

**HOW INTERNET PROTOCOL-ENABLED SERVICES
ARE CHANGING THE FACE OF COMMUNICA-
TIONS: A LOOK AT THE VOICE MARKETPLACE**

HEARING
BEFORE THE
SUBCOMMITTEE ON TELECOMMUNICATIONS AND
THE INTERNET
OF THE
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HOW INTERNET PROTOCOL-ENABLED SERVICES ARE CHANGING THE FACE OF COMMUNICATIONS: A LOOK AT THE VOICE MARKETPLACE

WEDNESDAY, MARCH 16, 2005

HOUSE OF REPRESENTATIVES,
COMMITTEE ON ENERGY AND COMMERCE,
SUBCOMMITTEE ON TELECOMMUNICATIONS
AND THE INTERNET,
Washington, DC.

The subcommittee met, pursuant to notice, at 10:09 a.m., in room 2123 of the Rayburn House Office Building, Hon. Fred Upton (chairman) presiding.

Members present: Representatives Upton, Bilirakis, Stearns, Gillmor, Whitfield, Shimkus, Wilson, Pickering, Fossella, Radanovich, Bass, Walden, Terry, Ferguson, Sullivan, Blackburn, Barton (ex officio), Markey, Wynn, Doyle, Gonzalez, Inslee, Boucher, Towns, Brown, Rush, Stupak, and Dingell (ex officio).

Staff present: Howard Waltzman, chief counsel; Neil Fried, majority counsel; Will Nordwind, policy coordinator; Jaylyn Jensen, senior legislative analyst; Anh Nguyen, legislative clerk; Johanna Shelton, minority counsel; and Peter Filon, minority counsel.

Mr. UPTON. Good morning, everyone.

Today's hearing is entitled "How Internet Protocol-Enabled Services are Changing the Face of Communications: A View from the Voice Marketplace".

In 1876, Alexander Graham Bell uttered the words, "Watson come here," into an experimental device, which came to be known, of course, as the telephone.

The telephone dramatically changed the way that the world communicated. We have had the privilege of living through some similarly dramatic innovations in communications technologies, such as the Internet, cell phones. We are witnessing yet another dramatic innovation in the form of Voice-over Internet Protocol, or VoIP.

Consumers are beginning to catch on. The number of VoIP subscribers is continuing to climb. There were more than a million VoIP subscribers at the end of 2004, 8 times as many as a year earlier, and there are likely to be 2.8 million VoIP subscribers by the end of 2005. Some, including myself, predict that that number will reach at least 16 million by the end of 2008.

Without a doubt, intermodal facilities-based competition has taken root with VoIP being delivered into homes and businesses over multiple technological platforms, as today's diverse witness

panel will demonstrate. All of this robust competition is a byproduct of those free market forces that have been allowed to take root where government, by and large, has kept its hands off, so far.

But VoIP is still in its infancy, and the regulatory ground upon which VoIP stands is not as firm as I think it needs to be in order to ensure that it reaches its projected potential. I would note that only 7 individuals, 5 FCC commissioners and 2 Federal District Court judges, stood in the way of VoIP potentially being regulated by 51 State public utility commissions. And though I commend the FCC for rightly declaring VoIP's services to be interstate and subject to the FCC's exclusive jurisdiction. The FCC continues to grapple with a host of other important policy matters in its pending IP-enabled services proceeding.

I believe that Congress ultimately has the responsibility to definitely create the proper framework to ensure that this facilities-based competition in the VoIP marketplace is allowed to flourish, free from government management for the benefit of all consumers.

And this is part of the mission that we hope to accomplish this year. On a bipartisan basis, as we seek to modernize our telecommunication laws, bringing them up to speed with today's as well as tomorrow's technology. That won't necessarily be an easy task, we know that, but we will have to grapple with a number of thorny issues, such as universal service, interconnection, intercarrier compensation, E-911, disabled access, just to name a few. To paraphrase President Kennedy, we will undertake this mission not because it is easy, but because it is hard.

I want to thank all of our witnesses for their participation today and their efforts to inform our policymaking decisions as we move forward legislatively this year.

[The prepared statement of Hon. Fred Upton follows:]

PREPARED STATEMENT OF HON. FRED UPTON, CHAIRMAN, SUBCOMMITTEE ON
TELECOMMUNICATIONS AND THE INTERNET

Good morning. Today's hearing is entitled: How Internet Protocol Services are Changing the Face of Communications: A View from the Voice Marketplace.

In 1876, Alexander Graham Bell uttered the words, "Watson, come here" into an experimental device which came to be known as the telephone. Of course the telephone dramatically changed the way the world communicated. We have had the privilege of living through some similarly dramatic innovations in communications technology, such as the Internet and cell phones, and we are witnessing yet another dramatic innovation in the form of Voice over Internet Protocol, or VoIP.

And consumers are beginning to catch on. The number of VoIP subscribers is beginning to climb. There were more than 1 million VoIP subscribers at the end of 2004—eight times as many as a year earlier—and there likely will be 2.8 million VoIP subscribers by the end of 2005. Some predict the number to reach 16 million by the end of 2008.

Without a doubt, inter-modal, facilities-based competition has taken root with VoIP being delivered into homes and businesses over multiple technological platforms, as today's diverse witness panel will demonstrate.

All of this robust competition is a by-product of those free-market forces that have been allowed to take root where government, by and large, has kept its hands-off—so far.

But VoIP is still in its infancy, and the regulatory ground upon which VoIP stands is not as firm as I think it needs to be in order to ensure that it reaches its projected potential. I would note that only seven individuals—5 FCC commissioners and 2 federal district court judges—stood in the way of VoIP potentially being regulated by 51 state public utility commissions. And I commend the FCC for rightly declaring VoIP services to be interstate and subject to the FCC's exclusive jurisdiction. The FCC continues to grapple with a host of other important policy matters in its pending IP-enabled services proceeding.

But I believe that Congress ultimately has the responsibility to definitively create the proper framework to ensure that this facilities based competition in the VoIP marketplace is allowed to flourish—free from government management—for the benefit of the consumers.

And this is part of the mission we hope to accomplish this year, on a bipartisan basis, as we seek to modernize our telecommunications laws, bringing them up to speed with today's and tomorrow's technology. This won't necessarily be an easy task. We will have to grapple with a number of thorny issues, such as universal service, interconnection, inter carrier compensation, E-911, and disabled access, just to name a few. But to paraphrase President Kennedy, we will undertake this mission not because it is easy, but because it is hard.

I want to thank our witnesses for their participation today and their efforts to inform our policymaking decisions as we move forward legislatively this year.

Mr. UPTON. And I will recognize, for an opening statement, my friend and colleague from Pennsylvania, Mr. Doyle.

Mr. DOYLE. Thank you, Mr. Chairman.

Mr. Chairman, it is no secret that in just a little more than a decade of widespread use, the Internet has revolutionized our entire way of life. Communications, e-commerce, personal finance, distance learning, and scientific research are only a few of the countless fields that have expanded almost as fast as the Internet itself. And as amazing as it has been over the last decade to experience and witness the new technologies that fueled this growth, I believe we have just seen the tip of the iceberg.

As technology continues to evolve, we all stand to benefit with not only new conveniences, devices, and capabilities, but also increased competition in almost every industry. And as a strong believer in competitive marketplaces because of the benefits they provide to consumers, I must say I am excited about the effect that Internet protocol-enabled services are having on the telecommunications industry.

Voice-over Internet Protocol is already shaking things up. According to a recent study, there were more than 1 million VoIP subscribers at the end of 2004, which was 8 times as many as just 1 year earlier. A technology research firm predicts that there will be 16 million subscribers by 2008.

With that kind of growth, it is imperative that we address some major issues surrounding VoIP in the very near future.

Because VoIP is so new and different from the way in which telephone calls have always been made, we have a unique opportunity to use the VoIP issue to set some important precedence for the future of the telecommunications industry. For a while, it seemed that the biggest issues seemed to be who should have the right to regulate VoIP services. And while I believe that the FCC acted correctly in declaring these services as interstate in nature and therefore not subject to State regulation, I remain sensitive to some of the issues that have been raised by State public utility commissioners.

Most notably, I believe there is a need for an effective and reliable E-911 network. My instinct tells me that technology will eventually solve this problem, but the tragic incident in Houston that Mr. Melcher will testify about makes a pretty strong case for close government scrutiny of E-911 functionality.

The fees that telecommunication companies pay into the Universal Service Fund or must pay to each other in connection charges will always be vitally important to promoting competition

in the industry. As we consider how these fees should relate to VoIP technology, we must do so carefully so that we do not slow its growth as a significant driver of competition within the industry.

There are, of course, countless other important issues we have to address if we truly want a competitive industry. It is clear to me, though, that we are on the cusp of seeing an industry-wide transformation driven by the promise of VoIP.

I also want to thank our witnesses for agreeing to appear before us to testify today. I look forward to hearing your views on the promises and risks we face as we move forward in the process.

Mr. Chairman, I thank you, and I yield back the balance of my time.

Mr. UPTON. Thank you.

Mr. SHIMKUS.

Mr. SHIMKUS. Thank you, Mr. Chairman.

Three brief points. We know that many 911 calls over Voice-over Internet Protocol are not being sent to the appropriate piece apps, and we know that the public expects that when a 911 call is made that it will go to the appropriate emergency responders.

With that, Mr. Chairman, I ask unanimous consent to submit the consumer alert posted by the Attorney General from the State of Texas over this issue.

Mr. UPTON. Without objection.

[The information is available at: http://www.oag.state.tx.us/alerts/alerts_view.php?id=79&type=1]

Mr. SHIMKUS. And the other point that I just want to highlight is people in rural America are really going to be concerned that this accessibility of this technology will never roll out to them, and representing 30 counties in the southern part of the State of Illinois, of course, I have to raise that issue.

With that, Mr. Chairman, thank you, and I yield back.

Mr. UPTON. Thank you.

Mr. DINGELL.

Mr. DINGELL. Mr. Chairman, I thank you, and I commend you for holding this hearing.

Voice-over Internet Protocol, VoIP, technology is profoundly changing the telecommunications marketplaces. Many predict that VoIP services will soon replace telephony as we know it as the dominant method of voice communications. If so, consumers stand to benefit from the greater competition, lower prices, and exciting new applications that VoIP promises.

As VoIP and other breathtaking technologies take hold, policy-makers must ensure the telecommunications laws keep pace and provide appropriate boundaries and guidance. Skepticism about over-regulation is a good way to start. I agree that it would be foolish to impose Title II common carrier regulation in its entirety on VoIP service offerings. Imposing legacy economic regulation runs the risk of stifling competition, innovation, and investment. Indeed, Congress anticipated that changes in technology might soon undermine the need for certain common carrier-type regulations when it granted forbearance authority to the Federal Communications Commission.

Some, however, would prefer not to use those tools effectively. Instead, they would classify VoIP as an unregulated information service subject only to the unspoken whims of FCC's Title I authority. I am troubled by this rush to remove all regulations. The FCC may well find that Title I, especially as interpreted by the courts, lacks the tools necessary to protect consumers. For example, when the FCC was recently called upon to stop a carrier from blocking another's VoIP calls, the Commission instinctively turned to its familiar Title II authority.

As we consider modernizing the Telecommunications Act and the FCC continues studying the proper regulatory regime for IP-related and enabled services, several overriding public principles must not be compromised.

First, there have long been social obligations attached to our system of communications which remain critical in an IP environment. These include preserving universal service, emergency services, law enforcement, and disability access.

Second, other requirements have been necessary to ensure fair competition and an efficient overall telecommunication system. Baseline interconnection, intercarrier compensation, numbering, and access requirements may need to be applied in this new environment.

Third, as we move forward, we should not take any action which would disrupt the ability of States to perform core consumer protection functions. These key policy principles are not dependent upon a switch-based architecture, so I commend those in the VoIP industry who are using their skills and rising to their broader social responsibility.

Unfortunately, some providers are shirking their duties and consumers are suffering the consequences. As we will hear today, the dialing of 911 through some VoIP services does not properly connect consumers to emergency services. It is critical that all industry players work together to find a VoIP E-911 solution. Consumers must not be put in the position of discovering the lack of 911 functionality too late or in the midst of desperate circumstances.

I hope that our witnesses will speak to the progress they are making to achieve these goals. As we reflect on the transformative nature of new communications technologies, we can not wipe away the core foundations that sustain our communications system for the benefit of all of our citizens.

And I would remind my colleagues on the committee and our witnesses that as we move in this direction, we must go in a fair direction. We must see to it that we treat all in the industry fairly and that the system which evolves through our leadership and the work of the Commission is one which, in fact, will work fairly to allow the market to achieve the kind of competition and the kind of result that will enable this country to best take advantage of the very best opportunities that exist in a competitive marketplace instead of having the kind of stultifying things, which we have seen of late happening through the unfortunate behavior of the FCC.

Mr. Chairman, I thank you for your kindness in recognizing me.

Mr. UPTON. Thank you very much.

Mr. Pickering.

Mr. PICKERING. Mr. Chairman, I thank you for your leadership on this issue and for the hearing today.

I want to just open with a little context of where we have been, where we are, and where we hope to get.

As you all know, we, on a very bipartisan basis, in the last Congress joined together in a very broad support across Congress to encourage the FCC to make sure that Voice-over Internet Protocol, that application was considered solely an interstate or Federal jurisdiction. The FCC took that action. And as we come in this Congress now to look at where we need to go, not only to codify and give certainty to the FCC decision on the preemption as it relates to voice, but in the broader context of all IP-related applications, the rights and the responsibilities as it relates to law enforcement, E-911 to universal service to what degree if IP networks or applications interact with PSTN, should there and under what formula should there be contributions to U.S. health.

Then as we look at the responsibilities in that regard, it is critical that we also address intercarrier compensation. And I think that any effort to address IP should also try to solve the intercarrier compensation issue as a way to clear that or give certainty to the compensation of networks and applications as we move forward.

The other issue that I think will be critical and will be highlighted today will be the need for interconnection. If we are going to have Voice-over Internet, we must have interconnection to be able to complete a 911 call. So the interconnection and the numbering, this is an opportunity for us to create the healthy environment for competition, for innovation, and for investment. But this is very critical that we get it right. I look forward to working with Chairman Upton, Chairman Barton, Congressmen Stearns and Boucher as we work together to find consistence on this committee.

And to that end, I plan to introduce legislation as we return from the April recess, that will address the issues that I believe that are important, finding the right, if you would call it, pragmatic partnership with States and localities for what should be regulated at the State but at the same time removing all barriers to entry so that we can have the certainty of investment with IP-related interconnections. The rights and the responsibilities, and then, as we move forward, what access to networks should be maintained as we make sure that in the new world where we have major mergers taking place, that there is the access and the interconnection that will guarantee—and the interoperability that will guarantee competition of networks and applications in the future.

I look forward to working with every member of this committee as I introduce the legislation and then as we move forward, Mr. Chairman, to find the common ground on a good, competitive investment and innovation strategy for the future of the Internet and telecommunications.

Thank you, Mr. Chairman.

Mr. UPTON. Thank you.

Mr. Markey.

Mr. MARKEY. I thank the chairman. And I thank you so much for holding this hearing.

The Internet-Protocol-based telecommunications services continue to make inroads into markets traditionally served through older technologies. These digital service offerings are exactly the kind of innovative broadband services the Telecommunications Act of 1996 was intended to unleash.

Over and over again, in 1994, 1995, and 1996, we had this conversation about how the Telecommunications Act would create the new digital era. And now we are 8 years deep into it, and it is great that we can just continue this conversation. And it was because of the all-content voice, video, data, or a combination that can now be expressed in packets of zeros and ones that these digital packets can be delivered almost over any broadband telecommunications infrastructure. The first hearing we had on that was back in 1989, 1990 that we would move to packet switching. The company which invented it that built the Internet was hired to do the Internet. It was up in my Congressional District. We had the hearings down here talking about how we would move to packet switching in 1989 and 1990.

These Internet-based technologies are buffeting many of the incumbent marketplace participants across many industries. In the telephone market, consumers stand to benefit from advances in technology, such as VoIP, which possess the ability to bring additional features and services and lower costs to what we once called plain old telephone service.

Policy makers need to foster initiatives that promote greater broadband competition. Such competition is necessary to drive broadband access prices for consumers lower. The whole key to the deployment of this broadband technology has been robust, market-based, Darwinian, paranoia-inducing competition. The Bells had invented broadband DSL back 20 years before but still hadn't deployed it until we introduced competition. And this committee did it, and they should be proud of it.

If VoIP providers are assured unfettered access to the consumer broadband marketplace, competition can flourish in a way that encourages innovation and price compassion. Consumers certainly deserve access to new Internet-based services, such as VoIP. Consumers also deserve to receive these services from multiple providers so that they benefit not only from access to these new technologies, but also from improved service quality and lower prices.

Yet consumers must also retain the important consumer protections developed over the years for these services. Consumer protections must be something that goes hand-in-hand with technological innovation, and this committee has done it over the last 70 years, and I know this committee is up to doing it once again to create that package of benefits for consumers. Just because some company delivering a telecommunications service utilizes a new technology to deliver it doesn't mean that the nature of the service itself changes, from a consumer standpoint. The need for consumer privacy rules, billing protections, fraud protections, emergency 911 services, law enforcement access, or ensuring affordable, residential service does not disappear simply because a voice call travels in packets rather than in dedicated circuits. We all know that on this committee. This is the expert committee. We know that dedicated

circuits and packets are all the same, from the perspective of the consumer in terms of what they are expecting.

Public safety and public interests are directly implicated by the lack of some of these rules for the VoIP marketplace. The Commission's ad hoc regulatory classifications over the last few years have left providers without clear obligations or clear rights and have left consumers without adequate consumer protection and disclosure, particularly as it pertains to emergency 911 service.

Today's hearing will provide us with an excellent opportunity to hear how the industry is confronting the rise of Internet telephony and allow us over the coming months to gauge whether any changes are necessary to existing telecommunications statutes or whether adjustments in this area is solely needed to regulatory interpretations of existing laws.

Mr. Chairman, I thank you for this all-important hearing.

Mr. UPTON. Right on the nose, 5 minutes.

Ms. Wilson.

Ms. WILSON. Thank you, Mr. Chairman. I look forward to this hearing today, and thank you for holding it, because some of the issues that we are facing in this subcommittee are important ones and they will determine how quickly this technology can be available to consumers and how much choice people really get when we are changing the way we communicate with each other. And there are also—there are some challenges that we need to meet in order to make sure that consumers have low-cost service and a lot of variety and new technologies to communicate with each other. Certainly one that has been mentioned already is emergency response and making sure that these new technologies integrate well with the emergency response system so that no matter what kind of a phone you are using, you can connect with the police or the fire department that is near you. And we need to make sure that happens.

The second area that concerns me and many folks in the State of New Mexico is how these new technologies will affect service in rural areas. And we have—we made a policy decision a long time ago when everybody was still on party lines and hanging up their telephones on the wall that we should have universal service to telephones across America. And that policy decision I think still holds today, irrespective of the change in technology.

So we need to make sure that as people migrate to new technologies, like Voice-over Internet Protocol, how do we make sure that the mechanisms are still there to make sure that you can still get phone service of some type in New Mexico. And that is an important—that will probably require some statutory and regulatory change.

And the third thing is consumer choice. What is driving all of this is Americans' desire to have new technologies, new services at a lower cost, and that means in some way we may need to make sure that these new technologies have access to the network, that they can hook up to the network that is there so that innovative technologies—that you have an option to plug in your Internet Protocol phone and that will work, because as a requirement for whoever owns the wires in your street, to let you plug in.

So those issues we are going to have to deal with here in this committee. I look forward to hearing what you all have to say about where these technologies are going and what consumers in America want.

And I thank you again, Mr. Chairman, for holding this hearing.

Mr. UPTON. Mr. Stupak.

Mr. STUPAK. Thank you, Mr. Chairman, and thank you for pledging to hold a series of hearings on how Internet Protocol-enabling services are changing the communications world. And thank you for focusing today's hearing on the Voice-over Internet Protocol, or VoIP.

VoIP and other emerging technologies hold great promise, and our communications law should reflect that promise. At the same time, any changes to the Telecommunications Act must take into account the challenges of providing communications services in rural America.

As we talk about VoIP today, we must remember that VoIP is meaningless without broadband.

Let me share how broadband is coming to part of my District.

The Upper Peninsula of my District has 200 communities, the biggest city being the city of Marquette, with only 20,000 people. In 2003, 80 communities had access to broadband. By 2005, that number had grown to 120 communities. I know that number will continue to climb, because communities realize what is at stake.

Just as towns bypassed by railroads became the ghost towns of the 19th century, towns without broadband will have no place in today's world. Simply put, rural communities will invest in broadband or they will become the ghost towns of the 21st century.

The communities of my District have worked hard to bring broadband home. They have used cable, DSL, wireless, and even satellite to do it. We have Wi-Max systems on top of water towers connecting to Wi-Max systems on neighboring water towers connected to cable or DSL. Necessity has fostered ingenuity.

But ingenuity alone will not and can not bring broadband to rural America. Rural America needs a strong universal service system that is responsive to its needs and is well funded. Broadband came to the Upper Peninsula through the USF funds. USF funds were used to link all 15 hospitals in the Upper Peninsula and to link 45 libraries as well as to bring long distance learning to schools. At the same time, the incumbent carriers in my District heavily depend on the universal service and access charges to maintain and upgrade their systems and to provide broadband themselves.

Dedication of the small, independent, incumbent carriers have made them innovators. While SBC waited until a year ago to bring broadband to the Upper Peninsula for economic reasons, the small, independent carriers and cable have been providing broadband for more than 3 years.

The communities of my District depend on independent incumbents for broadband. But these carriers depend upon universal service and the intercarrier compensation to survive.

Therefore, the first rule of any reform must be, first, do no harm to universal service and intercarrier compensation. We need to address the funding challenges to USF in a way that does not shrink

the pot. We need comprehensive reform of the intercarrier compensation system in a way that recognizes the dependence of these funds by our rural providers who go where no one else wants to go and provide some of the most progressive telecommunications services.

We must also look at ways to embrace new technologies that can help rural America become an equal partner in this digital revolution. It is time all communities in my District and other areas of rural America are connected to the future.

Mr. Chairman, thank you for holding this hearing, and I look forward to future hearings on this issue. And I will be in and out since we have got three hearings all scheduled at the same time.

Mr. UPTON. That is why we are against cloning.

Mr. Barton.

Chairman BARTON. Thank you, Mr. Chairman.

We would like to thank you for holding the hearing today. Voice-over Internet Protocol, or VoIP, is a revolutionary technology. It has begun to have a revolutionary effect on the telecommunications industry. VoIP's services are slowly but surely entering the mainstream. This hearing isn't an ad for Vonage, but it is worth pointing out how that pioneer company has over half a million telephone customers now thanks to its inside innovation. Cable companies like Cablevision and Time Warner are beginning to also offer VoIP services to everybody they know. Comcast plans to offer its version of VoIP to 95 percent of its network by the end of this year, I am told.

Regardless of who offers it, we want all Americans to have the option to pick up their telephones and talk to one another over the Internet as if they were talking over phone lines, only cheaper. Voice communication is only the beginning.

VoIP is the baby that the Internet left out on our doorstep. It is up to us to raise it. If we don't smother it with stacks of loving regulations, it will grow up and make us proud. As VoIP goes mainstream, Congress and the FCC need to ensure that the proper regulatory framework is in place so that VoIP's services can thrive.

Last November, the FCC took the right step, at least in my opinion, in declaring the VoIP services to be interstate, subject to the FCC's exclusive authority. That ruling ensures that the fledgling VoIP providers will not be bogged down with 52 potentially different sets of regulations governing VoIP. The FCC in its IP-enabled services proceeding also has a number of other policy-related decisions to make.

This year, it is my intention to work with Chairman Upton, Mr. Dingell, Mr. Markey, and other members of this committee to craft legislation that reflects how much technology has changed the communication industry and the manner in which that industry should be regulated. This committee will have a number of decisions to make regarding policy issues surrounding the deployment of VoIP services. For example, should Congress statutorily declare VoIP services to be interstate? How should VoIP's services be classified? Should VoIP providers have the right to interconnect with the public switch telephone networks? Should VoIP providers contribute to universal service? What should be the compensation scheme between VoIP providers and telephone companies? Should VoIP pro-

viders be required to provide any 911 services? And how can Congress ensure that consumers have the freedom to use whatever VoIP provider they want without interference from the underlying broadband provider? These are all important questions and deserve serious consideration.

I hope that our witnesses today can help shed some light on these issues faced by our committee. I look forward to the testimony. I want to thank each of you for being here today.

[The prepared statement of Hon. Joe Barton follows:]

PREPARED STATEMENT OF HON. JOE BARTON, CHAIRMAN, HOUSE ENERGY AND
COMMERCE COMMITTEE

Mr. Chairman, thank you for holding this hearing today. Voice over Internet Protocol, or VoIP, is a revolutionary technology that has begun to have a revolutionary effect on the communications industry.

VoIP services are slowly but surely entering the mainstream. This hearing isn't an ad for Vonage, but it sure is worth pointing out how that pioneer company now has half a million telephone customers, thanks to its insight and innovation. Now cable companies like Cablevision and Time Warner are offering VoIP services to everybody they know. Comcast plans to offer its version of VoIP throughout 95 percent of its network by the end of this year.

Regardless of who offers it, we want all Americans to have the option to pick up their telephones and talk to one another over the Internet as if they were talking over phone lines, only cheaper. And voice communication is only the beginning.

VoIP is a baby that the Internet left on our doorstep. It's up to us to raise it. If we don't smother it with stacks of loving regulations, it will grow up and make us proud.

As VoIP goes mainstream, Congress and the FCC need to ensure that the proper regulatory framework is in place so VoIP services can thrive. Last November, the FCC took the right step in declaring VoIP services to be interstate, subject to the FCC's exclusive authority.

