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VOIP SERVICES: WILL THE TECHNOLOGY DISRUPT THE INDUSTRY OR WILL REGULATION DISRUPT THE TECHNOLOGY?

HEARING

BEFORE THE

SUBCOMMITTEE ON TELECOMMUNICATIONS AND THE INTERNET

OF THE

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HOUSE OF REPRESENTATIVES

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VOIP SERVICES: WILL THE TECHNOLOGY DISRUPT THE INDUSTRY OR WILL REGULATION DISRUPT THE TECHNOLOGY?

WEDNESDAY, JULY 7, 2004

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

The subcommittee met, pursuant to notice, at 10:08 a.m., in room 2123, Rayburn House Office Building, Hon. Fred Upton (chairman) presiding.

Members present: Representatives Upton, Stearns, Gillmor, Cox, Deal, Whitfield, Shimkus, Wilson, Pickering, Fossella, Buyer, Bass, Walden, Terry, Barton (ex officio), Markey, Wynn, McCarthy, Doyle, Davis, Gonzalez, Boucher, Towns, Gordon, Rush, Eshoo, Stupak, Engel, and Dingell (ex officio).

Staff present: Will Nordwind, majority counsel and policy coordinator; Howard Waltzman, majority counsel; Will Carty, legislative clerk; Peter Filon, minority counsel; and Gregg Rothschild, minority counsel.

Mr. UPTON. Good morning, everyone.

Today's hearing is entitled "Voice Over Internet Protocol Services: Will the Technology Disrupt the Industry or Will Regulations Disrupt the Technology?"

Voice over Internet protocol or VOIP is a tremendous technological advancement in the telecommunications marketplace. Quite simply, VOIP takes voice signals, turns them into data packets of ones and zeros and sends them over the Internet. This is much more efficient than sending the voice signal over the public switch telephone network. This efficiency is bringing lower prices to the consumer and VOIP represents yet another competitor in the telecommunications marketplace.

And we are in an exciting place in the development of VOIP. The companies represented at today's witness table offering varying flavors of VOIP. On the one hand, it is being deployed to consumers at an impressive pace for nascent technology. On the other hand, it is still just that, a nascent technology but one with tremendous potential, to be sure.

But we will never realize VOIP's tremendous potential if we saddle it with unwarranted government regulation. For instance, given VOIP's reliance on the Internet which respects no State or local boundaries, VOIP is truly interstate in nature. As such, we must

have a single Federal regulatory regime, not a patchwork of 51 different State regulations. But that single Federal regulatory regime must tread as lightly as possible. While we need to make sure that the law enforcement officials when authorized have adequate tools to track criminals and terrorists who might use VOIP services and that consumers have access to E911 services, VOIP providers should not be regulated like common carriers.

Today's hearing title poses two questions. The first question is will the technology disrupt the industry? My answer to that is that it likely will, but the benefits to the consumer will be tremendous.

The second question is: Will regulation disrupt the technology? My answer to that question is not unless we let it, and we should not.

I want to thank all of today's witnesses for being with us today. Look forward to your testimony. Appreciate it being sent up in advance.

I want to particularly thank Jack Carlisle who was born on Saturday for letting us borrowing his dad for today's hearing. Congratulations, Jeff, and your wife Rebecca.

With that, I yield for an opening from my friend and ranking member of the subcommittee, Mr. Markey.

Mr. MARKEY. Thank you, Mr. Chairman, very much. And I want to comment you for calling this hearing today on Voice over Internet Protocol.

Internet protocol based telecommunications and services continue to make inroads into markets traditionally served through older technologies. IP technology can put any content; voice, video, data or a combination into packets of zeros and ones. These digital packets can be delivered over any telecommunications infrastructure. This is the kind of destructive technology that Joseph Shumpeter spoke about in his book published 60 years ago entitled "Capitalism, Socialism and Democracy."

In that book he spoke of a process of industrial mutation that incessantly revolutionizes the economic structure from within incessantly destroying the old one, incessantly creating the new one. This process of creative destruction is the essential fact about capitalism, he said.

