

WRITTEN STATEMENT

of

MICHAEL K. POWELL

Chairman

Federal Communications Commission

on

Voice over Internet Protocol (VoIP)

Before the

**Committee on Commerce, Science, and Transportation
United States Senate**

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**SUMMARY OF WRITTEN STATEMENT OF
FCC CHAIRMAN MICHAEL K. POWELL**

February 24, 2004

Good morning, Mr. Chairman and distinguished members of the Committee. It is my pleasure to come before you today to discuss Internet voice services.

For the last three and a half years, I have engaged you and the nation in a dialogue about the digital migration taking place across the communications landscape. The digital migration is about empowering consumers by replacing yesterday's slow, limited and generally monopolistic communications networks with multiple high-speed, dynamic and competitive full-service digital networks. Increasingly, these digital broadband networks, whether wired or wireless, are using the flexibility of Internet protocols to offer Americans a full suite of communications services – from voice to video to data.

We continue to work hard to bring these broadband Internet networks to each and every American at affordable prices. We have championed the deployment of multiple broadband networks in order to rid ourselves of the intractable “last mile” problem. We have pushed for greater deployment of DSL, cable modem, 3G wireless, WIFI, Ultra Wide Band, satellites and broadband over power lines, just to name a few new services already in commercial use. More broadband platforms mean more competition, more innovation and more tools to advance important goals such as universal service.

The Commission is mindful, however, that networks are valuable only if consumers use them to communicate, to entertain themselves, to work, and to learn. These uses are often referred to as Internet “applications.” Successful Internet applications are vital to our national broadband policy because they create demand and thus grow the network. Just as email and e-commerce were drivers of the narrowband Internet, higher bandwidth applications like streaming video and music entertainment, home networking and Internet voice will be the “killer apps” for broadband. As you know, the FCC has not generally moved to regulate these Internet applications. In part, this has been a result of our charge in section 230 of the Communications Act that it is the policy of the United States to promote the continued development of the Internet and other interactive computer services and to preserve the vibrant and competitive free market for these services “unfettered by Federal or State regulation.”

Against this backdrop, in recent months, one application has grabbed headlines: Internet voice services. These applications have garnered a great deal of attention because they allow voice communication among users, much like traditional wired or wireless voice networks. Internet voice application comes in many flavors, in some cases – like pulver.com – the communication is computer to computer, in other cases the Internet user calls a traditional phone. When packetized, voice applications are virtually identical to any other Internet application, such as email or instant messaging. Consequently, would-be entrepreneurs are just a website and a server away from offering

services that mirror those of a “phone” company. And suddenly every consumer with broadband access can choose among potentially hundreds of voice over Internet service providers. This remarkable development in the growth of competition is made possible by tapping into the global and ubiquitous Internet to deliver tremendous innovation and opportunity for the American people.

Voice applications are not alone. Everywhere Internet applications are bringing new competition to old markets and, in turn, ushering in an era of innovation, competition, lower prices and high quality services. Whether we are talking about Internet voice services, or Internet video and audio services, Internet news services, or Internet commerce, the broadband revolution is bringing tomorrow’s communication and commerce tools to more and more Americans everyday. These new opportunities for consumers are also providing new opportunities for our nation’s economy. The need to “rip and replace” the nation’s infrastructure is stimulating previously moribund capital spending, it is opening new paths to growth, increasing our Nation’s productivity and holds out the promise for new jobs as business and consumers increasingly unleash the power of broadband.

Restraining from regulating the economics of Internet applications has served us well. The creativity and innovation of the marketplace has been breathtaking and dynamic, bursting at the seams with entrepreneurial spirit. Consumers are enjoying more choices, better value, and more personalized products. There is little compelling evidence that heavy economic regulation of these vibrant services is warranted.

I do, however, believe we must preserve and advance venerable social and security policies. Paramount among them are universal service, 911, law enforcement and disability rights. I recognize that IP services ride atop a physical layer that, in many parts of our country, is still expensive to build and maintain. I am committed to ensuring that the entire nation has access to affordable communications services, as more and more communications move to IP networks.

We have begun laying the foundation for a comprehensive, yet minimal, regulatory environment for Internet voice application services. At our February meeting, the Commission adopted a Notice of Proposed Rulemaking to look at the issues surrounding these applications. We are working with our colleagues elsewhere in the federal government and at the state and local level to develop a sound policy framework. We are focused on addressing and advancing our social objectives of public safety and 911, universal service, homeland security and access for people with disabilities. In addressing these issues, I have called for a series of Solution Summits. The first Summit is slated for March 18 and will address E911 capability. In addition, the Commission is working hard to reform our country’s inter-carrier compensation regime. Finally, we are keeping a watchful eye for anti-competitive conduct by owners of broadband networks to ensure our citizens can tap the full potential of the Internet in a broadband world.

