



Competitive
Enterprise
Institute

Issue Analysis

Communications without Commissions: A National Plan for Reforming Telecom Regulation

By Braden Cox and Clyde Wayne Crews, Jr.

October 18, 2005

Communications without Commissions: A National Plan for Reforming Telecom Regulation

By Braden Cox and Clyde Wayne Crews, Jr.

Executive Summary

U.S. communications are at an important inflection point. Cable, telephone, and wireless companies aim to compete against each other using the latest technologies. Our current laws, however, hinder this new competition and create legal distinctions at odds with market developments.

Communications policy must acknowledge that competition between technologies is a key ingredient not just for competition, but for promoting a national broadband policy. The best way to create a fertile environment for achieving President Bush's goal of universal broadband access by 2007 is through a series of deregulatory legislative initiatives. Communications regulation deserves more than a mere "update"—largely, it must be phased out.

The removal of government regulation—*deregulation*—does not mean that the industry is *unregulated*. Competition, or even the threat of competition, regulates the behaviors of companies in efficient and consumer-enhancing ways. In communications, competition exists among an increasing number of platforms.

Technological substitution—when providers compete with different technologies to supply the same service—is revolutionizing the telecommunications industry. Cable companies are now in the business of providing local phone service. Wireless phones have effectively replaced wireline telephones for long distance calls. Satellite competes against cable for consumers of video programming, and phone companies are rapidly developing a video offering that will compete against both satellite and cable.

Congress must consider these broad market developments and act in tailored ways that change communications law and reforms the agency that administers it. First, it should establish clear boundaries as to whether an area of communications should be regulated by federal or state governments. Additionally, Congress must restrict the role of the FCC in future communications regulation.

Moreover, a next generation communications policy must distinguish economic regulation from social welfare initiatives. Congress should eliminate rules that regulate market performance and focus on ways to implement social policy—such as universal service—in ways that do not require FCC oversight. Finally, Congress should restructure the FCC and provide a legislative mandate to increase the market's role in managing spectrum rights. The FCC of the future (if it is to exist at all) should be limited to applying general unfair competition rules similar to that of the Federal Trade Commission.

The following analytical framework is a reform agenda for Congress. Whether proposed legislation tackles each separately or comprehensively, Congress must:

(1) Set regulatory boundaries

- **Preemption** – Analyze which governmental authority—federal or state—is best suited for the role of regulator (if government regulation is required).
- **Prevention** – Restrict the FCC’s jurisdiction by creating a “firewall” that would prevent it from regulating Internet Protocol-based services.

(2) Revisit rationales for economic and social policy regulation

- **Eliminate Economic Regulation** – Rules that regulate prices and access need to be phased out entirely.
- **Divest Social Policy** – Social goals should be disentangled from industry-specific taxes, price controls, technological mandates and other economic regulations.

(3) Reform the Federal Communications Commission

- **Restructure** – Eliminate FCC functions that could be done by other agencies.
- **Reform Spectrum** – Provide the FCC with a clear mandate to get spectrum into the market.

Policymakers should view lightly regulated Internet communications as a baseline and move legacy communications toward it through *deregulatory parity*. Congress cannot perpetuate and generate new rationalizations for oversight. Communications without a Federal Communications Commission offer real benefits to consumers. Congress should address ways to reduce the size of the FCC and the scope of its regulatory agenda—the future of communications literally depends on it.

Introduction

Our current laws hinder new competition and create legal distinctions at odds with market developments. The need for regulatory reform is beyond dispute.

U.S. communications is at an important inflection point. Cable, telephone, and wireless companies aim to compete against each other using the latest technologies. Our current laws, however, hinder this new competition and create legal distinctions at odds with market developments. The need for regulatory reform is beyond dispute. How we go about communications reform is the issue *du jour*.

Reform efforts come at a time when the proper regulatory role played by the Federal Communications Commission is in flux. The FCC recently ordered voice communication providers that utilize the Internet Protocol (VoIP) to provide enhanced 911 (E911) service as a mandatory feature.¹ Yet, the D.C. Circuit Court of Appeals decided that the Federal Communications Commission exceeded its authority when it established the “broadcast flag” to protect the content of digital transmissions.² Meanwhile, the Supreme Court, in its *Brand X* decision, reaffirmed the role of the FCC in deciding the regulatory classification of cable modem service.³

These decisions raise important questions about the future of the FCC: Going forward, does the FCC need expanded powers and a new, clarified role to regulate the latest technologies? Or should Congress direct the FCC to resolve issues derived from the past AT&T monopoly and government control of spectrum, but limit its authority in new communication platforms in preference for market regulation? Either way, Congress must provide direction to the FCC.

For its part, though, Congress should not expand the powers of the FCC by giving it a new role to regulate the latest technologies. Instead, lawmakers should direct the FCC to resolve with finality issues derived from the past AT&T monopoly and government control of spectrum. And then they should keep the agency from regulating new communication platforms, deferring to the communications marketplace for that job. What’s more, the current static legal classification of different types of communications services needs to be overhauled.

Regulatory reform would necessarily encompass a “national broadband policy.” Indeed, that the United States is falling behind other countries in broadband penetration is a well publicized concern.⁴ Unfortunately, many proposals for increasing broadband penetration include increased government involvement through “open access” requirements, price controls and subsidies.⁵ Instead, we believe that the U.S. will be vastly better served by less government involvement in the communications sector.

The communications of the future is upon us. However, the laws of the past are still with us. The question for today is whether we still need a Commission to oversee our communications needs.

Revisiting the Rationale for Telecommunications Regulation

Congress created the Federal Communications Commission during the “New Deal” and entrusted it to establish “a rapid, efficient, Nation-wide, and world-wide wire and radio communication service.”⁶

As was the case with other progressive-era initiatives, the dominant theory was that major industries required significant government control. The *public interest* rationalization and the bandwidth *scarcity* rationalization have long been used to justify federal regulation of the communications sector. Those notions no longer apply, and it is doubtful they ever truly did.

Scarcity of bandwidth and public interest concerns can exist; however, these issues have been exacerbated and perpetuated by a continued interventionist policy. The merging of digitization, high bandwidth and wireless transmission that defines the information age trivializes government attempts to promote the ambiguous “public interest” and manage scarce resources. Yet government regulation of telecommunications is still relevant, insofar as it is a significant barrier to the growth of the industry. Telecommunications has been politicized for far too long. We must transition from the socialized and regulated to the free and regulated.

Free and regulated? The removal of government regulation—*deregulation*—does not mean that the industry is *unregulated*. Competition, or the threat of competition, regulates the behaviors of companies in efficient and consumer-enhancing ways. In the telecom industry, competition exists among many more platforms than have ever existed. Coaxial cable, copper phone lines, and wireless alternatives all compete as local phone infrastructure.

Policymakers must recognize the technological development of the last decade and transfer oversight away from political bureaucracies to markets. Some politicians will be motivated by their own self-interested agenda, and will attempt to perpetuate and generate new rationalizations for oversight. But the failure to move discipline of industry—call it “regulation” if you must—from the regulatory bureaucracies to the competitive marketplace will continue to create substantial costs to consumers and society.⁷ The bureaucratic version of consumer service and protection offers neither.

The communications landscape is vastly different than it used to be, and it has given individuals outlets for exercising their freedom of speech that were unimaginable even a generation ago. Therefore our most pressing business is to end federal communications regulations of “old school” wireline communications, *and prevent them from ever being applied to new services*. We cannot perpetuate and generate new rationalizations for oversight. Instead, we should accept Internet

The public interest rationalization and the bandwidth scarcity rationalization have long been used to justify federal regulation of the communications sector. Those notions no longer apply, and it is doubtful they ever truly did.

communications as the regulatory baseline and move toward *deregulatory parity*.

The greatest move toward deregulatory parity would be to abolish the FCC. Proposals to eliminate federal agencies may seem radical but certainly are not novel. Congress passed the Airline Deregulation Act in 1978 that resulted in the phase-out the Civil Aeronautics Board. More recently, when Republicans came into power in 1995, they wanted to downsize government and proposed to abolish the Department of Energy.⁸ Telecom lawyer Peter Huber has proposed that we abolish FCC and rely on common law to resolve industry matters.⁹ A British think tank favors abolishing the United Kingdom's Office of Communications (Ofcom), a regulatory agency similar to the FCC.¹⁰ Abolishing the FCC has also received some media attention in the U.S.¹¹ Thus, a proposal that would enact major institutional changes to the way we regulate communications is neither extreme nor unprecedented.

What's the worst that could happen if we eliminate the FCC? It's not as if, before the agency, no one could communicate.

What's the worst that could happen if we eliminate the FCC? It's not as if, before the agency, no one could communicate. It certainly isn't the case that no one will be able to communicate without a Federal Communications Commission. And today, it's even more apparent that free speech and the technologies that enable communication spring from the marketplace, not Washington, D.C.

Markets produce optimal output, including that of true and reliable information, entertainment and communication products. Communications without a Commission offers real benefits to consumers and should be more than just a thought experiment. Congress must address ways to reduce the size of the FCC and the scope of its regulatory agenda—the future of communications literally depends on it.

Replacing Government Regulation with Market Discipline

The purpose of the Telecommunications Act of 1996 was 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.”¹² It was recognition that competitive markets produce better outcomes than government regulation.

However, the 1996 Act's implementation has entrenched the FCC. It has also enlarged the agency's role in “social welfare” programs such as the universal service fund, a rapidly growing urban-to-rural wealth redistribution program. The President's budget includes \$304 million for the FCC in fiscal year 2006.¹³ That's an increase from \$281 million appropriated for 2005 and \$245 million for 2002.¹⁴ Thus the FCC's budget will have increased by 24% from five years ago.

Responding to new technology and consumer demand, the telecom market has outgrown the strictures imposed by Congress in the Telecommunications Act of 1996. Due to the dynamic way that the market is developing, we have moved beyond the debate from merely reforming communications law to reforming the agency that administers communications law.

A truly deregulatory telecom reform agenda would sunset many FCC functions and include legislation preventing it from regulating new technologies. A “comprehensive” telecom reform bill is not necessary to achieve this ideal, if we start with the correct premise—a federal regulatory agency is not competent, as an institution, to control today’s communications world. Legislation that accords with this premise frames the reform agenda to make it consistent with the eventual phase-out of the FCC.

New entitlements, programs, taxes and open access mandates would likely accompany a comprehensive bill. A prescriptive approach, one that keeps regulators out of new services while also rolling back existing regulation, may in fact be the best comprehensive reform. Every revision in FCC policy needs to be consistent with the phase-out of the agency. The communications industry may still necessarily be involved in social welfare programs. But it does not need an industry-specific federal agency to promote the social welfare.

The best approach for tackling the economic and social welfare issues of communications networks is based on a single question: is legislation or regulation consistent with abolishing the agency and removing government oversight over speech and communications? Most reform efforts should focus on removing the harmful provisions of current law, not revisiting and creating new law. We propose an incremental reform approach that targets specific issue areas.

As Easy as 1, 2, and 3: A Three Step Agenda for Regulatory Reform

Congress should pursue a phased deregulatory agenda that highlights the clear federal jurisdiction over communications, prevents the FCC from regulating new technologies and strips away at the FCC’s current functions. Every reform attempt needs to be consistent with the eventual phase-out of the FCC, in deference to alternative mechanisms for addressing the “public interest” and spectrum scarcity.

The first phase requires the establishment of clear boundaries as to whether an area of communications should be regulated by federal or state governments. The interstate nature of communications means that the federal role is to prevent barriers to competition. Additionally, Congress must limit the role of the FCC in future communications regulation. Because this phase entails government action affecting the scope of authority for other government action, it should not precipitate industry litigation. Therefore, its implementation can be swift and precise.

The best approach for tackling the economic and social welfare issues of communications networks is based on a single question: Is legislation or regulation consistent with abolishing the agency and removing government oversight over speech and communications?

Congress should eliminate rules that regulate market performance and focus on ways to implement social policy, such as universal service, in ways that do not require FCC oversight.

The second phase involves separating economic regulation from social welfare initiatives. Congress should eliminate rules that regulate market performance and focus on ways to implement social policy, such as universal service, in ways that do not require FCC oversight. Phase two also entails fixing current problems related to open access and intercarrier compensation. Finally, Congress should restructure the FCC and provide it a legislative mandate to increase the market's role in managing spectrum rights.

Execution of the phases can happen simultaneously, especially spectrum management reform. The following order for reform can be regarded as a plan based partly on ease of implementation.

PHASE I – Setting Boundaries

- **Preemption** – Preemption is the demarcation line for apportioning government regulation at the federal or state level. If government regulation is required, we need to analyze which governmental authority—federal or state—is best suited for the role of regulator. Congress should prevent the states from regulating and taxing all Internet Protocol (IP) communications services such as VoIP and video delivery (IPTV). States would have authority over the physical property aspects of communications, such as rights of way.
- **Prevention** – Congress should restrict the FCC's jurisdiction by creating a “firewall” that would prevent it from regulating Internet Protocol-based services. Congress cannot leave open the FCC's ability to justify new rationalizations to regulate Internet communications, whether price, service features, quality of those service features, or access.

PHASE II – Revisiting Legacy Rules

New technologies are creating new ways to communicate that must not be burdened by legacy economic and social policy rules.

- **Eliminate Economic Regulation** – Rules that regulate prices and access need to be phased out entirely.
- **Divest Social Policy** – Social goals should be disentangled from industry-specific taxes, price controls, technological mandates and other economic regulations.

PHASE III – Institutional Reform

Having reformed from within much of the existing institutional structure in phase one and two, Congress should enact broader reforms.

- **Restructure** – Congress should remove “public interest” requirements from communications law. Furthermore, it should eliminate remaining FCC functions that could be done by other agencies. Consumer protection issues regarding actions of fraud or unfair dealing can be transferred to the FTC. The FCC’s office of diversity could go to the EEOC. Antitrust merger review guidelines and public interest social regulations would also go to other agencies. The goal is to move away from industry-specific regulation and toward general regulatory policy and competitive discipline.
- **Reform Spectrum** – Congress must provide the FCC with a clear mandate to get spectrum into the market. It should direct the FCC to auction off spectrum quickly and set the framework for property rights in spectrum. More government spectrum should be made available for private use.

The Dynamic Communications Marketplace

Why is it that communications regulation cannot keep pace with the ever-changing communications market? The core problem lies in the static legal classification of different types of communications services. Telecom law uses two major categories to classify communications technologies: a “telecommunications service,” such as local and long-distance phone service, is the most highly regulated category; an “information service,” currently defined as involving the transmission of data that requires manipulation (including the breaking up of data into packets), refers to such services as Internet access, e-mail and cable television and is less stringently regulated.

These technology-based categories create distinctions that no longer make sense in our technologically converged world. Thanks to new application technologies such as VoIP (Voice over Internet Protocol), local phone service is no longer just an analog transmission over the telephone network. In addition, existing networks are reinventing themselves, such as cable services that include two-way voice transmissions that resemble telecommunications services. Artificial regulatory distinctions have created market disparities that impose business costs and ultimately hurt consumers while setting an unbalanced playing field for communications companies.

Technology-based categories create distinctions that no longer make sense in our technologically converged world.