Now 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 technologies such as VOIP which possess the ability to bring additional features and services to what we once called plain old telephone service.

In addition to challenging industry participants, it also challenges regulators to not be timid about embracing change, ensuring that innovative creatively destructive technologies and service providers are not thwarted from reaching consumers by established incumbents, and that was a key goal of the Telecommunications Act of 1996.

The FCC has struggled with adopting many of the future oriented regulatory definitions in the Telecom Act of 1996 in the last several years. Indeed, the Commission has been reversed in key court decisions that supported a more competitive interpretation of the blueprint that Congress established in the Telecommunications

Act for the digital free-for-all that we hope to unleash across all markets. We had hearing after hearing after hearing in this committee room in 1994, in 1995, in 1996 about this digital free-for-all about the fact that any company would be able to provide any service within time as long as a vigorous paranoia-inducing competition was unleased in the telecommunications marketplace.

So all of this is now coming to pass, although belatedly in some areas because of the Federal Communications Commission. But nonetheless, we have been making great progress.

Consumers deserve access to new Internet-base services. Consumers also deserve to receive those services from multiple providers so that they benefit not only from access to new technology, but also from improved service quality and lower prices.

Consumers must also retain the important consumer protections developed over the years for these services. Just because the technology used to deliver a service utilizes a new technology doesn't mean that the service itself changes from a consumer standpoint. The need for ensuring consumers of affordable service, consumer privacy rules, billing protections, fraud protection, emergency service and law enforcement access do not disappear simply because a voice call travels in packets rather than dedicated circuits.

Today's hearing will provide us with an excellent opportunity to hear how both the industry and regulators are confronting the rise of Internet telephony and allow us over the coming months to gage whether any changes are necessary to existing telecommunications statutes or whether any adjustments need to be made to regulatory interpretations of those laws.

Again, Mr. Chairman, this is an incredibly important hearing and I think you for conducting it.

Mr. UPTON. Thank you.

Mr. Cox?

Mr. COX. Thank you, Mr. Chairman.

And I just want to pay homage to my colleague from Massachusetts for his tribute to Schumpeter's creative destruction. I mean there is very little more that can amaze me now when Massachusetts liberals are honoring Schumpeter. And it's fair then, I think, to say we are all capitalists now.

Mr. MARKEY. I wish the Federal Communications Commission believed it, but that is the problem.

Mr. COX. It is actually a sign of the times that we find ourselves making common cause in this way, as in fact we've done on many other issues.

I want to thank you, Mr. Chairman, for holding this important hearing for that very reason.

And I, too, would like to offer a special thanks to Mr. Carlisle of the FCC. And I hope that you'll share my thanks and congratulations with the entire Commission for your outstanding decision to approve the Pulver petition. This wise decision will ensure that consumers of voice software applications on the Internet which never use the public switched telephone network won't suffer the burden of old line telecom regulation.

Consumers now have the freedom to talk to friends, family, customers and colleagues all over the world without ever needing the services of a regulator, which makes one wonder not only whether

traditional regulation has anything to offer VOIP customers, but also whether it has anything to offer customers period.

While VOIP service remains a small segment of the telephone market, still far less than 1 percent, it is clear that every week thousands of Americans are moving to this new technology. It is important to listen to these consumers. They are sending us a very clear message: They do not want to stay in the heavily regulated, heavily taxed traditional telephone market. So it is important for those who are considering regulation of this market to recognize that applying the old regs to VOIP is by definition anti-consumer, at least for those consumers who have freely chosen to reject the traditional network.

We must also recognize that just as the technology has destroyed the ability of companies to exercise monopoly power over voice communications, it also undermines the ability of governments to exercise monopoly power over the design and cost of these services. The government, of course, can still make demands on U.S.-based providers of voice applications, but if an American broadband customer can simply access a website overseas to use a foreign provider of such services, then we have only succeeded in outsourcing jobs and capital to more Internet-friendly jurisdictions. And as the inventor of the Internet, the United States should be the natural home for this exciting technology.