That ruling ensures that fledgling VoIP providers will not be bogged down with 52 potentially different sets of regulations governing VoIP services. The FCC, in its IP-enabled services proceeding, also has a number of other policy-related decisions to make.

This year, it is my intention to work with Chairman Upton, Mr. Dingell, Mr. Markey, and other Members of the Committee to craft legislation that reflects how much technology has changed the communications industry and the manner in which the industry should be regulated. This Committee will have a number of decisions to make regarding policy issues surrounding the deployment of VoIP services.

For example, should Congress statutorily declare VoIP services to be interstate? How should VoIP services be classified? Should VoIP providers have the right to interconnect with the Public Switched Telephone Network (PSTN)? Should VoIP providers contribute to universal service? What should the compensation scheme be between VoIP providers and telephone companies? Should VoIP providers be required to provide E911 services? And how can Congress ensure that consumers have the freedom to use whatever VoIP provider they want without interference from the underlying broadband provider?

I hope our witnesses will shed some light today on these and other issues faced by our Committee. I look forward to the testimony of our witnesses and I thank them for participating in today's hearing.

Chairman BARTON. Thank you, Mr. Chairman.

Mr. UPTON. Mr. Brown.

Mr. BROWN. Thank you, Mr. Chairman, and thanks to our witnesses for joining us this morning. I especially appreciate Ms. Puckett's suggestions in her testimony. Thank you for that.

VoIP is one of many new innovative technologies that is rapidly expanding and creating greater competition in the voice market. Investment in these technologies can truly be beneficial to everyone. While it is clearly important to support the emergence and success of these new technologies, affordable access to existing technologies should also be a priority. One clear example of the

need to ensure affordable access to VoIP, which is inexorably tied to the availability of broadband, without a broadband connection, you can not use VoIP.

As companies roll out their new services, their focus is predominantly on the most profitable customers and markets. Consumers in low-income and rural communities must not be squeezed out of this marketplace. If these customers can't gain access to affordable technologies and services, they lose ground in their ability to develop the skills necessary for higher paying jobs. And if small businesses can't gain access to new technologies, they lose the ability to compete and grow in today's more difficult economy. It is not only a consumer access issue, it is an economic development issue.

It is now more important than ever to preserve universal service and the e-rate program. These programs have provided not only crucial Internet access to schools and libraries in all of our Districts, but simple basic phone service to those who can least afford it but perhaps need it most.

I look forward to working with my committee colleagues to ensure everyone affordable access.

Thank you, Mr. Chairman.

Mr. UPTON. Mr. Bass.

Mr. BASS. Thank you, Mr. Chairman.

And rather than repeat what has already been said, I would simply like to say that I certainly agree wholeheartedly with the good remarks of my colleagues from Texas and New Mexico and Michigan, Massachusetts. I think the issues have been very clearly outlined today, and I am look forward to hearing from the witnesses.

Mr. UPTON. Mr. Gonzalez.

Mr. GONZALEZ. I will waive.

Mr. UPTON. Mr. Towns.

Mr. TOWNS. Thank you very much, Mr. Chairman.

The landscape of the telecommunications industry is changing rapidly due to the ramifications and development of Voice-over Internet Protocol.

I would like to welcome, of course, the witnesses today, especially Tom Rutledge, the Chief Operating Officer from Cablevision in New York. Delighted.

Cablevision is offering voice video data services to many of our constituents and should also be recommended—or actually commended for taking the initiative early on to solve the 911 issue for voice subscribers.

While still in the beginning stage, adoption of Voice-over Internet Protocol is rapidly growing. And widespread adoption is expected with the next few years. As we look—put in the horizon and try to predict the development of this new service, I believe we should strive for a regulatory framework that protects consumers while still encouraging investment, innovation, and competition.

I am pleased that most companies offering Voice-over Internet Protocol recognize that we must balance the need to promote the technology with the need to protect consumers at the same time. The question is where is the balance. For me, when it comes to 911 services, I strongly believe that all voice providers must be able to provide this service. Consumers have come to expect this service, and the future of someone's life should not depend on who their

phone service provider is. To encourage investment, companies must operate under a predictable, national framework for services pricing and intercarrier compensation.

Finally, as we work toward a framework that levels the playing field among all telecommunication competitors, I am not convinced, at this point, that we can foster the most competitive environment by just tackling Voice-over Internet Protocol or whether a broader approach to what all Internet service is needed.

Thank you very much, Mr. Chairman, and I look forward to hearing from our witnesses.

On that note, I yield back.

Mr. UPTON. Mr. Terry.

Mr. TERRY. I waive.

Mr. UPTON. Mr. Ferguson.

Mr. FERGUSON. Thank you, Mr. Chairman. I appreciate you holding this hearing.

This year, we certainly have our work cut out for us as we take on a considerable task of updating and modernizing our telecommunications laws for the information age. The advent of Internet has changed the way Americans communicate in countless and exciting ways, and as a result, is changing the landscape of the telecommunications marketplace.

Traditional voice telecommunication services are no longer the only avenues open to consumers, and Voice-over Internet Protocol services are becoming an attractive, efficient, and affordable option. Along with the rise of VoIP services comes a wide array of policy issues that this subcommittee will need to consider and ultimately decide on as we revisit our telecommunications laws.

What comes to mind first and foremost is if, how, or when should web services be regulated, specifically, whether VoIP should contribute to the Universal Service Fund and whether they should be required to pay access charges to local exchange carriers to originate or terminate long distance calls as long distance carriers currently do.

Another facet we must consider is the public safety impact, how VoIP services will develop E-911 capability, and whether current laws enabling law enforcement to intercept and gather call information will apply to VoIP services are two important issues we must discuss.

I thank you again, Mr. Chairman Upton, for providing another opportunity for this subcommittee to discuss, learn, and debate the impact and future of IP-enabled services, and I look forward to hearing the perspectives of the witnesses before us today.

I yield back.

Mr. UPTON. Thank you.

Mr. Inslee.

Mr. INSLEE. I will waive.

Mr. UPTON. Mr. Wynn.

Mr. WYNN. I will waive, also.

Mr. UPTON. Mr. Whitfield.

Mr. WHITFIELD. I will waive.

Mr. UPTON. Well, thank you. Thank you all for your testimony.

At this point, we will move to our witness list. We appreciate—

Mr. WALDEN. Mr. Chairman.

Mr. UPTON. Oh, oh. Mr. Walden is recognized for an opening statement.

Mr. WALDEN. Thank you, Mr. Chairman. I will make it real brief, because they—a lot of these issues have been covered, but I am looking forward to hearing from our witnesses on a number of fronts, including reliability of VoIP, especially in emergencies, how we are going to deal with USF issues and payment into USF. On-line security issues with VoIP, do we face the same kind of hacking issues there that we see with other computer programs for identity theft and all. Interconnection issues, what happens if VoIP is determined an info service versus a telecommunication service? These issues are consumer—ability to fight back, frankly, when there are multiple entities involved in connecting your phone, how do we get around the blame game that can occur, has occurred? I have seen it in my own business, in other areas, and it is something I think consumers have a definite need to be able to turn somewhere to get relief. And finally, the intercarrier compensation issue are all that I think are important.

Mr. Chairman, I appreciate your holding this hearing, and I will sum it up with that.

Mr. UPTON. We have a place for you up here if you would like to move.

Mr. WALDEN. No, it is fine.

Mr. UPTON. All right.

Mr. WALDEN. Closer to the action here, Mr. Chairman.

Mr. UPTON. You are not going to be able to see that placard.

Well, at this point, opening statements are concluded, and I will make unanimous consent that all members not present at the moment are able to insert their statements as part of the record.

[Additional statements submitted for the record follow:]

PREPARED STATEMENT OF HON. CLIFF STEARNS, A REPRESENTATIVE IN CONGRESS
FROM THE STATE OF FLORIDA

Mr. Chairman, thank you for holding this hearing on Voice-over Internet Protocol, a technology that promises to give American consumers more choices and cheaper services.

Obviously, the treatment of these IP services will be a key area of focus for us as we revisit the 1996 Telecom Act, and it's critical that we get it done right. This is especially true when it comes to Internet telephony.

Thousands of Americans are signing up to use VoIP services each week, and the number of users has nearly tripled over the last three years. According to estimates, there will be between 17-20 million VoIP subscribers by 2008. The recent news that several prominent companies will start providing VoIP services for their customers should only help speed along these numbers.

Imagine how much more explosive this growth will become once we are able to expand broadband deployment and establish a national framework that provides legal and regulatory certainty in this arena.

That's why I was pleased to recently introduce legislation with my colleague from Virginia, Congressman Boucher, which proposes to provide an interstate framework of certainty not just for voice services, but also for video, data, high-speed services and whatever IP services that may come along in the future.

Five or ten years ago, it wasn't readily apparent that VoIP would be the killer application that it is today. We still don't fully know what other IP applications will be the "next big thing" down the road. As such, we might want to consider an approach that applies to IP-enabled services in general rather than each individual application, so that this innovative technology can be allowed to grow and flourish.

So our point would be, as we take another look at our telecommunications laws, why shouldn't we make it as flexible and as anticipatory as we possibly can? The fact is that VOIP and other IP services are revolutionizing the telecommunications landscape, and we should think about modernizing our laws to face this reality.

Maybe the conventional way of thinking isn't adequate. These are the type of questions that I hope to hear about in this hearing and the others to come.

Mr. Chairman, thank you for holding this hearing, and I am looking forward to hearing from the witnesses that we have here today, because they are the ones who are dealing with this emerging technology every day.

PREPARED STATEMENT OF HON. BARBARA CUBIN, A REPRESENTATIVE IN CONGRESS
FROM THE STATE OF WYOMING

Thank you, Mr. Chairman.

I'm pleased the Committee is continuing to examine how Internet Protocol (IP)-enabled services are changing the landscape of communications, today and in the not-too-distant future. The use of "information packets" has profoundly affected how we communicate, and will soon affect a wide array of advanced services.

This requires that Congress look at the legacy regulations that are crumbling under our feet as these technologies emerge, and act proactively to ensure all consumers—even those in the most remote corner of Wyoming—are served. I am one who believes in the promise of IP and how it can improve the choice and rich selection of competitive services for consumers.

Still, we need to ensure that innovation is rewarded. We need to ensure that the infrastructure is ubiquitous. And we need to ensure that one platform is not favored over another.

The lines between voice, video and data communications will soon be a memory. The challenge for Congress as we tackle changes to this nearly 10-year old law, is to ensure that those of us in rural America are not left using 19th Century technology in a 21st Century world, and that in so doing, we not crush innovations with oppressive restrictions.

I look forward to hearing from our distinguished panel on these matters Today and want to continue our dialog as we tackle legislation addressing these matters. I yield back the balance of my time.

PREPARED STATEMENT OF HON. ELIOT ENGEL, A REPRESENTATIVE IN CONGRESS FROM
THE STATE OF NEW YORK

Mr. Chairman: Thank you for recognizing me and thank you for holding this hearing.

I understand that members of the John family from Houston are in the audience. I want to express my sympathies for the pain your family has endured. I also want you to know that as we move forward I am personally pledged to ensure that every company that provides voice telephone services WILL be compatible with 911. PE-RIOD.

Mr. Chairman, we have much work to do this year if we are to write a comprehensive bill that provides the clear, level playing field to all players in this great industry.

The need for a more comprehensive rewrite versus a limited one is exemplified by the number one issue we all agree on—regardless of party or where we come from—911 compatibility.

One of the companies before us today, Cablevision, which provides services to about 90% of my district, is fully compatible with the 911 systems with their VOIP service. They accomplish this by handing off all their calls to a CLEC, who then transfers these calls throughout the POTS—plain old telephone system.

I applaud Cablevision for their efforts. They are serving as an example of a VOIP provider doing the right thing.

However, the Chairman of the full Committee, as an engineer himself, might not be as appreciative because they have chosen a solution that is not elegant.

Engineers are always looking for an elegant solution. (PAUSE) But, we in Congress make sausage!!!

I would argue that to solve what are more regulatory problems than technical problems, Cablevision has set up its CLEC so that it would have a clear framework in law and regulation to operate within. In terms of compliance with 911, this provides an interconnect guarantee. However, if they were just a VOIP provider, they would not enjoy the benefit of a right to interconnect.

Thus, we in Congress expect and will soon legislate that VOIP be 911 compatible. But, right now they do not have the legal right to fulfill this responsibility.

Yet I believe the elegant solution would be that Cablevision as a company could be providing a suite of "communications services" and not have to create subsidiaries to assist.

In fact, whether it is a cable, satellite or traditional telephone company—all are able to provide voice, video and data communication services.

We should provide a regulatory framework for the delivery of like services—not a different framework based on how those services are delivered to the consumer. I look forward to hearing the testimony from these witnesses.

PREPARED STATEMENT OF HON. BART GORDON, A REPRESENTATIVE IN CONGRESS
FROM THE STATE OF TENNESSEE

Thank you Mr. Chairman,

Telephones plays a unique and critical role in our society. Simply put, consumers rely on them to call for help.

If public safety obligations should apply to new IP enabled telephony services, and I believe there is consensus that they should, then these new services also should have the right to fully access the existing 911 system.

I am working on legislation to clear those policy barriers that can be cleared at the federal level to make sure that all IP enabled telephony providers can provide basic 911 callback number and location information services as quickly as possible.

This provides a competitive level playing field and is essential if IP enabled phone services are to be widely accepted by consumers as replacement for their traditional phone service.

Going forward, the new technologies hold the potential of providing better 911 services. For example, eventually a caller may be able to alert a 911 call center that they are Spanish speaking so translator services can be arranged. The good news, 911 deployments in the past, the equipment manufacturers, telephone providers and the 911 industry are working together on next generation of 911 deployment.

I look forward to the testimony of the witnesses on this issue.

Mr. UPTON. Witnesses, we appreciate your submitting your testimony in advance, so we were able to look through it last night. At this point, we are joined by the following witnesses: Mr. Paul Erickson, Chairman of SunRocket; Mr. Carl Grivner, CEO of XO Communications; Mr. John Melcher, Executive Director of the Greater Harris County 911 Emergency Network; Ms. Karen Puckett, President and COO of CenturyTel; Mr. Thomas Rutledge, COO of Cablevision, no questions about the Knicks today, I want you to know; and Mr. Mark Shlanta, CEO of the South Dakota Network Communications. We welcome all of you, and we would like you to limit your remarks to no more than 5 minutes. Your testimony is made part of the record in its entirety.

I will warn you in advance that we are expecting a series of votes momentarily, so we will have to break at such a point and return, but Mr. Erickson, we will start with you. Welcome.

You need to hit the mike button as well right there.

**STATEMENTS OF PAUL ERICKSON, CHAIRMAN, SUNROCKET;
CARL J. GRIVNER, CHIEF EXECUTIVE OFFICER; XO COMMUNICATIONS;
JOHN MELCHER, EXECUTIVE DIRECTOR, GREATER HARRIS COUNTY, 911 EMERGENCY NETWORK;
KAREN PUCKETT, PRESIDENT, CHIEF OPERATING OFFICER, CENTURYTEL, INC.; THOMAS M. RUTLEDGE, CHIEF OPERATING OFFICER, CABLEVISION SYSTEMS CORPORATION;
AND MARK SHLANTA, CHIEF EXECUTIVE OFFICER, SOUTH DAKOTA NETWORK COMMUNICATIONS**

Mr. ERICKSON. Thank you, Mr. Chairman, and members of the committee for inviting me to speak before you this morning. My name is Paul Erickson, and I am the Chairman and Co-Founder of SunRocket, an Internet phone company based in Vienna, Virginia.

Not long ago, it would have been impossible to create a nationwide, residential phone company due to the cost and complexity of

securing rights of way and building local networks reaching into American neighborhoods. Now with the surging broadband adoption and the wonders of Internet telephony, we can create a high-quality, far-reaching phone service that sets new standards in functionality and value. In less than a year, with a handful of employees, we built SunRocket from a blueprint into a coast-to-coast service provider, with thousands of satisfied customers across 38 States. We offer a full year of home phone service for a flat rate of \$199, including unlimited local and long distance calling, a bucket of free international minutes, a free extra phone number, emergency 911 calling, over a dozen free enhanced calling features plus all of the necessary equipment you need at no extra charge. That is the kind of value and innovation that Voice-over IP technology has made possible.

Our topic today is to discuss how public policy can enable and unleash the potential of Voice-over IP technology while making certain that consumers are protected, that competition is fair and vigorous, and that public safety is ensured. We can agree on the goals, but the best policy approach to reach those goals depends on your vantagepoint. Contrary to what some people think, not all Internet phone companies are looking for a free ride or to avoid social and civic responsibilities. At SunRocket, we believe that prudent regulation is a very good thing. We believe that States should have an active role in fostering competition and protecting their citizens. We believe that phone companies, whether old or new, regardless of their underlying technology, have certain responsibilities to ensure public safety and universal connectivity. We believe that these things can be achieved without burdensome or oppressive regulation or taxation.

My hope is that we can agree that our first priority is to ensure that consumers get what they expect and what they deserve. Primarily, they want a choice in providers. They recognize that fair competition is the best way to foster innovation, low prices, reliable quality, and responsive service. The option to switch from company A to company B without hassles, penalties, or risk is by far the best way to force companies to behave in the best interest of their customers. However, Americans do not believe that a choice between their legacy cable and phone companies qualifies as sufficient competition for home phone service. We recently completed a pole of over 2,000 Americans, asking them what they wanted from phone and broadband services and what they believed about the competition in the category. Only 10 percent of them stated that a choice between the phone and cable company for home phone service represent a sufficient competition.

From a consumer standpoint, fairer phone competition requires only a few basic things. Consumers don't care about things like intercarrier compensation, subsidies, or cost recoveries, but they do care about their phone number. If they want to switch phone companies, they want their phone number to transfer flawlessly, immediately, with no effort on their part. Today, the process of moving a phone number from an incumbent phone company to an Internet phone company can take weeks if it can be done at all.

Fairer competition also means that they can switch phone companies without facing outages and inconveniences associated with

other household services that they rely on. That is often not the case today. In fact, in most areas, if a DSL customer wants to switch to Internet phone service, they are forced to go through the hassle of canceling their DSL service and installing cable broadband service.

For the promises of Internet-enabled services to be fully realized, we also believe that proactive policy action to ensure net neutrality is essential. Today, consumers have rarely been subjected to deliberate interference, disruption, or blocking of Internet-enabled content and applications, and they are extremely passionate about keeping it that way. In the recent consumer poll I described earlier, 97 percent of those voicing an opinion on this subject said that broadband providers should not be allowed to control what they access over the Internet other than to protect them from potentially harmful computer viruses and block illegal activities. Rarely do consumers so universally agree on any subject, which should give this committee sufficient reason to act on this point.

Another critical issue was emergency 911 calling. SunRocket has worked to provide our customers with the best 911 service that we could profitably provide. Unlike some other Internet phone companies, the majority of SunRocket customers are enabled with enhanced 911 calling, which automatically delivers the name and location information to emergency operators, and we are working to extend that capability to all of our customers as fast as we can. We would welcome assistance from policymakers in enabling Internet phone companies to get fair, efficient, and economic access to the existing emergency 911 infrastructure, and I believe it would be prudent to support investments to upgrade that infrastructure to allow emergency call centers to benefit from enhanced IP-enabled services. Given the criticality of 911 calling and to ensure that Internet phone service reaches its full potential, SunRocket supports a requirement that all phone companies will issue standard phone numbers and offer the capability to place outgoing phone calls using standard telephones and must also provide 911 service as long as all phone companies have efficient and effective access to the existing 911 infrastructure.

In conclusion, SunRocket remains committed to bringing Internet phone service to mainstream consumers, and we feel that part of the role of a consumer champion is to advocate sound public policies and ensure the health and future of Internet phone service in a regulatory environment that protects and advances the social goals of our country.

I applaud the efforts of this committee to ensure vibrant competition, foster innovation, and protect consumers.

Thank you again for the opportunity to speak with you today.

[The prepared statement of Paul Erickson follows:]

PREPARED STATEMENT OF PAUL ERICKSON, CHAIRMAN AND CO-FOUNDER,
SUNROCKET

Thank you, Mr. Chairman and members of the Committee for inviting me to speak before you this morning. My name is Paul Erickson, and I am the Chairman and co-founder of SunRocket, an Internet phone service provider based in Vienna, Virginia. Prior to creating SunRocket, I spent 16 years with MCI in marketing and business strategy roles, and I have a great appreciation for the role that policies and regulation play in fostering competitive markets and consumer value and protection. My career in this industry began prior to the Bell System break-up, and I've lived

through equal access implementation and the creation of long distance competition, the emergence of wireless and the Internet, and the reshaping of the global telecom industry. Along the way, I designed services that capitalized on changing economics and regulation, that brought competition to toll-free and collect calling, international long distance and local phone service. I recognize how the pieces fit together in this industry, and the enormous potential of the Internet to improve, disrupt and transform how we live, work and play. I admire and applaud the efforts of this committee to shape the policies that will ensure vibrant competition, foster innovation and protect consumers.

Internet phone service has been the subject of much debate, discussion, attention, and sometimes, downright hype, over the past year. We've read countless articles on how the technology is revolutionizing communications, changing the way we work and live, and bringing a generation of Internet users into an IP enabled world.

And by the way, all of this is true.

Not long ago it would have been impossible to create a nationwide residential phone company, due to the cost and complexity of securing rights of way and building local networks reaching into American neighborhoods. Now with surging broadband adoption and the wonders of Internet telephony, we can create a high-quality, far-reaching phone service that is better than anything that's out there from a feature, price and value perspective. In less than a year with just a handful of employees, we built SunRocket from a blueprint into coast-to-coast service provider, with thousands of satisfied customers across 38 states. Our customers pay a flat rate of \$199 for an entire year of a phone service. And that doesn't just include unlimited local and long distance calling. For SunRocket customers, it also means a bucket of free international minutes, a free extra phone number, emergency 911 calling, over a dozen free enhanced calling features, all the necessary equipment you need at no extra charge, and just in case, a 31 day risk-free guarantee. That's the kind of value and innovation that Internet telephony has made possible.

We look at Voice-over-IP as simply an enabling technology, albeit a groundbreaking one. But for us, SunRocket isn't about technology. It's about creating a far better phone company, one that delivers phone service to customers the way they deserve to get it. Innovative features that give consumers more control over how they can stay in contact with others, and filter out unwanted contacts. Straightforward pricing that eliminates phone bill confusion and saves them money. The technology, economics, and policy climate for Voice-over-IP finally reached the stage where it is ready for prime time, and we were ready for it.

I realize we are not here today to discuss the tremendous benefits of Voice-over-IP technology, as most of us already agree on that. Our challenge is to figure out how public policy fits into this brave new world, how it can enable and unleash the potential of the technology, while making certain that consumers are protected, that competition is fair and vigorous, and that public safety is ensured. We can agree on the goals, but the best policy approach to reach those goals depends on your vantage point.

I think we can all agree that no matter where you stand—on the incumbent or new entrant side of the aisle—telecom policy is not so black and white anymore. I don't think any of us want to retrofit Internet phone service into the existing regulatory scheme we've fought over for years. Even if we tried, the technology simply does not allow it.

Contrary to what some people think, not all Internet phone companies are looking for a free ride or to avoid social and civic responsibilities. At SunRocket, we believe that prudent regulation is a good thing. We believe that states should have an active role in fostering competition and protecting their citizens. We believe that phone companies, whether old or new, regardless of their underlying technology, have certain responsibilities to ensure public safety and universal connectivity. We believe that these things can be achieved without burdensome or oppressive regulation or taxation.

My hope is that we can agree that our first priority is to ensure that consumers get what they expect and deserve. Having managed consumer research in this category for over a decade, this comes down to just a few simple imperatives.

First, they want a choice in providers. They recognize the fair competition is the best way to foster innovation, low prices, reliable quality, and responsive service. The option to switch from company A to company B, without hassles, penalties, or risk, is by far the best way to force companies to behave in the best interests of their customers. Furthermore, Americans do not believe that a choice between their existing phone and cable companies for phone service qualifies as sufficient competition. We recently completed a poll of over 2,000 Americans, asking them what they wanted in phone and broadband service, and what they believed about the competition in the category. Only 10% of them stated that a choice between the phone com-

pany and the cable company for home phone service was sufficient competition. Three-quarters of those voicing an opinion said that we need many competitors for home phone service, since that will result in the best service at the best prices.

The second thing that consumers expect is that phone companies will provide the basics that they've come to expect from home phone service. They expect it to work, reliably, 24 by 7. They expect to be able to call any phone in the world by dialing a regular phone number. They expect 911 to reach an emergency operator, 411 to reach directory assistance, and toll-free numbers to be toll-free. They expect to be able to block telemarketers from hassling them. They expect their bills to be clear and accurate. They don't need to know how all this works. They just want it to work.

Finally, like all taxpayers, they want some relief from the burden of taxes, fees, and surcharges that turn an advertised \$49 phone plan into a \$65 monthly bill. Of course, they also recognize that taxes are a fact of life—but they would like some way to make sense of it all, to be able to compare prices between competitors and to feel comfortable that they're getting what they paid for or paying for what they requested.

If we focus on those few things from a policy standpoint, I believe we can make a huge leap forward to create a fiercely-competitive yet profitable, innovative yet reliable, telecommunications industry. Of course, the key is enabling fair competition, so that consumers can easily switch from an underperforming provider to an alternative that offers a better combination of features, quality, value and behavior.

From a consumer standpoint, fair phone competition requires only a few basic things. They don't care about things like intercarrier compensation, subsidies, carrier profits, cost recoveries or details of how calls are routed from Boston to Botswana. But they do care about their phone number. If they want to switch phone companies, they want their phone number to transfer, flawlessly, immediately, with no effort on their part. Today, the process of moving a phone number from an incumbent phone company to an Internet phone company can take weeks, if it can be done at all. We believe that phone numbers should be controlled by the customer, and that no phone company has the right to hold those numbers hostage for any reason.

