

**Remarks of
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**THE AGE OF PERSONAL COMMUNICATIONS
“Power to the People”
(As prepared for delivery)**

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ARE WE THERE YET?

Good afternoon. I want to thank the National Press Club for graciously asking me to speak today. For six years, I have spoken to you and the nation about the great Digital Migration—our movement from an analog world to a digital world—and the radical transformation that will come with it.

I have begun to ask myself, when do you know you have arrived? We all remember as children when we traveled with our families for vacation. You are thrilled as you pile into the back of the car with your brothers and sisters. For the first few hours you jump around excitedly, playing games and eating the wax paper wrapped sandwiches your mother made. As the journey drags on, however, you get restless and bored. You start punching your sister, followed by the threat from the front seats to pull over and leave you on the side of the road. You sulk, and then blurt out: “Are we there yet?” Your parents shut you down and you slip into a kind of catatonic state watching the monotony of the scene outside the window. And then suddenly, you look out and you see the signs of your destination.

So is the case with the digital trip we have been on. “Are we there yet?” Not quite yet, but I believe we have reached the city limits and if you look out the window, the signs are there that we will arrive soon. Holiday shopping guides were filled with technology toys and tools for your special someone. Major newspapers all now have sections dedicated to personal technology. Coffee shops and airport terminals have sprouted WiFi Internet access hot spots. Hotels have furniture with power plugs and Internet port connections integrated into them. Entire networks, like TechTV, are devoted to covering technology issues.

But the real measure of general acceptance is when things become imbedded in pop culture. Words creep into every day vocabulary: “download it” “Tivo it” “do it online” “rip it” “hot spot” “Hi Def” “beam it”. Films and movies always have a scene in which someone punches something up on a computer. The recent Consumer Electronics Show was covered by the media like Woodstock.

We all have some “aha” moment, when we realize things have really changed. One of mine came this year while watching football. I watched Joe Horn of the New Orleans Saints score a touchdown against the New York Giants. I waited for the usual celebration—a dance, a spin of the ball on the turf, a jump of elation into the stands, you know, good guy caveman stuff.

Instead, Joe pulled a cell phone out from the bottom of the goal post—a cell phone! I stared in amazement. There on the gridiron in the middle of a game. Joe was going to make a call (with his fine, it cost about \$30,000 a minute!). I said to myself, we have arrived. Even as end zone shows go we have come a long way. The year before, Terrell Owens of the 49ers pulled out a Pen and signed a football. Now that is digital migration, from pen and pigskin to digital wireless phone in one football season.

One need only pause and look around to see the signs. Few people would think of leaving home without their cell phone. One's cell phone is more personal than traditional phones. Features that allow customization abound—personalized ring tones, faceplates, interfaces and styles. With the arrival of local number portability rules you see that people want personal ownership of their phone number as well. We have come a long way since the day when we meekly rented a black rotary phone from Ma Bell. Nearly 56 percent of U.S. households have one or more cell phones, nearly 150 million users.

The Blackberry is one of the most talked about personal communicators around. It was the hero of September 11th, allowing many people to communicate during the crisis. It is a communications Swiss army knife, allowing someone to stay accessible to email, voice calls, address books, schedules and more.

WiFi is perhaps the most celebrated technology of the last 2 years. We have worked hard to drive its adoption. There are now estimated to be close to 100,000 hot spots worldwide. With off-the-shelf equipment from Radio Shack, an individual can use a piece of spectrum in your home, the airport, or a store that will let you communicate and access information over the Internet. And licensed wireless broadband, like EV-DO by Verizon, is spreading to offer always on anywhere Internet access.

Computer ownership and Internet access have grown remarkably. According to the Pew Internet & American Life Project, nearly two-thirds (63%) of American adults use the Internet and nearly 75 percent of those between 12 and 17 use the Internet.

High speed broadband connections are being adopted quickly as well. Nielsen Net Ratings reported last week that 50 million Americans now access the Internet from home using high speed connections. When I became Chairman, that number was a mere 12 million. And, if we need any further evidence that high speed Internet connections are approaching a tipping point, consider that during the six months between last May through November, 10 million people were added to the broadband ranks.

The Internet is growing rapidly as a critical source of information. Between 2000 and 2002, the online news population grew by 50 percent; those seeking health information online grew by 59%; the number seeking religious information nearly doubled; those searching for political news increased to 57%; the number who used government web sites grew by 56%; the number using e-commerce grew by 63%; and online banking grew 127 percent.

