. 300, 307 (1919).

[10] 124 S.Ct. 872 (2004).

[11] *Id.* at 879.

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Section 2.[12] By this line of precedents, an Internet service provider ordinarily would not be required to carry a competing VoIP service over its network.

Despite the approach outlined above, the courts have not entirely foreclosed the possibility that, in extraordinary circumstances, a unilateral refusal to deal with a competitor might violate the antitrust laws. *Trinko* and other cases generally take a skeptical view of such possibilities and appear to impose severe demands on plaintiffs. Important obstacles to a finding of liability include the availability of more than a single entity with whom the denied party might deal,[13] the existence of legitimate justifications for the refusal to deal in the interest of furthering the defendant's business and not solely to disadvantage the competitor,[14] and the existence of a robust collateral regulatory program to address access issues.[15]

At first glance, the nondiscriminatory interconnection requirement in the *AOL/Time Warner* remedy may seem inconsistent with the general antitrust principle that a network has no duty to deal on a nondiscriminatory basis (or on any basis), with its competitors. The merger-related posture of the *AOL/Time Warner* case dictated the remedy that was used. A finding that a merger is anticompetitive means that existing or potential competition will be diminished if the merger takes place. In *AOL/Time Warner*, the merger would have eliminated competition between AOL and Road Runner in ISP services between Time Warner broadband cable connections and telephone company DSL connections in last mile access, and between AOL's and other companies' ITV services. The mandatory nondiscriminatory connections were necessary to preserve the competition that existed before the merger. In the VoIP market as hypothesized in your questions, the FTC would not be analyzing a diminution of competition caused by a merging

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[12] *Midwest Gas Services v. Indiana Gas Co.*, 317 F.3d 703 (7th Cir.), *cert. denied*, 124 S.Ct. 82 (2003); *Paladin Associates v. Montana Power Co.*, 328 F.3d 1145 (9th Cir. 2003); *Pittsburgh County Rural Water District No. 7 v. City of McAlester*, 346 F.3d 1260 (10th Cir. 2003).

[13] The Court has never endorsed the "essential facilities" doctrine. *Trinko*, 124 S.Ct. at 881.

[14] In *Trinko*, the Court called *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 U.S. 585 (1985), as being "at or near the outer boundary of § 2 liability." *Id.* 124 S.Ct. at 779. *Trinko* distinguished the refusal to deal in *Aspen* on the ground that the *Trinko* defendant did not abrogate a previously existing voluntary relationship, which in *Aspen* reflected a willingness to forsake short-term profits for potential monopoly profits – that is, an absence of legitimate business reasons in *Aspen* for the refusal. *Trinko*, 124 S.Ct. at 779-880. Citing *Otter Tail Power Co. v. United States*, 410 U.S. 366 (1973), the *Trinko* Court also noted that a defendant may be held liable where it is already providing to some customers the service it denied to plaintiff, which may indicate that the defendant had no business need to refuse to deal. *Trinko*, 124 S.Ct. at 880.

[15] *Trinko*, 124 S.Ct. at 881, *citing* P. AREEDA & H. HOVENCAMP, ANTITRUST LAW 150, ¶ 773e (2003 Supp.).

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of competitors. Instead, the Commission would be analyzing a unilateral refusal to deal with one supplier that, barring any evidence of "a purpose to create or maintain a monopoly,"[16] must be presumed to be benign or procompetitive, and undertaken for legitimate business reasons.

There are several ways to report apparent violations of the antitrust laws to the FTC. Any violation of a statute enforced by the FTC may be reported by telephone or in writing to the Commission's Consumer Response Center, or to the Bureau of Competition.

The FTC can take a number of steps to remedy violations of the FTC Act. One measure is to issue cease and desist orders which are enforced by court-imposed civil penalties for noncompliance. The Commission also may seek preliminary and permanent injunctive relief under Section 13(b) of the FTC Act.[17] In extraordinary cases, the Commission may seek disgorgement or similar remedies under Section 13(b).[18]

Questions from Senator Kohl

Question 1: One important possible alternative to the dominant phone and cable companies are municipal wireless systems. Cities and municipalities such as Philadelphia have begun to build such wireless network and plan to offer these networks to their residents as a municipal service. Internet access for our citizens through these systems may well prove to be as vital as access to public libraries was to our citizens in earlier times. I understand that the FTC Office of Policy Planning has been conducting a inquiry for the past year on the benefits of municipal broadband. When can we expect to see the results of that study?

Answer 1: FTC staff recently researched various technologies, operating models, and case studies of municipalities that have participated in the deployment of wireless Internet systems. Staff also have reviewed arguments that support efforts by municipalities to provide wireless Internet services, as well as arguments that such initiatives should be limited or prohibited. The Staff will summarize its learning regarding municipal wireless Internet and provide perspectives on the competition issues that policymakers may encounter when considering this issue. FTC staff expects that its review will be released this Fall.

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[16] *Colgate,* 250 U.S. at 307.

[17] 15 U.S.C. § 53(b).

[18] *FTC v. Mylan Labs., Inc.,* 62 F.Supp.2d 25 (D. D.C.), *modified on other grounds,* 99 F.Supp.2d 1 (D. D.C. 1999). *See also* Federal Trade Commission, *Policy Statement on Monetary Equitable Remedies in Competition Cases,* (July 25, 2003) *available at* http://www.ftc.gov/os/2003/07/disgorgementfrn.htm.

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Question 2: What is your view of the importance of municipal broadband systems, Mr. Kovacic?

Answer 2: As I indicated in my June 14 testimony, encouraging more broadband competition for consumers is important. The importance of municipal broadband systems and their effect on competition may vary depending on the circumstances of each municipality. Individual municipalities have varied needs and face different Internet access issues. For example, the situation of a large metropolitan area served by multiple traditional wireline telecommunications providers and high-speed cellular Internet technology differs significantly from that of a small rural town with only one or no wireline telecommunications providers and low-speed cellular Internet or satellite Internet service.

Question 3: Do you believe that antitrust enforcement can safeguard against many of the problems that those concerned with net neutrality have identified? Do you believe the antitrust laws with respect to this subject need to be strengthened, and, if so, how?

Answer 3: I believe that antitrust enforcement can serve as a safeguard against many problems that those concerned with net neutrality expect to arise. The FTC is well-versed and experienced in consumer protection and competition issues involved in the provision of Internet access services, and it will continue to fulfill its responsibility to maintain competition in such services and to ensure that consumers are protected from unfair and deceptive acts and practices in this area.

I do not believe that the antitrust laws need to be strengthened to address these issues. However, as I mentioned in my testimony of June 14, as Congress considers legislation to amend the Communications Act, we believe that any new legislation should clearly preserve the FTC's existing authority over activities currently within its jurisdiction. The FTC is concerned that any explicit or implicit diminution of our existing jurisdiction would hamper our ability to continue to play the integral role we have in protecting consumers and maintaining competition in the rapidly evolving market for Internet access services.

Question 4: In your testimony at the hearing you advocated the repeal of the common carrier exemption from the FTC jurisdiction as it relates to telecommunications. What benefits to the FTC's enforcement of antitrust and consumer protection laws would arise from such repeal.

Answer 4: As you know, common carriers subject to the Communications Act of 1934 are exempt from the requirements of the Federal Trade Commission Act. 15 U.S.C. § 45(a)(2).[19]

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[19] 15 U.S.C. § 45(a)(2) exempts from the FTC Act "common carriers subject to the Acts to Regulate Commerce." 15 U.S.C. § 44 defines the "Acts to regulate commerce" as "Subtitle IV of Title 49 (interstate transportation) and the Communications Act of 1934" and all amendments thereto.

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Because of this exemption, consumers dealing with an important segment of the economy – telecommunications – do not benefit from FTC enforcement of the FTC Act's prohibitions against deceptive and unfair practices and unfair methods of competition. We have found that the common carrier exemption frustrates effective consumer protection with respect to a wide array of activities in the telecommunications industry including advertising, marketing, and billing practices.

As the telecommunications and Internet industries converge, the benefits to consumers and competition of the FTC having clear and broad authority only increase. Neither the industry nor consumers are well served by uncertainty about the FTC's ability to stop deceptive and unfair practices and unfair methods of competition with respect to interconnected communications, information, entertainment and payment services. Repeal of the FTC Act exemption for common carriers subject to the Communications Act would ensure that the same consumer protection and competition rules apply to all entities regardless of whether the services at issue are common carrier services subject to the Communications Act.

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Mr. Chairman, thank you for the opportunity to participate in the hearing on June 14 and to respond to the Committee's questions.

Sincerely,

William E. Kovacic

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Commissioner

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The Pennsylvania State University

July 12, 2006

The Honorable Arlen Specter
United States Senate
224 Dirksen Senate Office Building
Washington, D.C. 20510-6275

Dear Senator Specter:

As a follow-on to my testimony on June 14th at the United States Senate Judiciary Committee hearing regarding "Reconsidering Our Communications Laws: Ensuring Competition and Innovation" you sent questions from the Committee members and asked for a response by July 14th.

The first was a question from you for the entire panel:

Do you believe that case by case adjudication of competitive issues that arise in the market for broadband internet service would be adequate? What if Congress provided the FTC and DOJ with guidelines for applying the antitrust laws in this market? If Congress were to provide such standards, what would they consist of?

My response:

A case-by-case adjudication of competitive issues may work under certain conditions. First, there must be established clear obligations on all carriers. Simply providing guidelines to oversight agencies is not sufficient to create a consistent approach to preventing anti-competitive behavior. Second, there must be specific time deadlines for resolving any case brought. Traditional antitrust cases take an extraordinary amount of time, especially given the fast pace of the Internet. Consumers and content providers (including universities) should have the ability to file a complaint at any time they face discrimination and expect to have that complaint resolved within a few months.

The key principle in developing the rule for this approach is non-discrimination. Since, in most locations, there is no effective competition for broadband network services, legislation developed should apply a non-discrimination principle to today's telephone and cable companies, the duopoly which provides service to most Americans.

A detailed set of anticipatory rules is not necessary. Details of what constitutes a violation can be developed through time and case history. The process for an injured party to file a complaint must be straight-forward, requiring evidence of a violation, and immediately starting the clock on the required timeline.

I am also responding to one question from Senator Feingold, which was addressed to the panel but particularly to Mr. McCormick and Mr. Cohen:
"You have urged us not to act until there are widespread abuses of your duopoly power - essentially taking the position that net neutrality is premature. Yet we have a long history of putting conditions on mergers to preemptively prevent possible anti-competitive practices. Why shouldn't we follow the model we have set for mergers and place limits where the situation would be clearly susceptible to anti-competitive actions?"

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My response:
The Congress should act now to establish rules protecting net neutrality. Those who argue that net neutrality protections are premature fail to mention that net neutrality rules have been in effect for decades and that the FCC decision lifting net neutrality requirements only occurred last year. Furthermore, net neutrality requirements remain as conditions of the SBC-AT&T acquisition and the Verizon - MCI acquisition. Moreover a recently released report from the Congressional Research Service states there is the potential for network providers to provide discounts to their own services, disadvantaging other independent applications service providers.

Thank you for the opportunity to present at your Committee hearing on June 14th and for the opportunity to respond to these questions. Please call on me in the future if I can be of further assistance.

Sincerely,

Jeffrey C. Kuhns

Senior Director, Consulting and Support Services, Information Technology Services.

PS: I passed along your best wishes to Coach Paterno.

CC:

Rich DiEugenio, Special Assistant to the President, Government Affairs.

J. Gary Augustson, Vice Provost Information Technology.

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Blair Levin
Managing Director
Stifel, Nicolaus & Company, Incorporated

Questions and Answers to Senate Judiciary Committee
Follow-Up to Hearing on
Reconsidering Our Communications Laws: Ensuring Competition and Innovation

July 14, 2006

Senator Spector Question for Panel:

Do you believe that case-by-case adjudication of competitive issues that arise in the market for broadband internet service would be adequate? What if Congress provided the FTC and DOJ with guidelines for applying the antitrust laws in the market? If congress were to provide such standards, what would they consist of?

Answer: As noted in my testimony, from an investment perspective no regulatory or adjudicatory answer will serve the goal of facilitating innovation and economic growth throughout the broadband sector as effectively as multiple last mile broadband alternatives. As I also noted in my testimony, in markets where such alternatives are lacking, there are some potential harms that might be relevant here, such as preventing new entrants from entering through adjacent markets, allowing those with a bottleneck to leverage that bottleneck into a related market, or impeding technology development by concentrating technology leadership into a small cadre of firms so that the entrepreneurial function of technology leadership is stymied.

No remedy is perfect. Both broad policy guidelines and addressing problems on a case-by-case basis create some uncertainty for investors, as there will be questions as to how the government will interpret and enforce the policy or judge the facts of a particular case. A case-by-case approach, however, like the current antitrust laws, does have the advantage of being able to target specific anti-competitive behavior and to adjust to changing facts.

If the government determines that case-by-case adjudication can be helpful in mitigating the harms of anti-competitive behavior, in the event that such behavior occurs, it would, in my view, be helpful if the government provided for:

1. clear jurisdiction for at least one government entity to resolve the dispute;
2. a process that assures rapid, final resolution, as slow resolution can undercut the economic viability of the damaged party; and
3. any government entity charged with adjudicating the dispute having the ability to impose meaningful remedies to discourage similar behavior in the future.

As to the standards, there may be a certain class of actions, such as blocking or direct degradation that when done by entities with market power should be viewed as a per se

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violation. But for other actions, I believe the deciding entity would have to look at a broad range of facts and evaluate the actions of the network owner under something similar to a rule of reason analysis. In all cases, the deciding entity should have to clearly state the principles behind its decision so has to provide future clarity for the market.

As noted above, a case by case approach is not without its costs. It will create uncertainty for both sides as to what is an allowable business strategy. Of course, broad policy rules can also create a similar uncertainty until they have been applied in enough cases to give clarity to the meaning of the policy. If, however, the case by case process shows a particular pattern of abuse, it could be that an appropriate government agency should adopt more prophylactic rules to prohibit the particular actions.

In addition, there are some issues, such as the potential impact of concentrating technological leadership in a small number of firms that do not lend themselves to a case-by-case remedy as the problem does not arise from a single action or even a pattern of actions. This case may require a different approach by the government.

Senator Kohl Questions for Blair Levin:

1. (a) The incumbent internet providers – the phone and cable companies – argue that net neutrality requirements are unnecessary. They contend that if they gave some content providers preference over others, and thereby harmed the internet experience, consumers would simply find another internet service provider. What do you think of this argument?

Answer: In evaluating the argument that rules new network neutrality rules are unnecessary because consumers have alternative providers, I believe the answer requires a market by market analysis. In some markets, such as for large enterprises in major urban areas, I believe there are a number of potential suppliers and any limitation would likely be met my the consumer finding an alternative, unless the limitation was coupled with a consumer benefit, such as lower prices or better performance. In such a case, government intervention, in my view, would still not be warranted as the consumer is making a reasoned judgment as to the best alternative.

By contrast, in other markets, such as for small businesses in less urban areas, there is often only one provider—the telco--as cable often does not serve such markets. In short, as with any competitive analysis, one has to evaluate individual geographic and product markets. That is, in some markets, consumers can find another internet service provider and in others, that is not the case.

Finally I would note that in the residential consumer market, Cable and telcos provide service to more than 90% of the market, according to the FCC's most recent report. On the surface this might suggest in most markets consumers have, at best, access to a duopoly. On one hand, a duopoly does not usually produce the kind of innovation,

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economic growth and competitive pricing that characterizes markets with more competitors. For example, the cellular duopoly that existed for the first decade of the commercial wireless industry did not produce the price reductions, innovative features, and variety of pricing plans that arose when more competitors entered the market in the industry's second decade.

On the other hand, the last several years of broadband competition have produced more of the kind of price and feature competition that one usually sees in markets with more players. Moreover, depending on market developments, there may be some new competitors in the last mile access market. To date, alternatives such as wireless broadband, satellite broadband and Broadband over Powerline have not yet achieved the ease, price points and functionality of cable modem and DSL services. As a result, I do not believe any competitor is likely to materially challenge the current market structure in the near term. But that does not mean that the broadband alternatives won't become truly competitive in the future.

(b) Do you think the phone and cable companies are likely to make deals with internet content providers that will threaten the neutrality of the internet?

Answer: Yes, but from an investment perspective, neutrality is not necessarily a synonym for competition and economic growth. That is, in my view, the question isn't about neutrality but about the ability of innovative services and applications to reach the market. To serve the goal of stimulating a rising standard of living for Americans, the challenge for regulators is to assure a broadband environment characterized by survival of the fittest, as selected by the market, rather than survival of the friendliest, as selected by the network owners or government.

That goal can be accomplished through a neutrality regime; indeed I believe that in a narrowband world characterized by one last mile facility providing Internet access, neutrality was the optimal way to assure new services and applications could reach the market. The broadband market, however, is different in a variety of ways, including having two providers of last mile access and having alternatives with a wide spectrum of different bandwidth throughputs.

As noted above, the best way to assure access is through multiple last mile facilities. Another way to do so is through assuring a minimum level of functionality of a neutral (by which a mean non-discriminatory) "best efforts" internet. As I noted in my written testimony there is at least the theoretical danger that the current best efforts could, in effect, be degraded by a number of tactics by the incumbents, such as reducing the spectrum used for the best efforts public Internet and moving it to premium or priority access. This would be very problematic for the investors contemplating investments in new applications and services. If the government thought there was a risk of such degradation, it could adopt the idea floated by Craig Moffett, another Wall St. analyst. In testimony to the Senate Commerce Committee generally critical of any network neutrality requirements, he suggested requiring a basic access tier for a minimum amount of bandwidth, or a fixed percentage of bandwidth in which pure neutrality would be

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maintained. Others, such as the Information Technology and Innovation Foundation have made similar proposals for a basic and growing level of open, unmanaged Internet access. The presence of such a safety net may prove a minimally intrusive solution to the risks to the market for low-bandwidth applications. Market forces may drive such access. Or perhaps there needs to be a simple transparency requirement so that customers know how much of their bandwidth is being devoted to a neutral Internet experience. Certainly, it would be useful for a government agency to monitor trends in this direction.

2. *The Cable Act of 1992 requires that programming owned by cable companies be made available to all competitors on the same terms, but it contains an important exception. This requirement only applies to programming delivered by satellite. But an increasing amount of programming – especially local news and sports – is delivered by other means, and is exempt from this program access law.*

   Do technological changes make it more likely that more programming can be carried terrestrially? Does doing so make sense for cable companies, so that cable companies do not have to make a strategic business decision to keep content from their competitors?

Answer: I believe the 1992 Cable Act, and in particular the program access provisions, have proven successful in facilitating competition to cable by assuring access to a critical input: cable affiliated programming. As a consequence of the Act and other developments, including retransmission consent negotiations and the elimination of the financial/syndication rules, the percentage of cable affiliated programming has dropped dramatically since 1992.

The concerns that cable could avoid the program access by delivering programs on a terrestrial basis have been raised by a number of parties over the last decade. As far as I am aware, however, actual examples of such delivery are rare. While I have not seen definitive evidence one way or the other, I am not sure it is accurate that an increasing amount of programming overall is being carried by non-satellite means.

As to local news, as that is content being created by a cable operator (as opposed to being bought by the operator, as is the case with local sports) it may be that the only way to provide the incentive to take the risk of investing in new local news programming is to give the cable operator a right to carry such programming exclusively. Further, it is not difficult for a competitor to create an alternative program.

Regional sports programming is different as a competitive distribution platform cannot simply go out and create its own team. I believe the regional sports issue requires a case by case analysis of whether exclusive carriage would likely harm competition in a local market. I would note that the FCC is scheduled to address this issue today in its consideration of the Adelphia transaction.

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3. *The phone companies advocate eliminating the requirement that they obtain franchises from local municipalities in order to provide video services. How great a barrier really is the requirement that phone companies obtain a local franchise to offer video? In your view, should the franchise requirements be relaxed in order to promote another competitive choice for consumers?*

Answer: From an investment perspective, I do not believe local franchising obligations are the primary concern. First, the primary concern is the high cost of the investment in upgraded facilities while the return on the investment—which requires winning over customers in a mature market (for multi-channel video) in which most there is both existing high penetration (approximately 86%) and generally three providers (one cable and two satellite) already in the market—is uncertain.

Second, in some cases there are concerns about the technology. For example, it has been almost a year since Texas gave telephone operators the right to enter the video market throughout the state without obtaining a local franchise. While AT&T has received permission to offer its service in dozens of cities, it has not yet done so as it is still testing the technology. We understand it will offer the service to multiple cities later this year but from an investment perspective there is still a question mark as to how the technology will work when broadly offered.

Of course, as a general rule, the investment community prefers not subjecting any investment decision—whether by telco, cable or anyone else-- to prior approval of a government agency. This is true for a variety of reasons, including not giving competitors advance notice of a company's investment plans, the extra time and cost entailed in obtaining such approval, and the desire to avoid investments that are driven by public policy concerns rather than profit maximization. There are some legitimate government concerns, however, that may cause governments to want to exercise some prior oversight over the investment. The investment community would like any such oversight process to be transparent, narrowly tailored and quick.

4. *How important is the development by cities of municipal broadband systems? Do you forsee this providing a real competitive alternative for consumers in the near future?*

Answer: I believe it could become an important development and has the potential to offer significant benefits to cities that carefully choose partners to help construct and operate such systems. It addresses a need for nomadic broadband services but I would note it does not provide full mobility (as one cannot keep the signal when traveling at speeds served by mobile broadband) nor is it likely to offer the kinds of speeds that are going to be offered by cable and telco broadband providers through their wires. Thus, in the near term, I do not see these systems as providing what an antitrust analysis would see as a competitive alternative, as the municipal systems generally are of slower speeds and there remain a number of questions about their scalability, security and other functional abilities.

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Senator Feingold Questions for the Panel:

1. *You have taken a position against net neutrality, at least partly on the grounds that you need to collect funds from Internet content providers to pay for further roll-out of Internet and video services. Yet at the same time you have opposed build-out requirements as a part of the national video franchise proposed by the House. How is this consistent? There isn't a requirement that the money from content providers be reinvested in underserved areas, is there?*

Answer. As I have not advocated or opposed either network neutrality or build out requirements, I don't feel it appropriate to answer the question directly. As I said in my testimony, however, we as a country will need to address a number of issues regarding Internet access, including our international position in broadband penetration, the gap between broadband speeds available in other countries and those generally available to American consumers, the lower price per bit paid by consumers in other countries relative to what Americans pay, and the tens of millions of Americans who lack any Internet connectivity.

2. *You have urged us not to act until there are wide spread abuses of your duopoly power – essentially taking the position that net neutrality is premature. Yet we have a long history of putting conditions on mergers to preemptively prevent possible anti-competitive practices. Why shouldn't we follow the model we have set for mergers and place limits where the situation would be clearly susceptible to anti-competitive actions?*

Answer. I have not expressed any direct views on whether it is premature to adopt or reject network neutrality provisions. From an investment perspective, however, I should note that it may be problematic to impose conditions on a merger that are not merger specific in that it can lead to similarly situated companies facing asymmetric regulation.

3. *I understand that some high speed internet providers are now offering consumers tiered options for higher than normal access speeds at a premium price. These are often marketed to users who use data intensive applications such as online interactive games and streaming video. One of your arguments against net neutrality is that you need to be able to charge these high usage application providers. Aren't you arguing that you should be paid twice for the same premium content?*

Answer. As I have not expressed any views on this issue, I will defer to others on this question.

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USTELECOM
UNITED STATES TELECOM ASSOCIATION

Walter B. McCormick, Jr.
President and CEO
Responses to questions for the record
"Communications Laws: Ensuring Competition and Innovation"
Senate Judiciary Committee

Senator Specter

Do you believe that case-by-case adjudication of competitive issues that arise in the market for broadband internet service would be adequate? What if Congress provided the FTC and DOJ with guidelines for applying the antitrust laws in this market? If Congress were to provide such standards, what would they consist of?

I agree that case-by-case adjudication of any competitive issues that may arise in the area of broadband internet services would make sense. It would also put such services on the same footing as the vast majority of goods and services in the American economy, which are subject to the antitrust laws and enforcement of those laws by antitrust agencies and private parties. There is an established body of statutory and case law in the antitrust arena that has protected consumers and competition for over 100 years and is applicable to all industries. For that reason, there is no need for industry-specific guidelines for broadband Internet services. Rather, they are and should be subject to the existing antitrust laws, just as is the remainder of American industry.

Senator Feingold

1. Question to the panel, but particularly to Mr. McCormick:

You have taken a position against net neutrality, at least partly on the grounds that you need to collect funds from Internet content providers to pay for further roll-out of Internet and video service. Yet at the same time you have opposed build-out requirements as part of the national video franchise proposed in the House. How is this consistent? There isn't a requirement that the money from content providers be reinvested in underserved areas, is there?

USTelecom supports the High Tech Broadband Coalition internet access principles incorporated in Chairman Stevens' reported bill. We oppose heavy-handed net neutrality regulations and build-out requirements on new video entrants because they are anti-consumer and serve as a disincentive for investment in the deployment of advanced networks.

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Net neutrality requirements as proposed in various legislative proposals would dictate that consumers alone pay for the deployment of the next-generation Internet. These advanced networks hold virtually unlimited promise to enhance our nation's economic opportunities and quality of life. They will deliver not only movies and entertainment, but telemedicine advancements that can improve the accessibility, affordability and quality of health care, particularly in rural communities; telecommuting opportunities that can enhance our environment, reduce America's dependence on foreign oil and give us more time with our families; educational advancements that make a range of learning opportunities widely accessible; and other innovations that our best minds have yet to imagine.

To take this next step in the Internet's evolution requires vast investment in new networks with substantial bandwidth capacity. These networks will require multi-billion-dollar investments that must be paid for by someone.

All sides of the net neutrality debate agree that consumers should be in control of their Internet experience. Where we differ is on whether consumers alone should foot the bill for the advanced networks that drive the Internet's growth and evolution. USTelecom believes that businesses that seek to profit from the use of next-generation networks should not be relieved of all financial responsibilities associated with the increased capacity that is required for delivery of the advanced services and applications they seek to market.

Build-out requirements serve as a disincentive to enter a market, thereby delaying the benefits of competition. In light of the fact that the video business has entrenched incumbents, if regulatory barriers are too high and too costly, companies may be forced to skip whole franchise areas.

While "consumer groups" argue that when cable entered the business it was required to build out its systems, what is often forgotten is that when cable entered the video business it was a monopoly—the only game in town. Cable had a guaranteed customer base for any one who wanted video service. New entrants must win customers away from cable and satellite providers.

When phone companies bring competition, it does not make sense to subject them to similar rules as when incumbents operated as monopolies. In fact, build-out requirements are the anomaly for competitive services. As part of the 1996 Telecom Act, Congress did not impose build-out requirements on competitors entering the voice business. Telecom CLECs and Cable VoIP providers have no build-out requirements when entering the voice market. The same incentives should be maintained for competitors entering the video business.

2. Question to the panel, particularly to Mr. McCormick and Cohen:

You have urged us not to act until there are widespread abuses of your duopoly power - essentially taking the position that net neutrality is premature. Yet we have a long history of putting conditions on mergers to preemptively prevent possible anti-competitive

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practices. Why shouldn't we follow the model we have set for mergers and place limits where the situation would be clearly susceptible to anti-competitive actions?

Up to now the Internet has experienced significant growth and innovation precisely because the government has maintained a virtual hands-offs approach. However, the so called "net neutrality" regulation, and I take strong exception to the name because I believe it is extremely misleading, would dramatically alter the way the Internet works today— replacing the freedom to innovate and the American entrepreneurial spirit with heavy-handed government interference. This regulation would have significant harmful unintended consequences.

I would also take exception to the notion that the high-speed market is a duopoly, susceptible to anti-competitive actions. Today, consumers have a variety of choices in obtaining high speed internet access. They can choose high speed internet access from cable, from DSL, from wireless, from satellite, and in some areas from new technologies such as wi-fi and wi-max systems or Broadband Over Power Line. According to the FCC, as of June 2005, consumers living in 75% of zip codes have three or more high speed lines in service to choose from, 60% of zip codes have four or more high-speed lines to choose from, and 17.5% of zip codes have ten or more high-speed lines to choose from. In the Washington, DC, area, 100 percent of zip codes have a choice of two providers, 92 percent have a choice of three providers, and 88 percent have a choice of eight or more broadband providers.

Across the nation, the number of broadband providers is exploding due to the fact that anyone who is willing to invest has the ability to enter the business free of archaic, stifling, and discriminatory economic regulation. Indeed, the number of high speed providers in the United States nearly tripled, from 485 to 1,270, between June 2004 and June 2005. This is extraordinary growth, given the fact that in June 2001 there were just 160 such providers around the country. One of the biggest investors in high-speed internet access is Google, which has found it easy to enter the market through investments in both wireless and BPL technologies.

As a result of this broad choice and intense competition, prices for internet access have fallen and penetration has increased. On May 28th, the Associated Press reported that "Middle and working-class Americans signed up for high-speed internet access in record numbers in the past year, apparently lured by a price war among phone companies."

Clearly, consumers are benefiting from the free market environment. According to the Associated Press, citing a survey by the Pew Internet and American Life Project:

- Broadband adoption increased 59 percent from March last year to March 2006 among U.S. households with incomes between $30,000 and $50,000.
- It increased 40 percent in households making less than $30,000 per year
- It increased 121 percent among blacks.

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- Overall, 42 percent of adult Americans, or 84 million people, have broadband, compared to 30 percent a year ago.

Therefore, it is clear that the marketplace is working. There is no problem that requires Congressional action. Telephone and cable companies have stated that they will not block, impair or degrade access to any website, and they are not doing so. If they did, the Chairman of the FCC has said that he has the authority to stop them, and that he will use it. And, with so many choices available today, consumers would clearly go elsewhere.

But, all this investment, all this innovation, could come to an end if the government begins adding new regulation. Wall Street has warned that enacting "net neutrality" regulations in the absence of a definable problem would be premature and could trigger substantial, negative unintended consequences. As Craig E. Moffitt, a VP and senior analyst at Sanford C. Bernstein and Co., told the Senate Commerce Committee in March:

> Mandated "net neutrality" would further sour Wall Street's taste for broadband infrastructure investments, making it increasingly difficult to sustain the necessary capital investments. It would also likely mean that consumers alone would be required to foot the bill for whatever future network investments that do get made. That would result in much higher end-user prices, much steeper subsidies of heavy users by occasional ones, and, in all likelihood, a much sharper 'digital divide.' ... The United States as a whole would, in all likelihood, fall further behind other countries in broadband availability and reliability.

Many of the leading telecom manufacturers, such as 3M, ADC and Cisco, have all expressed similar reservations about prematurely enacting "net neutrality" regulations.

The Internet is the success it is today because the government has maintained a vigilant, hands-off approach that has allowed companies to innovate in direct response to the evolving wants and needs of their customers. The marketplace today is competitive, and as the barriers to entry are low, the market is also contestable. Regulatory or legislative solutions wholly without justification in marketplace activities would stifle, not enhance the Internet. Laws can be inflexible and difficult to fine-tune—particularly when applied to technologies that are rapidly evolving.

3. Question to the panel, particularly to Mr. McCormick and Cohen:

I understand that some high speed internet providers are now offering consumers tiered options for higher than normal access speeds at a premium price. These are often marketed to users who use data intensive applications such as on-line interactive games and streaming video. One of your arguments against net neutrality is that you need to be able to charge these high usage application providers. Aren't you arguing that you should be paid twice for the same premium content?

There are today, voice networks, data networks, and various managed networks and virtual private networks that provide increased level of security and reliability for financial, governmental, and healthcare purposes that all operate on Internet protocol and involve various levels of prioritization. We are not proposing to change the Internet experience. We have stated that we will not block, impair or degrade access to any legal website. The internet experience that the consumer has today, and that those who operate

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websites have today, they will have tomorrow. The consumer will be in control of making his or her own choices with regard to the amount of speed and bandwidth purchased. This is as it should be. Consumers should not be forced to purchase a higher level of speed simply because a Google, or an Amazon, or some other company wants to profit from offering a new service that would benefit from a higher speed.

Companies that are satisfied with the performance of the public Internet will continue to have the option of just making their content available to consumers on the Internet also as they do today. However, Internet companies who wish to purchase a level of service beyond today's "best efforts" may want to enter into commercial agreements with broadband providers.

For example, a hospital may need increased reliability for medical home monitoring. Other companies may choose to purchase additional bandwidth capacity to speed movie downloads for those of its customers who do not opt for a higher bandwidth service. This might, for example, allow an entry-level broadband customer who pays just $14.95 a month to download the occasional movie at a speed commensurate with a $49.95 monthly service. Why should the government bar a company from investing in enhanced customer service? This investment would have no impact on competing websites. Consumers will continue to have unfettered access to the entire World Wide Web at the speed they purchase.

The bottom line is that no Internet company will be required to pay a network operator for its web presence. They will simply have the additional option to pursue a customized service.

Senator Kohl

1. The phone industry claims "net neutrality" is not a problem right now that we need to worry about, arguing that legislative proposals to mandate net neutrality is a "solution in search of a problem." Yet, last December, the Washington Post reported that the Chief Technology Officer for BellSouth stated that BellSouth should be allowed to strike deals to give certain web sites priority in reaching computer users. Likewise, Ed Whitacre, CEO of AT&T told Business Week that he would seek to have internet sites who use his "pipes" "pay for the portion they're using."

(a) Don't these statements show that your industry is planning to cut deals right now that will threaten the neutrality of the internet?

Absolutely not. Our members have repeatedly stated they will not block, degrade or impair anyone's access to the Internet. Further, allowing Internet companies the option to enter into commercial arrangements to differentiate their service works to the benefit of consumers. What "net neutrality" advocates pejoratively label as "discrimination," the rest of us benefit from every time we use the Internet. This network management flexibility, also known as "optimization," allows your online banking transactions to be secure. It allows millions of Americans to telecommute from home over private

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company networks. It ensures the reliability of home health care monitoring for countless Americans. Private companies invest all the time today in special customized network service. This custom optimization would largely become illegal under a "net neutrality" regime.

Many of the so-called "net neutrality" advocates are actually attempting to legislate business advantages for themselves at the expense of consumers, broadband network investors and the next wave of Internet innovators.

(b) To your knowledge, have any of your member companies reached deals with internet content providers to give them preferential treatment, or are in negotiation to reach such deals?

Not to our knowledge.

2. Do you believe that strengthened antitrust enforcement is appropriate to address problems that those concerned about net neutrality have identified?

No. We believe that traditional antitrust analysis should be the one applied to this market. Current antitrust laws are very explicit with regard to illegal restraints of trade and anti-competitive behavior. The anti-trust departments and agencies overseen by the Committees on the Judiciary – the Federal Trade Commission and the Department of Justice – are very aggressive in their enforcement.

3. Would you have any objections to the repeal of the common carrier exemption from FTC jurisdiction as it relates to telecommunications? If so, please explain the reasons why.

Our members should not be subject to double jeopardy. If there is enforcement at the FCC and you follow the dictates of the FCC, then you should not be subject to a separate level of enforcement pursuant to the antitrust laws. If there is concern over whether legislative language contained in the recently House passed bill and committee-cleared Senate telecom bill would affect the application of antitrust laws, we propose simply letting antitrust laws govern this market as they govern every other segment of the American market.

4. How important to the phone companies' entry into video is access to programming carried by the cable incumbents? Do you support closing loopholes to program access rules so that cable companies cannot deny needed content to your member companies?

USTelecom belongs to the Coalition for Competitive Access to Content (CA2C) and fully supports the coalition's advocacy. As you may know, the CA2C worked with Senator John Ensign to win the inclusion of language in S.1504, the Broadband Choice Act, to close the terrestrial loophole in Sec. 628 and to treat other anti-competitive uses of programming by vertically integrated cable incumbents. Similar language was included in early drafts of S.2686, the Stevens-Inouye bill, but was dropped shortly before mark-up. A critical remaining provision in the Commerce Committee's bill would extend

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current program access rules to 2012 (under current law, these expire in 2007). For a detailed discussion of USTelecom's views, please refer back to my responses to your questions following the Anti-Trust Subcommittee's hearing of October 19, 2005.

For your information, our CA2C coalition also includes:

AT&T BellSouth Broadband over Power Line Industry Association (BPLIA) Broadband Service Providers Association (BSPA) DirecTV	Echostar Independent Telephone and Telecommunications Alliance (ITTA) Media Access Project (MAP) National Hispanic Media Coalition (NHMC)	Organization for the Promotion and Advancement of Small Telecommunications Companies (OPASTCO) RCN Verizon Wide Open West (WOW)

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Senator Specter
Reconsidering our Communications Laws: Ensuring Competition and Innovation
June 14, 2006

Question for the entire panel:

Do you believe that case-by-case adjudication of competitive issues that arise in the market for broadband internet service would be adequate? What if Congress provided the FTC and DOJ with guidelines for applying the antitrust laws in this market? If Congress were to provide such standards, what would they consist of?

Response of Mr. Putala: While case-by-case adjudication may be both desirable and necessary in addressing some problems of net neutrality, case-by-case adjudication does not obviate the need for a general rule establishing the general standard of behavior to be applied in such adjudications. In order to have case-by-case adjudication, there must be at least a general rule that prohibits network operators from acting nondiscriminatorily, which would then permit the network operators to argue that any differentiation they engaged in was justifiable, either because two parties are not similarly situated or because such differences were justified by differences in cost or were otherwise reasonable. They argue that setting any rule – even a general standard prohibiting unreasonable discrimination should await discovery of such unreasonable discrimination. Net neutrality opponents, however, argue that no such general standard should be adopted, which is akin to arguing that there should be no antitrust laws and laws targeting anticompetitive practices should only be passed after-the-fact.

As this Committee is well-aware, the antitrust laws do not attempt to define and proscribe on an itemized basis every specific practice that may be anticompetitive. Although Section 1 of the Sherman Act literally proscribes, "[e]very contract combination . . . or conspiracy . . . in restraint of trade or commerce," the Supreme Court made clear very early that Section 1 only prohibits unreasonable restraints of trade.[1] The courts have therefore generally divided practices into two groups, those that are per se unlawful in all cases (a relatively small minority of antitrust cases) and those that may be found to be unlawful, on a case-by-case basis, apply the "rule of reason" (the most common analysis in antitrust cases).[2] Antitrust agencies and courts have further developed standards to implement this case-by-case rule-of-reason analysis.

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[1] *See e.g. Standard Oil Co. v. United States*, 221 U.S. 1, 60-70 (1911).
[2] *See e.g. Continental T.V., Inc. v. GTE Sylvania Inc.*, 433 U.S. 36 (1977); *National Society of Professional Engineers v. United States*, 435 U.S. 679 (1978).

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The same type of approach is needed with respect to net neutrality. There are some practices that wholly lack merit and thus should be per se unlawful. One such example might be blocking, which no witness defended in testimony before this Committee. Another might be the refusal to allow an end user to connect a non-damaging, non-interfering device. Yet just codifying these per se restrictions would not be sufficient to protect consumer choice and competition, just as the antitrust laws would be woefully deficient if they relied solely on the per se prohibitions without the rule of reason. What is also needed is a general standard of nondiscrimination that will prohibit any unreasonable discrimination. This would then give courts or agency enforcement authorities a standard against which to judge whether violations have occurred. Such a rule of decision is critical to the rule of law.

The Committee should also not wholly eschew per se rules. As discussed above, there are some practices that no one has argued benefit consumers and the public interest.

Finally, the Committee should not ignore structural remedies, which antitrust authorities have long recognized can be more effective and involve less government supervision than conduct remedies. In this case, a rule requiring resale of broadband transmission capacity would help alleviate concerns about unreasonable and anticompetitive discrimination by network access providers, as least insofar as the resold transmission capacity did not incorporate any application discrimination. EarthLink believes that such a rule – or continued commitment by network operators to make open resale available – would go a long way to addressing network neutrality concerns.

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Senator Kohl's Follow-Up Questions for Telecom Hearing
June 14, 2006

For Chris Putala

1. Is Earthlink aware of any deals between broadband providers and internet content companies to give preferential treatment to internet content? If so, please provide examples.

Response of Mr. Putala: At this juncture, EarthLink is not aware of specific deals between broadband providers and internet content companies that give preferential treatment to certain internet content providers. However, it is important to recognize that Verizon and the former SBC companies both must abide by the FCC's broadband Internet policy statement as a condition of their respective acquisitions of MCI and AT&T. Moreover, BellSouth, Comcast and TimeWarner are all currently seeking FCC approval of transactions, and "net neutrality" issues are a concern in all of those proceedings. Thus, the five largest wireline broadband providers all are under temporary circumstances in which it would be unwise – and in some cases, impermissible – to enter into blatantly discriminatory arrangements. Furthermore, prior to the FCC granting the incumbent telephone companies the ability to offer broadband transmission on a non-common carrier basis, it did not make sense for cable to deliberately bias its platform in favor of particular providers, because companies such as EarthLink could purchase telephone company broadband transmission and offer a "neutral" alternative. After the FCC's *Wireline Broadband Internet Access Order*, incumbent telephone companies do not have to provide such transmission to EarthLink, which removes a competitive discipline to both cable and the incumbent telephone companies.

2. Opponents of net neutrality legislation such as the phone and cable companies argue that they need the ability to manage the networks, and give priority to some applications and not others, in order to keep the internet functioning smoothly. Without this ability, they contend, the growing use of video and other very demanding internet applications may overburden and degrade the internet experience for everyone. They are concerned that net neutrality requirements will hamper their ability to properly manage the internet. What is your response to this argument?

Response of Mr. Putala: This argument by phone and cable companies demolishes a strawman, and is also illogical. No one disputes that a network operator must manage its network. The network operator may even need to prioritize some types of bits (e.g., real time video or voice or 911 calls) over other types of bits (e.g. e-mail or information that will be stored rather than used in real-time). The Snowe-Dorgan bill would expressly permit a broadband network operator to do this, so long as it did not discriminate as between similar types of application. The relevant question is as between, for example, a Verizon VoIP service and EarthLink's VoIP service, why should Verizon need to prioritize its own VoIP service over EarthLink's in order to protect against overall degradation of the Internet experience for all users.

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The phone and cable companies have tried to argue that net neutrality rules mean no ability to manage the network. But that is clearly not the case, as reasonable network management practices can be nondiscriminatory.

3. Do you believe that strengthened antitrust enforcement is appropriate to address problems that those concerned about net neutrality have identified? Is it sufficient?

Response of Mr. Putala: While I believe that strengthened antitrust enforcement can help address problems of net neutrality, I do not believe that antitrust enforcement can be a total solution. In the first instance, Congress needs to take other actions to ensure that competing broadband platforms can be built and utilized. Thus, it is important to remove barriers to municipal broadband and to prevent telephone companies (and potentially cable companies) from tying the purchase of broadband to purchase of voice telephone services from the same provider. Such tying is blatantly designed to buttress the existing telephone company market power against erosion from "over –the-top" VoIP alternatives. Moreover, if the Congress were to require that broadband transmission be sold on a wholesale basis, that would, as a structural alternative, reduce the need for net neutrality conduct remedies. Unfortunately, the FCC last year removed just such a structural safeguard with respect to broadband transmission provided by incumbent telephone companies.

With respect to conduct rules themselves, it is important to have an effective mix of rules and case-by-case enforcement. Reliance on case-by-case enforcement alone could result in substantial damage before such conduct could be remedied, particularly with respect to blocking.

4. Do you support repeal of the of the common carrier exemption from FTC jurisdiction as it relates to telecommunications? Why or why not?

Response of Mr. Putala: Given the fact that incumbent telephone companies can now wholly elect whether to provide broadband services on a common carrier or non-common carrier basis, the common carrier exemption from FTC regulation would seem to be an invitation to forum shopping and evasion. It should be repealed. But this is not a remedy to net neutrality issues, as those for the most part involve non-common carrier services that are already within the FTC's jurisdiction.

Question for record from Senator Feingold
"Reconsidering Our Communications Laws: Ensuring Competition and Innovation,"
June 14, 2006

1. Question to the panel, but particularly to Mr. McCormick:

You have taken a position against net neutrality, at least partly on the grounds that you need to collect funds from Internet content providers to pay for further roll-out of Internet and video service. Yet at the same time you have opposed build-out requirements as part of the national video franchise proposed in the House. How is this consistent? There isn't a requirement that the money from content providers be reinvested in underserved areas, is there?

Response of Mr. Putala: The question appropriately points out one of the central problems with the oft-used Bell argument that elimination of restrictions against abuse of market power is necessary to fund the deployment of network facilities, *i.e.,* that such promises have proved to be totally unenforceable. Throughout the ten years since passage of the Telecommunications Act of 1996, each wave of Bell Company mergers (Pacific Telesis-SBC, Bell Atlantic-NYNEX, SBC-Ameritech, Bell Atlantic-GTE, SBC-AT&T, Verizon-MCI, and the now-proposed AT&T-BellSouth) has been justified by its proponents as necessary to deploy broadband networks and increase telephone competition. But no additional telephone competition resulted from these mergers, and the most powerful force promoting broadband deployment was not these mergers, but, as Mr. Blair Levin pointed out in his testimony, cable's deployment of its own broadband network.

Moreover, particularly for the non-Bell incumbent LECs, there are many other subsidies available that fund the deployment of broadband and video-capable infrastructure. For example, the Rural Utility Service (RUS) provides low cost financing for network upgrades, and has a broadband program that specifically targets unserved areas. In addition, under the FCC's universal service subsidy system, the smaller incumbent local exchange carriers receive funding for upgrading their outside loop plant to fiber, which those carriers can the use to offer broadband and video services in addition to telephony. This subsidizes the entry of those carriers into broadband and video markets. Virtually all of the United States Telecom Association's members receive some degree of – and in some cases very substantial – public funding (either RUS or USF, or both) to build their networks. But at the same time, these same companies refuse to accept the simple requirement that those publicly-funded networks be available to all parties, including Internet application providers and wholesale purchasers creating their own broadband offerings, on an open and nondiscriminatory basis.

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2. Question to the panel, particularly to Mr. McCormick and Cohen:

You have urged us not to act until there are widespread abuses of your duopoly power – essentially taking the position that net neutrality is premature. Yet we have a long history of putting conditions on mergers to preemptively prevent possible anti-competitive practices. Why shouldn't we follow the model we have set for mergers and place limits where the situation would be clearly susceptible to anti-competitive actions?

Response of Mr. Putala: As the question points out, in the merger context, there has been a long history of remedies imposed to prevent potential anticompetitive conduct *before* such conduct is manifested in the marketplace. When two parties propose a merger or acquisition that would result in a single entity substantially increasing its market power, the antitrust authorities seek remedies – either structural or conduct remedies – to curb the exercise of such market power before it occurs.

Unfortunately, such a preventative structural remedy was in place until this past year, when it was removed by the FCC. Under the FCC's *Computer Inquiry* rules, telephone companies had been required to offer the broadband transmission they used for their broadband Internet access service as a separately available common carrier service. This enabled companies such as EarthLink to purchase such broadband transmission capacity on a nondiscriminatory basis in order to provide its own broadband Internet access service. Because EarthLink (and others) could use such capacity to provide open Internet access, both cable and telephone companies were effectively blocked from manipulating their networks to be gatekeepers to and toll collectors from popular online applications. Had the cable or telephone companies done so, companies such as EarthLink could have used the common carrier broadband capacity they purchased to give consumers an open alternative.

In June 2005, however, the FCC eliminated this critical structural remedy against anticompetitive conduct. In the absence of such a structural remedy, in the merger context antitrust authorities have used conduct remedies – i.e., regulations – to prohibit anticompetitive conduct before it happens. What net neutrality seeks to put in place are such reasonable conduct remedies.

In evaluating such conduct remedies, it is important to recognize – as the antitrust laws have long done – that there is a difference between conduct that is per se unlawful (i.e., should be banned under all circumstances) and conduct that is unreasonable in some contexts, but not in others (i.e., is evaluated under a "rule of

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reason). There seems to be substantial agreement that there is some conduct – for example, blocking – that should be per se unlawful. Yet the net neutrality opponents seem to oppose even codifying that consensus. Moreover, net neutrality opponents refuse to state even a basic rule against unreasonable discrimination, which is the core minimum standard necessary to take enforcement action against conduct that, when analyzed in the context of the relevant market, is anticompetitive. What net neutrality opponents advocate is akin to eliminating the antitrust laws and only outlawing anticompetitive mergers after the fact.

Instead, what the Congress ought now to adopt are a few minimum per se prohibitions along with the general standard of nondiscrimination which can be applied under a rule of reason. Then expert agencies and the courts can apply that general standard and evaluate the reasonableness or unreasonableness of a particular network operator's conduct.

3. Question to the panel, particularly to Mr. McCormick and Cohen:

I understand that some high speed internet providers are now offering consumers tiered options for higher than normal access speeds at a premium price. These are often marketed to users who use data intensive applications such as on-line interactive games and streaming video. One of your arguments against net neutrality is that you need to be able to charge these high usage application providers. Aren't you arguing that you should be paid twice for the same premium content?

Response of Mr. Putala: The question grasps an essential point – that there is only one set of customers who end up paying the bill. But allowing the network operator to discriminate in its charges for transmission through its network, especially for transmission through the last mile, can significantly bias competition among applications.

No one would dispute – EarthLink certainly does not – that there are some things that network operators can do for an application provider that speed up and improve the user's experience without discriminating against other application providers. For example, as an application provider, I might buy private line transmission to carry my traffic closer to the end user customer, reducing the amount of time the traffic is carried in the public Internet cloud. Or I might buy a caching service that stores some of my data closer to the end user customer, reducing the time needed to access that data. Since I pay for those services, it is unclear why they cannot be sold on a non-discriminatory basis.

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But what is much more problematic – and is not at all clear why it is necessary – is for a network operator to institute a "go to the head of the line" fee that allows one application provider's bits to jump ahead of other providers' bit when using the common resource of last mile Internet transmission. This essentially allows the preferred application provider to buy preferential use of what is a scarce resource – the bandwidth to the end user (which may be constrained because the consumer elected a low bandwidth service). What is notable, though, is that without net neutrality it is network operator's choice, not the consumer's choice, of application provider that receives preferential treatment. Where a consumer buys a high bandwidth service because it wants to run high bandwidth application, the consumer is already paying for the high bandwidth, and thus the network operator would be essentially be double charging when it also charged the application provider the "go to the head of the line" fee.

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The Economics of Net Neutrality

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Executive Summary

This essay examines the economics of "net neutrality" and broadband Internet access. We argue that mandating net neutrality would be likely to reduce economic welfare. Instead, the government should focus on creating competition in the broadband market by liberalizing more spectrum and reducing entry barriers created by certain local regulations. In cases where a broadband provider can exercise market power the government should use its antitrust enforcement authority to police anticompetitive behavior.

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The Economics of Net Neutrality

Robert Hahn and Scott Wallsten

1. Introduction

Politicians, businesses, techies, and consumer groups used to agree on one government policy: "Hands off the Internet!"

Now some Internet service providers like Verizon, AT&T, and Comcast want to upend the rules of the game. They've signaled that they may want to try charging content providers like Google and creating special Internet "fast lanes" rather than just charging end users a flat fee for access as they do now.

Critics fret that this could be the end of the Internet as we know it. We think it may just be the beginning of a better Internet if the government weighs policy choices carefully.

Some noted academics, consumer groups and Internet content providers like Google, Amazon, and Microsoft want the government to guarantee "net neutrality." Net neutrality has no widely accepted precise definition, but usually means that broadband service providers charge consumers only once for Internet access, don't favor one content provider over another, and don't charge content providers for sending information over broadband lines to end users.

Most net neutrality advocates agree with providers that it's OK to price customer bandwidth capacity differently. So, for example, a broadband provider could charge different prices for slow, medium, and high speed connections. But that's where the agreement ends.

Advocates argue that it should be illegal for broadband service providers to charge end-users more for, say, streaming a full-featured movie than for downloading a recipe, or to charge content providers for sending data down the broadband provider's high-speed lines.

The companies that supply high-speed Internet connections to consumers, like Verizon, Comcast, and AT&T, see it differently. They argue that other companies should

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not necessarily be allowed to use their property for free, and that they should be allowed to use flexible pricing mechanisms.

This rancorous debate has made its way into Congress. Senator Ron Wyden (D-Oregon) introduced the "Internet Non-Discrimination Act," which would have enshrined one interpretation of net neutrality into law. Congress rejected this bill, but Wyden and other law makers are intent on reviving some version of it.

This article examines the arguments for and against net neutrality. We conclude that mandating some form of net neutrality would be inconsistent with sound economic management of the Internet. Such a mandate would be likely to erode incentives to provide broadband Internet access and could prevent new applications or services from ever being developed. Instead of imposing net neutrality, we suggest removing artificial regulatory barriers that serve to impede the development of broadband services, and more generally, information technology services.

We believe government should encourage investment in broadband infrastructure and stimulate competition in two ways: first, by further liberalizing spectrum and second, by removing some local barriers to entry. Where there is not sufficient competition, the government should use existing antitrust authority to police Internet providers' behavior.

2. The Economics of Broadband

While an oversimplification, it is useful to think of the Internet as consisting of four groups: Content providers like Google, Amazon, and eBay; the Internet backbone, which consists of networks managed by a host of companies including Level3, AT&T, Sprint, MCI (Verizon), Qwest, and others; broadband service providers like AT&T, Verizon, and Comcast; and end-users, which includes consumers and business.

The Internet backbone remains largely unregulated and prices are determined through arms length negotiation. Providers that carry approximately equal traffic and cover comparable geographic areas often carry each other's data for no charge. Providers with imbalanced traffic—for example, a web-hosting firm that primarily sends data out but receives very little—typically pays for access (see, e.g., Economides 2005).