From a consumer standpoint, fair competition also means that they can switch phone companies without facing outages or inconveniences associated with other household services. That is often not the case today. In most areas, incumbent phone companies don't let their DSL customers keep their broadband, cancel their phone service and transfer their phone number to an Internet phone company. In order to switch to an Internet phone company, DSL customers have to go through the hassle of canceling DSL and installing cable modem service. It's easy to imagine broadband providers creating anti-competitive pricing structures to restrict adoption of Internet-enabled services, and many broadband providers are already engaged in the practice, charging huge price premiums for standalone broadband service. These practices impede the kind of competition that consumers are asking for.

For the promises of Internet-enabled services to be fully realized, we believe proactive policy action to ensure Net Neutrality is essential. To date, consumers have rarely been subjected to deliberate interference, disruption, or blocking of Internet-enabled content and applications, and they are extremely passionate about keeping it that way. In the recent consumer poll I described earlier, only 3% of Americans think that broadband providers should be allowed to block access to services and websites that compete against that company's services. 97% of those voicing an opinion said that broadband providers should not be allowed to control what they access over the Internet, other than to protect them from potentially harmful computer viruses or block illegal activities. Rarely do consumers so universally agree on any subject, which should give this committee sufficient reason to act on this point. Failure to do so could enable broadband providers to block Internet-enabled video, voice and information services, which would impede the vigorous competition desired by consumers and policymakers alike. There is no justification for broadband providers to engage in tactics that deliberately impede independent providers of voice, video and content services.

I mentioned earlier that consumers expect certain things from their phone company. Perhaps the most critical expectation is emergency 911 calling. While Internet phone companies are making some progress on this front, policymakers can play an important role in ensuring consumer safety. SunRocket has worked hard, at significant expense, to provide our customers with the best 911 service that we can profitably provide. Unlike with some other Internet phone companies, the majority of SunRocket customers are enabled with enhanced 911 calling, which automatically delivers the name and location information to the emergency operators, and we are working to extend that capability to all of our customers as fast as we can. All of

our customers have access to some form of 911 calling, though in some areas we can't automatically deliver location information with the call. While the inherent mobility of Internet phone service creates challenges to properly maintain correct address information, this can be accomplished in a number of ways. We would welcome assistance from policymakers in enabling Internet phone companies to get fair, efficient, and economic access to the existing emergency 911 infrastructure, and believe it would be prudent to support investments to upgrade that infrastructure to allow emergency call centers to benefit from enhanced IP-enabled services.

Given the criticality of 911 calling and to ensure that Internet phone service reaches its full potential, SunRocket would support a requirement that all phone companies who issue standard phone numbers and offer the capability to place outgoing phone calls using standard telephones must also provide 911 service, as long as all phone companies have efficient and effective access to the existing 911 infrastructure. Short of that, for the benefit and safety of consumers, at a minimum there should be a mandate that all Voice-over-IP providers who do not provide E911 fully disclose that to their customers in an obvious and transparent manner.

Finally, I would like to offer our views on a few other topics that often are included in policy debates related to Internet phone service. As I mentioned earlier, SunRocket does not expect a free ride. All Internet phone companies would agree that fair compensation is required for the exchange of traffic between networks. The ongoing debate over access charges mostly centers on whether the remaining subsidies baked into access charges should be extended to Internet phone traffic. A better question is how these subsidies can be removed from all intercarrier compensation mechanisms. As you know, this debate has raged for years at the FCC, and we can't solve this here, though a rational and efficient peering system should be the policy goal.

A related topic is reform of the Universal Service Fund program. Again the jurisdictional and economic issues are complex, but SunRocket supports the policy goal of universal access to phone service, and believe that the policy goal should be extended to residential high-speed Internet access as well. In fact, we believe that the universal service goal should increasingly be directed toward securing universal adoption of residential high-speed Internet access and less on maintaining subsidies for legacy telephone services.

The big questions are how to fund the program, what level of support is necessary, and what companies are able to access the funds. In 2003, over \$3 billion was distributed in high-cost and low-income support. That same year, FCC reports show nearly \$300 billion in industry-wide revenue from wireless and wireline telecommunications. While perhaps I have a simplistic view of the situation given jurisdictional revenue separations and statute service definitions, but it seems like a 1% Universal Service Surcharge applied to all telephone and ISP revenue would fully fund that program. Under that kind of mechanism, the revenue base is broadened and certain types of customers no longer bear a disproportionate amount of the costs. The system would define the minimum level of service, and any carrier who qualifies would be eligible.

In conclusion, clearly we have a lot of work to do, but I am confident we are all up to the task. SunRocket remains committed to bringing Internet phone service to the mainstream consumer and we feel that part of the role of a consumer champion is to advocate sound public policies that ensure the health and future of VoIP and regulatory environment that protects and advances the social goals of our country. We look forward to working with you, and again thank you for the opportunity to talk with you today.

Mr. UPTON. Thank you.

Mr. Grivner.

STATEMENT OF CARL J. GRIVNER

Mr. GRIVNER. Chairman Upton, Ranking Member Markey, and members of the subcommittee, thank you for the opportunity to testify today regarding Internet Protocol-enabled services and their effect on the voice marketplace. My name is Carl Grivner, and I am CEO of XO Communications, one of the Nation's largest facilities-based providers of telecommunication and broadband services.

Originally formed as Nextlink in 1996, XO is headquartered in Reston, Virginia, with 5,000 employees nationwide, has expanded its telecommunication offerings from its original 4 small markets to

70 metro markets in 26 States today. Our company provides a comprehensive array of voice and data telecommunication services to small, medium, and large businesses serving nearly 200,000 business customers. XO facilities and services have enabled us to develop into the only true national-local exchange carrier. We have invested heavily in building our own facilities, spending over \$8 billion and constructing over 1.1 million miles of fiber. We have an extensive set of metro fiber rings to connect customers to our network, and we own one of the largest and most advanced IP nationwide backbones in the industry. Furthermore, XO is North America's largest holder of fixed broadband wireless licenses covering the 27-gigahertz to 32-gigahertz Local Multi-point Distribution Service.

XO is actively working on alternative solutions to the so-called last mile access. IP-enabled services, like Voice-over Internet Protocol, or VoIP, are changing the voice and data marketplace. The Internet's explosive growth in recent years has focused intensive efforts worldwide on developing advanced IP-based networks and applications over existing broadband infrastructure. According to the FCC, roughly 32.5 million broadband lines connected homes and businesses to the Internet as of June 30, 2004. By 2008, residential and business broadband subscribers are projected to reach 57 million according to the Telecommunications Industry Association.

As IP-based technology have advanced, so has XO. We have one of the largest deployments of Sonus softswitches in the country, which serve 44 markets and deliver more than 600 million minutes of customer long distance traffic each month across our IP network.

Earlier this year, we launched a new industry-leading bundled Voice-over Internet Protocol solution that provides our customers true VoIP from origination determination over our own network coast-to-coast. We offer the scalability and capacity that many providers can not match in a comprehensive facilities-based offering. According to the market research, 12 percent of businesses used VoIP in 2004, up from 3 percent in 2003. With the addition of VoIP, we can expect that number to increase in 2005.

As we examine telecommunications reform, it is important to note that companies like XO can not offer these innovative services without access to so called last mile bottlenecks at reasonable rates and on reasonable terms. XO took the intent of the 1996 act to heart and built its own facilities and we continue to strive to serve more customers entirely over our own network. However, the costs, bill time, and local restrictions make it economically prohibitive to build alternative, last mile solutions for every customer. Until we can provide a more efficient system that is ubiquitous, as the legacy copper lines that connect the majority of homes and businesses, we will continue to need access to the last mile connections. If we eliminate cost-based, last mile access, it is virtually guaranteed that such an alternative system will never develop. Restrict local access and you restrict innovation.

Policy deliberations must also include an extensive discussion in how to apply current social obligations to IP-enabled services that substitute for traditional voice. XO pays a contribution to the Universal Service Fund equal to 11 percent of our interstate and international revenues. With some providers attempting to exploit the

lack of clear policy on VoIP, we need to ensure that all telephone service providers contribute to the Universal Service Fund or something similar on the same basis without regard to arcane, regulatory classification.

XO also supports obligations to ensure enhanced 911 services are available and accessible at all times, regardless of the provider. Providers of IP-enabled services must also look at providing access for the disabled. In addition, given the current national security environment in which we find ourselves, CALEA obligations are vital for law enforcement and homeland security. Finally, a just inter-carrier compensation scheme is necessary to ensure no one provider is either overburdened or riding free with these services. If the local exchange facilities are accessed, compensation should be due.

It is important that any legislation that seeks to amend significant portions of the 1996 act protect the underlying provisions that brought competition to the marketplace and in turn led to the innovations that we see today.

We look forward to working with the subcommittee on these issues, and I am happy to answer any questions.

Thank you.

[The prepared statement of Carl J. Grivner follows:]

PREPARED STATEMENT OF CARL J. GRIVNER, CHIEF EXECUTIVE OFFICER, XO COMMUNICATIONS, INC.

Chairman Upton, Ranking Member Markey, and Members of the Subcommittee; thank you for the opportunity to testify today regarding Internet Protocol Enabled Services and their affect on the voice marketplace. My name is Carl Grivner and I am CEO of XO Communications, one of the Nation's largest facilities-based providers of telecommunications and broadband services. Prior to joining XO as CEO in 2003, I served as Chief Operating Officer for Global Crossing and held various positions at telecommunications companies including Worldport, Cable & Wireless, and Ameritech.

Originally formed as Nextlink in 1996, XO has expanded its telecommunications offerings from its original 4 small markets to 70 metro area markets in 26 states today. Our company provides a comprehensive array of voice and data telecommunications services to small, medium, and large business customers. Our voice services include local and long distance services, both bundled and standalone, other voice-related services such as conferencing, domestic and international toll free services and voicemail, and transactions processing services for prepaid calling cards. XO data services include Internet access, private data networking, including dedicated transmission capacity on our networks, virtual private network services, Ethernet services, and web hosting services. XO is not your average CLEC. In fact, we really don't view ourselves as such. XO's facilities and services have enabled us to develop into a National LEC. We are in the business of building the physical infrastructure this country needs in order to benefit from the extraordinary innovations that are transforming the way we communicate. XO has invested heavily in building its own facilities spending over \$8 billion and constructing over 1.1 million miles of fiber. We have an extensive set of metro fiber rings to connect customers to our network, and we own one of the highest capacity and scalable IP backbones in the industry, capable of delivering data end-to-end throughout the United States at speeds up to 10 Gigabits per second. In building our networks, we have overcome obstacles city block by city block and office building by office building. Where the networks of yesterday use copper, we have installed fiber. Where the networks of yesterday use circuit switches, we have installed soft switches, optical switches, and the most efficient multiplexing technology. Finally, where landline network facilities are too expensive, we have invested heavily in wireless. XO is North America's largest holder of fixed broadband wireless licenses, covering the 27 GHz-32 GHz Local Multi-point Distribution Service, or LMDS spectrum.

IP ENABLED SERVICES

IP Enabled Services are, indeed, changing the voice and data marketplace. The Internet's explosive growth in recent years has focused intensive efforts worldwide on developing IP-based networks and applications. According to the Federal Communications Commission (FCC), roughly 32.5 million broadband lines connected homes and businesses to the internet as of June 30, 2004.¹

Over the past few years IP-based technologies have undergone rapid innovation. Many of these innovations have the effect of increasing the efficiency of the physical components of our network by increasing the effective capacity of networks for these types of applications. We believe that IP-based technologies will serve as the foundation of integrated networks that treat all transmissions—including voice, fax and video—simply as applications carried over an integrated transmission facility. Although not always the case, voice over IP, or VoIP, technology usually incorporates the quality of service necessary for commercial deployments and is increasingly price-competitive in terms of the equipment that is installed at the customer's premises. We expect that, over time, improved technology and the manufacture of sufficient volumes of equipment will make customer adoption of VoIP applications more prevalent.

XO recognized the value of IP-based technologies early on. We have invested a significant amount in this area. In fact, IP-based technologies are the single strongest pillar for the future of our company. As I mentioned earlier, we have deployed a large number of newly-developed packet-based switching technologies, including soft switch, optical and Ethernet switching. The soft-switch is a distributed computer system that performs similar functions to a circuit switch, but more efficiently. It can route and switch information at an extremely fast rate. In 2000, we began deploying softswitch technologies from Sonus Networks. Today, we have one of the largest deployments of Sonus softswitches in the country. Our softswitches serve forty-four markets and deliver more than 600 million minutes of customer long distance traffic each month across our national IP network.

Earlier this year, XO launched a new industry-leading bundled voice over Internet Protocol (VoIP) solution that will give business customers in Boston, New York City, Washington DC, and Baltimore enhanced features, functionality and value for their voice and Internet services. Full nationwide availability is expected by mid-April. This service, called XOptions Flex is an integrated voice and data service delivered to a customer over one converged facility, providing for one invoice from one proven supplier with one point of accountability. XOptions Flex will be available for a flat monthly price and include over twenty standard voice applications and features for each phone line and offer dedicated Internet access up to 3 Mbps. The service allows for what is called Dynamic Bandwidth Allocation which allows customers to maximize the utilization of a T1 circuit by allocating bandwidth to data applications while voice lines are idle; in this case, voice will always have priority. This is very different from TDM applications that require the user to fix the bandwidth either for voice, or for data. In addition, this service will allow customers to make real-time changes to their services configuration. We are truly empowering end users to design and use their own services in a manner that has never been possible before.

Though overall pricing for VoIP offerings is comparable across the business market, we offer capabilities that other providers do not. First, we offer a true VoIP solution. Rather than simply providing IP based transport between traditional phones, or taking an IP signal only up to the switch, we enable our customers to experience true VoIP from origination to termination. Second, we provide these services over our own local networks and over our advanced internet backbone. This gives us the scalability needed to continue to increase future offerings without significant bandwidth constraints. Further investment in compression technologies will bolster that ability. Third, we are nationwide, enabling coast-to-coast communication for our business customers.

From our perspective, this is only the beginning for VoIP and IP-enabled services. XO plans to continue to broaden its IP-based product portfolio this year and next to bring the benefits VoIP has to offer to an even larger market. We will build upon XOptions Flex to deliver enhanced features to larger and distribution organizations. As mentioned earlier, we expect customer adoption of VoIP applications to continue; especially as the quality of services offered increase and the costs of providing these services decrease. In 2004, the number of US business using VoIP grew to 12 per-

¹ See Federal Communications Commission *Report on High-Speed Internet Access Services, December 2004*.

cent, a substantial increase from just 3 percent in 2003.² We expect that to continue.

VOIP REGULATORY POLICIES

It is important to note that companies like XO cannot offer these innovative services without access to so-called “last mile” bottlenecks. This is not because we would rather piggyback our services over someone else’s lines, on the contrary, we prefer to provide services over networks that we own and control. And we have demonstrated that preference consistently; given the billions of dollars we have invested in our own infrastructure make that abundantly clear.

Unfortunately, the bandwidth requirements of most of our customers are moderate. We serve the long-neglected small and medium-sized businesses and the revenue opportunities associated with these types of customers are simply not large enough to justify construction of redundant loops. Moreover, building another connection to a customer building runs into a number of problems.

First is cost. A 500 ft “lateral” connection from an XO fiber ring to a customer building can cost at least a quarter of a million dollars, and that is if everything goes perfectly.

Second is time. It can take as long as 6 months to build another line to a customer building. Very few businesses are willing to wait that long for service.

The Third problem is local restrictions. The building owner may refuse to allow another line to connect to the premises. In addition, various municipalities can place restrictions on when and how you can construct a building connection.

In light of these inherent obstacles within the competitive industry, companies like XO are forced to lease many of these legacy “last mile” loops. This issue of loop access brings me to the discussion of what the public policy objectives should be in addressing VoIP. In the context of examining our telecommunications laws, I have heard two reoccurring comments from Members of Congress: the desire to (1) encourage and bolster facilities-based competition; and (2) maintain some form of regulatory certainty.

XO agrees both points. We took the intent of the 1996 Act to heart and built our own facilities to compete. We continue to invest and build and we are actively pursuing alternatives to “last mile” access through our broadband wireless licenses. On the second point, regulatory certainty is desirable for all industry participants in order to bring additional investment and growth to the sector; however, it depends on exactly what you mean by regulatory certainty. We don’t believe that regulatory certainty should mean eliminating current access requirements for incumbent telecommunications providers solely because IP based technologies are used. In fact, the same copper based T-1 lines that provide traditional voice are also used to provide VoIP services.

It is imperative that these policy goals be pursued in light of the specific circumstances of the telecommunications industry. considers public policy toward VoIP and its goals of encouraging investment and reducing regulation, it is important to keep in mind that the “marketplace” involves more than just residential telephone service. Most telecommunications discussions regarding regulation of IP-based services center around the looming “battle of the titans” between cable company facilities used for broadband and voice vs. telephone company DSL broadband and voice (as well as eventually video) in the residential market. In my opinion, this focus on the residential market is the primary driver behind the call for “regulatory parity”.

But, I must caution that policy makers keep in mind that two distinct types of markets exist in the telecommunications world: the residential market and the business markets. It is very difficult to apply broad regulatory principles based on one vision of the marketplace. It may or may not be wise to rely on the presence of cable companies in the residential market as an adequate constraint on ILEC market power. But cable companies cannot be relied upon to bring competition to the business markets, because, as the FCC recently concluded, cable companies generally do not compete in the business market. Thus, to accept a duopoly as an inevitable “better than nothing” version of competition in the residential market, without engaging in a separate view of the business markets, will ultimately doom healthy competition in the business market.

XO Communications provides the perfect example of my point. We are a robust competitor investing billions of dollars in our network, creating jobs and consumer benefits in the process. XO focuses this investment on competing with the telephone companies in the business markets, not the residential market. In truth, the vast bulk of telecommunications usage and investment in this country is for business

²See “Business VoIP: An End-User’s Perspective, 2004” (December 7, 2004). In-Stat/MDR

services. Individual consumer services are important, but it is the market for business telecommunications services that truly drives investment, growth, and innovation. Companies like XO are the key competitors in providing telecom services to businesses, especially the small and medium sized businesses that President Bush and most economists recognize to be the main sources of job creation and economic growth in America today.

Everyone here recognizes that competition is the key to stable telecommunications policy. However, there are critical government policies that must be clearly stated and vigorously enforced if competition is to continue to flourish.

Access to the so-called "last mile" must remain available for lease by competitors at reasonable rates and on reasonable terms. While XO strives to serve more customers entirely over its own network, the issues I mentioned previously (cost, build time, and local restrictions) make it economically prohibitive to build alternative "last mile" solutions in most cases.

I would like to make a point, however, that loop unbundling does not mean heavy-handed rate regulation. We are not a "why buy the cow, when you can get the milk for free" company. Do we believe that unbundled access should continue indefinitely? I don't believe that is prudent for the marketplace if it becomes feasible for competitors to build their own loops. However, as most of the Members of the Subcommittee know, the 1996 Act provided for a transition to facilities-based competition through Unbundled Network Elements (UNE) access. We're working tirelessly to get there, but until the industry can figure a way to develop a commercially viable and more efficient system than the legacy copper lines that currently connect virtually every residence and business, we will continue to need access to these last mile bottlenecks.

This situation is not unique to the telecommunications industry. In the electricity industry, independent power producers must also access existing transmission facilities of incumbent providers in order to move their power to the consumer, and at just and reasonable rates.

In addition, telecom policy must include an extensive discussion on how to apply current social obligations to IP enabled services that may substitute for traditional voice. Like other carriers, XO pays a contribution to the federal universal service fund equal to more than 10% of its interstate and international end user revenues. We understand the importance of universal service to our society. Today, however, the universal service contribution requirement has created a substantial amount of "regulatory arbitrage" by providers of VoIP. Carriers attempting to gain a competitive advantage seek to exploit the lack of clear policy on the regulation of VoIP, which, in turn, leads to an irrational application of universal service fees to some and not to others. This situation should be remedied so that all telephone service providers contribute to the universal service fund on the same basis, without regard to arcane and irrational differences in their regulatory classification.

XO also supports obligations to ensure E-911 services are available and accessible at all times, regardless of the provider. Providers of IP-enabled services must also look at providing access for the disabled. In addition, given the current national security environment in which we find ourselves, CALEA obligations are vital for law enforcement and homeland security. Finally, a just intercarrier compensation scheme is necessary to ensure no one provider is either overburdened or "riding free" when providing these services. If the facilities of a local carrier are accessed, compensation should be due.

While the FCC has open proceedings and summits to work on addressing these issues, it is important that any legislation that seeks to amend significant portions of the 1996 Act consider all ramifications and provide sufficient guidance so that clarity, investment, competition, and innovation can continue in the telecommunications industry—bringing even more exciting and competitive products to the consumer. I know that bills have been introduced by Representative Pickering and Representatives Stearns and Boucher on this issue. I thank them for their leadership and willingness to highlight the exact issues that we must debate.

Again, Mr. Chairman, I thank you for the opportunity to provide XO's views on IP Enabled Services and look forward to working with the Subcommittee on these important issues.

Mr. UPTON. At this point, we are going to adjourn. We are actually voting on the Markey amendment, so Mr. Markey needs to cast his vote early on the House floor. So we are going to stop at this point. We have a series of votes, and I think we should be prepared to come back with Mr. Melcher as early as—we will try for

11:45. It will not be before then, but we will try to come back at—between 11:45 and 12.

Thank you.

[Brief recess.]

Mr. UPTON. All my absent members promised that they were watching this on the TV in their office, I want you to know, but I think we will get started before the next wave of votes continues.

And Mr. Melcher, we are prepared for your testimony. Thank you again for going along with us on our delay.

And I would note that the Markey amendment won overwhelmingly, so he is a very happy guy.

STATEMENT OF JOHN MELCHER

Mr. MELCHER. Well, it is good to see you again, Mr. Chairman. Thanks for your time today, and my congratulations to Representative Markey.

We also would like to extend our gratitude to Representative Shimkus on your committee and Representative Eshoo, as they co-chair the House side of the E-911 caucus that we helped to get started a few years ago. Thank you for your time.

It is a pleasure to be in front of this committee, because this committee is the one that really gets it. You know, our issue is one of those that is not highly understood by the rank and file, and this committee is the one who really seems to get most of the detail. For those who do not know me, I am John Melcher. I am the Executive Director of the Greater Harris County 911 System, which serves metropolitan Houston. We are the second largest 911 system in the country. I also am a recent past-president of NENA, the National Emergency Number Association, and also representing my friends in the Texas 911 Alliance.

I brought with me, today, Mr. Chairman, Mr. Peter John and his daughter, Joyce, who were the subjects of a matter that has gained quite a bit of notoriety around the country, which was the home invasion that occurred in the southwest part of my jurisdiction in February. Mr. John and his wife were at home that afternoon downstairs. The daughter was upstairs.

Mr. UPTON. Could you just point out who they are?

Mr. MELCHER. Yes, right behind me.

Mr. UPTON. Thank you.

Mr. MELCHER. We are glad that they were able to take time to be here and—with us, and we are actually glad that Mr. John and Ms. John are actually here with us at all. February 2 some intruders invaded their home in an attempt to rob them, and actually shot Mrs. John while she screamed to her daughter, Joyce, who was upstairs. Joyce, who is 17 years old, grabbed the phone and did what everybody does when they are in need of emergency assistance. She dialed 911. She was greeted with a telephone recording that said, "Stop. You can not dial 911 from this phone." And the details are in my written testimony.

It is a tragedy not only because of the lack of access to 911, it is a tragedy that a 17-year-old has to go through such a horrific experience while her parents are being shot downstairs, but she thought it was the telephone instrument. She went to another instrument and tried it again. And only after the assailants fled was

she able to leave the house and go to a neighbor's house and dial 911. We believe that the time span there was about 10 minutes. Now fortunately these people were not very good shooters and Mr. and Mrs. John have survived their injuries and are healing very nicely. And God has blessed them. But in the 10 minutes that we lost, had their injuries been more life threatening, the outcome could certainly have been different. But even more so, the assailants are still at large. That 10 minutes probably could have made the difference in capturing the assailants or not. And so I am pleased that they are able to be here with us today to put a face on the down side of what happens when we go too fast.

You know, this is—I have appeared before your committee and others up here on the Hill several times, and I liken a lot of witnesses who testify before committees in two categories, begging or whining. We have never been in a position to do that, Mr. Chairman, and we are grateful to be able to come back to say that we are offering some hope, there is some light at the end of the tunnel, and we actually have some solutions for you.

In my written testimony, I took the role of raconteur and divided some of this into the good, the bad, and the ugly.

The good is that all of this technology that you have heard about today, and I won't go into it again, is great. It offers consumers more choices, more options, and gives assets to people who need them who couldn't get them before. The cost is bringing it down. So we have more people, more eyes and ears that have access to telephony and to communications devices. And those eyes and ears are reporting fires and crimes and emergencies and medical situations, so that emergency responders have better access to people who need help. But if we can't get them into 911, it is hard to help them. And if we can't find them, we can't help them.

So that is what we are here about today.

The bad is that as we look at all of these new technologies that are coming to bear, they are trying to plug into an antiquated and fragmented 911 system. And unfortunately, our system in this country today is Jurassic in nature. It is woefully lacking in the ability to adapt to new and emerging technologies. That is the bad part.

The ugly fact is that the system is so fragmented I don't know that we will ever be able to achieve where we are going as technologies continue to emerge unless we address some standardization and some upgrade to our 911 infrastructure. But as the ugly is so bad, it can also be good, because the very technology that poses challenges to us in the 911 industry, should we be allowed to embrace it ourselves, it may actually be a solution in our future, both near-term and long-term, and I want to talk more about the light at the end of the tunnel.