I would like to thank you, Mr. Chairman, for calling this hearing, and I look forward to working with you and other members of the Committee, my state colleagues, industry and my fellow commissioners on these challenging and critical issues.

Good morning, Mr. Chairman and distinguished members of the Committee. It is my pleasure to come before you today to discuss Internet voice services and the role of the Federal Communications Commission (the “FCC” or the “Commission”).

I. Introduction

For the last three and a half years, I have engaged you and the nation in a dialogue about the digital migration taking place across the communications landscape. The digital migration is about empowering consumers by replacing yesterday’s slow, limited and generally monopolistic communications networks with multiple high-speed, dynamic and competitive full-service digital networks. Increasingly, these digital broadband networks, whether wired or wireless, are using the flexibility of Internet protocols to offer Americans a full suite of communications services – from voice to video to data.

We have worked hard at bringing these broadband Internet networks to each and every American at affordable prices. We have championed the deployment of multiple broadband networks in order to rid ourselves of the intractable “last mile” problem. We have pushed for greater deployment of DSL, cable modem, 3G wireless, WIFI, Ultra Wide Band, satellites and broadband over power lines, just to name a few new platforms already in commercial use. More broadband platforms mean more competition, more innovation and more tools to advance important goals such as universal service.

The Commission is mindful, however, that networks are valuable only if consumers use them to communicate, to entertain themselves, to work, and to learn. Although much of our focus has been on bringing these broadband Internet networks to each and every American, the Commission is now turning its attention to promoting investment, innovation and competition at the applications layer of the Internet. Internet voice services, coming in many flavors, are some of the first of many broadband Internet applications being adopted by consumers today. These exciting new services tap into the global and ubiquitous Internet to change the make-up of the communications and other industries daily – all to the benefit of the American people. Successful Internet applications are vital to our national broadband policy because they create demand and thus grow the network.

Today, Internet applications are bringing new competition to old markets and, in turn, ushering in an era of innovation, lower prices and high quality services. Just as email and e-commerce were drivers of the narrowband Internet, higher bandwidth applications like streaming video and music entertainment, home networking and Internet voice will be the “killer apps” for broadband. Whether we are talking about Internet voice services, or Internet video and audio services, Internet news services, or Internet commerce, the broadband revolution is bringing tomorrow’s communication and commerce tools to more and more Americans today. These new opportunities for consumers are also providing new opportunities for our nation’s economy. New opportunities for job creation can be found in building broadband networks and applications. Productivity gains for our economy continue as business and consumers

increasingly unleash the power of broadband networks. At the same time, we are creating opportunities for small businesses and entrepreneurs to enter previously prohibited communications markets at the applications layer of the network.

Although the prospects for the digital migration have been promising, to date, the realization of its potential and benefits for our country are far from certain. This country must continue to promote and adopt regulatory policies that promote investment and allow these new and emerging broadband Internet services to flourish. A failure to do so will lead to more outsourcing of high tech jobs and investment to foreign lands, leaving the most powerful nation in the world a second class citizen in tomorrow's growing digital economy.

At the same time, we must leverage these new technologies to ensure that many of our core, traditional and vital social objectives continue to be met. Regardless of the pace of technological change, we must remain committed to universal service, law enforcement access, E911 capabilities, and access for people with disabilities. And, we must effectively manage the transition from the analog to an all digital world to ensure that Americans relying on yesterday's communications tools are not left behind.

The Commission is hard at work on these issues. We continue to work to bring alternative broadband Internet distribution networks to the American people. We have begun laying the foundation for a "light touch" regulatory environment for Internet voice services. We are focused on addressing and advancing our social objectives of public

safety, universal service, homeland security and access for people with disabilities. The Commission is also working hard to reform our country's inter-carrier compensation regime. We are working with our colleagues elsewhere in the federal government and at the state and local level to develop a sound policy framework. Finally, we are keeping a watchful eye for anti-competitive conduct by owners of broadband networks to ensure our citizens can tap the full potential of the Internet in a broadband world. The public interest is our guide in our tireless pursuit to bring the vast benefits – both personal and economic – of the digital migration and broadband Internet service to every American.