Broadband service pricing also is currently unregulated, and the policy debate about net neutrality is really about whether it should be. While rarely phrased as a debate over price regulation, net neutrality advocates implicitly say that broadband providers must charge content providers a price of zero and charge end-users only in certain, proscribed ways. In other words, although no credible net neutrality proponents have yet said that broadband providers must charge consumers a specific price, they do say that broadband providers must charge content providers nothing and charge consumers a flat-rate for "all-you-can-eat."

To understand whether such price regulation is justified, we need to understand a little bit about the economics of providing broadband service. Broadband service providers build part of a platform in what is sometimes referred to as a "two-sided" market. To be successful they must have enough content to attract subscribers, and enough subscribers to attract content.

Such markets are common (e.g., Rochet and Tirole 2003). Examples of similar platforms include credit cards, which must attract merchants and cardholders; video games, which need games and equipment that can run the games; and dating services, which typically must find ways to attract men and women. A credit card accepted by no merchants will entice no consumers to carry the card, a new Playstation will attract few players if it has no games to play, and a (straight) dating service will attract no men without women, and vice versa.

The challenge in multi-sided markets for a platform operator—the broadband service provider in this case—is how to set prices that at least cover fixed costs. The policy challenge in these markets is how to ensure that proper incentives exist to encourage investment and innovation. Theory tells us that prices in two-sided markets will generally deviate from marginal costs, often with one side subsidizing the other (Rochet and Tirole 2003). In addition, it may not be easy to find prices that will cover costs when demands are uncertain and linked (see, for example, Evans 2003).

Another key feature of these markets, and of broadband markets in particular, is the presence of direct and indirect network effects, which both yield positive externalities as long as new users and applications do not create network congestion (see, for example, Hagiu 2006). Direct network effects arise when the social value of each new user is

greater than the private value to that user. Email is a good example. Each existing user may benefit from additional users, as long as they do not generate congestion, because he can now potentially email more people. Indirect network effects arise from interdependent demands between end-users and content providers. The greater the number of broadband end-users the more content innovation there will be, and vice-versa.

Society cannot reap all the benefits from these network effects without sufficient investment in the broadband platform. But if the broadband service provider is not allowed to charge one group of platform users, then it will typically have less of an incentive to build the network in a way that takes into account key network externalities. In other words, if the platform provider is not allowed to internalize some of these externalities it may under-invest, from society's perspective, in the platform.

The need to cover fixed costs, coupled with society's interest in having platform operators internalize the benefits that accrue to both sides of the market, suggests that these providers should have maximum price flexibility to encourage innovation.

While we agree that one could identify theoretical cases in which such flexibility may not be warranted, we think the costs of such restrictions are likely to outweigh the benefits in this case. Stated another way, in principle one could imagine the government improving social welfare by subsidizing or taxing certain groups that use the platform. But if the government chose to intervene to encourage a particular activity, such as content development, it is by no means clear the best intervention is to set the price of a particular activity at zero, as net neutrality advocates recommend. Moreover, neither the government nor anyone else is likely to have the information necessary to determine an optimal intervention, especially in such a fast-paced, dynamic industry. The general point here is that just because an activity has positive externalities doesn't mean it should be free.

3. <u>Mandating Network Neutrality Could Harm Consumers</u>

Until now, content providers have generally not been charged by Internet service providers. Advocates argue that the current pricing arrangement is in part responsible for the tremendous growth of the Internet. They suggest that the current system, in which

everyone connected to the Internet has the same opportunity to reach everyone else, stimulates entrepreneurship and free expression. Larry Lessig, an intellectual leader of the movement, has claimed that the Internet's 'end-to-end' architecture–in which the network is basically a simple pipe that connects intelligent applications—has created an ideal environment for innovation (Lessig 2006).

Yet, as Bruce Owen and Gregory Rosston (2003) have argued, it is not possible to know whether the current setup has been more beneficial than others because we cannot know the counterfactual. In other words, we don't yet know what might have developed under different pricing schemes. More to the point, we do not have an easy way of comparing what would happen if providers of new high-speed technology were forbidden from charging content providers with what would happen if they were given pricing flexibility.

Mandatory net neutrality is a form of price regulation. In this case, the regulation would state, in part, that content providers be charged a price of zero. In the short run, such a regulation could help certain groups. The Googles and Amazons of the world would be happy with their continued free access, and maybe consumers would be better off for a time because they appear to have equal access to all Internet content. Furthermore, as Lessig and others point out, some innovators, like the Indian immigrant who pioneered web-based email, may be able to get their products to market more cheaply. While that benefit is real, so, too, are the costs imposed by price regulation. And price regulations become increasingly costly by distorting investment and innovation.[1]

For example, net neutrality advocates abhor the idea of Internet "fast lanes" for which companies could pay to ensure uninterrupted, highly-secure data transmission. Yet, it is easy to imagine a demand for such applications. Indeed, we know a demand for this general type of service exists. This is one reason people and businesses are willing to pay more for faster Internet links now. We find it ironic that the net neutralists are willing to say it is ok to price discriminate on the basis of general speed and convenience of the Internet link; but it is not ok to discriminate by guaranteeing a link will be

[1] See Hagiu (2006) for a theoretical treatment of how pricing can affect social welfare in two-sided markets.

available at a certain speed at a certain time. This is simply a version of peak-load pricing that is used to help solve a host of resource allocation problems ranging from dining at restaurants (early-bird specials) to commuting (higher rush-hour subway prices) to generating electricity (lower prices in the middle of the night). Such pricing can help reduce congestion problems more efficiently.

Moreover, one can imagine some high-valued high-tech uses that could be stymied with one-size-fits-all pricing. Consider so-called telemedicine. This example is constantly trotted out as a potential benefit of broadband, but seems to be forever just around the corner. Perhaps this isn't surprising. After all, who wants to risk remote surgery or emergency medical advice if the video stream is sluggish and jerky because of congestion caused by an online game of Doom? Maybe some people would be happy to pay for a guaranteed high-quality connection in such a situation. If net neutrality enthusiasts have their way, though, such an application would be illegal.

Putting hypothetical future scenarios aside, current developments already show the potential harm from such a mandate. In a world of rapidly changing technology, the boundaries of "net-neutrality" blur rather quickly. Google, one of the louder advocates, may itself be poised to violate the principle it is endorsing with its planned "free" WiFi in San Francisco. In particular, Google might deliver paid ads to people who use this service. If true, Google would thus control how some content goes from the Internet to your computer—just what net neutralists fear.

Similarly, another advocate of net neutrality, Yahoo!, may also be ready to violate its principles. Yahoo! recently announced plans to integrate its services with the popular Blackberry. According to news reports, Blackberry's maker, Research in Motion, will pay Yahoo! to link into its services. Replace the name "Research in Motion" with "Verizon" and, again, this is precisely the type of arrangement net neutrality enthusiasts fear.

Some content providers are themselves discovering the benefits of pricing mechanisms they would deny broadband providers. Amazon, for example, recently unveiled its S3 storage system. Software developers can store data on Amazon's servers for only $0.15 per gigabyte stored per month and an additional $0.20 for every gigabyte transferred. Developers are thrilled—cheap, unlimited, online storage that charges them

only for what they use. If a broadband provider tried to sell a similar plan many net neutrality supporter would be up in arms, yet Amazon got nothing but praise.

There is nothing wrong with any of these plans. Broadband infrastructure is costly and someone has to pay for it. Many consumers may well be willing to see Google-powered ads in return for free access. Research in Motion clearly believes that its customers will be happy to have integrated access to Yahoo!. If net neutrality mandates made these plans illegal, consumers would be worse off.

The point is that there is not one "right" way to charge different customers in these markets. While 'net-neutrality' sounds good, it isn't that simple, and mandating it could have serious unintended consequences—like making Google's much-hyped plan for free WiFi illegal. That is precisely why broadband providers should be given the freedom to set prices, unless there is a clear showing of consumer harm.

4. The Right Way Forward: Competition and Antitrust Enforcement

Proponents of net neutrality worry that broadband service providers such as AT&T and Comcast can exercise monopoly power in the market for broadband connections and will be able to exercise anticompetitive control over pricing and access. Without some form of mandated net neutrality, advocates argue, such actions could harm consumers as providers use their market power to extract rents from consumers.

The general fear is justified. As in any industry, a monopolist has an incentive to increase prices, reduce quantity or quality, and block competitive entry. However, even in the case of a monopolist, it does not follow that regulating prices will improve upon the situation. Indeed, in industries where technology is changing quickly, we think that such regulation will frequently do more harm than good. Furthermore, the first firm into a new market may enjoy a temporary monopoly of sorts, especially if it is pioneering a new technology, but this is hardly a reason to regulate.

A review of the evolution of the broadband market provides an instructive picture of how competition evolves in high-tech industries. In early stages of broadband deployment, many places had no or only limited access to broadband providers. This

reflected a number of factors, including regulation, demand, cost, and availability of applications.

Today, consumers have increasingly more choice. By June 2005, according to the FCC's latest statistics, nearly 90 percent of all zip codes in the U.S. had two or more broadband providers, and 75 percent had three or more. The FCC's zip code data have some problems. In particular, just because a zip code has multiple providers does not necessarily mean that those providers directly compete for customers. So whether "enough" firms compete with each other yet is debatable. Nonetheless, the trend is positive. Even just two years earlier about 70 percent of all zip codes had at least two providers and 58 percent had at least three. In other words, more people are getting served by more providers.

Even if some service providers could exercise some market power, the multi-sided nature of the market means that they still have powerful incentives to offer a wide array of content. Suppose AT&T tries to charge Google for the right to stream video over its high speed fiber and Google refuses to pay. AT&T might allow unfettered access to Google anyway because customers want it. The point is that even firms with market power in one part of the market will not necessarily be able to control content.

What does the state of competition imply for policy and net neutrality? First, we should drop the phrase "net neutrality" as it is not well-defined and implies a simple correct response that would be neither simple nor, we believe, correct. Next, let's analyze the issue carefully.

Suppose you believe that Internet service providers do not face enough competition to prevent them from behaving anticompetitively. Should we then necessarily mandate how they provide and charge for Internet service?

No. Rather than trying to artificially create what some believe today to be the best Internet architecture, policy should address the root cause of the problem.

Specifically, policymakers should consider whether some factors are preventing more competition in high-speed Internet access and more choice for consumers.

Two artificial barriers reduce competition and choice today.

First, restrictions on the use of spectrum—those valuable airwaves that carry wireless signals—may be restricting the growth of wireless broadband providers.

Because of outdated regulations, much spectrum simply cannot be put to its highest-valued use. Congress and the FCC could give the economy a boost estimated to be in the hundreds of billions of dollars by making more spectrum available and allowing licenses to use it to be traded (Hazlett and Munoz 2004). One of these uses could very well be more wireless broadband options that would add more choices for consumers.

Second, local governments block competition by arbitrarily determining who is allowed to enter the market and what types of services can be provided over broadband lines. New firms wishing to provide broadband services often must obtain local approval, access to rights of way, pay fees, and meet regulatory obligations regarding service provision. Firms already providing service must seek local regulatory approval regarding what information can flow across their broadband lines. Telephone companies hoping to provide video services, for example, must negotiate approval separately with each city. Congress could eliminate most of these wasteful and anti-consumer rules.

Both of these suggestions would improve competition, but government still has an important role to play through antitrust enforcement if the market is not workably competitive.

Say that a monopoly broadband provider favors itself in providing Internet phone service by charging a competitor like the leading Internet phone provider, Vonage, a fortune. Antitrust laws allow the government to police such behavior, as it has in the past, by not permitting such self-dealing.

The basic message is that government should proceed with care and allow firms to experiment with different forms of pricing. The last thing we want is to snuff out the next Google, eBay or new wireless access provider because it uses a pricing model that deviates from textbook economics or from the status quo, but actually makes sense for economic survival on the Internet.

The Internet and the broadband industry are highly dynamic, making it difficult to know what actually is best for consumers now and in the future. "Hands off the Internet" was good policy when the Internet was brand new, and it's good policy now.

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Opening Statement of Senator Sam Brownback

Hearing before the U.S. Senate Judiciary Committee,
"Reconsidering Our Communications Laws:
Ensuring Competition and Innovation"

June 14, 2006

Over the past decade and a half, the American economy has witnessed, and the American consumer has enjoyed, the telecommunications revolution spurred by the Internet. As a result of massive recent investments in the deployment of broadband infrastructure, people now can access more online information and services than ever, all at a quicker speed and lower price. These results have been achieved without the heavy hand of government regulation, which should not be a surprise: both theory and experience teach us that regulatory dictates often chill or preclude the investment and innovation that are the lifeblood of nascent industries. Against this backdrop, today's hearing represents a useful opportunity to assess the promise of broadband deployment as well as the unique dangers portended by so-called "net neutrality" regulations.

Broadband access providers – our nation's telephone, cable television, satellite, and wireless companies – have already spent billions of dollars on broadband infrastructure, and they plan to spend billions more building and improving the next generation of broadband networks. These investments are enabling broadband access for ever more Americans. In addition, faster networks are allowing people to obtain more premium online services, like streaming video and Internet-based cable TV programming. They also are providing access to a host of information and activities that were not possible just ten years ago. For instance, political, religious, and educational groups are now able to get their message across quickly and efficiently to large numbers

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of people in a manner never before possible. All this has been achieved without the overlay of vague, far-reaching government mandates.

A broad consensus is growing among lawmakers, commentators, and experts from across the political spectrum against the misleading-named crusade for "net neutrality." Last week in the House of Representatives, an overwhelming bipartisan majority rejected an amendment which would have added strict "net neutrality" requirements to the pending telecommunications reform bill. Almost two out of every three Representatives effectively agreed with the time-honored adage, "if it ain't broke, don't fix it." Similarly, recent editorials and op-eds in newspapers as viewpoint-diverse as the *Washington Post* and the *Wall Street Journal* have decried the demand from multinational corporate billionaires like Google and politically-motivated activists like Moveon.org that the government artificially tip the scales of competition. A wide range of socially concerned groups, from Americans for Tax Reform to the Traditional Values Coalition, have signed a letter urging senators not to adopt proposals for "net neutrality." Finally, the American Enterprise Institute and the Brookings Institution – two entities which reach divergent conclusions on most policy questions – issued a paper in April 2006 through the Joint Center for Regulatory Studies which concluded that "mandating some form of net neutrality would be inconsistent with sound economic management of the Internet. Such a mandate would be likely to erode incentives to provide broadband Internet access and could prevent new applications or services from ever being developed." In short, "net neutrality" would be "likely to reduce economic welfare." Even this brief survey demonstrates that across professions and persuasions, more and more people are rejecting the siren of "net neutrality."

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Along with Senator DeMint, who has shown great leadership on telecommunications issues in his service on the Senate Commerce Committee, I recently circulated a letter to my colleagues outlining the myriad problems with "net neutrality" proposals and the dangers they present to Internet investment and innovation. I will place that letter, along with several other materials, into the record in order to better inform Judiciary members what is at stake in this debate.

Mr. Chairman, there is simply no reason to radically disrupt the careful calibration of our communications laws by imposing a broad mandate of "net neutrality." For this reason, we ought to tread carefully in dipping the government's toes into the vibrant pool that is the Internet – and ideally, tread not at all.

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Prepared Statement of
Vinton G. Cerf
Vice President and Chief Internet Evangelist
Google Inc.

United States Senate Committee on the Judiciary
Hearing on Reconsidering our Communications Laws
Wednesday, June 14, 2006

Good morning Chairman Specter, Senator Leahy, and members of the Committee. My name is Vint Cerf, and I am currently Vice President and Chief Internet Evangelist with Google. Thank you for inviting me here today to discuss network neutrality and its importance for the future of the Internet.

Let me make clear from the outset that I am no antitrust expert. But I am one of the network engineers involved for many years in designing, implementing and standardizing the software protocols that underpin the Internet. And now, as my title suggests, some of my time is spent preaching the good news about the Internet's revolutionary impact on society and warning of the challenges it sometimes poses. My role today is to briefly outline how the Internet actually works, why that matters from a policy perspective, and how unchecked market power of the broadband carriers threatens the Net's very viability – and of the free and open marketplace which it represents.

As this Committee considers the future of U.S. antitrust laws as they relate to broadband networks and the Internet, it faces choices linked inexorably to important American values: consumer choice, market competition, economic opportunity, and technological innovation. The way we approach those policy choices will have a tremendous impact, for good or ill, on the ability of American companies to compete effectively both here and around the world. I appreciate the opportunity to share some of my thoughts about the clear and present danger that confronts us: replacing the open and innovative Internet owned by the many, with a closed and proprietary system controlled by a few.

Among points I consider paramount:

- When the Internet first came to public attention around 1994, consumers accessed it primarily through dial-up services. This meant that consumers had a choice of literally scores of Internet Service Providers selected simply by dialing different telephone numbers. The situation changed dramatically with the provision of broadband Internet access in which only two primary players have offered services: the telephone companies with Digital Subscriber Loop service and the television cable companies with their Cable Modem service.

- The Internet was designed to maximize user choice and innovation, which has led directly to an explosion in benefits to consumers and businesses. A primary design goal was to make the network itself neutral with regard to the applications it supports. That is, the network is essentially unaware of the actual applications for which it is used. The users at the edges of the network essentially determine the uses to which the network is put. This is sometimes called the "End to End" principle of the network. This neutrality permits the decentralized and open Internet we have come to expect. The resulting environment of "innovation without permission" meant, for example, that Tim Berners-Lee was not forced to seek permission from network owners before unveiling the software enabling the World Wide Web. This

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stands in sharp contrast to the traditional cable and telephony systems, where all control of the applications resides with the network operators.

- However, the Internet's design, by itself, cannot guarantee neutrality. Until last summer, the on-ramps to the Internet were governed by nondiscrimination safeguards, first put in place by the Federal Communications Commission over 25 years ago. These FCC safeguards precluded the underlying network providers from discriminating against consumers' freedom to use the network and against application service providers some of whom might compete with value-added applications offered by the network providers. These safeguards mirrored and reinforced the Internet's architectural neutral end-to-end principle. The Internet needs both elements working together in order to create an environment of neutrality: the Internet's neutral architectural design, and legal and regulatory nondiscrimination safeguards applicable to the Internet's on-ramps.

- When the FCC removed its longstanding nondiscrimination safeguards applicable to the broadband carriers, the future of the Internet was put in real jeopardy. The broadband carriers now possess significant, unconstrained market power over the Net's on-ramps. The FCC's own figures show that phone and cable operators together control nearly 99 percent of the broadband market. Most American consumers today have few choices for broadband service. Phone and cable operators compete directly in only half the market. The rest has either no broadband service at all or is served by at most one provider. There appears to be little near-term prospect for meaningful competition from alternative providers and technologies.

- The carriers have both the ability and the stated desire to dictate how consumers and producers can utilize the on-ramps to the Internet. Their executives have made their intentions clear: to artificially reduce access to capacity by creating big private pipes and small public pipes; to raise costs of application service providers (some of whom may be competing with the broadband carriers in providing value-added services to consumers) by "double-charging" for carrying traffic; and to leverage market power by unilaterally prioritizing packets on the Internet. Whether acting as a bottleneck, a toll-taker, or a gatekeeper, the broadband carriers propose to transform the Internet into something akin to a closed and proprietary system of centralized control.

For all these reasons, Google supports a tailored, minimally-intrusive net neutrality requirement in law. As Congress creates new telecommunications legislation it must include necessary safeguards for consumers. It is time for Congress to act, by reinstating the long-standing nondiscrimination requirements for the on-ramps to the Internet.

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I. Network Neutrality Has Been a Cornerstone of the Internet's Success

I consider myself fortunate to have been involved in the earliest days of the invention and development of this "network of networks." From that perspective, I can attest to how the actual design of the Internet – the way its digital hardware and software protocols, including the TCP/IP suite, were put together – led to its remarkable economic and social success.

My friend Professor Larry Lessig from Stanford Law School has written and spoken extensively about the notion that "Code is Law." In his view, the design, hardware and software of the Internet and its applications (the Code) regulate life in cyberspace generally. In short, he says, the Internet's code is its own natural law. I am a firm believer in that way of thinking. To understand this point, it may be helpful to look briefly at the Internet's virtual blueprints from four different vantage points: the Net's what, where, how, and why.

First, the layered nature of the Internet describes its overall structural architecture. The use of layering means that functional tasks are divided up and assigned to different architectural layers. This simple and flexible system creates a network of modular "building blocks," in which applications or protocols at higher layers can be developed or modified with no impact on lower layers, while lower layers can adopt new transmission and switching technologies without requiring changes to upper layers. The standardized interfaces between the layers create stability and confer a long-term ability to adapt to new technology and to support new applications. Reliance on a layered system greatly facilitates the unimpeded delivery of packets from one point to another.

Second, the end-to-end design principle describes where applications are implemented on the Internet. The Internet was designed to allow the implementation of applications to reside largely with users at the "edges" of the network, rather than in the core of the network itself. This is precisely the opposite of the traditional telephony and cable networks, where applications and content are managed in the core (in headends and central offices), away from the users at the edge. The Internet's design places the power and functionality of the net in the hands of the end users (consumers, businesses and application service providers).

Third, the design of the Internet Protocol separates the underlying networks from the services that ride on top of them. IP was designed to be an open standard, so that anyone could use it to create new applications and new networks. By nature, IP is completely indifferent to both the underlying physical networks, and to the countless applications and devices using those networks. As it turns out, IP quickly became the ubiquitous bearer protocol at the center of the Internet. Thus, using IP, individuals are free to create new and innovative applications that they know will work on the network in predictable ways.

Finally, from these different yet interrelated design components, one can see the overarching rationale that no central gatekeeper should exert control over the Internet. This governing principle allows for vibrant user activity and creativity to occur at the network edges. In such an environment, entrepreneurs with new ideas for applications need not worry about getting permission for their inventions to reach end users. In essence, the Internet has become a platform for innovation. Again, closed networks like cable video systems provide a sharp contrast, where network owners control what consumers can see and do.

These perspectives suggest that Professor Lessig is correct – Code indeed is Law. And in this case, the very architecture of the Internet has engendered an environment of robust innovation without permission. The Internet has become the platform for business-to-business, business-to-consumer, and consumer-to-consumer data exchange. In particular, the nondiscriminatory neutrality of the

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Internet has supported the growth of thousands of small and medium-sized businesses, some of which grew up to become larger companies like Google, Yahoo, eBay, and Amazon. Google cares passionately about the future of the Net, not just for itself, but because of all the other potential Googles out there, who in turn will spur the growth of online activity.

And yet, the Internet's neutrality by itself cannot guarantee an open network and innovation without permission. There is another form of code -- the legal and regulatory environment -- that also governs whether and how users can access and utilize the Internet. It is not just the Code of neutrality, but also the Law of neutrality, that completes the equation of an open Internet.

II. Network Neutrality Has Been a Long-Standing Part of Our Nation's Telecommunications Laws

The commercial Internet did not simply burst forth from a vacuum. Its advent was aided by visionary U.S. policymakers who recognized that the government largely needed to get out of the way, and allow the free market to work its genius in this new online environment. Google firmly supports this "unregulatory" approach towards the Internet. At the same time, that policy judgment rested on an existing regulatory framework that allowed open and nondiscriminatory access to the Internet.

The Internet was originally built as a private network, utilizing dedicated facilities provided by telecommunications carriers, as well as the public switched telephone network (PSTN) for end user access. The Net evolved into a public facility when the US Government authorized public and commercial access to the government-owned backbones (notably the Defense Department's ARPANET and the National Science Foundation's NSFNET). By 1989, three commercial Internet service providers were in operation in the US. Users of these systems reached them either on dedicated facilities or through the PSTN.

It cannot be stressed enough: the Internet has thrived because of an overarching regulatory framework mandating nondiscrimination. The underlying telecommunications network over which consumers access the Internet has rested on straightforward pro-competition safeguards that ensured openness. Developed by the FCC over a decade before the commercial advent of the Internet, these safeguards required that the underlying monopoly providers of last-mile PSTN facilities – the incumbent local telephone companies – allow end users to choose any ISP, and utilize any device, they desired. In turn, ISPs were allowed to purchase retail telecommunications services from the ILECs on nondiscriminatory rates, terms, and conditions. One can think of these safeguards collectively as constituting a "Law of Nondiscrimination" governing the Internet's on-ramps

The somewhat paradoxical end result was a regulatory regime applied to underlying last-mile facilities that allowed the Internet itself to remain open and unregulated as designed. Indeed, it is hard to imagine the innovation and creativity of the commercial Internet in the 1990s ever occurring without those minimal but necessary market safeguards already in place. A generation of entrepreneurs has been able to offer new applications and services to the world, without requiring advance approval from network operators, or paying exorbitant carrier rents to ensure that their applications were even seen.

But perhaps no more. Last summer, the FCC decided to eliminate its nondiscrimination safeguards as applied to the broadband carriers. In doing so, the FCC ignored its own laudable heritage in protecting user interests, and its own empirical findings about the lack of meaningful competition in the broadband market. In one swift action, the FCC's longstanding Law of Nondiscrimination for the Net's on-ramps was stripped away. Perhaps the Internet's Code of neutrality is soon to follow.

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III. Neutrality Is Threatened by the Unconstrained Market Power of Broadband Carriers

Were there sufficient competition among and between various broadband networks, the concerns of companies like Google, among many others, about the future of the Internet largely would be largely allayed. The Internet's design and architecture would continue to evolve as it should, in a robustly open and competitive environment. Unfortunately, the FCC's own figures demonstrate the significant degree of concentration in the broadband market.

In its April 2006 broadband deployment report, the FCC shows that incumbent cable and telephone company broadband services together control 99.5 percent of all consumer customers. This leaves only one half of one percent of the current market for alternative broadband networks using technologies such as wireless, satellite, and broadband over power lines (BPL). Surprisingly, the share of alternative networks has shrunken steadily, from 2.9 percent in December 1999 down to 0.5 percent today. Thus, any alternatives to DSL and cable modem service remain an infinitesimal, and still declining, part of the market.

The FCC's figures also demonstrate that the two dominant modalities compete only to a partial degree. In a 2004 analysis, the Commission reported that only 53 percent of Americans had a choice between cable modem service and DSL service. Of the remaining consumers, 28 percent had only one choice, and 19 percent had no choice at all. Thus, nearly half of all consumers lack meaningful choice in broadband providers.

To me, as a scientist, the question ultimately comes down to a matter of physics and economics. First, can alternative broadband networks be built, given the limitations of available network atoms and radio spectrum? Second, will such alternative networks be built, given the immense time and effort involved? Whether we are discussing BPL or WiMax or satellite, the prospect of a near-term, ubiquitous competing broadband platform does not appear promising.

In the absence of any meaningful competition in the consumer broadband market, and without the long-standing nondiscrimination safeguards that have governed last-mile facilities to date, one would expect carriers to have an economic incentive to control online activity. Not surprisingly, this incentive is already manifesting itself:

- Just last year, the FCC found that the Madison River Telephone Company was blocking ports used by its DSL customers to access competing VoIP services.
- Shaw Cable now charges a monthly $10.00 "quality of service enhancement fee" for those cable subscribers wishing to sign up for a competing VoIP service.
- Rogers Cable recently admitted employing "traffic shaping" technology that, unilaterally and without prior notice, gives lower priority to a customer's filesharing, podcasting, and video blogging applications.
- Executives at Deutsche Telekom and Telecom Italia have expressed a desire to levy "double charges" on Google and other Web-oriented companies.
- Entire countries such as Panama and Egypt have demanded that ISPs block all VoIP services as a means of protecting incumbent monopoly voice carriers.

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Thus, as we move further into a broadband world, the Internet's openness is being threatened. Broadband carriers have every incentive to use their power over the Internet's on-ramps to block competitors, seek extra payments to "guarantee" that Internet content can be seen, and generally control consumer activity online.

IV. The Threat from Carrier Control and a "Two-Tier" Internet

With no safeguards to constrain them, some broadband carriers have publicly announced their intentions to substitute discrimination for the formerly neutral network service. They seek to install a very different kind of code: one where the carriers themselves serve as the exclusive bottlenecks, toll takers, and gatekeepers leading to and from the Internet.

As I understand it, the fundamental objective of our nation's antitrust laws is to mitigate harm to consumers and to business competition resulting from the abuse of dominant market power. In words and in deeds, the broadband carriers already have demonstrated their intention to carry out various market power abuses. Through their proposed predatory behavior, the broadband carriers seek to exclude rivals by artificially reducing access to capacity (creating bottlenecks), raising rivals' costs (becoming toll takers), and leveraging market power into adjacent markets (establishing gatekeepers).

A. A Two-Tier Internet Gives Carriers Incentives to Create an Undesirable "Slow Lane" and a Fast Lane They Control

The broadband carriers claim that their IP video services will require substantial bandwidth that otherwise would be used by Internet applications. This will be accomplished by structurally bifurcating network traffic, creating two separate and unequal broadband connections to the home: a "big pipe" serving the carrier's private, proprietary network, and a "small pipe" left for access to the public Internet. The purpose here is clear: disadvantage any competing Internet-based voice services, video services, and other content and applications, by consigning them to the slow lane unless special payments are made to the broadband provider who can use these charges to raise rivals' costs or subsidize the cost of operating their own competing services. This provides an unfortunate example of how network design can serve anticompetitive interests, and shortchange consumers in the process.

Allowing segmentation of the broadband networks into capacious "broadest-band" toll lanes for some, and narrow dirt access roads for the rest, is contrary to the design and spirit behind the Internet, as well as our national competitive interests. And by definition, favoring some disfavors others. In an environment where consumers already have little to no choice of broadband providers, the end result is a cramped version of the robust and open environment we all take for granted today. Prioritization inevitably becomes a zero-sum game, and the carriers are allowed to create an artificial scarcity of content outlets.

B. Network Neutrality Will Not Prevent Carriers From Receiving Massive Revenues From Content Providers and Broadband Subscribers

In recent months senior executives of major U.S. carriers, as well as Deutsche Telecom and Telecom Italia, have indicated publicly that they intend to force competing Internet-based service and content providers to pay additional fees to be seen online. Why? Because according to these executives, Google and other network-based companies are merely "free riders" on the network who are "enjoying a free lunch." Further, any attempts to curtail their ability to collect these new fees, they claim, will remove their financial incentives to continue investing in broadband facilities.

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The facts are all we need to dispel these accusations. First, they betray a fundamental misunderstanding of how the Internet actually operates. In the wireline telephone model, typically only one of the end users involved pays for the cost of transporting traffic. By contrast, in the Internet model, both users pay for access to the network, and then utilize that access any way they wish to view, interact with, or supply Internet applications and content. When the carriers seek to impose additional charges on Web companies, essentially they are trying to force-fit their preferred model onto the Net.

Second, broadband carriers are already richly compensated by their residential customers for their use of the network. These companies are free to charge their own customers whatever they want, in order to make back their investments. In fact, ***broadband subscribers paid over $20 billion in 2005*** for access to the Internet. Of course, the primary reason why consumers spend all that money is to reach, without constraint, the rich and compelling content, applications, and services that Internet companies spend billions of dollars to create, develop, and deploy.

Third, Internet application companies already pay their fair share as well. Let us be clear: new carrier fees would constitute a new form of "double recovery." Internet-based companies initially spend billions of dollars annually on R&D to create and develop compelling content, applications, and services for American consumers, including news, data, video, music, gaming, and ecommerce services. This massive amount of material typically is deployed on hundreds of thousands of servers, which are located around the country. In order for the content and applications to be delivered into the Internet, so it can be made available to consumers, Internet-based service companies must arrange with and pay network operators to: (1) carry the data traffic from company facilities to their servers over local telecom lines (the last mile); (2) carry the data traffic from the servers into the Internet over high-speed, high-capacity data lines (sometimes called "special access"); and (3) carry the data traffic over the numerous interconnected networks that make up the Internet backbone. Internet-based application companies collectively pay the carriers billions of dollars per year for all three types of network access and transport. In fact, ***the four Bell Companies alone collect over $14 billion annually*** in revenues from selling special access services to Web companies, ISPs, and other users of the local data networks. FCC figures show that for these largely deregulated special access services, the four Bells enjoyed an ***average rate of return of over 50 percent***.

In short, the broadband carriers will have every incentive to use market power to squeeze Internet-based companies to pay for more than just the network resources they actually use. Small businesses and entrepreneurs in particular will suffer enormously under such a scheme.

C. Without Net Neutrality, Carriers Will Seek To Leverage Their Market Power as Gatekeepers to the Internet

The broadband carriers also have proposed a variety of ways to prioritize certain Internet traffic streams within their last-mile networks. Some plans involve creating a network-based means of optimizing the flow of preferred content and applications traffic, through practices such as caching content in local servers. Other plans include quality of service (QoS) guarantees, where the carriers design a software-based means of optimizing certain traffic flows, usually in exchange for exclusive deals involving additional compensation.

In each case, carrier practices which prioritize some traffic inevitably degrade other traffic. Where packets are lined up in a carrier's network router for delivery, any action which moves a particular sequence of packets to the head of the queue has the effect of pushing back the other waiting packets. If this packet prioritization is done merely to ensure the proper delivery of all latency-sensitive applications, such as streaming video, regardless of source, there should be no competitive issue. If,

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instead, priority is assigned based on financial or other preference, then the carriers have become the Internet's uninvited gatekeepers, leveraging their market power in anticompetitive ways.

The carriers claim a need to install network controls to protect customers against spam and other security threats, and to insure the quality of VoIP services. However, network neutrality need not prevent anyone – carriers or applications provider – from developing software solutions to remedy end user concerns such as privacy, security, and QoS. The issue arises where the network operator decides to place the functionality in the physical or logical layers of the network, rather than in the application layer where they belong. Such a move is contrary to many of the fundamental architectural principles of the Internet. The end result is the forced insertion of a gatekeeper that – even arguably under the best of intentions – disrupts the open, decentralized platform of the Internet.

In addition, broadband capacity should not be nearly as constrained as the network owners would have us believe. Some applications, such as voice over IP, take up very little bandwidth. Other activities, such as multi-player real-time gaming or streaming video, may require more capacity. However, such applications could be subject to additional customer charges, based on the access speeds required, as opposed to the source, destination, or content of the traffic. Indeed, it should be clear that charging consumers more for increased speed of access to the Internet is perfectly understandable and reasonable. What is at issue is interfering with consumer choice by limiting what the consumer is permitted to do with the capacity the consumer has paid for.

V. Preserving the Internet's Inherent Neutrality

A. The Role of Competition Law

Absent significant, multiparty physical layer competition – which appears highly unlikely at this time – Google supports a tailored, minimally-intrusive, and enforceable network neutrality safeguard. An appropriate context for re-adopting consumer safeguards is in video franchising relief legislation. Google in principle does not oppose such legislation, so long as consumer freedom of choice is preserved for Internet content and applications. The two concepts are inherently linked: the rights of broadband network providers and the rights of broadband network users.

The Senate Judiciary Committee has a clear role in this area. In passing the Telecommunications Act of 1996, Congress expressly recognized the continuing crucial part played by our nation's antitrust laws. As then-Chairman Thurmond indicated, "Application of the antitrust laws is the most reliable, time-tested means of ensuring that competition, and the innovation that it fosters, can flourish to benefit consumers and the economy."[1] Senator Leahy observed at the time that "relying on antitrust principles is vital to ensure that the free market will work to spur competition and reduce government involvement in the industry."[2]

B. The Need for Competition Safeguards

While neutrality is the very stuff that holds the Internet together, nondiscrimination is the legal principle that preserves and protects it. Google believes that the Internet's code of neutrality must be reunited with the law of nondiscrimination that supports the modular, end-to-end nature of the Internet. The desired outcome is neutrality, based on the vehicle of nondiscrimination safeguards.

[1] 142 Cong. Rec. S687-01 (daily ed. February 1, 1996) (statement of Sen. Thurmond).

[2] 141 Cong. Rec. S18586-01 (daily ed. December 14, 1995) (statement of Sen. Leahy).

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1. Do Not Block, Impair, or Degrade Traffic

The core concept of network neutrality is that broadband providers are prohibited from blocking, impairing, or degrading the consumer's ability to access content, run applications, or use devices in connection with the public Internet. These practices include the most blatant and easily-detected forms of discrimination. The best example is the Madison River case mentioned previously, where the FCC sanctioned a DSL provider for blocking access to ports used by Vonage to carry VoIP traffic. Similar examples of "port blocking" are emerging internationally as well. All parties, including the incumbent broadband carriers, publicly decry these types of activities as contrary to fair competition and consumer welfare. Thus, Google believes there should be no controversy over adopting this core concept in legislation, and putting it in place as actual antitrust standards, with violations enforced vigorously by federal authorities.

2. Do Not Prioritize Traffic in Discriminatory Ways

The second key element of network neutrality addresses the various ways that carriers seek to prioritize certain types of traffic. These concerns over prioritization have their roots in the fundamental concept of "reasonable nondiscrimination," or the concept that carriers should not discriminate unless they have an objectively rational reason (such as halting distributed denial-of-service attacks, or reducing jitter). Of course, merely giving an advantage to one among many competitors is not an acceptable rationale. In Google's view, the essential formulation is that content transiting a carrier's broadband network may be prioritized only on the basis of the type of content and the level of bandwidth purchased by the consumer, and not the ownership, source, destination, or affiliation of the content.

C. The Impact of International Precedent

Finally, we would do well to heed important precedents developing in other countries – and avoid exporting the worst of our own as well. Whatever metric one uses, the United States lags behind other developed countries in the deployment and use of high-speed connections to the Internet. In fact, those countries ahead of the United States in broadband penetration employ regulatory frameworks designed to ensure that the companies in control of the pipes cannot interfere with consumers' access to unaffiliated content, applications, and services. By abandoning the principles that helped foster user choice and innovation, the United States risks falling further behind. The Judiciary Committee might find it of interest to investigate the decisions and practices of the regulatory bodies in the United Kingdom, the Netherlands and New Zealand, where open and non-discriminatory access to broadband services is mandated by law.

The flip side of this international coin is that our nation runs the risk of exporting bad precedent overseas. Should the U.S. Government fail to reinstate nondiscrimination safeguards for the broadband market, American companies will face daunting obstacles overseas. Some foreign carriers already are looking at ways to extend their market power to adjacent content and applications markets. The United States Congress needs to stand up unequivocally for the legal principle of nondiscrimination, both at home and overseas.

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VII. Conclusion

The Internet has become an immense catalyst for economic growth and prosperity, in this country and around the world. However, our nation is risking the loss of that catalyst, just when the broadband era should be creating the most benefits for the most people. Allowing the interests of network owners wielding market power to shackle the Internet with discriminatory and anticompetitive conduct could severely undercut our nation's ability to compete effectively in the global market. In particular, millions of America's small businesses and entrepreneurs are the big losers in that skewed environment.

We must do all we can to preserve the fundamental enabling principles of the Internet: user choice, innovation, and global competitiveness. We are relying on the Senate Judiciary Committee's thoughtful role in the continuing effort to maintain an open and innovating Internet in the United States and, by example, around the world.

Thank you.

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Biographical Information

Vinton G. Cerf
Vice President & Chief Internet Evangelist

Vinton G. Cerf is vice president and Chief Internet Evangelist for Google. He is responsible for identifying new enabling technologies and applications on the Internet and other platforms for the company.

Widely known as a "Father of the Internet," Vint is the co-designer with Robert Kahn of TCP/IP protocols and basic architecture of the Internet. In 1997, President Clinton recognized their work with the U.S. National Medal of Technology. In 2005, Vint and Bob received from President Bush the highest civilian honor bestowed in the U.S., the Presidential Medal of Freedom. It recognizes the fact that their work on the software code used to transmit data across the Internet has put them "at the forefront of a digital revolution that has transformed global commerce, communication, and entertainment."

From 1994-2005, Vint served as Senior Vice President at MCI. Prior to that, he was Vice President of the Corporation for National Research Initiatives (CNRI), and from 1982-86 he served as Vice President of MCI. During his tenure with the U.S. Department of Defense's Advanced Research Projects Agency (DARPA) from 1976-1982, Vint played a key role leading the development of Internet and Internet-related data packet and security technologies.

Since 2000, Vint has served as chairman of the board of the Internet Corporation for Assigned Names and Numbers (ICANN) and he has been a Visiting Scientist at the Jet Propulsion Laboratory since 1998. He served as founding president of the Internet Society (ISOC) from 1992-1995 and was on the ISOC board until 2000. Vint is a Fellow of the IEEE, ACM, AAAS, the American Academy of Arts and Sciences, the International Engineering Consortium, the Computer History Museum and the National Academy of Engineering.

Vint has received numerous awards and commendations in connection with his work on the Internet, including the Marconi Fellowship, Charles Stark Draper award of the National Academy of Engineering, the Prince of Asturias award for science and technology, the Alexander Graham Bell Award presented by the Alexander Graham Bell Association for the Deaf, the A.M. Turing Award from the Association for Computer Machinery, the Silver Medal of the International Telecommunications Union, and the IEEE Alexander Graham Bell Medal, among many others.

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CITY OF PHILADELPHIA

**STATEMENT OF OPPOSITION
TO THE
COMMUNICATIONS, CONSUMERS' CHOICE,
AND BROADBAND DEPLOYMENT ACT OF 2006 (S 2686)**

The City of Philadelphia strongly endorses competition in video services and all telecommunications services. The City welcomes federal legislation that will truly bring the benefits of competition to all our citizens and all our neighborhoods, regardless of income level or social position. S. 2686, sponsored by Senator Stevens and now before the Senate Committee on Commerce, Science, and Transportation, does none of this. The Stevens bill favors a few powerful communications companies seeking a special and unfair advantage in the video marketplace without doing anything to ensure that competition will be available to all our citizens on a non-discriminatory basis, without regard to income level or neighborhood.

The Stevens bill purports to preserve the local franchise. In fact, it limits the power of local franchising authorities (LFAs) to the point where franchises are granted almost automatically, on terms dictated by the Bell companies. Local regulation is effectively eliminated, radically altering the decades-old framework that has empowered local government to protect consumer interests and ensure public benefits in exchange for cable companies' use of the public rights-of-way.

For these and the reasons detailed below, the City opposes the Stevens bill in its present form and must oppose any legislation that does not respect the principles set forth in this Statement. We encourage you to oppose the bill, in the Commerce Committee and on the floor of the Senate, unless the bill is amended to effectively address the principles below. The City's position has been well articulated by local government advocacy groups – NATOA, NaCO, the National League of Cities, the U.S. Conference of Mayors, TeleCommUnity. We urge your support for their efforts and the efforts of their allies on the Committee and in the Senate to modify the Stevens bill to reflect the needs and interests of all citizens, not just the powerful communications companies driving this legislation.

The Stevens bill abandons equity in build-out and Service.

- The Stevens bill does not require franchisees to build out any franchise area on a fair and equitable basis or to bring its service and the benefits of competition to the entire franchise area. At the same time, it guts LFA authority to require equity in franchise negotiations, as we have consistently required equity of the cable industry since its inception. The result will be economic discrimination. Wealthy neighborhoods will have competition soon and low income neighborhoods will have to wait years – or more likely, will never see competition at all because low income residents cannot pay for the costly (upwards of $100/month) bundles of telephone, Internet, and video services required by the business plans of the Bell companies.
- The bill's bar on "redlining," construed as denying service to any group of potential residential customers based on income, race or religion, means nothing if franchisees are not required to build and serve all neighborhoods, regardless of income level or racial composition or religion. This bill will leave behind the millions of Americans who live in our inner cities and poor rural counties – the citizens who most need the economic benefits of Internet access and advanced technology.

The Stevens bill does not preserve local franchising authority.

- This bill does not replace the local franchise with a national franchise and therefore, its supporters contend, preserves local government authority. In fact, the bill eliminates all real local authority

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by expediting the franchise process to the point where LFAs can have no practical control over the outcome and will be forced to accept whatever terms the applicant is willing to offer. Specifically, the bill mandates that the LFA issue a franchise within 90 calendar days from receipt of the application. If the LFA fails to act by the deadline, the franchise is deemed granted. This destroys the LFA's power to bargain within even the very limited discretion afforded by the bill. Applicants will simply refuse to discuss terms, knowing the franchise will be deemed granted anyway, with the minimal terms required by the bill. This regime does not preserve local authority or the local franchise. The period for LFA review and action should be extended to at least six months if local authority is to mean anything, and the "deemed granted" provision must be stricken.

The Stevens bill undercuts local authority over the public rights-of-way (ROW)

- The Stevens bill appears to preserve local ROW regulation, but is in fact so one-sided in favor of video operators that it can only undermine local authority. It bars "any state or local law that prohibits or has the effect of prohibiting a video service provider from offering video service" and expressly requires a local government to apply its laws and regulations "in a manner that is reasonable, competitively neutral, nondiscriminatory, and consistent with State statutory police powers ..." But nowhere does the bill provide the corollary "safe harbor" provision that nothing in the bill affects State or local government authority to apply ROW management laws in a non-discriminatory, competitively neutral manner.
- The Bell companies' new broadband infrastructure will be trenched under and strung over our streets and sidewalks. If local government authority to regulate their use of the ROW is not clearly preserved, we cannot ensure the safety of our citizens.

The Stevens bill ignores Network Neutrality

- True competition in video, Internet access, and all advanced telecommunications services requires that high speed platforms controlled by the Bell companies and the cable operators be open to all service providers on equal terms. The Stevens bill does nothing to ensure open access. Its gesture towards open access, titled "Internet Bill of Rights," does nothing to ensure that the networks themselves will be open to all Internet and content providers on a competitively neutral and non-discriminatory basis.
- Without open access guarantees, the few huge corporations that increasingly control the Internet infrastructure will be able to control both prices for Internet access and access to content. This is not competition. Congress should enforce Network Neutrality as a matter of law, by mandating that the pipelines to the Internet be available to all providers of Internet services on the same competitively neutral and non-discriminatory terms.

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June 21, 2006

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TESTIMONY OF
DAVID L. COHEN
EXECUTIVE VICE PRESIDENT
COMCAST CORPORATION

BEFORE THE
COMMITTEE ON THE JUDICIARY
UNITED STATES SENATE

HEARING ON
"RECONSIDERING OUR COMMUNICATIONS LAWS:
ENSURING COMPETITION AND INNOVATION"
JUNE 14, 2006

Thank you, Mr. Chairman and Members of the Committee.

This Committee has a long history of overseeing developments in communications industries and the Internet, and you have diligently promoted policies to ensure competition in these markets.

We welcome this chance to talk about the state of competition in communications, to present our views on proposals for new and dangerous so-called "network neutrality" regulation, and to discuss video programming issues, including program access and program content. I will share Comcast's perspective and experience in hopes of demonstrating why there are no problems with the Internet or video businesses that require new government regulation, that any regulations intended to prevent future perceived problems will likely do more harm than good, and, finally, that any risk of actual harms are already fully addressed by existing laws.

I think it is important to begin by describing the competitive state of the video and broadband marketplace. There are three points that apply equally to the Internet and the multichannel video markets.

First, these markets are functioning extremely well today. Almost every home in America can choose from at least three multichannel video providers, and with the entry of the Bells into video, those choices will grow. Since 1992, the number of cable programming networks has grown from about 100 to nearly 500, while the percentage of networks affiliated with a cable operator has decreased from over 50% to approximately 20%; and, in less than a decade, broadband networks have been deployed to over 90% of all U.S. households, and 84 million American adults now have a broadband connection in their homes. In our view, this robust competition is proof positive of the well-known, if ungrammatical, maxim: "If it ain't broke, don't fix it."

Second, any new regulation will harm business and consumers by reducing investment in facilities-based competition and will most certainly trigger the law of "unintended consequences." And, as the *Washington Post* noted this week, new regulations would stifle innovation: "If you want innovation on the Internet, you need better pipes: ones

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that are faster, less susceptible to hackers and spammers, or smarter in ways that nobody has yet thought of. The lack of incentives for pipe innovation is more pressing than the lack of incentives to create new Web services."[1]

Third, current laws -- and especially the antitrust laws -- provide appropriate safeguards if any are needed above and beyond the role of market forces.

We face intense and growing competition in every business we are in. And competition has regulated us far more swiftly and effectively than the laws passed in 1992.

As legislators, you understand accountability. You must stand for election once every six years. Our constituents vote every month, when they pay their bills. And every time they walk into an electronics store, pick up their Sunday paper, check their mail, or watch a ballgame, they see us and our competitors fighting for their vote. This is a vigorously competitive marketplace that is working to benefit consumers. There is no need for new laws and regulations.

With that, let me turn to the worst new idea in Washington: regulating the Internet under the cloak of so-called "network neutrality."

I. INTERNET REGULATION/"NETWORK NEUTRALITY"

Perhaps one of the fastest growing uses of broadband Internet services is to carry the gigabits of documents full of opinions about something called "network neutrality." Much of the discussion has been overblown, and, as Professor David Farber of Carnegie Mellon University recently observed, the companies that "forecast the death of the Internet as we know it, unless their favorite bill gets passed, [are shedding] lots of heat, [but] not much light."[2] I will try to provide some light here today.

My main request would be that Congress continue to place its faith in pro-competitive, deregulatory communications policies. I urge you to let the marketplace continue to work its magic, backstopped -- as always -- by the antitrust laws.

More specifically, first, I think it is beyond dispute that high-speed Internet access services (which I'll generally refer to as "broadband services") are an enormous success, and that this success has occurred largely because of *de*regulatory policies. Second, all of the hand-wringing about potential abuses is based on *speculation,* not facts, and much of it comes from advocates who have predicted "the end of the Internet as we know it" for years -- and who have been consistently wrong. Third, regulation of the sort that is being proposed will have many concrete, adverse consequences, and no real benefits.

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[1] Editorial, *The Internet's Future: Congress Should Stay Out of Cyberspace*, Wash. Post, June 12, 2006, at A20 (attached as Exhibit 1).

[2] David Farber et al., *Common Sense About Network Neutrality* (June 2, 2006) (unpublished comment by David Farber, Gerald Faulhaber, Michael L. Katz, & Christopher S. Yoo) (attached as Exhibit 2) ("*Farber et al. Statement*").

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A. Cable Deregulation Has Been a Crucial Element in the Emergence of Residential Broadband Services.

It is widely acknowledged that the development of broadband services is one of the biggest success stories in the history of communications. What is less commonly known is how deregulation fostered the massive investments in network infrastructure that first we, and then our competitors, made in order to develop and deploy broadband access services.

Recall that when Congress decided to put the cable industry under heavy economic regulation in 1992, investment capital dried up, which stunted our ability to rebuild and improve our networks.[3] Those regulations also froze the development of new programming and services.[4]

But then Congress passed the Telecommunications Act of 1996 (the "1996 Telecom Act") and removed the most onerous forms of rate regulation for cable companies.[5] Suddenly, Wall Street had renewed faith in our industry, and private risk capital began to flow. Over the next decade, the cable industry invested over $100 billion to improve our networks -- investment that made it possible for us to offer digital video services, video-on-demand ("VOD"), high-definition television ("HDTV"), voice-over-Internet-protocol ("VoIP"), and residential broadband service.[6] Compared to the Internet access services available prior to cable's introduction of broadband -- a dial-up telephone connection that typically operated at speeds of 14.4, 28.8, or 53 *thousand* bits per second -- "cable modem service" or "high-speed cable Internet" operated at 1.5 *million* bits per second -- and today, four to six times faster than that! In other words, thanks to private investment and risk-taking,[7] consumers were suddenly being offered a new service that operated 50, 100, and now as much as nearly 150 times faster.[8]

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[3] As former FCC Chairman Quello noted, "Unfortunately, right at the time cable was poised to re-invest to upgrade technology, our rules sent a shiver through Wall Street and the financial community." James H. Quello, Editorial, *Regulating Cable Services; Free Market Competition Better for Americans*, Wash. Times, Nov. 12, 2003, at A17.

[4] Thomas W. Hazlett, *Good Riddance to Cable TV Regulations*, Wall St. J., Apr. 1, 1999, at A22 ("The failure of rate caps had been hammered home, by basic cable networks like A&E, Discovery and C-SPAN, which adamantly argued that rate controls destroyed quality programming . . . .").

[5] *See* Telecommunications Act of 1996, Pub. L. No. 104-104, § 301(b), 110 Stat. 56, 115 (amending 47 U.S.C. § 543(c)(4)).

[6] I will discuss video developments at greater length in the second half of my testimony.

[7] Enthusiasts for regulation all too regularly forget that broadband Internet is the product of private capital investments, not taxpayer dollars. This and other points are clarified by analyst Scott Cleland in a recent *Net Neutrality Fact Sheet*, see Exhibit 3.

[8] *See* Federal Communications Commission, Cable Services Bureau, *Broadband Today: A Staff Report to William E. Kennard, Chairman, Federal Communications Commission, On Industry Monitoring*

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When cable achieved this great success by being the first to introduce high-speed Internet services and stimulating consumer demand, the telephone companies -- also known as "incumbent local exchange carriers" or "ILECs" -- were quick to follow and introduce their own residential broadband service, known as "digital subscriber line" ("DSL") service. As a Federal Communications Commission (the "FCC") staff report explained:

> The ILECs' aggressive deployment of DSL can be attributed in large part to the deployment of cable modem service. Although the ILECs have possessed DSL technology since the late 1980s, they did not offer the service, for concern that it would negatively impact their other lines of businesses. The deployment of cable modem service, however, spurred the ILECs to offer DSL or risk losing potential subscribers to cable. In various communities where cable modem service becomes [sic] available, the ILECs would soon deploy DSL service that was comparable in price and performance to the cable modem offering. Thus, prior to cable modem deployment, the ILECs had little incentive to deploy DSL and the consumer had no choice for high-speed Internet access.[9]

Thus, from the start, this has been a marketplace in which deregulation begets investment, and investment begets competition.[10]

More recently, of course, the telephone companies have recognized that their old copper plants cannot deliver the kinds of transmission speeds that attract broadband enthusiasts, and the ILECs are now investing in massive fiber builds to try to catch-up with cable.[11]

Cable Internet and DSL are becoming more ubiquitous, and consumers are signing up in droves. According to one recent report, 84 million American adults now have broadband services at home, up 40 percent just in the past year.[12]

Sessions Convened by the Cable Services Bureau 9 (Oct. 13, 1999) ("*FCC Staff Report*"), *available at* http://www.fcc.gov/Bureaus/Cable/Reports/broadbandtoday.pdf.