The Genesis of Today’s Telecom Market

The dominant economic thought of the early twentieth century was that telephone service is a “natural monopoly.” Yet there was never anything natural about AT&T providing phone service to almost every household in the nation. Independent non-Bell telephone companies operated 51% of the telephone business in local markets in 1907.¹⁵ An agreement by AT&T and the U.S. government in 1913 halted competition in favor of universal service and monopoly profits.¹⁶

Today, absent government intervention, it is impossible to monopolize a communications industry that is expanding the content and delivery of information.

The DOJ breakup of AT&T in 1984 resulted in a fracturing of a network into two distinct types of service providers—local exchange carriers (the so-called Baby Bells) and interexchange carriers (long distance). Unfortunately, AT&T’s divestiture, like its original monopolization, did not encourage competing networks. A stratified network divided into local and long distance service ignored the efficiencies of vertically integrated networks. But new technology has come to the rescue. Competitive cable and wireless networks have emerged from outside the regulated landline sector. And these competitors are largely free to manage themselves as fully integrated networks.

Despite the advent of competing cable and wireless networks, the acquisitions of AT&T and MCI by SBC and Verizon have stoked fears that they represent a piecing together of the old AT&T monopoly. Even though technology is transforming the industry, at least one advocacy group believes these mergers would set the marketplace back to a world of “deregulated monopoly.”¹⁷ Of course, there was a monopoly in communications for seventy-one years—one created and regulated by government. Today, absent government intervention, it is impossible to monopolize a communications industry that is expanding the content and delivery of information.

Expanding the Telecommunications Market

Federal and state laws have a common failing in their premise that only phone companies can provide voice services. Yet communications is much more than a voice transmission. Other forms of nontraditional communications include email and instant messaging. A significant communications trend in recent years is interactive video game play on broadband platforms. In just two months after its release, the Xbox Live community logged 91 million online hours playing *Halo 2*.¹⁸ And, as a new distribution format called “podcasting” proves, the ability to publish sound files on the Internet to subscribers that receive new audio files automatically makes almost everyone a potential broadcaster.

The ability to engage in advanced communications increases with broadband deployment. During the year 2004, the FCC reports that high-speed lines increased by 34 percent to 37.9 million lines.¹⁹ DSL lines increased by 45 percent to 13.8 million lines.²⁰ Cable modem service increased by 30 percent to 21.4 million lines.²¹

Increased uptake in broadband helps enable substitution of communication services. Substitution occurs when providers compete with different technologies that supply the same service. Inter-technology or “intermodal” competition through substitution is an old concept. As an example, the transportation industry has been faced with intermodal competition for decades. Freight can be shipped by air, rail or roads. The result is lower costs for shippers that are passed onto consumers in the form of lower prices.

In communications, cable companies are now in the business of providing local phone service. Satellite competes against cable for consumers of video programming, and phone companies are rapidly developing a video offering that will compete against both satellite and cable. Wireless companies compete for long distance. Wireless is also replacing wireline phones, as 8.9 million new wireless subscribers in 2004 were the result of people “cutting the cord” to become wireless-only households.²²

Competition from other networks is the ultimate regulator of price and quality. An economic study released by the Competitive Enterprise Institute in December 2004 reveals intense price competition in the local phone market from wireless.²³ It finds conclusive evidence that if a wireline local phone company raised its rates by just one percent, wireless demand would increase by two percent. Thus, wireline and wireless phones are substitutable for each other because consumers can use them interchangeably.

The increasing ability of consumers to utilize different modes of communications transcends the public utility model of the telecommunications industry. State public utility regulatory commissions were created to oversee utility industries. It was the voice for consumers who had no other choice. This may still be the case with electricity and natural gas. It is no longer true for telecommunications.

Policymakers must also consider communications convergence and the resulting benefits to consumers. However, many federal and state regulators have been slow to recognize competition from new technologies. New markets are in the process of being created out of technology previously relegated to a single use. The convergence of voice, video and data (the “triple play”) onto a single technological platform is the result of consumer demand for a complete end-to-end communications experience. It therefore makes sense that the network that provides this experience also be owned and operated end-to-end.

Converging Technologies, Merging Companies

As competition comes from different network platforms, consolidation within one network typology doesn’t mean concentration within the broader communications industry. Consolidation of various parts of the telephone network infrastructure is a natural progression of a communications market working for consumers. Regulators must refrain from adopting the rhetoric of the past, which would prevent consumers from receiving the benefits of competing networks of the future.

The acquisitions of AT&T and MCI by SBC and Verizon are not indulgent moves to corner the telephone market. Indeed, these mergers are necessary if traditional telephone companies are to compete against cable companies for broadband services. A PricewaterhouseCoopers study states that telephone companies are two years behind cable companies

The increasing ability of consumers to utilize different modes of communications transcends the public utility model of the telecommunications industry.

in delivering triple-play service over a broadband network and advises cable companies to move quickly to capitalize on this advantage.²⁴ A Forrester Research report, “The Battle for the Digital Home,” discusses how communications companies must focus on developing new revenue streams through key cross-industry partnerships and acquisitions.²⁵

These telecom mergers represent an acquisition strategy that will help create the “triple play” revenue stream and provide significant public interest benefits. A network platform that will deliver voice, video and data needs enhanced quality of service. Integrating backbone networks with front-end delivery platforms allows communications providers to enable the faster deployment of digital services based on IP.

Competition from cable is here and growing exponentially. Cable broadband service is available in 95% of occupied homes in the country.²⁶ At the beginning of 2005, cable providers offered VoIP services to 15% of U.S. households.²⁷ By year end 2005, 41% of U.S. households will have access to VoIP services and 58% will have circuit switched telephony services available from cable providers.²⁸ The various forms of content delivered over multiple and competing communications networks guarantees that the merged entities will face a competitive marketplace.

By allowing mergers to proceed unencumbered by regulatory intervention, the FCC sends a clear signal that it is for competition, now and into the future.

Antitrust authorities and regulators must take a broad view of the industry structure. Indeed, a broader view of the traditional telephone industry takes into consideration competitive entry from other networks. Maximizing competition between networks requires close coordination and control of infrastructure. By allowing these mergers to proceed unencumbered by regulatory intervention, the FCC sends a clear signal that it is for competition, now and into the future.

The process of merger review is a regulatory cost just like any other government regulation. Indeed, the larger the list of conditions, the longer the delay for the completion of review. Therefore, the FCC should pass the competition review portion of telecom merger analysis to the Department of Justice.²⁹ The communications market and consumers will be served best by a swift review process.

Government’s Regulatory Role – Protecting (and Creating) Property Rights

Government’s proper role in the new communications market is to protect specific property rights and create or recognize new rights as needed. Protecting an ill-defined public interest is a 19th century concept ill-suited for the 21st century. The public interest rationale was the original justification for the government endorsed AT&T monopoly. But this was an illusion even 100 years ago, because telephone companies sprang up after the expiration in 1894 of Alexander Graham Bell’s patent. AT&T’s strategy was to use regulation to drive out competitors.³⁰ We must move beyond two outdated ideologies that have dominated telecom policy—

private networks are not public property, and spectrum is not the public's airwaves.

Private Network Infrastructure is Not a Public Utility

One of the oft-heard arguments of municipal broadband proponents is that like electricity, roads, sewers, and water, broadband is just another utility that government should provide to its citizens. These arguments raise “natural monopoly” and “public good” issues.

Economic justifications for public provisioning and regulation of utilities is based on a “natural monopoly” rationale—one firm can supply the entire output demanded at a lower total cost in resources than could multiple competing firms. Natural monopoly arguments arise from the special characteristics of a particular industry under the current state of technology, although many economists would state that instances of natural monopolies are in practice extremely rare.

There are three basic characteristics of a natural monopoly that necessitate governmental involvement—monopoly pricing, inefficient entry, and difficulty of efficiently pricing the product due to high fixed costs and low per unit costs.³¹

Broadband communications networks do not possess these natural monopoly characteristics. Entry is limited mostly by geographic terrain, right of way access permissions from a municipality and, of course, market demand. Furthermore, wireless broadband services such as WiFi are characterized by low, not high, fixed startup costs. Indeed, it is the low initial costs of wireless networks that are attractive to many municipalities. And because networks compete, monopoly pricing is not achievable.³²

Furthermore, broadband does not meet the definition of a public good. Economists define public goods as a class of goods that (1) cannot be withheld from one consumer without withholding from all consumers (nonexcludable), and (2) costs little or nothing for an extra individual to enjoy (nonrivalrous).³³ Essentially, according to traditional economic analysis, if the only way that the good would be produced would be from government, then it is a public good.

Broadband is not a public good. Broadband service providers can exclude non-paying users from paying customers. Wireless companies such as T-Mobile and Wayport have built business models around monthly subscription rates that allow WiFi access only for registered users. Like many network industries, the costs of adding an extra customer are small compared to the overall cost of operating the network.³⁴ However, this does not mean that the provision of broadband is a public good, just like airline service is not a public good.

Broadband communications networks do not possess natural monopoly characteristics.

Spectrum is (or Should Not Be) the “Public Airwaves”

The “public interest” is a well-intended, if ill-defined, concept that broadly regulates the broadcast spectrum. It originated in the law in the late 1800s when Congress was focused on railroad regulation and the public interest standard. It embodies notions that government should act for the public at-large, not for covert private interests. But where “public interest” is explicitly stated in law, as it is in communications, watch out. As we are seeing with broadcast indecency, even the First Amendment can’t compete with the “public interest,” which is why the directive needs to be eliminated.

The mandate of the Communications Law of 1934 refers to the general requirement that broadcast licensees operate in the “public interest, convenience and necessity.”³⁵ It came about at a time when a progressive Congress thought that government, not the private sector, must manage spectrum. Radio, like the Internet today, was a destructive technology to older businesses like newspapers and even the telephone. As a way to reign in unruly radio stations, Congress allowed licensees to broadcast on the “people’s airwaves” only under certain guidelines.

One outgrowth of the notion of common ownership of the airwaves was the “fairness doctrine.”³⁶ This regulation was an attempt to ensure that all coverage of controversial issues by a broadcast station be balanced and fair, however that is defined. The FCC noted in repealing the doctrine in 1987 that it “had the net effect of reducing, rather than enhancing, the discussion of controversial issues of public importance.”³⁷ Indeed, this is the problem with all public interest communications regulation—decisions by government bureaucrats are not a good proxy for making value judgments for a diverse public.

As it stands, the public interest standard is a useless tool of analysis that reflects personal taste and opinion. It has been sold to the public as a way to allocate limited spectrum resources, but even the FCC agrees that today’s technologies make this argument dated.³⁸ Historically, broadcasting has been considered to be more pervasive than other forms of communications, zapping unsuspecting listeners, especially children. The reality is that scarcity and pervasiveness are just political-speak for legitimizing a politician’s personal preference—and deferring to vocal advocacy groups—under the guise of pseudo-objectivity.

The result is that broadcasters must conform to the “public interest” in ways that would be an unconstitutional infringement of free speech if applied to other communications media like newspapers or the Internet. And the trend is for more governmental restrictions on content. In 2004, a Senate committee narrowly defeated an amendment to pending indecency legislation that would have imposed broadcast “indecency” rules on cable and satellite, not just traditional radio and television.³⁹ Another failed amendment would have gone even further, regulating even broadcast transmissions depicting “excessive violence.”⁴⁰ But new

technologies are reason for less regulation, not more, because they enhance free speech by providing more consumer choice.

Yet two current developments seem to take the idea of public communications as their basic ideology—commons spectrum and municipal broadband. We should reject the conflated notion of retaining substantial government involvement in communications. The commons model of allocating spectrum is a model for property rights, not public ownership. Municipal broadband allocates taxpayer money to subsidize infrastructure that in many urban locations will compete against private firms. The issue for each—as it is for most if not all telecom issues—is whether private markets or government agencies can best allocate resources that increase consumer welfare.

How to Reform? Incremental Reform vs. Legal Overhaul

An incremental approach toward regulatory reform is similar to the culinary act of slicing and dicing. Cutting a food item into slices, and then into smaller dices, leads to proportional heating and adds taste. In telecom policy, slicing and dicing involves breaking regulation down into smaller issues for examination, as each rule has its own flavorful rationale.

In the alternative to incremental reform, we could have broad sweeping all-inclusive reform—a “big bang” of sorts. According to the Big Bang Theory, the universe was created sometime between 10 billion and 20 billion years ago from a cosmic explosion that hurled matter in all directions. A regulatory big bang would work in a similar way. Instead of an explosion of a primeval atom, we would have the implosion of a regulatory regime that has become a black hole for the telecommunications industry.

Incremental Deregulation

This targeted approach will allow for better independent analysis of economic and social issues and creates a barrier that leaves new technologies and services unburdened by outdated regulation.

Universal service subsidies, “open access” regulations, and the rules governing how carriers compensate each other for sending traffic over each other’s networks compensation need reform. Tackling each would not require an overhaul of telecommunications law. Congress could scrap these rules or pass legislation that prevents their applicability to new technologies like VoIP or high-speed broadband.

Other issues that need to be addressed include the ways carriers compensate each other for sending traffic over their networks (intercarrier compensation), disability access requirements, and access and funding requirements for 911 emergency services. Within each issue area, Congress could instruct the FCC to proceed in ways that do not hinder the deployment of new services.

In the alternative to incremental reform, we could have broad sweeping all-inclusive reform

Congress must remain focused on each regulatory issue and not attempt to commingle issues. A VoIP bill introduced last year by Sen. John Sununu (R-N.H.), the “VoIP Regulatory Freedom Act of 2004,” is an example of a piecemeal approach.⁴¹ It originally called for a light regulatory touch for VoIP and preemption of state and local governments.

However, a targeted approach requires legislative discipline. Senate Commerce Committee amendments to the Sununu VoIP bill effectively killed it, expanding what was once a very narrow bill to include obligations for state-regulated access charges and universal service taxation. Indeed, if it is easy to bloat a narrow VoIP bill (when many in Congress already agree that Internet telephony should be lightly regulated), it is easy to imagine how weighted down a broad sweeping act could become.

The layers model is burdened with the same regulatory traps of current law—it retains too much faith in the capability of government regulators.

A New Telecom Act – The Big Bang Approach for Reform

There are two types of regulatory big bangs—one that “reinvents” the laws and regulatory structure and one that “de-invents” the administrative agency by abolishing it or severely curtailing its power.

One wide-sweeping proposal is based on reinventing telecommunications law according to the operation and structure of the Internet. Dubbed the “Network Layers Model,” it has been formally proposed by MCI.⁴² Rather than regulate by service categories, the network layers approach utilizes the structure of the Internet as the model for deciding what and how to regulate.

On its face, the layers model is a seductive analytical tool that improves upon the current lack of cohesiveness in telecom regulation. It breaks down policy goals by network layers—physical, logical, application and content—and advocates for regulation that is specific to each, regardless of the technology used or service provided. The telecom correlates of these layers are as follows: physical (wires and fibers), logical (domain names, IP addresses, routing), application (Internet browsers, e-mail software, etc.) and content (streaming video, voice or text). However, what is a superior analytical tool for network engineers is not necessarily a good legal structure for network regulators.

The layers model is burdened with the same regulatory traps of current law—it retains too much faith in the capability of government regulators to beneficently intervene in the market. For one prominent example, it places an inordinate amount of emphasis in antitrust law to improve consumer welfare. Antitrust law has not been very good at solving this problem.

Instead of just reinventing telecommunications law, which risks repeating the same regulatory traps of old, another approach would be to just do away with the FCC as we know it. There is precedent for this kind of radical reform in the airline industry, and it has strong parallels with telecommunications. Both markets are network industries, were heavily regulated by government using “public interest” rationales, and have a

perceived safety component requiring the need for continued government involvement.