My fellow witnesses here today represent quite a good cross section. You have heard from ISPs in recent hearings as well as this one. You are hearing from incumbent local exchange carriers. They both have good arguments. They both have bad arguments. And they both talk out of both sides of their mouth, depending on who they are talking to. Some of them will go to the consumer and say, "Let us be your new phone company," but they will come to you and say, "We are not a phone company. You can't regulate us." But

I think the majority of them are trying and doing a yeoman's job. Some are doing an excellent job, and we will tell you about some successes in Houston. Others are not doing such a good job and are somewhat disingenuous in the way that they approach this, and we hope that the committee will address that.

As I see it, your job before you, as you looking at rewriting the Telecommunications Act, is to make sure that 911 is a good, key component. And we applaud that effort, because 911, as a forethought, not an afterthought, is going to help us in the future. As you know, when we went to wireless technology, and regarding that, we have been in front of you before, 911 was kind of an afterthought, and we spent a lot of time playing catch up.

But today we have a momentum that is built. And thanks to the effort of this committee and to Chairman Barton and all of those who really did it, we now have in place the Enhanced 911 Act. It has recently been signed into law. We obviously need to put a little more effort into that so that we get some good funding, which addresses the infrastructure that is so woefully inadequate that I described earlier, but it also lends some standardization capability and some national leadership capability in that joint program office. So getting that office up and running is very important and should be of the highest priority of your committee and this Congress. Getting some funding as far as grants are concerned to these E-911 systems up and doing what they are supposed to be doing is also a very, very high priority.

I bring you success stories from Houston. We have in place technologies that address the capability of interconnecting today under the old regular, or what the techies are calling I2 or Incumbent type situations. We have a method that we built for the automatic crash notification where we had police car crash data and voice that were able to get into our system and that is done.

Mr. UPTON. I might just ask you to summarize as you have—

Mr. MELCHER. Yes, sir.

Mr. UPTON. [continuing] exceeded your—I don't know if the clock down there is—

Mr. MELCHER. I didn't know if the timer was set for us or not, but I will summarize.

The issue is not a technological issue. It is a participation and a policy issue. We would encourage you to encourage the FCC to do some interim rulemaking while you guys wrestle with the Telecommunications Act. And we certainly appreciate your attention to this matter, because again, 911 as a forethought is going to help all of us.

Thank you, Mr. Chairman.

[The prepared statement of John Melcher follows:]

PREPARED STATEMENT OF JOHN MELCHER, EXECUTIVE DIRECTOR, GREATER HARRIS COUNTY 9-1-1 EMERGENCY NETWORK

Mr. Chairman and members of the Committee, thank you very much for providing me with this opportunity to appear before you today. My name is John Melcher, and I serve as the Executive Director of the Greater Harris County 9-1-1 Emergency Network where we administer the 9-1-1 system serving approximately 4 million people in the Houston, Texas metropolitan area.

THE VOIP 9-1-1 INCIDENT

Before we get started I would like to introduce a Houston family, the John family, to the committee members. Sitting behind me is Pastor Peter John, his wife Sosamma, and their daughter, Joyce. This family is quite fortunate to be here today, Mr. Chairman, as just a month ago both Pastor and Mrs. John were shot during a home invasion in their southwest Houston home.

A quiet Thursday afternoon at the John residence in the Mission Bend subdivision was horrifically interrupted when the family confronted home invaders attempting to rob the family at gunpoint. Pastor John and his wife were shot during the commission of the felony. As he bled from his leg wound, the father exhorted his daughter to call 9-1-1 to summon an ambulance for him and his injured wife. The daughter ran and grabbed the cordless phone, dialed 9-1-1, and received this recording: "Stop, you must dial 9-1-1 from another telephone. 9-1-1 is not available from this telephone line. No emergency personnel will be dispatched."

Joyce, thinking the problem was with the cordless phone, tried another telephone instrument in the house and got the same recording. After the assailants fled, frantic and desperate, she ran to a neighbor and dialed 9-1-1. Fortunately, her neighbor's service had access to traditional 9-1-1 features and Public Safety Answering Point call takers who immediately arranged an ambulance dispatch for Joyce's wounded parents. Needless to say this was an extremely traumatic incident that was exacerbated by a lack of access to emergency 9-1-1 services.

This family's experience typifies the American consumer's relationship with new and innovative IP-enabled services and the dramatic impact these services have on public safety. Call it what you may, grace of God, good fortune, or Karma, the John family experience with Voice Over Internet Protocol (VoIP) broadband telephone service is a compelling yet harrowing story about the benefits of IP-enabled services while highlighting the need to formulate a forward plan for the future of emergency services in this country.

I am a bit of a raconteur. I call the anecdote I relate to you today "IP-Enabled Services-VoIP. The Good, the Bad, and the Ugly." This story brings home the benefits of VoIP that draw consumers and will continue to do so, exponentially. That is the good. The story I relate today to this committee will also describe the increasing strain on an already stretched and aging 9-1-1 infrastructure. This I will call the bad. Finally, I lay out as fodder for future discussion the support you can give public safety for us to realize the benefits of IP-enabled services and enable PSAPs across the nation to deliver a more effective and efficient response for emergency calls that are delivered to PSAPs with enhanced information to the call taker. While this part of my story could be called the ugly, in reality it brings the storytelling full circle. This is because when 9-1-1 can fully realize the benefits of IP-enabled services that ordinary consumers are seeing today, then the ugly becomes the good for both Public Safety and the citizens of the United States.

THE GOOD

IP-enabled services VoIP services are dramatically changing the types of communications services offered to American consumers. The pace of technological innovation in the IP-enabled arena is unparalleled to any other time in modern communication industry. I have been involved in communications for over twenty-five years. Over 15 years have been in my role of a 9-1-1 system administrator. I would say that the revolution of IP-enabled services has a much greater impact on consumers than the divestiture of Bell System or the Telecommunications Act of 1996. Granted, both of the aforementioned watersheds in the annals of telecommunications history have helped usher in the IP revolution but the convergence of both voice and data in a unified architecture and protocol has a more direct impact on consumers.

These new VoIP services are lower in cost, offer more flexible features, and offer unlimited calling plans. These services are touted as superior substitutes to the regular circuit switched Plain Old Telephone Service lines (POTS) they are supplanting. The VoIP services are lower in cost for a myriad of reasons. First, VoIP services offered today do not carry the fee structure associated with regulated telecommunications services. Second, VoIP is unique in that the IP application, in this case VoIP, can be physically separated from the transmission medium, i.e. the copper twisted pair, fiber, or coaxial cable, that carries the IP packets to the consumer. Unlike traditional telephony, the IP-enabled service provider can choose to vend their services with or without the underlying transmission facility. This definitely can impact the price points associated with communications services. Lastly, some VoIP applications, both at the residential and enterprise levels, require fewer per-

sonnel to install and maintain and thereby can lead to reduced monthly recurring charges.

VoIP is also innovative in the flexibility it affords consumers. Traditional telephony necessitates that consumers contact their service provider to request the service provider activate features such as call forwarding, answering options, and personalized rings. New VoIP applications allow consumers to “design” their service. Follow me roaming, call screening, and personalized ringing can all be programmed by consumers via Internet access to their account. As more features of communications are pushed out to the end of the network and come under the direct control of the end user the services provided are more flexible and dynamic. While this empowers consumers in the communications market it also has an unintended consequence of making access to 9-1-1 services problematic. I shall discuss this in more detail shortly.

VoIP is the harbinger for the ultimate product for consumers in communications services: geographic number portability. VoIP combines low cost with flexibility by allowing a New York based talent firm to have Los Angeles area code numbers (flexibility) without the exorbitant costs associated with foreign exchange mileage and usage charges. The benefits for parents with children attending far away universities, elderly parents on limited incomes, and other similar consumer scenarios are easily envisioned.

The Johns opted for their Internet based VoIP because of the unlimited calling plan. VoIP services are generally marketed as a comparable substitute for traditional circuit switched local and long distance services. For families and small businesses that use long distance to keep in touch with family members or business contacts, this new technology is a very attractive enticement to supplant existing POTS services.

The future of IP-enabled services is even brighter as 3rd Generation(3G) wireless networks are deployed. Wireless broadband coupled with IP technology is poised to launch a new generation of IP devices that will allow mobile consumers a wider array of communication and information services. The future of communication—voice, data, text, video, etc.—is exciting and it is just around the corner.

Divestiture, competition, and deregulation of telecommunications have provided the required impetus of investment to bring a host of new and exciting communications services to consumers. This bodes well for the future public safety and emergency dispatch services. As the recently liberated Martha would say, “That is a good thing.”

THE BAD

It is no secret today’s 9-1-1 infrastructure is rooted in an era where communications service consisted of fixed-location, POTS lines installed by a monopoly telecommunications provider. This monopoly provider was expected to provide cheap and reliable 9-1-1 systems as a “social obligation” associated with being given monopoly rights. It was a symbiotic relationship for both the telephone company and the local 9-1-1 administrators. The telephone company benefited because their subscribers had easy access to emergency services. The 9-1-1 administrators could offer reliable emergency services while assessing small 9-1-1 service fees on subscriber phone bills.

The communications landscape has changed dramatically since Texas’ first enhanced 9-1-1 system was activated in Houston, Texas in January of 1986. Approximately 40% of our total 9-1-1 call volume is from wireless phones. The telecommunications providers in our area have mushroomed from 6 franchise telephone companies to over 200 competitive local exchange providers offering telecommunications as either pure resellers, facilities-based carriers using Unbundled Network Element (UNE) platforms, 3rd party facilities, their own facilities, or a combination of any of the aforementioned.

Our 9-1-1 system has changed little during this same period. We have pioneered competition in the 9-1-1 database management arena so as to have a neutral 3rd party assess the accuracy and timeliness of the Local Exchange Carrier (LEC) data being submitted into the 9-1-1 system. Our 9-1-1 network components are still provided to us by the incumbent LEC, SBC, in an uneasy but working relationship with Intrado, our designated 9-1-1 database management services provider. I say uneasy because the splitting of 9-1-1 network management from 9-1-1 database management, two processes that are functionally “joined at the hip,” is unheard of outside of Texas. The ILEC providing 9-1-1 services generally provides both of these key 9-1-1 service components.

Given the consumer controlled aspect of new IP-enabled VoIP services, especially those VoIP services that are Internet based, today’s 9-1-1 infrastructure, while long

on reliability, comes up short on its ability to accommodate these new technologies. Members of this committee, along with the FCC, have had a glimpse of what I am implying. Representative Shimkus, a strong and ardent supporter of E9-1-1 services, was instrumental in passing the recent ENHANCE 9-1-1 Act in the waning days of the last Congressional session. This legislation, when funded, will help facilitate the deployment of wireless 9-1-1 and in general improve the 9-1-1 infrastructure.

The lesson we learned with wireless was that the 9-1-1 system is extremely limited in its ability to handle mobile communication technologies. Consequently, the call routing logic was pushed back into the wireless carrier network. Wireless carriers use either a Mobile Positioning Center (MPC) or translation tables in the switch memory of the Mobile Switching Center (MSC) to maintain routing tables that associate cell tower with a PSAP for the routing of wireless calls. These tables are used to assign a pseudo Automatic Number Identification (p-ANI) that will correspond to a static record in the ILEC 9-1-1 system.

Some types of VoIP, especially applications relying on the Internet and existing broadband connections, share much in common with wireless 9-1-1. There is one distinct and major difference, however. Unlike wireless Phase II where the wireless service provider is responsible for accurately assessing the location of the user within FCC defined requirements for location services, *the Internet based VoIP services location is determined entirely by the end user*. This precludes automatic submission of user location data to the 9-1-1 system.

This is problematic for both consumers and public safety. Consumers have a reasonable and realistic expectation that access to 9-1-1 services is available on any communications service that is being touted as a replacement for POTS services. Public safety educators have done a yeoman's job in educating the American public about the benefits of 9-1-1 service. Ask any child over the age of 4 who should they call if Mommy can't wake up and the majority of them will tell you 9-1-1. Hardly a week goes by without some televised action show that has a dramatic scene where someone yells, "Call 9-1-1." Furthermore, the public expects that access to 9-1-1 services is not only ubiquitous it is also automatic. That is, the consumer need do nothing more than request communications services. Providing location of service usage is an alien and foreign concept to many consumers.

PSAPs personnel, while trained to handle emergency calls irrespective of how they come into the PSAP with or without the attendant data, have come to rely on the public's knowledge of 9-1-1 to pattern operational practices to optimize their response to emergency incidents. VoIP's inability to access the 9-1-1 system elements and the delivery of emergency calls to local telephone lines compels PSAP personnel to reassess existing PSAP call-handling procedures, in ways currently unknown both to the PSAP and to the VoIP provider. PSAP personnel need to know a relatively uniform call processing function for VoIP calls so as to properly train call takers. VoIP providers need to appreciate the call taking and dispatch function in PSAPs so as to provide the optimal information required by PSAPs for emergency calls placed by VoIP subscribers. This process takes time. In our business time equals money and may also equal lives.

This change of roles for the consumer as well as the PSAP personnel require 9-1-1 system administrators take on an extensive educational campaign to educate both the public and our PSAPs about the shortcomings of VoIP interfacing with the 9-1-1 system. This educational process may address immediate needs but may have the unintended consequence of diminishing the relevance of 9-1-1 in the public's eye. We are leery of any campaign that says "9-1-1 is the number for emergencies except if you use VoIP." Given the projected exponential growth of VoIP and other IP-enabled communications services coupled with the limited innovation in today's 9-1-1 services market, I can tell you this dilemma certainly represents the Bad in the IP-enabled Voice Market.

THE UGLY

I pose this question to the members of the committee, "Do you believe that ubiquitous access to 9-1-1 emergency services, irrespective of communication technology platform, is the only acceptable goal for 9-1-1 public policy?" If your answer to that question is "Yes" then you must accept as axiomatic the fact the existing 9-1-1 infrastructure must be completely overhauled so as to accept new and innovative technology platforms supporting IP-enabled services. The ramification of such a public policy position is a double edge sword. Imagining the benefits of a new IP based 9-1-1 system with enhanced data elements and bringing that reality to consumers is a goal that would fit quite nicely in any political platform. However, the reality of supporting two households, the existing log cabin and building the manor house, can be politically unpalatable during times of severe budget constraints.

The idea of a new and improved 9-1-1 systems based on packet technologies have been touted by outgoing FCC Chairman Michael Powell. Commission Copps recently iterated some of the same benefits of an IP-based 9-1-1 system when he spoke to NENA last month in Washington D.C. The FCC and many VoIP Providers are visionary in seeing an enhanced 9-1-1 infrastructure that not only includes ANI and ALI but also patient specific information such as medical records or language preference. This is all quite doable with the convergence of voice and data using IP on a unified platform.

I need to note that a major catalyst that brought about the first generation of 9-1-1 services is no longer in existence. The absence of this catalyst can be directly attributable to the same factors that have ushered in this communication revolution: namely the divestiture of the Bell system and the Telecom Act of 1996. The first generation of 9-1-1 systems, basic, and the second generation represented by enhanced features were both brought about through AT&T. AT&T developed the basic 9-1-1 technology and upgraded the platform for the enhanced features of ANI, ALI, and Selective Routing. Many of the country's enhanced 9-1-1 systems were installed after divestiture but nevertheless they have their roots in the old AT&T monopoly structure.

There is no nationally prominent catalyst such as AT&T that can serve to design, test, and deploy a third generation 9-1-1 platform throughout the United States. It is also very important to understand the dual role of the ILEC in the roll out of the first and second generation of 9-1-1 platforms. These platforms were rolled out prior to the Telecom Act of 1996 and the introduction of competition to the local exchange market. Then, it really didn't matter that the 9-1-1 service provider was also the only phone company in town. Now it does matter greatly. Remember that local regulators expected the ILEC to offer 9-1-1 at substantially reduced rates as return favor for enjoying monopoly presence in the local exchange market place. Therefore, 9-1-1 was never and is still not a profit center for the existing 9-1-1 service providers who for the most part are still the ILECs.

The competitive local exchange market also offers no incentive for the ILEC to upgrade the 9-1-1 infrastructure. Upgrades will only facilitate the interconnection of competing service providers. Currently the traditional interconnection to 9-1-1 system elements is under public utility commission approved interconnection agreements between certified local exchange carriers and incumbent local exchange carriers. Denying access of these 9-1-1 system elements to non-certified IP enabled providers serves only to create a natural barrier to competition for the ILEC. Simply put, why should the ILEC voluntarily allow competitors access to 9-1-1 systems and thereby further erode their existing customer base?

Lack of access to 9-1-1 system elements compels VoIP providers to seek other methods to deliver calls to PSAPs. These other methods likely do not get answered with the same priority or have the same information that is generally associated with traditional 9-1-1 call delivery. This has the effect of creating a caste system for emergency services.

Straddling the gap between generations can be a delicate balancing act for PSAPs, IP-enabled service providers, regulators, and legislators. There are costs associated with the support of two platforms for the duration of migration. These costs will be borne by all stakeholders. The existing 9-1-1 system is rooted in a geographically localized, dedicated trunk, and circuit switch platform paradigm. The cost to replicate this model nationwide for many IP-enabled service providers is just not economically sustainable. Many of these entrepreneurial IP-enabled providers have very narrow profit margins. It is probably wiser to focus these limited assets on building a new generation 9-1-1 platform and attempt to keep the costs associated with current generation interconnection at a minimum. This requires a realistic assessment of performance expectations of VoIP providers in the current architecture while avoiding "functional fixedness" when looking at ways to interconnect to today's 9-1-1 system elements. Functional fixedness is a term used in the practice of psychology which can best be described as follows:

People are often very limited in the ways they think about objects, concepts, and people. When something is thought of only in terms of its functionality, then the person is demonstrating functional fixedness. This type of thinking is narrow and limited, often inhibiting the problem solving process.

NEXT STEPS

The immediate need of 9-1-1 system administrators is to rip away the veils. Some VoIP providers wear the veil of "lack of 9-1-1 system element access" to cover their reluctance to spend money on 9-1-1 interconnection. Compelling the ILECs to open up access to 9-1-1 system elements irrespective of certification status will certainly

go a long way in removing this veil. Also, ILECs need to be compelled to allow new and innovative ways of allowing interconnection while not compromising system integrity. Some alternative examples of access would be implementing operational procedures to allow existing CLECs to serve as aggregators of emergency services instead of requiring each service provider to establish their own interconnection. This aggregation service is currently being offered by firms like Level 3 Communications but may require altering existing interconnection agreements.

Another solution is leveraging the Public Switched Telephone Network (PSTN) with proven technology. Greater Harris County 9-1-1 is using the PSTN to deliver emergency calls from telematics call centers to PSAPs via the existing 9-1-1 network, replete with ANI and ALI. I believe this same technology is being used for deliver of VoIP calls in Washington State and Rhode Island.

ILECs can also offer an aggregation service of their own by strategically placing IP gateways with existing 9-1-1 routers. All of these examples serve as viable alternatives to costly direct trunking. Local regulatory bodies could execute a national policy similar to local state public regulatory commissions executing the federal Telecommunications Act of 1996. This would make these alternatives available to new IP-enabled technologies needing to deliver 9-1-1 calls to PSAPs. Ripping away this veil of lack of access will squarely put the onus of making 9-1-1 services available a service provider decision.

Local regulatory bodies executing a national 9-1-1 policy can also assist 9-1-1 administrators in ripping away the “quality of service and network integrity veil” (ie, subterfuge or smoke screen) worn by the ILECs. As I mentioned earlier in my testimony there is currently nothing that would entice or compel the ILECs to open up access to 9-1-1 system elements that would facilitate the interconnection of competitors. Many ILECs do not allow non-certified IP-enabled service providers traditional access to 9-1-1 system elements because they fear for the integrity of the 9-1-1 network. It appears Bell South does not want to entertain alternative interconnection methods such as the PSTN solution being used in Greater Harris County 9-1-1 for telematics merely because it isn’t the traditional method of doing 9-1-1. Certification as a CLEC is no guarantee of sterling network integrity. The record books are full of examples of failed services by certificated local exchange carriers. Greater Harris County 9-1-1 had an incident where an end office was isolated from the 9-1-1 system because redundant circuits terminated in the same failed channel bank located in the LEC end office. Conversely, lack of certification does not automatically mean substandard network interconnection. In a competitive market place quality of service is a key product differentiator whether that service is provided by a certified CLEC or a non-certified IP-enabled service provider.

And functional fixedness should not drive the spending of resources to interconnect to the existing 9-1-1 system. If there is a proven and tested method that is cheaper than the traditional direct trunk architecture, then the ILECs providing 9-1-1 elements should be open to alternative interconnection methods. The veil of “network integrity” must be stripped away to obliterate the caste system that is being formed today.

The support for the third generation of IP-based 9-1-1 systems is more complex. Many stakeholders are simultaneously driving toward that destination via a variety of industry fora. The National Emergency Number Association, the Emergency Services Interconnection Forum, the Internet Engineering Task Force, and Network Reliability and Interoperability Council are four key players all currently looking at next generation 9-1-1 platforms. In summary I see the following as key ingredients for successful design and deployment of a 3rd generation nationwide 9-1-1 IP based platform:

- Regulation and legislation conducive to industry development and testing of a new IP-based platform
- Realization by regulators and legislators that 9-1-1 is a “second best” market (as described by economists Richard Lipsey and Kelvin Lancaster in 1956) rife with social obligations and requiring oversight instead of laissez-faire competition market management
- National catalyst to serve in the capacity AT&T did for 1st and 2nd generation platforms-perhaps the newly authorized joint program office?
- A business model that will assure industry participants of a reasonable rate of return on investment in a 3rd generation network
- Realization that there needs to be a viable business case in support of 9-1-1

FINAL THOUGHTS

I have covered a lot of ground in a short period. So in closing please allow me to offer you what I see as the current state of affairs. I speak from over 25 years

in public safety and 9-1-1 administration. We are truly at a crossroads for 9-1-1. IP-enabled services, in particular VoIP, present us with both an unprecedented challenge to 9-1-1 as well as an unprecedented opportunity for the advancement of emergency services. To put it a bit more philosophically, VoIP is the yin and yang of 9-1-1.

We can continue down the bumpy and twisted road we traveled with wireless 9-1-1 or we can learn from our past experiences. This means we accept the fact that the problem is not with new technology but with the existing 9-1-1 infrastructure. We can quickly alter our learned behaviors and paradigms to accommodate these new VoIP services to our existing infrastructure and rip out the roots a burgeoning caste system of access to 9-1-1. I enlist your support in helping both VoIP providers and 9-1-1 service providers understand this concept. 9-1-1 system administrators will work to educate our citizens about the 9-1-1 services available to them via their communications providers.

But this stop gap solution is short term. Unless we wish to face a similar dilemma with the next new mobile technology just beyond the horizon we must work to develop and deploy a new nationwide 9-1-1 infrastructure capable of interfacing to numerous communication platforms. This migration must occur within in the next 60 months or this country puts at risk the social objective of 9-1-1 anywhere, any time, for any device. This committee has the resources and influence to help us attain this ambitious goal and we in the Public Safety industry encourage your active support.

I thank you again for lending me your ears and giving me your time to discuss a matter I feel so passionately about. Your attention is most gratefully appreciated. Good day.

Mr. UPTON. Thank you. Again, thank you.

Ms. Puckett.

STATEMENT OF KAREN PUCKETT

Ms. PUCKETT. Mr. Chairman and members of the committee, my name is Karen Puckett. I am the President and Chief Operating Officer of CenturyTel. We provide telecommunications to 22 States, 16 of the 22 States are represented in the Commerce Committee.

You know, we are pretty excited about the future of new application technologies, such as VoIP, and we are adapting and evolving our business model. In the written testimony that I provided, you will see a map of a large fiber IP transport network that runs through middle America that we own and operate, and we are using this network transport for voice and data traffic for wireless, wireline, long distance, and IP providers today.

But the concern is there is a level of misunderstanding related to IP technology. In fact, there is a confusion around the new application technology and the network technology that enables these applications to be delivered. So I brought with me a diagram over here to my left that illustrates the relationships and the dependency of the core network to the underlying enabler of these emerging applications.

You know, Internet Protocol is blowing the voice and data market wide open, allowing everyone from large cable companies to Internet startups, like Pulver.com and Vonage to sell applications to businesses or residential consumers. This is assuming that companies like CenturyTel or the local cable company provide the network investment that enables these VoIP applications.

Building and expanding our country's telecommunications infrastructure should be a priority to all telecommunication providers, and I am especially proud of CenturyTel's leadership in bringing telecommunications and economic development to rural America. We average only 14 access lines per square mile, but despite this low density, we have enabled over 70 percent of our customers with

broadband services, and we are focused on providing and expanding broadband capability as we deliver voice data and applications, which really leads me to the key point.

Advanced communication networks like ours are the foundation for realizing the promise of IP-enabled services in all markets. The network is the engine that makes IP services possible.

IP technology has also changed the marketplace. The new reality is intense competition that is forcing a fundamental shift in our industry. This includes proposed mergers, the new services, more choices, and much more price points and lower price points. The industry is and has adapted to the changing marketplace. Now the Nation's communication policy must adapt as well.

With all of this new opportunity, however, there are some issues that are emerging that are very concerning. Payment avoidance for use of the network is a growing problem. You know, if you walk out of a restaurant after you enjoy a meal without paying, it is theft. If too many people walk out without paying, the restaurant will shut down, and the community's economy will suffer. The same is true for rural telecommunications. Phantom traffic and other payment avoidance schemes are the same thing. We need Congress to be clear that this is no free lunch.

Let us talk a moment about consumers.