[9] *Id.* at 27.

[10] *See* Chris Wolf & Mike McCurry, *"Hands Off" Rx Best for the Internet*, Wash. Times, Apr. 21, 2006, *available at* http://www.washingtontimes.com/commentary/20060420-085559-1105r.htm ("This 'hands off' approach is why we have such consumer benefits as online commerce, distance learning, and better access to health-care information. It is why we have speedy data transmission and inexpensive worldwide communications capabilities.").

[11] *See, e.g.*, Linda Haugsted, *AT&T Off Into the WildBlue Yonder*, Multichannel News, May 8, 2006 (stating that AT&T "now estimates that it will spend $4.6 billion on Project Lightspeed in an effort to bring its products to 19 million homes by the end of 2008"). Verizon is also ramping up its broadband efforts. It expects "to have passed a cumulative total of six million premises" by the end of 2006 and going forward "to pass about 3 million per year." Q42005 Verizon Earnings Conference Call, Thomson StreetEvents, Conference Call Transcript 11 (Jan. 26, 2006) (quoting Doreen Toben, Verizon's Executive Vice President and Chief Financial Officer).

[12] John B. Horrigan, *Pew Internet and American Life Project: Home Broadband Adoption 2006*, at i (May 28, 2006), *available at* http://www.pewinternet.org/pdfs/PIP_Broadband_trends2006.pdf.

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And, while most residential broadband users today are using cable Internet and DSL services, other broadband modalities are developing rapidly. The promise of broadband over powerlines was illustrated just last month when several companies, including General Electric, invested in Current Technologies.[13] Meanwhile, DIRECTV and WildBlue are making massive investments in broadband over satellites;[14] several wireless carriers are rolling out third-generation wireless services -- combining broadband with a mobility component;[15] and unlicensed technologies such as Wi-Fi and Wi-Max offer yet another broadband possibility.[16]

No wonder, then, that the FCC has recognized the "significant development of new Internet-based services, and new access technologies," cited the "proliferation of new advanced telecommunications networks and services," and emphasized that "multiple advanced broadband networks can complement one another in bringing advanced telecommunications capability to all consumers."[17]

Importantly, the FCC also perceived the value of multiple, competing, differentiated networks, and the role of pro-competitive, deregulatory policies in bringing this about:

> Having multiple advanced networks will also promote competition in price, features, and quality-of-service among broadband-access providers. This price-and-service competition, in turn, will have a symbiotic, positive effect on the overall adoption of broadband: as consumers discover new uses for broadband access at affordable prices, subscribership will grow; and as subscribership grows, competition will constrain prices and incent the further deployment of new and next-generation networks and ever-more innovative services. *Minimal regulation*

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13 *See* Press Release, Current Communications Group, LLC, *Current Communications Announces $130 Million in Investments in Broadband Over Power Line Networks* (May 4, 2006), *available at* http://www.geenergyfinancialservices.com/press_room/press_releases/prs_2006_0504.pdf.

14 *See* Karen Brown & Steve Donohue, *Out of Space, Onto the Ground*, Multichannel News, Feb. 6, 2006 (stating that "News Corp. chairman Murdoch told analysts that DIRECTV may soon announce plans to spend about $1 billion for a new [combined satellite and terrestrial] broadband network"), *available at* http://www.multichannel.com/article/CA6304962.html; Press Release, WildBlue Communications, Inc., *WildBlue Secures Over $200 Million of Additional Shareholder Financing* (Jan 10, 2006) (announcing that WildBlue "closed a secured credit facility of over $200 million to fund the continued growth of its high speed Internet access business"), *available at* http://www.wildblue.com/company/doPressReleaseDetailsAction.do?pressReleaseID=14.

15 *See In re Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, Twelfth Annual Report, 21 FCC Rcd. 2503, ¶ 133 (2006).

16 *See id.* ¶¶ 224-227.

17 *In re Availability of Advanced Telecommunications Capability in the United States*, Fourth Report to Congress, 19 FCC Rcd. 20540, at 8-9 (2004).

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> *of advanced telecommunications networks and services is needed to ensure that this happens.*[18]

Let's give credit where it is due. The success of broadband also owes much to the great many companies, other organizations, and individuals that have created services and applications to exploit the potential of broadband. They, too, play an important role in keeping broadband investment growing and broadband subscribership increasing. Google, Amazon, eBay, and Microsoft have all contributed to the demand for broadband services, and, as their multi-billion dollar revenue streams and market capitalizations reflect, they have reaped rich rewards for doing so.

They, like we, were encouraged by another important feature of the 1996 Telecom Act, Congress's far-sighted decision to look to *competition*, not regulation, to govern the evolution of Internet services. No provision of the 1996 Telecom Act was more important, or wiser, than the decision to make it the "policy of the United States . . . to preserve the vibrant and competitive free market that presently exists for the Internet and other interactive computer services, *unfettered by Federal or State regulation*."[19]

Of course, Congress's embrace of this policy did not discourage a few nay-sayers from seeking to impose regulatory restrictions on cable Internet almost from the day it was it first launched. But the FCC resisted those entreaties,[20] as has Congress, and broadband investment, innovation, subscribership, and utility have been growing ever since. It is difficult to imagine any other development of the past decade that has done so much to improve Americans' quality of life or the growth of the economy.

B. There Is No Basis for Congressional Intervention in the Marketplace.

It is a sad and perverse truth that, so long as some people will build networks, other people will try to regulate them. For the past several years, we have been fighting off proposals for "network neutrality," a term that I prefer not to use because it is inherently misleading. The term has been kicking around for several years, and it never means the same thing twice. It is the sheep's clothing donned by those who want to regulate the Internet for their own purposes.

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[18] *Id.* at 9 (emphasis added).

[19] *See* Telecommunications Act of 1996, Pub. L. No. 104-104, § 509, 110 Stat. 56, 115 (codified at 47 U.S.C. §230(b)(2)).

[20] *See In re Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion and Possible Steps To Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996*, Report, 14 FCC Rcd. 2398, ¶ 101 (1999) (finding that there is "no reason to take action on this issue at this time"); *In re Applications for Consent to the Transfer of Control of Licenses and Section 214 Authorizations from Tele-Communications, Inc. to AT&T Corp.*, Memorandum Opinion & Order, 14 FCC Rcd. 3160, ¶ 96 (1999) (concluding that an "open access" requirement was not necessary).

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Proponents of regulation say that there is "a problem" in the broadband marketplace. At least they have been consistent about that! I saw a "Net Neutrality Scare Ticker" on the Internet that says, "Did you know it's been 1300 days, and there's *still* no net neutrality problem."[21] That's how long it has been since Microsoft, eBay, and others announced the creation of the "Coalition of Broadband Users and Innovators." Nearly four years after they first said "the sky is falling," there still aren't any pieces of sky on the ground. That is why I believe that the best thing you can say about "network neutrality" is that it is a solution in search of a problem.[22]

And it didn't all start in November 2002. The roots go deeper. You can find the same kinds of overheated rhetoric and apocalyptic predictions in an Amazon filing in June 2002[23] and throughout earlier FCC debates over "interactive television" in 2001,[24] "advanced instant messaging" in 2000,[25] and "forced access" proceedings that started in 1999.[26]

After all of this time, what is the evidence of abuse? One, single, small telephone company that no one ever heard of was found to be blocking Vonage's VoIP calls -- and within days of the complaint, the telephone company had ceased such conduct.[27]

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21 Internet Freedom Coalition, *Net Neutrality Scare Ticker*, *at* http://netneutralityscareticker.com (last visited June 12, 2006) (attached as Exhibit 4).

22 *See* Editorial, *The Web's Worst New Idea*, Wall St. J., May 18, 2006, at A14 ("If ever there was a solution in search of a problem, 'Net neutrality' is it.") (attached as Exhibit 5); Editorial, *supra* note 1 ("The weakest aspect of the neutrality case is that the dangers it alleges are speculative."); *see also* Donald Luskin, *Hands Off My Net*, SmartMoney.com (June 9, 2006) ("'[D]iscriminate' is just the lobbyists' word for 'compete.' If you are Microsoft, eBay or Google -- three of the dominant web-content companies pushing for this regulation -- you're afraid of competition from Verizon and Comcast. With ultra-powerful next-generation networks, the network operators may go from passive providers of 'data pipes' to active providers of online content and services. And just what would be wrong with that? Nothing, if you ask me. I like competition."), *available at* http://www.smartmoney.com/aheadofthecurve/index.cfm?story=20060609.

23 Amazon describes a speculative "parade of horribles" including redirected connections, substituted connections, and varying levels of service quality. *See* Letter from Paul E. Misener, Vice President, Global Public Policy, Amazon.com Holdings, Inc. to William Caton, Acting Secretary, Federal Communications Commission 6-8 (June 17, 2002) (filed in CS Docket No. 02-52), *available at* http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6513198055.

24 *See, e.g., In re Nondiscrimination in the Distribution of Interactive Television Services Over Cable*, Notice of Inquiry, 16 FCC Rcd. 1321, ¶ 4 (2001).

25 *In re Applications for Consent to the Transfer of Control of Licenses and Section 214 Authorizations by Time Warner Inc. and America Online, Inc., Transferors, to AOL Time Warner Inc., Transferee*, Memorandum Opinion & Order, 16 FCC Rcd. 6547, ¶¶ 128-200 (2001).

26 *See FCC Staff Report*, *supra* note 8, at 9-15.

27 *See In re Madison River Communications, LLC & Affiliated Companies*, Order, 20 FCC Rcd. 4295 (2005) (adopting a consent decree resolving an FCC investigation regarding alleged blocking of ports

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In the four years since these dire predictions, the Internet companies that have cried out for regulation of the Internet to save their businesses have enjoyed unprecedented prosperity. Google, which was only starting to get popular in 2002 and was not a publicly-traded company, now has a market cap of approximately $125 billion;[28] Yahoo!'s market cap doubled from approximately $25 billion in 2003 to over $59 billion in 2005;[29] and eBay's market cap has gone from $34.2 billion in 2003 to $61 billion in 2005.[30] As the chart below demonstrates, the leading proponents of regulation have seen their revenues, net income, and profits explode since 2002:

	2003 Data	2005 Data	Percentage Change
AMAZON			
Revenue	$5.26 billion	$8.49 billion	61.41%
Net Income	$35.3 million	$333 million	843.34%
Profit	$1.33 billion	$2.16 billion	62.41%
GOOGLE			
Revenue	$1.47 billion	$6.14 billion	317.69%
Net Income	$105.7 million	$1.47 billion	1290.73%
Profit	$895.1 million	$3.86 billion	331.24%
MICROSOFT			
Revenue	$32.19 billion	$39.79 billion	23.61%
Net Income	$9.99 billion	$12.25 billion	22.62%
Profit	$27.94 billion	$34.44 billion	23.26%
YAHOO!			
Revenue	$1.63 billion	$5.26 billion	222.7%
Net Income	$243.8 million	$1.90 billion	679.33%
Profit	$1.37 billion	$3.45 billion	151.82%
EBAY			
Revenue	$2.17 billion	$4.55 billion	109.68%
Net Income	$454.8 million	$1.08 billion	137.47%
Profit	$1.86 billion	$4.02 billion	116.13%

used for VoIP applications). The FCC took swift action in the case, entering into a consent decree with Madison River on March 3, 2005, after initiating the investigation on February 11, 2005.

[28] *S&P To Add 3 Cos. to Benchmark 500 Index*, Associated Press, Dec. 28, 2005.

[29] *Compare* Kim Gilmour, *Yahoo!'s Unbridled Ambitions Rest on Offering Added Value, Paid-for Services*, Internet Magazine, Jan. 1, 2004, at 42, *with MS & Google's Fight Benefits Yahoo*, The Economic Times, Dec. 7, 2005.

[30] *Compare Misunderstood eBay Opens to the World*, Financial Times, Nov. 23, 2003, *with* Verne Kopytoff, *Google Shares Top $400; Search Engine No. 3 in Market Cap Among Firms in Bay Area*, San Francisco Chronicle, Nov. 18, 2005, at C1.

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Should hands-off policies that have successfully stimulated hundreds of billions of dollars worth of investment be jettisoned because one company once blocked some VoIP calls? I think the answer is obvious: *no*! In fact, the Administration recently opined that adopting such regulations would be premature.[31]

And, once the "regulatory creep" begins, where would it stop? How could Congress ignore Microsoft's dominant position in computer operating systems and in Internet browsers, Google's dominant position in Internet searches, eBay's dominant position in on-line auctions, or Amazon's dominant position in online retailing of books (and a growing number of other products)? In each of these areas, there is plenty of basis for speculating about potential "abuses," and in some respects the potential for abuses is not entirely hypothetical.

For example, Microsoft bundles and integrates more and more of its applications with its own operating system -- a "layer" of the Internet over which it continues to have great dominance -- and Google has complained that Microsoft's new Internet Explorer 7 browser, which arrives preinstalled in virtually every computer currently sold, defaults to MSN Search;[32] Google and Yahoo! give prominence to paid search results over other search results;[33] and Yahoo! has a privileged position above all others as the portal on AT&T's and Verizon's Internet services.[34] Not one of these practices is neutral.

The companies that are currently telling Congress how "prophylactic" regulation is unintrusive and benign would quickly change their tune if this regulation were expanded to include *them*.

Let's remember the characteristics of the broadband marketplace that we are talking about here. There are still tens of millions of dial-up customers that we and other

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31 *See* Office of Mgmt. & Budget, Exec. Office of the President, *Statement of Administrative Policy, H.R. 5252 - Communications Opportunity, Promotion, and Enhancement Act of 2006* (June 8, 2006) (attached as Exhibit 6), *available at* http://www.whitehouse.gov/OMB/legislative/sap/109-2/hr5252sap-h.pdf.

32 *See* David Kirkpatrick, *Microsoft's New Brain*, Fortune, Apr. 18, 2006 (stating that Microsoft intends to "[w]ebify everything: [t]o intertwine Microsoft's entire product line - software for consumers, software for businesses, Xboxes, all of it - with the vast and ever-growing power of the Net"), *available at* http://money.cnn.com/magazines/fortune/fortune_archive/2006/05/01/8375454/index.htm; Steve Lohr & Saul Hansell, *Microsoft and Google Set To Wage Arms Race*, N.Y. Times, May 2, 2006, at C-1 (noting that "Windows is the dominant operating system of personal computing"); Steve Lohr, *New Microsoft Browser Raises Google's Hackles*, N.Y. Times, May 1, 2006, at A1 ("The move, Google claims, limits consumer choice and is reminiscent of the tactics that got Microsoft into antitrust trouble in the late 1990's.").

33 *See* Jeff Gelles, *Some Search Engines Let Advertisers Drive Results*, Phila. Inquirer, Nov. 10, 2004, at C-1.

34 *See* Press Release, Yahoo! Inc., *SBC and Yahoo! Unveil SBC Yahoo! DSL, Internet Service "Built-For-Broadband"* (Sept. 13, 2002), *available at* http://yhoo.client.shareholder.com/press/ReleaseDetail.cfm?ReleaseID=96655; Press Release, Yahoo! Inc., *Verizon and Yahoo! Launch Internet Service for FiOS Customers* (Jan. 19, 2006), *available at* http://yhoo.client.shareholder.com/press/ReleaseDetail.cfm?ReleaseID=188148.

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broadband providers would like to persuade to purchase broadband services. Will they make that switch to an Internet service provider who blocks access to content, prevents use of applications, or precludes attachment of devices? Of course not.[35]

If Comcast were to try to "deny, delay, or degrade" the Internet experience that our more than nine million cable Internet customers have paid for, how can we possibly expect to keep them as customers, much less attract new ones? We have a proven track record. We have never blocked our customers' access to lawful content and we repeatedly have committed that we will not block our customer's ability to access any lawful content, application, or service available over the Internet.

Remember, cable Internet is the *premium* service. We may charge more than DSL because cable Internet is *worth* more. We provide faster speeds and better reliability, and we have no intention of diminishing the value of our service by denying consumers the wonderful freedoms of the Internet they have come to expect. Since we began offering our cable Internet service, we have consistently increased our transmission speeds, without a corresponding increase in price, in order to meet consumer demand. *Any* provider that does not meet the needs of users will suffer a serious backlash from consumers and policymakers.

That is the way that competitive markets work. Our business is intensely rivalrous with DSL today, and we expect it to be even more so as we face increasing competition from the Bell companies' expanded fiber optic deployments, wireless broadband, satellite broadband, broadband over powerlines, and Wi-Fi and Wi-Max.

What if competition weren't working? Broadband providers remain subject to the antitrust laws. And, though there is no pattern of anticompetitive abuses, and there is no reason to expect that any provider will obtain substantial and sustained market power, the fact remains that antitrust enforcers are on the job.

The Sherman Act provides legal bases to challenge conduct that is alleged to be anticompetitive or harmful to consumers, whether the harm is the result of horizontal concentration or vertical integration. Section 1 of the Sherman Act prohibits concerted action that restrains trade. Section 2 of the Sherman Act prohibits any conduct that amounts to an attempt to monopolize. Of course, no claim under the antitrust laws can be made in the absence of market power, which does not exist in today's broadband marketplace and is almost certain not to exist tomorrow.

In addition, the Federal Trade Commission (the "FTC") and Department of Justice (the "DOJ") have substantial authority to investigate and enforce conduct alleged to be anticompetitive. For example, under Section 5 of the Federal Trade Commission Act, the

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[35] As the Washington Post recently observed, "More than 60 percent of Zip codes in the United States are served by four or more broadband providers that compete to give consumers what they want . . . If one broadband provider slowed access to fringe bloggers, the blogosphere would rise up in protest -- and the provider would lose customers." *See* Editorial, *supra* note 1. As a result, it is "unlikely that broadband providers will degrade Web services that people want and far more likely that they will use non-neutrality to charge for upgrading services that depend on fast and reliable delivery." *Id.*

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FTC can prospectively enjoin conduct that it determines is an unfair method of competition, even when that conduct may not violate the antitrust laws. In fact, the FTC has already asserted "jurisdiction to investigate and bring cases involving broadband Internet access services, including cable modem and DSL services."[36]

Thus, proponents of "network neutrality" regulation are asking Congress not only to regulate in the absence of a problem, but also to ignore existing legal safeguards.

Antitrust laws are by far the best way to address any occurrence of the kinds of problems that network neutrality proponents say they are concerned about. As four distinguished scholars recently explained:

> Current proposals would affect all broadband providers regardless of whether they wield monopoly power and without any analysis of whether the challenged practice actually harms competition. In the process, they threaten to restrict a wide range of innovative services without providing compensating customer benefits. The problem is that it can be difficult, if not impossible, to determine in advance whether a particular practice would promote or harm competition. Current antitrust law solves this problem by blocking practices only when those who oppose them can demonstrate actual harm to competition. We believe that such a case-by-case approach that focuses on actual, rather than potential, harm to competition represents the best way to protect consumers while giving the Internet the breathing room it needs to move forward. Blanket regulation, which some network neutrality initiatives support, is not a good policy choice.[37]

C. "Network Neutrality" Regulation Would Address Hypothetical Problems, but Would Cause Real Harms.

Because proposals for "network neutrality" regulation vary, so would the effects. Still, any such unnecessary regulation will cause significant harms. For example, such regulation would:

Deter Investment.

Investment capital goes where it is welcome, as is vividly demonstrated by the results of regulation and deregulation in the cable industry. But, as one senior financial analyst recently warned Congress, "Mandated 'Net Neutrality' would further sour Wall Street's taste for broadband infrastructure investments, making it increasingly difficult to sustain the necessary capital investments."[38] Another senior financial analyst explained:

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[36] Letter from Deborah Platt Majoras, Chairman, FTC, to James Sensenbrenner, Jr., Chairman, U.S. House of Representatives Committee on the Judiciary 4 (Apr. 14, 2006).

[37] *Farber et al.*, *supra* note 2.

[38] *Wall Street's Perspective on Telecommunications: Hearing Before the Senate Comm. on Commerce, Science & Transportation*, 109th Cong. 3 (2006) (statement of Craig E. Moffett, Vice President and Senior Analyst, Sanford C. Bernstein and Co., LLC) (attached as Exhibit 7), *available at*

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> I believe that it is too early to introduce regulation on . . . net neutrality as the market is still in its early stages. Instead, I feel that at this point it is essential that market forces and consumer demand drive the economic model. . . . [T]here are profound risks of unintended consequences in the event that key fundamental aspects of today's landscape are regulated at such an early stage of development, innovation, and creativity.[39]

Hinder Innovation.

Since its introduction, cable Internet service has evolved and improved rapidly. And, so have the myriad services that can be accessed by way of cable Internet. The current dynamic nature of the broadband marketplace allows business models to change overnight, as new approaches are developed to bring new options to consumers. These changes can occur rapidly in large part because regulation does not get in the way. "Net neutrality" regulations would severely hinder such innovation.[40] "Literally, 'net neutrality' would result in an increasingly unreliable Internet as more and more high-bandwidth applications contest for space on networks that nobody would have an incentive to expand."[41]

New regulations would likely thwart our ability to offer new services and applications to consumers. It's not hard to imagine a programmer wanting to offer an HD webcast of a popular sporting event, concert, or perhaps a political event. Maybe the next World Cup or the next Olympics will have an HD web component. It is doubtful that in a "net neutrality" world we would be permitted to guarantee the kind of quality control they would need. What about physicians who may want to monitor critical patients, especially in rural areas? Could we offer a guaranteed quality of service for that? What about HD video conferencing for businesses, government, universities or individuals? Real time, high quality services are difficult in a "best efforts" Internet. What is wrong with letting companies experiment and continue to innovate, while letting the market sort this out for the good of consumers?

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http://commerce.senate.gov/pdf/moffett-031406.pdf; *see* Wolf & McCurry, *supra* note 10 ("There are innovators willing to make huge investments in the Internet to provide new services that will delight consumers . . . . If we spend the next few years haggling over rules and regulations that will define the market, these innovators will decide investment is too risky.").

39 *Wall Street's Perspective on Telecommunications: Hearing Before the Senate Comm. on Commerce, Science & Transportation*, 109th Cong. 3 (2006) (statement of Aryeh B. Bourkoff, Managing Director and Senior Analyst, UBS Investment Research) (attached as Exhibit 8), *available at* http://commerce.senate.gov/pdf/bourkoff-031406.pdf.

40 *See id.* ("Changes are occurring at such a frenetic pace that any possible regulation today carries a risk of stunting this innovation if it does not build in enough flexibility for how the sector will look in the coming months and years.").

41 Holman W. Jenkins, Jr., Op-ed., *What Congress Is Learning About 'Net Neutrality'*, Wall St. J., May 17, 2006, at A19 (attached as Exhibit 9).

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Cable companies can best focus on meeting consumer needs when pricing, technical specifications, bandwidth allocations, terms of service, and third-party business relationships are determined by business judgments and customer feedback, not by inflexible government rules. No policymaker could reasonably determine that the business models of 2006 will be the right ones for 2008, 2010, or beyond. This is no time to adopt a regulatory scheme that would "slow innovation and deny the full potential of affordable online technologies."[42]

Impede Network Management and Consumer Protection.

A broadband provider must make countless decisions about ways to manage its network to provide the best possible experience for its customers and protect them from the many lurking dangers on today's Internet. For example, it must be able to stop viruses; prevent "phishing" (the practice of sending e-mails to end users posing as established businesses to trick the user into relinquishing personal information), "pfarming" (using viruses to automatically transport end users from legitimate websites to phony websites), and other scams; curtail unwanted commercial e-mail (spam); control "rogue modems" (dial-up modems attached to company computers that allow hackers to hijack a company's computer network to make unauthorized calls), and "zombie computers" (computers attached to the network that have been compromised by computer viruses or trojan horses and are used to send spam, commit advertising click-through fraud, and launch denial of service attacks).

Protecting customers and delivering a good Internet experience is not limited to curtailing spam or thwarting identity theft, for example. Another way in which we protect our customers is by assuring that our service can continue to provide a growing range of applications while still effectively supporting the applications our customers have come to expect. This issue is becoming even more critical as new applications, like peer-to-peer, take more and more capacity.

Our broadband Internet access service operates over a shared network; thus, use of capacity by one user means that it is not available to another. Capacity is not "reserved" for individual users. Operators manage capacity to assure that all of their customers realize the benefits of their services, using today's applications and those that will inevitably arrive tomorrow. As usage grows, whether from more users or more applications, network operators typically must add capacity to maintain a quality experience. Naturally, there are limits on how much operators can spend to try and maintain general service levels in a "best efforts" service. Therefore, one bandwidth-intensive application used by one group of users can have substantial adverse effects on the network's ability to deliver other applications to all users.

All of these decisions often must be made on a moment's notice. If each and every one of these decisions creates a possible cause of action, there is a real danger that network providers will have no choice but to delay taking actions needed to protect consumers.

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[42] Editorial, *Misplaced Fears of a Telecom Merger; AT&T, BellSouth Plan No Threat to Consumers*, Rocky Mountain News, Mar. 8, 2006, at 34A.

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What the regulatory zealots really want is the ability to challenge, and have the government review, virtually any network management decision a broadband provider makes. Turning day-to-day network management decisions and routine commercial disputes into complaint proceedings, with attendant costs, delays, and second-guessing by a government agency, would surely delay and distort the decisions that must be made for purposes of network management and consumer protection. Those decisions are hard enough as it is, and they are subject to the harsh but unerring discipline of consumers who vote -- every day -- with their wallets. And their solution is to assure that the consumer pays more, rather than having the networks intelligently managed to the benefit of all consumers.

Produce Unintended Consequences.

Decades of experience show that every legislative enactment has unexpected flaws, produces distortions in the marketplace, and generates countless unintended adverse effects. Consider the detailed regime of wholesale relationships the 1996 Telecom Act sought to regulate between ILECs and competitive local exchange carriers in an attempt to promote competition. Crafted and implemented with the best of intentions, the regime consumed years of rulemakings and litigation and led to a distorted marketplace with first too much and then too little competitive entry. It is impossible to find a single policymaker who will claim that this worked out as intended. Why, with far less justification than there was for those rules in 1996, would we want to repeat the experience?[43]

"Network neutrality" rules would presumably be intended to protect consumers' access to the valuable services that are available today. But such rules may well prevent the *next* generation of innovative services from ever developing, as current market participants spend the next decade mired in rulemakings and litigation.[44] "Google and other Web site operators . . . don't seem to comprehend the legal and political danger they'll face once they open the neutrality floodgates."[45]

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[43] I am by no means the first to recognize the parallels. As Steve Forbes recently wrote, "Net neutrality. . . would be equivalent to the disastrous 1996 Telecommunications Act, which forced the telecoms to provide access to competitors at below-market prices, a critical reason that we haven't developed broadband the way numerous other countries, such as South Korea and Japan, have. . . . Net neutrality would require voluminous regulations to ensure that all traffic is priced the same." Steve Forbes, *Fact and Comment, Nettlesome Idea*, Forbes.com, June 5, 2006, at 1 (attached as Exhibit 10), *at* http://www.forbes.com/global/2006/0605/013_print.html.

[44] *See* Editorial, *The Eden Illusion*, Wash. Post, Mar. 13, 2006, at A14 ("[A]ny definition of net neutrality is likely to be contested in the courts, and legal uncertainty will further deter investment. As a result, net neutrality could end up meaning that all Web services get delivered at a similar but relatively slow rate.") (attached as Exhibit 11), *available at* http://www.washingtonpost.com/wp-dyn/content/article/2006/03/12/AR2006031200808.html.

[45] Editorial, *The Web's Worst New Idea*, *supra* note 22.

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Reduce Competition.

Network neutrality regulation could reduce competition in two ways. First, as Randy May of the Progress & Freedom Foundation has observed, "[r]endering broadband providers perfectly neutral by dictating that they be nothing more than dumb pipes, unable to treat any applications or content that use their network facilities in any way differently, would, in fact, neuter the Net,"[46] denying consumers the benefits that flow from competitive differentiation.[47] Broadband providers would have little incentive to invest in enhancing their networks in order to differentiate their service from their competitors. Second, it would discourage investment in alternative distribution mechanisms, undercutting *facilities-based competition*, which is the best protection against the development or misuse of market power. Government regulation of communications networks is a disincentive for investment in facilities-based competition. If potential entrants are forced to offer the same exact service, i.e., transmission service, and cannot differentiate their service in some way, why would they enter a market where they will have to compete based on price against established competitors? They wouldn't.

For all these reasons, and more, "network neutrality" regulations will surely do more harm than good. But there's another important consideration: if "neutrality" is a central tenet of the Internet, there is no justification for regulating Internet access providers while *not* regulating providers at other "layers" of the Internet, including inputs as to which market power issues are less speculative and the record of real problems is far longer. Once Congress starts down the path of guaranteeing the "neutrality" of the Internet by government regulation, that path would logically lead to regulation of all aspects and all layers of the Internet, a path that is as certain to thwart the policy that the Internet be preserved "unfettered by Federal or State regulation."

II. VIDEO COMPETITION AND PROGRAM ACCESS AND CARRIAGE

Let me turn now to video issues and, in particular, to the subjects of program access and program carriage. I'll also want to say something about program packaging and pricing. Here, too, there are many proposals for greater government interference in the marketplace, and here, too, such proposals ignore key facts and flout common sense.

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[46] Randolph J. May, *Perspective: Watch Out We Don't Neuter the Net*, CNET News.com, June 1, 2006 (attached as Exhibit 12), *at* http://news.com.com/Watch+out+we+dont+neuter+the+Net/2010-1028_3-6079016.html.

[47] *See* David Hatch, *Dueling Network Buzzwords: 'Neutrality' Versus 'Diversity'*, National Journal's Insider Update, Feb. 6, 2006 ("[Professor] Christopher Yoo argued that operators of broadband networks should be allowed to 'experiment' with varying network architectures. If the government does not interfere, he said, some broadband operators might choose net neutrality and others might offer 'walled gardens' with proprietary content. Rather than being a troubling development, he said, exclusive content deals would "differentiate" high-speed networks and spur competition.") (attached as Exhibit 13), *at* http://www.njtelecomupdate.com/lenya/telco/live/tb-MBSE1139339451850.html.

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I think it is useful to begin with "the big picture." Two years ago, the FCC concluded that: *"[T]he vast majority of Americans enjoy more choice, more programming and more services than any time in history."*[48] Two years later, that statement can be made with even more conviction. It is undeniable that American consumers now enjoy access to an unprecedented array of video programming delivered in a growing number of ways by an ever-increasing number of competing providers. Comcast is one of those providers. And in every community that we serve, we are competing with DIRECTV, with Dish Network (EchoStar), often with companies like RCN, Knology, and WideOpenWest ("WOW"), and increasingly with companies like AT&T and Verizon.

This competition has driven our company, and the entire cable industry, to improve. But more importantly, it has given the American consumer the richest cornucopia of video programming in the world, with huge diversity of voices and content, meeting almost every conceivable need and interest.

A. Video Distribution Is Highly Competitive.

When Congress and the FCC assess competition in video distribution, they have tended to confine their analysis to what they call the "multichannel video programming distributors," or "MVPDs." These include traditional cable television operators, "broadband service providers" like RCN, WOW, and Knology, direct broadcast satellite ("DBS") providers like DIRECTV and Dish Network, local exchange carriers like Verizon and AT&T, providers of Multichannel Multipoint Distribution Service, electric utilities, and satellite master antenna TV systems. Taken as a whole, the growth of these competitors has been extraordinary since Congress passed the 1992 Cable Act. At that time, nearly 14 years ago, Congress foresaw the possibility of significant *potential* competition from these providers of multichannel video services, and it took measures to promote that competition. Today, that competition is real, robust, and thriving, as the most recent data from the FCC and other sources affirm.

The most remarkable development has been the growth of DBS. DIRECTV and EchoStar each offer their services to almost every household in the United States, and they have captured over 28 million customers. Each year for the past five years, the DBS companies have added two to three million new customers, while the cable industry in the aggregate has added approximately zero. Each of those two companies is now larger than every cable company in America except for Comcast.

But now, the Bell Operating Companies are also making a large-scale entry into the multichannel video marketplace, and we believe they, too, have the potential to be formidable competitors.

MVPDs are not, however, the only source of video programming. Anywhere from 15-20 million households prefer to rely on over-the-air television. And in several markets, local broadcast stations are banding together to create a multichannel over-the-air

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[48] *In re Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, Tenth Annual Report, 19 FCC Rcd. 1606 ¶ 4 (2004).

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alternative offering dozens of cable networks to compete with cable and satellite. USDTV is now operational in four cities (Albuquerque, Dallas, Salt Lake City, and Las Vegas), and for $19.95 per month provides its customers with 25-40 channels, including all the local broadcast stations (and their HD signals) and many of the most popular cable networks.

We think that the rapidly changing video marketplace compels Congress and the FCC to view "video competition" even more broadly. Today, tens of millions of Americans also supplement their viewing with DVD and videotape rentals and purchases, and Netflix has become a national phenomenon. In addition, an increasing number of Internet streaming and download options are emerging – witness the incredible explosion of services and devices at the Consumer Electronics Show earlier this year. From iPods to mobile phones to digital video recorders, everything is becoming a "video download" device.

The problem with television in America is not lack of choice – the problem is how a consumer can manage all of that choice!

In this unbelievably dynamic marketplace, neither Comcast nor anyone else can rest for even a moment. Each and every day, we compete to attract new customers and to keep our existing customers happy. This is why Comcast alone has spent over $40 billion since 1996 to add the channel capacity that allows us to deliver 200 or more video channels to almost every home we pass... and added dozens of international and foreign-language channels... and added a dozen or more HDTV channels in every market... and become the industry leader in providing video-on-demand, offering our digital homes over 3000 different programming choices any time, day or night, in every conceivable niche, including more local programming. Every single day, our customers freely choose from our vast array of programming and service options. We have to work hard to remain the first choice of our customers – and the way that we do that is by constantly investing in more capacity so that we can add new programming, new channels, and new features.

In short, the video distribution marketplace is more competitive and diverse than ever. As Congress looks to the future, it's wrong to view television as we viewed it in 1992 – it's a fundamentally different medium, and it has become fundamentally and irrevocably competitive.

B. Video Content Choices Are Abundant.

The explosion of distribution outlets has launched a corresponding explosion in content. When the Cable Television Consumer Protection and Competition Act of 1992 (the "1992 Act") was passed, there were approximately 68 national programming networks (and only a dozen or so regional networks) in operation in the United States.[49] The majority of them were owned by cable companies (largely because independent programmers, the broadcast networks, and the Hollywood studios were not willing to

[49] H.R. Rep. No. 102-628, at 41 (1992) (noting that there were "68 nationally delivered cable video networks").

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invest in cable programming at the time)."[50] The average household did not have cable at all, and those that did normally had access to about 36 analog channels of programming.

Fast forward to 2006 – incredibly, there are around 500 full-time national programming networks in operation today, and nearly 100 regional networks as well. The number of "vertically integrated" channels has dropped to 20 percent, and Comcast has a financial interest in only seven percent of the networks that we carry. Eighty-five percent of all American TV households take service from an MVPD, and a typical MVPD household enjoys access to over 200 video channels. In addition, many producers – both majors and independents – are creating programming for video-on-demand, and some may use VOD exposure as a springboard for the creation of new full-time channels.

There are three important reasons for this proliferation of programming choices:

- First, the cable industry's investment of over $100 billion to expand our distribution networks and tens of billions more to improve the quality and diversity of our programming offerings;

- Second, the emergence of DBS and other distribution media to provide additional outlets for programming;

- And third, the freedom that the law has given us to package and promote this programming in "tiers," and to create tiers and packages that respond to consumer demand, make economic sense for our industry, and respond to competition from DBS and other providers.

To elaborate on the third point, it is important to note that having the freedom to create programming tiers and bundles lowers key costs and improves the economics of programming in ways that help to support those hundreds of channels. Program tiers *lower transaction costs* because it is easier, less confusing to customers, and less costly to cable operators to sell a bundle of services in a tier with a single transaction than to try to sell hundreds of different services on an a la carte basis. Tiers *reduce marketing costs* because program services sold in a tier do not have to spend as much to market the service (or to retain subscribers) as they would if customers were required to make (and could constantly change) individual purchase decisions for each service. Tiers *lower distribution costs* because the distribution cost per subscriber is the same regardless of the number of channels delivered, so the more channels subscribed to, the lower the average cost of distributing a channel. Tiers *increase the value of advertising* because they expand viewership by capturing occasional and spontaneous viewers. And tiers *reduce equipment costs* because the only way in which to deliver services sold a la carte is to require customers to purchase or lease addressable set-top boxes for every TV in their homes.

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[50] *Id.* (noting that "39 [of the 68], or 57 percent, have some ownership affiliation with the operating side of the cable industry").

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The benefits of tiering in this fashion are widely understood and appreciated by both network programmers and would-be programmers. That is why so many of them have so vigorously opposed calls to require distributors to sell programming a la carte. The fact that a la carte would result in consumers paying more for less has been recognized in virtually every informed analysis done to date, including studies by the FCC's Media Bureau, the Government Accountability Office, Bear Stearns, Booz Allen, and Paul Kagan, among others. (The FCC subsequently issued a second report that challenged the results of the first, but, as the Congressional Research Service has concluded, the second report's criticisms of the first are "not supported . . . or cannot be proven."[51])

Additional flexibility is provided by the ability to add premium channels and services in various combinations, our pay-per-view and VOD programming options, as well as the new Family Tier that we announced in December and will roll out company-wide over the next few months.

C. Government's Role in the Licensing of Program Content Should Be Reduced.

Since their inception, DIRECTV, EchoStar, and other competing multichannel video distributors have been guaranteed nondiscriminatory access to all satellite-delivered cable networks. And while they have been free to differentiate their multichannel offerings by entering into exclusive programming contracts with whomever they choose, cable operators have been constrained in how they compete.

Today's video marketplace is substantially changed from the marketplace of 1992. Rather than supporting expansion of existing regulation, today's marketplace undermines the original justification for any regulation.

Policymakers have always understood that market forces are superior to government regulation in enhancing consumer welfare, and that is no less true in the area of video content.

Back in 1992, when DBS had yet to launch its first satellite and sign up its first customer, the cable industry faced little direct multichannel competition. In response to consumer complaints, and in the absence of meaningful alternative sources of programming, Congress passed strict regulations governing the cable industry. But even then, Congress expressed a strong preference for competition over regulation, and its intention to reduce regulation as competition took hold.[52]

In the years since, multichannel video competition has taken deep root, and today is irreversible. Many of the regulations that currently govern the cable industry were intended to address less competitive market conditions that have long since changed.

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[51] Charles B. Goldfarb, *The FCC's "A La Carte" Reports*, Congressional Research Service at 3 (Mar. 30, 2006), *available at* http://www.ncta.com/DocumentBinary.aspx?id=294.

[52] *See* 47 U.S.C. § 521(6).

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Two of those regulations that are relevant to this hearing are the so-called "program access" provisions of the 1992 Act,[53] and the "program carriage" provisions of that Act.[54]

The relevant provisions of the program access statute were intended to ensure that national satellite-delivered cable programming services in which cable operators had an attributable financial interest would be made available to the industry's competitors on rates, terms, and conditions comparable to those available to cable companies.

The program carriage provisions were intended to ensure that, at a time when cable companies were perceived to be the sole providers of multichannel services, those companies could not play a "gatekeeper" role through actions that unfairly barred or conditioned distribution of independent programmers.

Program access, implemented into rules by the FCC,[55] ensured that fledgling DBS providers and other competitors would have access to programming perceived as critical to their success. These provisions represented a major departure from normal competition policy, which would encourage investment and innovation in exclusive programming. Exclusive programming permits competitors to distinguish themselves from one another. For example, DIRECTV has for several years had exclusive rights to the complete package of National Football League games, which has helped it to distinguish itself from both its cable and satellite competitors and contributed to the company's success.

In adopting program access requirements, Congress clearly did not intend to commoditize all video programming. The statute does not apply to any programming in which a cable operator does not have an attributable financial interest, nor does it apply to terrestrially distributed cable networks (of which there were more than a dozen in operation when the 1992 Act was passed).[56] Nor does the statute require that all programming be sold to everyone or sold at the same price to all distributors. Thus, in adopting this striking

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[53] Cable Television Consumer Protection & Competition Act of 1992, Pub. L. No. 102-385, § 12, 106 Stat. 1460 (codified at 47 U.S.C. § 548).

[54] *Id.* § 19 (codified at 47 U.S.C. § 536).

[55] *See In re Implementation of Sections 12 and 19 of the Cable Television Consumer Protection and Competition Act of 1992: Development of Competition and Diversity in Video Programming Distribution and Carriage*, First Report & Order, 8 FCC Rcd. 3359 (1993).

[56] Congress explicitly exempted terrestrially delivered networks from program access requirements, and did so by careful choice of language. Congress had to choose, when the 1992 Cable Act was in conference, which set of cable programming networks should be covered by the program access rules. The Senate version of the provision was drafted to apply to all "national and regional cable programmers who are affiliated with cable operators," with no exemption based on the mode of delivery. The House version of the provision, which was ultimately adopted with amendments, applied only to "satellite cable programming vendor[s] affiliated with a cable operator." Thus, Congress clearly analyzed whether to apply the program access rules to all affiliated networks and made a conscious decision to create the terrestrial exemption. *See* H.R. Conf. Rep No. 862, 102d Cong., 2d Sess at 91-3 (1993).

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exception to freedom of commerce, Congress specifically limited its marketplace intrusion, with full knowledge of what it was doing.

Although it could be said that the program access provisions have been a great success, it would probably be more accurate to say that the marketplace is working. In the 14 years since Congress enacted these provisions, there have been far fewer program access complaints filed with the FCC than either the FCC or Congress envisioned (we estimate fewer than 50 in total), and almost none of these complaints has resulted in a ruling adverse to the programmer – in fact, most have been settled. Importantly, as competition has grown, the number of program access complaints has dwindled, not increased. What is clear in today's marketplace is that national programming networks, whether or not affiliated with a cable operator, desire broad distribution of their services and have every incentive to ensure that as many consumers as possible can see their programming, including the 28 million DBS subscribers and the customers of other MVPD competitors.

Perhaps the most frequently reiterated complaint under the program access rules concerns Comcast SportsNet (Philadelphia). The FCC (twice) and the courts (once) have thoroughly considered and rejected complaints by DIRECTV and EchoStar that Comcast's creation and distribution of this high-quality regional sports network violated the program access rules. All have concluded that Comcast was within its rights to make the economically sound decision to terrestrially distribute this network using a pre-existing terrestrial distribution system.[57]

In refraining from making terrestrial programming subject to the program access rules, Congress sought to preserve the pro-competitive benefits of exclusivity in order to foster new program networks -- especially local and regional program networks which are often delivered most economically by terrestrial means.[58] Congress recognized that exclusivity can be pro-competitive because it provides incentives for competing multichannel providers to develop unique video services that let them distinguish themselves from one another in the marketplace.[59]

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[57] For reasons known only to RCN, that company has claimed for several years that it has not received access to Comcast SportsNet (Philadelphia) on reasonable terms and conditions. However, RCN has had the contractual right to carry Comcast SportsNet (Philadelphia) from the day it signed on the air, and RCN still has those rights today, on the same terms and conditions that Comcast and other cable companies carry the network. And, in fact, RCN has carried the network on those terms since day one -- even though Comcast is under no obligation to make it available.

[58] Terrestrial programming was not the only programming Congress exempted from the program access rules; it also empowered the FCC to approve exclusive arrangements that it determined were in the public interest. *See* 47 U.S.C. § 548(c)(4). The public interest provision expressly recognizes that exclusivity may help attract capital *investments* in the creation and distribution of programming and may promote *diversity* of programming. *See id.*

[59] Even the Framers of the Constitution recognized that good incentives can come from giving creators exclusive control of their intellectual property. *See* U.S. Const. art. I, § 8, cl.8 ("The Congress shall have the Power . . . To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right . . . .").

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And while the DBS companies and others have cried wolf for nearly a decade, claiming that the FCC's decision would encourage companies to move their most valuable programming off of satellite (and therefore beyond the reach of the program access rules), the fact of the matter is that that has not happened. In fact, each of the four regional sports networks launched by Comcast since it created the Philadelphia network has been satellite-delivered, again for sound economic reasons.

DIRECTV and EchoStar both claim that Philadelphia professional sports programming is "must-have" programming and that they cannot compete in that region without it. The facts, however, do not support that claim.

Since the mid-Nineties, nearly a hundred local Philadelphia professional sports events have been available on local broadcast stations each year, but the DBS companies did not carry these signals (which are available to them free of charge) until they were required to by federal law.[60] It is difficult to understand why, if this is "must-have" programming, they would not bother to carry it for free. These events and others on channels such as ESPN, TNT, and OLN are now available from the DBS companies. For example, in the 2005-2006 seasons, 23 of the 82 Flyers games, 54 of the 162 Phillies games, and 17 of the 82 Sixers games were available or will be available to DBS.

Moreover, based on data from Media Business Corp. (as of September 30, 2005), it is clear that DBS penetration in Philadelphia is higher than or comparable to that in many other urban markets. And in the last five years, the DBS companies have *tripled* their market share in Philadelphia.

As I noted earlier, most programmers – including cable companies that own programming – want maximum distribution for most of their products. But that should not mean that cable companies, DBS companies, and others should not have the freedom to create and invest in some original and exclusive programming as well, in order to distinguish themselves from one another in the marketplace. In fact, Congress and the FCC should consider that the program access rules (and the corresponding restrictions that now apply to DIRECTV as a consequence of its merger with News Corp.) may now be having the perverse effect of *reducing investment* by the beneficiaries of these rules (including two of the three largest MVPDs in America, DIRECTV and EchoStar) in original programming – why invest and create when you can have access to someone else's work on the cheap?

D. Program Carriage Decisions Should Be Left to the Marketplace.

The program carriage rules were intended to be a guarantee against the ability of a cable operator, which 14 years ago might be presumed to have "monopoly gatekeeper" status, to bar or handicap independent programming networks from gaining distribution. These rules have almost never been invoked, again largely because the marketplace works.

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[60] Prior to November 1999, DBS companies were prohibited from carrying local broadcast stations. But, after Congress lifted that prohibition, the DBS companies still refused to carry those broadcast stations until they were compelled to by law over a year later.

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Anyone who has an attractive programming idea, a sensible business plan, and a willingness to negotiate carriage terms that make sense for both the programmer and the distributor, has had the opportunity to build a business.

In the past year, one company (Mid-Atlantic Sports Network, or "MASN") has filed a program carriage complaint, invoking these little-used provisions of law – the first such complaint *ever* filed against Comcast. A second company (The America Channel, or "TAC") has steadfastly refused to file a program carriage complaint, but it has attempted to leverage every other opportunity to get the government to force Comcast to carry it.

Let me address the MASN situation first. The Baltimore Orioles, as part of a deal with their affiliate, TCR, and Major League Baseball, created a new sports network -- MASN -- with the intention of carrying Baltimore Orioles games in 2007. And in an unprecedented move that I have characterized as the "original sin" of this dispute, Major League Baseball ("MLB") also granted to the Orioles organization control over the television rights of the new Washington Nationals baseball club, along with the television rights to the games of the Orioles, beginning in 2007. But Comcast SportsNet (Washington/Baltimore) ("CSN") has the television rights to Orioles games through the 2006 season, and it paid millions of dollars for the right to negotiate exclusively for renewal of those television rights and for the right to match any third-party offer received after that period of negotiation expired. For the Orioles and MLB to agree to transfer to MASN the rights to Orioles games for annual license fees, and to declare that the Orioles games would be available only on MASN starting in 2007 without providing CSN the opportunity to match this deal, was a blatant breach of CSN's contractual rights. CSN is pursuing its rights in court.

Meanwhile, TCR filed a complaint at the FCC alleging that Comcast's decision not to carry MASN violates the program carriage rules. We have thoroughly refuted TCR's allegations at the FCC and would gladly provide to the Committee upon request copies of the relevant public documents. To summarize briefly, we showed that the factual bases for TCR's complaint were wholly false and that our current refusal to carry MASN is entirely justified given MASN's excessively high carriage fee and its lack of programming: MASN wants Comcast to pay a carriage fee that is higher than 10 (out of 10) other regional sports networks that we know of that have programming from two professional teams and the only programming MASN offers is the Nationals baseball games. It should be noted that some of TCR's allegations at the FCC were so frivolous and so outrageous that a consultant for Major League Baseball -- which is the business partner of the Orioles -- intervened on his own motion to denounce and refute those allegations.[61]

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[61] During July 2005, Allen & Co. sent FCC Chairman Martin two letters expressly denying MASN's accusations that one of its executives had operated in secret to demand that MASN give Comcast a financial interest in MASN. *See* Letter from Richard R. Zaragoza, Counsel for Allen & Company, to the Hon. Kevin J. Martin, Chairman, Federal Communications Commission (July 11, 2005); Letter from Richard R. Zaragoza, Counsel for Allen & Company, to the Hon. Kevin J. Martin, Chairman, Federal Communications Commission (July 13, 2005).

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Comcast wants to carry Orioles and Nationals games. But Comcast also wants to protect the contractual rights negotiated and paid for by CSN. We continue to hope for, and work toward, a timely resolution that is in the best interest of our company, our customers, and the teams' fans. We remain in discussions with MLB and the Orioles to see whether a solution can be found.

Now let me briefly address the complaints by TAC. This is a would-be network that asserts that its inability to negotiate a carriage agreement with Comcast is an absolute bar to its viability. The unavoidable fact is that TAC has done none of the things necessary to establish a viable network. It lacks a secure source of financing; it has not assembled any programming expertise; it has no coherent business plan; and -- most importantly -- it has created no programming. Not surprisingly, TAC has found it difficult to negotiate carriage agreements, except with a few start-up distributors whose businesses are as undeveloped as its own.

TAC asserts that independent program networks cannot succeed without a carriage agreement from Comcast and Time Warner, and it claims that those companies will not work with independent program networks.

In response to the first point, I would refer you to the attached column by C. Michael Cooley of The Sportsman Channel, entitled "How I Started a Network Without Comcast."[62] Moreover, there are many networks that have become viable with *no* cable carriage, reinforcing the point that there are a sufficient number of U.S. MVPD households served by competitors to support such programming.[63]

In response to the second point, marketplace facts refute TAC's assertion. Comcast carries dozens and dozens of independent networks. In fact, it has no choice but to carry a significant number of independent programmers. Not only do our customers demand independent programming, but there aren't anywhere nearly enough affiliated programming networks to fill out our channel lineups.

In fact, Comcast owns an attributable financial interest (which, for purposes of the FCC's rules, can be as little as a five percent stake) in only about seven percent of the channels we carry. In other words, 13 out of every 14 channels carried by Comcast are owned by companies that are completely independent. This should not come as a surprise -- it is our goal, and a competitive necessity, to provide the best programming and the best value for our customers, regardless of who owns or produces the programming.

TAC lacks any basis for invoking the program carriage rules, which is the likeliest explanation for TAC's failure to file a complaint with the FCC. But, that has not prevented it from trying other ways to force Comcast to sign a carriage agreement for TAC's nonexistent network. Only a few weeks ago TAC filed an antitrust lawsuit

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62 C. Michael Cooley, *How I Started a Network – Without Comcast*, Multichannel News (Oct. 3, 2005) (attached as Exhibit 14).

63 For example, the following networks first obtained carriage on DBS: BBC America, CSTV, Discovery HD Theater, NBA TV, YES Network, SoapNet, and Hallmark.

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against Comcast and Time Warner that, among other things, sought to block the defendants' acquisition of Adelphia's cable subscribers. The Adelphia bankruptcy court quickly issued a restraining order enjoining TAC from pursuing its suit and then found TAC in contempt of court when TAC filed a motion with the district court to quash and vacate the bankruptcy court's restraining order. Despite this conduct, we have had continuing discussions with TAC over a long period, and we remain open to a meaningful dialogue. But it is important to remember that TAC is entirely in control of its own fate – and its failure to secure any meaningful carriage commitment from our established competitors suggests that the problem lies not with Comcast, but with TAC's business plan.

III. CONCLUSION

Mr. Chairman and members of the committee, the broadband marketplace is exciting, it is robust and rivalrous, it is wide open to new entry and innovation, and it is working. Similarly, the video marketplace is the most competitive it has ever been; virtually every consumer in the United States can choose to receive video programming from among three different multichannel video providers, in addition to broadcast stations, the Internet, and an ever increasing number of sources, including telephone companies.

If Congress were to reject the lessons of the past decade – and were somehow persuaded that we must now regulate the Internet in order to save it – it would have just the opposite effect. Regulation would chill investment, discourage new networks, and freeze the development of the Internet at a critical time in its evolution.

Similarly, in the video marketplace, if Congress were to ignore the enormous successes that have resulted from deregulation and competition in the video marketplace, including massive investments, robust competition, and abundant choice, American consumers will suffer.

We should not focus on regulating today's networks and services. We should focus on liberating tomorrow's networks, so the Internet and video programming platforms can deliver what consumers want: a vast array of communications, information, and entertainment options that are available anytime, anywhere. That's going to take lots more investment, lots more innovation, and lots more competitive differentiation.