II. Emerging Internet Voice Services—What are They?

With 50 million people (and rapidly growing) taking advantage of broadband Internet access, Internet-based services and applications have a promising year ahead. One class of applications, allowing for the transmission of voice communications, will continue to grow in many shapes and sizes. This application comes in many flavors, but has garnered a great deal of attention because it allows voice communications among users, much like traditional wired or wireless voice networks. Some of these Internet voice services will be delivered over the public Internet; others will use Internet protocols over private networks to reach end-users. Some of these services will be Internet-only applications; others will allow Internet callers to reach out to users on the public switched telecommunications network. Some will be pay services; others will be free or simple add-ons to other types of applications. All, however, will enhance our ability to communicate with each other.

Indeed, Internet voice services are evolving in a number of different ways. Some providers, like Vonage, are offering Internet voice services using the public Internet and a consumer's broadband connection to allow consumers to make calls to other broadband Internet users or to people using traditional plain old telephone service. Many cable operators, on the other hand, are offering IP-based voice services using their private digital networks to interconnect with the PSTN and not using the public Internet at all to transmit voice services. These types of voice services typically charge a monthly fee for a variety of different calling plans and features.

We are also seeing the development of computer to computer voice services. Free World Dial-up, for instance, employs peer-to-peer technologies to allow those using the service to transmit calls to one another. This particular computer-to-computer service is free to users. Internet voice capability is also built in to other services. For example, instant messenger software applications generally provide for voice add on features. Microsoft's Xbox Live gives those playing broadband video games the ability to talk to each other during play.

As you can see, we are entering a dynamic space in the evolution of Internet voice services and applications. As more people begin to take advantage of these new and exciting competitive voice offerings, we are starting to see substantial consumer and economic benefits of the digital migration emerge.

III. Benefits

As the digital migration continues in earnest, increasing numbers of Americans are taking advantage of the increased choices, lower prices, innovation and personalization that broadband Internet services and applications offer. It is noteworthy that these benefits are emerging almost completely in the free market environment.

IP-enabled communications are unleashing a torrent of innovative services and applications from many more sources than users of traditional communications services are accustomed to. In the voice space, for example, hungry, free radical entrepreneurs and software developers are taking advantage of extremely low entry barriers to pour investments into service offerings to take on established telephone industry giants. These industry giants are not, however, sitting still. Cable operators and traditional local and long-distance telephony providers are moving to IP-based voice products as a cheaper, more efficient way to deliver local and long-distance voice services to the public. The result is a degree of choice for consumers never before seen in the residential voice market. More Americans have more providers to choose from, more services to choose from and more devices to communicate with than in any time in American history.

With increased choice and competition come the additional benefits of lower prices and greater innovation. The same forces at play that are attracting entrepreneurs to enter the Internet voice business are allowing these and more established providers to offer consumers cheaper voice services. Lower entry and transaction costs are allowing Internet voice services to be offered at low prices, in some instances, for free.

The benefits do not end with competition and innovation for American consumers. Our economy is also seeing great gains from the digital migration broadly and Internet voice services specifically. As firms, new and old, continue to invest in broadband Internet networks and services and applications, we are seeing the creation of more technology focused jobs in our economy. Small businesses are using new technologies, such as Wi-Fi and WiMax to provide competitive last mile broadband Internet access. Not only are small businesses and entrepreneurs entering communications markets, small businesses are using broadband technologies and services to lower the costs of business (i.e., using Internet voice services to lower yearly phone bills), to enter new markets and more efficiently and effectively conduct commerce with suppliers and consumers around the globe.

As these businesses spur economic and job growth through investment in broadband Internet services and applications, we are seeing durable productivity gains spreading throughout our economy. A recent Lehman Brothers report suggested that by 2007 investment in information technology will allow for productivity gains that will bring \$140 billion in savings to six major economic sectors.

These consumer and economic benefits are not, however, guaranteed. While Internet voice services offer great potential, they are also extremely easy to establish abroad. If we do not create the proper regulatory climate in the United States, it is quite possible our local calls will be routed through Canada and Mexico at cheaper rates, rather

than through Kansas and Montana. We must adopt the right policies to foster investment, innovation and competition.

IV. Proper Policies

Economic Regulation

The development and success of the Internet has been a result, in part, of our nation's desire to maintain its minimally regulated status. Congress was mindful of the danger of regulating Internet services. Indeed, in section 230 of the Communications Act Congress enunciated a national policy to promote the continued development of the Internet and other Interactive computer services and to preserve the vibrant and competitive free market for these services "unfettered by Federal or State regulation."