Some in this city will tell you now that we have things like Internet phone service we can forget about USF. They don't understand that IP services still run on the core underlying network, networks that reach into every community. Without the underlying networks, there is no Internet, there is no e-mail, there is no dial tone, there is no real-time communication to the rest of the world.

So specifically, we need Congress to support stability and universal service by broadening the base of support and set higher standards for all of the recipients of USF. And from a business perspective, it is really clear the walls have come down between cable, wireline, wireless, satellite, and Internet based companies, yet these companies are treated in distinct different ways from a regulatory perspective. We have some with little to no regulatory oversight while others, like ourselves, are heavily regulated. Like services should be regulated the same way, and all should be held to the same service standards.

Mr. Chairman, thank you for holding this hearing. Voice-over IP is just one example of a really fascinating future. We believe there are even better things to come. I understand that this subcommittee will soon be exploring IP video. Just as the voice marketplace is being transformed by VoIP, local phone companies are eager to enter the competitive digital television market.

I appreciate the opportunity.

[The prepared statement of Karen Puckett follows:]

PREPARED STATEMENT OF KAREN PUCKETT, PRESIDENT AND CHIEF OPERATING OFFICER OF CENTURYTEL, INC.

Mr. Chairman, members of the subcommittee, my name is Karen Puckett, and I am President Chief Operating Officer for CenturyTel. I appreciate the opportunity to appear before you today thank you for this opportunity to appear before you to address the critical subject of updating the nation's telecom laws and regulations to keep pace with the dramatic changes we see all around us today in the new communications marketplace. I will briefly highlight these technology advances; describe CenturyTel's aggressive approach to technology deployment and key role in

making new service available; describe the challenge technology also presents to public policy; and suggest specific areas where national action is important and where your leadership is critical.

I. VOIP IS AN APPLICATION THAT DEPENDS ON A BROADBAND CONNECTION ENABLED BY AN UNDERLYING NETWORK

Action must be based on solid understanding of the technology and the market. The level of misunderstanding related to IP technology is a concern to those of us who work with cutting edge technology every day, and even more so to those who invest billions in our networks. In particular, there is confusion between new application technology such as VoIP that is deployed on top of networks, and the network technology that enables these applications, such as high capacity transport, fiber loops, DSL, or sophisticated switches and network management systems.

VoIP is an example of even better things to come, as our industry increasingly integrates with the computer hardware, software, and entertainment sectors. Internet Protocol is blowing the voice market wide open, allowing everyone from major cable companies to Internet upstarts like Pulver and Vonage to serve a business or residential customer. Assuming, that is, that a provider such as CenturyTel or the local cable company has made the network investment required to enable a broadband connection.

II. CENTURYTEL AND COMPANIES LIKE IT ARE BUILDING RURAL AMERICA'S BROADBAND NETWORK

I am especially proud of Century Tel's leadership in bringing technology and economic development to rural America. We serve 2.3 million customers in 22 states. We are the eighth largest local phone company in the United States. Seventy-five percent of our customers are residential. We only average 14 access lines per square mile. Nonetheless, over seventy percent of our customers have access to CenturyTel DSL.

CenturyTel is adapting and evolving our business model to meet the evolving needs of our customers. Our 7,000 employees are very focused on further expanding our broadband capability as well as delivering the video and data applications of the future.

This leads me to our key point: *Advanced communications networks like ours are the foundation for realizing the promise of IP-enabled services.* Without investments by companies like CenturyTel, Citizens, Consolidated, FairPoint, Iowa Tel, Valor, and many others, there would be no VoIP. There would be no broadband connection. There would be no switched digital video. There would be no platform over which to deliver the new services that have yet to emerge.

III. IP TECHNOLOGY IS ONE OF THE CATALYSTS OF THE CHANGING MARKETPLACE. POLICY MUST RACE TO KEEP UP.

Without question, the further integration of IP-enabled services as a telecommunications alternative offers both challenges and opportunities for local telecommunications companies to adapt to a new world of rapid-paced innovation and intense competition from a wide variety of players. Equally true, this new reality is forcing fundamental shifts in our industry—from proposed mergers to the new services and choices our companies are rolling out. We recognize this at CenturyTel. For example, we are now leveraging our broadband network to trial and aggressively pursue an IPTV product offering. Finally, nine years after the Telecommunications Act's passage, we are seeing the real competition—facilities-based competition—that will be positive for consumers and for the U.S. economy. We are adapting with the marketplace, with technology, and with evolving consumer demands. Now, the nation's communications policy must adapt as well.

Consumers and our economy urgently need a modern telecom policy that reflects today's realities and charts a constructive role for U.S. policy: safeguarding ongoing priorities such as universal service and law enforcement needs; and, encouraging all companies in today's marketplace to continue making the investment necessary to develop and deploy innovative new choices, beyond just VoIP.

Since we have barely scratched the surface of broadband's potential to produce a whole new generation of innovative applications, I appreciate knowing that this Committee has proposed to write policies that broadly encourage network investment and product innovation far beyond first-generation VOIP.

IV. KEY POLICY DECISIONS FACE CONGRESS AND REGULATORS

A. Affirm that those using the network must pay for their use.

There is no free lunch, and there is no free network.

Payment avoidance is a growing problem. If you walk out of the grocery store without paying, it's theft. If too many people walk out without paying, the grocery store will shut down, and the community will wither. The same is true of rural telecommunications. "Phantom traffic" and other payment avoidance schemes are the same thing.

What can Congress do?

- Use its oversight authority to make clear that services used, including the network, must be paid for, and that theft of telecommunications services is theft plain and simple.

Intercarrier compensation refers to the system of payments that support the network all carriers—ILECs, IXCs, IP carriers—use to originate and/or terminate their traffic. Without that network, no one would be in business. By far the most dangerous change proposed is "bill and keep," in which no payments are actually made. This would not be a constructive change. It would end, not mend the system, give a free ride to some companies, and ignore basic laws of economics.

What can Congress do?

- Clarify that companies should pay the cost of using one another's networks, and direct the FCC to render a decision consistent with this principle, and do so within six months.

We currently are awaiting the FCC's decision concerning Level 3's petition to be exempted from certain intercarrier payments. This will determine if VoIP providers whose calls depend on local communications networks must pay for their use of these networks—as their competitors are required to do.

That is a question with far-reaching implications. I thank the members of this Committee who have spoken out on this important proceeding and made clear the importance of maintaining strong, viable networks across the nation—and requiring all who use these networks to help pay for their upkeep and continued evolution.

B. Address social and public safety concerns.

Members of Congress have made it crystal clear that ubiquitous 911 and E911 is a critical national priority. Recent news articles demonstrate that customers either take it for granted that they have E911, or assume that they'll never need it. When they discover it's not available, or find out they really do need it, it's too late. The results have been tragic. Finger pointing does not solve the problem. Congress can simply make clear that public safety responsibilities apply to all, and must be fulfilled.

C. Support the 21st century network through maintaining the Nation's commitment to Universal Service.

Some will tell you, "Now that we have things like Internet phone service we can forget about universal service." They either ignore or don't understand that IP services still run on networks, networks that reach into every community. Without these networks, there is no Internet, no email, no dial tone, and no real-time, two-way connection to the broader world. Fortunately for America, you "get it."

Universal service helps make sure these networks are viable in rural areas, and are continuously upgraded. It does so by helping ensure affordable access to a dial tone, and Internet access in our schools, libraries and rural health-care facilities. These remain important public policy goals. If anything, universal service is more important today than at any point in our nation's history, as we transition from an industrial to an information economy. Technology-neutral universal service would require every competitor to contribute their fair share to support this promise to rural America.

I firmly believe that universal service remains a critical priority for the nation, especially for the people served by companies like CenturyTel that are committed to rural America. We can all be excited about advances such as IP, but we as a nation must not forget those people who need help just to have basic access to the security of a dial tone.

What can Congress do?

- Support stability in universal service by broadening the base of support and setting high standards in order to receive universal service.
- Consider explicitly supporting broadband deployment.

D. Reform retail Regulation

Silo-driven policy making clouds the view of what is best for the customer. While much retail regulation occurs at the state level, Congress is responsible for the framework in which both FCC and state regulation occurs. For example, Congress preempted state regulation of wireless rates, and in 1997 preempted state and local barriers to entry.

The walls have come down between cable, landline, wireless, satellite and Internet-based companies. Yet these companies are treated in distinctly different ways based not on the services they provide, but the *technology* they use. This is not a recipe for renewing America's information leadership, nor is it a recipe for speeding advanced services into our communities.

How can my rates be regulated when someone else can use my network to provide an inferior product unregulated? Similar services should be regulated similarly, and all should be held to a similar standard.

The solution, of course, is not to impose today's regulatory regime onto innovations. The thoughtful approach is to take up the bigger challenge which this Committee is undertaking: to explore the choices available in today's marketplace, to understand just how fundamentally the world of communications has changed, and to update our nation's telecom laws to keep pace with these changes. We must get government *out* of the business of determining which technologies and services are best, and hand that power and that choice to consumers. This is the united vision of the U.S. Telecom Association. Our trade association represents everyone from small, rural co-ops, to mid-size companies like CenturyTel, to some of the largest communications providers in the world. To continue growing, competing and investing, our company must be at parity with our competitors.

What can Congress do?

- Move away from silo-based regulation where the treatment depends on how a company is categorized rather than the service it provides.
- Support greater regulatory flexibility at both the federal and state levels to create and promptly offer products and services that respond to customer demands.

E. Ensure Regulators Make Internet-time Decisions.

I've described several key areas where decisions have simply taken too long: Clarifying universal service policy, reforming intercarrier compensation, ensuring that companies don't evade their responsibility to pay for the networks they use. How VoIP traffic is classified is another area where delay has created uncertainty, as we saw in the FCC's recent Madison River consent decree, where the parties did not know what their duties would be because the FCC had not clarified them. These and other important decisions in some cases have been pending for years. As you reform the substance of telecom law, I hope you will also address the process through which decisions are made.

What can Congress do?

- Consider deadlines for agency decisions.
- Require the agency to hear from witnesses, or to deliberate face-to-face in important proceedings.

V. CONCLUSION—THIS COMMITTEE'S ACTIONS WILL HELP BUILD THE FRAMEWORK FOR TOMORROW'S TELECOMMUNICATIONS NETWORKS AND SERVICES

Mr. Chairman, I thank you for holding this hearing. Without question, VoIP is worthy of our attention and enthusiasm. However, it also is important to bear in mind that VoIP is but one compelling example of what IP can contribute to the nation's economy and consumers. I understand that this Subcommittee also soon will explore IPTV. Just as the voice marketplace is being transformed by VoIP, local phone companies are eager to enter the competitive fray in digital television, offering consumers an additional choice beyond cable and satellite—and a true market alternative to cable's bundle of voice, video and data all on one bill.

We too are excited about the future. We are excited about deploying new technologies and creating new services for our customers and communities. Because we work with them every day, we believe in the potential of IP and other communications innovations to advance our economy and our quality of life. We appreciate your hard work as you craft telecommunications law for a new century. Your decisions will shape the financial community's views of what investments to support. We are eager to work with you! I thank you for the opportunity to join you today. I look forward to your questions.

Mr. UPTON. All right. Thank you.
Mr. Rutledge. Welcome back.

STATEMENT OF THOMAS M. RUTLEDGE

Mr. RUTLEDGE. Thank you, Chairman Upton and members of the subcommittee. My name is Tom Rutledge, and I am the Chief Operating Officer of Cablevision Systems Corporation in New York. I also serve on the Executive Committee of the National Cable and Telecommunications Association. Thank you for the opportunity to appear before you today and to discuss the issues surrounding the deployment of Voice-over Internet Protocol, VoIP services.

The regulatory policy framework embodied in the Telecommunications Act of 1996 has facilitated the significant investment in state-of-the-art networks necessary for the deployment of advanced services. Simultaneously, the development of technology to transmit voice calls using Internet protocols has enabled Cablevision and other cable operators to use these broadband networks to provide customers with exciting services, including Voice-over IP. With more than 1.3 million customers receiving VoIP services nationally, VoIP has emerged as a lower cost means to accelerate the long-sought goal of facilities-based local competition. In addition, VoIP customers can customize their communications options in a myriad of ways not possible with traditional circuit-switched technology.

The stable deregulatory framework will allow VoIP and circuit-switched voice providers to continue to deliver increased value and technology to consumers.

Since 1998, Cablevision has invested \$5 billion in a two-way broadband network that reaches 4.4 million homes in the New York metropolitan area. Since 1996, the cable industry as a whole invested almost \$95 billion, roughly \$1,300 per customer to upgrade more than 1 million miles of cable plant.

This investment has allowed cable operators to offer a range of communication services over a fiber optic platform to approximately 95 percent of homes nationwide. Today, Cablevision offers analog and digital video, video on demand, 15 high-definition television services, interactive services, high-speed Internet access, and voice services to all of the 4.4 million homes passed by our network.

Our VoIP service, "Optimum Voice," is one of the most successful products, one of our most successful products. We launched Optimum Voice at the end of 2003, and today Cablevision serves 350,000 customers, and we are adding over 1,000 customers per day. For a flat fee of \$34.95, Optimum Voice includes unlimited local, regional, and long distance calling as well as advanced calling features, full E-911 service, and the ability to meet law enforcement's authorized requests for surveillance.

Optimum Voice also includes a suite of IP applications that allow customers to forward calls to three different locations simultaneously, to retrieve voice mail on e-mail, and to customize the way they want to receive voice communications by using an interactive web portal. We, like our cable colleagues, will continue to add features that will make our VoIP service an increasingly valuable communications tool for our customers.

The introduction of new technologies, such as VoIP, presents an opportunity to reexamine the rules applicable to voice entrants and to develop a Federal policy framework for VoIP that supports its continued rapid deployment. The appropriate policy framework

would continue the availability of the right to interconnect and exchange traffic with other providers, the right to obtain telephone numbers, and the right to access the facilities and resources necessary to provide VoIP customers with full and efficient 911 and E-911 services. It is also critical to ensure a rational and equitable system of intercarrier compensation and to reform universal service in a manner that maintains its goals while benefiting from economic opportunities presented by new technologies.

While advancing this approach, we recognize that VoIP providers have a responsibility to meet important social policy and security goals. Toward that end, the cable industry has worked closely with the FBI, the Justice Department, and other law enforcement agencies to meet those security goals.

This Federal policy framework would enable VoIP providers to continue to innovate and compete freely while ensuring the fulfillment of important policy objectives. Most importantly, such an approach would continue to support the principle of a predictable, national framework for the development of these inherently interstate services. The legislation put forward by Representative Pickering last year offered a strong start toward achieving these goals, and we look forward to working with the committee this year.

Although the primary focus of this hearing is Voice-over IP, there has been much talk lately about video-over IP technology. Unlike VoIP, IP video services remain largely in the conceptual stage with many economic and technical questions yet unanswered. While these issues are not right for legislative action, it would be appropriate for Congress to examine how the emergence of IP video may affect the whole media industry, including such matters as non-discriminatory deployment, public, educational, and governmental access, compensation to municipalities for the use of public rights-of-way, broadcaster and sports programming, localism, copyright, syndication, and the appropriate role of State and local governments. Any recommendations emerging from this review should be applicable to all multi-channel video-programming providers.

In the meantime, all companies that propose to provide cable service, including telephone companies, must comply with existing Federal, State, and local laws, including securing cable franchises prior to constructing and not redlining neighborhoods.

Today we are seeing a realignment of mass-market communications. This is an exciting new market for the cable industry and its customers. We look forward to continuing to work with the committee to develop a public policy for VoIP that fosters competition and consumer choice.

Thank you again for this opportunity, and I welcome your questions.

[The prepared statement of Thomas M. Rutledge follows:]

PREPARED STATEMENT OF THOMAS RUTLEDGE, CHIEF OPERATING OFFICER, CABLEVISION SYSTEMS CORP. APPEARING ON BEHALF OF NATIONAL CABLE AND TELECOMMUNICATIONS ASSOCIATION

Chairman Upton and Members of the Subcommittee, my name is Tom Rutledge, and I am the Chief Operating Officer of Cablevision Systems Corporation in New York. I also serve on the Executive Committee of the National Cable and Telecommunications Association. Thank you for the opportunity to appear before you today to discuss issues surrounding the deployment of voice over Internet protocol—or “VoIP”—services.

OVERVIEW

The deregulatory policy framework embodied in the Telecommunications Act of 1996 has facilitated the significant investment in state-of-the-art networks necessary for the deployment of advanced services. Simultaneously, the development of technology to transmit voice calls using Internet protocols has enabled Cablevision and other cable operators to use these state-of-the-art networks to provide customers with exciting and valuable communications services, including Voice-over-IP. With more than 1.3 million customers receiving VoIP services nationwide, VoIP has emerged as a lower cost means to accelerate the long-sought goal of facilities-based local voice competition. In addition, VoIP customers can customize their communications options in myriad ways not possible with traditional circuit-switched technology.

A stable deregulatory framework that limits any regulation to those rules necessary for specific social and competitive purposes will allow VoIP and circuit switched voice providers to continue to deliver increased value and technology to consumers.

CABLE INVESTMENT HAS LED TO NEW VOICE COMPETITION

Since 1998, Cablevision has invested \$5 billion in a two-way broadband network that reaches 4.4 million homes in the New York metro area. Since 1996, the cable industry as a whole invested almost \$95 billion—roughly \$1,300 per customer—to upgrade cable systems by rebuilding more than one million miles of cable plant.

This investment has allowed cable operators to offer a range of communications services over a fiber optic platform to approximately 95% of the homes nationwide. Today, Cablevision offers analog and digital video, video on demand, 15 high-definition television services, interactive services, high speed Internet access and voice services to all of the 4.4 million homes passed by our network.

Our VoIP service, “Optimum Voice,” is among the most successful products we have ever offered. We launched Optimum Voice at the end of 2003, and today, a little over a year later, Cablevision has 350,000 customers, and we are growing at rate of greater than 1,000 customers per day. Optimum Voice provides customers with not only low cost voice service but an array of advanced features not previously available. For a flat fee of \$34.95, Optimum Voice gives customers limitless local, regional and long distance calling as well as advanced calling features—a substantial discount over less robust “phone” service. It includes full E911 service and is capable of meeting law enforcement’s authorized requests for surveillance.

Optimum Voice also includes a suite of IP applications that allow customers to forward calls to three different locations simultaneously, to send and retrieve voice messages on e-mail. An interactive web portal lets subscribers customize the way they want to receive voice communications day-by-day, hour-by-hour. In addition, our broadband network will allow customers to screen voice calls on their televisions and conduct audio or video conferences on their computer. We, like our cable colleagues, will continue to add dozens of new features that will make Optimum Voice an increasingly valuable communications tool for our customers.

DEREGULATORY APPROACH TO VOIP SERVICES

The introduction of new technologies such as VoIP presents an opportunity to re-examine the rules applicable to voice entrants, and to develop a federal policy framework for VoIP that supports its continued rapid deployment. The appropriate policy framework would continue the availability of the right to interconnect and exchange traffic with other providers; the right to obtain telephone numbers; and the right to access the facilities and resources necessary to provide VoIP customers with full and efficient 911/E911 services. It is also critical to ensure a rational and equitable system of intercarrier compensation and to reform of universal service in a manner that maintains its goals while benefiting from the economic opportunities presented by new technologies.

While advancing this approach, we recognize that VoIP providers have a responsibility to meet important social policy and security goals. Toward that end, the cable industry has worked closely with the FBI, the Justice Department and other law enforcement and public safety agencies and organizations to ensure that these security goals are met.

We believe that this federal policy framework would enable VoIP providers to continue to innovate, earn a return on their investment, and compete freely while ensuring the fulfillment of important policy objectives. Most importantly, however, such an approach would continue to support the principle of a predictable, national framework for the development of these inherently interstate services. The legisla-

tion put forward by Representative Pickering last year offered a strong start toward achieving these goals, and we look forward to working the Committee this year.

Although the primary focus of this hearing is voice over IP, there has been much talk lately about video over IP technology. Unlike VoIP, IP video services remain largely in the conceptual stage, with many economic and technical questions still to be answered. While these issues are not ripe for legislative action at this time, it would be appropriate for Congress to examine how the emergence of IP video may affect the whole media industry including such matters as non-discriminatory deployment, public, educational and governmental access, compensation to municipalities for use of the public rights-of-way, broadcaster and sports programming, localism, copyright, syndication, and the appropriate role of state and local governments. Any recommendations emerging from this review should be applicable to all multi-channel video providers.

In the meantime, all companies that propose to provide cable service, including telephone companies, must comply with existing Federal, State and local laws, including securing cable franchises prior to construction and not redlining neighborhoods perceived as less desirable.

CONCLUSION

Today we are seeing a realignment of mass-market communications. This is an exciting new market for the cable industry and its customers, and a challenging opportunity for policymakers who are interested in facilitating the continued development of facilities-based competition in voice services. We look forward to continuing to work with the Committee to develop a public policy that fosters competition and consumer choice.

Thank you again for this opportunity, and I welcome your questions.

Mr. UPTON. Thank you.

Mr. Shlanta.

STATEMENT OF MARK SHLANTA

Mr. SHLANTA. Mr. Chairman, members of the committee, thank you for the opportunity to be here today. My name is Mark Shlanta, and I am the Chief Executive Officer of SDN Communications. I would like to thank you for inviting me to testify before you today and to provide a rural perspective as you look further into IP-enabled services and consider rewriting the Communications Act.

SDN Communications is the information superhighway for South Dakota. Our story is one of innovation and cooperation by 27 South Dakota independent telephone companies to create the State's most extensive fiber optic network.

Today, SDN and its members provide Internet service to thousands of consumers, hundreds of commercial, and dozens of wholesale customers via our DSL, cable modem, and fixed wireless services. We have grown to become one of the regions top Internet providers by offering our customers access to multiple IP networks via one connection to SDN. In the future, we expect to serve more customers through developing additional centralized IP services.

IP-enabled services and all communication services rely upon a healthy and robust infrastructure to reach end users. The one issue that must be resolved to ensure the existence of a robust, nationwide, ubiquitous communications network that can support IP-enabled and other advanced services in the future is cost recovery. Without adequate cost recovery, there will be no network for any communication services, including VoIP.

The two main aspects for cost recovery that policymakers are talking most about are intercarrier compensation and universal service. Both are not simply regulations but are industry responsibilities. There is general consensus that the way in which funds

are collected and allocated within these two industry responsibilities must be changed to meet the market realities of today.

The solution for intercarrier compensation is a simple one. If any service provider uses another provider's network, that service provider must compensate the other provider for the use of their facilities and at an appropriate rate. This notion is not complex. It is simply ensuring that all players stand up to their responsibilities.

Many call intercarrier compensation or access charges an implicit subsidy. I call them a legitimate operating cost for a telecommunications provider. We have invested tens of millions of dollars to serve rural communities. If a carrier would rather come and build their own network instead of using ours for a nominal fee, they are welcome to do so. I ask you all to tell me why should a new service provider be able to access this network for free? We seem to be focusing this debate on why should new IP-enabled service providers be paying access charges. To those of us that toiled to finance the deployment of infrastructure, the question is why should they not.

I agree that we do not want to bog down new entrants with unnecessary regulations, but allowing to skirt industry responsibilities is simply wrong. If a new provider's business plan can't accommodate playing by the rules and upholding industry responsibilities, then they shouldn't be playing. IP-enabled service providers should be required to pay access charges when their services originate or terminate on the PSTN regardless of their regulatory classification.

The solution for universal service is also a simple one. The base of contributors must be expanded to include all telecommunication service providers, including cable, wireless, and IP-enabled service providers since they benefit from the network. And yes, this quite possibly could mean small rural companies might end up contributing more tomorrow than they do today. It is a responsibility they are willing to share in, to ensure that all Americans, and not just the privileged, are able to enjoy the benefits of this technological era.

Many policymakers and others seem to think that once a national broadband network is built there will be no more need for a universal service program, but that ignores the reality that networks must also be maintained and upgraded. The narrow band copper network has been around for over 100 years and yet there is still an urgent and recognized need for universal service support. Why do we believe that network upgrades and maintenance will be different in a broadband world? Despite technological advances, it is and will continue to be significantly more expensive to serve rural America, even after a ubiquitous broadband network is built.

Universal service is a long-standing public policy goal and a goal I have got to believe we still want to flourish. Congress wrote universal service into law in 1934 and reinforced it in 1996 to ensure consumers in rural and high-cost areas have access to comparable and affordable telecommunication services. This has only been fully realized through the infrastructure deployed by community-based telecommunication providers who connect rural America to the rest of the world. These rural incumbent local exchange carrier networks serve approximately 40 percent of the geographic area of the United States and nearly 80 percent of my State and other rural

States. Allowing new providers to use these networks without adequate compensation will compromise this network and then a lot of—and that is a lot of country to leave behind. Deploying advanced infrastructure that is fully capable of offering a combination of two-way voice, video, and data options should become the hallmark of our national universal service policy.

Thank you, Mr. Chairman.

[The prepared statement of Mark Shlanta follows:]

PREPARED STATEMENT OF MARK SHLANTA ON BEHALF OF THE NATIONAL
TELECOMMUNICATIONS COOPERATIVE ASSOCIATION

INTRODUCTION

Good morning. My name is Mark Shlanta. I am the Chief Executive Officer of SDN Communications of Sioux Falls, SD. I would like to thank you for inviting me to testify before you today to provide a rural perspective as you look further into IP-Enabled services and consider rewriting the Communications Act.

COMPANY DYNAMICS

SDN Communications is the information superhighway for South Dakota and beyond. Its story is one of innovation and cooperation by 27 South Dakota independent telephone companies to create the state's most extensive fiber optic network.