Thank you for the opportunity to testify before this Committee!

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EXHIBIT 1

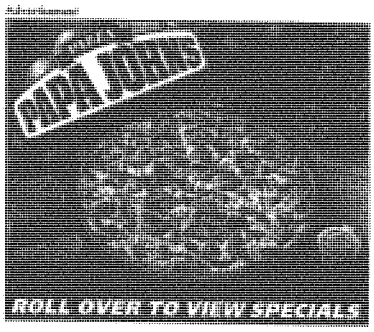
washingtonpost.com

The Internet's Future

Congress should stay out of cyberspace.

Monday, June 12, 2006; A20

Advertisement



THE SENATE will hold hearings tomorrow on "net neutrality," the idea that the pipes and wires that form the Internet should treat all content equally. An alliance whose membership ranges from the Christian Coalition to MoveOn.org is demanding that Congress write this neutrality into law; the groups fear that the pipe owners -- cable companies, phone companies and so on -- might otherwise deliver corporate content at high speed for high fees, while consigning political Web sites and hobbyists to a slow information byway. These arguments are amplified by the big Internet firms -- Google, Microsoft, eBay -- that want their services delivered fast but don't want the pipe owners to extract fees from them. Although this coalition lost a House vote last week, its prospects are stronger in the Senate. (The Washington Post Co. owns broadband networks that might charge Web sites for fast delivery. It also produces Web content that might be subject to such fees, so it has interests on both sides of this issue.)

The advocates of neutrality suggest, absurdly, that a non-neutral Internet would resemble cable TV: a medium through which only corporate content is delivered. This analogy misses the fact that the market for Internet connections, unlike that for cable television, is competitive: More than 60 percent of Zip codes in the United States are served by four or more broadband providers that compete to give consumers what they want -- fast access to the full range of Web sites, including those of their kids' soccer league, their cousins' photos, MoveOn.org and the Christian Coalition. If one broadband provider slowed access to fringe bloggers, the blogosphere would rise up in protest -- and the provider would lose customers.

The cable TV analogy is doubly wrong because media culture reflects technology. Cable TV has been the province of Hollywood studios because making a sitcom is expensive and hard -- though, with cheap digital camcorders, this is changing. Equally, the Internet is the province of experimenters and hobbyists because creating your own Web site is cheap and easy. Thanks to technology, the Internet will always be a relatively democratic medium with low barriers to entry.

The serious argument for net neutrality has nothing to do with the cable TV boogeyman. It's that a non-neutral net will raise barriers to entry just slightly -- but enough to be alarming. To use a far better analogy: Competitive supermarkets aim to please customers by offering all kinds of goods, but the inventor of a new snack has to go through the hassle of negotiating for display space and may wind up on the bottom shelf, which dampens his incentives. Equally, if the owners of Internet pipes delivered the services of cyber-upstarts more slowly than those of cyber-incumbents, the incentive to innovate might suffer. Would instant messaging or Internet telephony have taken off if their inventors had had to plead with broadband firms to carry them?

This concern should not be exaggerated. Cyber-upstarts already face barriers: The incumbents have brand recognition and invest in tricks to make their sites load faster. The extra barrier created by a lack of net neutrality would probably be small because the pipe owners know that consumers want access to innovators.

Meanwhile, there are powerful arguments on the other side. If you want innovation on the Internet, you need better pipes: ones that are faster, less susceptible to hackers and spammers, or smarter in ways that nobody has yet thought of.

The lack of incentives for pipe innovation is more pressing than the lack of incentives to create new Web services.

You can see this imbalance in Wall Street's low valuation of Internet infrastructure firms such as Verizon (price-to-earnings ratio: 12) and its infatuation with Internet service firms such as Google (price-to-earnings ratio: 69). You can see it, too, in the fact that U.S. broadband infrastructure lags behind that of East Asia and Europe. Allowing builders of Internet infrastructure to recoup their investment by charging the Googles and Amazons for use of their network would balance the incentives for innovation more closely. Ironically, a non-neutral net would accelerate the spread of zippy broadband that can deliver movies, allowing hobbyists with camcorders to take on Hollywood studios. The neutrality advocates who criticize corporatized cable TV should welcome that.

The weakest aspect of the neutrality case is that the dangers it alleges are speculative. It seems unlikely that broadband providers will degrade Web services that people want and far more likely that they will use non-neutrality to charge for upgrading services that depend on fast and reliable delivery, such as streaming high-definition video or relaying data from heart monitors. If this proves wrong, the government should step in. But it should not burden the Internet with preemptive regulation.

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EXHIBIT 2

COMMON SENSE ABOUT NETWORK NEUTRALITY

Is the Internet about to implode? Listening to the rhetoric coming out of Washington, D.C. about "network neutrality," you would think so. Various businesses and interest groups forecast the death of the Internet as we know it, unless their favorite bill gets passed. Lots of heat, not much light.

Recently, several scholars (signed below) spanning the disciplines of computer science, economics and law convened by the Wharton School, University of Pennsylvania and Carnegie-Mellon University, to provide an unbiased interdisciplinary analysis of network neutrality. Drawing on their extensive experience in and with government, they clarify and frame these complex issues and provide a way forward for Congress and the industry alike. Here's what they have to say:

The Internet needs a makeover. Unfortunately, well-intentioned Congressional initiatives, aimed at preserving the best of the old Internet, threaten to stifle the emergence of the new one.

The current Internet supports many popular and valuable services. But experts agree that an updated Internet could offer a wide range of new and improved services, including better security against viruses, worms, denial-of-service attacks, and zombie computers; services that require high levels of reliability, such as medical monitoring; and services that cannot tolerate network delays, such as voice and streaming video. To provide these new services, both the architecture of the Internet and the business models through which Internet services are delivered may have to change.

Congress is considering several initiatives (known collectively under the banner of "network neutrality") aimed at promoting continuing Internet innovation by restricting network owners' ability to give traffic priority based on the content or application being carried or on the sender's willingness to pay. The problem is that some of the practices that network neutrality would prohibit could increase the value of the Internet for customers.

Traffic management is a prime example. When traffic surges beyond the ability of the network to carry it, something is going to be delayed. When choosing what gets delayed, it makes sense to allow a network to favor traffic from a patient's heart monitor over traffic delivering a music download. It also makes sense to allow network operators to restrict traffic that is downright harmful, such as viruses, worms, and spam.

Pricing raises similar issues. To date, Internet pricing has been relatively simple. Based on experience in other similar markets, we expect that, if left alone, pricing and services models would likely evolve. For example, new services with guaranteed delivery quality might emerge to support applications such as medical monitoring, which require higher levels of reliability than the current Internet can guarantee. Suppliers can be expected to charge higher prices for these premium services. Blocking premium pricing in the name of neutrality may have the unintended effect of blocking the premium services from which customers would have benefited. No one would propose that the US Postal Service not be permitted to offer Express Mail because a "fast lane" mail service is "undemocratic," yet some current proposals would do exactly this for Internet services. For this reason, foreclosing the emergence of alternative pricing regimes for innovative services would be ill advised.

We are not saying that all discrimination is good. Some forms of discrimination can be harmful, especially when service providers have market power. For example, if a network operator were to

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block competition in another market in which it offers service, such as when a local telephone company that is the sole provider of broadband service to a particular community blocks its subscribers from using Internet telephony, then public policy should intervene if this anticompetitive action can reliably be identified and the cure will not be worse than the disease.

The central policy principle should be to prevent anticompetitive actions and reduce associated harms without impeding the Internet's evolution. Current proposals would affect all broadband providers regardless of whether they wield monopoly power and without any analysis of whether the challenged practice actually harms competition. In the process, they threaten to restrict a wide range of innovative services without providing compensating customer benefits. The problem is that it can be difficult, if not impossible, to determine in advance whether a particular practice would promote or harm competition. Current antitrust law solves this problem by blocking practices only when those who oppose them can demonstrate actual harm to competition. We believe that such a case-by-case approach that focuses on actual, rather than potential, harm to competition represents the best way to protect consumers while giving the Internet the breathing room it needs to move forward. Blanket regulation, which some network neutrality initiatives support, is not a good policy choice.

Public policy toward the Internet should evolve to meet our future needs. To accomplish this, policymakers should frame the issues in terms of how to make customers better off, rather than focusing on the impact on particular traffic or particular competitors. This framing would highlight the potential benefits to customers that shifting away from the current architecture of the Internet could yield. It would also ensure that any regulatory intervention would be tailored to the precise scope of the anticompetitive harm.

David Farber is the Distinguished Career Professor of Computer Science and Public Policy at the Carnegie Mellon University having retired as the Alfred Filter Moore Professor of Telecommunication in the University of Pennsylvania's School of Engineering. He served as Chief Technologist of the Federal Communications Commission (FCC) 1999-2000.

Gerald Faulhaber is Professor of Business and Public Policy at the Wharton School, and Professor of Law, University of Pennsylvania. He served as Chief Economist of the FCC 2000-01.

Michael L. Katz holds the Sarin Chair in Strategy and Leadership at the University of California, Berkeley's Haas School of Business, and is also a Professor in the Berkeley Economics Department. He served as Deputy Assistant Attorney General for Economic Analysis in the Antitrust Division of the U.S. Department of Justice 2001-03, and as Chief Economist of the FCC 1994-96.

Christopher S. Yoo is Professor of Law and Director, Technology & Entertainment Law Program, at Vanderbilt University. He served on the staff of the U.S. Senate 1987-89 and clerked for Justice Anthony M. Kennedy of the Supreme Court of the United States 1997-98.

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EXHIBIT 3

NETCompetition.org

An e-Forum Promoting Competitive Internet Choices for Consumers

Net Neutrality Fact Sheet

The Internet is not "public property."

- The Internet is a network of *private* networks enabled by many *universally-accepted, consensus standards* that no one entity can control or change and that do not require network neutrality:
  - Internet transmission protocol (IP) is *universally-accepted* and enables all types of communications technologies to fully inter-operate and function as one network;
  - Domain Name System (DNS) administered by ICANN, an international non-profit corporation, provides a *universally-accepted* address system for Internet devices; and
  - World Wide Web (www) is a *universally-accepted* standard that makes text, graphics, sound and animation on HTTP Internet servers accessible to Internet users with a point and a click.
- All these *private* networks have *freely and openly* accepted these universal Internet standards, because it is *in their economic self-interest* to do so *and in the interests of their users*, not because it is required.
- While government and academic funds created and funded the original Internet, the U.S. Government *commercialized* the Internet from 1991 to 1995 and it has been *operated privately* ever since.

Net neutrality is not a *universal* operating "principle" of the Internet today.

- Unlike the universally-accepted consensus standards discussed above, it is obvious from the extreme controversy that net neutrality is *neither universally-accepted nor consensus* Internet practice.
- For example, the *~20 million* American cable broadband users have *never* had network neutrality; and *~200 million* American cell phone users also have managed just fine without network neutrality.
- Far from a *consensus* "principle," net neutrality is a highly-contentious political clash over *network design theory and preference*; where "edge" Internet companies are trying to get the government to *permanently* impose their end-to end network *design* on competitive "network" Internet companies.

Coercing net neutrality would destroy the Internet's essence: a mutual self-interest to cooperate.

- Forcing a non-consensus design principle on all the private networks that comprise the Internet could rip apart the *consensus-of-self-interest* and cooperation that keeps the Internet *universally-accepted* today.
- Net neutrality could "kill the proverbial goose that laid the golden egg." Government coercion did not make the Internet what it is today; it was *free and open mutual-self-interest* and industry *cooperation*.
- Making it *illegal* for broadband companies to differentiate and offer consumers a diversity of choices would permanently disadvantage broadband provider's vis-à-vis tech and ecommerce giants, and destroy most economic incentives to continue to invest in Internet bandwidth, quality and security.

Increasing competition and innovation make net neutrality regulation obsolete.

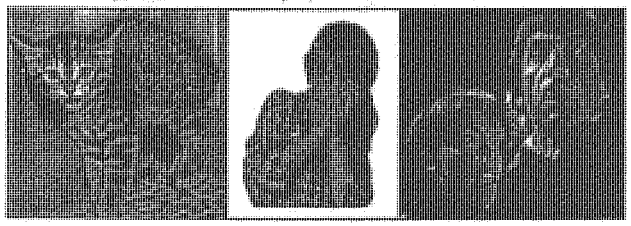
- *Without* competition/technological innovation, network neutrality was necessary monopoly regulation.
- In 1993, Congress passed a law that network neutrality was unnecessary for competitive wireless.
- In 1996, the Telecom Act promoted competition and de-regulation, setting up the phase-out of net neutrality regulation as real competition emerged. That's why net neutrality was never imposed on cable modems and why the FCC decided August 2005 to phase out net neutrality for DSL.

Net neutrality is a "Socialized-Internet" not the law's vision of free and open competition.

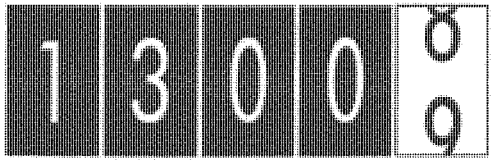
- Net neutrality is a debate over what *type* of democracy the Internet will be. A hallmark of American democracy has been strong respect for the rights of individuals, property owners and the minority.
- The Markey and Snowe-Dorgan net neutrality bills would price regulate *competitive and even free* communications for the first time -- before any evidence of the hypothetical problems has emerged.
- Why a free-market Internet is superior to the Government micro-management of a "Socialized-Internet" is that property owners have the *economic and design freedom* and the *mutual economic self-interest* to solve problems, innovate, meet new consumer needs and earn a return on their investment.

NETCompetition.org is an e-forum to promote a rigorous debate on the merits of net neutrality legislation. It is funded by a wide range of broadband telecom, cable and wireless companies who believe that the best way to guard a free and open Internet is free and open competition, not more government control of the Internet. Please see www.netcompetition.org.

NET NEUTRALITY SCARE TICKER



Did you know it's been



days, and there's *still* no "net neutrality" problem?

On November 19, 2002*, the first official warning was issued by "powerful computer and Internet companies" that if Congress did not regulate the Internet, it would fall prey to network providers that would block access to Internet sites, or abuse their market power by slowing online content of competitors to a

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crawl.

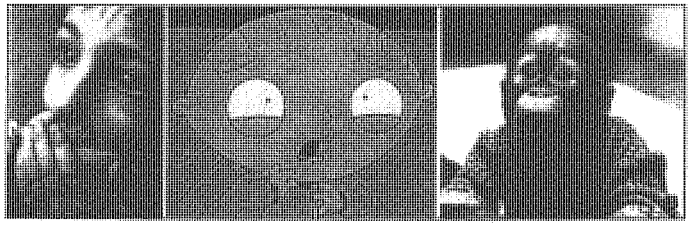
Since then, no problem has emerged.

Strangely however, with every passing "no-problem" day, the pro-regulation crowd becomes ever more shrill and ever more insistent of the danger!

The Net Neutrality Scare Ticker is dedicated to publicizing just how long companies like Google, Yahoo! and eBay have been attempting to frighten America into regulating the Internet with a network neutrality regulatory scheme.

News:

- November 19, 2002: Microsoft, eBay Join Consumers in FCC Protest
- December 13, 2003: Gates Halts Big "Neutrality" Push



Brought to you by the Internet Freedom Coalition.

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EXHIBIT 5

THE WALL STREET JOURNAL. ONLINE

May 18, 2006

REVIEW & OUTLOOK

The Web's Worst New Idea
May 18, 2006; Page A14

If ever there was a solution in search of a problem, "Net neutrality" is it. Sometime recently, someone got up on the wrong side of bed and decided that the freedom that has been the hallmark of the Internet now threatens to destroy it.

Suddenly the Internet service providers, which you always thought were there to let you get onto the Net, are going to keep you off it unless the government imposes new laws and regulations. Congressional hearings have been held. Vint Cerf, Internet progenitor and now Google evangelist, evangelizes. Thus has the cause of Net neutrality in its current incarnation become a new and ardent crusade of the political left.

Net neutrality is generally billed as a way of reining in Internet service providers (typically phone and cable companies), some of whom have made noises about charging content companies extra fees for guaranteeing priority to certain kinds of services. Net neutrality is supposed to save us -- and Google and Yahoo -- from this supposedly unconscionable behavior. Its effect would be more damaging.

* * *

It's worth putting this zealotry in a broader historical context. In the decade or so since the commercialization of the Internet began in earnest, the number of users, the speed of their connections and the variety of things they can do on the Net have all rushed forward. Blissfully, but not coincidentally, all this has been accomplished with a light regulatory touch. Excepting pornography and gambling, no bureaucrats have decided what services could be provided over the Internet, or who could offer them or how they could charge for them.

The result has been rich and diverse. Web surfers can make phone calls -- sometimes free, sometimes for a fee. They can legally listen to music, either free, by subscription or by paying per song. They can watch some network television shows online -- again, some are free and supported by ads; others charge per program.

Some of the service ideas have been bad, and failed. Some are wonderful. But many would never have been tried if the Federal Communications Commission had

been able to tell businesses whom they could charge, how much or how little, or what they could or couldn't sell on the Net. Freedom, in other words, has been the Web surfer's friend.

Enter Net neutrality, which has so far found its only official expression in a nonbinding policy statement issued by the FCC last year. The FCC statement says, "consumers are *entitled*" (our emphasis) to the "content," "applications" and "devices" of their choice on the Internet. They are also "entitled to competition among network providers, application and service providers, and content providers."

Take a moment to pause over this expansive list of "entitlements." If we take the FCC at its word, access to online pornography is now a right, even though in a different context the FCC is increasingly preoccupied with policing "decency" standards on television. We'd have thought FCC Chairman Kevin Martin would find all that entitlement talk a little embarrassing, given his campaign for decency standards.

But at least the FCC's guidelines were just that -- guidelines. Increasingly, and with the backing both of the Moveon.org crowd and "Don't Be Evil" Google, a movement is afoot to give these entitlements the force of law. Congressman Ed Markey has introduced a bill to "save the Internet" by codifying Net neutrality principles in law. The FCC would be charged with enforcing "non-discrimination" and "openness" rules.

Under a law like this -- variations are floating around both houses of Congress -- the country could look forward to years of litigation about the extent and nature of the rules. When the dust settled we'd have a new set of regulations that could span the range of possible activities on the Net. What's more, the rules aren't likely to stop with the phone and cable companies that have Mr. Markey and his friends at Moveon.org so exercised.

Non-discrimination cases could well be brought against Net neutrality backers like Google -- say, for placing a competitor too low in their search results. Google's recent complaint that Microsoft's new operating system was anti-competitive is a foretaste of what the battles over a "neutral" Net would look like. Yet Google and other Web site operators have jumped on the Net neutrality bandwagon lest they have to pay a fee to get a guaranteed level of service from a Verizon or other Internet service provider. They don't seem to comprehend the legal and political danger they'll face once they open the neutrality floodgates. We'd have thought Microsoft of all companies would have learned this lesson from its antitrust travails, but it too has now hired lawyers to join the Net neutrality lobby.

* * *

All the recent scare-mongering about the coming ruination of the Internet is

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cloaked in rhetoric about how recent court rulings and regulatory actions by the FCC have undermined certain "protections." This is mostly bluster. Companies like AOL did not migrate from a "walled garden" to a more-open, Internet-centric model because of mandates from Washington but because the alternative was extinction.

Given the impulse on the left to regulate anything that moves, perhaps the real surprise here is that it's taken this long for someone to seriously suggest the Net will wither in the absence of a federal regulatory apparatus. "Don't ruin the Internet" is a slogan with a lot of merit. But it comes with a modern corollary, which is "Don't regulate what isn't broken."

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EXHIBIT 6

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
WASHINGTON, D.C. 20503

June 8, 2006
(House)

STATEMENT OF ADMINISTRATION POLICY

H.R. 5252 - Communications Opportunity, Promotion, and Enhancement Act of 2006
(Rep. Barton (R) Texas and 55 cosponsors)

The Administration supports House passage of H.R. 5252 and looks forward to continuing to work with Congress as the bill proceeds through the legislative process.

The Administration strongly supports efforts to promote competition in both video and voice markets, and therefore supports this bill's language on video franchising. The Administration believes that legislation enabling video service providers to gain a national franchise in order to speed rollout of their infrastructure not only will benefit consumers by increasing competition in the video TV market, but also will improve high-speed broadband penetration.

The Administration supports the broadband policy statement of the Federal Communications Commission (FCC) and appreciates the bill's sponsors' efforts to incorporate these concepts into the legislation. However, the Administration believes the FCC currently has sufficient authority to address potential abuses in the marketplace. Creating a new legislative framework for regulation in this area is premature.

The Administration has serious reservations about the bill's current language on enhanced 911 (E911). The bill's current language would prevent or delay the FCC from enforcing its rules requiring Voice over Internet Protocol (VoIP) service to deliver 911 calls directly to public safety agencies. The Administration believes that E911 services should be broadly available on a timely basis. The Administration supports the FCC's actions to require that E911 is available wherever technically feasible. The Administration believes the bill should reflect the FCC's prior actions on the issue. The Administration looks forward to working with Congress in order to craft language that is consistent with the FCC's actions.

* * * * *

BERNSTEINRESEARCH

EXHIBIT 7

Testimony of

Craig E. Moffett

Vice President and Senior Analyst
Sanford C. Bernstein and Co., LLC
A Subsidiary of AllianceBernstein, LP

Before the Subcommittee on
Communications
United States Senate
March 14, 2006

Chairman Stevens, Co-Chairman Inouye, and distinguished Members of the Committee, I want to express my thanks for the opportunity to participate in today's hearings.

I've spent the past three years as an Equity Research Analyst at Sanford C. Bernstein covering the U.S. Cable and Satellite sector, and I believe I'm here to reflect the views of Wall Street. But you should also note that I previously spent more than a decade consulting to telecommunications companies as a partner and Global Leader of The Boston Consulting Group's telecommunications practice (where I lived through the drafting and the aftermath of the '96 Act) and I've also been the President of a 400-person Internet auction business, so my views today are likely to reflect those perspectives at least as much as the Wall Street view.

While I've written a great deal about issues such as à la carte, retransmission consent, franchising rules, and broadcast indecency, I'll confine my prepared comments today to issues related to *physical* networks, and the constellation of issues that have been given the unfortunate name of "Net Neutrality." I believe there is a risk that we are embarking on a course that will discourage network investment, to the long-term detriment of the economy and our society.

The "Net Neutrality" debate has become a catch-all for a number of competing public policy needs. We want ensure the availability of ubiquitous and reliable high speed Internet access, and we want to do it while minimizing consumer prices and maximizing consumer choice.

See Disclosure Appendix for important disclosures and analyst certifications

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That means we need to foster investment in the networks themselves. And we need to do that while at the same time protecting inalienable First Amendment principles, and creating a vibrant climate for innovation in network-reliant businesses.

With respect to the first part of that balancing act, *i.e.* "fostering investment in the networks themselves," Wall Street has, by and large, already cast its vote. The capital markets see a bleak future for network operators. Cable stocks have suffered five years of valuation declines relative to the broader market. Telecommunications firms like Verizon and AT&T have been given similar treatment. Comcast's stock is punished every time the Company's management even mentions the words "capital investment." Verizon's stock was likewise punished throughout 2005 due to the capital markets' distaste for the expansive capital investments in their FiOS fiber optic deployment.

Ironically, this comes at a time when consumer broadband demand is exploding. Sony's *PlayStation* and tech companies like Microsoft talk about "owning the living room," and AOL and Yahoo! and Google are all planning video-rich strategies. New applications like video telephony and video surveillance over the web have barely started yet.

Despite this strong demand for networks, however, Wall Street harbors grave doubts about the ability to earn a return on network investments. Excessive competition and an uncertain, and at times hostile, regulatory environment are dampening capital formation and slowing the pace of investment.

And that investment is critical, because despite a great deal of arm waving from "visionaries," our telecommunications infrastructure is woefully unprepared for widespread delivery of advanced services, especially video, over the Internet. Downloading a single half hour TV show on the web consumes more bandwidth than does receiving 200 emails a day for a full year. Downloading a single high definition movie consumes more bandwidth than does the downloading of 35,000 web pages; it's the equivalent of downloading 2,300 songs over Apple's iTunes web site. Today's networks simply aren't scaled for that.

In a series of recent research reports that I entitled *"The Dumb Pipe Paradox"* – which I believe provided the original impetus for the Committee's invitation to testify today – I tried to address the misconception that the telcos are rapidly rushing in to meet this need and to provide competition for cable incumbents. In fact, by their own best estimates, they'll be able to reach no more than 40% or so of American households with fiber over the next seven years.

And most of that will be in the form of hybrid fiber/legacy copper networks, such as that being constructed by AT&T under the banner of "Project Lightspeed." These hybrid networks are expected to deliver 20Mbs average downstream bandwidth. After accounting for significant standard deviation around that average, that will mean many "enabled" subscribers will actually receive far less. I and many others on Wall Street harbor real doubts as whether these hybrid networks will prove technologically sufficient to meet future demands.

More importantly, in 60% of the country, there are simply *no* new networks on the horizon, and the existing infrastructure from the telcos – DSL running at speeds of just 1.5Mbs or so – simply won't be adequate to be considered "broadband" in five years or so. That includes wireless networks, by the way. Current and planned wireless networks – including the over-hyped Wi-Max technology – offer the promise of satisfying *today's* definition of broadband, but simply can't feasibly support the kind of bandwidth required for the kind of dedicated point-to-point video connections that will be required to be considered broadband tomorrow. Those demands will continue to fall to terrestrial wired networks.

Again, the Wall Street view is that even this amount of investment is unwarranted. Verizon's network investment strategy is predicated largely on cost savings, not on the potential returns from delivering new services. We expect Verizon's return on investment to be marginally positive. AT&T's is less costly, but generates fewer cost savings, and so is likely significantly worse. You simply can't make a case for major new investments on the basis of voice, video, and data as currently conceived.

In Part I of the "*Dumb Pipe Paradox,*" I noted that if a telco was in the business of providing broadband connections only – that is, if phone service becomes, as many predict, simply another bit stream on top of a data connection – then the cost to provide service would be as much as $80 per month. And from a consumer's perspective, that would be the pipe only, before paying for *any* content over the web.

And the cost, and therefore the price, would likely be much, much more. Some recent comments from BellSouth's Chief Architect, Henry Kafka, at the Optical Fiber Communication/National Fiber Optics Engineers Conference last week put this in perspective. He estimated that the average residential broadband user today consumes about two gigabytes of data per month. Heavy users who regularly download movies consume an average of 9 gigabytes of data per month. In the future, watching IPTV would consume 224 gigabytes, and would cost carriers $112 per month to deliver. And if IPTV is going to deliver High Definition, then the average user would be consuming more than one terabyte per month, at a cost to carriers of $560 per month.

That, I believe, puts the "Net Neutrality" debate in context. The very valence of the phrase suggests that the First Amendment is about to be trampled lest it be legislatively protected. And the very idea that third parties who benefit from Internet infrastructure investments – say, Google and Yahoo – might economically contribute in some way to these costs has been roundly greeted as if it is a threat to basic liberties.

But the notion of "Net Neutrality" as it is currently construed would, I believe, likely trigger a host of unintended consequences. Mandated "Net Neutrality" would further sour Wall Street's taste for broadband infrastructure investments, making it increasingly difficult to sustain the necessary capital investments.

It would also likely mean that consumers alone would be required to foot the bill for whatever future network investments that *do* get made. That would result in much higher end-user prices, much steeper subsidies of heavy users by occasional ones, and, in all likelihood, a much sharper "digital divide." By discouraging the deployment of new networks, it would also likely freeze in place the status quo cable/telco duopoly (or worse in much of the country, where we are, as previously described, on a trajectory to a near cable monopoly for genuine broadband). The U.S. as a whole would, in all likelihood, fall further behind other countries in broadband availability and reliability.

Conversely, from a Wall Street perspective, allowing a "multiplicity of payers" (say, advertisers, or web services providers) to support network investments would greatly bolster the business case for deploying new infrastructure, as it would offer the prospect of more attractive returns. And while current network operators would undeniably benefit in such a regime, so too would consumers, who would likely see both greater choice and lower prices.

And despite their current howls at the idea of paying for such services as packet prioritization (what some have referred to as a "fast lane" for data), it is likely that the Internet services community would be the biggest beneficiaries of all, inasmuch as they would be assured of an infrastructure capable of supporting innovation in new high bandwidth Internet-based services.

The First Amendment concerns surrounding "Net Neutrality" are very real. But surely these concerns they can be dealt with – say, though anti-blocking provisions, or through the carve-out of a neutral "basic tier" – without triggering this laundry list of unintended consequences. Indeed, it is my belief that that network operators can feasibly meet the needs of unfettered access to any and all web-based content with by providing a "basic access tier" that provides for a fixed minimum amount of bandwidth (or, alternatively, a fixed percentage of total bandwidth) in which pure neutrality would be maintained, and that the provision of resources over and above that minimum can then be left entirely to market forces.

Once again, I thank you for your kind attention.

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Outperform: Stock will outpace the market index by more than 15 pp in the year ahead.
Market-Perform: Stock will perform in line with the market index to within +/-15 pp in the year ahead.
Underperform: Stock will trail the performance of the market index by more than 15 pp in the year ahead.

• As of 2/24/06, our ratings were distributed as follows: Outperform/Buy - 39.1%; Market-Perform/Hold - 53.4%; Underperform/Sell - 7.5%.

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CMCSA

Date	Rating	Target	Close
10/25/05	O	37.00 USD	27.84 USD
02/15/05	O	40.00 USD	32.36 USD
02/27/04	O	38.00 USD	29.95 USD
07/14/03	O	45.00 USD	32.69 USD
05/29/03	O	40.00 USD	30.40 USD

CVC

Date	Rating	Target	Close
11/01/05	M	29.00 USD	25.41 USD
02/24/05	M	33.00 USD	30.18 USD
01/24/05	M	29.00 USD	28.07 USD
11/24/04	M	25.00 USD	21.72 USD
09/10/04	O	24.00 USD	19.57 USD
08/10/04	M	21.00 USD	16.95 USD
01/27/04	M	28.00 USD	26.20 USD
11/12/03	O	28.00 USD	20.60 USD
07/14/03	O	37.00 USD	22.50 USD
05/29/03	O	33.00 USD	19.58 USD

DISH

Date	Rating	Target	Close
11/09/05	M	29.00 USD	26.00 USD
09/15/05	M	35.00 USD	30.08 USD

04/19/05	O	38.00 USD	29.45 USD
01/13/05	M	38.00 USD	31.97 USD
05/07/04	M	35.00 USD	31.62 USD
02/19/04	M	41.00 USD	36.68 USD
09/23/03	O	46.00 USD	40.40 USD
08/14/03	O	44.00 USD	35.59 USD
07/14/03	M	40.50 USD	37.00 USD
05/29/03	M	33.00 USD	32.22 USD

DTV

Date	Rating	Target	Close
09/15/05	U	14.50 USD	15.14 USD
05/03/05	M	17.50 USD	14.92 USD
01/28/05	M	17.50 USD	15.07 USD
04/16/04	M	19.50 USD	17.29 USD
10/15/03	M	17.50 USD	15.43 USD
07/14/03	M	14.50 USD	13.76 USD
05/29/03	M	12.50 USD	12.18 USD

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EXHIBIT 8

Testimony of Aryeh B. Bourkoff
Wall Street Perspectives on Telecommunications Hearing
Senate Committee on Commerce, Science, and Transportation

Introduction

Good Afternoon. My name is Aryeh Bourkoff and I am a managing director and senior analyst a UBS covering the equity and fixed income debt securities of the cable TV, satellite an entertainment sectors within Media and Telecommunications. I am honored to be here today t present my perspectives on the cable television and telecommunications landscape in front of thi committee.

I will provide a brief overview of the current Pay TV landscape and then discuss investc sentiment and viewpoints of valuation, highlighting key investment considerations.

Industry Background

In the mid-to-late 1990s, the cable industry deployed approximately $90 billion of capital in orde to materially upgrade its network capacity to better position the industry to offer advanced digit video services, interactivity, and other applications. The majority of this investment was finance with internal cash flows and through public market debt financings. The cable industry ha historically enjoyed access to the capital markets given the overall stability and predictability of it financial model.

During this period, the pay-TV marketplace became increasingly competitive. Satellite operator aggressively took market share, driving cable's share down from a peak of roughly 95% in 199 to about 63% today. In fact cable's basic penetration – which we measure as basic subscriber as a percent of homes passed – is now as low as 50% for many of the cable operators.

As a result of the heightened competition for video services, the cable industry is seeking t differentiate its product by offering a robust suite of services to homes passed by its high-capacit network.

Current Environment and Valuation

Today, with the network upgraded and a full suite of service offerings in place, the industry is a the early stages of potentially its most operationally successful period. Nearly 85% of th country's homes will have voice available from the cable operators by the end of this year, wit consumers receiving a bundle of voice, video and high speed data products at lower package prices with the convenience of a single bill.

Evidence suggests that consumers have embraced the bundled product offering. Penetration c voice services has proliferated at a rate above expectations – with operators like Co Communications, Cablevision Systems, and Time Warner Cable reaching approximately 20% penetration of homes in certain markets already. In fact, Cablevision recently reported a full 24% of its subscribers now take the triple play bundle – a figure we expect to grow to nearly 50% b the end of 2007. Other advanced services including high-definition, digital video recorders an video on demand are also growing in popularity.

The cable financial model has evolved from a focus on annual price hikes to drive ARPU (average revenue per subscriber) which sacrificed customer penetration – to one focused o bundled pricing designed to attract customers and boost take rates and unit growth. Capita expenditure requirements are shifting toward variable subscriber acquisition costs rather tha fixed network-related costs – with 70% of capital budgets now devoted to set top boxes and othe consumer devices rather than backhaul and headend infrastructure investments.

Despite these promising prospects, cable-company share prices remain depressed, wit valuations that are at or near historical lows.

Aryeh B. Bourkoff March 14, 200
UBS Investment Research

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Testimony of Aryeh B. Bourkoff
Wall Street Perspectives on Telecommunications Hearing
Senate Committee on Commerce, Science, and Transportation

Topics Impacting Investor Sentiment

In my opinion, there are several key topics affecting investor sentiment towards the sector, and I highlight several of the most prominent here. First is the onset of intensifying video and bundled competition from the telecommunications operators, who are in the process of constructing robust wireline-based fiber networks themselves. Increased competition could result in higher customer acquisition costs and lower pricing in the mature US Pay TV market. Second is the perpetual concern over another capital expenditure upgrade cycle, particularly as higher capacity high definition services begin to fill up the cable network dial. Both of these concerns would depress expectations of future free cash flow which impact valuation.

Lastly, and perhaps most prominent, are the risks associated with disintermediation and regulatory uncertainty. Key issues that we consider in this category include the availability of content over various mediums with direct access to consumers (e.g. Apple's iPod, Google Video, etc.), a la carte cable pricing proposals, the net neutrality debate and the video franchise licensing process. As a result of these concerns, investors who typically make decisions based on fundamental views of valuation and the prospects of the business model are likely to shy away from cable industry investments given the increased risk to the predictability of cable model cash flows.

A heightened level of uncertainty and the diminished predictability will continue to weigh on valuation for the sector. Further, the financial and capital structures for the group could be at risk given an estimated $80+ billion of debt that is currently outstanding and held by investors. This is relevant given that the access to capital in the public debt markets has historically been robust due to the stability of the cable model and the well-understood and defined regulatory environment.

Conclusions and Viewpoint

As the committee reviews issues related to video franchising, I stress the importance of maintaining a level playing field among all operators while allowing consumer preferences to dictate changes to current models. Uncertainty among investors will persist if the rules surrounding obtaining a video franchise fluctuate based on the nature of the new entrants. In my analysis of the sector, I assume that there will be a fully competitive state between cable, satellite, telecommunications, and other providers with all operators given an equitable opportunity to service the customer base. With respect to the buildout requirements for new applicants of video franchises, I draw a comparison to the onset of new cable/telecommunications competition in the United Kingdom during the early 1990s where operators such as Diamond Cable, Videotron, and Telewest were required to meet certain milestones in order to preserve their licenses. Note that these cable providers were new entrants in that market competing with industry incumbents, including British Sky Broadcasting and British Telecom. Failure to build out a defined percentage of homes within the service territory resulted in fines and progress was closely monitored by regulatory bodies.

The consumption of video and other media services over the Internet is developing at a very rapid pace. I believe that it is too early to introduce regulation on key issues such as a la carte packaging and pricing and on net neutrality as the market is still in its early stages. Instead, I feel that at this point it is essential that market forces and consumer demand drive the economic model. Moving to an a la carte pricing structure would have an impact on the predictability of the distribution model as well as impose risks to content providers over the longer-term.

Aryeh B. Bourkoff March 14, 2006
UBS Investment Research

43110.130

Testimony of Aryeh B. Bourkoff
Wall Street Perspectives on Telecommunications Hearing
Senate Committee on Commerce, Science, and Transportation

The broader media and communications sector is perhaps at its most dynamic stage of its evolution as media content is available across multiple platforms under various pricing structures. This introduces investment opportunities as well as risk factors as the market place and business models are altered to meet demands of consumers. We believe that the most important place for regulation in the context of this environment is to ensure a level playing field for new entrants as well as incumbents, recognizing that we are already in a competitive situation, as well as in the close monitoring of potential conflicts that may arise. Further, we believe that there are profound risks of unintended consequences in the event that key fundamental aspects of today's landscape are regulated at such an early stage of development, innovation, and creativity. Changes are occurring at such a frenetic pace that any possible regulation today carries a risk of stunting this innovation if it does not build in enough flexibility for how the sector will look in the coming months and years.

Aryeh B. Bourkoff
UBS Investment Research

March 14, 2006

43110.131

EXHIBIT 9

THE WALL STREET JOURNAL. ONLINE

May 17, 2006

BUSINESS WORLD
By HOLMAN W. JENKINS, JR.

What Congress Is Learning About 'Net Neutrality'

May 17, 2006; Page A19

High schoolers might want to plan now for a career in telecom lobbying. Don't worry. Nothing will be solved by the time you have waded through college and graduate school. Take your time. Oh, and drop a note of thanks to Google, eBay, Amazon, Microsoft, Intel, etc.

These companies are spending millions to tie up Congress in a bogus debate about "net neutrality" at a time when other important telecom work is being left undone. We'll get to the murky goals of the Microgoogle coalition in a minute -- let's start with the intellectual fraudulence of the net neutrality argument.

Verizon and AT&T are the targets, thanks to superfast Internet connections they are just starting to provide to consumers over which to deliver TV in competition with cable and satellite. Being peddled is a kind of IP fetishism -- a claim that any network that uses Internet protocol must operate like the Internet consumers think they're used to today, one undivided pipe between them and the world's Web sites.

Of course, that's not really what consumers are getting today. Your cable operator may sell you one, two or three megabits of capacity for a broadband connection, but most of his pipe is reserved for his TV offerings. Verizon and AT&T have made clear they, too, will reserve a big share of their new pipes for their own value-added services, namely TV, and for other content distributors who are willing to pay for access to it. That's how they hope to recoup their investment.

Yet it's obvious that, even as they roll out their TV services, they will be under competitive pressure to keep giving consumers bigger and bigger pipes for their own Web browsing. How do we know? Because that's what cable is already doing, and because Ed Whitacre and Ivan Seidenberg aren't so dumb as to try to make a business model out of denying consumers Web content at home that they freely get

at work or at the local Starbucks. And, c'mon, there's plenty of time for Congress to act if a real problem materializes.

Don't kid yourself that the issue here is "censoring" the Web. The issue is Internet survival. AT&T talks about the coming Multimedia Explosion as new forms of video traffic rapidly overtake Web-surfing, file transfer and email as the prime users of backbone capacity. Literally, "net neutrality" would result in an increasingly unreliable Internet as more and more high-bandwidth applications contest for space on networks that nobody would have an incentive to expand.

The real issue is where will the big bucks come from to create an Internet capable of handling the services now envisioned, let alone those not yet dreamed up. BellSouth's Chief Architect Henry Kafka told an audience in March that a typical broadband user today consumes about two gigabytes of data a month, at a network cost of $1. Once TV has gone high-definition and on-demand, a typical user will consume about 1,120 gigabytes a month at a cost of $560 (that's in addition to the administrative, sales and service costs that today make up the lion's share of the user's bill). "Clearly that's not what the average user is going to pay per month for their video service," Mr. Kafka said. "That's why we need help."

Think back to the beginnings of radio and TV: Those business models would never have worked if consumers had had to foot the bill directly for programming. It's clear today that giving consumers the kind of Internet that will support high-definition video and gaming will require the bill to be shared by companies with a stake in putting the new services in front of consumers.

Wall Street is already down on AT&T and Verizon, believing they won't be able to earn a competitive rate of return on their broadband investments. Cable, by its nature, is in wholesale violation of the net neutrality deity.

What about wireless operators just rising now to give competition to the broadband incumbents? Next month, a much-awaited federal auction of spectrum rights for wireless data is on tap. Should these investors think twice as well given the threat of predatory regulation promoted by the Microgoogle coalition?

Let's hope David Farber, the highly respected former technology chief of the FCC, spoke for an emerging consensus last week when he told a Washington group: "The thought of Congress legislating without understanding this issue scares me."

Especially dismaying is Microsoft's role here, since no company has been more subjected to regulatory predation around the world. And Intel is a big backer of wireless broadband, so understands better than most the competitive wave about to break over the incumbent broadband suppliers.

As for Google, it has made the transition from insurgent to corpocrat in record time.

Their vision for the Internet is, apparently, as a regulated monopoly, like the old phone system. Doubtless one motive is fear of their own unregulated rivalry, which they'd like to put some curbs on. Microsoft, Google, Yahoo, etc. all have deep pockets and rightly worry that their own battle for supremacy would drive them to shift billions to AT&T and Verizon in a race to put their own multimedia offerings in front of consumers. Their strong positions today can't disguise the risks and uncertainties to their business models that the new superbroadband investments portend.

Here's another telltale: All these companies have been loading up on Washington lobbyists lately. Lobbyists keep themselves employed by seeking regulatory leverage over a company's competitive environment, and in "net neutrality" they found a slogan proven to stir up the useful idiots of the "public interest" sector. What for, exactly? Who cares. Let's get AT&T and Verizon by the short hairs now and we'll decide later.

Meanwhile, the U.S. may lag the world in broadband, but it's always happy days for telecom lobbyists.

ABOUT THE AUTHOR

Holman W. Jenkins Jr. is a member of the editorial board of The Wall Street Journal and writes editorials and the weekly Business World column.
Mr. Jenkins joined the Journal in May 1992 as a writer for the editorial page in New York. In February 1994, he moved to Hong Kong as editor of The Asian Wall Street Journal's editorial page. He returned to the domestic Journal in December 1995 as a member of the paper's editorial board and was based in San Francisco. In April 1997, he returned to the Journal's New York office. Mr. Jenkins won a 1997 Gerald Loeb Award for distinguished business and financial coverage.Born in Philadelphia, Mr. Jenkins received a bachelor's degree from Hobart and William Smith Colleges in Geneva, N.Y. He received a master's degree in journalism from Northwestern University in Evanston, Ill., and studied at the University of Michigan on a journalism fellowship.

Mr. Jenkins invites comments to holman.jenkins@wsj.com

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EXHIBIT 10

Forbes.com

Fact and Comment

Nettlesome Idea

Steve Forbes 06.05.06, 12:00 AM ET

Nettlesome Idea

Beware, investors, of an idea called "net neutrality." if it becomes law, you will be hurt--because the economy will be hurt.

Net neutrality's seemingly benign, superficial appeal is that Internet network providers would have to give equal treatment to all traffic on their networks, with no transmissions getting preference over others.

The major U.S. telecom firms, such as Verizon and AT&T, are pouring billions of dollars into building extensive fiber-optic networks. Among other things, they are beginning to provide television programming to compete with cable companies, which, in turn, are going into the telephone business. The telecoms also want to offer new services with which providers, for a fee, could have certain kinds of traffic move faster than others. It would be similar to sending a letter via FedEx versus traditional mail. You pay a premium to FedEx for speed and reliability. But net neutrality regulations would bar this kind of tiering.

Why are outfits like Google pushing the U.S. Congress and the Federal Communications Commission to bar such practices? Because they fear that Verizon et al. could discriminate against them by arbitrarily charging them higher prices or by not offering them on their networks.

Networkers shouldn't be permitted to discriminate against particular Web sites or services, but they should otherwise be free to do as they see fit. Only in this way will the necessary investments be made to bring us out of our high-tech Stone Age.

Net neutrality would discourage the kind of investments Verizon and others are making. It would be equivalent to the disastrous 1996 Telecommunications Act, which forced the telecoms to provide access to competitors at below-market prices, a critical reason that we haven't developed broadband the way numerous other countries, such as South Korea and Japan, have. Experts say we are technologically years behind. Net neutrality would require voluminous regulations to ensure that all traffic is priced the same.

Even today there's not true net neutrality. People and companies have developed elaborate firewalls and filters to combat viruses. Individuals pay premiums to get DSL.

Net neutrality would be a net disaster.

Gag Rules and Silly Regs Harm Investors

Warren Buffett and a number of other investors vigor-ously oppose management "guidance" concerning quarterly earnings. Corporate executives give a range to analysts of what to expect--say, 15 cents to 18 cents a share and a fiscal year forecast of 75 cents to 80 cents. The Buffetts of the world believe these company earnings forecasts accentuate a short-term focus. Some in Congress want the government to ban quarterly-earnings guidance altogether.

The sentiment is noble--but misguided. Sure, a company that misses the earnings range it gave investors may have its stock hit hard, but if its long-term fundamentals are sound, the price will move up again. Managers should be encouraged to provide information instead of withholding it in the name of a "long-term perspective." All too often the CEOs who don't provide guidance are those whose companies are heading into troubled waters. Whatever the case, the decision on earnings forecasts should be left to management, not to Washington politicians or regulators.

Last year the National Association of Securities Dealers actually fined a stock analyst $75,000 for repeating a rumor that a particular company was going to have trouble from its largest customer. The rumor wasn't true, but the analyst made money because he had shorted the stock.

Again, the motives were virtuous, but the actions were wrong. The analyst did not cover the company in question, nor did he originate or make up the rumor. This disciplinary action will only hurt the spread of information and provide fodder for rapacious

trial lawyers. Having an open-information atmosphere is a positive, not a negative. The markets will eventually judge whether the information is accurate or not.

Washington's been going in for an orgy of regulation in the wake of the high-tech bubble's bursting and the corporate scandals of the early part of this decade. Some of it is useful, but much of it has been destructive. The Sarbanes-Oxley Act has imposed enormous costs on businesses, particularly small ones, yet these paperwork burdens have not prevented corporate fraud. (And this bureaucratic delight didn't ban corporate executives from lucratively backdating stock options, thereby generating huge gains with virtually no risk.) Those intent on wrongdoing will easily find ways around paper barriers. In a free market this wrongdoing will eventually be found out. The best deterrent is what has already happened--stiff sentences for the guilty. No one wants to emulate Bernie Ebbers, disgraced former chief of WorldCom, who was sentenced to 25 years in the slammer.

Happy Capitalist Warrior

Louis Rukeyser, who died in may at age 73, not only invented TV financial journalism with his show *Wall Street Week* but also achieved audience levels that are still envied today. Why this extraordinary success for more than three decades?

- Rukeyser's bedrock belief in U.S.-style entrepreneurial capitalism.
- His disdain for pessimistic, Chicken Little-like punditry--beloved by so much of the mainstream media--was in synch with the basic optimism of most Americans.
- His belief that the typical individual could make a profit in the market by getting good advice and sticking to basic commonsense rules.
- His role as the individual investor's champion. He was on our side. He worked hard to make complex ideas accessible and understandable. His cheerful-Olympian approach never descended into condescension. Guests could elaborate beyond sound bites, but they had to be crystal clear in making their points so that every viewer could understand what they were getting at. While respectful and gracious, Lou never took experts *too* seriously. He also avoided getting caught up in fads and emotions.
- His obvious enjoyment of life was immensely appealing.

A true professional, Louis Rukeyser made finance and investing--and doing the show--look easy. He even fooled Maryland Public Television, whence his show originated each week from 1970 to 2002. When the station decided Rukeyser's time had passed and tried to phase him out, he challenged them on it on the air and was promptly fired. *Fortune* magazine took over the show. Result: Ratings plummeted, and last year the show was canceled. Rukeyser, however, was thriving again with his new show on CNBC--until his battle with cancer forced him off the air.

The man's energies were prodigious, and his ability to work under pressure never ceased to amaze me. I was privileged to appear on his show a handful of times. Often on the road, he would arrive at the studio from the airport shortly before the show was to broadcast. He'd go into a room and write out his introductory commentary. His stuff was always fresh, funny and insightful. How he came up with such wonderful material with such unmerciful deedlines staring him right in the face is a marvel.

Lou also defied the conventional wisdom about speaking to live audiences. His lectures were often up to two hours in length. Most speakers lose people if they go beyond 20 to 30 minutes. Yet Rukeyser would both educate you and hold your interest.

We will miss Lou Rukeyser, especially now when the U.S. and global economies are going gangbusters and the media is saturated with downbeat assessments. One yearns for Rukeyser's urbane way of puncturing such unsubstantiated, pretentious pessimism.

Mystery Man

Sunstroke--by Jesse Kellerman (G.P. Putnam's Sons, $24.95). Impressive debut catapulting playwright-turned-novelist Kellerman into the first rank of mystery/suspense writers. The dialogue crackles, and the plot briskly and plausibly moves ahead. Places, characters and emotions are superbly evoked. The theme of this tale is en ancient one: We think we know someone well, but it turns out we don't at all.

In this case Gloria Mendez, a 36-year-old secretary, has worked for years for Carl Perreira, owner of a novelty toy company. Gloria has fantasized about marrying Carl, but even though they've worked closely together, he's never made any romantic moves. The story revolves around Carl's disappearance in Mexico. A determined Gloria painstakingly finds out where he might have had an accident and goes to search for him--or at least to locate and claim his body.

Startling discoveries and violence ensue. The dusty, depressed town where Carl apparently died and its unsavory police chief

are brought to life particularly vividly.

This is a page-turner whodunit with an impressive dose of Dostoyevsky.

RESTAURANTS: GO, CONSIDER, STOP

Reviews of noted New York City restaurants by various Forbes eatery experts.

● **Philippe**–33 East 60th St. (Tel.: 212-644-8885). The entrance to this new and supertrendy establishment is crowded and noisy, but once you're inside the dining room all is a sea of calm. The Chinese cuisine here is some of the most delicious in the city. Particularly memorable: exquisite and unusual jade dumplings, great Singapore noodles, divine filet mignon and delectable Peking duck. Desserts are yummy. One caveat: It is very expensive.

● **La Focaccia**–51 Bank Street, at West 4th St. (Tel.: 212-675-3754). A delightful place for anyone wanting some old-fashioned Greenwich Village ambience. The food is satisfying and tasty, and be sure to try the mushroom polenta.

● **Roberto Passon**–741 Ninth Ave., at 50th St. (Tel.: 212-582-5599). This is a charming spot at which to eat absolutely first-rate Italian fare before or after the theater. The fried calamari, grilled branzino and red beet salad are outstanding, and the pastas are scrumptious.

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EXHIBIT 11

The Washington Post

The Eden Illusion

Monday, March 13, 2006; Page A14

BACK IN 1984, AT&T Inc. was judged to be a competition-squelching monopoly. It was hanged, drawn and cut into eight pieces. Now, with a planned merger between AT&T and BellSouth Corp., the old monopolist is set to reemerge as the world's biggest telecommunications company, uniting four of the regional phone companies created by the breakup. The reaction to this merger shows how things can change. Cell phones and Internet telephony have created competition aplenty for traditional land lines, and there's no reason to object to the consolidation of BellSouth's customer base in the Southeast with AT&T's customer base in the West, Southwest and Midwest. To the extent that the proposed merger will generate regulatory questions, these hinge on an issue that didn't exist 22 years ago.

That issue is "net neutrality," the principle that cable and phone companies, which own the plumbing that connects you to the Internet, should make all Web sites equally accessible. The plumbers want the right to deliver some Web services -- Amazon.com Inc.'s bookstore or Yahoo Inc.'s search engine -- faster than others, and to charge Amazon or Yahoo for that privilege. Not surprisingly, Internet companies don't want to fork over money to the cable and phone guys. To discredit the plumbers' pay-to-play idea, they invoke the original vision of cyberspace: a democratic utopia in which surfers choose freely among a zillion sites, with humble hobbyists and multimillion-dollar firms competing for eyeballs on a level playing field. (The Washington Post Co. owns both cable and Web sites and so has commercial interests on both sides of this issue.)

Leave aside the irony that corporations such as Google Inc. are invoking the anti-corporate spirit of the Internet's founders. The vision of a neutral net has an intuitive appeal; if anyone anywhere can post opinions or sell T-shirts, choice, diversity and competition will flourish. But it would nonetheless be a mistake to force AT&T to promise net neutrality as a condition of its merger. Equally, legislative proposals to enforce net neutrality, including one introduced this month by Sen. Ron Wyden (D-Ore.), should remain just that: proposals.

The proponents of net neutrality exaggerate the purity of cyberspace. Big names on the Web already have a huge advantage over no-brand competitors: Surfers go to places that they trust, particularly to make credit-card purchases. Moreover, once you have an advantage on the Web, it becomes self-reinforcing: If your site is popular and many others link to it, search engines such as Google will direct more traffic your way. Corporations already strive mightily to make your Internet experience non-neutral. From the early days of the World Wide Web, America Online Inc. tried to keep customers

within its own virtual "walled garden" of services. More recently, Google has elbowed out competitors by offering toolbars and other freebies that keep its friendly search box perpetually on computer screens. Meanwhile, big e-tailers have accelerated their service by paying to "cache" their Web pages on computers close to customers. So if cable and phone companies start delivering some Web content at premium speeds, they will be adding to an existing trend, not sullying Eden.