By the early 1970s, a consensus was formed regarding the need for reform at the airline regulatory body, the Civil Aeronautics Board. The CAB was heavily involved in regulating the airline network through price controls, market entry and service routes, much as the FCC regulates local phone services. Economists almost universally agreed that instead of operating in the public interest, CAB rules kept prices high and routes inconvenient for most consumers.⁴³ The pinnacle for reform was the 1978 Airline Deregulation Act, which instituted a gradual removal of the CAB from economic regulation of the airline industry. The Federal Aviation Administration retained power over aviation safety and various agencies had antitrust oversight authority.

A similar deregulatory action could occur in telecommunications whereby Congress reduces the FCC's role. Economic regulation would be phased out entirely, leaving such "public interest" social regulation as 911 and disability access with a much smaller FCC or with other agencies. Universal service funding would be allocated from the general treasury and not as taxes on consumer phone bills. As with the scuttling of CAB, any plan that reduces the role of the FCC in the dynamic telecommunications market would remove government from micromanaging the market, presumably creating a long-term win for consumers.

Congress should restructure the FCC and give it a new mission—property rights-oriented spectrum management reform.

Incremental Deregulation - A Three Step Approach

We can have fundamental change through incremental intervention. Congress can push through meaningful reform by focusing on jurisdictional issues and preventing new technologies and services from being burdened by outdated regulation. It can then begin to target specific policy issues, eliminating those that are purely economic and divesting social goals from telecommunications specific regulation. Finally, Congress should restructure the FCC and give it a new mission—property rights-oriented spectrum management reform.

PHASE I – Preempt and Prevent

Underlying many telecommunications disputes is the question of whether states or the federal government should regulate. The premise offered here is that, apart from protection of title to property, neither should. That means, consistent with constitutional principle, states do not have a right to interfere in trade and therefore the federal government may pre-empt their efforts to do so. There is no "state right" to restrain ordinary trade, which is rooted in individual, not collective, rights.

Congress should preempt the ability of states to regulate IP-based services and limit the ability of states to regulate prices. IP-based technologies use national and global broadband data networks and

For much of the last century, the trend was to transfer power from the states to the federal government.

should have federal jurisdiction. The dominant factor is certainty in law that results in reduced investment risk. For example, states should be preempted from regulating VoIP applications so that a patchwork of 50 different sets of regulations would not stifle this technology.

Congress should also prevent the FCC from regulating IP-based services. In the alternative, Congress could mandate that any FCC action that affects IP-based services must include a sunset provision of no more than one year. This would limit the FCC's ability to increase its jurisdiction and create a "firewall" around Internet communications, but still allow the FCC to deal with transitional regulatory issues.

What is the Role for State Regulation?

Federalism refers to the shifting of power between the federal government and states. For much of the last century, the trend was to transfer power from the states to the federal government. However, the power to regulate has increasingly shifted back to the states. But there are certain areas, particularly network industries, which are uniquely suited to federal preemption because they transcend geographical boundaries. This is true for telecommunications.

States have public utility commissions (PUCs) that regulate communications. The FCC and state PUCs have a long history of cooperation that originated in the AT&T monopoly era. This cooperative federalism arrangement may have made sense in the one telephone company world, if the monopolization had existed without government action, but it is doubly out of place in today's Internet society. Increasingly, as communications networks become national and global, the FCC must be the institution accountable for ensuring fluid markets. Indeed, even Supreme Court Justice Antonin Scalia has remarked that "a federal program administered by 50 independent state agencies is surpassing strange."⁴⁴ Some commentators have labeled "states' rights" in telecommunications as "phony federalism."⁴⁵

An open letter from telecom policy analysts to Nancy Victory and Karl Rove in March, 2003 recounted the FCC's Triennial Review Order issued earlier in the year that ruled on the network element unbundling obligations of incumbent local exchange carriers:

Just how unhappy are capital markets? In the two days following the FCC's releases, February 20th and 21st, SBC, BellSouth, Verizon and Qwest lost over 12 billion dollars. Wireless and equipment companies like Nortel and Lucent posted hundreds of millions in losses as well. Any gains by CLECs or long distance companies were slight. A headline in the *Economist* read "The FCC Presses Auto-Destruct."

Analysts concluded that the market had reacted to the uncertainty engendered by the FCC's delegation of key issues to the states. This presents markets with the prospect of further delay and inconsistency, compounded by the risk that the FCC's decision will be overturned by the courts yet again.⁴⁶

Yet the communications market continues to evolve despite massive regulatory uncertainty. *This uncertainty is caused, oddly enough, by the 1996 Telecom Act itself.* The 1996 Telecom Act instituted a form of cooperative federalism in the regulation of local wireline phone service—that is, it attempted to decentralize regulation by devolving responsibility to the states.⁴⁷ The FCC’s role was to create broad policy objectives. State regulators would manage a system of wholesale price controls over separate pieces of the telephone network (unbundled network elements) to try to stimulate competition by facilitating entry of new companies into the field; that would then set the stage for deregulating local markets entirely. It was envisioned that federal and state regulators would interact harmoniously, but it hasn’t worked out that way. Instead, the past eight years has seen the telecommunications industry stuck in the midst of a state and federal governmental power grab.

Recognition that the communications industry deserves a unified body of law is not new. In the 1970s, the FCC liberalized its regulations regarding dial-up information services and preempted the ability of state regulators to regulate it.⁴⁸ Wireless phone service has never had FCC regulated prices and, in 1993, Congress made sure that state regulators were not able to regulate entry or price either.⁴⁹ Since 1984, federal law has drastically limited the ability of the states to regulate cable rates, and in 2002, the FCC preempted state regulation of cable-modem service.⁵⁰

State public utility commissions are seeking to expand their authority to new technologies. VoIP phone services have been the subject of regulatory inquiries in such states as California, Minnesota, New York and Washington. These states have tried to determine whether Internet telephony is a “telecommunications service” that allows for state regulation or an “information service” that mostly closes the door on state regulators.

The VoIP debate highlights the fundamental problem of both state and federal telecommunications law. Historically, “telecommunications” has meant “voice” —and the structure of current law is built around the provision of voice services and who pays for them. The commercialization of IP-based telephony means a world where voice services are just another application that can travel over any medium that can carry an electronic message. For state regulators, the impact of VoIP has less to do with competition than it does with diminishing revenues from taxes for social services like universal service and 911—all which derive from voice “telecommunications” services.

State legislators are beginning to recognize the dynamic telecommunications market and acknowledge the need for regulatory change. At its annual meeting in 2004, the National Conference of State Legislators (NCSL) consented to a telecom policy position that is, for a state regulatory association, remarkably market-focused. A telecommunications policy committee report acknowledged that current regulation has hurt infrastructure development.⁵¹ It recognized that innovation and convergence of technologies creates cross-platform competition and that it was the market that created this competition, not

Recognition that the communications industry deserves a unified body of law is not new.

the 1996 Act.⁵² The NCSL advocates a policy framework that “allows consumers and the marketplace to determine winners and losers” instead of government regulation.

However, the NCSL report still advocated for a significant role for the states in telecom policy and for a federal act regulating all providers of telecommunications (i.e. cable and VoIP) in the name of regulatory parity. Thus it favors regulating new technologies—regularity parity—not the kind of deregulatory parity that would deregulate services based on older platforms.

A more forward-thinking organization for state utility commissioners was formed earlier this year as an alternative to the NCSL. The Federation for Economically Rational Utility Policy (FERUP) is a bipartisan group of state regulatory commissioners with a deregulatory mission. The group states that it desires to remove “those regulations that serve only to preserve the jurisdiction of regulators, without providing real benefit to the economy and to consumers.”⁵³

The Deregulatory Role of States and Localities

The changing perspective of state regulators is a positive development. State legislatures should more actively monitor their state telecom regulatory commissions. Getting the state legislators to build a consensus for telecom reform is essential to meaningful national reform. Without key state support, the fear is that backyard politics, not sound policy, will drive a new communications bill.

States and municipalities need to focus their deregulatory efforts on issues that include zoning for cellular communication towers, consumer protection, taxes, franchising and municipal ownership of broadband.

Zoning

States should allow wireless providers liberal access to rights of way and to freely buy or lease tower siting rights. The 1996 Act treats types of antennas differently with respect to local authority. Local communities retain control over cellular antenna siting, but cannot prohibit service. The FCC broadly preempts local requirements that “impair” reception of satellite and broadcast television signals. While cell phone towers are not pretty, they can be disguised as trees or other attractive structures. Innovation is also making wireless receivers and senders smaller than ever before. Interfering with wireless communications through zoning applications will do far more harm than good.

Consumer Protection / Price Regulation

States should refrain from enacting laws that go beyond traditional consumer legislation relating to fraud or deception. Some states are considering enacting regulation amounting to a “Consumers

The changing perspective of state regulators is a positive development.

Bill of Rights” for telecommunications consumers.⁵⁴ The California PUC created such a regulation in May 2004⁵⁵ but its enactment has since been suspended.⁵⁶ There is also legislation pending in Massachusetts.⁵⁷ These “bills of rights” have similar proscriptions that limit service contracts and early termination fees, require an initial trial period, and mandate the use of standardized forms and data provided to regulators about wireless coverage. The California regulation would apply to all forms of telecommunications service, including local and long-distance, wireline and wireless, and prepaid phone cards.

These regulations, purported to help the consumer, instead create expensive, inelastic plans that would not effectively service the needs of wireless users. They would also harm wireless innovation in the offering and pricing of new service packages. In California, the regulation would add \$5.74 per month to consumers’ wireless bills cost the state’s economy up to \$2.1 billion.⁵⁸ According to one commentator, “cell phone users will pay for bureaucratic intervention with higher bills, less convenience, and fewer services and innovations.”⁵⁹ Indeed, the rapid growth of wireless is largely due to the fact that it is not burdened by government regulations.

Long-term contracts and early termination fees are consumer friendly despite their seemingly unfriendly appearance. A dynamic marketplace needs to experiment with different pricing and bundling strategies. A large portion of a carrier’s costs are upfront at the initiation of the customer relationship to set up phone and billing activation. Consumers limit their freedom for a year or two in exchange for the benefits of a “free” phone and monthly service at a reduced price.

While regulators believe that they are helping consumers, a “one size fits all” approach hurts consumers. The marketplace isn’t perfect—and indeed is one of *caveat emptor*—but there are costs to government intervention, where there is no such thing as “early termination” for laws and regulation.

Taxes On Telecommunications Services

Local fees and special taxes on telecommunications service—wireline and wireless—should be eliminated. Over the last five years, the cost of the average wireless plan has fallen more than 30 percent.⁶⁰ However, state and federal taxes, fees and government mandates are keeping consumers’ wireless phone bills artificially high. Nationwide the average consumer pays 14.29 percent of their cellular phone bill in taxes.⁶¹

States should ensure that the tax burden on communications is no more than that on other industries. However, 39 states and the District of Columbia impose taxes on telecommunications services at a higher rate than they impose on the average business.⁶² Virginia consumers pay the most local and state taxes on telecommunications service, at 29.77 percent.⁶³ Maryland, Texas, Nebraska and Missouri, West Virginia, Kansas, Illinois and Michigan all have high state taxes that push the combined tax total to over 20 percent of their total bill.⁶⁴

Cable (Video) Franchise Rights

In the era of multiple content delivery platforms from satellite and IP-enabled communications, cable franchising makes little sense. Municipal authorities regulate the entry of cable television services through franchise agreements that generally designate a single company to provide video service to defined geographical area. The whole notion of designating one cable company to be a monopoly provider within a community has been influenced by natural monopoly utility regulation for gas, water and electric service.

Although franchising arrangements are often praised by local officials, franchising has done more harm to consumers than good. Localities are tempted to treat rights of way as monopolies, which they can exploit, rather than as a commons that should be open to nondiscriminatory private use that benefits the public. The cable franchise process has too often been hijacked by politicians to extract concessions from the franchisee.⁶⁵ Often a cable franchise must remit a percentage of gross revenue to the municipality and dedicate for free a certain number of channels for education and government programming. Franchising is a way for government to provide services without directly taxing their constituents, but consumers pay a higher subscription rate as a result.⁶⁶

Cable is no longer the only way to receive lots of television channels. Satellite companies are aggressively marketing their services and compete with cable. Phone companies are actively developing the infrastructure to provide video over broadband. Using Microsoft's "IP TV" the phone companies pose a threat to cable companies.⁶⁷ The big municipal battle is whether they must pay franchise fees just like their cable competition.

Deregulatory parity should prevail here. The original justification for franchising—natural monopoly—is not present when satellite and phone companies are ready and able to compete. Municipal commissions should no longer pursue terms for video franchising based on past monopolies for video communications.

Municipal Ownership of Communication Networks

Some municipalities are building their own networks and now provide wireless Internet access. But this places them in unfair competition with the private sector. Research shows that broadband *access* is more available than many in favor of municipal networks claim, and that the real issues are at what *price* and *who should pay* for the service.⁶⁸ Subsidized broadband networks may be politically and in some cases technologically expedient, but in the long run, private investment will serve consumers better than establishing municipal monopolies and raising taxes.⁶⁹

Today's municipal broadband considerations differ from yesterday's electricity co-ops. Often, the stated rationale for a municipal broadband project is to do battle against existing broadband providers.⁷⁰

What happens to the marketplace when government acts not as regulator, but as competitor? Or when a monopoly electricity co-op that benefits from guaranteed rates of return enters the broadband market, is it synergy or unfair cross-subsidization?⁷¹

Municipal entry into the market for communications services is often predicated upon an existing network among municipal buildings. A city that has already installed connections between municipal buildings extends this network to provide its own telecommunications services to residents and businesses. This expansion reflects the desire possessed by many government agencies to broaden their services and generate more revenue. And it is a natural aspiration of motivated persons to want to grow the “business” —be it a government entity or private company.

But governments compete unfairly with private enterprise in the following ways:⁷²

- **Taxes** – Private sector companies incur costs that governments do not in the form of income taxes, franchise fees, sales taxes and taxes on real estate and personal property.
- **Cost of Capital** – Governments’ cost of capital is less than private firms, risking public funds while private enterprise raises and risks its own funds. Municipalities may also receive federal government underwriting, subsidization or grants;
- **Rights of Way** – Governments enjoy free right-of-way access.
- **Insurance** – Government agencies do not need the same level of liability insurance as they are usually accorded protection from lawsuits by sovereign immunity.
- **Accountability** – Government accounting standards are lax, accountability is limited, and municipal utilities’ pricing is artificially low because they often fail to account for long-term costs such as infrastructure maintenance.
- **Profit** – Governments do not need to make a profit and thus do not face the same kind of competitive pressures that affect private enterprise.

There are inherent incentive structure differences that exist between the public and private sector.

There are inherent incentive structure differences that exist between the public and private sector. When a private-sector company is failing, it must respond to changing market conditions to become more efficient and consumer responsive. New products and services are born and efficiency and innovation occurs. The opposite occurs in government. When a service is not paying for itself, bureaucrats seek additional tax dollars to prop up their operations. Governments, unlike companies, are not able to fail, and thus there is no competitive check on mismanagement or waste. Therefore, private firms must act in the best interests of the community or, at the margin, they lose business to rivals that are more savvy. In this way profits tend to be aligned with serving the community’s interest, even if it is the result of the firm’s own self-interest.

Municipal ownership of networks has free speech implications.