Today the region's premier healthcare facilities, banks, agricultural businesses and government agencies use SDN's services for:

- Switched and dedicated long distance
- Connecting the home office computers to those in branch locations
- High-speed Internet
- Video conferencing
- Hardware to make the broadband connections work

COMPANY AND IP

SDN Communications and its member owners have been offering Internet services since 1997. At that time, our service was simply dial up with several "high speed" customers being served via DS1 circuits. We began offering DSL, cable modem and fixed wireless services in 2000 to fulfill the growing need for greater connectivity speeds. Today SDN and its members provide service to thousands of consumer, hundreds of commercial, and dozens of wholesale customers. We have grown to become one of the regions top Internet providers by offering our customers access to multiple IP networks via one connection to SDN. This multiple IP network approach has allowed SDN to serve businesses from all across the country with data storage applications. In addition, our commercial customers can enjoy an Internet and long distance service via one connection to their office. In the future, we expect to serve more customers through developing centralized IP services.

REGULATION OF IP

There is really only one issue that must be resolved to ensure the existence of a robust nationwide ubiquitous communications network that can support both IP-enabled services and other advanced services. That one issue is full cost recovery. Without adequate cost recovery there will be no network for IP-enabled services, or any other type of services for that matter, to reach consumers be it wireline, wireless or some other medium.

The two main aspects of cost recovery that policymakers and the public alike are talking most about are intercarrier compensation or as I like to call it "the cost of doing business"—and universal service. These are not industry regulations; they are industry responsibilities. In general, I think the industry as a whole believes that the way in which funds are collected and distributed for intercarrier compensation and universal service must be changed to ensure our network continues to exist and be upgraded. The solution for intercarrier compensation is a simple one: if any service provider uses another provider's network that service provider must compensate the other provider for the use of their facilities—at an appropriate rate. This notion is not complex; it is simply ensuring that all players stand up to their responsibilities of having the opportunity to partake in our capitalistic marketplace. The solution for universal service is also a simple one: the base of contributors must be expanded to include all telecommunications service providers—and yes, this quite pos-

sibly could mean that small rural companies might end up contributing more tomorrow than they do today. It is a responsibility we are willing to share to ensure that all Americans, and not just the privileged, are able to enjoy the benefits of this technological era.

Many call intercarrier compensation or access charges an implicit subsidy. I call it a legitimate operating cost for a telecommunications provider. We have invested tens of millions of dollars to serve rural communities. If a carrier would rather come and build their own network instead of using ours for a nominal fee, they are welcome to do so. As an Internet provider myself, I compensate the owner of the Internet backbone that I must utilize to offer Internet services to my customers. I view this as a legitimate cost for providing Internet services to our customers. I recognize and accept that without use of their network I could not provide these services for my customers. I am therefore fortunate that the network resources are available to help me in providing my customers with the full array of advanced services that are available today.

Tell me, why should a new service provider be able to access this network for free? This debate seems to be focused on whether new IP-enabled service providers should pay access charges. To those of us that toiled to finance the deployment of infrastructure the question is: why should they not? I understand that we don't want to bog down new entrants with unnecessary regulations, but allowing them to skirt industry responsibilities is simply wrong. If a new provider's business plan can't accommodate playing by the rules and upholding industry responsibilities, then they probably shouldn't be playing. After the 1996 Telecom Act, we saw a large influx of new telecom entrants. Unfortunately, many did not have sound business plans and were soon out of business or in bankruptcy. Thus, hampering investment in the telecommunications industry as a whole. We don't want to recreate the boom/bust scenario of that period by artificially incentivizing unsound businesses that cannot operate without regulatory arbitrage.

I concur that the current patchwork of intercarrier compensation needs to be reformed, however it needs to be reformed in such a way to put all telecommunications services on a level playing field regardless of technology used. This regime should be cost based and applied equally across communications platforms. IP-enabled service providers should be required to pay access charges when their services originate or terminate on the PSTN, regardless of their regulatory classification as information or telecommunications service. Indeed, I believe these classifications are irrelevant in an IP world, where the functions that the network provides are what matters—not the service classification. Americans today uniformly rely on communications infrastructure and services to satisfy their commerce, safety, security, entertainment, and leisure needs. Moving forward, these needs will be met via a combination of 2-way voice, video, and data options. Consequently, deploying advanced infrastructure that is fully capable of offering such services should become the hallmark of our national universal service policy.

Many policy-makers, think tanks and others seem to think that once a national broadband network is built there will be no more need for the universal service program. But aren't we ignoring the large fact that networks must also be maintained and upgraded? Many people think that technological advancements will make universal service obsolete. The narrowband copper network has been around more than 100 years, yet there is still an urgent and recognized need for universal service support. Why do we believe things will be different in a broadband world? In rural America, these costs are always going to be significantly more, even after a complete network is built. Yes, technological advancements are helping to reduce the cost, even in rural areas, but it still is always going to be more expensive to serve rural America due to low population density, expansive distances, and often-rugged terrain. Without continued universal service support our national goal of universal broadband access may never be realized.

I feel the best way to reform universal service is to broaden the base of contributors to include all communications providers. Cable, wireless, and satellite broadband Internet access service providers, and VoIP and other IP-enabled service providers should contribute since they all benefit from the national network.

Universal service is a long-standing public policy goal, and a goal I believe we still want to flourish. Congress wrote sections 254(b)(3) and 151 of the Communications Act of 1934 that states consumers in rural and high-cost areas should have access to comparable and affordable telecommunications services to ensure that this public policy goal was met. This has only been fully realized through the infrastructure deployed by community-based telecommunications providers who connect rural America to the rest of the world. These rural incumbent local exchange carrier networks serve approximately 40% of the geographic area of the United States and nearly 80% of my state and other rural states. Allowing new providers to use these net-

works without adequate compensation will compromise this network and that is a lot of our country to leave behind.

We are not asking for special treatment. We are only asking for a level playing field. All new entrants into the communications marketplace should uphold our current industry responsibilities of intercarrier compensation and universal service. Carriers that use our networks should provide us with just and equitable compensation just as we expect to pay them such compensation for the use of their networks.

Again, all service providers and consumers benefit from a robust national network infrastructure. The current structure of cost recovery enabled us to achieve our impressive 94% telephone penetration rate. In order to achieve those same penetration rates with broadband and for whatever new technology will be offered after broadband we need to modify the existing regime but having the regime in place is absolutely critical.

Interconnection and access to infrastructure, content, roaming, spectrum, rights-of-way, and adequate financing are all critical to the operational success of a nationwide integrated communications network. It is particularly important that such access be at appropriate rates, terms, and conditions. In light of the vertical integration that is taking place throughout the communications industry, it is more important than ever that mechanisms, such as prohibitions against nondisclosure agreements and strictly defined negotiating parameters are in place to ensure such access is a reality. In addition, government-mandated default rates, terms, and conditions that ensure full cost recovery for rural carriers should be applicable when negotiations fail.

Throughout the course of our history, America has been recognized as a pre-eminent technological and economic force. Today however, many would have us believe we are losing that edge. How can this be considering the ingenuity and commitment that is displayed every day by leaders such as those making up the rural sector of the communications industry?

Former Congressman and father of fiber optics, Amo Houghton, recently noted, "For years, Corning and other optical equipment companies preached fiber to the home or "fiber to the premises" as the term has developed. We told the communications companies that they could generate more revenue and cut their maintenance costs, if they would extend fiber to the home or business. It had to happen ultimately, but we thought it would start in urban areas and roll out slowly to rural areas. We were wrong. The reverse happened. Instead, the pioneers were rural telcos and small municipalities. Some of NTCA's members have been extremely visionary in this regard. I've always been impressed by how progressive and resourceful rural telcos are—I think they really embody the spirit of American enterprise—always have."¹

Rural carriers are using a multitude of technologies to bring broadband to their communities and will continue to be leading innovators in the broadband marketplace.

We look forward to working with you as a full partner as you look to rewrite the Communications Act. Thank you again for inviting me to testify before you today.

SUMMARY

IP-enabled services and all communications services rely upon a healthy and robust network infrastructure to reach end users. The one issue that must be resolved to ensure the existence of a robust nationwide ubiquitous communications network that can support IP-enabled and other advanced services in the future is cost recovery. Without adequate cost recovery there will be no network for any communications service, including VoIP, to reach consumers be it wireline, wireless or some other medium.

The two main aspects of cost recovery that policymakers are talking most about are intercarrier compensation and universal service. Both are not simply regulations but are industry responsibilities. There is general consensus that the way in which funds are collected and distributed within these two industry responsibilities must be changed to meet the market realities of today. The solution for intercarrier compensation is a simple one: if any service provider uses another provider's network that service provider must compensate the other provider for the use of their facilities at an appropriate rate. Carriers that invest millions in network infrastructure should receive compensation from those that utilize it in lieu of building their own network.

The solution for universal service is also a simple one: the base of contributors must be expanded to include all telecommunications service providers, including

¹ March/April issue of Rural Telecommunications Magazine

cable, wireless, and satellite broadband, and IP-enabled service providers since they benefit from the network. Many policymakers and others seem to think that once a national broadband network is built there will be no more need for the universal service program. But that ignores the reality that networks must also be maintained and upgraded. Despite technological advances, it is, and will continue to be, significantly more expensive to serve rural America even after a ubiquitous broadband network is built.

Again, all service providers and consumers benefit from a robust national network infrastructure. The current structure of cost recovery enabled us to achieve our impressive ninety-four percent national telephone penetration rate. In order to achieve those same penetration rates with broadband and what is after broadband we need to modify the existing cost recovery programs, but having the programs in place is absolutely critical.

Mr. UPTON. Well, thank you all. And thanks again for the disruption of the votes a little bit earlier this morning.

Most of you touched on the universal service, Mr. Shlanta probably the most, and suggested that all communication service providers should contribute equally to the Universal Service Fund in order to sustain the fund. I would say that it is clear to most members that the Universal Service Fund does need, probably, more than a tune-up. It needs an overhaul. Some have suggested a flat fee per phone line as a solution. I would be interested in your thoughts and other thoughts that you might want to expand in terms of what we ought to do as it relates to VoIP for a level playing field for all of the different voice providers and, I guess with the exception of Mr. Melcher, Mr. Erickson, we will start with you to get your ideas and we will go down the line.

Mr. ERICKSON. Thank you.

My first reaction to the suggestion of a flat fee for a phone line, my concern with that is that it presumes the current technical structure of the network. In an IP-enabled voice service, connections are essentially transient and temporary. The same thing with number assignments. Numbers are just a temporary kind of addressing scheme, and they can be turned on and off. So I think that from a policy standpoint for universal service, my personal view is that a percentage of revenue is probably the easiest to implement. I understand there are huge complexities in terms of what revenue applies and what doesn't, but I think trying to presume from a strategic perspective the ongoing structure of networks is, you know, I would hate to see us back in the same situation a few years from now when, you know, a phone line really isn't a phone line anymore.

Mr. UPTON. Mr. Grivner?

Mr. GRIVNER. Yeah, I think that one of the difficulties with the phone line is it is kind of counter to what broadband is. Broadband is many phone lines. So it is difficult to say that you are going to apply a phone line concept to a broadband line, which could be technically or virtually 24 phone lines in that one line. So I think there is some validity to a percentage of revenue. I think that, as you said, the Universal Service Fund probably needs more than a tune-up. I think it needs a total look on how it is done and distributed. I think it needs to continue to exist but certainly not in its current form.

Mr. UPTON. Ms. Puckett?

Ms. PUCKETT. The key objective is to broaden the base. In terms of how, we don't support a primary line, because you really build

a network beyond a primary line. You don't build a network primary line at a time. But we really could support a percent of revenue. Connection base is a little bit more concerning, just in terms of where the technology is going to go. But percent of revenue base, the key message here would be broaden the base.

Mr. UPTON. Mr. Rutledge?

Mr. RUTLEDGE. While we are currently paying into the USF, we do think an overhaul is probably in order, and if we are going to decide to raise this money, we need to consider what kinds of technologies can fulfill the public policy objectives, and I think there is a whole new world of opportunity in that direction. And in terms of collecting it, I think people will have phone numbers for a long time to come, and there are—if we do go with that scheme, there will be opportunities to arbitrage it, which will create problems, but it may be an opportunity for us. And we would be open to exploring that.

Mr. UPTON. Mr. Shlanta?

Mr. SHLANTA. Yes, Chairman Upton. As I stated in my testimony, I believe that contributions to universal service should be widened. It should include not only wireline and wireless, but IP-enabled services. And I believe the simplest way to collect that universal service contribution is through a revenue-based contribution.

Mr. UPTON. Mr. Erickson, in your testimony, you stated that States should have an active role in fostering competition and protecting their citizens. I am just curious what you think that role ought to be. Given that VoIP is an interstate service, how do States—what role should States have as they regulate an interstate service, if you meant that at all? I am not sure.

Mr. ERICKSON. I did mean that. You know, to me—or my view is that the States are most active in ensuring that consumer requirements are met, and that includes public safety. They obviously fund support and with local municipalities emergency services. Obviously all of the, you know, fair business practices, those things are all—or many of them are enforced at the local level. I don't believe that we need a lot of State involvement in the economic design of the intercompensation schemes and things like that, but I think, you know, in terms of ensuring that customers are being well served, I think local involvement is an important part of it.

Mr. UPTON. Mr. Stupak.

Mr. STUPAK. Thank you, Mr. Chairman.

Mr. Chairman, first of all, I would like to ask unanimous consent to enter into the record a March 14 letter by the chairman. There are four of us with the Congressional rural caucus on—task force on telecommunications on—regarding the Level 3 forbearance petition. I would like to enter it into the record to supplement my opening statement, and I will ask them some questions along those lines.

Mr. UPTON. Without objection.

[The information referred to follows:]

The Honorable MICHAEL POWELL
 Chairman
 Federal Communications Commission
 445 Twelfth Street SW
 Washington, DC 20554

DEAR CHAIRMAN POWELL: We are writing regarding the Level 3 forbearance petition currently pending before the Federal Communications Commission. As members of the Congressional Rural Caucus, we are concerned about the impact granting such a petition will have on rural telecommunications.

We appreciate your attempts to develop a broad, comprehensive proceeding to deal with the complex set of issues posed by the current intercarrier compensation system. A comprehensive approach is the appropriate way to accomplish the difficult task of adapting that system to the evolving realities of today's telecommunications marketplace.

The Level 3 petition takes an opposite approach. It attempts to single out a narrow issue among this complex set of issues for immediate resolution. Such an approach would effectively prejudge some of the most important issues raised in the Commission's broader proceeding, without necessarily taking into account the impact granting of the petition would have on intercarrier compensation, universal service, and rural telecommunications infrastructure as a whole.

The Level 3 petition also contains what it claims is a "rural exemption." Yet the petition itself excludes an unspecified number of rural markets from this protection immediately and exposes remaining rural markets to a case-by-case review and subsequent exclusion.

We have strong concerns about the impact this petition would have on rural America, in the absence of comprehensive intercarrier compensation reform. Rural local carriers disproportionately rely upon access revenue and universal services support to make needed investments in telecommunications infrastructure. The Level 3 petition would result in the gradual erosion of these two vital funding sources.

In conclusion, we urge you not to take a piecemeal approach by granting the Level 3 petition. The FCC should continue to pursue a more comprehensive resolution to intercarrier compensation issues.

Sincerely,

JOHN PETERSON, *Co-Chairman, Congressional Rural Caucus*; ALLEN BOYD, *Co-Chairman, Congressional Rural Caucus*; GIL GUTKNECHT, *Co-Chairman, Task Force on Telecommunications, Congressional Rural Caucus*; BART STUPAK, *Co-Chairman, Task Force on Telecommunications, Congressional Rural Caucus*;
 LINCOLN DAVIS, *Member of Congress*; RICK BOUCHER, *Member of Congress*;
 PHIL ENGLISH, *Member of Congress*; BOB ETHERIDGE, *Member of Congress*;
 RUBEN HINOJOSA, *Member of Congress*; EARL POMEROY, *Member of Congress*;
 TOM LATHAM, *Member of Congress*; JO ANN EMERSON, *Member of Congress*;
 JOHN MCHUGH, *Member of Congress*; and JERRY MORAN, *Member of Congress*

Mr. STUPAK. Thank you, Mr. Chairman.

Ms. Puckett, if I may, those of us who serve rural areas here in Congress are particularly concerned about what we can do to get broadband built out to the more rural parts of America. You have given us a pretty good idea on what goes into a network to make it broadband compatible. While I know these are complex issues, can you help us by highlighting the top two or three policy initiatives that you would most effectively ensure—that would most effectively ensure that broadband is built out to rural America as quickly as possible? And then second, since we are talking a little bit about funding, the funding mechanisms for getting advanced services to rural America seems to be under an increasing level of attack. Even as companies like yours are investing aggressively to get broadband to all of your customers, what happens to your efforts to build out your networks if mechanisms like the intercarrier

compensation and universal service are compromised? Would you care to comment on those two for me?

Ms. PUCKETT. Thank you.

In terms of the broadband build out, you know, broadband clearly—and I think you mentioned it in your opening comments, clearly enables the community's economy. We believe—we have seen the economic development magic that happens with broadband. In terms of the opportunity there, looking at universal service in terms of offering a broadband connection I think is an option in broadening USF definition. Right now, it says advanced communication. How do you want to define that? Do you stop at voice, or do you allow broadband? So we would highly promote that.

The second question about funding needs, what happens is basically a couple of things. In terms of Universal Service Fund, our company has experienced about a \$10 million decline year over year—last year, 2004, than the prior year. And this year, we project, we are a public company by the way, about a \$15 million decline. Public companies, you know, have responsibilities to shareholders to drive economies and to show that they are improving from a productivity cost efficiency standpoint. So I think that the USF fund needs to be relooked at. There is an indexing piece that for the first time has gone down. Access lines, when they actually developed the index back in the 1980's, it was based on access line growth. They never assumed decline. And CPI, this is the first year, in 2005, that the index is not growing, that the fund will not grow because access lines have declined more than CPI. That is a very, very serious situation. I think we have a very near-term opportunity for that.

And then just in addition, you know, just the responsibility to USF, the number of wireless CTCs that have been accepted. There is no fiduciary responsibility. You know, the States just have an open book. We are encouraged by the, hopefully, order that will be coming out from the FCC to at least make sure that there are standards for people who are accepting USF. The question is it is two different models. Do you want to be more regulated or you don't at an executive level?

Mr. STUPAK. Thank you.

Mr. Erickson, there have been some questions about whether VoIP providers should be contributing along with all other types of providers to the Universal Service Fund and paying intercarrier compensation like the other providers. Since these are the two primary funding mechanisms that are making it possible to bring broadband to the most rural parts of America, isn't it in your interest to support these mechanisms? Don't your services need to ride on broadband facilities that others have built? And does your company currently pay to support either of these funding mechanisms today?

Mr. ERICKSON. I do agree that we should be, as an industry, contributing toward universal service. Absolutely. I think we need to find a mechanism to do that in an efficient way, and the current structure makes it difficult for us to do that. Our services are defined as interstate, right now, what that would mean if we were applying it sort of strictly by the letter of the law, the 11-percent contribution factor would apply to all of our revenue, which is, you

know, for regular phone companies it actually translates to more in the line of 2 percent or so.

And to answer your second question, are we currently paying, we are not paying directly. We are paying indirectly, but we certainly would welcome the reform that would allow us to contribute in an obvious and transparent manner toward what we agree to be an important public—

Mr. STUPAK. How are you paying indirectly?

Mr. ERICKSON. Through the payments that would—all of our services are terminated through other phone companies, and they are paying on their side into the Universal Service Fund for that traffic, so—

Mr. STUPAK. So you are paying them, and then they in theory pay into the Universal Service Fund?

Mr. ERICKSON. Thank you, Mr. Chairman.

Mr. UPTON. Mr. Pickering.

Mr. PICKERING. Thank you, Mr. Chairman.

If I could just ask a few questions as we try to develop legislation and consensus on the committee, some of the issues that—what I would like to see is your views and then put across the board. One, on the intercarrier compensation, my bill would require—that I introduced last year and it is my intent this year, a time certain for the FCC to complete the intercarrier compensation. Industry has had a chance to try to complete a volunteer agreement. I believe it has come close, but it is not yet done. I don't know if a deadline in the FCC would be helpful to get the certainty and the requirement and the catalyst to achieve that, but would everybody on the panel support a requirement in legislation that would give a time certain, 180 days or some time period similar to that, for the FCC to complete an intercarrier compensation, taking into consideration the differences in rural markets and urban markets and looking at the best way to achieve a balance of all providers of telecommunication services or IP services.

If I could, just quickly, would everybody support a time certain ICC—of the FCC?

Ms. PUCKETT. Absolutely.

Mr. ERICKSON. Yes. Yes, we would. Certainly it is important for us to make necessary investments and plan for the growth of our business in the network.

Mr. MELCHER. If I may, I am not a carrier, but we have a dog in this fight, because every time you jump from an incumbent or certificated carrier to one of these other service providers, depending on who they are in the greater Houston area, I was 50 cents out of my budget, so as the wireline, as Ms. Puckett described as the wireline account is declining, so is my revenue. At the same time, we are having to spend a lot of infrastructure upgrade money to accommodate these new technologies. So the user pays that we have been working under in this country, everybody gets a 911 fee on their phone bill, has a direct impact on my success to be able to deploy technologies to meet this new challenge. So we are not a carrier, but we certainly have an interest.

Mr. PICKERING. And would you support a mandatory compliance of cost recovery on E-911?

Mr. MELCHER. I think that, like technology and revenue, as long as we are able to be made whole and recover the costs that we have to spend on these new technologies, we have to have some mechanism. Our public safety budgets already are somewhat overburdened, and they vary from State to State. But without the ability to recover those costs, we have no choice. We will end up cutting service.

Mr. SHLANTA. Mr. Pickering, I believe that 180 days is too quick a timeline for the intercarrier compensation issues to be sorted out. I would encourage you, members of this committee, the same thing that I encouraged the FCC and that is to go slow. Take a comprehensive approach, as you examine all of the intercarrier compensation. There is more to intercarrier compensation than VoIP and access rates.

Mr. PICKERING. Do you have a time period that you would suggest?

Mr. SHLANTA. Twelve to 18 months would be a more sufficient period of time. It will take time. It is a complicated issue that needs a comprehensive review. To try to accelerate that I think it will force us to create decisions in a vacuum that will ultimately lead to more difficult items to reverse in the future.

Ms. PUCKETT. Mr. Pickering, Karen Puckett. I would like to say one thing. I applaud the speed. As a businessperson, what we have here is a situation where all of us have questions about our business models. It is very hard to have the visibility in your strategic future on how to position your company if you don't know what the rules are going to be. So be at level three, I mean, that petition is more than a year old. We have been around the table as an industry working on this. We are not starting at ground zero. And whether it is, you know, 18 months, 6 months, or 12 months, hopefully it is less than 12 months, but we have to have visibility to know how to position our businesses for the future. Thank you.

Mr. PICKERING. We will call it a compromise at 9 months. How is that?

Ms. PUCKETT. Okay.

Mr. PICKERING. Universal service, the approach in the bill that I introduced last year was to say to the degree that there is interaction between the PSTN and IP over voice, there would be a contribution, a proportionate contribution to USF, and again taking into factors different in rural markets to urban markets. Is that an approach that everybody at the table would support?

Mr. GRIVNER. I would support it. My concern would be is it too limiting, though, because especially when you are dealing with VoIP traffic that may touch the PSTN. I think you would have to, I think, when you start looking at these services and we start using terms like interstate, intrastate, and local, those terms are terms that are going away very quickly. And so therefore, I don't know that I could define it that easily as just touching the PSTN. I would define it as a service that we are providing to consumers and customers. There needs to be some sort of even distribution on or off, either we regulate it or we don't, in terms of attacks, and then it applies to all services.

Mr. MELCHER. And touching the PSTN to get to 911 right now is the standard, off-the-shelf solution. But like in our own shop, we

are developing these next generation tools. As a matter of fact, we have already tested them, so one of these providers could come directly into our shop without ever touching the PSTN, and we have got 43 dispatch centers around Houston that would never be included in that model, so that has to be taken into account as well.

Mr. PICKERING. One final question before my time expires.

As I understand it, Vonage and other IP-related services, to be able to complete a 911 call, have to have access to the tandems on the routers, especially from the Bell companies. Currently, there is some progress but not complete acceptance from the Bell companies as far as allowing IP companies to have interconnection at the tandem, which is required to make the—to complete a 911 call. I think the situation that we will hear later, or the example in Houston, is a perfect example. Should we require, as we go forward on this, interconnection for IP networks and applications, at least to the tandem of the incumbent networks?

Mr. MELCHER. For the majority of the country, that is the only way you are going to get into a 911 piece app, so the short answer is yes. As we look to next generation 911 infrastructure, which we are aggressively pursuing in Texas, and I believe in the next 18 months—actually, in the next few months, you will see some of this traffic routed directly into the piece apps, but for the majority of Texas, I think you will see a lot of next generation work over the next 18 months where it wouldn't have to go through an incumbent selective routing tandem. It could go through, you know, the 911 selective routing cloud, if you will. But unfortunately, the majority of the infrastructure out there for 911 is very, very beholden to that incumbent local exchange carrier tandem. And without access to that and access to the data base as well, you will not see calls delivered to 911 piece apps in this country.

Ms. PUCKETT. Mr. Pickering, I would just like to make one point. Public safety is very, very important, but I would ask that there is some respect for the burden put on some of the telecommunication companies. You know, we have spent millions of dollars preparing, and this is our own data base. And these companies that want to come and play, if 911 is an important part of their value proposition to the marketplace, that is the cost of doing business, and they need to get with it.

Mr. SHLANTA. Mr. Pickering—

Mr. PICKERING. But you wouldn't deny them access to your tandems, would you?

Ms. PUCKETT. No, but I would just ask that we wouldn't carry the incremental burden of connecting them and whatever infrastructure is required.