The proponents of net neutrality also understate the costs of regulation. If cable and phone companies are not allowed to charge Internet firms for fast delivery, they will be deprived of one source of profits. This will make it harder to raise capital to build the next generation of superfast Internet pipes, capable of delivering high-quality video. Moreover, any definition of net neutrality is likely to be contested in the courts, and legal uncertainty will further deter investment. As a result, net neutrality could end up meaning that all Web services get delivered at a similar but relatively slow rate.

If the cable and phone companies start blocking out chunks of the Web's content, there will be opportunities for Congress to weigh in. But it's hard to see how these firms can expect to win extra subscribers by doing that.

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EXHIBIT 12

NEWS.COM http://www.news.com/

Watch out we don't neuter the Net

By Randolph J. May
http://news.com.com/Watch+out+we+dont+neuter+the+Net/2010-1028_3-6079016.html

Story last modified Fri Jun 02 04:50:06 PDT 2006

The war raging over so-called Net neutrality has jumped from inside the Beltway to the nation's mass media, if not its consciousness.

Not surprisingly, the Internet--especially the blogosphere--is full of discussions on the fracas. Google the term "Net neutrality" and you'll get something on the order of 21 million entries. Include "blog" in the search request and nearly 6 million entries come back.

With all this back and forth, it's too bad so much of the discourse is uninformed and misleading. As I have explained here before, imposing broad regulatory mandates on broadband Internet service providers as urged by the Net neutrality advocates is a bad idea that will ultimately harm consumers. Rendering broadband providers perfectly neutral by dictating that they be nothing more than dumb pipes, unable to treat any applications or content that use their network facilities in any way differently, would, in fact, neuter the Net.

Take away the freedom to differentiate and the basis for effective competition is undermined.

The nub of the issue is not that complicated. Let me explain.

Broadband Internet access is not currently subject to the type of public utility regulation which, for most of the 20th century, characterized the old Ma Bell and its offspring. Because telephone companies were classified as traditional common carriers, their rates and terms of service were regulated by the Federal Communications Commission. This was appropriate in a narrowband era when the telephone service providers faced minimal or no competition.

But the Internet access marketplace in the broadband era is much different. It's been four years since the FCC determined that the broadband market is sufficiently competitive that it should not be subject to public utility-style regulatory mandates. That's why it is misleading for Net neutrality proponents to sloganeer that neutrality mandates need to be imposed to "save the Internet as we know it." Presently, absent such regulatory intervention, the number and variety of services and applications available on the Net grow exponentially each week.

Indeed, although overlooked by most observers, a full decade ago in the Telecommunications Act of 1996, Congress explicitly stated: "It is the policy of the United States to preserve the vibrant and competitive free market that presently exists for the Internet and other interactive computer services, unfettered by federal or state regulation."

Without doubt, the broadband Internet access market is even more competitive today than when the FCC and Congress issued these pronouncements. Granted, the market may not replicate the classical model of perfect competition--say, the wheat market taught in Economics 101 texts. Few markets do, and certainly no "network" industry requiring huge infrastructure investments running in the billions of dollars ever will. Today, the cable and telephone companies still have dominant market positions. But wireless and satellite companies continue to become stronger competitors. And large electric power companies

Got views on Vista?
News.com wants you to join a panel of readers who we'll tap regularly for opinions as Microsoft's OS nears release. Interested?

lurk on the sidelines exerting competitive pressure, already testing delivery of broadband over powerlines.

In this increasingly competitive and technological dynamic marketplace, pleas from Net giants like Google, Yahoo and Microsoft for imposition of strict nondiscrimination obligations and rate regulation of facilities owners are particularly misplaced. Most of the proposals purport to prohibit any network operator from taking any action to "block, impair or degrade" consumers from reaching any lawful Web site. Yet there are no instances today in which consumers are complaining about being blocked from accessing a Web site, and it is difficult to imagine any service provider blocking access to a lawful site. The marketplace reaction likely would be swift and adverse.

As for the "impairing" and "degrading" strictures, there are two very important problems with prohibitions cast this way. First, there will be years of costly litigation over the meaning of these inherently plastic terms as myriad claims of alleged violations are adjudicated and readjudicated as services are rejiggered to try to pass regulatory muster. Second, and more fundamentally, the notion that network facilities owners must treat all applications and content providers alike--that is, neutrally--is at odds with the way we want a competitive marketplace to function. It is through the trial-and-error process of differentiation in the marketplace that new products and services valued by consumers are developed. Take away the freedom to differentiate and the basis for effective competition is undermined.

Strict Net neutrality mandates also mean ordinary Internet users must pay equally for the increased investment required to support some very resource-intensive activities, such as downloading movies or gaming. In effect, this is akin to imposing a retrogressive tax on those less resource-intensive consumers to subsidize sites, such as Google and Yahoo, which are responsible for generating the increased investment necessary to support high-traffic, high-capacity applications.

At bottom, in a world of mandated neutrality, the uncertainty and expense of ongoing litigation, coupled with the inability of network operators to enter into business arrangements that enhance demand by differentiating their offerings, will stifle innovation and investment. The Net will be neutered at the same time it is rendered neutral.

In that vein, henceforth, I suggest use of the term "Net Neut"* in the ongoing debate. That way, at least, the superficial appeal of the "neutrality" label will not be hijacked in the service of imposing a new regulatory regime likely to stall continued development of the Internet for years to come.

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EXHIBIT 13

WANT MORE APPETIZIN
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National Journal's INSIDER UPDATE: THE TELECOM ACT

Friday, June 09, 2006

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Background Info

Technology Daily

Dueling Network Buzzwords: 'Neutrality' Versus 'Diversity'

By David Hatch

(Monday, February 6) Opponents of "network neutrality" introduced a new phrase into the telecommunications lexicon: "network diversity."

Under the concept of network neutrality, telecom and cable companies could not block or impede content from competitors over high-speed Internet networks. Amazon.com, eBay, Google, Microsoft, Yahoo and other Internet players have been lobbying Congress for strong neutrality safeguards. But on the eve of a Senate Commerce Committee hearing on the issue, the cable industry promoted network diversity, a notion that relies on market forces.

"To me, network neutrality at this point is premature," Vanderbilt University law professor and visiting University of Pennsylvania professor **Christopher Yoo** said at a press briefing.

Yoo is the author of a new cable-funded report, "Promoting Broadband Through Network Diversity." The National Cable and Telecommunications Association sponsored the report because Yoo has been a frequent critic of net neutrality.

During the briefing, Yoo argued that operators of broadband networks should be allowed to "experiment" with varying network architectures. If the government does not interfere, he said, some broadband operators might choose net neutrality and others might offer "walled gardens" with proprietary content.

Rather than being a troubling development, he said, exclusive content deals would "differentiate" high-speed networks and spur competition.

With today's bandwidth-hungry Internet applications, such as telephony and video streaming, a quarter-second interruption can hurt the "commercial viability" of services, Yoo said. Under network diversity, broadband operators could manage Internet traffic to ensure that demanding operations receive priority treatment.

The FCC could respond to any harms to competitors, he explained, insisting that it is unfair to restrict network operators based on hypothetical problems.

Until now, the cable industry has been less visible on the issue than three

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dominant Bell telecom firms, AT&T, BellSouth and Verizon Communications. Those companies have challenged Internet players and watchdogs over the definition of net neutrality in a planned House Energy and Commerce Committee bill.

The Bell companies said they support net neutrality but want it defined to let them offer premium tiers of broadband service favoring their content.

Consumer advocates, however, argue that the freedoms associated with the Internet are at stake if communications giants prevail.

Gigi Sohn, president and co-founder of Public Knowledge, warned Monday that broadband operators are trying to model themselves after dominant cable providers. She spoke at a briefing held to announce the release of a pro-net neutrality report, "Good Fences Make Bad Broadband."

Meanwhile, **Mark Cooper**, research director for the Consumer Federation of America, said watchdog groups have no problem with broadband operators offering premium tiers under certain conditions. The tiers are fine as long as they are open to all content providers.

In addition, he said broadband providers should not be permitted to charge companies to access the tiers because that could harm "the next Google" if it cannot afford the fee. Some Bells maintain that they should be able to charge such fees because they invested in deploying high-speed pipes.

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EXHIBIT 14

Reed Business Information.

Multichannel NEWS 25 ANNIVERSARY

VOLUME 26 • NUMBER 41 • OCTOBER 3, 2005 multichannel.com

OPINION

PLAYBACK

How I Started a Network —Without Comcast

BY C. MICHAEL COOLEY

It has been said of late that if a network doesn't secure Comcast Corp., the nation's largest MSO, then it will have a tough time even getting a foot in the door to start talks with the remaining cable providers.

Perhaps these folks haven't considered The Sportsman Channel (TSC) and how we had already secured the remaining cable operators: Time Warner Cable, Charter Communications Inc., Adelphia Communications Corp., Cox Communications Inc. and 14 other of the top 25 MSOs, all without the security or assistance of having Comcast. We are living proof that channels can survive without Comcast, contrary to the belief of many. TSC has been around for over two years and our channel, which is dedicated exclusively to hunting and fishing programming, is not just surviving, but flourishing.

Other start-up networks tend to have the approach of "if you have Comcast, they will come." Securing carriage is the key, but there is a formula: Provide a superior quality channel with lower subscriber fees that draws subscribers. Our team focuses on quality customer service and first-class marketing tactics to our affiliates, for an "if you can prove yourself, they will come" approach.

Another successful method for an independent channel employed at TSC was setting the launch date and keeping it.

The date never moved, even though we didn't have any agreements signed when the champagne popped on April 7. Our team approached the launch with 100% confidence in our product.

It certainly didn't take long after we drank the champagne for us to secure our first contracts with the National Cable Television Cooperative. This gained the attention of MSOs in the top 10 — and eventually deals were struck in 2004.

We just recently completed our agreement with Comcast, which makes them the last of the top five MSOs to come on board, not the first. This proves that we didn't need a deal with them to validate our channel or secure distribution with other MSOs.

Some pessimists believe Comcast only launches channels if it is financially involved. TSC is an independent, and Comcast is, after all, still a business. It will launch channels that it believes will keep it competitive and increase subscriber counts.

No one knows better than me that starting a new channel in this market is a daunting and difficult task. But it can be done, and I am not sure if holding Comcast responsible is entirely the reason for the high level of complexity we experience as channel presidents.

That's especially true since there are 70 million other cable subscribers, plus another 25 million DBS subscribers out there.

Just because you are unable to be first to reel in a big fish doesn't mean the ocean won't provide you with a worthy catch. ■

C. Michael Cooley is president and CEO of The Sportsman Channel.

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STATEMENT OF MARK COOPER
SUBMITTED FOR THE RECORD

ON BEHALF OF

CONSUMER FEDERATION OF AMERICA,
CONSUMERS UNION, FREE PRESS AND PUBLIC KNOWLEDGE

ON

NETWORK NEUTRALITY AND MUNICIPAL BROADBAND

TO THE

JUDICIARY COMMITTEE, U.S. SENATE

JUNE 13, 2006

Dear Chairman Specter, Ranking Member Leahy,
and Members of the Committee,

The involvement of the Judiciary Committee in revision of the Telecommunications Act is an important and vital addition to the growing national debate over the future of the Internet economy, broadband services, and network neutrality. As the Senate seeks to reform and amend the Telecommunications Act of 1996, it is vital to note that there are two important areas where the consumer protection and pro-competitive policies of the 1996 Act went astray that lie squarely within the expertise and authority of the Judiciary Committee. The first is the decision of the Federal Communications Commission to abandon the principle of network neutrality for broadband communications networks. The second is the court decision in Nixon v. Missouri, which allows state governments to erect barriers to entry undermining competition for broadband networks.

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Restoring network neutrality and preserving the opportunity for municipalities to deploy broadband networks are pro-consumer, pro-competitive measures, consistent with the intention of the Telecommunications act of 1996 and directly within the authority and expertise of the judiciary committee.

As the Committee well knows, antitrust action was center stage in shaping the contemporary telecommunications industry and it should remain so. The increasing market power and the record of anti-competitive practices of the telephone and cable industries that own and control broadband networks should likewise be the central focus of policies favoring network neutrality. Unfortunately, those critical issues have largely been obscured in the current debate over restoration of the nondiscrimination rules for broadband networks that were eliminated just last year by the Federal Communications Commission.

ANTITRUST BACKGROUND ON NETWORK NEUTRALITY

History, law and economic analysis support an antitrust-based ban on discrimination in interconnection and carriage for broadband networks.

The obligation of nondiscriminatory interconnection and carriage in the telecommunications industry goes back almost a century and has been codified under the Communications Act. In fact, the obligation of nondiscrimination in access to the means of transportation and communications stretches back through the founding of the Republic to the English common law that many of the nation's settlers brought with them to America.

However, this principle also has a basis in the most significant antitrust action taken under the Sherman Act to alter the shape of the communications industry. The decisive action of the federal courts applying antitrust law in breaking up the national telecommunications monopoly and the simultaneous imposition of conditions of nondiscriminatory access to the local telephone exchange market were vital in promoting the competition enjoyed in parts of the communications and information sectors today.

Those conditions – codified in the Telecommunications Act of 1996 – have been responsible for the miraculous growth of the Internet

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economy and were, until recently, applied to the broadband network of the future. However, the 2005 decision of the Federal Communications Commission (FCC) to abandon these conditions and the principle of network neutrality for broadband harms consumers and threatens the innovations driven by the open platform of the Internet. The 1996 Act did not contemplate the elimination of these vital conditions and, in fact, contemplated their continuation and extension to local exchange markets in order to develop vibrant competition in telecommunications services. In order to promote competition, protect consumers, and ensure market driven innovation, the House and Senate Judiciary Committees must act swiftly to restore network neutrality to the nation's communications sector.

January 24, 2006 marked the 50th anniversary of the Final Judgment in *U.S. v. Western Electric Company, Inc. and American Telephone and Telegraph Company Inc.* About two weeks later, we marked the 10th anniversary of the Telecommunications Act of 1996. Those two landmark events in the history of the American telecommunications industry are linked together by the 1982 Modification of Final Judgment (MFJ) in the AT&T case. The 1996 Act adopted the essence of the MFJ and preserved the involvement of the Department of Justice in oversight of the key competitive aspects of the law.

Title I of the MFJ broke AT&T up into local and long distance companies, a classic antitrust remedy. Title II forbade the newly divested Bell Operating Companies (BOCs) from providing "interexchange telecommunications service or information services," thereby fencing off the potentially competitive interexchange and information service sectors from the market power in the local exchange market.

Title II of the MFJ also imposed obligations of nondiscriminatory interconnection and access on the BOCs:

Subject to Appendix B, each BOC shall provide to all interexchange carriers and information service providers exchange access, information access, and exchange services for such access on an unbundled, tariff basis, that is equal in type, quality, and price to that provided to AT&T and its affiliates.
No BOC shall discriminate between AT&T and its affiliates and their products and services or other persons and their products and services in the:

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1. Procurement of products and services
2. Establishment and dissemination of technical information and procurement and interconnection standards;
3. Interconnection and use of the BOC's telecommunications services and facilities or in the charges for each element of service; and
4. Provision of new services and the planning for and implementation of the construction or modification of facilities, used to provide exchange access and information access.

The federal courts, applying antitrust law and reviewing an antitrust consent decree, imposed this strong mixture of antitrust structural separations and communications-like regulation as part of its remedy for good reason: communications infrastructure is the bloodstream of the information economy. The local exchange network, in today's parlance — the last mile and the central offices to which they are connected — was and is the essential bottleneck facility at the heart of this infrastructure.

Over the years of its jurisdiction, the federal court overseeing this antitrust case lifted the prohibition on provision of information services and issued a number of other waivers to the bar on provision of service. But it never lifted the obligation of nondiscrimination in interconnection and exchange access that is equal in type, quality, and price.

When the Congress passed the Telecommunications Act of 1996, it provided a mechanism for lifting the structural separation between local and long distance service, but there was no intention, implicit or otherwise, to abandon this fundamental principle of nondiscrimination. Indeed, Congress actually moved in the opposite direction, extending the principle of nondiscriminatory access to unbundled network elements within the local exchange in the hope of stimulating local competition.

Through a convoluted and litigious course of misinterpretation of clear Congressional language, the Federal Communications Commission has attempted to repeal the principle of nondiscrimination. It refused to extend the obligation of interconnection and equal access to the telecommunications services offered by cable operators. That interpretation was rejected twice by federal courts of appeals. When the issue arrived at the Supreme Court after five years of litigation, the

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Justices reversed the lower court, not on the basis of sound public policy, but rather in deference to agency discretion.

In other words, one of the most vital principles of antitrust and communications policy was reversed through the back door. The FCC quickly moved to extend this misinterpretation to the telephone companies by removing the obligation of nondiscriminatory interconnection and access from the telephone companies' broadband networks.

The abandonment of such a fundamental principle of the MFJ and communications law without Congressional action has become the subject of intense debate over the significance of a guarantee of "network neutrality" to ensure the future growth of the Internet. Given this background, the examination of this issue by the Judiciary Committee is not only appropriate, but also critically important.

Industry Structure, Competition and the Public Interest

More than the legal history and the antitrust laws counsel for a close look at this issue by the Judiciary Committee. The key arguments offered by those advocating abandonment of this principle are essentially claims about the extent of competition in the exchange access market and the incentives of an entity that is vertically integrated across markets with radically different levels of competition. In essence, these are the very same issues that were in play when the federal court imposed the conditions under the antitrust laws a quarter of a century ago.

In economics, an expression to describe competition in markets is, "four is few, six is many." When there are fewer than the equivalent of roughly six, equal competitors, a market is considered highly concentrated because economic theory, empirical evidence, and a century of practical experience show that markets that are this concentrated do not perform well. In highly concentrated markets, prices are set above costs and innovation declines. With so few competitors, it is easy to avoid vigorous, head-to-head competition, especially when each uses a different technology, specializes in a different service, or concentrates on a different geographic area or user sector.

This concern is heightened for communications facilities, which have characteristics of public goods and economies of scale (as

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well as other barriers to entry). This means that the number of competitors is likely to be very small. These facilities are also considered infrastructure, which means these industries support a wide range of activities, and the external benefits they generate are large, indirect, and diffuse. There are many complementary activities and vertical linkages to other sectors in the economy. Communications is a network that exhibits strong network economies. In contemporary terminology, they are called platforms. In short, competition at the core of these industries is very feeble, but their influence stretches far and wide. The risk of the abuse of market power is substantial and the harm it may cause is profound.

Public policy must carefully assess where competition can be sufficient to provide the dynamic benefits that we expect from it, and where it will not be sufficient to protect the public and promote dynamic innovation. This is precisely what the Court did 24 years ago. This is the balance that the FCC failed to preserve in its 2005 decision to eliminate the obligation of nondiscrimination in broadband.

The fact that the network operators are vertically integrated and seeking the right to discriminate poses a special concern for competition in the complementary markets — Internet services, applications and content — that rely on the network to reach the consumer. The potential to leverage market power in last-mile facilities to favor affiliates and advantage partners at the expense of competitors is very real. Of course, that was the core of the case against AT&T.

More importantly, the Baby Bells seem to have inherited their mother's tendency and inclination to leverage their market power to prevent competition and extend their reach. During the decade of failure to create competition in the local market, they consistently sought to undermine entry of local competitors. As a result, they were fined billions for failing to treat competitors fairly. In broadband, given their ability to discriminate and exclude access to the last mile, network owners have a strong incentive to raise costs for competing service providers and tie more competitive services to less competitive offerings. If the obligation of nondiscrimination is lifted, the behavior will only get worse, but the fines to police the behavior will no longer be available.

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THE PERSISTENT PROBLEM OF MARKET POWER IN NETWORK FACILITIES

In the emerging, converging world of 21st century communications, prospects for vigorous competition in the local segment of the industry are not good. At present, there are only two local, last mile communications networks that can provide a fully functional broadband network to the residential consumer – the incumbent local telephone companies and the incumbent cable operators. Two is not a sufficient number to ensure vigorous competition, and both sets of incumbents have a troubling record of anticompetitive, anti-consumer behavior.

The best hopes for a third, last mile alternative were undercut when regulators allowed the most likely candidate – wireless – to be captured by dominant wireline firms through ownership or joint ventures. It stretches credible expectation to assume that a wireless provider owned by an incumbent Bell company, or in partnership with a cable giant, will market a wireless broadband product that directly competes with its wired product. They will offer premium, supplementary services to be sure, but it will not be a true third broadband competitor. Hope and hype surrounding other technologies cannot discipline anticompetitive and anti-consumer behavior where no real alternatives exist. Mergers such as that proposed by AT&T and BellSouth will only make matters worse. No company with sufficient market power to set monopoly rents will fail to do so absent proper public policy protections. On the current trajectory, consumers are falling into the grip of a "cozy duopoly" of cable and telephone giants that will abuse its market power, abandon its social responsibility and retard the development of our 21st century information economy.

The danger of relying on a "cozy duopoly" is already apparent. The harm has already been done, and its impact is severe. America has fallen behind in the global race to the broadband future, not because there is inadequate incentive to invest or because we are less densely populated than other nations, but because there is inadequate competition to push the "cozy duopoly" to deploy attractively priced services and unleash the Internet economy to develop consumer-friendly services.

If future prospects are determined by our success in the broadband market (which few analysts deny), our current position is untenable. We are now 16th in the world in broadband penetration. Virtually none of our broadband lines can sustain

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even 1 megabit per second of speed in both directions – up and down the network. We pay $15- $20 per megabit for download speed – 20 times more than the global leaders. The current jostling to attract upscale consumers with big bundles of services leaves the majority of Americans behind. On a per megabit basis Americans pay five to twenty times as much for high-speed services as consumers in many other nations. Is there any doubt that the primary cause of the broadband digital divide is price? Now, after leaving the American consumer in a serious predicament, the network giants are insisting on the right to discriminate against content, applications, and services on the Internet, as blackmail for building broadband networks.

REINSTITUTING THE PRINCIPLES OF THE MODIFIED FINAL JUDGMENT

The evidence overwhelmingly supports the proposition that the court got it right in the MFJ and that Congress never contemplated that a principle as vital as network neutrality would be abandoned through an administrative back door that rest on agency discretion, not a proper evaluation of the public policy merits.

The Judiciary Committee should restore the balance the federal antitrust laws by adopting language along the following lines.

SEC. 28. (a) It shall be unlawful for any broadband network provider–

(1) to fail to provide its broadband network services on reasonable and nondiscriminatory terms and conditions such that any person can offer or provide content, applications, or services to or over the network in a manner that is at least equal to the manner in which the provider or its affiliates offer content, applications, and services, free of any surcharge on the basis of the content, application, or service;

(2) to refuse to interconnect its facilities with the facilities of another provider of broadband network services on reasonable and nondiscriminatory terms or conditions;

(3)(A) to block, to impair, to discriminate against, or to interfere with the ability of any person to use a broadband network service to access, to use, to send, to receive, or to offer lawful content, applications or services over the Internet; or

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(B) to impose an additional charge to avoid any conduct that is prohibited by this subsection;

(4) to prohibit a user from attaching or using a device on the provider's network that does not physically damage or materially degrade other users' utilization of the network; or

(5) to fail to clearly and conspicuously disclose to users, in plain language, accurate information concerning any terms, conditions, or limitations on the broadband network service.

The direct link between the MFJ language and this legislative proposal is clear. The MFJ made it illegal to discriminate in interconnection and access. That was the correct policy a quarter of a century ago. It is the correct policy today. It exercises the traditional function of antitrust policy to promote competition, where feasible, as the best form of consumer protection. And in this case, it will also guarantee the free flow of ideas, applications and services that has characterized the dynamic Internet economy.

The explicit dual jurisdiction – antitrust and communications law – that applies to the communications industry, and has applied for almost a century, reflects the nature of the industry. It is not vigorously competitive, nor is it likely to become so, and there are numerous complementary activities that are touched by the network. The original AT&T antitrust case served the purpose of fencing off the market power in the core of the network from the potentially competitive sectors that build upon it. The vigorous competition in interexchange and information is testimony to the wisdom of network neutrality. The court did not eliminate the need for regulation of the network functions, but it drew an important line where regulation should stop. Congress preserved that line in the 1996 Act. The FCC has incorrectly erased it. The House and Senate Judiciary Committees can and should restore the balance.

MUNICIPAL BROADBAND

The paucity of competition for broadband access and the increasingly dim prospects for facilities-based entry described above underscore the importance of keeping the opportunity open for municipalities to deploy such networks. The language in the statute in Section 253, which was captioned "Removal of Barriers to Entry," was clear as can be:

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"No state or local statute or regulation, or other state or local legal requirement, may prohibit or have the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service." Although it seems obvious that municipalities are an entity that fits under the word "any" the courts found otherwise, which opened the door to legislation in over a dozen states that forecloses the opportunity for municipalities to deploy communications networks that will provide broadband services.
The report language states that "explicit prohibitions on entry by a utility into telecommunications are preempted under this section." This language on eliminating barriers to entry was taken from the Senate bill, as such a provision was absent in the House version.

Because building communications networks has proven so difficult and with the reconstitution of dominant regional firms that span local, long distance, wireless, and broadband service, it is more important today that it was ten years ago to keep open this path to increasing the number of facilities deployed. In some regions, especially rural areas, these may be the only broadband providers. In many more these networks would be the second or third provider. With such feeble competition available to consumers, this barrier to entry must be removed as the Congress intended.

I look forward to working with the Committee to craft legislation that restores the two key proconsumer, procompetition elements to the American legal landscape.

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STATEMENT OF SENATOR RICHARD J. DURBIN

Hearing Before the
Senate Judiciary Committee

"Reconsidering Our Communications Laws: Ensuring Competition and Innovation."

Wednesday, June 14, 2006

This is an important and timely hearing, focusing on the various proposals to reform and update our communications laws. I want to commend Chairman Specter for recognizing that a significant part of the debate on communications laws should be held in this Committee, in addition to the Senate Commerce Committee.

The legislative proposal that the House of Representatives recently adopted, as well as those currently being considered in the Senate Commerce Committee, include many provisions that will have significant impact on the state of competition in the communications industry.

For example, one of the primary goals of these bills is to allow telephone service providers to compete directly in the multichannel video market with cable television service providers. To ensure their quick entry into the market, however, the bills would give telephone companies with a national video franchising process, which would preempt many consumer protection and competition laws currently required by state and local franchising authorities.

The telephone companies believe this state and local preemption is a positive goal, as it could provide consumers with more choice faster and lower rates for their video programs, as they compete with cable companies. Yet, we should remember that similar arguments were made in the months leading up to the passage of the Telecommunications Act of 1996.

At that time, these companies had promised consumers with more choices and lower rates as well. They claimed that consumers would win when long distance carriers and local telephone companies entered into each others' markets, and when telephone and cable providers entered into each others' businesses. Unfortunately, a decade later, we have seen only increases – not decreases – in both telephone and cable rates for consumers. We have also seen massive consolidation – not competition – in the market place, where, a decade later, Ma Bell has reunited with her Baby Bells.

Issues involving competition are clearly within the jurisdiction and expertise of the Judiciary Committee, and I believe we must take a close look at these proposals before they are considered on the Senate floor. We should not have to revisit these issues another decade from now because the rates have failed to come down and the choices for consumers have failed to materialize. We need to do this right, and I hope the Senate takes its time to ensure that consumers, not the carriers, will benefit from new telecommunications legislation.

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In particular, the issue of "network neutrality" is one that our committee ought to deliberate carefully before the Senate takes up any relevant measures this year. There is no question that net neutrality has become the most controversial issue in the current debate over telecommunications reform. Yet, there does not even seem to be consensus on what net neutrality is, or how to address it legislatively.

When the House of Representatives took up its bill last month, the net neutrality provision became subject to contentious deliberations between that body's Judiciary and Commerce committees. I hope we can avoid such conflicts in the Senate, and I look forward to working productively with members of this Committee and those on the Senate Commerce Committee on this issue.

According to the most recent data from the Federal Communications Commission (FCC), over 98 percent of Americans today have access to high speed broadband Internet only through two options: Cable modem or telephone digital subscriber line (DSL) connections. And, it appears that we are still many years away from having real competition for broadband access through wireless, satellite, powerline, or any other source.

In the face of this stark reality, this Committee must ensure that we establish clear and enforceable rules for how these two main access points to the Internet will use their dominant market power in the future when it comes to their relationship with content providers and consumers of the Internet. I want to keep an open mind about what these grounds rules should be, whether to rely on the FCC's policies and processes, to resort to existing antitrust laws, or to impose new statutory requirements for the carriers.

But as we work toward a solution, I hope we can all agree that the Internet has already brought about amazing changes to our economy and to our way of life, and that it is too late to put the Genie back into the bottle. We need to find solutions that will continue to promote innovation and expansion of the Internet, not cripple the open use that consumers have come to depend upon.

Finally, I would like to mention a few other provisions in the telecommunications proposals being considered in Congress designed to promote wider access to broadband services.

Even with such dramatic developments in technology we have witnessed over the past decade, many corners of our nation have yet to enjoy the benefits of the new economy. I am particularly concerned that we still do not have universal and affordable access to broadband, especially in rural areas, and that, as a nation, we are falling behind other developed nations in broadband availability.

That is why it is critical for any legislative proposal we adopt to include requirements for carriers to build out their services to all corners of our states, not only to serve areas that might be most prosperous. This principle of universal access ought to apply to all communications service providers, regardless of whether they are technically defined as "common carriers" or not.

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One way we can quickly increase the availability of broadband in unserved or underserved areas is to allow municipalities to provide public broadband in markets where the private carriers are not able or willing to serve. Another is to expand the federal Universal Service Fund to allow broadband services to qualify for potential funding.

These are some of the positive proposals I have seen in the debate so far, and I look forward to working with my colleagues in the Senate to adopt these proactive measures to help bring broadband to all Americans.

Another way to encourage faster broadband deployment is to rely on wireless technologies to fill the gaps between existing services. I generally support the effort of the FCC to open up "white spaces" on the spectrum to be used by a wide variety of wireless communications providers for new and innovative services. But, we must ensure that any new services that use the public spectrum do so without interfering with existing services.

The "wireless innovation networks" provisions in some of the proposals are of concern to me because of the potential interference problems that could result in its implementation. The proposals would require the FCC to turn over certain valuable spectrum for use by unlicensed wireless devices. It would set a turnaround time of nine months to accomplish this conversion, while assuming that all technical or logistical problems would be worked out during this short window.

I am concerned with this unrealistic deadline because the users of many existing services will experience harmful interference, unless the FCC and other technical experts are allowed sufficient time to thoroughly study and resolve serious interference issues before new services are allowed to be turned on.

This change in spectrum use is sure to affect broadcast auxiliary uses such as wireless microphones and other audio devices that currently operate under the FCC's white spaces rules. These are ubiquitous electronic devices that many Americans rely upon today, and are used in numerous important industries, including law enforcement and public safety operations in the field. We need to guarantee that these existing services will not suffer irreparable harm as we expand white space spectrum to new services that will ultimately benefit us all.

As the Senate considers these issues in the coming months, I look forward to working with my colleagues to ensure that we adopt strong requirements for new devices to avoid interference and to meet equipment certification standards.

Thank you again, Mr. Chairman, for holding this hearing today.

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Senator Kohl
"Reconsidering Our Communications Laws: Ensuring Competition and Innovation"
June 14, 2006

Thank you, Mr. Chairman, for holding this hearing today. Besides food and energy, perhaps no industry is as important to millions of American consumers as telecommunications. From making a phone call, to watching television, to using the internet, the telecommunications industry touches every American dozens of times every day. And we all depend on choice and competition to deliver these services at the lowest possible price and at the best possible quality.

We have today reached a pivotal point in the telecommunications industry, and the policies we adopt will affect competition in this crucial industry for years to come. Many industry critics believe that the enormous gains in innovation and competition we have all seen are now threatened by the emergence of a few dominant telecom companies. As we revise our telecom laws, our Committee – as the guardian of antitrust law and competition policy – has a central role to play, and so I commend you, Mr. Chairman, for placing these crucial issues on the forefront of our agenda.

We can start by ensuring that our antitrust enforcement agencies are at full strength to protect competition in the telecom industry. Under current law, the Federal Trade Commission is prevented from exercising any jurisdiction over telecom "common carriers." This common carrier exemption should be repealed so that the FTC can protect consumers from unfair methods of competition in this industry as in any other.

Another crucial issue that we must consider is "net neutrality." Many fear that the relatively few large phone and cable companies that provide high speed internet access for millions of consumers could become the gatekeepers with respect to internet content. We must ensure that consumers have unfettered access to all internet content free from discrimination. And we must prevent broadband providers from being able to determine winners and losers on the information superhighway. At the same time, broadband providers need to be able to manage their networks so that the profusion of video content does not degrade the internet experience for everyone.

Roadblocks to video competition also need to be addressed. The deployment of video services by the phone companies brings the prospect of much needed competition for video, but the requirement of obtaining literally thousands of local franchises threatens to seriously retard this promising development. We must ensure that local franchise requirements are not a barrier to competition, while at the same time respecting the role of states and municipalities. Also central is the existence of robust program access law, so that these new competitors have access to the "must have" programming necessary to compete.

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In sum, consumers have benefited from an abundance of new technologies and new choices over the last 25 years. Yet today's wave of telecom consolidation means that we must be wary that new dominant providers do not stifle competition and harm consumers. We must do everything we can to ensure that competition in telecom does not go the way of the rotary telephone and the telegram.

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PREPARED STATEMENT OF THE FEDERAL TRADE COMMISSION

before the

COMMITTEE ON THE JUDICIARY

UNITED STATES SENATE

on

FTC JURISDICTION OVER BROADBAND INTERNET ACCESS SERVICES

by

William E. Kovacic

Commissioner

Washington, D.C.

June 14, 2006

I. INTRODUCTION

Mr. Chairman, Mr. Leahy, and members of the Committee, I am Bill Kovacic, Commissioner of the Federal Trade Commission ("FTC" or "Commission."). I am pleased to present the Commission's testimony on protecting the interests of consumers and competition in the offering of broadband Internet access services.[1]

The Federal Trade Commission is the only federal agency with general jurisdiction over consumer protection and competition in most sectors of the economy.[2] We enforce laws that prohibit business practices that are anticompetitive, deceptive, or unfair. The FTC's combination of consumer protection and competition authority allows us to take action in appropriate circumstances with a uniquely well-rounded perspective on market processes.

The FTC is well-versed in consumer protection and competition issues raised by the offering of Internet access services. For nearly a decade, the FTC has investigated and brought enforcement actions against Internet service providers for allegedly deceptive marketing, advertising, and billing of Internet access services.[3] With respect to its competition enforcement

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[1] This written statement represents the views of the Federal Trade Commission. My oral presentation and responses to questions are my own and do not necessarily represent the views of the Commission or any other Commissioner.

[2] The FTC has broad law enforcement responsibilities under the Federal Trade Commission Act, 15 U.S.C. §§ 41-58. With certain exceptions, the statute provides the agency with jurisdiction over nearly every sector of the economy. Certain entities, such as depository institutions and common carriers, as well as the business of insurance, are wholly or partly exempt from FTC jurisdiction. In addition to the general enforcement authority under the FTC Act, the agency has enforcement responsibilities under more than 40 additional statutes and more than 30 rules governing specific industries and practices.

[3] In connection with various law enforcement initiatives, the FTC has worked closely with the Federal Communications Commission ("FCC"). This is particularly true in the implementation and enforcement of the Do Not Call provisions of the Telemarketing Sales Rule, and, in recent months, in challenges to the illegal sale of consumers' confidential telephone records.

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mission, the FTC has investigated and brought enforcement actions under the antitrust laws in matters involving access to content via Internet access services and where appropriate has coordinated these investigations with the Federal Communications Commission ("FCC"). We are concerned, however, that any explicit or implicit diminution of the FTC's existing jurisdiction would restrict our ability to continue to play the integral role we have in protecting consumers from harm and ensuring robust competition in this vital and expanding market. As more and more U.S. consumers access the Internet through broadband connections, it is important that consumers and businesses know that the FTC will remain vigilant on their behalf when they use this important medium. The FTC has a proven record of effective law enforcement, consumer and business education, and other policy initiatives involving both consumer protection and competition matters related to Internet access. We believe this record supports the preservation of its existing authority in this area.

In this testimony, I will describe the legal basis for the Commission's jurisdiction over most broadband Internet access services and the Commission's experience handling matters involving Internet access services. I will discuss the Commission's recommendation that Congress eliminate the FTC Act exemption for common carriers subject to the Communications Act of 1934. Finally, I will urge that any legislation relating to broadband Internet access not restrict our ability to protect consumers from harm and maintain robust competition.

II. FTC JURISDICTION OVER MOST TYPES OF BROADBAND INTERNET ACCESS SERVICES

The Commission has jurisdiction under the FTC Act over broadband Internet access services offered on a non-common carrier basis, including cable modem services, wireless

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Internet access services, non-facilities-based wireline broadband Internet access services, and any facilities-based wireline broadband Internet access service offered as an information service rather than on a common carrier basis.[4] The one type of broadband Internet access service over which the FTC may not have jurisdiction is facilities-based service offered as a telecommunications service, and therefore regulated as a common carrier service under the Communications Act.[5] The Commission is on record as opposing the common carrier exemption in the FTC Act.

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[4] The FTC Act provides that "common carriers subject to the Communications Act of 1934" as amended are exempt from the FTC Act. 15 U.S.C. §§ 45(a)(2), 44. At common law, common carriage is characterized by the offering of a service of carrying for the public generally and without modification of the content of what is carried. *Nat'l Ass'n of Regulatory Util. Comm'rs v. FCC*, 525 F.2d 630, 640-642 (D.C. Cir. 1976) ("*NARUC I*"); *Nat'l Ass'n of Regulatory Util. Comm'rs v. FCC*, 533 F.2d 601, 608-609 (D.C. Cir. 1976) ("*NARUC II*"); *FTC v. Verity Int'l, Ltd.*, 443 F.3d 48, 57-58 (2d Cir. 2006). However, an entity is treated as a common carrier under the Communications Act only with respect to services it provides on a common carrier basis. *NARUC I; NARUC II; see also* 47 U.S.C. §§ 153(43), (44), (46) ("A telecommunications carrier shall be treated as a common carrier under this chapter only to the extent that it is engaged in providing telecommunications services. . . ."). The Communications Act specifically distinguishes between "telecommunications services," which are services provided on a common carrier basis, and "information services," which are not. To the extent an entity provides non-common carrier services such as "information services," the FTC considers the provision of those services to be subject to the FTC Act's prohibitions against engaging in deceptive or unfair practices and unfair methods of competition. *See FTC v. Verity Int'l Ltd.*, 194 F. Supp. 2d 270, 274-277 (S.D.N.Y. 2002), (order denying defendants' motion for judgment on the pleadings and granting plaintiff's motion to extend preliminary injunction), *aff'd, FTC v. Verity Int'l, Ltd.*, 335 F. Supp. 2d 479, 494 (S.D.N.Y. 2004), *aff'd in part, rev'd in part*, 443 F.3d 48 (2d Cir. 2006).

[5] *See Appropriate Framework for Broadband Access to the Internet over Wireline Facilities, Report and Order and Notice of Proposed Rulemaking*, 20 F.C.C.R. 14853 (2005) *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-05-150A1.pdf; *and see* 47 U.S.C. §§ 153(43) (44) & (46).

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Certain types of Internet access services, including Digital Subscriber Line (DSL) Internet access provided by non-facilities-based Internet Service Providers (ISPs)[6] and dial-up Internet access, have long been treated as non-common carrier services subject to FTC jurisdiction. Recent developments in the courts and at the FCC have clarified that certain other means of providing Internet access — specifically, cable modem services and facilities-based broadband wireline services offered on a non-common carrier basis — are information services rather than telecommunications services. These developments confirm the FTC's view that it has jurisdiction over the provision of those services.

In *National Cable & Telecommunications Ass'n v. Brand X Internet Services*, 125 S. Ct. 2688 (2005), the Supreme Court upheld the FCC's determination that cable modem Internet access service is an "information service" and not a common carrier service under the Communications Act. The Supreme Court reversed a Ninth Circuit decision that had found the service to be common carriage and had vacated the FCC's determination on this point.

More recently, the FCC released the *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities, Report and Order and Notice of Proposed Rulemaking*, 20 F.C.C.R. 14853 (2005) (the "*Order*"),[7] in which the agency reclassified wireline broadband Internet access service by facilities-based carriers as an information service.[8] That same *Order*,

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[6] Non-facilities-based ISPs are those that do not themselves own the transmission facilities they use to provide Internet access.

[7] The *Order* is available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-05-150A1.pdf.

[8] A consolidated appeal of the order is pending in the Third Circuit. *Time Warner v. FCC*, No. 05-4769 (3d Cir. filed Oct. 26, 2005).

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however, permits facilities-based wireline carriers to elect to provide transmission for wireline broadband service on a common carrier basis. The common carrier exemption in the FTC Act may, therefore, preclude FTC jurisdiction over transmission services that a facilities-based wireline carrier elects to provide on a common carrier basis pursuant to the *Order*.

III. THE FTC'S EXPERIENCE WITH INTERNET ACCESS SERVICES

As noted, some types of Internet access services have long been recognized as within the FTC's authority. Accordingly, for nearly a decade, the FTC has investigated and brought enforcement actions against Internet service providers, provided consumer education, and acted as a central resource for consumer inquiries and complaints about all forms of Internet-related activity.

A. Enforcement Actions

The FTC has brought a wide variety of cases against Internet service providers engaged in allegedly deceptive marketing, advertising, and billing practices.[9] For example, in 1997, the FTC separately sued America Online, Compuserve, and Prodigy, alleging that each company had offered "free" trial periods that resulted in unexpected charges to consumers. The settlement orders with each of the companies prohibit them from misrepresenting the terms or conditions of any online service trial offer. They also prohibit the companies from representing that an online

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[9] *E.g.*, *FTC v. Cyberspace.com*, No. C00-1806L, 2002 U.S. Dist. LEXIS 25565, 2003-1 Trade Cas. (CCH) P73,960 (W.D. Wash. 2000) (appeal pending in the 9th Circuit); *In re America Online, Inc. & Compuserve Interactive Servs., Inc.*, FTC Docket No. C-4105 (Jan. 28, 2004) (consent order); *In re Juno Online Servs., Inc.*, FTC Docket No. C-4016 (Jun. 25, 2001) (consent order); *In re WebTV Networks, Inc.*, FTC Docket No. C-3988 (Dec. 8, 2000) (consent order); *In re AOL, Inc.*, FTC Docket No. C-3787 (Mar. 16, 1998) (consent order); *In re CompuServe, Inc.*, 125 F.T.C. 451 (1998) (consent order); *In re Prodigy, Inc.*, 125 F.T.C. 430 (1998) (consent order).

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service is free, or that consumers need not pay for the online service, unless they disclose clearly and prominently in their instructional materials any obligation to cancel or take other action to avoid charges. In all other advertisements, the companies must include a statement directing consumers to where this disclosure is available. Although all of these cases involved the provision of dial-up Internet access, the orders are not limited by their terms to the offering of narrowband Internet access.

More recently, in the matter of *FTC v. Cyberspace.com,* No. C00-1806L, 2002 U.S. Dist. LEXIS 25565, 2003-1 Trade Cas. (CCH) P73,960 (W.D. Wash. 2002) (appeal pending in the 9th Circuit), the federal district court for the Western District of Washington granted summary judgment in favor of the FTC on the issue of liability. The court found that the defendants violated the FTC Act by mailing purported "rebate" or "refund" checks for $3.50 to millions of consumers and businesses without clearly and conspicuously disclosing that by cashing the check those individuals and businesses would receive monthly charges on their telephone bills for defendants' Internet access services. Following a trial on the issue of consumer injury, the court ordered the defendants to pay more than $17 million to remedy the injury caused by their fraudulent conduct.[10]

With respect to competition enforcement, the FTC has investigated and brought enforcement actions under the antitrust laws, where appropriate, in matters involving issues of access to content via broadband and other Internet access services.[11] For example, the

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[10] The defendants have appealed on both the liability issue and the monetary award. The appeal was argued in the Ninth Circuit in March of this year.

[11] The FCC has a special role with respect to telecommunications services. In our view, the FCC's role does not conflict with the FTC's authority over consumer protection and

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Commission challenged the merger between AOL and Time Warner and entered into a consent order that required the merged company to open its cable system for all content on a nondiscriminatory basis to competitor Internet service providers, including those offering broadband.[12] The order also prohibited the company from interfering with the content of non-affiliated ISPs and from interfering with the ability of non-affiliated providers of interactive TV services to access the AOL Time Warner system. Further, in Time Warner cable areas where affiliated cable broadband service is available, the company was required to market and offer AOL's DSL services to subscribers in the same manner and at the same retail pricing as it did in areas where affiliated cable broadband Internet access service was not available.

The FTC has addressed issues of Internet access in a number of other merger investigations, as well as related issues that often arise in horizontal mergers of cable TV systems and mergers of cable TV companies and content providers. These cases often raise issues of narrowband and broadband Internet access. For example, the FTC investigated the acquisition by Comcast and Time Warner of the cable assets of Adelphia Communications and a related transaction in which Comcast and Time Warner exchanged various cable systems. The FTC examined, among other things, the likely effects of the transactions on access to and pricing of content. A majority of the Commission concluded that the acquisitions were unlikely to foreclose competitor cable systems in any market or to result in increased prices for Time Warner

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competition issues relating to broadband Internet access. Like some specialized agencies, such as the Federal Energy Regulatory Commission and the banking agencies, the FCC also has certain nonexclusive authority to review mergers, potentially taking into account issues outside the antitrust laws.

[12] *In re America Online, Inc. & Time Warner Inc.*, FTC Docket No. C-3989 (Apr. 17, 2001) (consent order).

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or Comcast content and closed the investigation.[13] *See also In re Cablevision Sys. Corp.*, 125 F.T.C. 813 (1998) (consent order); *In re Summit Commc'n Group,* 120 F.T.C. 846 (1995) (consent order).[14]

B. Consumer Education, Complaint Sharing, and Public Hearings

As an important complement to its enforcement activity, the FTC offers extensive consumer and business education about a wide variety of Internet-related topics, including Internet access devices, the protection of personal computers from security threats and data intrusion, wireless security, and modem hijacking.[15] In addition, each week more than 20,000 consumers contact the FTC to obtain information or submit complaints covering the full range of consumer protection issues.

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[13] *See* Statement of Chairman Majoras, Commissioner Kovacic, and Commissioner Rosch Concerning the Closing of the Investigation Into Transactions Involving Comcast, Time Warner Cable, and Adelphia Communications (Jan. 31, 2006) (FTC File No. 051 0151); *see also* Statement of Commissioners Jon Leibowitz and Pamela Jones Harbour (Concurring in Part, Dissenting in Part) Time Warner/Comcast/Adelphia (Jan. 31, 2006) (FTC File No. 051 0151). Both statements are available at http://www.ftc.gov/opa/2006/01/fyi0609.htm.

[14] The federal antitrust statutes are flexible and account for unique industry characteristics, including those aspects of network industries that differentiate them from some more traditional industries. The Department of Justice (DOJ) shares antitrust authority with the FTC regarding most sectors of the economy. The two antitrust agencies have long-standing coordination procedures that allow them to consider those complex issues and avoid inconsistent or duplicative efforts. The FTC's and DOJ's clearance procedures ensure that only one antitrust agency investigates a particular merger.

[15] *See, e.g.*, "Detect, Protect, Dis-infect: Consumers Online Face Wide Choices in Security Products" *available at* http://www.ftc.gov/bcp/conline/pubs/alerts/idsalrt.htm; "Using Internet Access Products," *available at* http://www.ftc.gov/bcp/conline/pubs/alerts/accessalrt.htm; "Securing Your Wireless Network," *available at* http://www.ftc.gov/bcp/conline/pubs/online/wireless.html; "When Your Computer Calls Overseas Without Your OK,"*available at* http://www.ftc.gov/bcp/conline/pubs/alerts/modmalrt.htm.

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The Commission also informs its law enforcement work through robust research and information gathering. The Commission will hold hearings later this year on consumer protection issues relating to global marketing and technology.[16] The hearings will bring together experts from diverse fields to explore the consumer protection issues and challenges arising from convergence in communications technology and the globalization of commerce. The hearings also will provide an opportunity to examine changes that have occurred in marketing and technology since the mid-1990's, when the FTC last conducted comprehensive hearings on these phenomena.[17] We expect various issues regarding broadband Internet access services to receive attention at the hearings. In addition, because of the importance of encouraging more broadband competition for consumers, the Commission's Office of Policy Planning is conducting an inquiry to educate the Commission on the issue of municipalities offering broadband services.

IV. THE FTC'S LEGISLATIVE RECOMMENDATIONS

During its two most recent reauthorization hearings, the Commission proposed eliminating the gap in its jurisdiction created by the telecommunications common carrier exemption.[18] We believe the exemption is outdated and a harmful obstacle to good

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[16] Information about the Commission's 2006 Hearings on Global Marketing and Technology, is available at http://www.ftc.gov/bcp/workshops/globalmarketing/index.html.

[17] *See* http://www.ftc.gov/opa/1995/07/hearing1.htm.

[18] *The Reauthorization of the Federal Trade Commission: Positioning the Commission for the Twenty-First Century: Hearing Before the Subcomm. on Commerce, Trade and Consumer Protection of the H. Comm. on Energy and Commerce*, 108th Cong. (2003) ("*FTC 2003 Reauthorization Hearing*") (statement of the FTC), *available at* http://www.ftc.gov/os/2003/06/030611reauthhr.htm; *see also FTC 2003 Reauthorization Hearing* (statement of Thomas B. Leary, FTC Commissioner), *available at* http://www.ftc.gov/os/2003/06/030611learyhr.htm; *FTC Reauthorization Hearing: Before the Subcomm. on Consumer Affairs, Foreign Commerce and Tourism of the S. Comm. on*

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policymaking. As illustrated by the broadband Internet access marketplace, technological advances have blurred the traditional boundaries among telecommunications, entertainment, and high technology. As the telecommunications and Internet industries continue to converge, the common carrier exemption is likely to frustrate the FTC's ability to stop deceptive and unfair acts and practices and unfair methods of competition with respect to interconnected communications, information, and entertainment services.

Enforcement difficulties posed by the common carrier exemption are not speculative. A recent decision of the Second Circuit, *FTC v. Verity Int'l Ltd.*, 335 F. Supp. 2d 479 (S.D.N.Y. 2004), *aff'd in part, rev'd in part*, 443 F.3d 48 (2d Cir. 2006), offers an example of some defendants' attempts to thwart an FTC enforcement action by asserting that the common carrier exemption precluded FTC action. In that case, the Commission alleged that the defendants orchestrated a scheme that disconnected consumers' computers from their regular Internet service providers and reconnected their computers' modems to a Madagascar phone number for purposes of providing online entertainment. The line subscriber of the modem phone line was then charged between $3.99 and $7.78 per minute for the length of the connection.[19] In that case,

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Commerce, Science and Transportation, 107th Cong. (2002) (statement of Sheila F. Anthony, FTC Commissioner), *available at* http://www.ftc.gov/os/2002/07/sfareauthtest.htm.

[19] The FTC has brought half a dozen other cases alleging that various defendants have redirected consumers' modem connections and then charged consumers for unauthorized entertainment services. These cases are often referred to as "modem hijacking cases." *See, e.g.*, *FTC v. Audiotex Connection, Inc.*, Civil Action No. C-97 0726 (DRH) (E.D.N.Y. 1997) (consent order); *In the Matter of Beylen Telecom Ltd.*, 125 F.T.C. 276 (1998) (consent order); *FTC v. RJB Telecom, Inc.*, Civil Action No. Civ. 00201-7 (Phx) (D. Ariz., 2000) (consent order); *FTC v. Ty Anderson*, Civil Action No. C00-1843P (W.D. Wa. 2000) (consent order); *FTC v. Sheinkin*, No. 2-00-363618 (D.S.C. 2000) (consent order); *FTC v. Alyon Technologies, Inc.*, Civil Action No. 1:03-CV-1297-RWS (N.D. Ga. 2003) (consent order).

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AT&T and Sprint carried the calls that connected the consumers' computers to the defendants' servers.[20] Based on the common carrier exemption in the FTC Act, the defendants argued that because AT&T and Sprint carried the calls, the entertainment service for which consumers were billed was outside the FTC's jurisdiction. One defendant also claimed to be a common carrier and therefore exempt from the FTC's jurisdiction. Although both the District Court and the Court of Appeals rejected those arguments, the defendants have moved for reconsideration on the common carrier exemption issue, and the FTC continues to expend substantial time and resources litigating the issue.

Apart from the issue of the common carrier exemption, as Congress considers legislation to amend the Communications Act, the Commission believes that any new legislation should clearly preserve the FTC's existing authority over activities currently within its jurisdiction. In this regard, some recent legislative proposals would assign to the FCC specific competition and consumer protection authority. We are concerned that any new grant of authority to the FCC not be misread to oust the FTC from its established jurisdiction. The Commission does not believe that Congress intends to remove the FTC from the business of protecting consumers and maintaining competition in the broadband services industry.[21]

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[20] Although consumers allegedly were charged the tariffed rates for calls to Madagascar, the FTC alleged that the calls were actually carried to other countries with lower long distance rates for calls from the United States.