We will remain vigilant. As I recently described in a speech at the University of Colorado at Boulder, I believe that government and broadband providers should strive to achieve four key Net Freedoms: (1) *Freedom to Access Content*: Consumers should have access to their choice of legal content; (2) *Freedom to Use Applications*: Consumers should be able to run applications of their choice; (3) *Freedom to Attach Personal Devices*: Consumers should be permitted to attach any devices they choose to the connection in their homes; and (4) *Freedom to Obtain Service Plan Information*: Consumers should receive meaningful information regarding their service plans. These freedoms will preserve consumer choice, foster competition, and promote investment in infrastructure and Internet applications. If adhered to, they will also eliminate the need for much of the anachronistic common carrier regulatory regime.

Social/Public Safety Policies.

There are at least four key areas where government should and must be engaged for the good of consumers: universal service, CALEA, E911, and access to people with disabilities. At our February meeting, the Commission adopted a Notice of Proposed Rulemaking to look at the issues surrounding these applications. We are working with our colleagues elsewhere in the federal government and at the state and local level to develop a sound policy framework. We are focused on addressing and advancing our social objectives of universal service, public safety and 911, homeland security and access for people with disabilities. In addition, the Commission is working hard to reform our country's inter-carrier compensation regime.

Before addressing each of these issues in more depth, I want to echo the Commission's recent announcement that we will be hosting a series of Solutions Summits in the coming months as we move forward with the IP-enabled communications proceeding to quickly address important social and public safety policies. The first of these summits will be held at the FCC on March 18, 2004 and will address 911 and E911 issues. I look forward to using these working sessions to develop real answers to these challenges thereby allowing these new technologies to improve our ability to achieve our policy goals.

Universal Service

IP communications represent a real opportunity to advance our universal service objectives, including ubiquity and affordability. New technology can reduce the costs of providing supported services, particularly in the higher-cost areas of our country. The introduction of technologically advanced, lower-cost networks also can have a positive effect on the high-cost fund over time, thereby limiting the burden our policies place on consumers.

Nonetheless, as we progress further in our digital journey, we and our colleagues at the state level will have to confront some significant challenges in the short and long term. Fully recognizing this challenge, the FCC is currently reexamining nearly every aspect of the universal service program, as I indicated in October, to ensure that the program is administered as efficiently and effectively as possible and that the overall program remains sustainable.

I assure you again today that I remain committed to the enduring goals of universal service. This digital migration cannot be complete or successful if there are portions of our population left behind. Voice service availability to all Americans will continue to be vital to the success of our nation. I recognize that IP services ride atop a physical layer that, in many parts of our country, is still expensive to build and maintain. True to our Congressional mandate of comparable prices and comparable services, the Commission must continue to be sensitive throughout the digital migration to the rural

areas of our country where the cost of service remains high and the march of technology can sometimes lag one step behind.

Some difficult times can be expected as competitive policy continues to erode implicit subsidies that skew competition while replacing them with explicit support mechanisms that are sustainable in a competitive environment. Nonetheless our universal service goals and our commitment to obtaining them remain unwavering. Our goal is to foster a system of universal service that is fair to all competitors in an increasingly competitive marketplace. Through our various proceedings and in cooperation with Congress and the states we will adopt the universal service fund to meet the progress of technology.

CALEA

Just as the near exponential rate of technological evolution has challenged the Commission, it has challenged law enforcement. New services like voicemail, call forwarding, and mobile phones have required industry, the Department of Justice and the Federal Bureau of Investigations to work in concert with the Commission to ensure that the needs of law enforcement are met in a way that is not overly burdensome or too costly for consumers. So again it is with Internet voice services. It is our understanding that law enforcement will soon be filing a petition requesting that the Commission commence a proceeding to help set standards by which the success of CALEA with respect to earlier services can be extended to Internet voice services. The Commission will devote the necessary resources to expeditiously and responsibly complete this task.

In the interim, it must be emphasized that carriers, the law enforcement community and the Commission are working in partnership to ensure that law enforcement retains access to the information they have now and to ensure that they have the tools they need in this ever changing environment.

911

Internet-based services provide a tremendous opportunity for improving our E911 systems. The existing 911 system is vital in our country, but limited functionally. In most systems, it primarily identifies the location from which the call was made. But an Internet voice system can do more. It can make it easier to pinpoint the specific location of the caller in a large building. It might also hail your doctor, and send a text or Instant Message alert to your spouse.