Mr. PICKERING. There should be some compensation.

Ms. PUCKETT. Correct, sir.

Mr. SHLANTA. Mr. Pickering, that is exactly what I was going to say. I believe that 911 and emergency services are a responsibility. They are not an expense, as they have been indicated earlier in terms of VoIP companies looking at them from a profitability standpoint. And with that responsibility, as Ms. Puckett indicated, the telecommunication companies across the country have invested millions of dollars in developing these data bases. It should have—

and should expect adequate cost recovery for access to those data bases and access to those routing services.

Mr. PICKERING. Thank you, Mr. Chairman.

Mr. UPTON. Mr. Gonzalez.

Mr. GONZALEZ. Thank you very much, Mr. Chairman.

And I am going to leave all of the other questions regarding regulation policy and the consequences in the bigger picture, and I am just going to get down to some practicalities and experiences in San Antonio and questions that constituents will pose. And I want some—your opinion on it. And of course, this question is more directed to Mr. Melcher.

The tragic experience of the John family, of course, stands out. When a cable company comes—let us say when they approach the John family, are they notified that if you dial 911 that it is—there is not going to be a connection? I mean, I know you are going to get the recording, but that is after the fact. That is insanity. But is there any requirement—I can see that maybe there may be some sort of legal responsibility and liability and I guess you would have to see what the courts think, but beyond that?

Mr. MELCHER. It depends on the carrier, Congressman. The cable providers in Texas, at least, are doing full-borne 911, and so there is really no disclosure there required. The others, as in Mr. John's case, got his service from one of the ISP type providers. And although if you sign up for it on their website, they have some disclaimer information that you have to accept and there is some fine line there between disclaimer equals real disclosure in our minds, from a consumer perspective, but in this case, he picked up the newspaper ad and dialed their 1-866 number and signed up for it over the phone. So there was no disclaimer, no disclosure, no nothing. They took his order. He got his service and didn't know he didn't have 911 until his daughter picked up the phone and needed it that day.

Mr. GONZALEZ. How about home security systems? I have been told by individuals that install these things that you need a wireline. In other words, what happens if you have a silent alarm or any type of alarm and it is triggered because you have an intruder or whatever it is, an alarm goes out, and what happens is the signal goes out by the wireline, the hard-line, and then to the center. The center then calls the home. If you are there, you answer and you give them the code word, if you can remember it, and so on. But let us just say something is happening. It disables that system, doesn't it, if you have Voice-over IP?

Mr. MELCHER. Again, it depends on the technology. If it is a system that has no battery backup and the power is out, then it will not work. There are some of these IP technologies that don't support fax or TDD devices, telecommunications devices for deaf and hard of hearing persons, because they use FSK or other types of signaling. Some of the IP providers do. That technology is getting better, but your observation is very correct, sir. It depends on the type of technology, but some do not support that type of activity.

Mr. GONZALEZ. Again, is there any requirement anywhere that would—that the cable company that comes and has you switch over to advise the consumer that this disables their security system, or one aspect of it anyway, the most important?

Mr. MELCHER. There is no written regulation that we are aware of, sir, and we are totally relying on their voluntary compliance to those types of disclosures.

Mr. GONZALEZ. And that probably won't happen, right, because that may be a determinate factor for someone to not subscribe. Simply saying what do I have to do in order to make sure that my alarm system, which I spend so much every month and had so much to install, is going to work?

Mr. MELCHER. We launched a huge press conference and campaign yesterday in Texas that basically said buyer beware. You need to check out the technology that you are purchasing to make sure it is going to do all that you want to do, like 911—enhanced 911 and those other types of issues. Will it do security? Will it do fax? The buyer needs to be aware and be educated as to what the limitations are of the service that they are purchasing.

Mr. GONZALEZ. What do you believe is the responsibility of the provider of Voice-over IP?

Mr. MELCHER. Well, as a public servant, it is my job to protect the public. And as public servants, all of us, our first and primary goal, I think, should be public safety. I understand the arguments and I understand the costs and I understand all of those arguments that you have heard, but the bottom line is we have people out there that think they are getting a different kind of "phone service," and they expect that 911 is a part of that. Any degradation to fully enhanced 911 is ridiculous, because it is not technically a barrier. There is no reason for them not to have that kind of service. It might be an economic issue and there might be some incumbent access issues, and those are all true issues, but there is no reason to offer a telecommunications service that doesn't have 911 as part of your business plan.

Mr. GONZALEZ. Okay. And any of the other witnesses are free at this time, if they have an opinion regarding, not just 911 but what I am eluding to, of course, is what happens when it disables alarm systems and consumers are not being advised.

Mr. Rutledge?

Mr. RUTLEDGE. Our company provides the capability of using your alarm system with the Voice-over IP products we are installing. We have also installed E-911, and we are currently working on hearing impaired services, which we have not yet launched but plan to launch. And so we have been rolling out our product and adding additional features to it, as we develop the product and as technology gets integrated in such a way that it is practical to offer it to the marketplace. But I think we have a responsibility to tell all of our customers exactly what our service does and what it does not do. We have chosen to offer E-911, because we think it is good for our customers to have. It is good for us to provide it. We think there is an expectation in our marketplace that when you have a phone service that you are going to get that product from us. And so we voluntarily provide it, and we are trying to make all of the functionality that people are used to in what they consider their phone service to work on our network and then add much more to it so there is an even greater value than what was traditionally offered.

Mr. GONZALEZ. Is there additional cost when you provide this service, whether it is the 911 capability, but especially the security alarm systems?

Mr. RUTLEDGE. No, we have one flat fee no matter what, no matter how much you use it or where you call.

Mr. GONZALEZ. Thank you.

Anyone else?

Mr. Chairman, thank you very much.

Mr. UPTON. Mr. Bass.

Mr. BASS. Thank you, Mr. Chairman.

Mr. Shlanta, you mentioned that you needed adequate cost recovery for access to the data bases. Do you have any—could you give us any further details as to how that cost will be recovered and what it would be and how that would work?

Mr. SHLANTA. Well, I think that is part of the intercarrier compensation rates that need to be developed. The companies have spent millions of dollars developing the data bases, and as I indicated in my testimony, I will consider those data bases part of the network infrastructure. Any upgrade and maintenance of network infrastructure is—requires adequate cost recovery to ensure that those are done.

Mr. BASS. Can—all right. So at present, States regulate 911 access. We have pretty much agreed that the Federal Communications Commission should have sole jurisdiction over VoIP regulation. How does that all work? Maybe, Mr. Melcher, you could start. And who would decide—I would just like to know how that whole system would work.

Mr. MELCHER. Actually, we think that the Congress's intention to, you know, leave the industry somewhat unfettered so that it can grow, we don't have a problem with that. We do see a role for the Commission to play in the interim. There are some technological things that next generation access needs to have worked out. Our agency, along with NENA and several universities, are looking at those models, and that those solutions are coming very quickly.

But access into the 911 system, I think does need to have some type of leadership, and the Commission has a docket open on that. And the commissioners that—I have spoken to all of the commissioners and the chairman, the outgoing chairman, and they have all expressed a willingness to take the 911 piece from that docket and accelerate it. And some interim rulemaking on that, I think, would be very helpful. I don't think it would be overly burdensome, because as you have heard today and before, most of the players are wanting to—even the ones that aren't doing it now, are wanting to, and they are working very aggressively toward integrating into 911. So I don't think you are going to get a whole lot of pushback on that. A little bit of interim rulemaking at the Commission would certainly suffice in the meantime while Congress deals with the rewrite of the act.

Mr. BASS. So interim rulemaking, do you think the FCC could handle E-911 from VoIP just the same way they handle it for wireless?

Mr. MELCHER. I think they are at a better posture to handle it for VoIP than wireless. I think so many lessons have been learned

in wireless 911 that I believe not only is the Commission better equipped to handle it, but I think the public safety community and the telecommunication industry is better equipped to handle 911.

Mr. BASS. Anybody else have any other comments on that? If not, I will yield back.

Mr. UPTON. Mr. Boucher.

Mr. BOUCHER. Well, thank you very much, Mr. Chairman.

I have laryngitis today, and so I apologize for this raspy voice.

I want to express appreciation to our panel for sharing their views with us on IP-enabled services and VoIP in particular. I have listened very attentively to what you have had to say, and I think you have offered some very helpful viewpoints.

I have a couple of key questions. We have had one example to date that has been largely reported and some less well reported suggestions that other examples have occurred where broadband platform owners have engaged in a practice to disable access by their broadband customers to the websites of people who offer a competing service. The one example that was widely reported was a local exchange carrier engaging in port blocking to prevent its customers from accessing Vonage to enjoy VoIP service. And there are suggestions that this is not the only such incident. My concern is that if we don't have a clear rule that says you can't do this, if you are a broadband platform owner, we should have a rule, in my opinion, that says that you may not discriminate among the bits that are traveling across the platform you operate. And you certainly can't do it in a way that favors a content service that you offer to the disadvantage of a content service offered by a competitor that has a website somewhere out on the Internet.

This rule would be very simple and would say that a platform owner may not disable access to any website on the web and particularly could not do that in order to engage in anti-competitive conduct and favor its own service over the service offered by someone else. So in practical terms, the cable operator offering telephony could not disable access through its cable modem service to a VoIP provider, such as either of the gentlemen we have here today. A telephone company offering DSL service would have to play by exactly the same rules. And any other broadband provider would be required, in effect, to respect network neutrality.

And this is a principle that was strongly endorsed by Commissioner Powell during his tenure as Chairman of the FCC, which ends very shortly. He decided not to translate that support for network neutrality into a Commission rule. I had hoped that he would do that. That has not been done as of now. We have the rewrite of the 1996 Act coming up, and we have an opportunity to insert this very common sense principle of network operation into the statute. I am inclined to do that, and I would welcome your views on whether or not that is a good idea.

Let us start with Mr. Erickson and Mr. Grivner.

Mr. ERICKSON. Sure. Well, obviously, as someone who requires unfettered access to those broadband, we strongly would endorse that. I would also take it a step further and would ask to separate it from the larger question of the Telecommunications Act rewrite. In my opinion, this is something we—as I mentioned in my testimony, we recently completed a consumer poll, and only 3 percent

of consumers of the 2,000 we talked to, said that it was legitimate for a broadband provider to interfere in any way, disrupt any form of service application or content over a broadband pipe. So the—you know, our constituents, all of us, our customers and your constituents clearly are in favor of aggressive action to ensure that, you know, that inference never happens.

Mr. BOUCHER. Thank you very much.

That was just a great answer, by the way.

Mr. Grivner.

Mr. GRIVNER. Congressman, I would agree with your proposal. If you look at the chart that Ms. Puckett was so kind to bring with her today, if you look at the bottom of that chart, that is where—I would argue that that is where you see more regulation. And then as you move up the chart, you see less regulation. So I think your proposal, as it hits the first two layers of that chart, does make a lot of sense.

Mr. BOUCHER. Thank you very much.

Others who would care to comment?

Ms. Puckett?

Ms. PUCKETT. Thank you very much. And I am glad I brought the chart, because I think it visually helps here. I don't disagree, but I think there are a few things that we need to clarify here. The bottom of the chart, the question is the chart, depending on the value proposition, let us just say like Vonage, who doesn't have facility base, they could be at the top of the chart, and the cable provider could be at the bottom of the chart, right. Who is accountable in between? It is not clear. I think clarity is what we need here. And I think we have to be careful with discriminating the difference of blocking and service degradation. Sometimes there is a very significant issue happening on the Internet with viruses, and service providers are impacted by viruses. And it impacts their ports, which appears to be blockage, and I want to get—I don't want to outrun my technical headlights here, okay, but I do know that we are—we, the industry, has had significant issues with the viruses and how it impacts ports—

Mr. BOUCHER. Well, Ms. Puckett, let me interject. I don't think anyone would disagree that broadband operators have an obligation to conduct their platform operations in a way that promotes network security, and if security is the issue, then that is one thing. And obviously, managing the network with that objective in mind is fine. But to manage it in such a way as to disable access to a competitor's website because you don't want that company competing with you is wrong. You would agree with that, wouldn't you?

Ms. PUCKETT. I would absolutely agree with that.

Mr. BOUCHER. Great.

Ms. PUCKETT. And I also would agree that you also need to be able to identify the traffic—

Mr. BOUCHER. Right.

Ms. PUCKETT. [continuing] and it needs to be clear on how you are compensating and what the arrangements are between the two parties.

Mr. BOUCHER. That is great. Thanks.

Mr. Melcher, I saw you nodding your head. I assume you agree with the proposal?

Mr. MELCHER. I do, because, you know, blocking another provider's content can be equated sometimes to blocking access to our facilities as well. And although it is IP to IP in the model that you put out there, ours could also be IP to IP. And as those of us who are more aggressive in building these next generation platforms, that would be a significant issue for us, and we appreciate your recognition.

Mr. BOUCHER. Mr. Rutledge, surely the cable industry would agree this is a good principle?

Mr. RUTLEDGE. I don't think there is any example of any cable operator blocking sites on broadband networks. In fact, our whole opportunity as a broadband operator and the networks we have built is to sell more subscriptions. And when people buy subscriptions to our service, they get access to sites. And we actually like the fact that sites are getting richer. And the fact that sites are richer requires more broadband capability. And because our networks, we think, are superior to our competitors, that gives us a marketplace opportunity to succeed. So I don't think, from our point of view, we see a problem. And—but our networks are, in essence, open.

Mr. BOUCHER. Well, let me just add that—and again, we are talking about rumor here more than anything else, because I don't have a solid report of this. But I read in one of the communications publications that circulates around the Hill on a daily basis just yesterday that there now is a suggestion that a cable company has, in fact, engaged in port blocking with respect to an independent provider of a competing service. So I am not saying that is necessarily true, but the rumor is certainly out there, and I suspect we are going to find out more about that in the days to come.

Let me give the final witness, Mr. Shlanta, an opportunity to comment, if you would like.

Mr. SHLANTA. Certainly. I guess I don't agree that we need separate legislation regarding the port blocking. I think it is all part of the intercarrier compensation discussion. I don't think that the—

Mr. BOUCHER. So you pay to get access, and if you don't pay, you can be blocked? Is that what you are saying?

Mr. SHLANTA. No, I think what you had said was there are some rumored reports of, perhaps, a cable company—

Mr. BOUCHER. No. No. Well, no, we have a firm report that a local exchange carrier did in fact block access to Vonage. Now that is clear. And the FCC did undertake a proceeding with respect to that particular instance. What we do not know for certain is if there are other examples of that, although we are hearing through the grapevine and through some reports that unidentified broadband operators have, in fact, engaged in this practice. My concern is if we don't have a rule that says you can't do this, and it is a pretty simple rule, and I think most people with common sense would agree that it is appropriate, we are going to see more examples.

Mr. Chairman, I know my time is up, and I appreciate your patience. Thank you very much.

Mr. UPTON. Thank you.

Mr. Barton.

Chairman BARTON. Thank you, Mr. Chairman.

My questions are not quite as technical intense as Mr. Boucher's. He is our resident intellectual telecommunications expert. I am just one of the laymen on the committee, but I am the chairman, so that helps a little bit.

My first is more of a comment than a question. I hate this acronym of VoIP. Nobody knows what VoIP is, and you know, it is like some character in Star Wars or something. I have come up with a different acronym, and I just want to try it on you folks and see what you think about it. I have tried it on Ed Markey. He doesn't like it, but that might mean it is a good thing, I don't know.

Mr. UPTON. I liked it. I want you to know I liked it.

Chairman BARTON. Yeah. Well, Mr. Upton likes it.

How about BIT or BITS for Broadband Internet Telecommunication Services, because VoIP is really voice. We are really talking about broadband and Internet and telecommunications. So if—I may start using BIT or BITS if you folks would start using it, too.

Mr. MELCHER. I will take some of that.

Chairman BARTON. You like that?

Mr. MELCHER. Sure.

Chairman BARTON. I mean, if you don't like BIT or BITS, come up with something you do like, because VoIP—I would hate to, 20 years from now, having to be doing a town meeting, if I am still in Congress, talking about VoIP. But BIT, because you have got data bit, it just seems a little bit better.

So anyway, that is a food for thought. Boucher is over there grinning about that.

First, as a general question, in the Internet age, with everything you folks are doing, is there a Federal requirement for a statute that requires universal service? If you were me, would you, in the telecommunication rewrite that we are about to do, would you repeal the universal service requirement?

Mr. GRIVNER. I will start.

I would reform it. I wouldn't repeal it, and I would make it applicable to all, not just some. I think it—

Chairman BARTON. When you say make it applicable to all, do you mean everybody at this table?

Mr. GRIVNER. Everybody at this table, and some that aren't even here.

Chairman BARTON. Including our cable representative?

Mr. GRIVNER. Well, yes, I would say that. Obviously, he is going to say no. But yes, applicable to everyone at all—and equally, that way—because, as you said with your term, I agree with you on VoIP it is actually like when people converted from radio to television and they looked very much on television the first time like they were on the radio. And that is what VoIP is. It is kind of a—the first application to move over, and I think it is going to become a very old term very quickly.

And so I do agree. I think that universal service needs to be reformed, applicable to all. I think that you can look at some creative ideas that take some of the fund and, as we talked about enhanced 911, carve out some of the fund to do some research and develop-

ment on enhanced 911 services for the future of telecommunications, not looking back on how—

Chairman BARTON. Is there anybody on the panel that would vote to repeal it? Most of you are providing services that don't benefit from a universal service requirement.

Mr. ERICKSON. We understand this important public policy goal. I think I would agree with the people on the panel who said that is important to broaden the rate base. I think from a consumer standpoint, it gets a little complicated because, as we have done with our services and, you know, cable companies have done with theirs, what consumers like is to buy a package of services, and these services are to get converged together. And so you end up paying, you know, \$90 for something that includes content services and voice services and other forms of communication service. So it gets a little hard to sort of parcel the revenue, if you will, to say, "Well, this portion of the revenue or service is subject to those kind of subsidies." But I think overall—

Chairman BARTON. Well, overall, we have established that everybody is for universal service, so that means you all want to help pay for it, is that right, not just the current phone companies but all of you, Mr. Sun down there, and the lady here, you are all going to willingly pay something into the Universal Service Fund?

Mr. GRIVNER. Well, I am already paying close to \$100 million a year, 11 percent of my revenue, so the way I look at it, I will probably end up paying less.

Chairman BARTON. Okay. My cable man wanted to say something, I think.

Mr. RUTLEDGE. I wanted to say that, you know, it is in our interest for our voice customers to be able to complete their call to someone in a rural area, so there is value in that for us as a company. I do think the definition of what the service of universal service is needs to be updated. I think the concept arose in an era of wireline telephony, and the real question is what do we want to provide the people universally and then what ways can you do it. And those are very complicated questions that I think need to be addressed. That done properly I think—

Chairman BARTON. This committee doesn't do anything unless it does it properly. That is the stipulation. So—

Mr. RUTLEDGE. And—well, I assumed that.

Chairman BARTON. We may need your help to determine what proper is.

Mr. RUTLEDGE. Yes. But that, you know, that said, then I think we need—then it needs to be funded, and we are willing to work on a mechanism to do that.

Chairman BARTON. Well, my time is expired, Mr. Chairman. I am semi-serious about BITS. That may not be the perfect one, but please help us come up with something different than VoIP. And I chose BITS because of the Internet telecommunication services, and it is, you know, broadband, technically speaking, would include everything including wireless broadband.

Thank you, Mr. Chairman.

Mr. UPTON. Thank you.

Ms. Blackburn.

Ms. BLACKBURN. Thank you, Mr. Chairman.

And I want to say thank you to each of you, and I know we have run in and out of here today with meetings and votes, and thank you for your patience. We appreciate that. And we are always as absent as we appear. Sometimes we are in the back holding meetings.

You know, the chairman has got a great point there talking about BITS. And I think it is going to get even more difficult for us. You know, we talk about Voice-over IP, or VoIP as he is saying, but now really it is everything over IP, as one of our witnesses at a hearing said last week, and I don't know how we would take those three vowels and one consonant and come up with some kind of term that we could even begin to pronounce.

I do have just a couple of questions that I want to follow up with you all on. I want to—let us talk about the Federal-State interface for just a few minutes on this. I want to be sure everybody on this witness panel concurs that Voice-over IP is an interstate commerce issue, it is an interstate issue. Is there—am I reading your testimonies and hearing your comments to come to the conclusion that you all agree it is an interstate issue?

Mr. GRIVNER. Well, a clarifying point. As I said earlier, I think that the terms that we have used in the past describe communication services, inter, intra, international, or local I think are not useable in this context. It is basically a service that I could call across the room, across town, across the world and using that kind of service. So in many cases, we are applying a previous thought process to a new kind of service. So while I agree with your premise that the FCC needs to rule over that from an interstate perspective, again, I think that is a term that is becoming—has seen its better days.

Ms. BLACKBURN. Thank you, sir.

Mr. Erickson, you had stated that States should have an active role in fostering competition and protecting their citizens. And I want you to elaborate for just one moment, if you will, on what that role should be.

Mr. ERICKSON. Historically, obviously, the States have always participated in Federal proceedings, and I am just suggesting that they continue to do so, that we will cooperate as best we can and work together to try to create with the States' participation a common national framework for things that do require action and involvement of State authorities.

Ms. BLACKBURN. Okay. All right. As we look at the Voice-over IP, which is where we are right now, and consider the implications of convergence as we move forward, and we know that with Voice-over IP, a customer gets their voice application from one provider, like SunRocket and they get the broadband facilities from something like Cablevision or CenturyTel, and there exists the possibility of some extended service outages where both companies blame the other, and the customer is—will feel powerless. And this is going to be one of those customer services issues that we know we are going to get calls about. And it is going to be left for somebody to handle.

So looking forward, who should sort out these sort of service outages? Where should the responsibility lie? Should that be State commissions? Should it be the FCC? Should it be the courts?

Should it just be left to the markets to the competition getting into the market? Where should the responsibility on that lie?

Mr. GRIVNER. Well, in actuality we have that problem today, because, for example, in my case, XO Communications, we provide service to business customers but in many cases, that last mile of connectivity is provided by a regional Bell operating company. But the customer looks to us as that primary interface and will keep their service with us or take it away based on their overall performance of being able to manage our, in this case, subcontractors. So in our case, I think it belongs to the primary provider. And in many cases, it would go back to a State jurisdiction in terms of complaints or issues with service with XO on a local basis.

Ms. BLACKBURN. Okay. Thank you. My time is expired. Thank you.

Mr. UPTON. We recognize Mr. Stearns.

Mr. STEARNS. Thank you, Mr. Chairman.

I don't know if this question has come up with portability of numbers. I think—do any of the witnesses disagree that the number of portability should be available for VoIP customers? Let me just start from my left to right.

Mr. GRIVNER. It absolutely is essential for our customers.

Mr. SHLANTA. Agree.

Mr. STEARNS. Anybody disagree?

Okay. Mr. Grivner, it seems from your testimony that you want to continue for IP services the same kind of unbundled access regime that you enjoy for telecommunications services.

Mr. GRIVNER. That is correct.

Mr. STEARNS. One of the benefits of VoIP services is that it rides a broadband pipe without requiring the VoIP provided to need unbundled access to the last mile facilities. Given that, why should Congress perpetuate an unbundled access regime in an Internet Protocol world?

Mr. GRIVNER. First of all, Congressman, IP is software that rides on some sort of physical asset. That physical asset to the customer, that last mile of connectivity is still controlled by a few companies, primarily the Bell operating companies, or in some cases, the cable companies, but not so much as it relates to business customers. So that last piece of copper, that last piece of fiber is still going to be a bottleneck, regardless of the service that rides on top of it, whether it is VoIP or BITS. That service is still going to be bottlenecked by that last piece of copper or fiber to the customer. That is not going to change regardless, because economically, there are issues with building, going into buildings, digging up streets to continue to build to that last mile of connectivity, so that is not going to change in the foreseeable future. It will at some point when wireless broadband becomes available, but that is not in the foreseeable future.

Mr. STEARNS. Anyone else?

And also, Mr. Grivner, this broadband wireless offering you have, in my—I represent part of Jacksonville, Florida, and Clear Wire is being deployed in Jacksonville, which I understand has just begun to offer VoIP. Maybe if you could just explain a little bit about what you are offering.

Mr. GRIVNER. What we are offering—we purchased some spectrum several years ago for about \$1 billion. It is called LMDS. It is fixed wireless spectrum, so it is a licenses spectrum. And what we are offering in San Diego, Los Angeles, Dallas, and very soon in Florida, most of the State of Florida, is a fixed wireless capability. In California right now and in Dallas, we are offering that as a direct solution to end-user customers. And basically, it eliminates that last mile of copper or fiber to those customers. What we are doing or potentially going to do in Florida here in the next 5 to 6 months is working with a cellular provider using that capability to back-haul their wireless from their wireless towers to central offices.

So that capability exists in other countries. If you look at Europe or Asia, they have deployed it quite heavily. One of the reasons is that when you don't have a competitive environment, like you do in the United States, a lot of the pricing is artificially high, so therefore it has been very easy for wireless broadband providers to come into those markets and deploy those technologies. That technology in the United States I think is only years away as the prices of that technology continue to decline. So I think it is going to be an option. Clear Wire was founded by Craig McConnell, who also founded XO many years ago. I think he has got a very good idea. I think it is a very innovative idea to provide wireless broadband to residential and potentially businesses at some point in time, and I think that dream will become a reality within 3 to 5 years.

Mr. STEARNS. For the—not just the commercial market but for the—

Mr. GRIVNER. Consumer.

Mr. STEARNS. [continuing] consumer, too?

Mr. GRIVNER. Yes.

Mr. STEARNS. Well, that is—you know, Clear Wire probably is on, just as you are, probably the leading edge of a new concept here. And this fixed wire is something that anybody can get into or is it confined to if you have the money you can get into it?