We can also chase this business offshore with heavy taxation. Yesterday Declan McCullagh of news.com reported that the IRS is considering applying the Spanish-American War tax on telephone services to new applications such as VOIP. I urge the IRS to abandon this effort even though this hearing is not about them.

Thank you, Mr. Chairman.

Mr. UPTON. Thank you.

I would recognize Mr. Dingell for an opening statement.

Mr. DINGELL. Mr. Chairman, thank you. This is a very important hearing and I commend you for calling it.

We are looking at some very significant changes, great advantages, great opportunities and great potential for unfortunate consequences if we do not handle these matters well.

Voice-Over-Internet-Protocol telephone services holds tremendous promise for bringing greater competition, lower prices, and exciting new applications to the telecommunications marketplace. We do not yet know who the winners and losers will be in that marketplace, but we know that America's consumers stand to benefit tremendously from this wonderful technology. For this reason it is incumbent upon the Congress, the Federal Communications Commission and the States to move cautiously in regulating. We do not want to over overregulate at the risk of stifling or unduly slowing down the emergence of VOIP offerings. We also do not wish to pick the winners and losers. Those choices are much better left to consumers.

The FCC is presently embarked on several proceedings to determine how VOIP, which over the next several years is likely to become the dominant method of voice communications, will be regulated. I've reviewed some of the chairman's pronouncements in this field. Some I agree with, including the notion that it is not necessary to subject VOIP to all the common carrier regulations which

currently exist in the Telecommunications Act. Other pronouncements, however, particularly the notion that VOIP may be deemed an unregulated information service, I find troubling.

I would like to take this opportunity to remind the FCC that it is a creature of Congress and that Congress never intended that voice services should be deregulated at the whim of the FCC. There is nothing in either the 1996 Act nor its legislative history which suggests that Congress ever intended the dominant voice service to be classified as an "information service" and, thus, essentially deregulated under Title I. Rather, it is to be regulated as a "telecommunications service" under Title II, subject to section 10 forbearance where less regulation is appropriate. And I note, section 10 affords broad discretion for the FCC to act in the broad public interest.

Of course I agree with those who argue that it would be foolish to impose title II regulation, in its entirety, on VOIP service offerings. Congress anticipated that advances in technology might render existing regulations either unnecessary or even harmful. The law provides the FCC, therefore, with section 10 forbearance authority so that it can refrain from wholesale regulation in such instances.

While VOIP providers need not be subject to legacy economic regulations such as tariff requirements, other core regulations remain critical—including those which pertain to universal service, access, emergency services, law enforcement and individuals with disabilities. It is also critical that neither the Congress nor the FCC take any action which would disrupt the ability of the States to perform their responsibility in the area of core consumer protection functions which protect consumers from the rascally acts of certain less scrupulous companies, of which we seem to have a fine number in this business.

I will be watching the FCC closely as it moves forward. I hope that it remains within the bounds of the statute and congressional intent. I would note that the FCC recently lost an important appellate decision largely because it ignored statutory directions from the Congress and clear congressional intent. Likewise, with respect to VOIP, an end-run around the Telecommunications Act in order to achieve quicker deregulation is not what Congress intended or what the public interest requires. It is less likely to be upheld in court and is a disservice to consumers as it will only slow VOIP roll-out by prolonging the uncertainty which presently exists in the marketplace.

Finally, we in Congress must recognize that with the rapid emergence of VOIP, it is our responsibility to ensure that the law keeps pace and provides appropriate boundaries and guidance.

Thank you, Mr. Chairman.

Mr. UPTON. Thank you, Mr. Whitfield?

Mr. WHITFIELD. Mr. Chairman, I also would like to thank you for having this hearing on a very important subject matter. All of us are looking forward to the testimony of our nine experts in this field, and we look forward to trying to determine the real difference in information services and communications services, and the segments of this industry that are regulated versus the other segments that are not regulated. And we have many challenging

issues facing us. I know that all of us look forward to the testimony, and for that reason I will waive back the balance of my time.