[21] Indeed, just last week, the House voted overwhelmingly (353 to 68) on an amendment to H.R. 5252, the Communications Opportunity, Promotion and Enhancement Act (COPE) that confirms FTC and DOJ antitrust authority in the telecommunications industry. Cong. Rec. H3582 (daily ed. June 8, 2006) (roll call vote No. 238).

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V. CONCLUSION

As discussed above, over the past decade, the FTC successfully has prosecuted a wide range of enforcement actions involving activities related to Internet access, which we alleged to have injured consumers and competition. Throughout these efforts, the FTC has coordinated with the FCC and discussed issues where our interests and jurisdictions intersect – such as Do Not Call and the pretexting of telephone records – or where potential mergers implicate each agency's unique mandate. We have worked together effectively in the past, and will continue to do so. Access to the Internet has become a crucial part of our economy and of many consumers' lives. The FTC is committed to maintaining competition and to protecting consumers from deceptive or unfair acts or practices relating to all Internet access services within its jurisdiction. We urge the Congress to ensure that the FTC's capacity to address pressing consumer protection and competition issues is not diminished as it considers legislation regarding the provision of broadband services.

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Testimony of
Jeff C. Kuhns
Senior Director, Consulting and Support Services,
Information Technology Services (ITS)
The Pennsylvania State University

Before the
United States Senate
Committee on the Judiciary
"Reconsidering Our Communications Laws:
Ensuring Competition and Innovation"
June 14, 2006

Mr. Chairman, Members of the Committee:

My name is Jeff Kuhns. I am the Senior Director of the Information Technology Services at the Pennsylvania State University. I am directly involved in managing the telecommunications and Internet needs of the university. I am testifying today on behalf of EDUCAUSE and the Internet2, the organizations that jointly represent the interests of higher education and universities in telecommunications policy. Thank you for the opportunity to testify today.

Summary: I would like to focus my remarks on the importance of keeping the Internet open to all -- the issue of "net neutrality." Universities are extremely large producers and users of Internet content. Penn State, for instance, depends upon the Internet to provide distance learning educational services – allowing us to bring our enormous educational resources to the benefit of off-campus students throughout Pennsylvania, and even throughout the world. Furthermore, universities use the Internet to provide vital telemedicine services that provide essential medical monitoring and treatment via low-cost broadband connections. We are constantly developing new Internet-based applications and services that we hope to share with the American public.

All of these activities, however, depend upon the availability of an open Internet. The government's decision to eliminate this policy of openness last year throws all of our valuable services and research into doubt. Our distance learning, our telemedicine applications, and our research activities could be wiped out if the owners of the broadband networks are allowed to close down the Internet, or give preferential treatment to their own services. We urge Congress to restore the net neutrality policy that governed the Internet since its inception. The future of American education, innovation and competitiveness is at stake.

Penn State: Penn State is a multi-location university with 24 campuses located throughout the Commonwealth. As a land-grant University, we also have county extension offices in each of the State's 67 counties. We have over 80,000 students, with approximately one-half at the University Park Campus in State College.

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Broadband Internet services are fundamentally important to our university in many ways. While each of our resident hall rooms are wired for high-speed networking, about 80% of our students live off-campus. Increasingly the off-campus students use cable modem service or DSL to reach University resources, and increasingly the University expects that these broadband services are available to our students as we develop course materials.

Through our Penn State On-line program we offer more than 50 degree and certification programs on all 7 continents, including masters programs in business administration, project management, and education. We have students who have never taken a college course before, who have attended college but need credits to complete their degree, who are taking additional credits in addition to traditional classes, and who are maintaining their professional education. These on-line programs are especially valuable to persons with disabilities. Furthermore, we offer an extensive selection of online and mixed media courses to members of the military so, no matter where they are stationed, they can start or continue their studies with Penn State.

We also use networking services to interconnect our campuses and our county offices. We use networking services to allow our researchers to collaborate with colleagues across the country and world, and to allow our students to access resources, correspond with friends and experiment with new network applications. We use networking services to provide information to prospective students, to provide information to parents and alumni, and to provide information to the public at large.

In sum, the availability of low-cost, high-speed, nondiscriminatory Internet services is absolutely essential for our university to meet our educational goals in the 21st Century.

EDUCAUSE and Internet2: Penn State is also an active member of both EDUCAUSE and Internet2. EDUCAUSE is a nonprofit association whose mission is to advance higher education by promoting the intelligent use of information technology. The current membership comprises more than 2,000 colleges, universities, and educational organizations, including 200 corporations, with 15,000 active members.

Internet2 is a not-for-profit partnership of 208 universities, 70 companies, and 51 affiliated organizations, including some federal agencies and laboratories. Its mission is to advance the state of the Internet, and it does that primarily by operating for its members a very advanced, private, ultra-high-speed research and education network called Abilene that enables millions of researchers, faculty, students and staff to "live in the future" of advanced broadband. By providing very high speed pipes – 10,000 times faster than home broadband, in the backbone – it enables its members to try new uses of the network, develop new applications, and experiment with new forms of communications. In short, the members of Internet2 are experiencing today what we hope the rest of America will be able to have and use in just a few years.

Because of the ground-breaking research undertaken by laboratories at Penn State and at other universities within the Internet2 coalition, our students can take advantage of many

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new technologies and applications that were only dreamed of just a few years ago. Today, our students are able to take master music classes with world-renowned musicians via DVD-quality video conferencing technology. Recently, students at Wichita State were able to play and take lessons from the New World Symphony in Miami using Internet2's network. The fidelity of the audio and video is so fine-tuned, it is as if the teacher and the student are in the same room, able to discuss details about playing technique and musical phrasing. Famed oceanographer Bob Ballard is able to take elementary school children on undersea expeditions using Internet2's network. They can have a 2-way video conversation with an underwater diver in real time from any connected school in the country – imagine the lasting impression this must have – especially for those who may never have experienced the ocean firsthand.

We have a very strong interest in the current telecommunications reform discussion that is unfolding here in the Congress: we have seen an Internet future that is possible for this country and we know that the rules and incentives that you are considering could have an enormous and lasting impact upon the kind of Internet we will actually achieve.

The Importance of Net Neutrality. Our experience working with advanced networks has taught us that the Internet works best if the user – not the network owner or operator – determines what information is transmitted over the network. Users should be able to decide how much bandwidth to buy from the network operators – a little or a lot. Once the user has paid for his or her bandwidth, the user should be able to go to any web page, use any lawful application, equipment or service, and send any lawful content.

Allowing the network owner to block or degrade content, equipment or applications fundamentally alters the Internet experience. Indeed, allowing a gatekeeper to monitor, screen, manipulate traffic would ruin the Internet as we know it. Instead of the open, free-wheeling, forum for discourse and commerce that we enjoy today, the Internet would become the private playground of a few network owners – which face little competition and thus have significant market power -- whose incentive will be to steer users to the products and services that they own.

The debate over net neutrality is sometimes distorted by those who oppose legislation. They maintain that everyone has a different definition of net neutrality, or that this is a solution in search of a problem. While these pithy phrases might be easy to toss around in casual conversation, they are dead wrong. This issue is not nearly as complicated as the opponents would have you believe. Let me state a few points very clearly.

First, now that the FCC has eliminated the net neutrality requirements for broadband providers, network owners can block traffic at will. A cable or phone company could block access to a Senator's web site or an on-line journal simply because they disagree with the viewpoint being expressed. The network owner could block or degrade a competitor's VOIP offering, simply because it competes with the telco's own VOIP service. There is absolutely no legal requirement to maintain an open network today. At a minimum, Congress must act to prohibit blocking or intentional degradation of Internet traffic.

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Second, there is one central principle that underlies the entire net neutrality debate – nondiscrimination. Network owners should not be able to give preference to their own services over those of their competitors. Network operators should truly be "neutral"; their job should be to carry traffic on a nondiscriminatory basis. To be sure, there are lots of ways of writing this principle into statutory law, but the variety of language does not mean that there are a variety of meanings to net neutrality. All the advocates of net neutrality with which EDUCAUSE and Internet2 are aligned share this common goal of ensuring an open, nondiscriminatory, neutral Internet.

Third, the telephone and cable companies maintain that legislating on net neutrality would prevent them from managing their networks, but this is a misconception. Network management is not a barrier to net neutrality. As network managers ourselves, we understand the need to be concerned with security attacks, spam, and overall congestion – but these should not be used as excuses to discriminate. In short, network management and net neutrality are not in conflict, they are perfectly consistent. In fact, telephone companies today engage in network management of their narrowband networks under a net neutrality regime without difficulty.

Fourth, giving preferential treatment to certain Internet traffic (as the telephone and cable companies desire) is not only unfair, it inherently degrades the quality of service provided to others. If a network operator starts to give preference to packets from one source (that perhaps pays the operator for preference), what happens to all of the other, ordinary packets? We know that when an ambulance or fire truck comes down a congested highway, everybody else has to pull over and stop. For emergencies, and for public safety, that is accepted, but what if UPS trucks had the same preference? Giving a preference to the packets of some will degrade the transport for everyone else.

Fifth, allowing the network operators to charge users to deliver traffic on the Internet will inherently inhibit non-profit organizations from using the Internet for social good. If economic toll booths are allowed for content and applications to access the Internet, then soon only the richest content providers will be able to make their material available. What happens to the small college or university, the little guy, the start-up, the entrepreneur? If charging content providers to carry their bits to local customers had existed ten years ago, we would never have seen universities using the Internet for distance learning and telemedicine applications that are widely available today. Universities and colleges simply could not compete with the large on-line merchants for priority access to the network.

Just to cite some examples, MIT is pioneering a move to put all of its course content – written materials, multi-media, videos of lectures and more – onto the Internet for free distribution to the world. It is an experiment, but a bold one that could have transformative impact upon those who might never be able to see the inside of a college classroom. Stanford University is making the audio from class lectures available on the Web. The Library of Congress is working on projects to make rare materials available over the Internet. Should MIT or Stanford or the Library of Congress now have to pay

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Verizon and AT&T, Comcast and Cox, and all of the other local network providers to allow Americans access to this material? Other nations are not putting up toll booths, why should we?

The Internet2 Experience. We are aware that some providers argue against net neutrality by saying that they must give priority to certain kinds of Internet bits, such as video, in order to assure a high quality experience for their customer. Others argue that they want to use such discrimination among bits as a basis for a business model. Let me respond to these arguments by telling you about the experience at Internet2.

When Internet2 first began to deploy its Abilene network, the engineers started with the assumption that they should find technical ways of prioritizing certain kinds of bits, such as streaming video, or video conferencing, in order to assure that they arrive without delay. For a number of years, Internet2 seriously explored various "quality of service" schemes, including having our engineers convene a Quality of Service Working Group. As it developed, though, all of the research and practical experience supported the conclusion that it was far more cost effective to simply provide more bandwidth. With enough bandwidth in the network, there is no congestion and video bits do not need preferential treatment. All of the bits arrive fast enough, even if intermingled.
Today the Internet2 Abilene network does not give preferential treatment to anyone's bits, but its users routinely experiment with streaming HDTV, hold thousands of high quality two-way video conferences simultaneously, and transfer huge files of scientific data around the globe without loss of packets.

We would argue that, rather than introduce additional complexity into the network fabric, and additional costs to implement these prioritizing techniques, the telecom providers should focus on providing Americans with an abundance of bandwidth – and the quality problems will take care of themselves. For example, if a provider simply brought a gigabit Ethernet connection to your home, you could connect that to your home computer with only a $15 card. If the provider insists on dividing up that bandwidth into various separate pipes for telephone and video and Internet, the resulting set top box might cost as much as $150. Simple is cheaper. Complex is costly.

A simple design is not only less expensive: it enables and encourages innovation.

The design of the Internet. Universities also have a deep concern about the future of the Internet because universities helped to design the Internet from its inception. The original Internet was designed to have an agnostic, neutral "core" whose job was to pass packets back and forth – and not to discriminate or examine the packets themselves. This allowed the network to be very cost efficient and economical. It also allowed all of the "intelligence" in the network to be at the "edge," that is, in the hands of the user.

This was very important to the evolution of the Internet. The network provider did not have control, the user did. As long as the user utilized the standardized protocols, he or she could expect to send and receive packets to anyone else on the network in a completely understandable, predictable manner. That allowed the user to experiment with

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new programs, new applications, slightly tweaked applications, and even new devices – and the user would know that the network would treat the packets all exactly alike. Innovation was possible and could happen very quickly at "the edge" because you did not have to re-architect or re-build the entire network in order to make a tweak or improvement in an end-user technology (such as improving a web search engine or developing a new video encoding program).

As a result of this remarkable design, sometimes called "end-to-end architecture," an explosion of new Internet technologies emerged over the past decade, many of them on university campuses or by recent graduates. The World Wide Web, the Web browser, the search engine, instant messaging, and many other technologies were innovations by users of the network. Not one of these innovations was developed by telephone or cable companies.

The future of the Internet. The faculty and staff and students at Penn State and other Internet2 universities are experimenting with the next generation of the Internet today. We believe that Americans are going to need, and want, significant increases in broadband speeds over the next two decades (just as they have experienced increased computer processing speeds and ever-expanding computer memory). Internet2 universities routinely provide 100 megabits per second to the desktop, and many schools offer 1,000 megabits (1 gigabit) per second connections to their faculty and students. We have done so using commercially available, open-standards technology and our traffic flows on the very same fiber used by today's Internet service providers. Today's typical home broadband connection – which admittedly is a big step up from dial-up – is only about 1 megabit. So the goal of broadband legislation should be to encourage ever-increasing bandwidth. Reinstating the net neutrality rule that was eliminated last year could unleash another wave of new uses, new applications, money-saving innovations, and economy-driving benefits. This continued drive toward improving productivity and new applications will give an added push to network providers to deploy broadband to meet this burgeoning demand.

We at Penn State and other colleges in the EDUCAUSE/Internet2 community have a vital stake in this legislative debate. The openness of the Internet has allowed universities to develop important services and applications that are benefiting students, faculty, patients and doctors, users and producers of information. Keeping broadband networks open, inexpensive, and simple is better than costly, complex, and closed. Reinstating the net neutrality rule that was in effect for decades will spawn another amazing wave of innovation and growth. We know, because we have seen part of that future.

Thank you for your consideration.

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Statement Of Senator Patrick Leahy,
Ranking Member, Judiciary Committee
Hearing On
"Reconsidering Our Communications Laws:
Ensuring Competition and Innovation"
June 14, 2006

Mr. Chairman, I was one of only five Senators to vote against the 1996 Telecom Act.

Back then, I argued that the Act's promise of promoting competition and increasing innovation was a false promise. I argued that the Act would allow the local regional bells to easily reunite with unregulated local monopoly powers.

I pointed out that rural consumers would be worse off, that cable and phone rates would increase, and that mergers would reduce competition. Unfortunately, I was right.

We must not make the same mistakes again. Today, many Americans have no choice whatsoever in broadband service, while others have only two options.

The Internet is the ultimate marketplace of ideas. Everyone has equal access; every voice can speak, and be heard. It's a place where a better idea, a better service or a better application can succeed on its merits – not because it has a special financial relationship with one or two broadband providers.

I have been enthusiastic about the Internet and its potential to make our lives better in so many realms. The Internet has opened windows to the world in one-room schoolhouses in Vermont, and new doors of knowledge and opportunity to children from Africa to Indonesia. I have worked from the start of the Internet age to keep the government's hands off the Internet. The Internet was largely conceived in the United States, and when the U.S. Government seeks to regulate the Internet in any way, the world closely watches. That gives us a special obligation to act with care and with as much foresight as we can muster when the Internet is involved.

We have arrived at another juncture in which Congress faces decisions on the Internet's future. The "triple play" of being able to offer video TV and movies, telephone, and Internet service raises the risk that telephone or cable companies will "bundle" all three services together and not allow each service to compete on its own merits.

It is more important than ever that the Congress focus on the best interests of consumers.

This Committee must help ensure that the Internet's marketplace of ideas and commerce remains effective and vibrant.

The resolution of the issues raised today will determine who is in control of electronic access to our homes and small businesses: Will consumers be in control, or will a very few large corporations control that information link?

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This is not a hypothetical problem. Corporations have legal duties to shareholders. If they can maximize shareholder return, even if it means fewer choices for consumers, they will.

The Supreme Court's *Brand X* decision effectively permits broadband service providers to discriminate against competing content, applications and other service providers. One executive, the head of AT&T, has made it clear he will exercise control over that so-called "last mile" into each home.

The discrimination may take many forms, including slower exchange of traffic from unfavored content providers, direct blocking of lawful websites, and added fees for access.

This would represent a dramatic shift in the policy that has propelled the success of the Internet.

It is both enlightening and, from a consumer perspective, frightening to review the assertions of a White Paper issued by Cisco Systems. This White Paper made clear that Cisco is poised to offer companies such as Verizon, AT&T, ComCast, TimeWarner and others the ability "in real time" to know: "the identity and profile of the individual subscriber;" "what the subscriber is doing;" "where the subscriber resides;" and their "service level," either fast or slow. Cisco can also give these giants the technology to "limit unprofitable peer-to-peer" communications.

So why wouldn't Congress just vote to keep those pipelines into homes and small businesses open?

The reason is simple: The major telecom and cable providers are threatening to refuse to invest in improvements or expansions unless they can reap big profits by charging rates based on how the Internet is used.

I strongly believe they will make those investments anyway. Certainly Verizon will make those investments, according to Vice Chairman Larry Babbio. He has said that Verizon is in the midst of spending billions of dollars on upgrades, with its posted revenue of $68 billion just last year alone. He said that Verizon has the goal of bringing fiber to "every home it serves." Not to the last mile, "not to the curb, but to the home." It is fortunate for them that the costs of investing in fiber have been reduced by a factor of 10 over the last several years.

Verizon and AT&T certainly have some money to reinvest – they have each paid about $13 billion in dividends 2003 through 2005 and bought back hundreds of millions' worth of their stock. I would like to put in the record financial data on those firms.

I applaud the telephone companies for their interest in entering the video market, but the opportunity comes with an obligation. We cannot allow competitors in this highly concentrated market to compete only for affluent, urban residents. Competition should benefit everyone.

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Mr. Chairman, a number of issues raised in Chairman Stevens' bill are squarely within the jurisdiction of this Committee. Chairman Sensenbrenner ran into a similar situation in the other body.

I look forward to working with the members of this Committee to put forward a strong bill along the lines of Chairman Sensenbrenner's effort to protect consumers, competition, and the Internet, and I look forward to hearing from our witnesses today as our work goes forward.

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STIFEL NICOLAUS

WRITTEN STATEMENT OF

BLAIR LEVIN, MANAGING DIRECTOR AND TELECOMMUNICATIONS, TECHNOLOGY AND MEDIA REGULATORY ANALYST

STIFEL NICOLAUS & COMPANY, INCORPORATED

HEARING ON:

"RECONSIDERING OUR COMMUNICATIONS LAWS: ENSURING COMPETITION AND INNOVATION"

BEFORE THE SENATE COMMITTEE ON THE JUDICIARY

UNITED STATES SENATE

June 14, 2006

All relevant disclosures and certifications appear on page 8 of this report.

Stifel Nicolaus & Company
June 14, 2006

Chairman Specter, Ranking Member Leahy, and Members of the Committee:

Thank you for inviting me to testify. It is an honor for me to be here.

By way of background, I practiced law for 10 years in North Carolina, largely as a corporate lawyer. Among my principal responsibilities during that time, I served as outside General Counsel to a rural wireless company that raised over $200 million in equity and debt and grew to service 26 markets. I also worked as a securities lawyer on municipal finance offerings in North Carolina. In 1993, the Chairman of the Federal Communications Commission appointed me Chief of Staff, a position I held for 4 years. After leaving the FCC, I served as a consultant to a number of telecom, media, and Internet related enterprises. In January of 2001, I began my current job as a Wall Street analyst with Legg Mason and now with Stifel Nicolaus, where my primary mission is to evaluate the impact of government policy on telecommunications, tech and media companies for institutional investors.

I understand that the principal reason you have asked me to come before you today is to discuss the impact of "network neutrality" on investment and innovation. This has become a major focus of the investment community and since our first analysis of it in 2002, we have written a number of pieces on the topic for investors.

Network neutrality raises a number of issues beyond investment that I will not touch on but that are important for this Committee and the government as a whole to consider.

I will focus on investment-related issues, not with the thought of prescribing a particular policy but with the hope of providing a perspective that the Committee might find useful in evaluating the issue. I think there are four key points to keep in mind:

- First, that regulation is not the sole or even primary driver of investment decisions for network infrastructure;
- Second, that the task of public policy ought not to be to maximize investment in one part of an economic value chain but to allow the market, in its variable but still better wisdom, to optimize investment throughout the entire value chain;
- Third, the primary threat to the market being able to optimize investment is a non-transitory bottleneck in any critical part of the value chain that restricts economic growth; and
- Fourth, the greatest guarantor of the kinds of benefits that network neutrality principles have delivered in the past, and the greatest driver of investment are the same: an opportunity for new, ubiquitous broadband networks.

I will discuss each of these briefly but first want to put the network neutrality debate into the appropriate business and historical context.

The Context for Network Neutrality

Network neutrality presents an old policy problem—whether, and if so how, to regulate a network--but with a new set of facts; an unregulated duopoly of the most important platform for economic growth in the country. It also raises an old business problem: how do various enterprises within a value chain divide revenue from various sources?

In brief, the historical telephone monopoly was a regulated common carrier; cable was allowed to offer video without common carriage regulations (though with some constraints on its

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programming decisions); and the narrowband Internet, which rode over phone lines, also followed a common carrier model.

With the rise of broadband, the question arose as to the proper regulatory treatment of carriage. Last summer, the government finally clarified that carriage over broadband would basically be unregulated. In addition, last fall, the telephone industry vertically integrated the two largest local phone companies with the two largest Internet backbones.

Over the last few years, the higher returns in what we might think of as the broadband value chain have gone to web-based applications and content providers rather than broadband network owners. From a business perspective, then, the new freedoms and new control over more network assets raises the question of what can the Bells and Cable do to shift value back to the network?

This in turn raises a policy question: should the government put prior constraints on any tactics that the Bells and Cable could do as they try to shift value to the network?

The fundamental question on which I will focus is the impact of such constraints, or the lack of such constraints on investment.

Network Neutrality and the Impact on Investment

1. ***Regulation is not the sole or even primary driver of investment decisions for network infrastructure.***

In listening to the debate on network neutrality, one often hears the view that any regulation will hurt investment in the network. In my view, this is like believing that a piece of a puzzle is the entire puzzle.

That is, while it is true that regulation, looked at in isolation, has a negative impact on investment in the enterprise being regulated, it may not be true when one looks at the whole picture. The decision of whether, and if so, how much to invest in infrastructure involves a complex weighing of a number of factors. Long-time media and telecom investor Robert Gensler of T.Rowe Price summed it up this way: "there are only three reasons telecom carriers spend on capital expenditures: opportunity for profitable growth; fear of competition; and fear of the regulator. There is only one reason telecom carriers don't spend on capital expenditures: fear of investors."

As an historic matter, this is certainly true. For example, incumbent telecom capital expenditures as a percentage of revenues rose after the 1996 Telecom Act in a period when incumbents argued they were subject to significant new regulation, but after they won certain significant deregulation, the percentage declined. In both periods, the level of potential competition and the opportunity created by new investment was certainly a larger factor than regulation.

Another example worth noting would be cable's of capital expenditures. Looking at one piece of the puzzle, one could argue, with some validity, that the Cable Act of 1992 suppressed investment in the cable infrastructure. But looking at the whole puzzle one would see that part of that act, the program access rules, stimulated the rise of the Direct Broadcast Service industry, which in turn stimulated cable to invest in network upgrades to offer improved video service and an offering DBS could not offer: broadband. The rise of cable broadband, far more than any deregulation, was the principal cause of telco investment in network upgrades to offer DSL.

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The point is not that all regulation stimulates investment. It is that the opposite, often cited as a reason to oppose network neutrality, is equally untrue.

Moreover, it is a mistake to judge the merits of a policy on the single metric of capital investment in a single industry. And that leads me to my second point.

2. The task of public policy ought not to be to maximize investment in one part of an economic value chain but to allow the market, in its variable but still better wisdom, to optimize investment throughout the entire value chain.

The right goal of a nation's economic policy, as noted by Harvard Professor Michael Porter, is to create a higher and rising standard of living for the nation's citizens. One prerequisite for achieving that goal is investment that drives broad economic growth.

Throughout the economy, companies are competing for investment dollars. The network neutrality debate is a part of that competition. As noted above, network neutrality involves a tug of war between different parts of the broadband value chain. Each part needs the others to deliver the ultimate product to the consumer. But not all parts receive the same return on equity. The greater the scarcity of one part, the more likely it will deliver a premium return to investors.

While some have suggested the government should never be involved in such matters, it is important to remember that government has often intervened in value chain disputes to help jump-start new industries and stimulate competition. To help the fledging cable industry, government imposed regulations on owners of utility poles and mandated compulsory copyrights for broadcast content. To help the Direct Broadcast Satellite industry, government imposed program access rules on cable-affiliated programming, which, as noted above also stimulated broadband investments. To help broadcasters, government imposed must-carry and retransmission consent rules on cable operators. To help wireless, the government limited the wireline companies' ability to change excessive terminating access charges. To help various providers of telecom services, such as the long-distance industry and competitive access providers, constraints were placed on the way incumbent local exchange carriers could price or deny access to certain of their facilities.

Some of these rules worked well, others did not. Some were required at a particular time but over time, outlived their usefulness.

The point is, targeted government action may or may not be warranted in this case but a generalized view that such intervention into a business relationship is always wrong or highly unusual is not historically accurate.

As the above examples illustrate, this network neutrality debate is not the first time the government has been presented the question of whether it needs to adopt certain rules designed to preserve or stimulate economic growth by assuring that providers of new, innovative services and products have an opportunity to get their offerings to the market.

In the case of the broadband market, consider that if the network owner wants to develop a new application or service, nothing stands between it and the customer. Indeed, if the network owner is considering investing in new infrastructure, it has three ways to earn a return on the investment: first, through sale of the basic access services; second, through sale of premium access services; and third, through the sale of its own applications and services that ride over the network.

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From the perspective of the investor in applications providers, however, the situation is quite different. Such an investment will only pay off if the application can reach a critical mass of consumers as possible. Obviously, there are significant uncertainties in terms of the costs of developing the application and making it available to the public Internet. But to the extent there is uncertainty about whether a premium will have to be paid to make sure consumers can reach the product, or uncertainty about whether the best efforts Internet will degrade over time, it decreases the probability of the innovation being funded.

The important thing is that from the perspective of investing in Internet applications and content, knowing that such access will continue to be available would be a critical variable in the investment decision. Without some basic guarantee of an improving, not degrading, open lane, investors in Internet applications would be less willing to invest in new applications.

This is no small thing in terms of economic growth for our country. A key driver of such growth in recent years has been ubiquitous productivity tools, such as e-mail, instant messaging, search, and new services such as VoIP and Internet video.

None of the innovations has developed from the enterprises that owned the networks. The reasons for that are complex. This history suggests, however, that to help drive an ever increasing standard of living, we should want to assure that markets are open enough to drive investment at an appropriate level ***throughout*** the value chain, not just at one point of the value chain.

And that brings me to my third point.

3. The primary threat to the market being able to optimize investment is a non-transitory bottleneck in any critical part of the value chain that restricts economic growth.

One often hears that government should prevent all bottlenecks but as Professor, and the one-time head of the Antitrust Division of the Justice Department William Baxter, taught, the goal of all competition is to create bottlenecks. Some bottlenecks, such as temporary bottlenecks that can be by-passed by new facilities or competitors, do not need to be addressed by government action.

The goal of public policy should be to assure that bottlenecks do not prevent that rising standard of living I noted earlier. Antitrust experts have identified some potential harms that might be relevant here, such as preventing new entrants from entering through adjacent markets, allowing those with a bottleneck to leverage that bottleneck into a related market, or impeding technology development by concentrating technology leadership into a small cadre of firms so that the entrepreneurial function of technology leadership is stymied.

In the current debate, these types of concerns are raised, principally around the market structure of last-mile wireline broadband facilities. One could have a long, and undoubtedly loud, discussion about whether there is a bottleneck anywhere in the broadband value chain. It is worth noting, however, that even proponents of network neutrality requirements agree that if there were five or more such providers, market forces would reduce the risk of anti-competitive behavior to a level that regulation would not be necessary. On the other hand, that if we had only one firm offering last mile broadband access, there likely would be a broad consensus that network neutrality rules would be necessary, as was true in the narrowband world that relied solely on the telephone network for last-mile access. Thus, the issue comes down to different views about the appropriate rule when we have two, or possibly, three, or four providers.

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Stifel Nicolaus & Company
June 14, 2006

This helps explain, I think, why wireless is generally excluded from this debate. Wireless companies violate what many think of network neutrality principles. For example, they do not allow any device to attach to their networks and they favor some content. But there is a general sense that the level of competition is sufficient to assure a competitive market for devices and content in wireless; or more specifically, new entrants can enter the market for certain wireless services from adjacent markets, wireless carriers cannot leverage their position to dominate new markets, and there is robust technological entrepreneurship for wireless applications, services and devices. A key indicator of the robust nature of the wireless market is the presence of resale services.

But even if we are only looking at wireline broadband, it is still more complicated than simply picking a number of national broadband competitors which, if reached, trigger an end to rules. First, we have today, and are likely to have for the foreseeable future, differences by geographic markets. While some Americans have access to three or even more broadband providers, some have access to only one, or even none.

Second, there are differences in performance characteristics. We speak of broadband as a single category but there are vast differences in what a high end cable or telco broadband offering can provide and what a lower-end service can offer.

Third, it is a dynamic market. The networks that deliver water or electricity have not changed much over the years but the bit delivery markets have changed dramatically over the past few years, and with video over the internet in its infancy, it is about to change again.

A big question mark, in my view, is when and how large a third ubiquitous broadband network will reach most Americans. If one thought the answer was soon and big, one would logically be less concerned about the need for network neutrality requirements. A new, large broadband facility would make it difficult for incumbents to block new entrants, leverage dominance into new markets, or suppress technological developments.

I happen to think, the answer is not soon and not big but my point is that no one knows for certain. Any analysis of the need for network neutrality inherently involves assumptions about emerging broadband alternatives.

Looking at the problem this way, however, a few things become clear. This is not a problem of a long-term national monopoly regulation; it is a problem of discrete geographic and product markets. It requires a granular analysis of those markets.

For example, assuming the current best efforts Internet is maintained and continues to improve at a reasonable pace, we think there is a relatively small risk of anti-competitive behavior affecting low-bandwidth applications such as email and search. But there is at least the theoretical danger that the current best efforts could, in effect, be degraded by a number of tactics by the incumbents, such as reducing the spectrum used for the best efforts public Internet and moving it to premium or priority access. This would be very problematic for the hypothetical investors contemplating investments in new applications and services that I described previously.

If the government thought there was a risk of such degradation, it could adopt the idea floated by Craig Moffett, another Wall Street analyst. In testimony to the Senate Commerce Committee generally critical of any network neutrality requirements, he suggested requiring a basic access tier for a minimum amount of bandwidth, or a fixed percentage of bandwidth in which pure neutrality would be maintained. Others, such as the Information Technology and Innovation Foundation have made similar proposals for a basic and growing level of open, unmanaged

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Internet access. The presence of such a safety net may prove a minimally intrusive solution to the risks to the market for low-bandwidth applications.

Market forces may drive such access. Or perhaps there needs to be a simple transparency requirement so that customers know how much of their bandwidth is being devoted to a neutral Internet experience. Certainly, it would be useful for a government agency to monitor trends in this direction.

As to the market for applications that require high bandwidth and low latency, such as online gaming and streaming video, there is a greater risk, though not a certainty, of anti-competitive behavior. This is particularly tricky to evaluate, as it is a new market. Companies entering this market, from both the network side and the applications side, are both uncertain of the right business models and reluctant to reveal their current thinking about the best strategies. While their reluctance is understandable, it also makes policy development more difficult.

As noted before, the government has in the past developed targeted rules to deal with specific problems. I think that doing the granular analysis of the specific risks and, if necessary, evaluating a wide spectrum of potential remedies is the task of expert agencies.

But however the government decides to move forward, I would hope it would all keep in mind the long-term strategy.

And that brings me to my concluding point.

4. The greatest guarantor of the kinds of benefits that network neutrality principles have delivered in the past, and the greatest driver of investment are the same: an opportunity for new, ubiquitous broadband networks.

Ultimately, to serve the goal of stimulating a rising standard of living for Americans, the challenge for government is to assure a broadband environment characterized by survival of the fittest, as selected by the market, rather than survival of the friendliest, as selected by the network owners or government.

We, as a nation, have benefited from the fact that to date in the Internet ecology, we have had such an environment. We should want it to continue.

But the market is now changing in many ways. The debate before the Committee and Congress is about what rules should be imposed on or removed from the existing players, given those changes. Hopefully, the analysis I and others have offered on this panel will be helpful to you and others in formulating answers.

But in closing, I have to say that, from both a public policy and an investment perspective, we need to look at this issue more broadly. As Thomas Friedman makes clear in his brilliant best-seller, "The World is Flat," the United States is competing in a global economy in which our competitors are using the benefits of new, cheap, robust broadband networks to improve their ability to compete. For our policies to lead to rising standards of living in such a world, we too, need to harness what Yale Law Professor Yochai Benkler calls "The Wealth of Networks."

For that to happen, the key policy questions we have to address are those that will drive greater, and I think ultimately, universal, broadband penetration, larger broadband bandwidth, and, as is true in some other countries, much more bandwidth for much less money. While these issues are

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implicated by some of the legislative proposals currently being debated, they are not at the core of that debate.

Given where we are, it is likely that the only way to drive more, bigger, cheaper, and ubiquitous broadband is through new, probably wireless, broadband facilities. Just as the spectrum auctions of the early 1990's drove a wireless network investment boom later in the decade, and a subsequent boom in various wireless applications, networks, and devices that we are still enjoying the fruits of today, so would new broadband networks drive another round of investment throughout the broadband ecology.

And hopefully, it would also drive market forces to assure that the network neutrality policy debate—like other telecom policy debates in years past which were important in their time but fortunately are no longer relevant—will largely be of interest to historians rather than to legislators.

Thank you very much.

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Testimony of Walter B. McCormick, Jr.
President and CEO of the USTelecom Association
Before the Senate Judiciary Committee
"Reconsidering Our Communications Laws: Ensuring Competition and Innovation"
June 14, 2006

Mr. Chairman, Ranking Member Leahy, members of the committee: Thank you for the invitation to appear before you today. I am Walter McCormick, President and CEO of the USTelecom Association. On behalf of our more than 1,200 member companies, I appreciate this opportunity to discuss the exciting changes taking place in the communications marketplace today...the vigorous investment underway that is accelerating competition and innovation across the voice, video and Internet landscape...and the much-needed efforts underway to update the nation's communications laws—in this Congress—in order to continue this vital progress for the nation's economy and consumers.

As you know, it's been 10 years since the U.S. Congress last updated the nation's communications laws. No American consumer needs an elaborate lecture on just how much the world of communications has changed over that time. Just walking through security into this building, you witness a virtual show-and-tell of the new world of communications as cell phones and Blackberries prove almost as ubiquitous as wallets and keys.

There are today in America far more wireless phones than home phones. That has been the case in our country since 2002. Even with home phones, consumers have multiple choices. Going by the number of customers, some of the largest "phone companies" in the country today are cable companies. In fact, my neighbor on this panel, Mr. Cohen, represents a company—Comcast—that signed up 211,000 new voice customers in the first quarter of 2006. Of course, in addition to cable, you have a whole universe of IP voice providers like Vonage, an estimated 1,100 companies offering service in North America alone.

We see competition similarly intensifying today in the broadband marketplace. Every day, it seems there is a new announcement. Satellite companies investing in additional capacity. New wireless spectrum becoming available. Major investments in broadband over power lines...in municipal wi-fi networks...huge corporations like Google moving into the role of broadband service provider.

According to the FCC, in most of the country today, consumers have three or more broadband choices...60% of the country has four or more choices. A recent report from the California Public Utilities Commission counted as many as 23 different broadband providers in the most populous areas of the state. Of course, not everyone lives in Los Angeles or San Francisco. But any way you look at the data, this is dramatic progress. Broadband choice is expanding by the day...and is very, very encouraging.

Why is it encouraging, Mr. Chairman? Because of the overwhelming response of American consumers to this expanding array of competitive market choices. Broadband adoption has surged 40% over the past year, according to the most recent data from the Pew Internet and American Life Project. The strongest growth has come from working families and minorities, led by African Americans whose broadband adoption increased by 121% between 2005 and 2006.

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With introductory prices falling precipitously over the past 18 months—often dipping below $15 a month—many working families are bringing the Internet into their homes for the first time. Often, they now skip right over the dial-up Internet...going straight to affordable, reliable, high-quality broadband service offerings.

This is an extraordinarily positive development for the nation's economy...for our global competitiveness...and for the next wave of broadband-driven investment and innovation.

How do we continue this progress? First and foremost, by recognizing that this market is contestable to all who wish to invest. This is plainly evidenced by the growing array of companies doing just that in the marketplace today...cable...phone...satellite ...power...municipality...WiFi...WiMax...Google and more...all investing in what is increasingly a free-for-all for consumers' broadband business.

This approach—encouraging investment—is central to continued broadband competition and innovation. As you know, telecommunications companies have invested billions of dollars in recent years to upgrade the nation's broadband infrastructure. For us, the incentive to do so is the opportunity to enter the video marketplace.

Unfortunately, regulations designed in a bygone era to protect consumers from cable monopolies now are having the equal and opposite effect of protecting cable companies from the market disciplines—on price, on quality of service, on innovation—of vigorous competition.

No one in this room—or across America, I'd gather—needs to be convinced of the many benefits that would be derived from enhanced consumer choice in the video marketplace. A recent study by the Phoenix Center indicates that consumers would save as much as $8 billion on their cable bill in the first year alone with TV freedom.

In Keller, Texas, the local cable company reduced the rates on its most popular bundled service package by nearly 50% in response to Verizon's announcement of a voice, video and Internet triple play. Our companies would like to bring this innovation and competition to communities across the country. We believe Senator Stevens' legislation, S. 2686, the "Communications, Consumers' Choice, and Broadband Deployment Act of 2006," takes the right approach to ushering in new consumer choices in the video marketplace, while preserving local revenue streams and control over public rights of way.

USTelecom strongly supports this legislation. Removing barriers to competitive entry into the video marketplace would enhance competition and consumer choice. Another critical byproduct of this updated policy would be a bright green light to the marketplace to continue investing in the nation's broadband infrastructure...creating jobs, increasing broadband penetration and fueling a continued revival of our innovation economy.

Net Neutrality

Mr. Chairman, I also would like to take this opportunity to advise caution in the so-called 'net neutrality' debate. This is a very complex technology debate that, I believe, has been unfortunately and inaccurately oversimplified in recent weeks. The companies I represent

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have been managing networks for over 100 years. Consumers today have —and will continue to have—the freedom to call or e-mail whomever they choose… and to visit any legal website … without being blocked, without their service being impaired or degraded. It's the right thing to do in a country that values and cherishes the First Amendment. It's smart business…offering the greatest customer satisfaction and driving demand for broadband. And, the FCC has demonstrated both the will and the capacity to safeguard Internet freedom.

Senator Stevens' approach ensures vigilance and accountability on the issue of Internet freedom. But it wisely continues the hands-off policy that has driven unprecedented Internet investment, innovation and economic growth. The notion that Congress should rush to regulate the Internet—in anticipation of a problem that may never manifest—is dangerous. This extreme position would not preserve the free and open Internet we enjoy today, it would most certainly stifle its future development and growth.

Conclusion

Mr. Chairman, I thank you again for the opportunity to appear before this committee today. As you know, the House last week delivered an overwhelmingly bipartisan vote to advance video choice…vigorous broadband investment…and a stable future for universal service.

I look forward to working with broadband leaders on both sides of the aisle to deliver that same progress for consumers and the U.S. economy here in the Senate. Without question, a vote for video choice is a vote for competition and innovation. It is a vote that would send a clear signal to all competitors in the marketplace today that the United States Congress is committed to advancing America's broadband leadership…and the investment and innovation that make it possible.

I thank you for your interest today and for this opportunity, and I'd be happy to answer any questions you may have.

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Testimony of Paul Morris

United States Senate Committee on the Judiciary
June 14, 2006

"Reconsidering Our Communications Laws: Ensuring Competition and Innovation"

1. Introduction

Thank you very much for the invitation to testify today. My name is Paul Morris, and I am the Executive Director of the Utah Telecommunication Open Infrastructure Agency, which we call "UTOPIA" for short. UTOPIA is an interlocal entity created by 14 cities in Utah, with nearly 500,000 residents. We are constructing one of the nation's largest community broadband projects.

2. UTOPIA's Purpose

These municipalities formed UTOPIA to provide every household and business within their boundaries access to a next generation, high-speed, competitively priced broadband connection. There are two key reasons for this investment: first, to promote economic development; and, second, to enhance the quality of life for residents. UTOPIA member communities concluded that the best way to achieve these goals was through the construction of an all fiber optic network that operates on a wholesale basis and leaves it to the private sector to provide the telecommunications services to the customer; a true public/private partnership.

3. Role of Municipalities

As you are aware, cities across the country have become actively engaged in supporting the deployment of new broadband infrastructure in their cities.[1] Some cities are supporting wireless projects while others are focused on fiber-to-the-premises infrastructure. Some are doing it on a retail basis, others on a wholesale basis, and some are a hybrid of the two. Many of these projects involve public/private partnerships. The common thread is that each community believes upgrades to its broadband infrastructure are essential to its economic vitality.

Allowing local elected officials to judge how important advanced broadband availability is to their communities and letting them determine how best to secure its deployment stimulates innovation. The accumulated experience of local responses to local conditions is a valuable source of learning and adaptation for all communities in the nation.

4. UTOPIA's Story

About four years ago a few local officials in Utah began exploring the best way to provide advanced telecommunications services within their jurisdictions. They acted on the conviction that their communities needed access to services that would be second to none, both in terms of bandwidth capacity and competitive pricing. These local leaders

[1] See http://www.freepress.net/communityinternet/networks.php for a compilation of current and planned community broadband projects in the United States.

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carefully examined the options. After extensive evaluation, they concluded that a fiber-to-the-premises network was the best alternative for both current and future applications and that it should be operated on a wholesale basis. Fiber supports virtually limitless bandwidth, enabling multiple private service providers to offer unparalleled competitive services over a common transport infrastructure without getting in one another's way. The wireless alternative as a primary broadband infrastructure was rejected because it did not satisfy the communities' goals. Wireless tools did not support the needed bandwidth capacity. The UTOPIA cities understood that wireless and fiber networks are not substitutes for each other but rather are complementary. Fiber offers plentiful bandwidth while wireless offers mobility.

These leaders also recognized that working together to aggregate resources would further assist in achieving these important community goals. UTOPIA comprises urban and rural, and large and small cities. The largest community has a population of 130,000 and the smallest is 2,500. But together they have a combined population of almost a half a million people which allows for multiple competitive providers to offer services and be profitable.

After two years of study and planning, UTOPIA issued an $85 million revenue bond in July 2004 to build its first phase in six of the 14 cities. At this point, 25,000 homes and businesses are ready for service, over 4,200 have signed up with one or more of our four current private service providers, and more are signing up daily.

5. Open Wholesale Fiber Network

The UTOPIA Network is different from the broadband infrastructure typically found in our country, for three significant reasons:

a. Symmetry: Users can send information just as quickly as they can receive it. Traditionally, the focus has been on download speeds. But human communication for entertainment, business activity, social cohesion, and family unity needs to be interactive. We need not only to see but to be seen. Giving individuals the ability to send as quickly as they receive can be transformational. It allows for quick dissemination of data rich content and enables a high quality real time communications experience.

b. Capacity: A fiber network has incredible bandwidth capacity, enabling new applications such as inexpensive high quality video conferencing, distance learning, high definition IPTV, telemedicine, and telework. We currently are working with private companies to test three new applications that require the bandwidth that an all-fiber network can support. Two of these tests are being conducted by an international media company and involve a whole new way of viewing video content. The third, is an inexpensive high quality video chat that is easy to install and use.

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c. Wholesale: Both the symmetry and bandwidth capacity of the network enable the implementation of UTOPIA's philosophy of operating the network as a wholesale public infrastructure. Much like an international airport, constructed by a municipality to enhance the local economy, UTOPIA is building the electronic airport but not "trying to fly the planes." It is neutral between its service providers and will not compete against them in the provision of services to customers. This allows for robust competition, the introduction of new services, and innovation.

6. Pending Federal Legislation

As you consider the legislative proposals pending before you, we believe that it is prudent to recognize the vital role government has played in the development of all major infrastructure in the history of the United States, from railroads and canals to water, sewer, and power systems; from highways to the current telecommunications networks. Municipalities have a key role to play as we work together to provide the most competitive and advanced telecommunications system in the world.

We believe that legislation that recognizes this role and allows municipalities to chart their own course should be supported. Specifically, the original draft of SB 2686 dealing with municipal participation in broadband developments was of great concern to us. However, the provisions found in "Title V – Municipal Broadband" in the Staff Discussion Draft of SB 2686, dated June 9, 2006 is a great improvement and we support its concepts. Similarly, the telecom reform bill passed by the House last week has similar language that is a positive approach.

Also, there has been much debate over network neutrality. While UTOPIA has not taken a position on network neutrality as applied to other networks, our network solves this problem without the need for regulation. We understand the concern over the public policy implications raised in the debate, but with an ample supply of bandwidth coupled with multiple service providers freely competing for the consumer's dollar on a network such as ours, the free market will resolve the issue. One of our concerns is the scope of the language of some network neutrality proposals and its implications as applied to an open network.

Thank you for your time. I look forward to working together to advance our common interests. I am happy to answer your questions, or to respond to any follow-up requests afterwards from your staff.

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BIOGRAPHY FOR PAUL MORRIS

Paul T. Morris is Executive Director of the Utah Telecommunication Open Infrastructure Agency (UTOPIA), a governmental entity created by 14 Utah cities to build an open wholesale fiber optic network to all homes and businesses within the member cities. He was the City Attorney for West Valley City, Utah, from 1983-2005. He has been the Chair of the Utah League of Cities and Towns Telecommunications Task Force since 1997. He is a graduate of Brigham Young University, receiving a Bachelor of Science degree in Business Management in 1979, and a law degree in 1982. He received a Masters of Public Administration degree from the University of Utah in 1991. Paul is a past president of the Utah Municipal Attorneys Association. The BYU/J. Reuben Clark Law School's Government and Politics Legal Society presented him with the "State and Local Government Award" in 1996, and the Utah League of Cities and Towns designated him as "Utah's Municipal Official of 1998." In 2004, he received the Star Award from the Fiber to the Home Council. Paul is a member of both the Utah bar and the California bar. Currently, Paul is the Chair of the International Network of E Communities (INEC), whose members include Kenniswijk, The Netherlands; Stockholm, Sweden; The Multimedia Super Corridor in Malaysia; Dubai Internet City, U.A.E; and Recife, Brazil. He is also a member of NATOA, the National Association of Telecommunications Officers and Advisors.

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MultiChannel News™

The Case Against a Neutral Net

By J. Gregory Sidak, Georgetown University 2/20/2006

The following is excerpted testimony offered by J. Gregory Sidak, visiting professor of law at Georgetown University Law Center, before the Senate Commerce, Science and Transportation Committee on Feb. 7:

"Net neutrality" obligations would require a telecommunications carrier to operate its broadband network so that no packet of information is treated as inferior to others in terms of its urgency of delivery. Under "net neutrality" I can take comfort in knowing that my son's Internet chatting about what agent Jack Bauer did on last night's episode of *24* will receive the same priority of delivery as my file transfer of this testimony to the Committee's staff.

Companies like Google, eBay, and Yahoo might believe that such an outcome works to their private economic advantage, but that short-run view would neglect the disincentive that "net neutrality" obligations would create for private investment in the very broadband infrastructure upon which these companies rely to deliver their content and applications to consumers.

To understand the harm that "net neutrality" obligations pose to economic welfare, Congress needs to appreciate six salient economic features of telecommunications networks.

The first economic consideration is that a broadband network requires substantial sunk investment. Private investors will fund the construction of a broadband network only if there is a reasonable expectation that the company making that investment will recover the cost of its investment, including a competitive return on capital. Sunk investment is not a one-shot deal; sunk investment is made continuously over time. Therefore, as soon as it is understood that a new regulatory obligation or regime like "net neutrality" will jeopardize a firm's recovery of its sunk costs, the capital markets will demand a

higher risk-adjusted return.

The second economic consideration is that a broadband network exhibits economies of scale. The large sunk costs of building a broadband network imply that the marginal cost of providing service to one more consumer is very low. However, marginal cost pricing is insufficient to recover even the average variable cost of the network, much less the average total cost, which would be necessary to recover the sunk costs of building the network.

The third economic consideration is that a broadband network exhibits economies of scope. In other words, there are synergistic "common costs" to producing multiple products over the same network. The fourth economic consideration is that differential pricing ... can increase economic welfare because it enables a firm to lower the price to consumers who would otherwise be priced out of the market if the firm were constrained to charge a higher uniform price.

The fifth economic consideration is that telecommunications services have joint demand. For example, a telephone call is valued by both the caller and the recipient, and a visit to a Web site is valued by both the consumer doing the browsing ... There is no basis in economic theory to presume that it would be socially optimal for end users to pay for all of the cost of building a high-speed broadband network while the companies that deliver content or applications to those same end users over that network and therefore derive substantial economic advantage from its use pay nothing.

The sixth economic consideration is that telecommunications networks are susceptible to congestion. For that reason, correct price signals must be used at every possible point in the network so that users who congest the network bear the social cost of their behavior.

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(Confidential)

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Multichannel NEWS

It Googles The Mind; Big Money Defines Net Neutrality Debate

Special Report - On Demand
By Matt Stump, Technology Editor
06 March 2006
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If you take a step back, remove your corporate hat and take a hard look at the net neutrality debate that has been raging in recent weeks in Washington among Google Inc., academics, telephone companies and cable operators, all played out in front of elected officials, you feel like you're watching a three-ring circus.

The noise telcos have made about charging for high-use applications has apparently sent Google scanning the world for engineers, dark fiber, servers and routers to build its "own" Internet before AT&T Inc. and company prevent Google from its God-given right to reach the American people and make lots and lots of money.

Since Google can't "trust" the phone companies, and perhaps cable, to keep broadband connections untolled, save for the monthly access fee to consumers, Google "needs" to make sure it can reach consumers.

If you listen long enough to the rhetoric, you'd think the republic will rise and fall on this very issue.

Listen folks, it won't. This net neutrality fight is about billion-dollar-a-year companies fighting other billion-dollar-a-year companies over the next billion dollars that can be made.

And the politicians who are stepping onto soapboxes, pontificating that they will defend the American public's right to go to any Web site they wish is classic Beltway opportunism.

First, a few tenets from Business 101: Cable and telephone companies are giant businesses. Businesses need revenue and customers. That's their goal in life. High-speed data is a very nice revenue stream. If cable and telcos start blocking or slowing access to any Internet information, especially

given all the current publicity, customers will simply leave for another broadband provider the very next day. That's bad business. You don't need an MBA, or a piece of legislation, to figure that out.

Second, tiered access already exists. It's called a virtual private network service. Thousands of businesses are paying telephone companies – and cable companies, for that matter – extra money each month to get more dedicated bandwidth. It's a common business practice, and the republic has not fallen.

It's understandable, then, that the telcos would seek similar business arrangements for "consumer" applications and see what the market would bear. Yes, it might be short-sighted from a public opinion perspective. But they also want to see a return on their nationwide backbone investment.

Remember, Verizon Communications and AT&T own their own backbone, while the cable industry leases national backbone capacity, just like Google. So cable, ever wary of the political winds in Washington, isn't as worried about Google, Apple or MSN traffic on backbones, as AT&T might be.

The politicians are worried about protecting Americans' right to access Web sites and fear falling behind other nations in the broadband "race." So the highest public policy ground they can find is protecting my Internet access rights from phantom threats?

What about getting broadband in more U.S. homes, especially the poor and the less educated? What about getting broadband into more homes so teleworking can increase in the face of the nation's reliance on foreign oil?

Those larger issues seem to have gotten lost in the fight to protect Google from AT&T.

Most U.S. citizens have at least two choices for broadband service and wireless companies are close to offering a third. America's capitalist system can't do much better than that. Google's Vin Cerf moans that Americans have only two choices. In most countries, they'd be lucky to have those two choices. And those choices are causing digital subscriber line prices to dip below $20 a month.

Nothing prevents Google from spending $50 billion or $100 billion to wire each home in the U.S. with broadband. But nothing in their dark fiber rumblings seems to indicate they're ready to make that type of final last-mile commitment, a commitment the cable and telephone companies have already made.

You don't hear Google wiring schools with broadband for free, or laying fiber to offer broadband local area networks for hospitals or building broadband plant to increase the number of teleworkers in the U.S.

The marketplace, which includes negotiations between Internet application companies, like Google, and broadband service providers, like the telephone and cable companies, should rule over any law Washington might pass. Case closed.