Mr. GRIVNER. I think you need money one way or another, because—

Mr. STEARNS. One way or the other.

Mr. GRIVNER. [continuing] you will have to pay for the electronics, and there is still a price associated with building the towers. I think the bottleneck that we will all run into at some point in time, potentially, it is kind of interesting, we will move from this copper bottleneck to the building owners that have the rooftop rights where we have got to put cell sites up or something along those lines. But that technology is going to continue evolve. It is coming from companies like Hughes and Erickson and companies in the Far East, and the prices are getting less and less. So I do think it will become available, and I think when we talk about the wireline connection, I think it will go away or certainly not be as much of an issue in 5 years or something. And then when you look at the rural community, I think that is going to be a great solution for broadband capabilities to rural communities as well.

Mr. STEARNS. Good point.

Thank you, Mr. Chairman. My time is expired.

Mr. UPTON. Mr. Inslee.

Mr. INSLEE. Thank you, Mr. Chairman.

I have enjoyed listening to your comments. I want to ask—I am a new member of the committee, so I am the one that needs some educating here. I want to ask you generally, you have been talking about all of these multiple regulatory issues and consistency or lack thereof amongst various providers of what are becoming similar bits across these channels.

I just wonder if any of you could offer sort of a unified theory of regulation on these multiple issues. You know, we are facing it from universal service, must-carry provisions, 911 issues. We have all of these issues of sort of a confluence of multiple sources, not just Voice-over the Internet, and I just wanted to know if any of you, in your own minds, can think of how we should look at these issues of how to—where we have distinguished or unique regulation and where they should all be consistent, because we are, obviously, having this unification of multiple channels. We talked about, you know, video over cable, Internet, previously voice-only lines. Many of us think that all of this will be in one oatmeal mix in 10 years. I just wondered if any of you can give us some thoughts how you would encourage us to look at these multiple issues about where they need to be consistent and where they need to be unique to one channel or the other. It is a broad question, but anyone who wants to take a stab at it, I would be interested.

Ms. PUCKETT. I will try first.

I am Karen Puckett, CenturyTel, and I don't know if this will exactly address the comprehensiveness that you are looking for.

But first, I think we ought to stand back and make sure that we put the customer first, and in all of this discussion, you know, we are renaming VoIP and I am guilty of using VoIP here, but at the end of the day, what it is about is the solution to the customer and the marketplace at what price point. And we all have to get our value propositions around that. We can do VoIP-like service today without IP. So the point is we have got to ensure that we put the customers first. We have, you know, FCC oversight as well as State. No one, holistically, is looking at the impact on the customer. We might have, excuse me, a State movement on a rate and maybe a Federal slick happen close to the same time. To the end user, and especially to our consumers in rural America, they only have so many checks in the checkbook. It is a price increase. I don't care if you call it a slick or a surcharge or what, it is a price increase. So I would clearly encourage us to look at this from a customer's perspective for a second.

And then the third area would be around not the technology but the services and like services should be regulated like. And you know, competition is actually very good for all of us. It makes us stronger companies, but you have to have parity.

And those are the three or four areas I give you as kind of principles.

Mr. INSLEE. So when—just to dovetail what you said, what do you—I mean, that is an obvious great sound byte, which is like services should be treated like, but should we look at like services from like to the consumer or like to the technology or like to the expense to the industry? In other words, what is really the salient

likeness which should have particular techniques all in the same regulatory—

Ms. PUCKETT. Well, I think ultimately if you go back to putting the customer first and keeping the forefront as from a customer's perspective, I mean, today a lot of customers don't purchase, and especially the younger generation, wireline services. They have wireless. So substitution. So we need to think more from the mindset of our consumers, so I would look at it from a consumer standpoint, sir.

Mr. INSLEE. Any other thoughts?

Mr. RUTLEDGE. Yeah, I think that I would agree with most of the—that comment. The service and the services perceived by the consumer I think is the most significant aspect in terms of what you want to do from a public policy perspective. IP is just a format of digital. And you know, there are other IP—there are other digital formats out there. For instance, our digital television is in a format called M-Peg. And one isn't superior to the other. They are different technologies, and if you get hung up on the protocol as opposed to the service, I think you miss the main point, which is what are consumers getting, how does it—what is the service that they are actually being provided, and what is the public policy implication for those services?

Mr. MELCHER. There is also the expectation of, you know, independent of the technology, it is still a communication service. So the expectation for things like 911 should be built in. But there is another piece of this that, as Federal preemption comes in more in the Internet telephony market, there is a significant impact. And this is not good, bad, or indifferent. It just is what it is. Our funds right now come from a local level that our State legislatures enabled us to put a fee on the phone line. And again, we are back to, you know, what is like. If that moves away, as more of these customers move from the wireline carriers to some other technology, if those technologies are overseen by the Federal Government, then we are going to have to have some mechanism there to recover our revenue stream or we won't be able to provide service. So my recommendation is not to have it at the State level or at the Federal level. My recommendation is that as you look at rewriting these acts, you take that into account. Because if we can't get it from State-authorized funding sources, we are going to have to have it from federally authorized funding sources.

Mr. INSLEE. I got you. Some of you may have talked about privacy issues. I haven't been able to hear the whole hearing, but I just would be interested in any thoughts you have about privacy issues broadly stated as we move forward to this brave new world. You know, we are all looking at the choice point issues right now. We have been involved in the spyware issue that has peripheral interest in privacy. Do you have any thoughts on what we ought to be thinking about privacy-wise in the immediate future? Any concerns, worries, advice?

Mr. MELCHER. Because in the 911 arena, when you dial those digits you give up the right to privacy because you want to be located. However, it has to stop right there. If you make an IP telephony call and it goes to, let us say, a next generation piece app that is capable of doing it without going over the public switch net-

work, the consumer's right to privacy ends right there at that piece app. And the fact that they called 911 and any of the data associated with it, which will be more rich data, as the technology improves, must be protected. The consumer must have their interests protected.

Mr. GRIVNER. Our IP traffic today that we carry is encrypted and it is part of a built-in capability. It doesn't mean it can't be broken, but it is encrypted. And you know, that capability has to continue to be enhanced over time, because there are people spending 24 hours a day trying to figure out how to break into it. But at a minimum, that service has to be encrypted between the callers.

Mr. INSLEE. And is that—should that be a matter of Federal regulation to define that encryption standard?

Mr. GRIVNER. It should be a matter of common sense, but if that is the way it is done, yes, I think that it should be encrypted no matter what. I just think it is—it would not be a—it is not a good decision otherwise not to send that traffic so that anybody could tap into it without the proper legal ability to do so.

Mr. RUTLEDGE. I would just add, there are privacy obligations on different industries and different levels of responsibility. The cable industry has a long-standing privacy obligation, which is extended to each of the services that it has launched as technology has allowed us to build new products. And so there is a higher degree of obligation on the part of our business than others. And so I think there is some standardization needed in our review of the various components of these historic different industries.

Mr. INSLEE. So should a VoIP carrier be able to seize the two people talking use the word "surfboard" in their conversation and notify a marketing based agency that these two people are talking about surfboards and maybe should get a pop-up ad in—somewhere in their other system. Should that be allowed? Should that be a matter of definition of the consumer or should Federal regulations handle that?

Mr. ERICKSON. I think, my opinion is outside of the law enforcement requirements, how people communicate is private and should remain that way. And we, as Internet phone service providers, should not have any ability to eavesdrop or manipulate or capitalize on those conversations.

Mr. GRIVNER. I agree.

Mr. INSLEE. Thank you, Mr. Chairman.

Mr. UPTON. Mr. Radanovich.

Mr. RADANOVICH. Thank you, Mr. Chairman.

There was a discussion about 911 not being available to some subscribers and some discussion about the fact that there is no public warning. In any telecommunications act that we do this year, would this panel be in favor of making it mandatory for all providers or for some just providing news to their customers that they don't provide it?

Mr. MELCHER. I think the public expectation is if you are buying a service that is telecommunication-like, that it is incumbent upon the carrier to provide enhanced 911, not just the ability to dial and redirect your call to some administrative line, but fully enhanced 911 as they have come to believe it exists today. We have done so much public education during the wireless years when we were try-

ing to solve wireless 911 that the public expectation is out there. We have done a good PR job. I don't see us able to back away from it any time soon.

Mr. RADANOVICH. Yeah, and I would guess that, for the sake of time, that is the view of pretty much the entire panel or—yeah. Okay. Thank you.

Now on—still on the issue of 911, though, it was mentioned that for the carriers that do provide it, that there is a certain amount of investment in—developed into the system, which—and you should be compensated I think once—if it is made mandatory that others should have access to that information. But can you tell me, did you really pay for it or was—is this something that is included on the telephone bills, and can the argument be made that the consumers really paid for that service? Maybe Ms. Puckett or Mr. Melcher?

Ms. PUCKETT. There are some—and I will let Mr. Melcher talk about the surcharges and how—but typically that is for the county sides to have their equipment reimbursed. There are a significant, what I call, back office investments. When you provision a customer, you have to ensure that that data base is—that number is properly put over to the data base and that data base is then communicated properly to the piece app. I think the other concern that needs to be focused on is, as you think about portability, as a wireline customer, we may have that customer today. They may port their number to wireless or to a VoIP provider. We can't track it then. I think the whole portability issue is a big concern with 911.

Mr. MELCHER. There are some built-in and institutionalized things that you do when you become a service provider. And in the competitive open exchange carrier model, you had to plug in three places. You had to plug in to the local access tandem, which was usually run by the incumbent carrier. You had to plug into an interexchange carrier tandem for long distance service, or several interexchange carrier tandems, and you had to plug into the 911 tandem. But the only one that you got any money back for was plugging into the 911 tandem because of the model we built with the incumbent exchange carrier who runs the 911 system that they got paid for those circuits.

I think there are some fundamental flaws, new technologies come in that model. Perhaps the cost of doing business says I do connect to whatever it is, IP or whatever. I do connect to the 911 routing system, and I do upload my records. Now should I be compensated for maintenance of the records and the accuracy and all of those? I think that is a very good argument. But I might fire SBC from my selective routing function and hire Mr. Grivner's company to come in and do some IP-based routing function and then that way Ms. Puckett and Mr. Rutledge and everybody else is going to trunk to or somehow connect to my new routing infrastructure that is capable of next generation IP and everything else, but it is going to be away from that incumbent model that we are so chained by today.

Mr. RADANOVICH. All right. Thank you.

One last question on the issue of universal coverage. Is it really more just an issue of shared cost that the argument is or is it more the issue of shared regulatory burden for this?

Ms. PUCKETT. Everyone on this panel benefits from universal service, because either legacy communication products and services or the IP still requires the underlying telecommunications infrastructure. And we all have to connect be it to VoIP providers, cable providers, we all don't have private networks. We use the public network, and that is very much about what USF is about to ensure that there is that interconnection in those networks in and out of rural America to these public networks.

Mr. RADANOVICH. Um-hum. Still I—you know, and you have to understand, this chart that you brought to clarify everything didn't clarify anything for me, so you know where I am coming from.

Ms. PUCKETT. Okay.

Mr. RADANOVICH. But I—but the issue is, as—the way I see it, and most of what I have heard on universal coverage, is that everybody who provides telecommunication services should be provided to make sure that these services are provided to everybody—

Ms. PUCKETT. Correct.

Mr. RADANOVICH. [continuing] and I represent a very rural District in California, so, you know, I fully endorse the concept. How much of this is regulatory, though, and how much of it is money, the issue of universal coverage? Am I speaking English here or—

Ms. PUCKETT. It is about having the capability in rural America, in my opinion, so it is about consumers having access—

Mr. RADANOVICH. Right.

Ms. PUCKETT. [continuing] to communication services.

Mr. RADANOVICH. Right. But is this more a—is it more an issue of having those people that are not paying for universal coverage and providing service now start paying in or is there a regulatory component to this that I don't—

Ms. PUCKETT. Well, they benefit. For those who aren't paying in, they still benefit today because of the public network. There are tradeoffs.

Mr. RADANOVICH. I am just asking you, as—in business, are you more worried about making sure that everybody pays their fair share for telecommunication service or are there additional regulatory issues that come along with making sure that everybody has universal care?

Mr. GRIVNER. Everybody pays their fair share. That is the issue.

Mr. RADANOVICH. That is the main issue? It is money rather than—

Mr. GRIVNER. Well, everybody pays their fair share.

Mr. RADANOVICH. [continuing] regulatory?

Mr. GRIVNER. No one—I mean, there are probably questions about how the fund is used, but the first step is everybody pays their fair share.

Mr. RADANOVICH. Okay. Great. That is—

Mr. MELCHER. That allows us to take these new technologies and get them into areas that didn't exist before.

Ms. PUCKETT. And at the end of the day, it is about the consumer.

Mr. RADANOVICH. No, I agree with you 100 percent. I am just trying to figure out whether your concerns are the fair share component of this thing as far as money goes or spreading the regulatory burden as well. Maybe I—it is also a regulatory burden component to that—

Ms. PUCKETT. Well, there is certainly a regulatory burden, but I would still say the fundamental issue here is the consumer.

Mr. RADANOVICH. Is the consumer?

Ms. PUCKETT. Yes.

Mr. RADANOVICH. But it is—for you, it is for the fair share of the dollar contribution to the universal—

Ms. PUCKETT. The consumer.

Mr. RADANOVICH. Well, I know that, but I am trying to get your perspective on this.

Thank you very much.

Ms. PUCKETT. Thank you.

Mr. UPTON. Mr. Pickering.

Mr. PICKERING. Thank you, Mr. Chairman.

One of the things that I wanted to talk about, as we look at the current environment with the mergers with SBC and Verizon, an enterprise market in which Mr. Grivner and Mr. Erickson are trying to compete, you could have a situation if access to the network is not maintained for the bottleneck facilities, then that additional competitive option or choice could be lost and it could result in going back to a duopoly at best with enterprise, possibly a duopoly and residential voice between cable and the Bell companies. And I think that history has shown us that whenever we have a monopoly or a duopoly you do not have the investment or the innovation or the choice or the competition.

So it is very critical at this juncture that as we do IP reform and telecom reform that we make sure that, just as Mr. Boucher was talking about access to content, which creates the greatest amount of competitive choice for individuals, that we also maintain access to networks so that we have the greatest amount of competitive choice and the greatest investment and the greatest innovation.

Mr. Erickson, Mr. Grivner, have you all looked at Mr. Boucher's and Mr. Stearn's bill? Is it—as I interpret it, it would effectively remove all access to the Bell network for CLECs. Is that how you would interpret it? And what would the result be if that language were adopted?

Mr. GRIVNER. Well, the result would not be good, because no matter whether we provide IP services and all of the switching and everything else, as you well know, that last mile connectivity is and still will remain a bottleneck. That is, I think, one of the appeals of your bill is that—I think it addresses the heart of the issue. You are looking for people to invest, facilities-based carriers to invest. That could only go to a certain point, and that last point is that last mile of connectivity. And I think that is an important part of this discussion that is not going to change. You aren't going to see a lot of investments where people are going to be digging up the streets and putting in new fiber into buildings. That is just not going to happen. So I think that is an important discussion that needs to occur.

Mr. PICKERING. Would you say if you don't have access to a bottleneck facility you—access to content is moot?

Mr. GRIVNER. It is. You are absolutely 100 percent correct. And I also agree with your other points relative to innovation, competitive pricing, and the things that have been achieved over the last 8 years we don't want to see lost as a result of what has occurred over the last couple of months.

Mr. PICKERING. Mr. Rutledge, from cable's perspective, how do you—access to networks, interconnection and interoperability?

Mr. RUTLEDGE. Well, we certainly are very interested in being able to interconnect with the public switch network and think that we need to be able to continue to do that. We are right now doing it through a CLEC process, which is the existing regulatory structure. And we think there may be, you know, an obligation—or an opportunity to create rights for VoIP providers that might accomplish the same thing.

We are concerned about these mergers in suppliers, people that we buy services from, long distance services, for instance, for our customers going away. But one other comment about—in the enterprise area, we have launched our broadband services and our Voice-over IP services primarily to residential customers, but we are ready now to expand into the enterprise area in a rapid way, and technology has come along in such a way that I think we will be able to provide very low-cost communication services to businesses in ways that they have never experienced from a price position.

But I don't think it is just a duopoly. There are wireless providers, and multiple wireless providers, in most markets. So when I look at the facilities-based competitive landscape, it is a very competitive arena, not just physical wireline competitors, but multiple wireless competitors, and new wireless entrants coming.

Mr. PICKERING. But in the enterprise market, you would say today, cable is not an enterprise market, wireless is not an enterprise market. You have some CLECs in the enterprise market—

Mr. RUTLEDGE. Yes.

Mr. PICKERING. [continuing] and so to be able to—an enterprise market not to go to a duopoly, you would need to maintain some access to bottleneck facilities, under the—and again, over time we can transition away from that, under the impairment standard. But today, we—if we have bottleneck facilities, a continuation of access to those networks is critical to have a—not a duopoly but multiple choices.

Mr. RUTLEDGE. Well, I am, when I try to reach a business customer, I am building a facility to their place.

Mr. PICKERING. But you have not done so yet?

Mr. RUTLEDGE. Well, I have, yes. And we have a CLEC business, and we have 40,000 or so business-class customers on our data network, which most people think of it as a traditional cable system. And I think that there is a huge opportunity to expand that now that we have a Voice-over IP product to go with the data product.

So the facilities are there, but designing products that can reach the business marketplace has been, you know, heretofore, not really accomplished, but I think we are on the verge of having a rich array of products for the business class market because of VoIP

technology. And again, that is cost structure. And so I think you are going to see a lot more competition, facilities-based competition almost immediately in that area.

Mr. PICKERING. Ms. Puckett.

Ms. PUCKETT. I would just add one thing. We have just purchased—we are in the process of closing on a part of KMC, which is a CLEC that we are—a lot of metro access rings outside of our franchise but near our franchise. And my point being is that knowing the ruling was going to change and such, we still move forward, because it is very much like facility-based. So we will go in and provide facilities. We don't think about reselling necessarily. That is not our model. So I think that is an important way to look at that, too.

Mr. PICKERING. Would any—under your model, your business plan, would you still need access to any of the Bell networks?

Ms. PUCKETT. The company that we are purchasing 16 of these markets have some access, and that is important, but basically, we are going to go ahead and build facilities to those buildings and transition the ones off that aren't profitable over time. So we—our business model is very much about a facility-based—

Mr. PICKERING. Thank you very much.

Mr. UPTON. Thank you, Mr. Pickering.

I want to say just in conclusion of the hearing, we appreciate all of your testimony, that is for sure. And it was nice, Mr. Melcher, for you to bring Reverend and Mrs. John with us. I have to say, as I look at the good history of this committee, the legislation that we have enacted into law, it is often those personal examples that drive each and every one of us. One of the highlights in the last session was the enactment of the E-911 legislation. As we held the hearings and went through the markup stage, members on both sides of the aisle recanted their calls that we have all made to 911, trying to help someone, not necessarily someone in our own family but some accident on the road that we have seen as we travel many tens of thousands of miles each year in our Districts and in our States. And that—those experiences drove every member to pass that legislation, I think on a unanimous basis, but maybe we have got a certain member from Texas who likes to vote no. Maybe he didn't vote for it, not a member of this committee.

But in any case, it happened. And when we had our earlier hearing related to this issue, the updating of the Telecom Act of 1996, I think it was Mr. Shimkus who raised the case of Reverend and Mrs. John. I have not seen the story until he talked about it. It was later on in USA Today and as we update the telecom laws, whether it is making sure that there is a link to 911, obviously universal service, which this committee focused a lot of attention on today, all of those different things relate to our Districts and where members are, and it is one of the reasons why, for the most part, almost without exception, we have been able to pass legislation out of this subcommittee and full committee, no matter who has held the gavel, on a bipartisan basis.

And we appreciate your thoughtful testimony, and it will certainly be taken into account as we begin the big process, the heavy lifting in a few months of actually putting a bill together as we look

at this. And maybe VoIP will be a term of old and BITS will be the term of the future.

God bless all of you. Thank you again for your testimony. The hearing is now adjourned.

[Whereupon, at 1:47 p.m., the subcommittee was adjourned.]

[Additional material submitted for the record follows:]

RESPONSE FOR THE RECORD BY THOMAS M. RUTLEDGE, CHIEF OPERATING OFFICER
OF CABLEVISION SYSTEMS CORP.

FOLLOW-UP QUESTIONS FROM THE HONORABLE FRED UPTON

Question: Do you believe that the pool of contributors to universal service should not be expanded to include broadband and IP providers?

Response: Cablevision supports the goal of universal service. Cablevision contributes to the universal service fund through its certified LEC, Lightpath, that provides telecommunications services to its VoIP service, Optimum Voice. Cablevision supports the FCC's continued efforts to review and rationalize the existing federal universal service system. Before a specific funding mechanism is adopted, key questions regarding the services to be funded and the pool of contributors must be addressed to ensure equity among competing carriers on a level playing field.

Question: Do you believe that VoIP providers should not have a right to interconnect with local exchange carriers? Does your view change if the interconnection is indirect/virtual rather than direct?

Response: Cablevision currently does not need the right to directly interconnect with ILECs due to its existing relationships with competitive local exchange carriers, which have interconnection agreements with ILECs.

Question: Do you believe that VoIP providers are legally entitled not to have their services disrupted?

Response: Cablevision does not believe any new legal requirements are necessary to ensure that broadband customers have access to VoIP services.

Question: How should Congress ensure that broadband providers do not disrupt IP services offered over their networks? Should Congress legislate the so-called Net Freedoms or Net Neutrality Principles?

Response: Cablevision's Optimum Online broadband service does not block or hinder its subscribers from accessing any content or service they choose or affect the quality of service offered by third party applications like Vonage. The marketplace will ensure that broadband subscribers receive access to the services they want. Government-mandated access is unnecessary and counterproductive to broadband investment and deployment. Impeding broadband subscribers' access and diminishing their enjoyment of their broadband service would be bad business, and any legislation that attempted to "address" this matter would be speculative and could have adverse consequences on both broadband providers and application providers.

Question: Do you disagree that number portability should be available for VoIP customers?

Response: VoIP providers should have the right to offer porting to their voice customers.

Question: As a matter of policy, do you believe that ILECs should not be required to provide 911 network components to VoIP providers?

Response: Access to the current 911 systems is dependent upon cooperation by the ILECs. Until there are real alternatives means to access 911 in a way that affords high reliability to all providers, VoIP service providers should be able to get the necessary 911 network components through the ILECs and have the ability to provide 911 services to their subscribers.

Question: Do you disagree that Congress should mandate that VoIP customers provide E911 services?

Response: Cablevision provides E911 services to its VoIP service subscribers because we believe that it is valuable to our customers. We also believe that customers expect a reliable 911 service as a part of basic voice services. VoIP customers must have ready access to E911 and emergency services.

FOLLOW-UP QUESTIONS FROM THE HONORABLE BARBARA CUBIN

Question: Do you support a number or number-equivalent contribution model for a modernized Universal Service Fund?

Response: Cablevision supports the goal of universal service, and its VoIP service contributes to universal service through its relationships with local exchange car-

riers that provide telecommunications services as part of the VoIP offering. Before a specific funding mechanism is adopted, the universal service system must be rationalized so that providers, particularly those who invest in facilities, are not disadvantaged in the marketplace because of the additional costs that must be recovered from customers.

Question: The nature of IP voice seems to make it inherently difficult to track these packets and where they terminate. Is it really possible to tag them? If so, will that allow for an “electronic paper trail” for inter-carrier compensation?

Response: Cablevision agrees with the FCC that it is virtually impossible to determine the jurisdictional nature of IP voice traffic. For this reason, Cablevision supports the FCC’s intention to modernize the existing intercarrier compensation regimes to take into account the variety of voice services available in the market today and to migrate toward a more equitable, less administratively burdensome model that approximates today’s peering and bill and keep arrangements.

FOLLOW-UP QUESTIONS FROM THE HONORABLE BART GORDON

Question: Would it help to guarantee that IP enabled telephony services have the same access to 911 facilities and databases as telecommunication service providers, and should this be done at the state or federal level?

Response: Cablevision currently does not need access to 911 facilities and databases for its Optimum Voice service due to its existing relationships with underlying telecommunications carriers that support this service directly. Cablevision, however, is supportive of a creative regulatory approach that supports the continued rollout of VoIP services and e911 availability. Where technical issues need to be addressed, Cablevision supports voluntary industry action over government regulation.

Question: What 911 services are you currently providing with your VoIP services? How are you interconnecting with the 911 systems and have your company experienced any access problems?

Response: Cablevision provides E911 services to its VoIP service subscribers. To do so, Cablevision partners with competitive local exchange carriers to obtain the necessary inputs for the services it offers, which include direct E911 trunking. Optimum Voice has had no difficulties with those trunking or access facilities.

FOLLOW-UP QUESTIONS FROM THE HONORABLE ELIOT ENGEL

Question: Again, I want to commend Cablevision’s efforts to comply with 911. I understand Lightpath, your CLEC, also pays into the Universal Service Fund—I applaud that as well. I support Universal Service and the ERate program. However, it is funded by a fee based on inter-state traffic. Yet, I understand that if a Cablevision customer using VoIP in NY calls a Cablevision customer in Massachusetts, then your network does not register that as an “interstate call.” I say this to point out that the basic measure by which we fund USF is disappearing. Thus, we must find a new way—and so I would like to explore what this new way could be. I know this is complicated and it is hard, but we should have an open discussion about this. Do you have a proposal on how future payments into USF should be made or assessed?

Response: Cablevision supports the FCC’s continued efforts to review and rationalize the existing federal universal service system. Before a specific funding mechanism is adopted, key questions regarding the services to be funded and the pool of contributors must be addressed to ensure equity among competing carriers on a level playing field.