A striking fact from a more recent study is that this year nightly network news was named as a regular source of campaign nightly news by 35 percent, down from 45 percent four years ago; and newspapers by 31 percent, down from 40 percent four years ago. As Andrew Kohut of PEW stated: "Cable news and the Internet are looming larger as sources of campaign information as

fewer people say they're getting news from traditional sources such as newspapers and broadcast television.”

Even romance seems to have gone digital. Online matchmaking is all the rage. And, instant messaging is the public meeting place for our teenagers. While my parents may have met up at a burger joint, and my generation may have spent hours on the phone, this generation hangs out in cyberspace.

Technology also has and will continue to stimulate our economic prosperity. A survey by the CSE Freedom Works Foundation found that full broadband deployment would generate roughly 1.2 million jobs throughout the nation, or more than twice the number of jobs lost in the telecommunications sector.

POWER TO THE PEOPLE

This litany of observations is to highlight that the visionary sermons of technology futurists seems to have materialized. No longer the stuff of science fiction novels, crystal balls and academic conferences, it is real. The palpable excitement we see reflected around us is because, like the child in the back seat of the car, we now can see it. Technology is bringing more power to people.

Computing and communication power is coming to people because the forces of silicon chips, massive storage, and speedy connections to the Internet are combining to produce smaller and more powerful devices that can rest in our hands, rather than in the hands of large centralized institutions.

It boggles the mind to see the fantastic products available to us today. A simple survey suffices to make the point: Digital cameras and photo printers have moved the dark room into the home. Music players, like the iPod, have taken the rows of CDs out of a music store and placed them in your pocket. Personal Video Recorders, like TIVO, have given us more control of what we watch and when. We want movie theaters in our family rooms. GPS satellite receivers come on farm tractors. DVD players let us watch high quality movies almost anywhere—just look through the back windows of the minivans pulling out of your neighborhood on Saturday morning and you can catch up on the full season of Sponge Bob Square Pants.

It is not that we have access to electronics that is earth shattering, it is that we have access to pocket super computers that not long ago would have been the exclusive domain of MIT, NASA or the phone company. The economics of these mean that they will keep getting more powerful and cheaper, thus the future will stay bright.

In short, we are accelerating our ride into the future. We are starting to see the tools of the information age making their way into the hands of the people. The benefits to our citizens are enormous. They have more choices, they have better value and they have more control to tailor how they talk to friends and family. Credit for these successes rest primarily with entrepreneurs, but government's commitment to focus on innovation in its regulatory policies, remove unnecessary regulatory chains, place faith in the free market, and promote technology solutions has paid dividends.

Along Comes Internet Voice

And now we will turn our efforts to the latest development in the drive to digital, Voice-over-the-Internet, and commit ourselves to the policy formula that is proven to stimulate innovation and bring more choices, better value and more personalized service to the people. Let me lead off by giving some explanation of what Voice-over-the-Internet really is and explain why it holds such great promise for our citizens.

First, it is important to see Voice over IP as an application that runs over the Internet, in contrast to a telephone call that you buy as service integrated into a specialized network. If you see voice more as an application, then your field of view opens appropriately wide to see its implications and potential to enhance our lives.

Plain old telephone service performs one basic function really well. It sets up a telephone call from point A to point B. A voice application can do that, but it can do so very much more.

Microsoft, for example, has integrated a voice application into Xbox Live! It allows gamers to play others over the Internet while talking to each other. That is Internet Voice, but hardly a classic phone call.

The device you use to run a voice application can take many more forms than a standard telephone handset. There is a service by Vocera that is being used in hospitals. It is a device that can hang around your neck. Simply by speaking the name of someone, you can initiate a conversation over the device. A nurse can call for a doctor and talk to him immediately. This is Internet Voice.

As a software application, Internet voice can be readily integrated with other computing systems. For example, you make an Internet call to a doctor's office to make an appointment. The doctor's system calls up your medical records, your medications, and your last visit and instantly displays them. It also brings up the appointment times available, allows you to select one and then calls you back, or sends a text message to your cell phone the day before the appointment to remind you.

Similar potential rests with police and fire response systems. The 911 system is vital in our country, but it is 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.