Some municipal broadband proponents make analogy to local government ownership of airports.⁷³ The airport analogy may be correct, but not for the proposition proponents claim. Cities have been poor managers of their airports and have engaged in practices to limit competition.⁷⁴ Indeed, the international trend has been toward airport privatization.⁷⁵

Municipal ownership of networks has free speech implications. Governmental control over infrastructure might act as the entry point for regulating the content that flows over it. This is already happening at public libraries.⁷⁶ Broadcast television, because of its public interest requirements, also serves as an apt analogy for the potential for government censorship of content.⁷⁷

Governments can take steps to ensure that the private sector performs as desired. Municipalities should focus on ways to make it easier for private companies to provide service. State legislatures should ensure that make right-of-way access available on terms that are fair, administratively efficient, nondiscriminatory, and pro-competitive.

Removing restrictive regulations would provide a boost to the widespread deployment of broadband service and allow for the natural order of things—governments in the business of governing and private sector firms in the business of competing.

Prevention – Firewall New Communications Services and Bar FCC Turf-Building

While states play their proper role, the FCC must do so as well, in various areas. Congress should borrow a concept from computer network security and impose a “firewall” on regulations that affect new communications technology platforms. A firewall is a device that guards the entrance to a private communications network and keeps out unauthorized or unwanted traffic. In terms of regulatory policy, Congress should keep or phase the FCC out of regulating IP-based networks. In the alternative, Congress could mandate sunset provisions for FCC actions that affect IP-based services. Provisions that expire at a date certain would limit the FCC’s ability to increase its jurisdiction and create a firewall around Internet communications, but still allow the FCC to deal with transitional regulatory issues.

Plain old telephone service (POTS) is the world of the past, but to unravel it all will take tremendous effort. The dilemma of the regulatory society is that as the need for regulation evaporates, FCC and Congress are trying to enlarge the regulatory agenda, to find new technologies or service realms over which to assert authority. Consider some examples, in no particular order of severity.

Limit the Regulation of IP-enabled Communications

The term “IP-enabled communications” refers to the various forms of services that provide communications capabilities making use of the Internet Protocol as well as software making use of those capabilities. IP-enabled communications allows for the digital transmission of voice, video and data over the Internet or other dedicated networks. Once broken into packets, voice or video travels over the Internet just like any other data packet. This technological equivalence means that cable, phone and wireless companies will converge and offer similar services.

IP-enabled communications means the end of the term “telecommunications.” “Tele” comes from the Greek word for “distance.”⁷⁸ Technology has erased the distance from telecommunications. As new and innovative ways to correspond have emerged, the market is communications in all forms. However, the FCC has sent mixed messages regarding its approach toward IP-enabled communication.

The FCC recently ordered voice communication providers that utilize VoIP to interconnect with the public switched network to provide E911 service as a mandatory feature.⁷⁹ This is a significant ruling on what was a previously lightly regulated medium.

In other areas, the FCC recognizes the need to wall off the new world of IP-enabled communications from old regulations. In its *pulver.com* Free World Dialup (FWD) ruling, the FCC declared that voice calls using only the Internet that don’t terminate on the PSTN are neither “telecommunications” nor “telecommunications service” as defined in the 1996 Act.⁸⁰ It also declared that FWD is an unregulated information service subject to federal jurisdiction.⁸¹

The FCC has also ruled that a type of Internet telephony service offered by Vonage Holdings Corp. called DigitalVoice is not subject to traditional state public utility regulation.⁸² The decision adds to the regulatory certainty for VoIP by preempting state commissions.

Regulatory certainty is necessary for the growth of any industry. Ideally, *deregulatory certainty* is necessary for IP-enabled communications, according to former Chairman Michael Powell:

IP-enabled services exist in a dynamic, fast-changing environment that is peculiarly ill-suited to the century old telephone model of regulation. Competitive market forces, rather than prescriptive rules, will respond to public need much more quickly and more effectively than even the best intentioned responses of government regulators. Indeed, our best hope for continuing the investment, innovation, choice and competition that characterizes Internet services today lies in limiting to a minimum the labyrinth of regulations and fees that apply to the Internet. All too often, these edicts can thwart competition even among traditional telecommunications providers.⁸³

Now that the FCC has prevented state PUCs from invasive regulations of IP-enabled services, Congress should heed Chairman Powell and bar the FCC from the same.

Do Not Force a la carte Pricing for Cable Channels

Legislating business models is antithetical to free markets. But this is precisely what forced *a la carte* pricing for cable channels would do.

A la carte regulation would weaken program bundling, the economic model that has propelled the growth of cable TV adoption. Legislation that would require cable operators to breakup their programming tiers would result in more harm to consumers than good, according to a General Accountability Office study.⁸⁴ The lack of channel bundling would disproportionately hurt small and newly introduced channels.⁸⁵ Consumers are much better off now than they were in years past, even though rates are higher.⁸⁶

The fundamental issue here is one of bundling and the thought that prices should follow costs in some perfunctory way. Channel bundling is a way for the cable industry to overcome the economic situation characterized by many digital content and infrastructure industries—declining average costs.⁸⁷

Consistent with communications without a commission, Congress should instead look for ways to reduce the regulatory burden on cable operators. Local governments often burden cable companies with high franchise fees, channels that they must carry and preferential access for government programming. These unfunded costs are passed onto consumers.

Avoid Content Regulation

The possibility that the FCC might censor satellite and cable content is not outside the realm of possibility. In 2004, the Senate Commerce committee narrowly defeated an amendment to pending indecency legislation that would have imposed broadcast “indecency” rules on all broadcasters, not just traditional radio and television.⁸⁸ Another amendment would have gone even further, regulating even broadcast transmissions depicting “excessive violence.”⁸⁹

How is it that our government can engage in such censorship despite the First Amendment’s edict “Congress shall pass no law...abridging the freedom of speech?” Traditional arguments are twofold—pervasiveness and spectrum scarcity. Many regulators consider broadcasting more pervasive than other forms of communications, reaching unsuspecting listeners, especially children. And, until only recently, many people deemed broadcast frequencies as limited in number and in need of government management to prevent interference and ensure multiple “voices.” Using each rationale, the FCC has burdened

broadcasters to conform to the “public interest” in ways that would be an unconstitutional infringement of free speech if applied to other communications mediums, such as newspapers or the Internet.

Even those at the FCC realize that the scarcity rationale has been made obsolete by technological advancements that have made the number of frequencies almost limitless.⁹⁰ Yet, the rationale that radio and TV signals are uncontrollably pervasive and require government censorship over content remains strong. Special interest groups such as the Parents Television Council are vocal critics of “indecent” and have the attention of both Congress and the FCC. Politicians applaud large fines imposed by the FCC, such as the \$1,183,000 fine against Fox for a risqué scene in a 2003 episode of the reality series “Married by America.”⁹¹

The problem with the pervasiveness rationale is that it provides an excuse for regulators (prodded by self-ordained “watchdog” groups) to censor any content transmitted over the airwaves. When more and more consumers subscribe to satellite radio, and when it becomes a standard feature of most new cars, it will seem pervasive to the public. It is reminiscent of the early days of FM radio, when that medium pushed the envelope more than AM, reflecting the consumer demand of the time. Now satellite reflects a similar consumer preference—better sound quality and edgier content. The difference—satellite radio is available only to subscribers, making it a private network.

Political control should not shackle private, subscriber-based networks. But as long as satellite radio uses FCC controlled spectrum Howard Stern will be under the constant threat of censorship. The idyllic notion of the “public’s airwaves,” ironically, threatens to harm new and innovative uses of spectrum that benefit consumers. FCC control over spectrum has already imposed untold costs to consumers in delayed deployments of new frequencies due to poor allocation of “our” airwaves. That a command and control political process failed and continues to fail should not surprise anyone in the post-Soviet era.

Regulating the content of broadcasts is a political process that similarly fails consumers, as it chills speech and forces homogenized content onto a diverse public. At the very least, Congress should create a firewall that prevents censorship of subscriber-based programming. Recent congressional attempts to enlarge governmental censorship to cable and satellite should worry all Americans. The current environment risks FCC regulation of content on formerly unregulated areas, such as pay-cable and satellite radio.

Communications without a commission reduces the threat of content regulation. Without the notion of the “public’s airwaves” as a rationale for regulation, regulators would be forced to come up with more concrete reasons for censoring broadcast content.

Stay Out of Media Concentration Matters

Media ownership rules affect companies leading the digital revolution in television, telephone, satellite, and cable. News reports talk of the rules being “eased” or “relaxed”—apt metaphors because the FCC media rules are a lot like a rubber band stretched to its breaking point and are long overdue for major updating.

The debate over media concentration is about whether “big media” has too much free speech and can stamp out dissent. If so, some believe this power has a negative impact on democracy and freedom of speech. Ownership concentration in newspapers, radio, and television is the proxy for this control. Ironically, free speech is to be protected by laws that prevent private organizations from pooling resources and speaking.

While the resources of media companies are limited, new innovation and technology is infinite.

Defenders of the old rules make their case on three premises. First, the owner of a media company will bias the published viewpoint. But studies have shown that ownership does not determine the diversity of people depicted in the news or range of topics discussed.⁹² Second, the government must act to curb bias by limiting ownership. But this belief raises a fundamental issue as to what is the basis for these numbers in the first place? If they seem arbitrary, it is because they are. The definition of a market is open to interpretation, since it can overlap with other markets. The same is true of different media. Various media are not entirely distinct and compete against each other—such as cable and broadcast TV, which the FCC treats as separate industries.

Finally, some claim that limiting ownership will preserve “democracy” over the airwaves by preventing consolidation by a few large media companies. Even if there were a significant correlation between ownership and viewpoint—which there is not—technology provides competition through substitution. One study found that consumers regularly substitute between Internet and broadcast TV and between daily newspapers and broadcast TV news.⁹³ There is also evidence of substitution between cable and daily newspapers and between radio and broadcast TV. Indeed, while the resources of media companies are limited, new innovation and technology is infinite.

The FCC is no more qualified than anybody else to keep a check on media bias. Different people perceive bias differently, so there is no consensus on how much and what kind of bias is out there. As FCC Commissioner Michael Powell points out, “You can’t have the NRA in the debate saying there are gun-hating media liberals, and at the same time, I’ve got Code Pink screaming about the conservative pro-war bias of the media. And then I’m supposed to somehow reconcile that?”⁹⁴ The FCC shouldn’t have to reconcile this issue—instead, the consumers of radio, television, and other media should be the ultimate arbiters of the public interest.

Avoid Mandated Access to Networks

There are many “freedoms” associated with communications. Often these freedoms are defined from the consumer or application provider perspective—for instance, the freedom to access content or to use applications.⁹⁵ Network owners have rights too, of course. Broadband providers have the right to price their services, to negotiate interconnections with other networks and to filter applications and content traveling over their network.

Government should serve no preemptive role in preserving “openness.” Business models may indeed collide if broadband providers filter applications that affect other business interests. However, consumers and competition from other broadband providers serve as the best check on acceptable behavior and norms. Public policy should promote the ability for networks to operate freely.

A core principle must be allowing network owners to control their own networks. The rights of ownership include the right to govern and the right to exclude. Treating networks as property provides incentive for investment, as people are unwilling to invest capital into things they cannot control.

Broadband providers must be able to experiment with different business models. Some providers may offer differentiated services, while others may price differentiate. The proper mix of services at various price points is in flux for these new services and regulation should not preempt the flow of the market.

Policymakers should allow for smart networks that result from private control. Control over filtering means increased ability to fight spam and cybersecurity, and for the development of authentication mechanisms that will provide increased security for consumers. The best managers of bandwidth are the owners of the network, not the FCC. Market principles will drive broadband providers in accordance with the needs of consumers.

Prevent FCC Moves into Device Regulation

A disturbing trend is for the FCC to “approve” hardware devices that have communications capability. In 2003, the FCC voted to require a “broadcast flag” by July 1, 2005 for any device capable of receiving a digital signal off the air. This requirement mandated that consumer electronics and computer manufacturers must only sell products that read and obey an encrypted watermarking signal (a “broadcast flag”) embedded in new digital television signals.

The FCC should not be able to impose broad product design mandates on consumer electronics devices and computers to implement copyright policy.

Approval is merely a means to assert regulatory authority, according to a May 2005 decision by the D.C. Circuit Court of Appeals.⁹⁶ The court decided that the FCC exceeded its authority when it required broadcast manufacturers to include the “broadcast flag” to protect the content of digital transmissions.

Despite its desirable goal of helping prevent the piracy of digital content, the FCC should not be in the business of approving new video recording devices such as TiVo and determine the legality of their functionality. The market ought to determine standards for this type of technology. The broadcast flag regulation interfered with market developments. The risk is that government regulation of digital communication devices will result in reduced innovation.

PHASE II - Separating Economic Regulation from Social Welfare Subsidies

Pursuing social goals through economic regulations, often through implicit and explicit taxes, distorts the market and creates artificial supply and demand problems.

A constructive regulatory reform debate requires the dissection of many divergent communications regulation issues that exist today. The key is to distinguish between “economic” regulations and rules that mostly promote “social” welfare goals.

What is the difference between economic and social regulations? While there is certainly some overlap, the distinction is the end goal. Price controls, open access requirements and the like are economic regulations that are imposed to allegedly increase competition. Many of these regulations relate back to the monopoly era of AT&T.

Social goals include bridging the “digital divide,” furthering access to the 911 system for users and to the network for law enforcement wiretapping. The goal is not to improve the inner workings of the market, but instead to pursue some benefit to a certain class of consumer, user or government agency.

When social policy becomes too ingrained in economic regulation, the livelihoods for each become interdependent even though their underlying rationale is vastly different. Pursuing social goals through economic regulations, often through implicit and explicit taxes, distorts the market and creates artificial supply and demand problems.

Economic Regulations – Rolling Back Bell-Era Phone Rules

Given the thicket of existing regulations, it is easier to keep regulators out of new services over which they have no claims of authority than to disentangle regulators from old. Yet Congress must remove existing economic regulation of telephone services they may generate fresh life in regulating new technological platforms.

Eliminating forced access, price controls and subsidies are crucial because they underlie many other demands for regulation. Most economic

regulation relates back to the AT&T monopoly days. Economic regulation of the telecommunications industry is hurting consumers more than it is helping. These regulations cost consumers \$105 billion annually in higher prices and forgone services.⁹⁷

Open access requirements apply to telephone broadband service but not cable modem service, thus creating an uneven playing field for competition. FCC Chairman Kevin Martin has said that we need to rollback regulations on telephone broadband. “We’ll need to move quickly to establish regulatory parity between telephone companies and cable companies that are providing a broadband service,” said Chairman Martin in a recent interview.⁹⁸

Economic regulation is sometimes based upon the view that the former Bell companies—Verizon, BellSouth, SBC Communications, and Qwest—are a “telecom cartel.”⁹⁹ Promoting the concept of a telecom cartel is a part of a larger movement to have antitrust law play a more active role in the telecommunications market. The pro-antitrust forces were dealt a setback by the Supreme Court’s decision in *Verizon v. Trinko*.¹⁰⁰ The holding of *Trinko* reversed a prior appeals court ruling that could have let consumers sue regional phone companies for not providing competitors with enough access to their phone networks. The *Trinko* decision reinforces the skepticism courts have about claims that dominant companies should be forced to deal with competitors.