Mr. UPTON. Ms. McCarthy?

Ms. MCCARTHY. I'll waive back.

Mr. UPTON. Mr. Gonzalez?

Mr. GONZALEZ. Thank you very much, Mr. Chairman. And I will be really brief.

I thought you would commence the proceeding day with maybe the proclamation "let the games begin," because I know this really is laying the foundation for what will be a very interesting debate, and we get all the information gathering done this year, of course.

It is has often said that the future of any technology will be determined by regulation. And I think we can all agree regardless of ideology, party affiliation or even region. The question is to what degree and extent.

For the bottom line for all of us is, of course, to encourage healthy competition which is really the cornerstone of our great democracy. And to that end I hope that this will be a real healthy, healthy debate.

And when I say "competition," it should be for all players, all actors, all entities old and new.

And with that, I yield back. Thank you, Mr. Chairman.

Mr. UPTON. Mr. Shimkus?

Mr. SHIMKUS. Thank you, Mr. Chairman.

First I would like to ask unanimous consent that a statement by the National Emergency Number Association be inserted into the record.

Mr. UPTON. Without objection.

[The prepared statement of the National Emergency Number Association follows:]

PREPARED STATEMENT OF THE NATIONAL EMERGENCY NUMBER ASSOCIATION

In the last 15 years modem communications services advancements have put a spotlight on the need for a more appropriate E9-1-1 system. Specifically, a 9-1-1 system that is able to adapt rapidly to new technology and the resulting new devices supporting communications.

Today, over 50 million Americans are using some form of broadband services. A growing number of that subset is migrating to Voice over Internet Protocol (VoIP), for competitive voice telephony. Truly we are at the dawn of a new era, in which voice, data and computer integration are converging to offer consumers, commerce and others new communications choices in our digital age.

Yet with all the excitement for VoIP comes concern. If the past is any indication, public safety services and access may be overlooked unless we pursue early technical review and service planning.

Since its inception, the 9-1-1 system has been THE first responder in times of individual and mass emergencies. Every day, Americans call 9-1-1 at the time of their greatest need. For the caller and the public, the successful completion of a 9-1-1 call can mean the difference between danger and security, injury and recovery, or life and death. Simply, the ability to call for help in times of an emergency is not "voluntary"—it's mandatory.

In regards to Voice over Internet Protocol, NENA respectfully offers the following recommendations to improve the public policy leadership for 9-1-1 and Voice over Internet Protocol planning with our nation's emergency communications.

Guiding NENA leadership is our adopted technical, operational and policy "Future Path Plan" by which new services, technologies and devices capable of dialing or signaling 9-1-1 can and should be able to provide their users with access to emergency assistance.

For well over two years, we have used the "Future Path Plan" to convene stakeholders discuss solutions and form interim/transitional and long-term solutions to define full requirements for our nation's 9-1-1 system.

As the United States Congress, grapples with Voice over Internet Public Policy issues, NENA offers the following observations and actions for consideration and review of nation's communications system.

NATIONAL PLAN FOR 9-1-1 AND VOIP POLICY

We need a national 9-1-1 VoIP policy. We recognize that to be effective and meaningful the 9-1-1 system must work with a wide range of VoIP and IP-enabled products and services. VoIP technologies, and those well into the future, will need 9-1-1 orientation and long-term solutions to accommodate all the variances. It's about building solutions.

CONSUMER EXPECTATIONS

9-1-1 is national, consumers are increasingly global. We must retain consumer service quality expectations. Technical development of 9-1-1 must be convergent with its policy direction. 9-1-1 needs to be treated as an integrated public safety service, part of a larger whole for our safety and national security. In over 35 years of 9-1-1 service, we've learned some important and valuable lessons in implementing new technologies: 9-1-1 must be treated as an inter-dependent overall system; coordination is very important; federal leadership is necessary for national implementation and resolution of issues.