Because we are talking about a digital computing application, the potential is limited only by having the infrastructure available and the creativity we employ in developing the application.

Internet Voice Offers Great Advantages for Consumers

Before industry and politicians launch headlong into arcane debates about whether Internet Voice should be regulated because it looks a lot like a telephone, it is vital to ask first what is in it for the average Joe.

If the consumer stands to benefit significantly from Internet Voice we should let it blossom. The burden should be placed squarely on government to demonstrate why regulation is needed, rather than on innovators to explain why it is not. I think the potential benefits for people are very substantial.

People Get More Choices

By any measure, our citizens have a growing number of ways to speak with each other, to inform themselves, and to entertain themselves. Instant messaging, email, cell phone calls, text messaging, and personal video conferences are all new forms of communication that can and do substitute for a traditional phone call.

Internet Voice will unleash a torrent of innovative products and services, from many more sources than we are accustomed to, if we let it. Because voice is an application, software developers will offer you many ways to talk over broadband connections. And because the barriers to entry are low, more companies will enter the market to offer solutions. They are sprouting up around the country like spring wildflowers. We will even see more robust competitive activity from larger providers. Bell companies will move to Internet Voice and compete out of their regions—something we have longed for. Long distance companies will embrace Internet Voice as a cheaper way to offer local phone service over broadband connections. Cable companies are moving to offer Voice-over-the-Internet services using broadband cable lines.

Choice will also come from being able to use different devices with different features to send and receive voice communication—your PDA, your game console, your laptop, your MP3 player all will be useable as a phone is today. In short, I am convinced that the hope of greater competition we have nurtured since the passage of the 1996 Act is much more likely to be realized fully with the advent of voice over the Internet.

People Get More Value

Consumers care about lower prices and higher value. Voice applications promise both. As data applications run on personal smart devices, the economics move from the network model to the consumer electronics model. The increasing power and declining price trends of microchips, storage and consumer electronics devices work in our favor. We all know that flat screen TVs will get better and cheaper, as will computers, as will cell phones and MP3 players.

Internet voice services are cheaper because they are not heavily regulated. This is not solely because they avoid taxes and fees, which are a big chunk of the cost of your phone bill. It is also because these providers do not bear the heavy transaction costs of having to deal with over 51 regulatory commissions, both state and federal, and the thousands of pages of rules. It is expensive to have a lobbying operation to cover the country and lawyers to manage compliance. That cost is passed directly onto you the consumer.

Internet voice service is also less expensive because providers do not need to build a billion dollar infrastructure to offer it. If you have a broadband connection that you are already paying

for through your monthly subscription, you can be reached and use the service. Voice applications, just like email, or Instant Messaging, just ride over your broadband service.

Finally, VoIP networks are cheaper because they can use the same network for delivering voice and data, rather than maintaining different networks for each. This is an enormous efficiency. It explains why the enterprise market is moving so rapidly in this direction. It also illuminates why we as a nation should push to deploy broadband networks to reap the efficiencies and innovation that such networks provide.

This is not the exclusive province of small companies. Large incumbents can deliver cheaper and better services as well as they deploy Voice-over- Internet technology and broadband service.

People Get More Personalization

The most exciting aspect of emerging technology and Internet-based applications is the degree that we can make them our own. We have heard of the “Me” generation. I think we are entering the “My” generation. You can scarcely turn on a computer, Palm Pilot or cell phone without being greeted by the obligatory: “My photos, My Music, My Documents” and “My video.” We all customize our favorite websites into our own personal rooms: “My Amazon” “My Yahoo” “My MSN”

A glaring contrast between the Industrial Age and the Information Age is this degree of personalization. Gone are the days when Henry Ford purportedly said “you can have any color car you want, as long as it is black.” In the industrial age things were one-size-fits-all: “Mass Production” “Standardization” “The Assembly Line.” In the information age, the cold and colorless are pushed aside for the warmth and vibrancy that come with the power to take a product or application and tailor it to your preferences.

Traditional telephone service has been an engineering marvel. It was, and still is, a masterpiece: a ubiquitous, highly reliable network. Yet, it places a premium on standardization. For so long, like Ford’s automobiles, everyone could have a standard black-plastic rotary phone. A great innovation was when you could get a couple of more colors. Ma Bell would fight tenaciously if any third party tried to attach anything to her network, or anyone tried to customize their phone or service. We only got the plethora of phone choices with many more functions and features after the government deregulated consumer premises equipment.