Other forms of economic regulation seem to be based on the fear that the former Bells can use predatory pricing (the lowering of prices to drive out rivals) to keep competitors off their networks. Price predation is rarely a real concern in communications markets and thus should not be controlled by retail rate regulation and prohibitions on downward price movements by incumbents, but rather after the fact through adjudicatory methods.¹⁰¹ In modern telecommunications, however, the real predatory pricing is done by government regulators that allow competitors to get access to the Bell network at below market rates.

The former Bell telephone companies are, in fact, publicly traded companies in a highly competitive industry. But telephone networks do not belong to the public. Economic incentives matter and economic regulation should not infringe upon the property rights of telephone companies.¹⁰²

UNE and TELRIC

Under the Telecommunications Act of 1996, incumbent local phone companies (the ILECs) are under a mandate to share parts of their networks (known as unbundled network elements, or UNEs) with new entrants (competing local exchange carriers, or CLECs). These access rules include those that determine prices (known as TELRIC prices) that the former Bell telephone companies must charge competitors for mandated open access to parts of their network.¹⁰³ They also include the rules that mandate which network components the former Bell companies must make available at the government-set TELRIC prices.

“Open access” requirements should be eliminated. Even if one is not persuaded by property rights arguments, UNE-P and TELRIC rules are impossible to fairly administer and create disincentives for new investment. Its two-tiered goal of promoting competition for both lower prices and the deployment of new technologies is stymied by open network access that creates disincentives for companies to invest in new technology. The regulatory mix is further muddled by the FCC’s attempts at interpreting the law. It has lost in court each and every time it has attempted to implement the UNE-P access rules—three times in eight years since 1996.¹⁰⁴

UNE prices are set so low they approach predatory prices, prices that discourage CLECs from investing in telecommunications infrastructure.¹⁰⁵ In addition, public policies that impede telecommunications investment harm the economy. The fall in telecommunications investment results in an annual decline in economic output equivalent to \$101 per average household annually.¹⁰⁶ In contrast, the benefits of price reductions resulting from local competition are estimated to be \$11.41 per household annually.¹⁰⁷ Therefore, the economic costs associated with setting artificially low wholesale prices outweigh the consumer financial benefits.

Intercarrier Compensation

Federal and state laws apply to intercarrier compensation, depending on whether a call travels interstate or only within a state. As is a recurring theme for most of telecom regulation, the old intercarrier rules don’t apply very well to new technology. The rules apply for interconnection (not end-users services) among carriers of any kind for circuit switched and for IP services. Currently the price regulations differ based on whether the company is a ILEC or CLEC, a company’s size and cost structure, the technology platform, and the amount of subsidies state regulators feel are needed for small carriers in high cost areas.

Reform is needed. The FCC has a rulemaking on this matter¹⁰⁸ and has called them “outmoded.”¹⁰⁹ Intercarrier compensation reform replaces an accumulation of decade-old rules that poorly fit today’s multi-technology platforms that compete directly against each other.

The FCC describes the quandary with intercarrier compensation as follows:

The current system relies on per-minute intercarrier payments that distinguish between different types of carriers and services, such as local and long-distance, or wireless and wireline, even though these distinctions often have no bearing on the cost of providing service. Furthermore, new technologies, such as Internet telephony, and new service offerings, such as bundled flat-rate packages, have eroded these distinctions.¹¹⁰

Intercarrier compensation is one area that requires a unified approach toward reform. Piecemeal approaches that favor one technology over another create unfair arbitrage opportunities.¹¹¹ Reform should not discourage competition and investment in communications networks. New rules must accommodate dynamic marketplace change and minimal regulatory intervention. Thus, reform should implement rules that are technologically and competitively neutral. The preferred solution is for carriers to negotiate agreements amongst themselves instead of extensive government rules and regulations.¹¹²

Complicating reform efforts is that inflated access charges subsidize rural companies. Therefore, plans to simplify carrier compensation rules inevitably encounter opposition from small rural telephone companies that are able to charge other carriers access rates many times higher than their urban counterparts.

Social Policy Communications Issues

The major telecom reform hurdles involve policies that further social and not economic goals. Universal service subsidies, 911 compatibility and access for law enforcement underlie broad telecom rules that instead are distinct policy issues of their own.

Universal Service Subsidies

The Universal Service subsidy program harms competition, is inefficient, and is plagued by fraud. This social policy program that is designated for certain disadvantaged and politically popular populations needs reform.

The 1996 Act requires telecommunications carriers that provide interstate telecommunications services to pay money into the universal service program. The program is in crisis because its revenues, from taxes on interstate calls, will soon diminish due to the decreased use of traditional telephone long-distance.

The 1996 Act's universal service provisions and the rules promulgated by the FCC are intended to: (1) increase access to advanced telecommunications services throughout the nation; (2) advance the availability of such services to all consumers, including those in low income, rural, insular, and high cost areas at rates that are reasonably comparable to those charged in urban areas; and (3) promote the availability of quality services at just, reasonable, and affordable rates.¹¹³

Unfortunately, in order to obtain the above three goals we tax the phone bills of the not-necessarily-rich and redistribute money to the not-particularly poor. Indeed, universal service funds flow mostly to rural (but not necessarily poor) recipients. Rural phone companies are heavily subsidized, receiving up to \$3.3 billion in 2003 from the federal tax that appears on consumer phone bills.¹¹⁴ In addition to rural "high

*Universal service
subsidies harm
competition.*

cost” areas, schools and libraries (the “Gore tax”) receive \$1.6 billion, low-income areas receive \$713 million, and rural health care providers receive a relatively negligible \$2.6 million.¹¹⁵ Even the U.S. Department of Agriculture has a rural development program that provides broadband service subsidies to companies in the form of loans and loan guarantees.¹¹⁶

Universal service subsidies harm competition. In particular, rural welfare programs that subsidize local phone companies discourage others, such as cable and wireless providers, from entering the market. This arrangement ensures continued dependence on taxpayer money and a “weakening [of] the growth of a sustainable market and the investment that typically accompanies it.”¹¹⁷

Subsidies eventually become entitlements far removed from their initial goal. Basic connectivity becomes connectivity at reduced rates, which then manifests itself into an entitlement for broadband and all sorts of advanced technologies. Universal service subsidies have transformed into a redistribution mechanism that benefits politically favorable demographic categories and entrenched businesses.

A better subsidy program would arise out of a regulatory framework that encourages competition. Ironically, it is the expensive phone bill that would drive entrepreneurs and other smart people to thinking about ways to reduce the consumer burden. We would have new technologies and ways of communicating entering the market. Subsidies that keep prices artificially low remove this incentive.

Universal service is also an inefficient way to distribute money. Universal service subsidies occur through implicit charges built into regulated rates at the state level. It also occurs as an explicit charge on interstate telephone revenues as authorized by the Telecommunications Act of 1996. The Universal Service Administrative Company administers the program with oversight from the FCC. The tax collection, administration and distribution process involved in universal service costs is a burdensome process that may cost up to three times more than if the money came from general revenues.¹¹⁸ Indeed, an intrastate tax designed to pay for each state’s subsidized subscriptions is far less costly to the economy than an interstate tax.¹¹⁹

Besides being inefficient, the indirect funding process of the universal service program creates increased opportunities for fraud. Rural companies receive a guaranteed 11.25% return on capital, which provides little incentive for keeping costs low. Rural companies are often run inefficiently and the FCC lacks the staff to audit them. One company in Texas, a customer-owned utility, paid out more in dividends than the average customer paid in local phone service.¹²⁰ A March 2005 Government Accountability Office report criticizes the FCC’s management of E-Rate.¹²¹ In response, the FCC has launched a broad inquiry into the management, administration and oversight of Universal Service.¹²²

A federal program that subsidizes communications must be transparent, explicit and accountable. Universal service should come from a universal funding source—the general treasury—and distributed directly to need-based consumers.¹²³ It should be a tax that allows the net contributors to trace the path of their money to net beneficiaries.¹²⁴ The recipients of the tax should be limited to low-income persons.¹²⁵

We no longer need a universal service program at the federal level. State and local governments are closer to their constituencies and are better situated to determine which consumers are truly in need. Removing the FCC from administering and overseeing the universal service program is consistent with communications without a commission.

E911

Enhanced 911 (E911) displays the physical address and telephone number of the person making a call to authorities. It is a lifesaving advancement in using telecommunications networks to bring help to people in crisis and as such, 911 regulations fulfill social goals.

While 911 is an important service, it should not be a legal prerequisite for offering new communications capabilities to consumers. Government action that mandates the inclusion of features from legacy networks threatens the growth of new services. Furthermore, it is likely that carriers that utilize VoIP will attempt to offer access to 911 services without government mandate.

Still, the FCC required VoIP providers to implement E911 capabilities.¹²⁶ This action sets a bad precedent for future technologies. The mindset of regulators seems to be that once a service begins to establish a sizable customer base it is ripe for burdensome regulations. Such a belief ignores the reasons why such services are popular in the first place. Low cost and new features exist because the market, not government, was the driver of the new service.

Instead of forcing a one-size-fits-all emergency contact system onto each new technology, let's revisit how communications providers can achieve social goals like 911 in ways that provide consumers with options and the ability to decide for themselves what is important. The FCC, while trying to help current VoIP consumers, may be hindering the future development of new, more advanced VoIP emergency service solutions.

Law Enforcement Access - CALEA

Electronic surveillance is one way for law enforcement to gather intelligence and investigate crimes. The Communications Assistance for Law Enforcement Act (CALEA) makes it a statutory obligation of telecommunications carriers to assist law enforcement in executing electronic surveillance pursuant to court order or other lawful authorization and requires carriers to design or modify their systems to ensure that lawfully-authorized electronic surveillance can be performed.¹²⁷

Congress passed CALEA to provide more tools to catch criminals, the pursuit of which is a social goal and not economic regulation. There are legitimate debates surrounding the power that law enforcement should have in the application of communications networks, but this is a debate separate from economic deregulation and FCC reform.

As more communications technologies develop, the salient question becomes whether these networks will be legal if they do not easily accommodate law enforcement wiretaps. Said more bluntly, must software developers, when designing new technologies for use in communications, hardwire a backdoor for government actors?

Historically, CALEA has only applied to common carriers—telecommunications providers and not information services. The legislative history makes it clear that the scope of CALEA is narrow.¹²⁸

The bill is clear that telecommunications services that support the transport or switching of communications for private networks...need not meet any wiretap standards. Also excluded from coverage are all information services, such as Internet service providers or services such as Prodigy and America-On-Line. All of these private network systems or information services can be wiretapped pursuant to court order, and their owners must cooperate when presented with a wiretap order, but these services and systems do not have to be designed so as to comply with the capability requirements.

The act specifically excludes information services, so the question is whether VoIP is a telecommunications service or an exempt information service. In August 2004, the FCC said VoIP should be subject to CALEA, but instant messaging should not.¹²⁹ The decisive factor, according to the FCC, is whether a network is “managed” or not.

Going forward, new applications of CALEA should not burden or deputize private technology companies with the responsibilities of law enforcement. We must respect 4th Amendment rights to privacy, even in the face of national security.¹³⁰

PHASE III – Institutional and Spectrum Reform

Congress must eliminate FCC functions that could be performed by other agencies. The FCC should be transformed into an agency whose primary purpose is to create markets for spectrum.

Institutional Reform

Institutional reform includes examining the FCC’s role as an independent agency and eliminating certain enforcement functions.¹³¹

Reform should be tailored to move regulation to the marketplace. However, when this is not politically feasible, reform should move government regulation away from industry-specific rules and more toward general marketplace regulation in the likes of the FTC.¹³²

Reforming the inner-workings of the FCC requires an institutional overhaul. Congress should consider moving the FCC into the executive branch where it would be politically accountable to the president for its policy-making activities.¹³³ In addition, it may be that the number of commissioners should be reduced from the current five to three or even a single administrator.¹³⁴

Congress must eliminate FCC functions that could be performed by other agencies.

As the communications market expands, there is less of a reason to have an industry specific regulatory body. There are numerous examples of areas that could be transferred to other agencies due to institutional competence or duplication within the executive branch.

As an example, the FCC is arguably not the best institution for administering CALEA. Other government agencies could manage law enforcement access issues. The FCC, despite its “independent” agency status, is too easily captured by other executive branch law enforcement interests (the August 2004 vote was a rare unanimous vote by FCC commissioners). It is an agency that does not have as part of its mission the protection of civil liberties. And the industry it regulates is not a surrogate for consumer civil liberties, especially if competitors are subject to the same rules such that there is no relative impact on revenues. Instead, in communications without a commission, CALEA issues could be left in the in the hands of a dedicated privacy board, similar to the Privacy and Civil Liberties Oversight Board created by the 2004 intelligence reform legislation.¹³⁵

Many of the issues that the FCC regulates could be transferred to other federal agencies. The FCC’s antitrust merger authority should be revoked because it duplicates the same sort of review performed by the Department of Justice. The FTC could handle consumer protection and unfair competition issues. Specific FCC departments such as the Office of Workplace Diversity could be eliminated or have specific functions transferred to the Equal Employment Opportunity Commission. Emergency 911 coordination and implementation oversight could be transferred to the Department of Homeland Security.

Spectrum

Our current spectrum system decides technology winners and losers *ex ante* before consumers can choose on their own. Decades of central planning have created technology shortages by regulation-induced scarcity. At most, government’s role should be to facilitate the “homesteading” of electromagnetic spectrum useful for communications. Owners need clear, unambiguous title to spectrum property, preferably via one-time auction that minimized future governmental involvement.

Once private owners are in control of a piece of spectrum, it's tradeability in the secondary market—a feature prevented today by regulation—will minimize any exploitation. Spectrum will go to the most highly valued use.

The increase in spectrum efficiency undermines the argument that spectrum is “scarce” or is a “finite resource.”¹³⁶ There is almost no limit on the capacity of the spectrum, because the technology to use new frequencies and tune out interference keeps improving.¹³⁷ But *all* resources are scarce in the sense that two people cannot build a house on exactly the same piece of property at the same time. Spectrum is scarce that way, too: Two radio stations broadcasting over the same frequency in the same geographic area would interfere with each other. Therefore, a system of property rights is necessary, even in a world of growing abundance, to decide between conflicting users.

There is almost no limit on the capacity of the spectrum, because the technology to use new frequencies and tune out interference keeps improving.

The real issue is how the promise of *any* wireless technology, for *whatever* purpose, can make it to the hands of consumers in a quick, usable and cost effective manner. A consensus exists among those throughout the political spectrum that as it is currently designed and executed, the method for allocating radio spectrum to those who wish to develop and utilize new technology is woefully obsolete.

Federal Regulation of Spectrum

In the 1920s and 1930s, the dominant view was that spectrum needed to be managed by the government to control interference and to allocate this “scarce resource” so as to protect the “public interest.” Economist Ronald Coase noted that spectrum could be treated as property, and transferred as freely as real estate, which would protect against interference while avoiding the inefficiencies inevitable under a regime of government licensing.¹³⁸ But Coase was ignored.¹³⁹

Instead, the Federal Communications Commission doled out spectrum licenses, sometimes after hearings and sometimes by lottery, but always slowly. It was nearly impossible to free spectrum for new services, such as cell phones, and FCC became a drag on the productivity of the national economy. The decade-long delay in allocating spectrum for mobile cellular telephony in the United States is estimated to have cost at least \$86 billion in lost consumer welfare.¹⁴⁰

In 1994, the Federal Communications Commission allocated spectrum based on a projection of 54 million domestic mobile services users for the year 2000. By the year 2000, however, there actually were approximately 110 million mobile services users.¹⁴¹ At the end of 2004, there were an estimated 182 million wireless subscribers, up 23.4 million from 2003—the industry's second highest growth year ever.¹⁴² Mobile phone subscriptions will undoubtedly exceed 200 million before the end of 2006.¹⁴³

Moving Toward Markets

Markets—consensual trades between buyers and sellers—are superior to bureaucratic processes because they allow change and competition, and move resources to their highest valued uses in society. For about two decades, federal policymakers have made slow progress toward bringing market forces into spectrum management.