OPEN SYSTEMS AND OPEN STANDARDS

We as a nation must develop policies for 9-1-1 compatible with the commercial environment for IP communications. We cannot support the further fragmentation of 9-1-1. We recognize that consumer expectations for 9-1-1 are national and therefore require jurisdictional leadership and resources from the Federal Government. We have called for a national coordinating office as offered by recent legislation in the House of Representatives H.R. 2898 and United States Senate (S. 1250).

REGULATORY LEADERSHIP AND SUPPORT

Finally, we support the need for targeted federal regulation for 9-1-1 and VoIP, believing further that this is most appropriately handled by the FCC, through our present collaborative approach. With our support, we look to the Commission to maintain a directive influence in the needed processes for industry and public safety collaboration.

We seek a "light touch" regulatory approach for 9-1-1 that enables full 9-1-1 capabilities for the consumer while minimally affecting, and actually improving the advancement of overall consumer services. In our experience, voluntary consensus provides better, more accurate results. Improved 9-1-1 project management is better than legal debate. Real 9-1-1 solutions are better than arbitrary requirements.

In August, 2003 we began aggressive IP development efforts. The NENA-VON Coalition agreement is a result of those efforts, and is an important first step toward consensus development; to both guide the initial efforts of Voice over Internet providers in handling 9-1-1 calls, and to gain agreement in an active role in the development of migratory and longer term IP and VoIP solutions for 9-1-1. Our schedule for completion of technical and operational elements of this agreement is before the end of First Quarter 2005. And in our consensus, we strongly believe that customer disclaimers do little to support the public's safety.

To this end the nation's 9-1-1 system needs reliable and dependable funding. In the VoIP environment, funding could prove evermore complicated, given the traditional policy framework reliance on state and local funding for 9-1-1 services and upgrades. Until a clear solution is identified for this immediate public safety funding problem, attention to the need for technological change and evolution of the E9-1-1 system itself is difficult to achieve.

9-1-1 service should not be an "afterthought" for communications providers, but rather an active part of service design and development.

As the consumer changes communications capabilities, the 9-1-1 system should be dynamic in design and operation to adjust to and match new technologies and old expectations.

We thank the Subcommittee for allowing us to share our concerns and leadership in improving our nation's 9-1-1 system.

Mr. SHIMKUS. Thank you.

And, Mr. Chairman, as you know, we deal with a whole bunch of very high tech issues. And I find important for me to try to specialized in some areas. I worked with my colleague Ann Eshoo on

911 issues since I have been a member. That is kind of where my focus will be. There are a lot of other issues that a lot of other members will bring up.

We did pass the enhanced 911 bill through this committee, through the floor and we are awaiting Senate action. But now we have a completely a new technology of Voice over Internet Protocol. What happens if a person uses VOIP needs to call 911? Where does the call go?

If a customer can plug into their VOIP phone anywhere where there is a broadband connection, how can a dispatcher determine their location? In most cases a 911 call is how our first responders are notified of an emergency. In fact, in this environment that's even important. And in our enhanced 911 bill we've also talked about the ability of emergency responders to forward call in areas of downwind issues in case of biological or terrorism to get a call to cell phones in the downwind areas.

How an a dispatcher determine location under VOIP and 911 call? In most cases the 911 call is how, as I said, our first responders are notified. If 20 percent of the market is projected to be VOIP by 2014, we just really need to start working on how to address this concern.

Now some will say allow the industry to move, and I would like to believe that that is true. We all know that the government will be involved. Now, the question is do we move through legislations at the Federal level or do we allow the FCC to move or to not move; and that's the crux of the debate.

There is a lot of other issues that VOIP has that are of concerns with local rural telephone companies and Universal Service Fund and how do you compensate. But I want to make sure that I am on record and that those of you who are the panelists and those who are joining us can help me work through this issue on emergency 911. And I think that will be helpful, and I think my colleague Anne will also be interested to see how we can address this concern.

Thank you, Mr. Chairman. I yield back.

Ms. ESHOO. Would the gentleman just yield for a moment?

Mr. SHIMKUS. I will.