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THE PROGRESS & FREEDOM FOUNDATION

Progress on Point

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Periodic Commentaries on the Policy Debate

A Skeptic's Primer on Net Neutrality Regulation*

Kyle Dixon
Ray Gifford
Tom Lenard
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Adam Thierer**

Executive Summary

"Net neutrality" has emerged as the most contentious communications and media policy issue. In a broad sense, the debate is about whether law and regulation should dictate completely "open" or "dumb" broadband networks or whether "openness" should be left to the marketplace. Net neutrality regulations might weaken the competitive vibrancy of the content, applications and device components of the Internet, for example applications that depend on a steady transfer of data like voice or video. Neutrality mandates and a fixation on "end-to-end" principles could also complicate efforts to keep the Internet safe and reliable. Network providers make money by signing up customers, and have a strong incentive to provide the openness their customers demand. But forcing commoditization of broadband infrastructure prohibits providers from experimenting with different network architectures that could benefit customers, and discourages entry and investment in an industry with high fixed costs and low marginal costs. Net neutrality regulations also wouldn't necessarily remain limited to the platform layer; other layers such as services could be regulated as well. In addition, a natural extension of net neutrality regulation would be price regulation; pricing should be left to markets. In short, common carrier regulations dating from a telephone monopoly era have no place in a competitive broadband market. Net neutrality is a premature bit of industrial policy that favors companies in one tier of the Internet over companies in another tier. We remain skeptical of the premises for net neutrality regulation, critical of the regime necessary to implement it, and fearful of the unintended consequences issuing from such a regulatory mandate.

A Skeptic's Primer on Net Neutrality Regulation

"Net neutrality" has become the most hotly debated communications and media policy issue. Proposals to enshrine net neutrality regulation into law are being entertained both in Congress and at the Federal Communications Commission. Meanwhile, as "net neutrality" has matured into a political issue from a regulatory one, rhetorical restraint has disappeared amidst cataclysmic predictions of "the end of the Internet" and demands for compensation for use of broadband networks.

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* This primer is a compilation of various arguments relating to network neutrality and is not intended to reflect the views of the Progress & Freedom Foundation, its Board or any particular fellow.

** Kyle Dixon, Ray Gifford, Tom Lenard and Adam Thierer are senior fellows with The Progress & Freedom Foundation. Randolph May is president of the Free State Foundation.

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This primer offers an overview of the net neutrality issue. In sum, we remain skeptical of the premises for net neutrality regulation, critical of the regime necessary to implement it, and fearful of the unintended consequences issuing from such a regulatory mandate. That said, we do not counsel for a categorical rejection of "net neutrality" concerns, but rather vigilance and focus on the competition policy concerns highlighted by "net neutrality."

Q. What is "Net Neutrality"?

The concept of net neutrality is subject to various definitions, depending on who you ask. In general, however, net neutrality is understood to describe a bundle of "access" rights to high-speed broadband pipes. In September 2005, the FCC adopted a policy statement delineating four Internet connectivity principles that describe the bundle of "rights" commonly understood to be encompassed under the network neutrality rubric. The FCC stated that consumers are entitled to:

(1) access the lawful Internet content of their choice;
(2) run applications and services of their choice;
(3) connect any legal devices that will not harm the network; and,
(4) competition among network providers, application and services providers, and content providers.[1]

While there may be differences in phraseology, most net neutrality proponents would agree with a formulation that encompasses the above rights. In a broad sense, the net neutrality debate is about whether law and regulation should dictate completely "open" or "dumb" broadband networks or whether, instead, the degree of "openness" should be left to the marketplace, permitting arrangements between network operators, consumers, and application and content companies in light of marketplace and technological imperatives.

Q. Isn't network neutrality or Internet "openness" a good thing? Why shouldn't anyone impose rules promoting these values?

Everyone agrees that "openness" on the Internet is a good thing in the sense that consumers benefit from expanding levels of competition and innovation that the Internet's technical architecture makes possible. There are several interwoven components to the Internet experience -- content, applications and services, "smart" devices and broadband networks like those that provide DSL and cable modem service. Consumers need competition and innovation with respect to all of these components. Indeed, even proponents of net neutrality regulation welcome increased competition and innovation in "last mile" broadband networks. Thus, it is sadly ironic that net

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[1] Appropriate Framework for Broadband Access to the Internet over Wireline Facilities, FCC 05-151, CC Docket No. 02-33, September 23, 2005.

neutrality regulation could stymie the investment that is necessary to foster such competition and innovation.

Q. Are the issues surrounding network neutrality legitimate subjects for government involvement? If so, what role should government play?

The proper role for government in this debate is the one it has played with respect to many other industries, including communications: preserving and promoting competition. Calls for net neutrality regulation largely are based on the fear that competition among "last mile" broadband networks is inadequate to prevent owners of such networks from denying consumers or companies trying to reach them fair and even-handed use of the networks. Particularly given that broadband providers continue to vie for customers on the bases of price, speed and other features, policymakers should ask whether this fear is justified and, if so, whether net neutrality rules are the best way to address the underlying competitive concern.

We think the answer to whether net neutrality mandates are needed is not "always yes" or "always no" but "maybe, in certain circumstances." Broadband providers can only undermine consumer welfare when they possess and abuse market power, i.e., the power to act anticompetitively. Approaches that limit net neutrality regulation to providers who abuse market power stand the best chance of addressing valid competitive concerns that arise without inadvertently discouraging investment in increasingly competitive broadband networks.

Q. Has the government taken action to implement network neutrality principles?

Yes. In short, the FCC has adopted a policy statement expressing its strong preferences, has taken enforcement action in the Madison River case and has adopted orders that bind the largest telephone company providers of broadband to preserve the access to content, applications and devices that consumers already enjoy. Note, however, that the FCC has declined to adopt more sweeping, across-the-board net neutrality mandates because it has concluded that doing so would deny consumers the benefits of investment and innovation in increasingly competitive broadband networks. These points are addressed more fully below.

The Agencies

The FCC concluded its policy statement by observing: "To foster creation, adoption and use of Internet broadband content, applications, services and attachments, and to ensure consumers benefit from the innovation that comes from competition, the Commission will incorporate the above principles into its ongoing policymaking activities."[2]

It did not take long for the FCC to make good on its promise to incorporate the net neutrality principles into its ongoing policymaking activities. When the FCC

[2] Id. at 3.

approved the mergers of SBC Communications, Inc. with AT&T Corp. and Verizon Communications, Inc. with MCI, Inc. in October 2005, it included in its approval order a condition requiring that the merger applicants "conduct business in a way that comports with the Commission's Internet policy statement issued in September."[3]

Of the major broadband Internet platforms, cable modem service has never been subject to a 'net neutrality' mandate. Indeed, following the Supreme Court's decision in Brand X,[4] it is unclear whether the FCC has authority to mandate net neutrality on cable modem service. DSL broadband service, by contrast, lived under "common carriage" requirements from its inception, and only recently escaped the Communications Act's Title II common carriage obligation.[5] Because neither broadband service is regulated as "common carriage," the Federal Trade Commission has indicated that it has jurisdiction over these services under its consumer protection and competition policy authority.

The legal prerogative to impose net neutrality obligations is far from clear. The FCC has uncertain authority, at best, under its Title I jurisdiction, and hence has turned to "voluntary" agreements to abide by net neutrality principles under its merger authority. Meanwhile, the FTC as a general matter is loath to engage in prophylactic rulemaking, and instead is institutionally directed toward addressing specific claims of consumer fraud or harm. Thus, while murmurs of net neutrality regulation are heard at the FCC and FTC, neither regulatory agency has indicated the will, much less appetite or legal authority, to impose net neutrality mandates on broadband platforms.

Congress

Congress is in the process of considering revisions to our communications law, and may be doing so for some time. The Commerce Committees of the House and Senate have primary jurisdiction over communications law. The bill passed by the House—Barton/Rush—contains what has been termed a "weak" net neutrality provision. A separate bill by House Judiciary Committee Chairman Sensenbrenner that was approved by his committee would impose net neutrality requirements by amending the Clayton Act, but the House Rules Committee rejected the possibility of this being considered as an amendment to Barton/Rush on the House floor. The main Senate bill, sponsored by Senators Stevens and Inouye, obliges the FCC to study the issue and report back to Congress, but does not contain a mandate. Meanwhile, stand-alone net

[3] News Release, "FCC Approves SBC/AT&T and Verizon/MCI Mergers," October 31, 2005. The FCC characterized the conditions it imposed, including the one relating to Net Neutrality, as "voluntary commitments." Of course, the applicants were anxious to have the Commission approve the proposed mergers without any further delay. For two articles explaining how the FCC uses—or, perhaps put more bluntly, abuses—the merger approval process to impose "voluntary" conditions that do not directly relate to any claimed competitive impacts uniquely associated with the proposed merger, see Randolph J. May, Telecom Merger Review-Reform the Process, National Law Journal, May 30, 2005, at 27; Randolph J. May, Any Volunteers?, Legal Times, March 6, 2000, at 62.

[4] Nat'l Cable & Telecomm. Assn. v. Brand X Internet Services, Sup. Ct. Docket No. 04-277 (June 27, 2005).

[5] Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities, CC Docket Nos. 02-33 et al., Report and Order and Notice of Proposed Rulemaking (rel. Sept. 23, 2005).

neutrality legislation has been proposed by Senator Wyden and Representative Markey, respectively. Senator Ensign's comprehensive communications bill contains guaranteed network access rights of the type embodied in the FCC principles. Finally, S. 2113, the Digital Age Communications Act introduced in December 2005 by Senator DeMint, which closely mirrors the proposals put forward by PFF's DACA Project, does not contain a separate net neutrality provision, but instead leaves net neutrality to be dealt with in a competition policy context.

Q. Given the FCC's actions to promote net neutrality principles thus far, is it necessary for Congress to step in?

No. Although the FCC has exercised restraint in order to avoid scaring away broadband investors, it also has (1) stated a clear preference for giving consumers access to the content, etc. of their choice; (2) taken action to preserve that access (e.g., swift action against Madison River Communications, adoption of merger conditions); and (3) maintained that it has jurisdiction to preserve such access if problems arise in the future.

Whether or not one wishes the FCC had an even more aggressive approach, it is undeniable that there haven't been any significant or sustained restrictions on legal content, applications or devices by broadband networks under the agency's policy. Further, even if future FCC efforts to promote net neutrality are challenged in court, its views likely will determine networks' behavior over the years the issue would be litigated on appeal. Policymakers should press net neutrality proponents to explain why new legislation is necessary given there is no evidence the FCC's policy isn't already working to address their concerns.

Q. Why do some feel it is important to impose net neutrality rules at this time?

The rationales for imposing net neutrality mandates rest on notions of preserving "openness" on the Internet. Net neutrality proponents often couch their arguments in terms of "open" versus "closed" networks and they warn of the dangers of broadband service providers using their transmission facilities to control applications or services that run over their "pipes."

In particular, net neutrality proponents claim to fear increased vertical integration by broadband network operators, arguing that the integration of conduit and content within a broadband environment will diminish the overall neutrality of the Internet. They believe that innovation occurs at the edge of the network – in content and applications – and that the pipes through which all this information flows are "dumb" and should remain so. In antitrust parlance, proponents fear that broadband network owners will leverage market power in the network layer to foreclose competition and establish monopoly power in the application and content layers.

The network, in effect, would be subject to a rule of strict vertical separation between providing broadband service, and running applications or content over that broadband service.

Q. Wouldn't a network neutrality mandate at least protect existing robust competition among applications, content and device makers?

There is reason to expect that a network neutrality mandate actually might weaken the competitive vibrancy of the content, applications and device components of the Internet. For all its flexibility, the Internet cannot be all things to all users. For example, Internet protocols (e.g., TCP/IP) route packets of digitized data over the Internet anonymously on "first come, first served" and "best effort" bases. This approach has worked well for applications or related devices that are not time- or latency-sensitive. This approach works poorly, however, for uses that depend on a steady transfer of data of networks, such as streaming media, including Internet delivery of high-definition television, online gaming and even Voice-over-IP.[6]

Similarly, a network neutrality mandate might complicate efforts to keep the Internet safe and reliable. An ideological insistence on the "end-to-end" principle would forbid security and reliability fixes within the network. Net neutrality would advantage a certain type of non-latency-sensitive application and content, but disadvantage more latency-sensitive applications such as video, voice or interactive gaming.

Proponents' rejoinder to this is that if the broadband network providers just build big enough pipes, then latency will not be an issue and all applications can flow freely to consumers.

Q. Why would a net neutrality requirement not be in the interests of consumers? Won't broadband operators engage in anti-consumer behavior if regulators fail to impose legal protections in a preemptive fashion?

Broadband providers only make money by signing up more customers and keeping them satisfied. If a broadband provider were to encumber the web-surfing experience or block device interconnectivity in a way inconsistent with consumer expectations and preferences, that operator would lose customers. Simply put, it wouldn't take long before marketplace pressures would cause the operator to alter its behavior. Indeed, even a monopolist has every incentive to maximize traffic on its network, and thus not block consumer access to any content.[7]

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[6] Christopher S. Yoo, Beyond Network Neutrality, Vanderbilt University Law School, Public Law and Legal Theory (Working Paper No. 05-20), Law & Economics (Working Paper No. 05-16), available at http://ssrn.com/abstract=742404 (visited Feb. 1, 2006), at 5.

[7] For explanation of the "internalization of complementary externalities" (ICE) principle, which explains how even a platform monopolist will want to maximize use of its platform (be it a game platform, a computer operating system, or a broadband provider), see Joseph Farrell & Philip J. Weiser, Modularity, Vertical Integration and Open Access Policies: Towards A Convergence of Antitrust and Regulation in The Internet Age, 17 Harv. J. L. & Tech. 85, 100-105 (2003).

While it will be in the best interests of broadband operators to maintain a high degree of interoperability/openness – because that is what consumers will demand – a purely "dumb pipe" approach would not be in the best interests of all consumers. The availability of certain integrated services and applications may enrich the Web-surfing experience. This is true, for example, for entry-level broadband subscribers for whom such integration may make it easier for them to get started. Consider the popularity of AOL's "walled garden" or "guided-tour" approach to websurfing, which for many years has been the launch pad for consumers' intial web-surfing experience. Similarly, a net neutrality mandate might interfere with an operators' ability to customize Internet access packages to consumers, such as a "family-friendly" surfing environment.

Q. What are the potential costs of a net neutrality mandate?

The most serious danger associated with net neutrality regulation is its potential impact on future broadband network innovation and investment. Do we want only one "dumb pipe," or many competing dumb and smart pipes?

Net neutrality mandates represent the forced commoditization of broadband infrastructure.[8] Broadband providers would be prohibited from experimenting with different network architectures that might conflict with the one-size-fits-all "end-to-end"/dumb pipe model. Under a net neutrality regime, the providers would have difficulty developing innovative business models that would permit them to recoup the significant fixed costs of building out broadband networks. Andrew Odlyzko of the University of Minnesota's Digital Technology Center has suggested the issue comes down to whether network owners can earn enough of a return that capital markets will fund expensive and economically risky investments in broadband networks.[9] Net neutrality proponents trivialize the supply-side problems created by the dumb pipe model. Forced commoditization leaves the service provider with very little, if any, room for innovation through service integration or a change in network standards / architecture. In that environment, investment dries up.

By seeking to impose restrictions that inevitably have the effect of stifling investment in new networks, net neutrality proponents implicitly assume what we have today is all we should ever expect to have in the way of broadband networks. This static

[8] As Christopher Yoo, associate professor of law at Vanderbilt Law School, argues, "[I]mposing network neutrality could actually frustrate the emergence of platform competition in the last mile. Put another way, protocol standardization tends to commodify network services. By focusing competition solely on price, it tends to accentuate the pricing advantages created by declining average costs, which in turn reinforces the market's tendency towards concentration. Conversely, increasing the dimensions along which networks can compete by allowing them to deploy a broader range of architectures may make it easier for multiple last-mile providers to co-exist." Christopher S. Yoo, Would Mandating Broadband Network Neutrality Help or Hurt Competition? A Comment on the End-to-End Debate, 3 Journal on Telecommunications & High Technology Law, vol. 3, 2004, p. 63.

[9] Andrew Odlyzko, Pricing and Architecture of the Internet: Historical Perspectives from Telecommunications and Transportation 6 (last revised Aug. 29, 2004) (unpublished manuscript, on file with the University of Minnesota Digital Technology Center), available at http://www.dtc.umn.edu/~odlyzko/doc/pricing.architecture.pdf.

approach certainly doesn't make sense in the digital age. Moreover, if investment in the network is inadequate, this will inevitably affect the types of content and applications that are possible. An antiquated network is going to be a drag on innovation at the "edge."

Q. What about concerns that a net neutrality mandate will lead to more regulation of the Internet?

Fears that a network neutrality mandate would usher in subsequent regulation are not merely speculative; they are supported by the FCC's experience in regulating "enhanced" services and attachments to the narrowband, telephone network in its Computer Inquiry, Part 68 proceedings and local telephone competition proceedings.

The Computer Inquiry requirements were adopted over many years beginning in the 1970s and, at base, were designed to allow telephone companies to participate in the emerging data processing industry on the condition that they afford competing "enhanced" or information service providers (e.g., third-party voicemail providers) the same access to the transmission capability of the phone network. Phone companies had to file the terms and conditions of these "basic" services with tariff reviewers at the FCC, subject to regulation that the prices for these services be "just and reasonable." The Computer Inquiry spawned a vast maze of requirements so Byzantine that few attorneys at the FCC or elsewhere claimed to understand them fully. Many of the requirements were rejected in a series of court appeals.

By analogy to the broadband context, it seems likely that any network neutrality mandate that Congress adopts (and that survives implementation and judicial review) will be met with calls for additional regulation of the price and other terms of this "neutral" access. This additional regulation would heighten the burden imposed by a network neutrality mandate itself, thereby further discouraging investment in broadband networks. Regulatory mission creep will be inevitable.

Q. But aren't these concerns valid in light of the market power some broadband providers have today?

Broadband markets will never be characterized by limitless entry. The economics of broadband are not those of a corner lemonade stand; there will never be dozens of entrants vying for our business. The sunk costs associated with rolling out high-speed video, voice and data services to every home and business in a community are staggering. For many decades, these "high fixed costs-low marginal cost" economic realities led many public officials to believe that communications was destined to forever be considered a natural monopoly. This made regulation inevitable.

But recent developments in this field prove conclusively that broadband can be competitive. One only has to scan the daily newspaper—either in-hand or online—to see the alacrity with which cable operators, telephone companies, satellite and terrestrial wireless providers all are racing to offer integrated packages of voice, video,

and Internet access services. Other potential broadband operators, such as power companies, lurk on the sidelines as potential competitors. On the margin, net neutrality mandates make the emergence of the sought-after "third pipe" less likely. By limiting the economic freedom for broadband operators to innovate with business models, net neutrality makes the prophecy that broadband will always be a duopoly self-fulfilling.

Q. Would Net neutrality rules cover anything more than the physical (infrastructure) layer of the Internet?

"Nondiscrimination" and other concepts underlying network neutrality mandates, in principle, are not easily limited to the operation of broadband networks. This raises the question whether content and applications companies should treat other companies "neutrally" in the event network owners are required to do so. There is certainly no reason in principle that neutrality mandates should not extend to other layers of the Internet. If the rationale for net neutrality is the normative value of "openness" then by all means the mandate should apply to all Internet layers.

Q. Aren't Net neutrality regulations simply the extension of traditional common carriage principles for the Information Age?

Indeed, net neutrality rules are little more than old wine in new bottles. Whether there should be mandated access rights of one form or another is a recurring question in "network" industries in general and the communications sector in particular. While the call for mandated network access assumes different names at different times, the change in terminology should not confuse the underlying issues at stake. For roughly the first three quarters of the 20th century, the nation's telecommunications marketplace was dominated by AT&T. Before the 1984 breakup of the integrated Bell System in compliance with the antitrust consent decree in U.S. v. AT&T,[10] no one seriously disputed AT&T's market power in the local telephone market. Thus, when the FCC fashioned its landmark Computer II regime in the early 1980s, as the previously separate communications and data processing markets began to converge to enable the creation of a new online services market, it was not surprising that the new regime imposed on AT&T a non-discrimination requirement and safeguards intended to enforce it.[11]

There may be debate concerning the current competitiveness of the broadband marketplace and the extent of market power of any of the various broadband providers. But it is very difficult to argue with the FCC's assertion in 2002, when it initiated the rulemaking proposing to reclassify telephone company-provided broadband services as information services, that there are now "very different legal, technological and market circumstances" than when the agency "initiated its Computer Inquiry line of cases."[12]

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[10] United States v. AT&T, 552 F.Supp.131 (D.D.C. 1982), aff'd sub nom. Maryland v. United States, 460 U.S. 1001 (1983).
[11] See Second Computer Inquiry, Final Decision, 77 F.C.C. 2d 384 (1980).
[12] Appropriate for Broadband Access to the Internet over Wireline Facilities, Notice of Proposed Rulemaking, 17 F.C.C. Rcd. 3019, 3038 (2002).

In the four years since that FCC observation (one of many, of course) the pace of technological and marketplace change has continued to accelerate. Broadband networks have vastly more bandwidth available than previously and, as the FCC recently observed, this greater bandwidth encourages the introduction of services "which may integrate voice, video, and data capabilities while maintaining high quality of service."[13] The Commission goes on to add that, in a digital world "it may become increasingly difficult, if not impossible, to distinguish 'voice' service from 'data' service, and users may increasingly rely on integrated services using broadband facilities delivered using IP rather than the traditional PSTN (Public Switched Telephone Network)."[14]

Q. Will Net neutrality regulations have any impact on the price of service, or is this debate just about access?

Common carrier law is toothless without price regulation. Unless regulators have the ability to also control prices, non-discrimination principles are meaningless. After all, a broadband provider faced with a behavior constraint could simply price access to the regulated service or application at a higher rate if the provider wanted to discriminate against the service. If net neutrality regulations were implemented and pricing rules followed, this would represent the beginning of a price control regime for the Internet.

Initially, net neutrality mandates might not result in price regulation. It remains uncertain how broadband service providers will package and price services. Currently a flat "all-you-can-eat" monthly price is the prevailing model. It is possible that in the future some broadband providers will experiment with tiered or metered pricing models. Some consumers and bandwidth-intensive Internet vendors and website operators will likely protest the move toward differential pricing of Net access. Some may even run to regulators seeking redress. A "dumb pipe" mandate or net neutrality rule might allow regulators to prohibit such pricing experimentation to appease those constituencies.

It would be very unfortunate if this scenario came to pass, since such creative pricing models may be part of the long-run solution to relieving Internet congestion and allowing carriers to accurately assess user charges for Web activities. Supply and demand could be better calibrated under such pricing models and broadband operators may be better able to recoup sunk costs and make new investments in future infrastructure capacity or network services.[15]

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[13] IP-Enabled Services, Notice of Proposed Rulemaking, 19 F.C.C. Rcd 4863, 4876 (2004).

[14] Id.

[15] As Andrew Odlyzko argues: "Thus even if it is not optimal from a global point of view, it might be necessary to introduce complexity in order to be able to construct and operate the telecom infrastructure, especially the residential broadband networks that are so eagerly awaited by government and industry leaders. That might mean allowing carriers to charge differently for movie downloads than for Web surfing. That, in turn, might require a new network architecture. Such a move would not be unprecedented. The key (although seldom mentioned) factor behind the push for new network architectures appears to be the incentive to price discriminate. It is an incentive that has been operating since the beginnings of commerce." Odlyzko, p. 3.

It should be left to markets, not regulators, to determine what pricing models are utilized in the future to allocate scarce space on broadband pipes.

Q. Many telecom reform proposals circulating on Capitol Hill include specific net neutrality provisions. PFF's Digital Age Communications Act proposal, which is embodied in S. 2113, the Digital Age Communications Act bill introduced by Sen. DeMint, does not include such language. Why is that?

It is true that some legislative proposals have broad language that would prohibit broadband service providers from "blocking, impeding, or impairing" access to any lawful content on the Internet or from preventing any consumer from utilizing any equipment and devices in connection with lawful content or applications. However well-intentioned these net neutrality proposals, they should not be included in legislation. As explained above, as a general matter there are substantial harms that might result from the imposition of net neutrality mandates, including the discouragement of investment in new network facilities and the inhibition on the development and offering of new services and applications. Nevertheless, there may well be marketplace circumstances where consumer welfare would be enhanced by imposition of net neutrality-like remedies.

The DACA proposal provides for relief in instances where net neutrality-like abuses are demonstrated. For example, it might be demonstrated that access to a web site has been blocked or impaired by a service provider with dominant market power for purely anticompetitive reasons and without countervailing benefits to consumers. Indeed, the DACA model provides the most appropriate way for consideration of such claims. DACA specifically includes a process under which complaints alleging anticompetitive abuses—including net neutrality-like claims of denial of access or preferential treatment—would be filed with the FCC and adjudicated subject to statutory deadlines. The complaints would be decided under the unfair competition standard. In effect, this means that there would be an economically rigorous market-oriented determination based on the specific factual allegations of abuse. The focus would be on marketplace circumstances, such as the current market structure, existing and potential competition, barriers to entry, the likely harm to consumers from granting relief or not, and the like.

As Senator Stevens wisely remarked recently, defining net neutrality is like "defining a vacuum." He added: "It is not easy to do."[16] Because of this, it is far better to proceed cautiously, tailoring relief to address the circumstances of each case and, in contrast to legislative mandates, for only so long as relief is warranted.

[16] Reported in Multichannel News, February 7, 2006, available online at http://www.multichannel.com/article/CA6305622.html?display=Breaking+News.

Q. What is your bottom line?

Net neutrality is a premature bit of industrial policy that has the effect of favoring companies engaged at the application and content layer of the Internet over those investing in the physical broadband networks. There is little evidence, or reason to believe, that these interdependent Internet players cannot reach commercial agreements on whether they pay one another, and who pays whom – access providers for content, or content providers for access. Net neutrality will have the effect of advantaging non-latency sensitive Internet innovations over latency-sensitive ones like voice and video. Finally, the logic of network neutrality regulation will not confine itself to just physical broadband networks, but rather extend to interoperability, access and "openness" mandates on all types of applications – VoIP services, IM services, social networking, search engines and online commerce. The logical progression of net neutrality regulation would be an encompassing Internet-regulation regime, extending to both price and content.

Appendix: Additional PFF Reading on Net Neutrality Regulation

Papers, Books & Testimony:

- ***Net Neutrality or Net Neutering: Should Broadband Internet Service Be Regulated?*** edited by Thomas M. Lenard and Randolph J. May, Springer Science+Business Media, Inc., 2006.

- **"Rhetoric vs. Reality: Lessig on Network Neutrality,"** PFF *Progress Snapshot* 2.14, by Kyle D. Dixon, June 2006, http://www.pff.org/issues-pubs/ps/2006/ps_2.14_netneut_lessig.html

- **"'Let the FTC Do It!' Maybe It Already Can,'"** PFF *Progress Snapshot* 2.12, by Raymond Gifford, April 2006, http://www.pff.org/issues-pubs/ps/2006/ps2.12ftc.pdf

- Testimony of Kyle D. Dixon before the U.S. Senate Committee on Commerce, Science and Transportation, February 7, 2006, http://www.pff.org/issues-pubs/testimony/060207dixonsenatecommerce.pdf

- **"The Economics of Net Neutrality: Why the Physical Layer of the Internet Should Not Be Regulated,"** by Christopher S. Yoo, PFF *Progress on Point* 11.11, July 2004, http://www.pff.org/issues-pubs/pops/pop11.11yoonetneutrality.pdf

- "Are **'Dumb Pipe' Mandates Smart Public Policy? Vertical Integration, Net Neutrality, and the Network Layers Model,**" by Adam Thierer, *Journal of Telecommunications & High-Technology Law*, Vol. 3, Issue 2, 2004, pp. 275-308.

Event Transcripts:

- **"Net Neutrality or Net Neutering in a Post-Brand X World: Self-Regulation, Policy Principles, and Legal Mandates in the Broadband Marketplace,"** September 21, 2005 (featuring Thomas Tauke, Dan Brenner, David McClure, Peter Pitsch, Gigi Sohn, and Adam Thierer), PFF *Progress on Point* 12.29, http://www.pff.org/issues-pubs/pops/pop12.29netneutrality.pdf

- **"Should the Net's Physical Layer be Regulated?"** September 2004 (featuring Randolph May, C. Lincoln Hoewing, John Nakahata, Adam Thierer, Joe Waz, Richard Whitt, and Christopher Yoo), PFF *Progress on Point* 11.14, http://www.pff.org/issues-pubs/pops/pop11.14netneutralitytranscript.pdf

- **"Net Neutrality or Net Neutering: Should Broadband Internet Services Be Regulated?"** November 2003 (featuring Jeffrey Campbell, Mark Cooper, Joseph Farrell, W. Kenneth Ferree, Raymond L. Gifford, Thomas M. Lenard, Randolph J. May, Paul Misener, Bruce Owen, Gregory Rosston, David Scheffman, John Scheibel, Robert Sachs, Tom Tauke, and Nancy Victory), PFF *Progress on Point* 10.22, http://www.pff.org/issues-pubs/pops/pop10.22netneutrality.pdf

Assorted PFF Blog Entries:

- Ray Gifford, **"A Natural End to Net Neutrality: Why Only the Lawyers Win,"** June 1, 2006, http://blog.pff.org/archives/2006/06/a_natural_end_t.html
- Adam Thierer, **"Hillary Clinton, Net Neutrality Regulation & the Great Leap of Faith,"** May 22, 2006, http://blog.pff.org/archives/2006/05/hillary_clinton_1.html
- Patrick Ross, **"Net Neutrality in Lake Wobegon,"** May 22, 2006, http://blog.pff.org/archives/2006/05/net_neutrality_11.html
- Ray Gifford, **"Un-Neutral Neutrality--Postmodern Conundrums,"** May 19, 2006, http://blog.pff.org/archives/2006/05/unneutral_neutr.html
- Adam Thierer, **"Net Neutrality Regs Could Threaten Online High-Def Video,"** May 8, 2006, http://blog.pff.org/archives/2006/05/how_net_neutral.html
- Adam Thierer, **"Do You Really 'Save the Internet' by Regulating It?"** April 25, 2006, http://blog.pff.org/archives/2006/04/do_you_really_s.html
- Kyle Dixon, **"New Neutrality Proposals: Ask Me No Questions, Tell Me No . . ."** April 6, 2006, http://blog.pff.org/archives/2006/04/new_neutrality_2.html

- Randolph May, "**'Google, Microsoft Subject to Net Neutrality Complaints'**" March 31, 2006, http://blog.pff.org/archives/2006/03/google_microsof_1.html
- Ray Gifford, "**Net Neutrality: The Small Consumers' Burden**," March 31, 2006, http://blog.pff.org/archives/2006/03/net_neutrality_7.html
- Kyle Dixon, "**Adjudicating Network Neutrality: Upsides, Downsides and Practical Implications**," March 30, 2006, http://blog.pff.org/archives/2006/03/adjudicating_ne.html
- Randolph May, "**Net Neutrality Viewed Charitably**," PFF *Blog*, February 1, 2006, http://blog.pff.org/archives/2006/02/net_neutrality_2.html
- Patrick Ross, "**This Consumer Chooses Choice**," PFF *Blog*, December 21, 2005, http://blog.pff.org/archives/2005/12/this_consumer_c.html
- Ray Gifford, "**The New Unbundling: Net Neutrality**," PFF *Blog*, December 16, 2005, http://blog.pff.org/archives/2005/12/the_new_unbundl.html
- Kyle Dixon, "**A Silver Lining to Net Neutrality Merger Conditions?**" PFF *Blog*, November 3, 2005, http://blog.pff.org/archives/2005/11/a_silver_lining.html
- Adam Thierer, "**The Real Net Neutrality Debate: Pricing Flexibility Versus Pricing Regulation**," PFF *Blog*, October 27, 2005, http://blog.pff.org/archives/2005/10/the_real_net_ne.html
- Kyle Dixon, "**GoogleTalk and Net Neutrality: A Cautionary Tale**," PFF *Blog*, August 25, 2005, http://blog.pff.org/archives/2005/08/googletalk_and.html
- Kyle Dixon, "**Net Neutrality Mandates After the FCC's Policy Statement**," PFF *Blog*, August 11, 2005, http://blog.pff.org/archives/2005/08/net_neutrality_1.html

FCC MAIL SECTION

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Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matters of	)	
	)	
Appropriate Framework for Broadband Access to the Internet over Wireline Facilities	)	CC Docket No. 02-33
	)	
Review of Regulatory Requirements for Incumbent LEC Broadband Telecommunications Services	)	CC Docket No. 01-337
	)	
Computer III Further Remand Proceedings: Bell Operating Company Provision of Enhanced Services; 1998 Biennial Regulatory Review – Review of Computer III and ONA Safeguards and Requirements	)	CC Docket Nos. 95-20, 98-10
	)	
Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities	)	GN Docket No. 00-185
	)	
Internet Over Cable Declaratory Ruling	)	
	)	
Appropriate Regulatory Treatment for Broadband Access to the Internet Over Cable Facilities	)	CS Docket No. 02-52

POLICY STATEMENT

Adopted: August 5, 2005 **Released: September 23, 2005**

By the Commission:

I. INTRODUCTION

1. The availability of the Internet has had a profound impact on American life. This network of networks has fundamentally changed the way we communicate.[1] It has increased the speed of

[1] The Internet is "the international computer network of both Federal and non-Federal interoperable packet switched data networks." 47 U.S.C. § 230(f)(1). The Internet is also described as "the combination of computer facilities and electromagnetic transmission media, and related equipment and software, comprising the interconnected worldwide network of computer networks that employ the Transmission Control Protocol/Internet Protocol or any successor protocol to transmit information." 47 U.S.C. § 231(e)(3). The Supreme Court has described the Internet as a "network of interconnected computers." *National Cable & Telecommunications Ass'n v. Brand X Internet Services*, 125 S. Ct. 2688, slip op. at 2 (2005) (*NCTA v. Brand X*); *see also Reno v. ACLU*, 521 U.S. 844, 849-50 (1997). No single entity controls the Internet; rather it is a "worldwide mesh or matrix of hundreds of thousands of networks, (continued . . .)

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communication, the range of communicating devices and the variety of platforms over which we can send and receive information.[2] As Congress has noted, "[t]he rapidly developing array of Internet . . . services available to individual Americans represent an extraordinary advance in the availability of educational and informational resources to our citizens."[3] The Internet also represents "a forum for a true diversity of political discourse, unique opportunities for cultural development, and myriad avenues for intellectual activity."[4] In addition, the Internet plays an important role in the economy, as an engine for productivity growth and cost savings.[5]

2. In section 230(b) of the Communications Act of 1934, as amended (Communications Act or Act), Congress describes its national Internet policy. Specifically, Congress states that it is the policy of the United States "to preserve the vibrant and competitive free market that presently exists for the Internet"[6] and "to promote the continued development of the Internet."[7] In section 706(a) of the Act, Congress charges the Commission with "encourag[ing] the deployment on a reasonable and timely basis of advanced telecommunications capability" – broadband – "to all Americans."[8]

3. In this Policy Statement, the Commission offers guidance and insight into its approach to the Internet and broadband that is consistent with these Congressional directives.

II. DISCUSSION

4. The Communications Act charges the Commission with "regulating interstate and foreign commerce in communication by wire and radio."[9] The Communications Act regulates telecommunications carriers, as common carriers, under Title II.[10] Information service providers, "by contrast, are not subject to mandatory common-carrier regulation under Title II."[11] The Commission, however, "has jurisdiction to impose additional regulatory obligations under its Title I ancillary

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owned and operated by hundreds of thousands of people." John S. Quarterman & Peter H. Salus, *How the Internet Works*, http://www.mids.org/works.html (visited Dec. 17, 2003) (quoted at *IP-Enabled Services*, WC Docket No. 04-36, Notice of Proposed Rulemaking, 19 FCC Rcd 4863, 4869 n.23 (2004) (*IP-Enabled Services NPRM*)).

[2] *IP-Enabled Services NPRM*, 19 FCC Rcd at 4869-70, para. 8.

[3] 47 U.S.C. § 230(a)(1).

[4] 47 U.S.C. § 230(a)(3).

[5] *See, e.g.*, Hal Varian *et al.*, *The Net Impact Study: The Projected Economic Benefits of the Internet in the United States, United Kingdom and Germany*, available at: http://www.netimpactstudy.com/NetImpact_Study_Report.pdf (January 2002) (visited July 31, 2005).

[6] 47 U.S.C. § 230(b)(2).

[7] 47 U.S.C. § 230(b)(1).

[8] 47 U.S.C. § 157 nt. (incorporating section 706 of the Telecommunications Act of 1996, Pub. Law No. 104-104, 110 Stat. 56 (1996)).

[9] 47 U.S.C. § 151.

[10] *See NCTA v. Brand X*, slip op. at 1.

[11] *Id.* at 3.

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jurisdiction to regulate interstate and foreign communications."[12] As a result, the Commission has jurisdiction necessary to ensure that providers of telecommunications for Internet access or Internet Protocol-enabled (IP-enabled) services are operated in a neutral manner. Moreover, to ensure that broadband networks are widely deployed, open, affordable, and accessible to all consumers, the Commission adopts the following principles:

- *To encourage broadband deployment and preserve and promote the open and interconnected nature of the public Internet*, consumers are entitled to access the lawful Internet content of their choice.
- *To encourage broadband deployment and preserve and promote the open and interconnected nature of the public Internet*, consumers are entitled to run applications and use services of their choice, subject to the needs of law enforcement.
- *To encourage broadband deployment and preserve and promote the open and interconnected nature of the public Internet*, consumers are entitled to connect their choice of legal devices that do not harm the network.[13]
- *To encourage broadband deployment and preserve and promote the open and interconnected nature of the public Internet*, consumers are entitled to competition among network providers, application and service providers, and content providers.[14]

III. CONCLUSION

5. The Commission has a duty to preserve and promote the vibrant and open character of the Internet as the telecommunications marketplace enters the broadband age. To foster creation, adoption and use of Internet broadband content, applications, services and attachments, and to ensure consumers benefit from the innovation that comes from competition, the Commission will incorporate the above principles into its ongoing policymaking activities.[15]

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch

Marlene H. Dortch
Secretary

[12] *Id.* at 3-4. We also note that the Enforcement Bureau recently entered into a consent decree to resolve an investigation with respect to the blocking of ports used for voice over Internet Protocol (VoIP). *See Madison River LLC and Affiliated Companies*, File No. EB-05-IH-0110, Order, 20 FCC Rcd 4295 (Enf. Bur. 2005).

[13] *See Hush-A-Phone Corp. v. United States*, 238 F.2d 266, 269 (D.C. Cir. 1956); *Use of the Carterfone Device in Message Toll Telephone Service*, 13 FCC 2d 420 (1968).

[14] *See* Preamble, Telecommunications Act of 1996, P.L. 104-104, 100 Stat. 56 (1996) (enacting 1996 Act "to promote competition and reduce regulation in order to secure lower prices and higher quality services for American telecommunications consumers and encourage the rapid deployment of new telecommunications technologies").

[15] Accordingly, we are not adopting rules in this policy statement. The principles we adopt are subject to reasonable network management.

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ANSWERS TO YOUR TOP QUESTIONS ABOUT "NETWORK NEUTRALITY"

1. ***What is "network neutrality"?***

- "Net Neutrality" is a misnomer. As it's being debated, "net neutrality" is in no way neutral because a truly neutral scenario is one in which all parties are responsible for the health of Internet.

2. ***Does AT&T intend to block access to Internet web sites, content or services?***

- AT&T has repeatedly and consistently made clear that customers will get tomorrow what they have today. They will be able to reach all the content and applications they want. And, applications and software providers will be free tomorrow as they are free today to deliver services to customers who purchase Internet access.

- We will not block, impair or degrade access to any legal web site, application or service, nor will we intentionally degrade the customer experience or the service delivery of content or application providers.

- AT&T put its commitment in writing when we joined a letter to the White House supporting consumers' ability *"to use any device, application, or service on the Internet that they choose. These basic Internet freedoms positively shaped the development of the Internet and should be carried forward to the broadband future. Indeed, the openness of the Internet has been its defining hallmark, and such openness is critical to unlocking the vast future potential of Internet communications."* (VON January 19, 2006 letter to the White House).

3. ***What is the "net neutrality" debate about?***

- The Internet is changing, and if we are going to be honest about this debate, some fundamental facts need to be recognized. According to John Chambers of Cisco, Internet traffic has been doubling every year, and will begin increasing four-fold to as much as six-fold every year for the next decade.

- AT&T welcomes these new broadband Internet applications and we are doing our part to provide the bandwidth needed to support these applications. And, we challenge all providers to do their part to ensure that these new broadband-intensive applications do not grind the Internet to a halt.

- If you look across the Internet today, the reality is business models are changing. With these changes comes opportunities not just for us, but opportunities for content providers as well to enter into commercial arrangements that are beneficial for both companies and are certainly beneficial to consumers.

- As an example, if you have a customer who is interested in gaming and we enter into a commercial agreement with a gaming provider where we interconnect directly with their servers, and provide that interactive service to the customer entirely over our network where we can control quality of service, at a greater speed, we can offer a better experience to the customer. The content provider can sell more content, and everyone frankly is better off. It is no different than what you see going on today in other parts of the industry.

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- As the Internet becomes more crowded and vulnerable to security risks, it's critical for carriers to offer services to ensure fast and secure delivery of content. This already occurs in corporate and government markets. Certainly, if content providers and others don't want or need such services, they will not be required or compelled to purchase them. Offering these types of enhanced services does not threaten the openness or functionality of the Internet. It does, however, address a looming problem, and gives interested parties the right to create and market new business services.

4. ***Some are saying that what you and other carriers are proposing will create a two-tiered Internet, true?***

   - Absolutely not. AT&T wants to create an environment where everyone has an incentive to invest and innovate -- from network operators to software developers to content providers.

   - The Internet is an ecosystem, with each part dependent on the health of the others. Networks make money by delivering varied and vibrant content, while content providers make money by making use of modern and healthy networks.

   - It requires billions of dollars in new investments to provide the expanded capacity needed to handle all of the new applications that content providers and others are developing, and that we want to deliver to consumers. It is everyone's responsibility to contribute according to the costs they impose on the underlying communications infrastructure. We are doing our part, and we challenge all providers to do their part.

5. ***Don't you actually want to "double-dip" and create additional toll roads on the Internet?***

   - The proponents of "net neutrality" will create additional toll roads for *all Internet users, regardless of their usage* --- we are trying to avoid that scenario. We are attempting to bring fairness and equity to the Internet and to avoid imposing much higher costs for basic Internet service on those who are simply engaging in low-bandwidth activities.

   - If exponentially larger traffic flows onto the Internet, the costs go up dramatically. Similarly, new, fatter pipes must be built to handle the new applications that will require billions in new investment. Under the current scenario, these increased costs would be paid for across the entire Internet user base—in other words, low volume users will have to pay more to access the Internet for basic activities such as emailing and web surfing. This is not fair.

   - For example, the double-load tractor trailers that roll down our highways pay extra fees. Why? Because they tear up the roads. If some content providers had their way with the highway system, two things would have happened: First, everyone would have sub-par roads. Second, everyone would pay much higher costs/fees because trucking companies refuse to pay their fair share of the costs they impose. To be sure, we are not saying content providers should pay special fees, but we are saying that they depend totally on healthy networks for their revenues, and they create unique conditions for the Internet when they offer high-bandwidth services.

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6. ***By giving priority to certain providers, are you not by definition, "degrading" other providers' content?***

- Absolutely not. Across our backbone, the things we are talking about will have no impact at all on the rest of the Internet traffic.

- Everyone recognizes that there is an explosion of high-bandwidth applications and content on the Internet today and this increasingly has the potential to bog down the flow of information and content on the Internet. If necessary investments are not made, a "degrading" of the performance of the Internet is certainly possible, so we are calling on all providers to maintain a healthy Internet ecosystem.

- We are adding lanes to the highway, not taking lanes away. Customers will get tomorrow what they have today. They will be able to reach all the content and applications they want. Applications and software providers will be free tomorrow as they are free today to deliver services to customers who purchase Internet access.

7. ***Don't you have an incentive to block or impair competitors' services, though?***

- Our company policy is not to block or degrade anyone's content or service or web site.

- Furthermore, the competitive market won't allow that to happen. If we censored consumers' ability to access content that they want, they will leave our service. It is just not in our interest to do business in a fashion that will cause our valued customers to go to a competitive provider.

8. ***Are you just looking for new revenue streams to fatten your profits?***

- We are looking for ways to support our investment, but we are also looking for ways to support the new high-bandwidth applications and content that are migrating to the Internet.

9. ***What exactly are you proposing?***

- We are going to explore different alternatives, experiment with different models – there's not just one solution. And, in exploring ways to offer enhanced capabilities and services to consumers and other providers, nothing will be taken away from consumers or other providers that they have today.

- As an example, content providers are entering into agreements every day with wireless carriers that provide content. These agreements serve two purposes -- they improve the customer experience while allowing the two companies to share in new revenue streams.

- AT&T is merely proposing services that we hope can enhance the consumer Internet experience. We will succeed or fail based on whether or not other providers see value in engaging in commercial agreements that enhance their content or application -- that means not just capacity or speed, but guaranteeing things like security against viruses, worms, etc.

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United States Senate

WASHINGTON, DC 20510

Don't Be Duped by Advocates of "Network Neutrality"

May 16, 2006

Dear Colleague,

We are writing to you today in connection with the issue of "network neutrality." Opposing the heavy hand of regulation that network neutrality represents is critical if we are to maintain the Internet as an open, evolving, and market-based tool, and to protect children and families from the negative aspects of Internet content that exist today.

Currently, broadband access providers – our nation's telephone, cable television, and wireless companies – are spending billions of dollars to deploy broadband, and have plans to spend billions more on the next generation of broadband networks. These investments include new technologies that will greatly improve everyone's Internet experience, further empowering our ability to use it for entertainment, political, religious, and educational purposes. These technologies also hold the promise of providing parents with new tools to protect their children and families as they explore online.

Unfortunately, some online content providers have used fear and misinformation to argue that strong network neutrality regulations – to be enforced, presumably, by virtually unaccountable bureaucrats – are needed in response to investments by broadband access providers. Preferring that all Internet content be treated the same, instead of being required to compete for consumer attention, network neutrality advocates allege that broadband access providers will use next-generation broadband technologies to choke off the free flow of information online, speech they disagree with in particular.

Common experience with the Internet to date suggests precisely the opposite. Innovation and competition, unmarred by excessive government regulation, have created a vibrant Internet for all Americans. In this context, network neutrality would be anything but neutral. It effectively would penalize broadband access providers for making major improvements to the Internet and would reward online content providers who demand regulation in order to tip the scales of Internet competition in their favor. It also threatens to deprive parents of new technologies they may use to protect their families from online harm. We therefore urge you to oppose legislative efforts to impose network neutrality.

Sincerely,

Sam Brownback, U.S.S.

Jim DeMint, U.S.S.

May 23, 2006

Dear Senator:

We write to you with concern about the effects "network neutrality" proposals will have on the efficacy of the Internet. The Internet is invaluable to us and our constituencies. Any federal action that could halt or hinder our use of the Internet is most unwelcome.

The Internet has been greatly helpful to us and our constituencies in many ways, including allowing us to make our resources available to a global audience. However, as the amount of morally deleterious content, such as pornography and gratuitous violence, has grown on the Internet, the ability to monitor our children's access has become more and more of a challenge. It is only with the development of new technologies and increasing competition among content service providers that parents are able to arm themselves with the tools needed to control inappropriate content in their homes. Furthermore, with many parents in our constituencies seeking alternative choices to the public school system, the Internet provides those who choose options such as home-schooling with a virtual community and access to other like-minded parents who they can share with and learn from. Ten years ago this didn't exist. Today, parents are no longer beholden to a government-run system with few or no alternatives.

Telecommunications and cable companies have spent billions of dollars creating the high-speed networks we know as broadband. They are spending billions more to update their networks and extend broadband access to more Americans. These new networks will create a system that will allow for more sophisticated content (like video streaming) to move even faster than it does today, and to allow more of it to travel to Americans and others across the globe.

Some online content-provider companies are attempting to use fear to encourage the adoption of "network neutrality" laws. They claim that these broadband providers will block content and discriminate against information they don't agree with and so they must be regulated by such laws. We believe it more likely that "network neutrality" laws will actually discourage broadband providers from continuing to enhance the flow and security of online communication. A scheme like "network neutrality" would only serve to limit ourselves to everyone's detriment. We encourage you to oppose such "network neutrality" proposals that are brought to your attention.

Thank you for your time and for your service to the American people in the United States Senate.

Abstinence Clearinghouse
AdvanceUSA
American Coalition for Fathers & Children
Americans for Tax Reform
Catholic Advocacy Network
Center for Moral Clarity
Discovery Institute
Faith 2 Action
Fidelis
Institute on Religion & Democracy
Massachusetts Family Institute
Morality in Media
Religious Freedom Coalition
Tradition, Family, Property, Inc.
Traditional Values Coalition

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EarthLink

TESTIMONY OF CHRIS PUTALA
EXECUTIVE VICE PRESIDENT, PUBLIC POLICY
EARTHLINK, Inc.

Before The
COMMITTEE ON THE JUDICIARY
U.S. SENATE

Hearing on
"Reconsidering Our Communications Laws:
Ensuring Competition and Innovation"

June 14, 2006

Mr. Chairman, Senator Leahy, Members of the Committee, thank you for inviting me to speak to you as you consider how our nation's communications laws should best be updated to ensure competition and innovation in light of rapidly changing technologies but also the re-concentration of our communications industries. Over the past several years a procession of court and regulatory decisions have steadily marched our communications markets towards a less than fully competitive duopoly, potentially forswearing the tremendous innovation and consumer freedom that comes with more robust, open competition.

For ten years, EarthLink has been on the cutting edge of Internet innovation, delivering the Internet to American consumers and business, first through dial-up, then broadband and now VoIP, wireless voice and municipal wireless Internet services. Over the past ten years, we've seen the Internet grow from the specialized province of a few tech-savvy early adopters to an integral part of American work and family life. And

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we've seen – and helped – millions of Americans move toward broadband services and capabilities that were not possible with dial-up services.

As economists would predict, our approach has been to deliver our customers the services they want: Our motto is "we revolve around you." And we've been successful. Over the past three years, EarthLink has won numerous awards for customer satisfaction in both broadband and dial-up services. We now deliver to our customers a full-range of broadband services and applications, including Internet access, Voice over IP, and wireless services. We offer our customers a wide range of enhanced offerings, including pop-up, spam and spyware blockers, anti-virus protection, and parental controls. And we are excited to be working with the Cities of New Orleans, Philadelphia, San Francisco and Anaheim to deploy a new wi-fi network providing the residents of those cities an alternative to the cable – telephone company high-speed wireline access duopoly.

As you consider how our communications laws should be revised to promote competition and innovation, I would like to leave you with four key thoughts:

1. A local facilities-based access duopoly does not provide sufficient choice to drive innovation and preserve consumer freedom to use the services and applications of their choosing.
2. Municipalities working with the private sector to deliver broadband present a viable alternative to duopoly in many markets, without "taxpayer funding" of competition.
3. Remember that the Internet (like the market) has become a dominant economic force because it lets a thousand economic flowers bloom, and does not let the network operators (or any other centralized authority) determine which flowers take root. Net neutrality protections are therefore critical to maintaining consumer choice and innovation.
4. Consumers – not telephone companies – should be able to decide when they want to buy voice and video services in addition to broadband. Tying broadband to voice in order to protect legacy telephone company voice services against competition from VoIP services is fundamentally anticompetitive. And interconnection remains necessary for competition.

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I. Facilities-Based Duopoly is not Sufficient.

As this Committee knows well, while duopoly is better than monopoly, a duopoly by itself does not necessarily serve consumers well. Within communications markets, the history of wireless services, for example, cautions strongly against relying on a facilities-based duopoly to deliver strong competitive choices and marketplace innovation to consumers. From 1984 until the first broadband PCS services began to be offered in 1995, wireless services were offered in a legally-sanctioned duopoly. Per-minute prices for wireless service peaked in 1993, the same year Congress voted to authorize new wireless entry through spectrum auctions.[1] Duopoly created wireless services that were priced for only a few, relegating wireless to a niche market.

On the other hand, since the third and fourth (and more) wireless competitors entered the market in 1995-96, competition in the wireless market has exploded. As stated above, wireless subscribers have soared from only 20 million in 1994 to nearly 200 million as of June 2005. In 1993, wireless service averaged 58 cents per minute,[2] but by the end of 2004 was averaging 9 cents per minute – a nearly 85 % drop.[3]

The same market performance can be expected in broadband as well. If there are only two facilities-based broadband providers, competition will stagnate and consumers will not reap the full benefits of the broadband revolution. Broadband today is characterized by a cable-telco duopoly, with cable modem service and ILEC-provided

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[1] *See* http://wireless.fcc.gov/statements/Sugrue_slides3.ppt.
[2] *Id.*
[3] *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services*, Tenth Report, 20 FCC Rcd 15908, 15966 (¶ 158) (2005).

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DSL together accounting for 95% of all residential and small business broadband connections nationwide.[4]

However, if a stable duopoly is not permitted to develop, the market will keep competitive pressure on all providers and force the two dominant providers, cable and telephone companies, along with all other market participants, to continue to innovate to the benefit of consumers.

Unfortunately, the FCC's decisions have moved to shore up rather than challenge the existing duopoly. In its *Wireline Broadband Order,* for example, the FCC allowed incumbent telcos to stop providing last-mile broadband transmission as wholesalers. As a result, for example, AT&T in mid-May notified its wholesale broadband customers that it had stopped accepting new orders for wholesale DSL two weeks earlier, as of May 1, 2006. As another example, the FCC's curtailed CLEC access to unbundled loops in Omaha, Nebraska – including loops used for competitive DSL service – because of *cable voice* competition, effectively raising the price for a CLEC to use UNE copper loops combined with its own electronics to deliver alternative broadband services in competition with the cable company and incumbent telco.