Other countries have recognized the need to undergo extensive spectrum reform. The UK's Ofcom published its Spectrum Framework Review (SFR) in November 2004. The agency is taking steps to allow licensees to buy and sell spectrum in the market (spectrum trading) and reducing or removing unnecessary restrictions and constraints on spectrum use (spectrum liberalization).¹⁴⁴

Governance & Exclusion – Property Rights vs. Commons

The property rights and commons debate is often characterized in terms of licensed versus unlicensed spectrum. No matter what the terms, the essential question is one of whether governance by either the market or government and ownership by either private rights holders or a commons. The short answer is that most efficient use of the spectrum resources arises from a system that assigns rights with as little bureaucratic oversight as possible.

It is important to remember that there is no actual pure property rights regime. Our system of real property has concepts of sharing property through easements, limiting unreasonable use of property through nuisance and encouraging efficient use through the common law rule on adverse possession. Property rights are also not exclusive with regard to resources. Rights overlap in geographic space; surface land rights, oil and mineral rights, and rights to airspace. Maximizing the value of spectrum resources may involve a similar system of property rights—allocated by markets, not government agencies.

Market allocation systems have advantages over government systems. Markets signal the value of alternative wireless applications in ways that consider spectrum opportunity cost. Markets dynamically reallocate spectrum from one application to another based on most valued use. The result is technological innovation and a fluidity that is not matched by the barriers to entry that result from spectrum allocated and owned by government.

The market allocation mechanism requires ownership rights. But commons proponents argue against ownership and point to recent advances in spread spectrum technology that eliminate the necessity of assigning a specific channel to a user.¹⁴⁵ The technology of ultra-low power code division multiplexing could allow for the orderly use of broad spectrum bands by competing uses and users. As the efficiency of spread spectrum technology increases, ever more applications may be able to use

the same spectrum band. Advocates for the commons model believe that spectrum could be shared and managed by the user community based on rules developed in a decentralized fashion.¹⁴⁶

Commons proponents downplay the need for transferable rights that lessen negative outcomes resulting from the misallocation of resources. At the very least, the commons model puts the utmost faith in technology (from the market no less) to solve problems. As much as smart technologists can and do solve problems, we still need market governance. Smart technologists—supplemented by secure and predictable property rights—results in a superior property system.

There could be the coexistence of both property rights and commons. One proposed model for managing spectrum involves both property rights and commons, and allows the mix of the two to adjust over time as new technology comes to market.¹⁴⁷ Spread spectrum could easily co-exist with the clear title of property rights and ownership.¹⁴⁸ But if there is a commons, it must be governed and structured by a system of property rights.¹⁴⁹

Indeed, there may have to be separate processes for licensed and licensed-exempt bands, at least in the short-term. Paradoxically, a policy geared more toward promoting unlicensed spectrum requires perhaps even more FCC involvement than would a licensed spectrum approach. The FCC would still have to set the terms of power limitations and adjudicate interference and thus is not consistent with limiting the FCC's role.¹⁵⁰

Selling Spectrum through Auctions

Congress passed the Omnibus Budget Reconciliation Act of 1993, authorizing FCC to award wireless licenses through auctions. The main benefit of auctions is not that they raise money for the federal government; it is that they move spectrum *quickly* out into the private sector, making new services available to consumers. The federal hunger for funds, however, has threatened to throw roadblocks in this process.

Some of the first spectrum auctions raised billions for the US Treasury. But in 1997, FCC's auction for Wireless Communications Services (WCS) raised only about \$14 million, instead of the expected \$3 billion.¹⁵¹ The auction took place before entrepreneurs knew what technologies could best use the new spectrum. In response, in the 1997 Budget Act, Congress required FCC to establish minimum opening bids in future auctions, unless FCC finds this not to be in the public interest.¹⁵² The FCC is now in the precarious position of setting minimum bids high enough to please the budgeters, but low enough to avoid discouraging would-be bidders.

Allowing Spectrum Leasing

In 2003, the FCC issued rules on spectrum leasing to allow the growth of a "secondary market" in spectrum.¹⁵³ Like the leasing of land, spectrum leasing gives businesses flexibility in using the

resource. Spectrum “landlords” are free to lease their unused or unneeded capacity. Indeed, radio spectrum is often used inefficiently by its current licensees or lies fallow, commonly in rural areas, but sometimes even in spectrum-crowded New York City. Spectrum “tenants” will benefit from lower market entry costs and reduced legal fees and risks. This flexible approach contrasts with the prior FCC scheme of upfront fees and nationwide territory—a costly way for small and rural-based companies to do business.

Making Government Spectrum Available for Private Use

Government users (*i.e.*, public safety and defense) enjoy exclusive or preferential use of some spectrum. Much of this bounty is under-used and utilized inefficiently (the FAA, for example, still uses wasteful analog technology), but government is finally releasing its stranglehold on the spectrum.¹⁵⁴ In July 2002, the Department of Commerce released a plan in concert with the FCC and the Department of Defense to make 90 MHz of spectrum available in the future for 3G wireless services. In February 2003, the Department of Commerce agreed to release more spectrum at 5 GHz for wireless data communications, called Wireless Fidelity (WiFi). In December 2004 legislation was enacted that creates a spectrum relocation trust fund that will facilitate the clearing and auction of 90 MHz of spectrum for 3G advanced wireless services.¹⁵⁵

Military and public-safety interests argue that spectrum must be “reserved” for government use.¹⁵⁶ But we do not set aside typists, cars, or paper for government use, even though these are also required for public safety and defense. Government bids for these resources in competition with the private sector, or contracts out with private companies to provide services employing those resources. Markets in spectrum would mean that if government’s needs for spectrum expand, it would be free to buy rights to use more in the market.

Markets in spectrum would mean that if government’s needs for spectrum expand, it would be free to buy rights to use more in the market.

Digital TV Transition

This costly industrial policy venture should serve as a good example of why government should never again be in the technology-mandate business. The “public interest” rationale has been the source of transition from analog to digital broadcasts, despite the fact that most people do not receive their television content from over-the-air. Indeed, over 85 percent of consumers subscribe to cable or satellite television service.¹⁵⁷

There are good reasons for going digital, because digital broadcasts use spectrum much more efficiently than analog. The cellular phone companies made this switch long ago, mainly because they paid for their spectrum and have incentive to use it efficiently. Broadcasters received their spectrum for free in return for serving the “public interest” and have not had the same incentive to better utilize its spectrum holdings.

Congress attempted to provide the proper incentive in 1997 when it gave the broadcast industry a \$70 billion dollar amount of spectrum at no charge. Broadcasters touted DTV technology as a competitive necessity that would preserve free over-the-air television in the new digital millennium. They sought legislation intended to speed and facilitate a transition from analog to digital television broadcasting.

While other industries must purchase their spectrum in competitive auctions, in the case of digital TV, Congress decided to give away the spectrum. But the migration to digital has been fraught with problems. It turns out that Congress did not accurately forecast consumer demand for an upgraded television, so uptake has been slow. And mandating digital transmissions has created further calls for regulation by the content industries in addition to the broadcast flag. Some would like to draw cable and satellite into this chaos.¹⁵⁸

Congress must create a “hard” deadline for a complete digital transition.

Inherent in any transition is an event that results in a transformation. When an industrial sector is mostly regulated by market forces, the transformation can occur gradually and almost imperceptibly through the proverbial “invisible hand.” But market forces are constrained as an impetus for change when government heavily regulates an area, as it does with spectrum allocation. Incentive structures are often skewed, and companies turn their attention away from competing and toward politicking. Thus, Congress must be the agent that creates the catalyst—a hard and fast deadline—by which DTV transition must occur.

Congress must create a “hard” deadline for a complete digital transition. The sooner the date becomes a certainty, the better it will be for: (a) consumers, who will be able to make more informed purchases; (b) manufacturers, who can label analog sets in a way that will inform consumers of the transition date; (c) broadcasters, who can publicize the transition in a way that can help attract increased viewership.

It is difficult to spot any winners coming out of this industrial policy, at least in the short-term. Most consumers, as cable or satellite subscribers, will have to pay more for their sets for digital tuners they will never use and will be inconvenienced by the broadcast flag when recording content for personal use. Valuable spectrum that should have been auctioned off in the mid-1990s is still not able to be used by public safety or wireless broadband services.

Conclusion

The Telecommunications Act of 1996 was meant to promote competition and reduce regulation. Today, the FCC is even further entrenched in regulating a communications market that has changed dramatically since the mid-1990s. Congress must update our communication laws in ways that will not generate new rationalizations for FCC oversight. Policymakers should view Internet communications as a baseline for deregulation, and move legacy communications toward deregulatory parity.

What will drive communications reform? Some efforts will stem from frustration with legislation based upon analog radio and telephone technology still in force in a digital era of convergence. Others will want reform to standardize the rules governing the increasing rivalries among competing broadcast, cable, and telephone companies. Many others are also driven by political ideology that argues government should no longer attempt to do all things for all people—and by economic constraints that force government to operate more efficiently.

Reform based on deregulation should not be viewed as government deciding not to act. Subsidies and price controls often give the appearance that government is benevolently acting toward a favored goal. But government regulation has hidden costs and unforeseen consequences—how much more quickly would broadband have been deployed if DSL were not subject to access mandates, or if the spectrum were managed by market forces?

A focused, incremental effort toward regulatory reform should not be confused with advocating only a *de minimus*, politically feasible route. After all, there is nothing minimal about abolishing the FCC. But after years of regulatory control, transitional steps are an inevitable part of any major institutional reform. And whether it is one step or three, reform efforts must keep the end goal in sight—less federal and state government regulation of telecommunications. We no longer need a Commission to oversee our communications needs.

Reform based on deregulation should not be viewed as government deciding not to act.

About the Authors

Braden Cox serves as Technology Counsel at the Competitive Enterprise Institute. His regulatory policy work lies at the juncture of law and technology as it relates to e-commerce, intellectual property, and telecommunications.

Braden is the former counsel at Veriprise Wireless, a technology venture based in Atlanta. His law practice has included technology transactional, insurance investment products and civil litigation. Before law school, he was a network administrator at IBM, providing technical support for business and university local area networks.

Braden obtained both his undergraduate finance degree and law degree from the University of Georgia. He is a member of the District of Columbia, Georgia, and Virginia state bars.

He is a regular contributor to the Technology Liberation Front, a weblog dedicated to writing about the over-regulation of the communications, media and high-technology marketplaces.

Wayne Crews is Vice President for Policy and Director of Technology Studies at the Competitive Enterprise Institute. His work includes regulatory reform, antitrust and competition policy, safety and environmental issues, and various information-age concerns such as ecommerce, privacy, “spam,” broadband, and intellectual property. He is the author of the annual report, *Ten Thousand Commandments: An Annual Snapshot of the Federal Regulatory State*.

Crews has published in outlets such as the *Wall Street Journal*, *Chicago Tribune*, *Forbes*, *Atlanta Journal-Constitution*, *Communications Lawyer*, and the *Electricity Journal*. He has made various TV appearances on Fox, CNN, ABC and others, and his regulatory reform ideas have been featured prominently in such publications as the *Washington Post*, *Forbes* and *Investor’s Business Daily*. He is frequently invited to speak, and has testified before several congressional committees.

Crews is co-editor of the books *Who Rules the Net: Internet Governance and Jurisdiction* (2003) and *Copy Fights: The Future of Intellectual Property In the Information Age* (2002). He is co-author of *What’s Yours Is Mine: Open Access and the Rise of Infrastructure Socialism* (2003), and a contributing author to others.

Endnotes

¹ Action by the Commission May 19, 2005, by First Report and Order and Notice of Proposed Rulemaking (FCC 05-116).

² *American Library Ass’n. v. F.C.C.*, 406 F.3d 689 (D.C Cir. 2005). The FCC had required consumer electronics and computer manufacturers to read and obey a “broadcast flag” signal embedded in new digital television signals. The goal was to help prevent the piracy of digital content. However, the court said that “[i]n the seven decades of its existence, the FCC has never before asserted such sweeping authority. Indeed, in the past, the FCC has informed Congress that it lacked any such authority. In our view, nothing has changed to give the FCC the authority it now claims.”

³ *National Cable & Telecommunications Assn. v. Brand X Internet Services*, 125 S.Ct. 2688 (2005).

⁴ See Rob Kelley, “Broadband lag could hurt the U.S.,” *CNN Money*, June 17, 2005, available at <http://money.cnn.com/2005/06/16/technology/broadband/>. See also Philip Webre, “Is the United States Falling Behind in Adopting Broadband?,” Congressional Budget Office Economic and Budget Issue Brief, February 19, 2004, available at <http://www.cbo.gov/ftpdocs/50xx/doc5082/02-19-Broadband.pdf>

⁵ See Mark Cooper, “Expanding the Digital Divide and Falling Behind in Broadband,” Consumer Federation of America, October 2004, available at <http://www.consumerfed.org/pdfs/digitaldivide.pdf>

⁶ Communications Act of 1934, as codified in U.S. Code Title 47, Chapter 5, Subchapter I, Title 151.

⁷ See Jerry Ellig, “Costs and Consequences of Federal Telecommunications and Broadband Regulations,” Mercatus Center, George Mason University, Feb. 2005, for the proposition that government telecommunications regulation has cost consumers up to \$105 billion annually in higher prices and foregone services, available at <http://www.mercatus.org/pdf/materials/1074.pdf>

⁸ See Sen. Rod Grams (R-Minn), “An Agency That’s Got to Go,” *Wall Street Journal*, April 9, 1996.

⁹ Peter W. Huber, *Law and Disorder in Cyberspace: Abolish the FCC and Let Common Law Rule the Telecoms*, Oxford University Press, 1997.

¹⁰ The Libertarian Alliance, a free market and civil liberties policy institute located in London, advocates that OFCOM, together with its Code for Broadcasting, should be abolished. See “Abolish OFCOM and its Broadcasting Code, Says Free Market and Civil Liberties Think Tank,” News Release from the Libertarian Alliance, October 13, 2004, available at <http://www.libertarian.co.uk/news/nr027.htm>

¹¹ See Declan McCullagh, “Why the FCC Should Die,” CNET News.com, June 7, 2004, available at <http://news.com.com/2010-1028-5226979.html>

¹² The Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56, codified at 47 U.S.C. § 151 et. seq. [hereinafter the 1996 Telecommunications Act or the 1996 Act].

¹³ Budget of the United States Government, Fiscal Year 2006, available at <http://www.whitehouse.gov/omb/budget/fy2006/budget.html>. See also <http://www.fcc.gov/Reports/fcc2006budget.html>

¹⁴ The differences were calculated using FCC Change Analysis data obtained from <http://www.fcc.gov/Reports/fccbudget.html>

¹⁵Adam D. Thierer, “Unnatural Monopoly: Critical Moments in the Development of the Bell System Monopoly,” *Cato Journal* 14:2, Fall 1994, available at <http://www.cato.org/pubs/journal/cjv14n2-6.html>

¹⁶ Ibid.