Ms. ESHOO. Are you going to place into the record the statement of the National Emergency Number Association.

Mr. SHIMKUS. I did.

Ms. ESHOO. Good. Thank you.

Mr. UPTON. Mr. Gordon?

Mr. GORDON. Thank you, Mr. Chairman.

I concur this is an important and timely hearing. And since we have triple desk panel before us and the issues have already been outlined, I will limit my comments to just welcoming my friend Margaret Greene, who is back before us again. She testified last year on the universal services and has just completed her term as Chairman of the United States Telecom Association.

So I welcome Ms. Greene and yield back my time.

Mr. UPTON. Ms. Wilson?

Ms. WILSON. Mr. Chairman, I will waive my opening statement in order to ask questions.

Mr. UPTON. Mr. Walden?

Mr. WALDEN. I will waive my opening statement, sir.

Mr. UPTON. Mr. Pickering?

Mr. PICKERING. Thank you, Mr. Chairman.

Thank you, Mr. Chairman. I normally do not do this but today I am going to use some props.

We have the choice before us today of the phones of our youth versus a voice over the Internet phone, the phones of the future. If we act and if we act in a timely way I believe that we can achieve objectives that this committee has struggled with ever since I arrived, and that is to achieve three policy objectives simultaneously and without conflict.

Our contradiction of the three objectives:

1: Is to have a policy with that promote broadband investment, capital investment;

2: To promote competition without putting those two in conflict, and;

3: Protect consumers to give them more choices at lower prices.

I think there's great common ground and consensus from the FCC to members on this panel that there should be a Federal policy, there should be a preemption of States that we do not have 50 States with a patchwork of regulatory contradictions and conflicts over this application. I think that if we act quickly it will spur investment, spur competition and promote the consumers' best interest.

We do need to act I think very quickly. There are a number of States, New York, California and others that are beginning to look at regulating Voice Over Internet. For that reason we should act and considering acting this year. I know that our time is short, but the Senate Commerce Committee has announced that it will move to markup on Voice Over Internet legislation. I do not think that this committee should be a place where the Senate ever does something faster than the House.

It is a place where we can find common ground between all of the industries, between the Bells, an AT&T and MCI and cable, wireless. From a broad range of high technology and telecommunication providers we do see Voice Over Internet being a fundamental and critical aspect of their future business plans. That is all the more reason why we need to act quickly and to give certainty.

I realize that there are issues on social obligations, on universal service, on CALEA and law enforcement. But I think the targeted consensus of making this a Federal policy of preempting the States that we can move pretty quickly while leaving the other very important issues as something that we can address in a broader comprehensive reform that we plan for next year.

Let me just in conclusion read from Chairman Michael Powell's letter in response to a letter I wrote him asking for his counsel on whether the Congress or whether we should act on Voice Over Internet regulations.

His response in a letter that is available, and I would like to submit for the record, Mr. Chairman, states: "The time has come for the Congress and this Commission to confront the legal and policy environment for IP-enabled services including Voice Over Internet services. If we do not, the policy environment for the Internet will

develop in a piecemeal fashion or by dangerous accident and potential consumer benefits will go unrealized. Thus, it is important that we establish a rational and consistent policy environment for IP-based services so that they will continue to evolve.

I would like to thank you for taking a role in drafting legislation to establish a sound policy environment in this area, and I support congressional action to that end." And I would like to submit this for the record.

And I look forward to hearing the testimony today and working with you, Mr. Chairman, as we find a consensus and try to move as quickly as possible to set a certain and rational framework or Voice Over Internet for the phones of the future.

Mr. UPTON. Ms. Eshoo?

Ms. ESHOO. Thank you, Mr. Chairman, for holding this very important hearing.

I am going to submit my full statement for the record, but I do want to welcome Jim Kirkland from Covad to this hearing. Covad, of course, has testified many times in this hearing room before, and we welcome you again.

My colleagues will remember that Covad is an innovative Silicon Valley company that offers broadband services to millions of residential and business customers across the country. So welcome to you.