Moreover, the nationwide stability of that duopoly also keeps growing as the telcos and cable companies each respectively merge, with the proposed AT&T/BellSouth potentially reaching half the homes in the country. This will no doubt put pressure on both Verizon and the cable companies to strive for similar scale. Time Warner and Comcast are already dividing up Adelphia between them.

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[4] *See* Federal Communications Commission, Wireline Competition Bureau, Industry Analysis and Technology Division, High-Speed Services for Internet Access: Status as of June 30, 2005, at Table 6 (April 2006), *available at* http://www.fcc.gov/Daily_Releases/Daily_Business/2006/db0407/DOC-264744A1.pdf.

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Shoring up the existing duopoly has real consequences. For one thing, it makes net neutrality a more significant issue. As analyst Blair Levin wrote earlier this year, the net neutrality debate *is* fundamentally about the market power of the current broadband telco/cable duopoly over the "last-mile." It is much easier to have an Internet "gatekeeper" when there are only two gates. I'll return to net neutrality later.

In addition, we should remember the lessons of both 9-11 and New Orleans. Having more communications networks – rather than just a duopoly – means we have more ways to keep communications up and running in a crisis. In particular, on both 9-11 and in New Orleans and the Gulf Coast after Hurricanes Katrina and Rita, the Internet proved to be an important means for keeping communications flowing, both among first responders and among victims and their families.

II. Municipal Broadband – Antidote to Duopoly

The best way to address problems with duopoly is to expand the number of unaffiliated alternatives – just as Congress did with wireless in requiring that new spectrum be distributed for broadband PCS. At EarthLink, we are actively exploring alternatives to telco and cable. For example, we are an investor in a broadband-over-powerline project with Current Communications. Another particularly promising alternative is municipal broadband – without "taxpayer funding" or "taxpayer financing."

EarthLink's municipal deployments illustrate the promise of municipal broadband. We are very proud to assist the City of New Orleans rebuild its infrastructure as it recovers from the devastation of Hurricane Katrina. Underscoring the public safety advantages of having a third broadband network, our wireless network will give New

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Orleans' city officials and first responders another way to keep communications networks operating in the event of another, unthinkable tragedy. Our path-breaking New Orleans and Philadelphia deployments shows how much can be accomplished with no risk to taxpayers:

- EarthLink will build, own and manage the wireless network, at no cost to the cities, while providing the cities a revenue share to fund its operation. And, EarthLink has guaranteed network upgrades on an ongoing basis. This is not a case of "taxpayer funded" competition, and will not lead to taxpayer funded bailouts. Nor is it funded by tax-free bonds. *EarthLink* is bearing the risk of constructing this network.

- This network will serve all the citizens of New Orleans and Philadelphia by providing a competitive alternative to current broadband and dial-up Internet services – at retail rates at or below the common price of premium dial-up Internet access.

- The initial service offering will be a symmetric One Megabit per second (1 Mbps) service, which is about fifty times as fast as a dial-up connection. It's nearly as fast as a typical DSL line for downloads, and is actually faster than most of today's broadband services when uploading data. Once we have the initial service deployed, we expect to offer higher tiered services up to several times that fast, and we will upgrade the network over time so that ever higher speeds are enabled as new technology becomes available.

- EarthLink supports Open Access to third-party Internet service retailers and "Net Neutrality." So, the project will provide opportunities for many local companies to resell broadband access service that they purchase at competitive wholesale rates. As the third broadband entrant in this market, we embrace competition as a way to make the use of our network more attractive. And the same is true for "Net Neutrality." We view this as the best way to serve the consumer and embrace innovation and competition.

- In Philadelphia, EarthLink's partnership with Wireless Philadelphia will help bridge the Digital Divide, subsidizing affordable high speed Internet access to low-income households in overlooked neighborhoods.

- Municipal broadband networks also open the door for innovative uses of information technology to keep more cops on the street on patrol, allowing them to fill out routine paperwork at the accident or crime scene, rather than having to drive back to the station to do it.

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These deployments will catapult New Orleans and Philadelphia into a worldwide leadership position in technology and will enable officials to meet the needs of their residents as well as enhance the visitor, tourism and business climate of those great cities. But, EarthLink is already taking this story on the road! In Anaheim, San Francisco and Milpitas, California, EarthLink has been selected as the municipalities' private sector partner. And EarthLink has (or soon will) propose that we unwire other municipalities – at our cost – across America, including:

- Milwaukee, Wisconsin,
- Honolulu, Hawaii,
- Houston, Texas,
- Boston, Massachusetts,
- Long Beach and Orange County, California,
- Arlington, Virginia,
- Minneapolis, Minnesota.

We also believe, however, that the EarthLink approach of partnering private sector expertise and capital with municipalities can also be harnessed to expand broadband options in small cities and rural areas across America. EarthLink is developing a "Network Alliance" program with just this goal in mind.

Local entrepreneurs know best the local consumer and business needs for broadband access and services. EarthLink's Network Alliance program will aid these local businesses in partnerships providing:

- EarthLink's technical expertise in network design, deployment and specifications;
- EarthLink's volume pricing for equipment and services – so even the smallest companies will get the best prices; and
- EarthLink's ordering, billing and other back-office services – so these local businesses can put full focus on building out networks and signing on customers.

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Our municipal broadband projects in Philadelphia, New Orleans, San Francisco, and others, are great examples of what local governments and the private sector can accomplish together.

Unfortunately, in some states there have been efforts to ban these successful public/private partnerships that provide broadband without taxpayer financing. Legislation such as the S. 1294, the Community Broadband Act, authored by Senators Lautenberg and McCain to preempt state and local laws that prohibit or have the effect of prohibiting locality-driven broadband. As a safeguard for the private sector, that bill would also appropriately require municipalities that provide broadband also act non-discriminatorily when applying its ordinances and rules, particularly those involving rights-of-way, permitting, performance bonding and reporting.

III. Net Neutrality – Keeping the Internet Working Through Freedom and Innovation.

It is undisputable that the reason the Internet has been a transformative engine for economic growth and innovation is that the Internet is an open communications platform. As Vint Cerf, the father of the Internet, previously testified, the open Internet allowed companies like EarthLink, Google, Yahoo!, e-Bay, and Amazon to grow from an entrepreneur's dream to successful Internet businesses. Small companies and entrepreneurs can use the Internet to prove the worth of their ideas without having to convince a bureaucrat at a cable or telephone company of their economic merit – or having to pay a "success" fee to those network duopolists. The Internet drives growth because – like the market as a whole – it allows a thousand flowers to bloom without central planning or management.

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At EarthLink, we lived this history. If the telephone companies had had their way, our pioneering dial-up Internet access business would have been shut down by imposing per-minute access charges. Instead, because the FCC did not allow the telephone companies to become Internet toll collectors, millions of Americans were able to gain familiarity with the Internet, building the critical customer awareness and interest in the Internet that enabled broadband products to be successful when launched. Moreover, because the consumer connected to the Internet with an ordinary telephone call, the telephone companies were not permitted to try to favor some Internet services over others.

Going back to our days battling AOL in the Internet services marketplace, EarthLink has long recognized that consumers are not best served by exclusive-access Internet networks. We believe that consumers are best served by an Open Access model – where network owners offer fair, reasonable and non-discriminatory wholesale rates to others who seek to bring customers to that network. And we don't just pay lip service to this model – as a network operator, we live up to the vision. EarthLink's municipal networks are open networks. Any qualifying ISP will get the same low wholesale rate, and we welcome them to bring consumers to our network. And, we welcome the competition that ensues – it will ultimately deliver the best service and experience to consumers.

Moreover, as a network investor and operator, EarthLink rejects the notion that networks must be able to discriminate and coerce application providers into paying a "success tax" in order to promote network investment. Networks succeed because its

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users find it valuable and can use it to obtain the services they want – not just the services the network operator chooses to promote.

We embrace "Net Neutrality" because it is both consumer friendly and economically right. We will succeed by adding users and by providing our (and our wholesale customers') users better service, not by throttling web-based innovation and business models. When EarthLink and our local government partners expand the number of facilities-based networks providing Internet access, the marketplace can better police and ensure "Net Neutrality." This model of competition obviating the need for regulation is exactly what happened with wireless resale requirements after this Committee ended the wireless duopoly through spectrum auctions.

So how can this Committee address net neutrality in the time until there is sufficient competition to eliminate any concerns even without regulation? I offer a few thoughts.

First, recognize, as analyst Blair Levin has commented, that net neutrality is about market power in the local portion of the broadband network, and not about the Internet "cloud" or backbone. Accordingly, as Mr. Levin has put it, the more networks, the less the concern – provided those networks are not affiliated (as some wireless and telco networks are). Thus, we need municipal broadband networks, broadband over power lines, and any other alternative to the cable and telephone company broadband pipes. And we need vigorous antitrust enforcement to make sure that these additional competitors are neither strangled nor acquired by their incumbent competitors.

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Second, discrimination is particularly significant when bandwidth in the last mile is scarce. Put another way, a network can meaningfully discriminate through the last mile best if the last mile can't handle all the bits the consumer wants.

Third, the Committee, and policymakers in general, should be particularly skeptical of network operator claims for a need to discriminate with respect to low-bandwidth (e.g. VoIP and e-mail) or high latency (e.g. streaming video for storage on a TiVo) services and applications.

What this leads to is that, in order to preserve the open innovative nature of the Internet and consumers' freedom to choose their applications and services until there is sufficient competition – and at least until consumers are so awash in broadband capacity that network neutrality discrimination cannot be executed – EarthLink supports adoption of some clear rules, building on the FCC's broadband policy principles. In this regard, we believe that S. 2917, recently introduced by Senators Snowe, Dorgan and Inouye would provide a strong, interim assurance that the Internet will remain a vibrant driver of and tool for innovation. Any legislation should be sure to preserve the ability of the antitrust authorities – both federal and state – to police anticompetitive behavior.

IV. Empower Consumers through Standalone Broadband and Interconnection.

One other necessary consumer protection – which is also contained in S. 2917, introduced by Senators Snowe, Dorgan and Inouye – is the requirement that broadband be offered on a standalone basis, and not just bundled with voice or video products. As the Committee is aware, in many instances, consumers who want to purchase DSL service must also purchase voice telephone service. Those types of requirements

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frustrate consumer choice by precluding consumers from buying DSL service from one provider, while using another provider's VoIP service in lieu of the broadband provider's traditional circuit-switched (or VoIP) voice service. Cable companies, by and large, already permit their customers to buy broadband Internet access without buying video services. As conditions of their megamergers, the nation's two largest ILEC DSL providers, Verizon and AT&T, have just committed – for two years only – to offer such stand-alone or "naked" DSL services to 80% of their customers. Qwest has said that it will offer stand-alone Internet access services. All consumers should be given this choice, unfettered by tying arrangements designed to protect legacy businesses.

Here is why this makes a difference. EarthLink has a service that allows a consumer to use her broadband connection as a replacement for her home or business telephone service, using VoIP technology. When the incumbent telco forces the consumer to buy a legacy voice service in order to get DSL, it is trying to foreclose the consumer from using EarthLink's VoIP service. Standalone DSL liberates the consumer to choose the best voice service that fits her needs – the essence of competition.

But standalone broadband isn't enough. VoIP providers also need to be able to interconnect with the legacy telephone system. Again, for evidence of why this is necessary we need look no further than our collective experience with wireless. Over the past ten years, we have seen an explosive growth in wireless services. In 1994, there were fewer than 20 million wireless subscribers; today, there are over 200 million – a more than ten-fold increase.

Prior to the 1996 Act, wireless faced extremely unbalanced terms when it exchanged traffic with incumbent local telephone companies. In some cases, wireless

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carriers paid the incumbent telephone company for every minute of traffic that the wireless carrier received from the incumbent LEC, and it also paid the incumbent LEC for every minute of traffic that originated from a wireless customer but terminated to a telephone number on the traditional public switched network.[5] These arrangements were hardly surprising. In 1996, wireless carriers were much smaller than the incumbent LECs, and had many fewer subscribers. Few incumbent LEC subscribers would therefore be inconvenienced if they were unable to call out to, or receive calls from, a wireless customer. However, the wireless carriers were dependent upon the incumbent LECs to handle all but the then very small fraction of calls placed between wireless consumers. The incumbent LECs were thereby able to use their market power over interconnection to extract fees from wireless carriers, regardless of whether traffic originated from the incumbent LEC's wireline customer or from the wireless carrier's customer. From the ILEC's perspective, it was able to insist on "heads I win, tails you lose" compensation for traffic exchange. This allowed the incumbent LECs to raise wireless carriers' costs, thus inflating the prices that wireless carriers had to charge to their customers and thereby limiting wireless carriers' competition with landline services.

The 1996 Act changed all of that. Under the 1996 Act, for all local calls, an incumbent LEC could charge a wireless carrier (or, for that matter, a CLEC) for traffic

[5] *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996; Interconnection between Local Exchange Carriers and Commercial Mobile Radio Service Providers*, First Report and Order, 11 FCC Rcd. 15499, 16037, 16044 (1996)("*Local Competition Order*")(CMRS carriers complain "that they are unable to negotiate interconnection arrangements based on mutual or reciprocal compensation because of incumbent LEC bargaining power;" "the problem of achieving mutual compensation is further compounded because incumbent LECs not only charge rates that bear no relationship to their costs but also refuse to compensate CMRS providers for termination of landline-originated calls;" "incumbent LECs even charge CMRS providers for terminating incumbent LEC-originated calls"; "we conclude that, in many cases, incumbent LECs appear to have imposed arrangements that provide little or no compensation for calls terminated on wireless networks, and in some cases imposed charges for traffic originated on CMRS providers' networks.")

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that the wireless carrier originated, but could no longer charge a wireless carrier for traffic that the originated from an incumbent LEC's own customer.[6] Moreover, under the 1996 Act, the wireless carrier is entitled to compensation for all local traffic that originates on the ILEC's network and terminates on the wireless carrier's network, and the rate the ILEC paid the CMRS carrier had to mirror the rate that it charged the CMRS carrier. Furthermore, the FCC ruled that reciprocal compensation rules would apply to all CMRS traffic that originated or terminated within a "Major Trading Area," a large region used for PCS licensing that was much larger than traditional ILEC local calling areas.

There were two significant results from these changes with respect to wireless intercarrier compensation. First, incumbent local telephone companies could no longer use traffic exchange fees to increase a wireless carrier's costs and thus prevent a wireless carrier from offering prices that would compete with the incumbent local telephone company's core services. By making these charges cost-based and symmetrical, all carriers were required to compete. Second, because the traffic exchange fees that wireless carriers paid were no longer strictly tied to ILEC traditional wireline local calling areas, wireless carriers were able to offer regionwide and national calling plans. This led directly to the emergence of today's popular wireless one-rate bucket pricing plans.

Any new legislation must appreciate the core teachings of the wireless experience and apply those lessons to broadband. Like pre-1996 wireless carriers, VoIP providers will be very small relative to the incumbent LECs, and will have a much greater need

[6] Technically, the 1996 Act's reciprocal compensation rules apply to all traffic that is not interstate or intrastate exchange access, information access or exchange services for such access. *See* 47 C.F.R. 51.701.

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both to receive calls from and terminate calls to the ILEC's customers than the ILEC will need to do with respect to the VoIP provider's customers. This asymmetric market power is exactly what led to the asymmetric charges between incumbent LECs and wireless carriers prior to 1996. Should the large incumbent telephone companies be able to impose those unbalanced, asymmetric charges far above cost-based levels, the incumbents will be able to squeeze VoIP out of competition for mainstream consumers, and relegate VoIP to a niche – much as wireless occupied only a niche prior to 1996. Moreover, those consumers should be able to switch service providers – including to and from VoIP service – without changing their telephone numbers. Accordingly, any legislation should extend the rights and obligations of requesting telecommunications carriers to VoIP providers.

If there is a note of caution, however, it is that the FCC has taken an extremely expansive view of its forbearance authority, and without necessarily requiring that a competitive marketplace be supplying what regulation was assuring. So, for example, the FCC has consistently cut back on the scope of Section 251(c)'s unbundling requirements, going so far as to forbear from Section 251(c) entirely with respect to unbundled loops in Omaha, Nebraska. The FCC did not do so because a competitive, wholesale market for loops had developed (in which case forbearance would make sense) but because the cable company – which didn't use unbundled loops – was able to serve residential customers over its cable plant. And perhaps even more troubling, the FCC recently allowed a forbearance petition to be granted by *inaction.* In other words, the FCC simply let a private party assume the FCC's delegated rulemaking authority by refusing to act. This raises very troubling and serious constitutional issues – most notably whether an

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administrative agency can, through inaction, allow a private party to rewrite the laws without any affirmative governmental action, let alone action by the Congress and a signature of the President.

* * *

On behalf of EarthLink, I thank the Committee for the opportunity to present these views. This Committee is acutely aware of the importance of free and open competition in driving innovation. By continuing to promote additional broadband competition, and by preserving the Internet's essential character as a place that fosters economic innovation without duopoly control, the Committee can help ensure a truly pro-consumer, pro-innovation legislative framework for broadband services.

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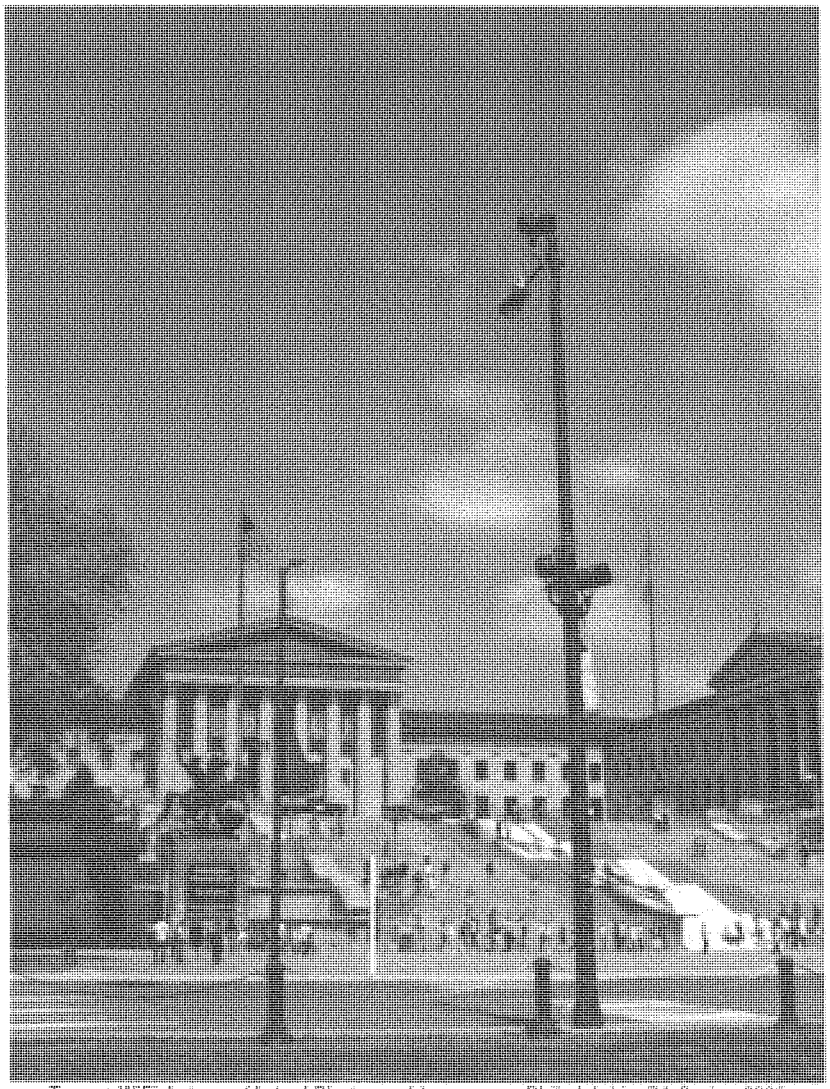

Tropos WiFi Antenna (Actual Photograph) Philadelphia, PA Spring 2005

Christopher Putala
Executive Vice President, Public Policy
EarthLink, Inc.

As executive vice president of public policy, Chris Putala leads EarthLink's legislative and regulatory efforts on technology and Internet issues facing lawmakers and policymakers at the federal, state and local levels. EarthLink, a policy leader in the Internet and telecommunications industry, has played an active and important role on key issues impacting the Internet, including spam, security and privacy. Chris and his team are focused on ensuring customer choice and fair competition in the deployment of advanced broadband communications services and applications including voice, video and data services over wireline and wireless networks.

Chris brings a unique blend of corporate, lobbying and government experience to EarthLink. Most recently, Chris was the principal of PutalaStrategies, a public policy consulting firm providing government relations services to telecommunications and technology clients. Before founding PutalaStrategies, he led lobbying efforts on behalf of the wireless industry as the vice president for congressional affairs at the Cellular Telecommunications & Internet Association (CTIA). Prior to that, Chris served as a senior staff member on the Senate Judiciary Committee. He also has experience as a commercial fisherman and a leading researcher of criminal justice policy.

Chris earned a bachelor's degree from Bates College and a master's degree in public policy from Harvard University. He resides in Washington, D.C.

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STATEMENT OF F. JAMES SENSENBRENNER, JR.
Chairman, U.S. House of Representatives Committee on the Judiciary
Before the United States Senate Committee on the Judiciary

June 14, 2006

Mr. Chairman, Ranking Member Leahy, and Committee Members. I am pleased to testify before today's Committee hearing on: "Reconsidering Our Communications Laws: Ensuring Competition and Innovation."

Before I begin, I would like to make an important point about the antitrust laws. Some antitrust critics contend that fidelity to the free market is somehow inconsistent with a commitment to antitrust. However, as a strong conservative who adheres to the primacy of free markets, I believe that the antitrust laws *preserve* the integrity of the free market upon which economic vitality depends. The communications industry is no exception to this rule.

The principled application of the antitrust laws in the communications market has facilitated competition, reduced prices, encouraged the deployment of new technologies, and enhanced consumer choice for millions of Americans. The House Judiciary Committee conducted its first hearing on communications and antitrust policy in 1957, when it examined a DOJ/AT&T consent agreement addressing anticompetitive conduct in this industry.

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In ensuing decades, both the House and Senate Judiciary Committees conducted several additional hearings on communications competition and antitrust enforcement and oversaw the implementation of the historic 1982 Modification of Final Judgement that made long distance calling an affordable reality to millions of Americans. It is crucial to note that the Ma Bell monopoly operated in a highly intensive regulatory regimes for decades, but the antitrust laws provided the pro-competitive remedy that regulation could not, did not, and cannnot provide alone. However, following the consent decree, local service was still the exclusive province of Bell companies that inherited virtual monopoly control of the local exchange.

Throughout the 1980s, the Committee on the Judiciary conducted extensive hearings concerning the implementation of the 1982 decree and anticompetitive aspects associated with continuing monopoly control of local service. In the early 1990s, the Committee conducted several hearings on this issue, and in 1995, the Committee examined the Justice Department's responsibility to aggressively monitor competition in the telecom field.

The congressional record that gave rise to the 1996 Telecommunication Act was shaped by four decades of Judiciary Committee involvement in monitoring the application of the antitrust laws in the communications field. In order to reaffirm the centrality of the antitrust laws in the liberalized regulatory regime established by the 1996 Act, Congress preserved an explicit antitrust savings clause in the legislation.

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Section 601(c)(1) of the 1996 Act provided that:

" . . . Nothing in this Act or the amendments made by this Act shall be construed to modify, impair, or supersede the applicability of any of the antitrust laws."

Despite the inclusion of this antitrust savings clause, a record of considerable judicial confusion has developed in our Nation's courts. In 2000, the Seventh Circuit issued the *Goldwasser* decision, ignoring the plain language of the antitrust savings clause and holding that the Telecom Act "must take precedence over the general antitrust laws." In 2004, the Supreme Court embraced the reasoning of the *Goldwasser* court in *Verizon v. Trinko.* The decision stated: "One factor of particular importance is the existence of a regulatory structure designed to deter and remedy anticompetitive harm. Where such a structure exists . . . it will be less plausible that the antitrust laws contemplate such additional scrutiny. . . ." The Court concluded: "against the slight benefits of antitrust intervention here, we must weigh a realistic assessment of its costs."

This is precisely the judicial analysis that Congress precluded in the 1996 Act, and this holding has done violence to remedial antitrust enforcement and competitive gains in the telecommunications marketplace. This assault on the antitrust laws should be of concern to Members of both bodies of Congress, but particularly to those who serve on the Committees charged with overseeing their implementation.

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In recent years, the Internet has become a vital communication, information, and commercial medium. The Federal Trade Commission has until recently been precluded from enforcing the Federal Trade Commission Act's competition-enhancing protections in the facilities-based broadband Internet marketplace. In its *Brand X* decision last year, the Supreme Court upheld upheld an FCC determination that these services were outside of its regulatory ambit, thus permitting a more assertive role by the FTC in promoting competition in this marketplace.

According to FCC data released in April, *98.2* percent of Americans access high speed broadband lines by cable modem or DSL connections. This lack of competition presents a clear risk that broadband providers will leverage dominant market power to discriminate against competitors, and pre-select, favor, or prioritize Internet content over their networks.

Regrettably, legislation recently passed by the House invites the risk of competitive abuse by depriving those injured by this misconduct from an effective antitrust remedy. Specifically, H.R. 5252 provides the FCC with "exclusive" authority to define and adjudicate discriminatory broadband practices. This authority displaces the antitrust laws and the vital pro-competitive and pro-consumer purposes they advance.

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It came as little consolation that when considering H.R. 5252, the House accepted a Floor amendment containing a nearly-verbatim recitation of the antitrust savings clause contained in the 1996 Act effectively circumvented by the *Trinko* court. In fact, the amendment passed by the House is *weaker* than the savings provision contained in the 1996 Act for two important reasons. First, it is a "rule of construction" by its own terms, while the savings provision in the 1996 Act contained no such limitation. Second, the amendment is *narrower* because it applies only to one section of H.R. 5252, while the savings provision in the 1996 Act applied to the entire 1996 Act and subsequent amendments to it. I voted against this amendment because I concluded that it provides a proven roadmap for judicial circumvention of a substantive antitrust remedy for competitive misconduct in this field. In addition, to preserve an explicit antitrust remedy for broadband discrimination, I authored and my Committee passed H.R. 5417, the "Internet Freedom and Nondiscrimination Act of 2006," by a bipartisan vote of 20-13.

Mr. Chairman, I commend you for scheduling today's hearing and thank you for the invitation to testify. As the Senate Judiciary Committee asserts its role in this body's consideration of communication legislation, I urge its Members to ensure that the antitrust laws and the agencies that enforce them are provided a clear, continuing, and unambiguous role in promoting and defending the pro-competitive goals for which they were established.

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January 19, 2006

The VON Coalition

President George W. Bush
The White House
1600 Pennsylvania Avenue
Washington, DC 20500

Dear Mr. President:

As members of The Voice on the Net (VON) Coalition, we represent the nation's leading VoIP companies, on the cutting edge of developing and delivering voice innovations over the Internet. We are writing you today to encourage the Administration to continue to help unleash the full promise and potential of Internet communications.

As we begin 2006, the Administration has an unparalleled opportunity to seize upon the potential of emerging voice technologies to launch a new era of broadband-enabled investment and consumer benefits. On the horizon are a set of transformative improvements in the way we communicate that harness the power of the Internet to deliver new voices, choices, and services. As a result, businesses and consumers across the country are flocking to broadband in order to take advantage of these breakthrough technologies.

In order to help meet your commendable goal of making affordable broadband access available to all Americans by 2007, the VON Coalition believes that the Administration should remove barriers to innovation that are very likely to stifle VoIP-driven broadband investment. With the right policy framework, VoIP can play a critical role in boosting broadband demand by making talking more affordable, businesses more productive, communications more accessible, broadband more valuable, and Americans more safe and secure.

To harness VoIP's full potential, the Administration should continue to be a catalyst for pragmatic policy choices by embracing six key policy enablers:

- First, policymakers should continue their successful hands-off approach to Internet communications regulation. This hands-off policy approach has made the U.S. a world leader in the development of VoIP and has provided an influential policy model that has been emulated by countries around the world. Policymakers should refrain from reflexively applying yesterday's rules to tomorrow's technologies, which could inhibit the growth of VoIP and other new IP-enabled technologies, and therefore slow the overall growth of broadband. Thus, VoIP policies must recognize that this technology can be much more than a mere substitute for traditional telephone service. As such, it requires new and forward-thinking regulatory approaches.

- Second, consumers should be allowed to use any device, application, or service on the Internet that they choose. These basic Internet freedoms positively shaped the development of the Internet and should be carried forward to the broadband future. Indeed, the openness of the Internet has been its defining hallmark, and such openness

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is critical to unlocking the vast future potential of Internet communications. At the same time, consumers should not be prevented from lawfully using the bandwidth for which they pay.

- Third, policymakers should avoid imposing the broken access charge scheme onto new broadband enabled services. Instead, the FCC should move quickly to reform the current intercarrier compensation regime. The Administration's innovation agenda correctly states that "precluding new access fees on broadband services helps reduce the cost of both the Internet and high-speed data services." Simply put, if you want something to grow, don't tax it. Prior to comprehensive intercarrier compensation reform being adopted, policymakers should avoid piecemeal regulation that could predetermine the outcome of comprehensive reform, or would require extensive short-term investment for something unnecessary in the long-term. In any event, the reform implemented by policymakers should be accomplished on a prospective basis, rather than imposing backwards looking costs on providers.

- Fourth, the Administration has within its reach a significant VoIP E9-1-1 accomplishment it can embrace today and foster for tomorrow. In the wake of FCC action, the VoIP industry has already made impressive progress in advancing 911 and E9-1-1 solutions –in fact, the VoIP industry has made faster progress than any other form of voice service. As a result of this unprecedented effort, Americans who dial 911 using interconnected VoIP services can now have assurance that they will reach emergency services. Policymakers should build on these accomplishments by acting to remove remaining barriers and enabling even more comprehensive solutions. The Administration should support initiatives that further accelerate E9-1-1 solutions such as providing direct access to the 911 network, providing equivalent liability protection for 911 call-takers and providers, and accelerating the transition to a next generation IP-enabled emergency network capable of a host of breakthrough advances.

- Fifth, policymakers should ensure that every American has the opportunity to benefit from the unique capabilities of broadband-enabled VoIP – wherever they live. In a year when advancing universal phone service and universal broadband access will be top telecommunications priorities, facilitating universal VoIP access can help accelerate both goals. We agree with FCC Chairman Martin's recent statement that it "is critical that consumers have unfettered access to the Internet and all the services it provides." To that end, we recommend revising the restriction that the FCC currently has in place that effectively prevents many rural Americans and others from adopting VoIP, while at the same time advancing E9-1-1 solutions. Indeed, current VoIP sales restrictions could block approximately 98 million Americans, mostly in rural areas, from the many benefits of VoIP, slow E9-1-1 solutions, and impede success of your universal broadband goal. The federal government need not create a regulatory-induced digital voice divide between those who may benefit from digital voice and those who may not. Rather, policymakers should look to ways to spur investment in broadband networks and IP services and applications to bring the promise of additional choices to consumers.

- Sixth, the Administration should further maximize its effectiveness by leveraging the unique capabilities of VoIP. Federal agencies are already utilizing VoIP at unprecedented rates and taking advantage of VoIP's enhanced flexibility, lower costs, nomadic capabilities, and breakthrough features in order to communicate more effectively, flexibly,

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January 19, 2006

and productively. U.S. astronauts on the International Space Station, military commanders in Iraq and Afghanistan, workers in the Commerce Department in Washington, sailors aboard our nation's 12 active air craft carriers, and many others are using VoIP to transform the way the federal government communicates and ensures Americans are more safe and secure. But the best is yet to come. This year, the federal government has the opportunity to further leverage the unique advantages of VoIP as the General Services Administration awards a new 10-year, $20 billion contract enabling converged voice, video, and data networks to help speed the government's own VoIP transformation. Broader VoIP migration can help pay for the administration's policy priorities. In fact, one study suggests that governments could save as much as $3-$10 billion a year by deploying VoIP more broadly – a number roughly on par with the revenues gained from the DTV transition.

By embracing these six basic policy principles, the Administration can continue to unleash the vast economic and consumer benefits that the Internet and broadband are capable of delivering.

The VON Coalition believes that the potential for an immense new wave of VoIP-led technological innovation is at your doorstep. This innovation will enable consumers to do things never before thought possible, help businesses to transform the way they work, and spur the economy as an engine for higher paying information age jobs. However, automatically applying legacy regulations designed for a 100-year-old telephone network to innovative VoIP technologies will stifle innovation, stall important consumer benefits, and reduce the demand for broadband across our nation.

Over the next three years, your Administration has the opportunity to set a course that can spread a new communications revolution throughout America and around the globe. The VON Coalition looks forward to working with you to achieve this bright future.

Sincerely,

The VON Coalition

cc: Senator Ted Stevens, Chairman, Senate Commerce Committee
Congressman Joe Barton, Chairman, House Commerce Committee
Secretary Carlos Gutierrez, Department of Commerce
Chairman Kevin Martin, Federal Communications Commission

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THE WALL STREET JOURNAL.

Business World / *By Holman W. Jenkins Jr.*

What Congress Is Learning About 'Net Neutrality'

High schoolers might want to plan now for a career in telecom lobbying. Don't worry. Nothing will be solved by the time you have waded through college and graduate school. Take your time. Oh, and drop a note of thanks to Google, eBay, Amazon, Microsoft, Intel, etc.

These companies are spending millions to tie up Congress in a bogus debate about "net neutrality" at a time when other important telecom work is being left undone. We'll get to the murky goals of the Microgoogle coalition in a minute—let's start with the intellectual fraudulence of the net neutrality argument.

Verizon and AT&T are the targets, thanks to superfast Internet connections they are just starting to provide to consumers over which to deliver TV in competition with cable and satellite. Being peddled is a kind of IP fetishism—a claim that any network that uses Internet protocol must operate like the Internet consumers think they're used to today, one undivided pipe between them and the world's Web sites.

Of course, that's not really what consumers are getting today. Your cable operator may sell you one, two or three megabits of capacity for a broadband connection, but most of his pipe is reserved for his TV offerings. Verizon and AT&T have made clear they, too, will reserve a big share of their new pipes for their own value-added services, namely TV, and for other content distributors who are willing to pay for access to it. That's how they hope to recoup their investment.

Yet it's obvious that, even as they roll out their TV services, they will be under competitive pressure to keep giving consumers bigger and bigger pipes for their own Web browsing. How do we know? Because that's what cable is already doing, and because Ed Whitacre and Ivan Seidenberg aren't so dumb as to try to make a business model out of denying consumers Web content at home that they freely get at work or at the local Starbucks. And, c'mon, there's plenty of time for Congress to act if a real problem materializes.

Don't kid yourself that the issue here is "censoring" the Web. The issue is Internet survival. AT&T talks about the coming Multimedia Explosion as new forms of video traffic rapidly overtake Web-surfing, file transfer and email as the prime users of backbone capacity. Literally, "net neutrality" would result in an increasingly unreliable Internet as more and more high-bandwidth applications contest for space on networks that nobody would have an incentive to expand.

The real issue is where will the big bucks come from to create an Internet capable of handling the services now envisioned, let alone those not yet dreamed up. BellSouth's Chief Architect Henry Kafka told an audience in March that a typical broadband user today consumes about two gigabytes of data a month, at a network cost of $1. Once TV has gone high-definition and on-demand, a typical user will consume about 1,120 gigabytes a month at a cost of $560 (that's in addition to the administrative, sales and service costs that today make up the lion's share of the user's bill). "Clearly that's not what the average user is going to pay per month for their video service," Mr. Kafka said. "That's why we need help."

Think back to the beginnings of radio and TV: Those business models would never have worked if consumers had had to foot the bill directly for programming. It's clear today that giving consumers the kind of Internet that will support high-definition video and gaming will require the bill to be shared by companies with a stake in putting the new services in front of consumers.

> ***The future and its enemies.***

Wall Street is already down on AT&T and Verizon, believing they won't be able to earn a competitive rate of return on their broadband investments. Cable, by its nature, is in wholesale violation of the net neutrality deity.

What about wireless operators just rising now to give competition to the broadband incumbents? Next month, a much-awaited federal auction of spectrum rights for wireless data is on tap. Should these investors think twice as well given the threat of predatory regulation promoted by the Microgoogle coalition?

Let's hope David Farber, the highly respected former technology chief of the FCC, spoke for an emerging consensus last week when he told a Washington group: "The thought of Congress legislating without understanding this issue scares me."

Especially dismaying is Microsoft's role here, since no company has been more subjected to regulatory predation around the world. And Intel is a big backer of wireless broadband, so understands better than most the competitive wave about to break over the incumbent broadband suppliers.

As for Google, it has made the transition from insurgent to corpocrat in record time.

Their vision for the Internet is, apparently, as a regulated monopoly, like the old phone system. Doubtless one motive is fear of their own unregulated rivalry, which they'd like to put some curbs on. Microsoft, Google, Yahoo, etc. all have deep pockets and rightly worry that their own battle for supremacy would drive them to shift billions to AT&T and Verizon in a race to put their own multimedia offerings in front of consumers. Their strong positions today can't disguise the risks and uncertainties to their business models that the new superbroadband investments portend.

Here's another telltale: All these companies have been loading up on Washington lobbyists lately. Lobbyists keep themselves employed by seeking regulatory leverage over a company's competitive environment, and in "net neutrality" they found a slogan proven to stir up the useful idiots of the "public interest" sector. What for, exactly? Who cares. Let's get AT&T and Verizon by the short hairs now and we'll decide later.

Meanwhile, the U.S. may lag the world in broadband, but it's always happy days for telecom lobbyists.

Mr. Jenkins edits "Political Diary," the editorial page's daily e-mail newsletter with commentary, analysis and gossip on Washington, D.C. and state politics. With John Fund. Subscribe at www.politicaldiary.com.

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THE WALL STREET JOURNAL.

Let There Be Bandwidth

By **BRET SWANSON**
March 7, 2006; Page A12

Ma Bell's back: Run for your lives! -- or at least to the halls of Congress. That, it seems, is the overheated conventional wisdom. But the $170 billion combination of AT&T and BellSouth into the world's largest telecom company is a perfectly natural progression of business and technology. The merger will rationalize a market beset by decades of political mismanagement.

Some 22 years ago, Judge Harold Greene famously ruled that AT&T violated antitrust law and broke up the company along two axes. First, he divided the telecom market into local and long-distance. But just 15 years later, fiber optics and mobile phones obliterated long-distance as a meaningful market, replacing it with fixed-price, anywhere-in-America bundles, which are now under assault from voice over IP. Judge Greene's other 1984 ruling, which split Ma Bell's local operations into eight regional companies, was even more arbitrary from the outset. Because they were fixed by geography, more local companies did not yield more local competition, only diseconomies of smaller scale. So by the late 1990s, after the 1996 Telecom Act acknowledged some of these problems (but created still others), the regional companies began an inevitable reintegration into Verizon, AT&T (née SBC) and USQwest, which will likely soon be gobbled up as well.

* * *

Although this latest reintegration will not reduce the number of competitors in the marketplace, it is sure to supercharge the ever-present denunciations of monopoly that are behind every effort to regulate telecom. This time around, the main agent is the colossus Google. Exactly one decade after the disastrous 1996 act set us on a path for the telecom crash and a plunge to 16th in world broadband rankings, Google is leading an alliance of politicians, lobbyists and interested companies under the aegis of "net neutrality." If enacted, it will repeat the most basic mistakes of earlier legislation.

Net neutrality supposedly seeks the modest goal of stopping the cable TV or telecom companies from "blocking" or "degrading" the content or services of online companies like Google, Vonage or AOL, which are invading traditional voice and video businesses. But the interwoven issues of content and conduit pervade the entire information economy, including the systems of Google itself. Barely recovering from the FCC's "open access" mandates that chopped up and assigned ownership rights and prices to the physical infrastructure -- the hardware -- of the Net, we now face the prospect of rigid reassignment of content, applications, services and protocols, too.

Blocking and degrading Internet access would quite simply be business suicide for incumbent service providers. Compared to cable's other content operations like basic and premium TV channels, its broadband cable modem services are more than 50 times as profitable per unit of bandwidth consumed. This means that with just a tiny sliver of the usable bandwidth in its pipes, cable's Internet services supply about 20% of the revenue and the majority of their net income. Does anyone really think the bandwidth providers are going to kill their golden goose?

The continuing advance of semiconductor and fiber-optic technologies will inexorably push cable and telecom operators to dedicate more and more of their networks to open Internet access. In such a highly volatile market, how much of service providers' capacity will be used for Internet access and how much will go for integrated products like high-definition video programming and video conferencing services is a tough business question. With the millions of competing enterprises involved, this is a complex and rapidly evolving system far beyond the capacity of Congress or the courts to micromanage.

A net neutrality regime would invite endless litigation among service providers, hardware and software vendors, and content and applications dot-coms. Who gets access, when, and on what terms, to the other's network, the other's operating system, the other's platform? These questions -- the very ones that have stifled innovation in telecom for the last two decades -- should be left to business competition and, if all else fails, to common law and antitrust. Congress and the FCC cannot be the arbiters of every connection, interface and transaction. And if such laws somehow only targeted the incumbent bandwidth service providers, then they would turn out to be merely malicious political tools for business rivals, decidedly not "neutral" and unlikely to survive the scrutiny of the courts.

The solution to all this is rather simple -- more bandwidth. Abundant bandwidth means the vast majority of online services, such as Web pages, email and voice, won't pose any congestion problems and will thus easily reach end-users. It also means bandwidth cheap enough that content companies won't mind paying for access. Across the network, different carriers have always charged different prices for varying amounts and qualities. Abundant bandwidth also gives the cable and telecom service providers the flexibility they need to manage this transition from a world of 200 dedicated channels to one with millions of open channels.

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Abundant bandwidth will reverse America's communications decline and transcend monopoly worries or any need for complex net-neutrality regulation. But it will take more than $100 billion of massive and risky new investment, which cannot be made under the current regulatory caprice. Telecom deregulation begun by Michael Powell and continued by current FCC chairman Kevin Martin must be accelerated. Most importantly, we should banish the decades-old local video franchising process.

Since granting monopolies to local cable TV broadcasters some four decades ago, video franchising is obsolete. Yet the prospect of new broadband service providers haggling with some 30,000 mayors and city councils for the privilege of serving new customers is now America's chief obstacle to real broadband. Texas and Indiana have passed statewide franchises, which grant quick, simple and almost automatic licenses for the whole state, and they are already reaping a broadband investment harvest. Around $1 billion worth of new fiber optic bandwidth has already been announced in Texas. The other 48 states should follow suit, or Congress should adopt a simple national franchise without any "shot-clocks" or "build-out" baggage that invite litigation and discourage investment.

In the metro New York area, one of the few places where Verizon has won a video franchise and built its advanced optical network, competitor Cablevision has increased its *basic* cable modem service to 15 megabits per second and is offering premium services of 30 and 50 megabits. Where it exists, real competition between cable and telecom -- not faux competition among distinct telecom brand names -- is thus already yielding networks and speeds on par with the most advanced countries in the world.

AT&T's biggest challenge may be branding itself to a new generation of voracious communications consumers who are oblivious to "long-distance" and only know a world of no-distance chats, texts and blogs. It would be far better if Washington listened to these teeny-bopper baby belles instead of basing its merger, net neutrality and franchising policies on a Great Grandma Bell world that no longer exists.

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http://online.wsj.com/google_login.html?url=http%3A%2F%2Fonline.wsj.com%2Farticle%2FSB115007182366177436.html%3Fmod%3Dgooglenews_wsj

June 12, 2006

COMMENTARY

"Ominous Neutrality"

By STEVE FORBES

June 12, 2006; Page A12

If Washington followed Hollywood's lead and gave an academy award for the best political sound bite of the year, "Net Neutrality" would win in a walk for 2006.

Net Neutrality has everything a good sound-bite needs. It's short, alliterative, easy to remember and so elastic in meaning that anybody can define it according to their own agenda.

That's exactly what's happening in Congress right now, where well-financed lobbyists are pushing for Net Neutrality legislation. According to their benign-sounding definition of Net Neutrality, it simply means that Internet network operators like the phone and cable companies would have to give equal treatment to all traffic on their networks, without giving anybody's content preference in handling.

But scratch the surface of what the Net Neutrality crowd is really asking for and Net Neutrality shifts from benign to ominous. The Net Neutrality lobbyists want Congress to pass innovation-stifling restrictions on what companies like Verizon and AT&T can do with the new high-speed broadband networks that these companies haven't even finished building yet.

These networks are the superhighways for transporting Internet content and services. They will also permit Verizon and AT&T to offer Internet-based cable TV programming in competition with the cable companies, which are already competing in telecom services. Slapping these networks with premature, unnecessary regulations would be an inexcusable barrier to the tradition of innovation at the heart of the Internet.

Phone companies are investing billions of dollars in network innovation. They need to earn a return on their investment. One logical way is to use a tiered pricing system that charges a premium price for premium services -- which means super-high-speed services

that gobble extra bandwidth on the network. Those who are happy with standard broadband speeds would continue to pay the same prices they pay now.

This is the same concept as mail service. If you want to send a letter from New York to Los Angeles and delivery in four days to a week is OK, you can do it for the price of a 39-cent postage stamp. But if you want the letter delivered without fail by 10 a.m. the next morning, you upgrade to FedEx and pay for the extra service you need.

Applying this principle to the Internet sounds like the free market at work to me. But the Net Neutralizers have responded with manufactured indignation, claiming that it's discrimination and somehow tramples on the egalitarian spirit of the Internet.

Surprisingly Google, E-Bay and other high-tech companies have become big supporters of this flavor of Net Neutrality; they supposedly fear discrimination from Internet providers. But they have no real evidence to back-up such fears. If problems do arise, then these can be dealt with specifically.

Passing Network Neutrality legislation would be a re-run of the disastrous Telecom Act of 1996 which forced telecom companies to provide network access to competitors at below market prices. That certainly put a chill on network innovation. After years of wasteful lawsuits and regulatory infighting, the network access monster has gone away. But it was a big factor in letting America slip into the high-tech Stone Age, with consumer broadband services lagging far behind what's available in countries like Japan or South Korea.

Members of Congress are on the verge of updating the Telecom Act to bring it into sync with a communications industry that's been transformed by Internet technology. As they do that, we can only hope they don't compromise the future of this vital industry by falling for the rhetoric of Net Neutrality. After all, what network operator would be silly enough to keep investing billions in network innovations if the fruits of its innovation had to be given away at below cost?

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The Washington Post

The Eden Illusion

Monday, March 13, 2006; A14

BACK IN 1984, AT&T Inc. was judged to be a competition-squelching monopoly. It was hanged, drawn and cut into eight pieces. Now, with a planned merger between AT&T and BellSouth Corp., the old monopolist is set to reemerge as the world's biggest telecommunications company, uniting four of the regional phone companies created by the breakup. The reaction to this merger shows how things can change. Cell phones and Internet telephony have created competition aplenty for traditional land lines, and there's no reason to object to the consolidation of BellSouth's customer base in the Southeast with AT&T's customer base in the West, Southwest and Midwest. To the extent that the proposed merger will generate regulatory questions, these hinge on an issue that didn't exist 22 years ago.

That issue is "net neutrality," the principle that cable and phone companies, which own the plumbing that connects you to the Internet, should make all Web sites equally accessible. The plumbers want the right to deliver some Web services -- Amazon.com Inc.'s bookstore or Yahoo Inc.'s search engine -- faster than others, and to charge Amazon or Yahoo for that privilege. Not surprisingly, Internet companies don't want to fork over money to the cable and phone guys. To discredit the plumbers' pay-to-play idea, they invoke the original vision of cyberspace: a democratic utopia in which surfers choose freely among a zillion sites, with humble hobbyists and multimillion-dollar firms competing for eyeballs on a level playing field. (The Washington Post Co. owns both cable and Web sites and so has commercial interests on both sides of this issue.)

Leave aside the irony that corporations such as Google Inc. are invoking the anti-corporate spirit of the Internet's founders. The vision of a neutral net has an intuitive appeal; if anyone anywhere can post opinions or sell T-shirts, choice, diversity and competition will flourish. But it would nonetheless be a mistake to force AT&T to promise net neutrality as a condition of its merger. Equally, legislative proposals to enforce net neutrality, including one introduced this month by Sen. Ron Wyden (D-Ore.), should remain just that: proposals.

The proponents of net neutrality exaggerate the purity of cyberspace. Big names on the Web already have a huge advantage over no-brand competitors: Surfers go to places that they trust, particularly to make credit-card purchases. Moreover, once you have an advantage on the Web, it becomes self-reinforcing: If your site is popular and many others link to it, search engines such as Google will direct more traffic your way. Corporations already strive mightily to make your Internet experience non-neutral. From the early days of the World Wide Web, America Online Inc. tried to keep customers

within its own virtual "walled garden" of services. More recently, Google has elbowed out competitors by offering toolbars and other freebies that keep its friendly search box perpetually on computer screens. Meanwhile, big e-tailers have accelerated their service by paying to "cache" their Web pages on computers close to customers. So if cable and phone companies start delivering some Web content at premium speeds, they will be adding to an existing trend, not sullying Eden.

The proponents of net neutrality also understate the costs of regulation. If cable and phone companies are not allowed to charge Internet firms for fast delivery, they will be deprived of one source of profits. This will make it harder to raise capital to build the next generation of superfast Internet pipes, capable of delivering high-quality video. Moreover, any definition of net neutrality is likely to be contested in the courts, and legal uncertainty will further deter investment. As a result, net neutrality could end up meaning that all Web services get delivered at a similar but relatively slow rate.

If the cable and phone companies start blocking out chunks of the Web's content, there will be opportunities for Congress to weigh in. But it's hard to see how these firms can expect to win extra subscribers by doing that.

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The Internet's Future

Congress should stay out of cyberspace.

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THE SENATE will hold hearings tomorrow on "net neutrality," the idea that the pipes and wires that form the Internet should treat all content equally. An alliance whose membership ranges from the Christian Coalition to MoveOn.org is demanding that Congress write this neutrality into law; the groups fear that the pipe owners -- cable companies, phone companies and so on -- might otherwise deliver corporate content at high speed for high fees, while consigning political Web sites and hobbyists to a slow information byway. These arguments are amplified by the big Internet firms -- Google, Microsoft, eBay -- that want their services delivered fast but don't want the pipe owners to extract fees from them. Although this coalition lost a House vote last week, its prospects are stronger in the Senate. (The Washington Post Co. owns broadband networks that might charge Web sites for fast delivery. It also produces Web content that might be subject to such fees, so it has interests on both sides of this issue.)

The advocates of neutrality suggest, absurdly, that a non-neutral Internet would resemble cable TV: a medium through which only corporate content is delivered. This analogy misses the fact that the market for Internet connections, unlike that for cable television, is competitive: More than 60 percent of Zip codes in the United States are served by four or more broadband providers that compete to give consumers what they want -- fast access to the full range of Web sites, including those of their kids' soccer league, their cousins' photos, MoveOn.org and the Christian Coalition. If one broadband provider slowed access to fringe bloggers, the blogosphere would rise up in protest -- and the provider would lose customers.

The cable TV analogy is doubly wrong because media culture reflects technology. Cable TV has been the province of Hollywood studios because making a sitcom is expensive and hard -- though, with cheap digital camcorders, this is changing. Equally, the Internet is the province of experimenters and hobbyists because creating your own Web site is cheap and easy. Thanks to technology, the Internet will always be a relatively democratic medium with low barriers to entry.

The serious argument for net neutrality has nothing to do with the cable TV boogeyman. It's that a non-neutral net will raise barriers to entry just slightly -- but enough to be alarming. To use a far better analogy: Competitive supermarkets aim to please customers by offering all kinds of goods, but the inventor of a new snack has to go through the hassle of negotiating for display space and may wind up on the bottom shelf, which dampens his incentives. Equally, if the owners of Internet pipes delivered the services of cyber-upstarts more slowly than those of cyber-incumbents, the incentive to innovate might suffer. Would instant messaging or Internet telephony have taken off if their inventors had had to plead with broadband firms to carry them?

This concern should not be exaggerated. Cyber-upstarts already face barriers: The incumbents have brand recognition and invest in tricks to make their sites load faster. The extra barrier created by a lack of net neutrality would probably be small because the pipe owners know that consumers want access to innovators.

Meanwhile, there are powerful arguments on the other side. If you want innovation on the Internet, you need better pipes: ones that are faster, less susceptible to hackers and spammers, or smarter in ways that nobody has yet thought of. The lack of incentives for pipe innovation is more pressing than the lack of incentives to create new Web services.

You can see this imbalance in Wall Street's low valuation of Internet infrastructure firms such as Verizon (price-to-earnings ratio: 12) and its infatuation with Internet service firms such as Google (price-to-earnings ratio: 69). You can see it, too, in the fact that U.S. broadband infrastructure lags behind that of East Asia and Europe. Allowing builders of Internet infrastructure to recoup their investment by charging the Googles and Amazons for use of their network would balance the incentives for innovation more closely. Ironically, a non-neutral net would accelerate the spread of zippy broadband that can deliver movies, allowing hobbyists with camcorders to take on Hollywood studios. The neutrality advocates who criticize corporatized cable TV should welcome that.

The weakest aspect of the neutrality case is that the dangers it alleges are speculative. It seems unlikely that broadband providers will degrade Web services that people want and far more likely that they will use non-neutrality to charge for upgrading services that depend on fast and reliable delivery, such as streaming high-definition video or relaying data from heart monitors. If this proves wrong, the government should step in. But it should not burden the Internet with preemptive regulation.

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