¹⁷ Petition to Deny of Consumer Federation of America, Consumers Union and U.S. Public Interest Research Group at p. 1, In the Matter of SBC Communications Inc. and AT&T Corp. Applications for Approval of Transfer of Control, WC Docket No. 05-65.

¹⁸ See “Xbox Popularity Rises with Steady Market Share Growth in 2004,” Microsoft Press Release, January 20, 2005.

¹⁹ “High-Speed Services for Internet Access: Status as of December 31, 2004,” Industry Analysis and Technology Division, Wireline Competition Bureau, July 2005 available at http://www.fcc.gov/Bureaus/Common_Carrier/Reports/FCC-State_Link/IAD/hspd0705.pdf

²⁰ Ibid.

²¹ Ibid.

²² Blake Bath, “Wireless Services Industry Overview,” Lehman Brothers Equity Research, June 16, 2005.

²³ Stephen B. Pociask, “Wireless Substitution and Competition: Different Technology but Similar Service--Redefining the Role of Telecommunications Regulation,” *CEI Issue Analysis*, No. 5, December 15, 2004, available at <http://www.cei.org/pdf/4329.pdf>

²⁴ PricewaterhouseCoopers, “Big Bets for the U.S. Cable Industry – Key Opportunities for Future Revenue Growth,” January 2005, available at http://www.pwc.com/techforecast/pdfs/mso_wb-x.pdf

²⁵ Ted Schadler, “The Battle For The Digital Home: Leaders, Long Shots, And Strange Bedfellows Coming To A Home Near You,” December 17, 2004.

²⁶ As of Sept. 30, 2004 according to the National Cable & Telecommunications Association, data available at <http://www.ncta.com/Docs/PageContent.cfm?pageID=86>

²⁷ Bernstein Research Call, March 24, 2005.

²⁸ Ibid.

²⁹ CEI agrees with the April 25, 2005 letter submitted to Chairman Martin by Randolph J. May, Senior Fellow at the Progress & Freedom Foundation, wherein he advocates that 1) the Commission should largely defer to the DOJ’s expertise regarding competition concerns, and 2) the Commission should not impose “voluntary” conditions unrelated to compliance with existing statutory or regulatory requirements.

³⁰ See Thierer at note 15 *infra*.

³¹ See Richard A. Posner, *Economic Analysis of Law*, Aspen Law & Business, Fifth Edition, p. 379.

³² See Pociask study at note 23 *infra*.

³³ See Posner at note 31 *infra*.

³⁴ See generally Braden Cox, “Unbundling the Confusion over Declining Marginal Cost Pricing,” *CEI Monthly Planet*, November 2004, available at <http://www.cei.org/pdf/4367.pdf>

³⁵ 47 U.S.C. 336(b)(5) – Broadcast Spectrum Flexibility

³⁶ This FCC policy was an outgrowth of Section 315 of the Communications Act of 1934 which required stations to offer “equal opportunity.” For more on the subject, see Thomas W. Hazlett, “The Fairness Doctrine and the First Amendment,” Public Interest (New York), Summer, 1989.

³⁷ Fairness Doctrine Report. 102 FCC 2d 145. 1985.

³⁸ Federal Communications Commission, “Spectrum Policy Task Force Report,” ET Docket No. 02-135, Nov. 2002.

³⁹ The U.S. Senate Commerce Committee defeated 12-11 an amendment to the proposed Broadcast Decency Enforcement Act (H. R. 3717). Sen. John Breaux (D-La.) proposed the cable amendment, which would have allowed the FCC to regulate cable and satellite television programming.

⁴⁰ Sponsored by Sen. Ernest Hollings (D-S.C.).

⁴¹ VOIP Regulatory Freedom Act of 2004, S. 2281, introduced April 4, 2004.

⁴² Richard S Whitt, A Horizontal Leap Forward: Formulating a New Public Policy Framework Based on the Network Layers Model, (March 2004).

⁴³ See Alfred E. Kahn, “Airline Deregulation,” *The Concise Encyclopedia of Economics*, available at <http://www.econlib.org/library/Enc/AirlineDeregulation.html> . See also John W. Barnum, “What Prompted Airline Deregulation 20 Years Ago?,” Presentation to the Aeronautical Law Committee of the Business Law Section of the International Bar Association, September 15, 1998, available at <http://library.findlaw.com/1988/Sep/1/129304.html>

⁴⁴ AT&T v. Iowa Utilities Board, 525 U.S. 366 (1999).

⁴⁵ John Engler, C. Boyden Gray, and Kenneth Starr, “Phony Federalists,” *The Wall Street Journal*, June 1, 2004.

⁴⁶ CEI’s letter to Karl Rove on March 10, 2003, available at <http://cei.org/gencon/027,03388.cfm>

⁴⁷ Section 271 of the 1996 Act gave states oversight power regarding interconnection agreements and an advisory role regarding Bell company entry into long distance service.

⁴⁸ See *First Computer Inquiry*, Tentative Decision, 28 FCC 2d 291 (1970); *First Computer Inquiry*, Final Decision and Order, 28 FCC 2d 267 (1971). See also In the Matter of Amendment of Section 64.702 of the Commission’s Rules and Regulations (Second Computer Inquiry), 77 FCC 2d 384, 419 (1980) (Computer II Final Decision).

⁴⁹ Omnibus Budget Reconciliation Act of 1993, 47 U.S.C. § 332(c)(3)(A) (2002).

⁵⁰ *Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities, Internet Over Cable Declaratory Ruling*, 17 F.C.C.R. 4798 (2002).

⁵¹ Internet and Electronic Commerce policy, adopted July 2004.

⁵² Ibid.

⁵³ See <http://www.ferup.com/summit/>

⁵⁴ States can regulate customer billing information and practices, billing disputes, consumer protection matters, and facilities siting issues per 47 U.S.C. § 332(c)(3)(A).

⁵⁵ “PUC Sets Protection Rules for Consumers Through Telecommunications Bill of Rights,” Press Release, May 24, 2004 available at http://www.cpuc.ca.gov/PUBLISHED/NEWS_RELEASE/36910.htm

⁵⁶ See Order Instituting Rulemaking on the Commission’s Own Motion to Establish Consumer Rights and Consumer Protection Rules Applicable to All Telecommunications Utilities, January 27, 2005, available at http://www.cpuc.ca.gov/Published/Final_decision/43684.htm

⁵⁷ The Commonwealth of Massachusetts Senate, Bill No. 1790, available at <http://www.mass.gov/legis/bills/senate/st01/st01790.htm>

⁵⁸ Debra J. Aron, “The Financial and Public Policy Implications of Key Proposed Telecommunications Consumer Protection Rules on California Wireless Carriers and Customers: Economic Analysis,” February, 2003, available at <http://www.pacificresearch.org/pub/sab/techno/wireless/AronPaper.pdf>

⁵⁹ Terry Barnich, “Do Cell Phone Users Need a Bill of Rights?,” American Outlook Today, May 1, 2003 available at http://www.hudson.org/index.cfm?fuseaction=publication_details&id=2842

⁶⁰ The Cellular Telecommunications and Internet Association (CTIA) statistics are available at http://www.wow-com.com/news/press/body.cfm?record_id=1249

⁶¹ Gregory J. Sidak, “Is State Taxation of the Wireless Industry Counterproductive?” April 2003.

⁶² The average state and local effective tax rate on telecommunications services of 14.17% in 2004 compared to 6.12% for general business nationwide, according to the Council on State Taxation.

⁶³ Council on State Taxation, “Effective State, Local and Federal Telecommunications Taxes by State, 2004,” available at <http://www.taxfoundation.org/files/42c43e52fa15157ea5667317c6b4a7d3.pdf>

⁶⁴ Ibid.

⁶⁵ For a breakdown on what the city Denver extracted from its cable franchisee, See Clint Bolick, “Cable Television: An Unnatural Monopoly,” *Cato Policy Analysis No. 34*, March 13, 1984 available at <http://www.cato.org/pubs/pas/pa034.html>

⁶⁶ Donald L. Alexander, “Laying Cable and Competition,” Mackinac Center for Public Policy, May 15, 1999, available at <http://www.mackinac.org/article.asp?ID=1783>

⁶⁷ SBC agreed to pay \$400M over 10 years for Microsoft’s IPTV. IPTV requires less bandwidth than existing cable systems. The viewer selects a channel, and only that desired channel is transmitted to the home. See BusinessWeek, Feb. 7, 2005.

⁶⁸ Joseph L. Bast, “Municipally Owned Broadband Networks: A Critical Evaluation (Revised Edition),” *Heartland Policy Study*, October 22, 2004, available at <http://www.heartland.org/article.cfm?artId=15842>

⁶⁹ “Not In The Public Interest – The Myth of Municipal Wi-Fi Networks,” New Millennium Research Council, February 2005, available at <http://newmillenniumresearch.org/archive/wifireport2305.pdf>

⁷⁰ Such cities as Lafayette, Louisiana, Philadelphia and San Francisco intend to invest in

infrastructure that would directly compete with existing cable, satellite and telephone companies.

⁷¹ See generally Adam Peters, Testimony Before the House Small Business Committee, May 4, 2005, available at <http://www.pff.org/issues-pubs/testimony/050504peterssmallbusiness.pdf>

⁷² For more discussion about the advantages governments have over private enterprise see Kent Lassman and Randolph J. May, "A Survey of Government -Provided Telecommunications: Disturbing Growth Trend Continues Unabated," Progress and Freedom Foundation, *Progress on Point*, Release 10.17, October 2003, available at <http://www.pff.org/issues-pubs/pops/pop10.17municipaltelecom.pdf> and also see Adam D. Thierer, "Risky Business: Philadelphia's Plan for Providing Wi-Fi Service, Progress and Freedom Foundation," *Progress on Point*, Release 12.4, April 2005.

⁷³ Paul Morris, executive director of Utah's government-backed multi-city fiber project, UTOPIA, has promoted his state's model of private competition combined with public ownership of facilities by saying that the best analogy is an airport. "The city builds the airport but leaves it to the private sector to fly the planes. That's where you get competition and innovation," quoted in "New Mexico mulls state network needs," Ed Gubbins, *TelephonyOnline*, Jan 26, 2005, available at http://telephonyonline.com/technology/new_mexico_network_012605/.

⁷⁴ See "Airport Business Practices and their Impact on Airline Competition," *FAA/OST Task Force Study*, October 1999, "Airport business practices play a critical role in shaping airline competition. Access at many of the nation's airports is limited . . . because of long-established airport business practices." available at <http://ostpxweb.dot.gov/aviation/domav/airports.pdf>.

⁷⁵ See "Global Airport Privatization Regains Altitude," Robert W. Poole, Jr., 2003, available at <http://www.rppi.org/apr2003/globalairportprivatizationregains.html>

⁷⁶ The Children's Internet Protection Act (CIPA) ties receipt of federal universal service "E-rate" discounts to the filtering of internet content. A recent survey published in *Library Journal's* Annual Budget Report found that 65% of public libraries filter at least some internet terminals. CIPA may also extend to wireless access within libraries requiring the filtering of patrons' laptops using internet connections funded by E-Rate. Some municipalities, such as Allegany County, Maryland, have stated that they plan to receive E-Rate funding to cover the costs of building out its municipal network.

⁷⁷ Wireless internet access may run into the same sort of indecency regulation that affects broadcast television. Will local governments provide credible commitments for not blocking and filtering content, even in the presence of determined parent or religious groups active in the community?

⁷⁸ *The American Heritage Dictionary of the English Language*, Houghton Mifflin Company, Fourth Edition.

⁷⁹ See Endnote 1 infra

⁸⁰ *Action by the Commission, by Memorandum Opinion and Order* (04-27), February 12, 2004.

⁸¹ *Ibid.*

⁸² *Action by the Commission by Memorandum Opinion and Order* (FCC 04-267), November 9, 2004.

⁸³ *Statement of Chairman Michael K. Powell*, Re: IP-Enabled Services, WC Docket No. 04-36.

⁸⁴ “Issues Related to Competition and Subscriber Rates in the Cable Television Industry, Report to the Chairman, Committee on Commerce, Science, and Transportation, U.S. Senate,” United States General Accounting Office, October 2003, available at <http://www.gao.gov/new.items/d048.pdf>

⁸⁵ Solveig Singleton, “A La Carte Cable: Bad Idea Du Jour,” *CEI C:\Spin*, October 29, 2003 available at <http://cei.org/gencon/016,03728.cfm>

⁸⁶ See Steven S. Wildman, Assessing Quality-Adjusted Changes in the Real Price of Basic Cable Service,” September 10, 2003, available at http://www.ncta.com/pdf_files/WildManStudy.pdf

⁸⁷ Technology products often require significant upfront investment. Despite high initial costs, once software or other digital products have been developed, the cost of reproducing that product—the “marginal cost”—is miniscule. Incorporating large upfront costs into a product’s price is a challenge because determining how much to charge over marginal cost is extremely difficult in practice. Nobel Laureate Ronald Coase of the University of Chicago long ago noted that a declining cost industry must find some way to finance itself. In his 1946 article, “The Marginal Cost Controversy,” he explains that there are two main ways to achieve the necessary level of revenue—via creative multipart pricing or through some form of government subsidy. The government subsidy approach inevitably entails government regulatory and/or price controls, as there are no “free” subsidies. The market approach works by price differentiation and product bundling. See Braden Cox, One Bundle, Many Antitrust Laws – The Dilemma for Digital Products, *Intellectual Property & Technology Law Journal*, Vol 17, No. 4, April 2005.

⁸⁸ Sen. John Breau (D-La.)—who has since retired—proposed an amendment to S.2056 that would have applied the indecency rules to cable. It failed by a vote of 12 to 11.

⁸⁹ The TV violence “safe harbor” amendment proposed by Senator Fritz Hollings (D-SC) would have required the FCC to determine whether the current ratings system and v-chip technology are “effectively” protecting children from violent programming. If the FCC determines those measures are “insufficiently effective,” the Commission must define “violent video programming” and then restrict the hours during which such programs may be broadcast.

⁹⁰ John Beresford, “The Scarcity Rationale for Regulating Traditional Broadcasting: An Idea Whose Time Has Passed,” FCC Media Bureau Staff Research Paper, March 2005, available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-257534A1.pdf

⁹¹ *In the Matter of Complaints Against Various Licensees Regarding Their Broadcast Of The Fox Television Network Program “Married By America” On April 7, 2003*, NAL/ Acct. No. 200532080003, File No. EB-03-IH-01621, Notice of Apparent Liability for Forfeiture, adopted October 5, 2004.

⁹² A study by David Pritchard, Department of Journalism and Mass Communication, University of Wisconsin-Milwaukee, conducted for the FCC, found that cross-ownership (ownership by the same company) of a newspaper and a television station in a market does not result in a predictable pattern of news coverage and commentary about important political events. A Pew Research Center for the People and the Press and the Project for Excellence in Journalism at Columbia University study examining the tendencies of ownership structures on local TV news found that stations with cross-ownership “tended to produce higher quality newscasts.” In addition, local ownership “offered little protection against newscasts being very poor, and did not produce superior quality.” Oddly, however, this study goes on to parrot regulation advocates’ gloom and doom predictions by opposing increased legal ownership limits.