Our 911 potential is limited only by the infrastructure available and the creativity we employ in developing 911 applications. Already at least 10 Internet voice providers have entered into an agreement with the 911 association NENA to extend 911 capabilities to Internet voice services. The public safety community has been an excellent partner in this endeavor already and I look forward to additional progress at the Summit on March 18, 2004.

Access to people with Disabilities

Technology has consistently permitted Americans with disabilities to become more integrated and productive in their daily lives. We will not allow Internet-based

services to fall short of this precedent. Given the Commission's strong record of action in this area and Congress's great leadership in passing the ADA, I am confident that industry will respond appropriately to ensure access by individuals with disabilities. I am pleased to announce that our Solution Summit on access issues will be held on May 7, 2004.

V. Recent FCC Actions and Next Steps

Against this backdrop, the Commission released a comprehensive NPRM to examine how best to address VoIP and granted the Petition filed by pulver.com at our Open Meeting on February 12, 2004.

In pulver.com, the Commission continues to encourage investment and innovation in the case where the voice application rides entirely over the Internet in digital form. Pulver's FWD allows users of broadband Internet access services to make VoIP or other types of peer-to-peer communications directly to other FWD members, *without* charge. In this petition the FCC looked closely at the FWD offering and concluded that it clearly fit the information service definition and could not be categorized as a telecommunications service. The record was nearly unanimous on this outcome.

The NPRM takes up each of the important policy areas addressed above. The NPRM also examines some of the important definitional debates surrounding Internet voice services, with a view to existing definitions and how those definitions might apply to today's changing communications environment. Once the NPRM is released, the

Commission will build a record to determine where best to draw the line between the various flavors of Internet voice services, and to begin to determine how the social and public safety objectives can best be achieved when using IP-enabled communications. A full and robust record will pave the way for the Commission to adopt policies that facilitate economic growth, a more secure homeland, and preserve and advance universal service and access to people with disabilities.

I am pleased that we have made the progress that we have thus far and taken the first, bold step of granting the pulver.com petition and issuing the NPRM and I thank my fellow Commissioners for their hard work in getting this far. But our work is not done. Still other petitions remain before the Commission that involve different flavors of IP-voice services, with different levels of digitization and interaction with the public switched telephone network. Some cannot operate without use of the PSTN and offer little in the way of innovation for end consumers. Others involve the ability to bridge the old and the new. Each will have to be dealt with under its own merits, faithfully applying applicable statutes.

Among the open proceedings is a petition for declaratory ruling filed by AT&T regarding the applicability of access charges to particular types of VoIP services. I wish to emphasize that nothing in the NPRM discussed above will preclude the Commission from addressing pending petitions before the culmination of the rulemaking. As my colleagues work to reach their own decisions in the still pending proceedings I want to assure you that I am deeply concerned that telephone rates in rural areas remain

affordable. I fully recognize the gravity of any decision that might cause a precipitous decline in access charge revenues and a concomitant impact on universal service.

All of these decisions illustrate the importance of reforming our intercarrier compensation regime. We understand that the industry is hard at work to develop such a plan. I implore them to develop a proposal promptly. We have an open docket and I hope that the Commission will adopt a combined order and further notice of proposed rulemaking later this year. This item would take significant steps in the direction of a unified regime by providing immediate guidance on carriers' transport and interconnection responsibilities, and by soliciting comment on the legal and economic issues that must be addressed as part of a transition to a more rational and sustainable intercarrier compensation regime.

While many industry players have divergent views on the exact solution, nearly everyone agrees that the current system is broken. The Commission's intercarrier compensation docket provides an excellent opportunity to work together with all industry segments to replace a system built in a monopoly environment with one that is designed for a competitive market yet still sustains universal service. That policy decision will be essential if our nation is to tap the full potential of IP-enabled services.

VI. CONCLUSION

In examining voice over IP, we should begin with the non-regulation of the Internet as the first article of faith because limiting government intrusions – both at the federal and state level – maximizes the potential for innovation and increases opportunity

for the nation as a whole. There are clear exceptions to this rule – four of which are discussed above – where the security or well being of the nation and the consumer will require our intervention. But we must be sure that such exceptions do not swallow the rule. Without a doubt, VoIP will revolutionize the way consumers work and play. The choice for us as policy makers is to create the kind of environment where these changes can flourish.

I would like to thank you, Mr. Chairman, for calling this hearing, and I look forward to working with you and other members of the Committee, my state colleagues, industry and my fellow commissioners on these challenging and critical issues.