In the Information Age we want more. Internet Voice and other communication applications promise more. Innovation and personalization are possible and indeed are the hallmarks of these services. Innovation becomes a survival imperative for producers, as consumers increasingly demand more control of its features and functions.

Unquestionably, the Average Joe stands to benefit immeasurably from the development of VoIP and we should work to get it to him.

As we embark on the public debate over VoIP we should adhere faithfully to a few cautions:

First Do No Harm

Government can make things better, but Government, too, can make a mess of things. It is particularly prone to the latter when addressing budding technology developments that it does not yet fully understand or appreciate. Regulation can smother the risk-taking oxygen young entrepreneurs need to survive. They can weigh down innovation with forms and filings and drain capital by adding significantly to the costs of the service. And the cost of government compliance can mean higher, less competitive, prices for consumers.

Yes, there will be issues as Internet Voice becomes more widely adopted. We will need to ensure the legitimate concerns of public safety and law enforcement are addressed. And we will need to ensure our universal service goals are protected. It is important to have a government-industry partnership to keep an eye on these concerns. In this vein, this year, I will convene a Solutions Summit in which leaders in government and industry can come together to talk about creative ways to address some of these issues.

But such issues are still far from being problems that demand hasty government action. Responsible policy will identify issues, study them and stay vigilant, but not jump in to regulate without clear and persistent evidence of harm.

Don't Shove the Round Internet into a Square Hole

We cannot contort the character of the Internet to suit our familiar notions of regulation. Do not dumb down the genius of the net to match the limited vision of a regulator. The Internet has characters and attributes that should be recognized and accepted, not ignored or brushed aside as inconvenient, or irrelevant. To regulate the Internet in the image of a familiar phone service is to destroy its inherent character and potential. Governments are almost always about geography, jurisdiction and centralized control. The Internet is unhindered by geography, dismissive of jurisdiction, and decentralizes control.

POLICIES THAT EMPOWER PEOPLE

I am excited about VoIP for the same reason I am enthusiastic about so much personal technology— it empowers people, giving them more choice and control. One simple point. We do not regulate consumers. Thus, we should accept that “As Consumers do more, Governments should do less.” I will continue to pursue policies that empower people, harnessing technology trends to work for us, and driving the economy and personal freedom in the process.

We should actively promote a society where every single American can affordably connect everywhere – giving them more choices and more control.

Drive More Digital Broadband Platforms to Create an Always-On Network Accessible by All

So much of the ultimate promise of the connected society depends on saturating the country with broadband access, whether it be wired connections such as DSL and Cable Broadband, or wireless services such as WiFi hot spots, or licensed broadband services like the 3G broadband network that Verizon is investing a billion dollars to deploy. The Commission will continue to support the growth and diversity of the network economy.

Cable Broadband and DSL: We are fortunate in this nation to have two major networks that each reach nearly 95% of all Americans. These systems offer the real potential for broadband access to all Americans at affordable rates. The challenge is that these networks require very extensive and expensive upgrades to be suitable for the future needs of the nation. The Commission must continue to eliminate regulatory uncertainty in the broadband market so that established players and their competitors will invest in new infrastructure. These two networks are the greatest assets in the short run for getting broadband to every American at affordable rates, but that is not enough.

In addition to these more developed networks, the Commission is also committed to promoting the growth of new networks.

Unlicensed Spectrum: We are taking action to promote new wireless Internet service options. More and more rural communities that have had no access to Internet and broadband connections are getting it with unlicensed wireless services. Very often these services are put together by a local citizen who wants to help his community. Equipment is purchased cheaply and placed in a barn or silo. Providers like Roadstar serving the Virginia Blue Ridge Mountains and the Tribal Digital Village connecting 15 tribes in San Diego County are vivid illustrations of the power of these services. We are partners in that effort.

To advance these goals, we have recently freed hundreds of additional megahertz for unlicensed use and will continue to explore other possible bands for unlicensed use, including the spectrum currently used for UHF broadcasting.

We will also pursue increased flexibility for unlicensed uses under our rules and continue to support ultrawideband technologies. These technologies have the potential to rid consumers of the scourge of tangled wires throughout their home. Imagine a day when your computer, television, or stereo has only one wire—the power cord.