⁹³ Joe Waldfogel, “Preference Externalities: An Empirical Study of Who Benefits Whom in Differentiated Product Markets”, The Wharton School, University of Pennsylvania, available at <http://www.tprc.org/abstracts00/empirical.pdf>

⁹⁴ As quoted in “FCC Chief Says Tech is Wild Card” by Chris Baker, *Washington Times*, July 7, 2003.

⁹⁵ See *In the Matter of Madison River Communications, LLC and affiliated companies*, FCC Acct. No. 200532080126, March 3, 2005, available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-05-543A1.pdf. Madison River Communications operates four rural telephone companies, in the states of Alabama, Georgia, North Carolina and Illinois, which offer local phone service, long distance, and DSL-based broadband Internet access. According to Vonage, a VoIP company, Madison River Communications had been blocking the operation of its voice application services. Madison River’s phone companies had admitted that they were blocking Vonage. Port blocking occurs when a company prevents certain types of Internet traffic from traveling through its networks.

⁹⁶ See Endnote 2 *infra*.

⁹⁷ See Jerry Ellig, “Costs and Consequences of Federal Telecommunications and Broadband Regulations,” Mercatus Center, George Mason University, Feb. 2005, for the proposition that government telecommunications regulation has cost consumers up to \$105 billion annually in higher prices and foregone services, available at <http://www.mercatus.org/pdf/materials/1074.pdf>

⁹⁸ Amy Schatz, “FCC to Seek Parity After Net Ruling,” *Wall Street Journal*, Page B9, June 29, 2005 available at <http://online.wsj.com/article/0,,SB112000237411572255,00.html>

⁹⁹ Max Smetannikov, “RBOC vs RBOC: Intermodal competitors or cooperative partners?,” *America’s Network*, Apr 1, 2004.

¹⁰⁰ *Verizon Communications v. Law Offices of Curtis V. Trinko, LLP*, 124 S.Ct. 872 (2004).

¹⁰¹ Raymond L. Gifford & Adam Peters, “The Fallacy of Predation in Wireline Communications,” *Progress on Point*, Progress and Freedom Foundation Release 11.13 August 2004.

¹⁰² See James L. Gattuso and Norbert Michel, Ph.D., “Are U.S. Telecom Networks Public Property?,” *Heritage Foundation Backgrounder* No. 1745, April 8, 2004 available at <http://www.heritage.org/Research/InternetandTechnology/bg1745.cfm>

¹⁰³ “TELRIC” stands for Total Elemental Long Run Incremental Cost

¹⁰⁴ See *United States Telecom Association v. FCC*, 359 F.3d 554 (D.C. Cir. 2004); *United States Telecom Association v. FCC*, 290 F.3d 415 (D.C. Cir. 2002) (“USTA I”); *AT&T Corp. v. Iowa Util. Bd.*, 119 S.Ct. 721 (1999).

¹⁰⁵ See Stephen B. Pociask, “The Effects of Bargain Wholesale Prices on Local Telephone Competition: Does Helping Competitors Help Consumers?” Competitive Enterprise Institute and New Millennium Research Council, June 16, 2003.

¹⁰⁶ *Ibid.*

¹⁰⁷ *Ibid.*

¹⁰⁸ Further Notice of Proposed Rulemaking, *In the Matter of Creating Unified Intercarrier Compensation Regime*, CC Docket No. 01-92 (March 3, 2005).

¹⁰⁹ FCC Press Release, February 10, 2005 available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-256705A1.pdf

¹¹⁰ *Ibid.*

¹¹¹ An example of a piecemeal approach is represented by Level 3 Communications requesting that the FCC not apply access charges on VoIP calls that originate or terminate on the public switched telephone network (PSTN). See the open letter to FCC Chairman Commissioner Michael Powell from Braden Cox, March 7, 2005 available at <http://cei.org/gencon/027,04432.cfm>

¹¹² See Jay Atkinson and Chris Barnekov, senior economists at the FCC that co-authored “A Coasian Alternative to Pigovian Regulation of Network Interconnection” in which they explore what default rules might be appropriate for intercarrier compensation so that interested parties in the market, and not the FCC, can work out efficient resolutions available at <http://web.si.umich.edu/trpc/papers/2004/348/CoasianAlternative040901b.pdf>

¹¹³ See Section 254(b) of the 1996 Act

¹¹⁴ USAC 2004 Annual Report available at <http://www.universalservice.org/download/pdf/2004AnnualReport.pdf>

¹¹⁵ Ibid.

¹¹⁶ See <http://www.usda.gov/rus/telecom/broadband.htm>

¹¹⁷ “Universal Service at Risk,” United States Telecommunications Association, available at <http://www.usta.org/getFile.php?k=B6780EFF17F549168C7731751BBDE572>

¹¹⁸ Jerry A. Hausman, “Taxation by Telecommunications Regulation” American Enterprise Institute, 1998. Provides estimates that the cost to the economy from long-distance access taxes is approximately three times higher than cost of raising the same revenues through the income tax.

¹¹⁹ See “Who Pays for Universal Service? When Telephone Subsidies Become Transparent,” Robert W. Crandall and Leonard Waverman (2000).

¹²⁰ Paul Davidson, “Fees Paid By All Phone Customers Help Rural Phone Firms Prosper,” *USA Today*, Nov. 16, 2004.

¹²¹ “Telecommunications Concerns Regarding the Structure and FCC’s Management of the E-Rate Program,” Statement of Mark L. Goldstein, Director, Physical Infrastructure Issues, March 16, 2005.

¹²² Notice of Proposed Rulemaking and Further Notice of Proposed Rulemaking, WC Docket No. 05-195 *et al.*, Released June 14, 2005, available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-05-124A1.pdf

¹²³ See U.S. Chamber of Commerce report, “Sending the Right Signals: Promoting Competition Through Telecommunications Reform,” by Thomas W. Hazlett et al., September 22, 2004.

¹²⁴ Raymond Gifford, “Universal Service: Is It Still Relevant?,” *Progress on Point*, Release 11.18 October 2004.

¹²⁵ See Joseph S. Kraemer, Richard O. Levine, and Randolph J. May, “The Myths and Realities of Universal Service: Revisiting the Justification for the Current Subsidy Structure,” *Progress and Freedom Foundation Special Report*, Jan. 2005, available at <http://www.pff.org/issues-pubs/books/050118usreport.pdf>

¹²⁶ See Endnote 1 *infra*.

¹²⁷ CALEA is codified at 47 U.S.C. § § 1001-1021.

¹²⁸ Telecommunications Carrier Assistance to the Government, Report of the House of

Representatives, Committee on the Judiciary, 103d Congress, 2d Session, Rept. 103-827, Part 1, October 4, 1994, stating that “[t]he bill is clear that telecommunications services that support the transport or switching of communications for private networks...need not meet any wiretap standards. Also excluded from coverage are all information services, such as Internet service providers or services such as Prodigy and America-On-Line. All of these private network systems or information services can be wiretapped pursuant to court order, and their owners must cooperate when presented with a wiretap order, but these services and systems do not have to be designed so as to comply with the capability requirements.”

¹²⁹ *Notice of Proposed Rulemaking in the matter of Communications Assistance for Law Enforcement Act and Broadband Access and Services*, FCC 04-187 (2004).

¹³⁰ The 4th Amendment to the U.S. Constitution provides that “[t]he right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.”

¹³¹ For a more thorough discussion of FCC institutional reform, see Solveig Singleton, “Letter Responding to Rep. Gillmor’s Call for Proposals on FCC Reform,” July 9, 1999, available at <http://www.cato.org/pubs/wtpapers/990709letter.html>

¹³² See Digital Age Communications Act, Proposal of the Regulatory Framework Working Group, The Progress and Freedom Foundation, Release 1.0, available at <http://www.pff.org/issues-pubs/other/050617regframework.pdf>

¹³³ See Randolph J. May, “Consolidate FCC power,” *The National Law Journal*, August 23, 2004 available at <http://www.pff.org/issues-pubs/opinion/040823agencyreform.html>

¹³⁴ *Ibid.*

¹³⁵ Intelligence Reform and Terrorism Prevention Act of 2004 (Public Law 108-458).

¹³⁶ The wavelengths upon which televisions, radios, satellite transponders, wireless phones, and microwave dishes send and receive information are called the “electromagnetic spectrum.” Slices of spectrum are often referred to as “channels.” Generally, the greater its width (bandwidth), the greater the amount of information a channel can carry. However, advancements in microprocessors and software mean that more information can now be sent through less bandwidth than was possible even a few years ago.

¹³⁷ George Gilder, *Telecosm: How Infinite Bandwidth Will Revolutionize Our World* (New York: Simon & Schuster, 2000), p. 17. One hertz is equal to beating a drum once per second; a Megahertz is one million hertz, a Gigahertz one billion hertz, and a Terahertz one trillion hertz.

¹³⁸ Ronald Coase, “The Federal Communications Commission,” 2 *Journal of Law & Economics* 1, 17-35 (1959). For practical plans for carrying out this idea, see Arthur De Vany, “A Property System for Market Allocation of the Electromagnetic Spectrum: A Legal-Economic-Engineering Study,” 21 *Stan. L. Rev.* 1499 (1969); Jora Minasian, “Property Rights in Radiation: An Alternative Approach to Radio Frequency Allocation,” 18 *J.L. & Econ.* 221 (1975).

¹³⁹ See, e.g., Ira Brodsky, “Who Used Up the Radio Spectrum? Treating the Broadcast Spectrum as a Free but Scarce Resource Has Led to Hoarding, Inefficiency, and Waste,” *Business Communications Review* (January 1992), p. 45.

¹⁴⁰ Robert W. Crandall and J. Gregor Sidak, “Competition and Regulatory Policies for

Interactive Broadband Networks,” 68 *S. Cal. L. Rev.* 1203, 1237 n. 29 (1995).

¹⁴¹ See “Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1994,” *Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services*, Sixth Report, FCC 01-192, 16 FCC Rcd 13350 (2001) at 21.

¹⁴² Statistics from CTIA – The Wireless Association, available at http://files.ctia.org/img/survey/2004_endyear/slides/EstSubscribers_4.jpg

¹⁴³ The Yankee Group, North America Wireless/Mobile Forecast, Fourth Quarter 2003 available at http://www.yankeegroup.com/public/home/research_showcase.jsp?ID=10913

¹⁴⁴ See the Ofcom Spectrum Framework Review: Implementation plan available at <http://www.ofcom.org.uk/consult/condocs/sfrip/>

¹⁴⁵ Yochai Benkler, “Some Economics of Wireless Communications,” *Harvard Journal of Law & Technology* Volume 16, Number 1 Fall 2002 available at <http://jolt.law.harvard.edu/articles/pdf/v16/16HarvJLTech025.pdf>

¹⁴⁶ And some of these advocates are members of Congress. See the bill introduced by Rep. Edward J. Markey, Spectrum Commons and Digital Dividends Act, H.R. 1396, March 20, 2003, available at http://www.house.gov/markey/Issues/iss_telecomm_bill030320.pdf

¹⁴⁷ Gerald R. Faulhaber and David Farber, “Spectrum Management: Property Rights, Markets and the Commons,” Telecommunications Policy Research Conference Proceedings, 2003 available at http://rider.wharton.upenn.edu/~faulhabe/SPECTRUM_MANAGEMENTv51.pdf

¹⁴⁸ Arnold Kling, “A ‘Commons’ Misconception,” *Tech Central Station*, Feb, 21, 2003, available at <http://www.techcentralstation.com/022103A.html>

¹⁴⁹ Adam Thierer, “Howard Dean’s Plan for the Internet: Collectivism In, Property Rights Out,” *Cato Techknowledge*, Issue #70, January 15, 2004 available at <http://www.cato.org/tech/tk/040115-tk.html>

¹⁵⁰ (Weiser and Hatfield article does good job of outlining the challenges of unlicensed bands.).

¹⁵¹ Tam Harbert, “Into Thin Air; The FCC’s Spectrum Auctions Prove Failures,” *Electronic Business* (February 1998), p. 42. The WCS Auction was expected to raise almost \$3 billion, but raised only \$13.6 million, and some bidders walked away with licenses for as little as \$1.

¹⁵² 47 U.S.C. § 309(j)(4)(F) (1997); see *The Conference Report to the Budget Act*, H. R. Rep. No. 217, 105th Congress, 1st Session, 573 (1997).

¹⁵³ These new rules authorize most wireless carriers, including cellular mobile, PCS and microwave radio licensees to lease their spectrum at market rates to other qualified service providers or investment groups that may, in turn, sublease the spectrum to other qualified parties. These rules will not apply to broadcast or satellite licensees.

¹⁵⁴ Don Phillips, “Radio Crunch Threatens Air Travel,” *The Washington Post*, November 13, 2000.

¹⁵⁵ H.R. 5419, a bill consisting of three titles. Title I is the “ENHANCE 911 Act of 2004.” Title II is the “Commercial Spectrum Enhancement Act.” Title III is the “Universal

Service Antideficiency Temporary Suspension Act.”

¹⁵⁶ See, e.g., “Statement of General Campbell, Joint Hearing of the Military Procurement Subcommittee and Military Research and Development Subcommittee of the House National Security Committee,” *Federal News Service*, 5 March 1998, in which he says, “Sir, the spectrum is a national asset. It’s absolutely critical for national defense. And we need a national strategy, in my view, to protect it...[T]here should be a moratorium on further sell-off of the spectrum until that national strategy has been replaced.” At the same hearing, Rep. Curt Weldon (R-Pa.) stated “we should protect some of the frequency of the spectrum for public safety purposes. I mean, we have situations now where public safety units can’t communicate one with the other. And there’s no available spectrum for them.”

¹⁵⁷ FCC, “Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming: Tenth Annual Report,” January 28, 2004, available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-04-5A1.pdf.

¹⁵⁸ The National Association of Broadcasters advocates mandated carriage of digital and HDTV signals by cable operators. See testimony of Edward O. Fritts, Hearing on the Digital TV Transition, Senate Committee on Commerce, Science and Transportation, July 12, 2005, available at <http://commerce.senate.gov/pdf/fritts.pdf>

The Competitive Enterprise Institute is a non-profit public policy organization dedicated to the principles of free enterprise and limited government. We believe that consumers are best helped not by government regulation but by being allowed to make their own choices in a free marketplace. Since its founding in 1984, CEI has grown into an influential Washington institution.

We are nationally recognized as a leading voice on a broad range of regulatory issues ranging from environmental laws to antitrust policy to regulatory risk. CEI is not a traditional “think tank.” We frequently produce groundbreaking research on regulatory issues, but our work does not stop there. It is not enough to simply identify and articulate solutions to public policy problems; it is also necessary to defend and promote those solutions. For that reason, we are actively engaged in many phases of the public policy debate.

We reach out to the public and the media to ensure that our ideas are heard, work with policymakers to ensure that they are implemented and, when necessary, take our arguments to court to ensure the law is upheld. This “full service approach” to public policy makes us an effective and powerful force for economic freedom.



Competitive Enterprise Institute

1001 Connecticut Avenue, NW
Suite 1250
Washington, DC 20036
202-331-1010
Fax 202-331-0640
www.cei.org

Issue Analysis is a series of policy studies published by the Competitive Enterprise Institute. Nothing in *Issue Analysis* should be construed as necessarily reflecting the views of CEI or as an attempt to aid or hinder the passage of any bill before Congress. Contact CEI for reprint permission. Additional copies of *Issue Analysis* may be purchased through CEI's publications department (pubs@cei.org or 202-331-1010).