Licensed Wireless Communications More flexible use of the spectrum is essential to advance the migration and create more networks. For too long spectrum has been encumbered by a lumbering command and control system. Government historically has decided who gets spectrum and what they can do with it. Our Spectrum Policy Task Force has moved us strongly towards greater flexibility and freedom for spectrum users. From the tremendous flexibility we have decided to grant 3G licenses to our sweeping secondary markets initiative – which allows spectrum to change hands with minimal government involvement -- these policies are just beginning to bear fruit. We must continue to grant additional flexibility in other bands and further encourage secondary markets. Let innovators and individuals deliver the services they want, when they want. Use it for fixed data services, or mobile voice services. Use it for video distribution, or home networking. Licensed wireless services are an essential piece in the national network puzzle.

New Emerging Platforms The recent success of the unlicensed wireless network in bringing consumers innovation and choice has underscored the importance of government pursuing policies that support new networks. Just one example is our support for broadband powerline service. With BPL you theoretically reach every power outlet in America with a broadband connection. Our goals of universal service will be substantially advanced if this service is

deployed. We will continue to explore ways to support this technology while protecting other services from interference.

We are also working to increase the ability of broadband to be delivered via satellite. Because satellite technology has the ability to reach the entire country, it holds tremendous potential as an effective Internet solution for many parts of the nation, especially rural and remote areas, at affordable rates. We have streamlined our licensing process and increased spectrum flexibility to help achieve this goal. Later this month we will host a forum focusing on the additional opportunities created by satellite broadband.

All of these networks present tremendous opportunities for consumer choice, value and personalization. They also offer the potential to advance economic growth through investment, jobs and efficiency gains for the economy as a whole. But perhaps equally important in these times, communications technologies and the networked society also help to keep the nation secure and our infrastructure protected.

Public Safety and Homeland Security

We live in a dangerous world and communications technology can make it safer. The public safety community must be a part of the networked society as well. Recent FCC activities have facilitated the creation of networks capable of providing “on the scene” information about building architecture during a fire, possible suspects during a chase, and even the ability to see through walls during a manhunt. We will also work with local public safety authorities on the challenges of E911 deployment, spectrum needs and commercial interference problems.

We will also work with commercial licensees to establish industry standards for network reliability and diversity. This helps to ensure that the network society functions smoothly in normal times and can be restored promptly should our nation ever face another terrorist attack. As always, everywhere networks become more essential to us as individuals and to the economy as a whole, these efforts only take on added importance.

Protecting and Preserving Cherished Social Policies

Communications is probably one of the most powerful attributes of mankind. Few capabilities in our society have a greater impact on our community than communications. Thus, as it has long been, communications policy is more than the efficient allocation of goods and resources. It is about people; their access to information and their development of community and personal relationships. I believe it a sacred duty to continue to protect important social values through the great digital migration.

First among equals is the unflinching commitment to universal service. We must make sure that the digital migration brings the technologies of today and tomorrow to every single American at affordable prices. This year we will continue to tackle important universal service reforms that ensure that the nation can continue to pass into a new era, while not sacrificing its inviolate commitment to all Americans.

And the FCC is committed to making special efforts to target those areas most in need. For example, our Tribal initiative will strive to bring the promise of technology and prosperity to

Indian Country with which we have a deep and special trust relationship and our outreach efforts this year will target the Mississippi Delta, Appalachia, and Alaska. We have an obligation to ensure that disability access to these technologies and services does not fall short.

Technology has enormous potential for local communities to remain true to their roots and share in economic prosperity, the advances in health care, and the advantages of education. Our schools and libraries and rural health funding efforts must continue to be modernized for this age, so that every community can reap the full benefits of this migration.

GOOD FOR AMERICA

It is time to join together as a nation and realize the full promise of the technology age. I want to work cooperatively with state governments and regulators, the U.S. Congress, the Administration, international regulators and my colleagues toward a single goal: completing the work necessary to put in place the broadband infrastructure necessary for a connected society that gives us more choices, more value, more control and more opportunity.

We are not yet parked in the broadband driveway, but we can see it out the window and are starting our turn. The new world will be a place where people and communities and markets are empowered by technology and communications. Policies that empower people are in the true spirit of American Democracy where we value the consumer over the producer and the individual over the State.

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