I share Mr. Shimkus' views relative to E911. These are services that really need to be preserved and protected in whatever we do. And I look forward to hearing from the witnesses and engaging them in some questions.

So thank you, Mr. Chairman, for having a hearing on this all important topic.

[The prepared statement of Hon. Anna G. Eshoo follows:]

PREPARED STATEMENT OF HON. ANNA G. ESHOO, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Thank you Mr. Chairman for holding this important hearing.

I also want to welcome Mr. Jim Kirkland and his colleagues from Covad to the hearing. Covad is an innovative Silicon Valley company that offers broadband services to millions of residential and business customers across the country. Covad—one of the fastest growing companies in America—is an example of the competition that was unleashed by the 1996 Telecom Act.

The Internet has obviously been the most significant development in telecommunications, and in our society generally, in a generation or more. It has made possible technologies, services, and innovations unimaginable just a decade ago.

There's not really much debate that we are now moving toward a single packet-switched network that carries voice, wireless, data, and Internet services. It won't matter whether you buy your phone service from a phone company, a cable company, or an Internet company—all of the traffic from these services will be carried over the Internet, along with a variety of other advanced services and content.

Along with the seemingly infinite possibilities created by the Internet, there are also challenges. One of the most difficult challenges we face as policymakers is how do we incorporate Internet-based services into the existing regulatory scheme for telephony, cable television, and satellite? None of the existing regulatory frameworks is really appropriate to deal with IP services, and we should be wary of subjecting these emerging technologies to overly burdensome regulations.

However, it's clear that regardless of how a telecommunications service is delivered, certain well-established obligations should be maintained. We must ensure that we preserve universal service, access to emergency services including 911, and other important public policies as our telecommunications system evolves to take advantage of advances in technology. We must also make certain that competition in the telecommunications marketplace is vibrant and that a wide variety of providers are available to consumers and businesses.

Let's be clear—a single cable provider competing against a single phone company for Internet access services is not effective competition, and innovations in technology have done nothing to change that dynamic.

The 1996 Telecommunications Act was intended to provide competitive access to local customers and real consumer choice for telecommunications services. Because of the reforms enacted in the 1996 Act, competitive forces have been unleashed that have led to a race to deploy broadband communications services. As a result, the latest FCC statistics show that in my home state of California broadband is now available in 97 percent of the zip codes, and nearly two million digital subscriber lines (DSL) have been put into service.

This is real progress, and I think we can attribute much of this growth to the pro-competition rules advanced by the FCC and the 1996 Act.

Obviously, the time has come to re-evaluate the entire regulatory scheme as it applies to services delivered over the Internet, including services that have traditionally been heavily regulated. But in the meantime, we cannot afford to abandon the competitive forces that have emerged in key sectors.

I look forward to working with my colleagues to address these challenges, and I look forward to the witnesses' testimony.

Mr. UPTON. Mr. Stearns?

Mr. STEARNS. Thank you, Mr. Chairman.

This technology is a transformational technology. And I think we all agree that it could create a whole new set of jobs and industry.

Mr. Carlisle noted in his statement that VOIP represents a fundamental change in voice communication that is radically different from traditional telephony.

Now here we are 8 years after the Telecom Act and we are facing a technology that does not really fit into a package here under the framework. So regulators are at odds on how to address VOIP. They perhaps think of it like it quacks like a duck so it must be a duck and apply the same regulatory codes to it. And, of course, I think if they did that they would actually kill it. Because that is what Title II of the legacy regulation will do, in my opinion. It will definitely hurt this Nation's technology.

Mr. Chairman, even more important the government considers now how to address VOIP, I feel they are missing a valuable component in the whole equation.

My colleagues, VOIP is just one of a single application. There are many new technologies we are seeing in today's market such as VOIP, but they all have one thing in common, and that is they deal with an Internet protocol address. These new technologies using an Internet protocol addressing have the ability to saturate the market with numerous offerings of high tech services, not only just voice but video, high speed data. And who knows what in the future we're going to have that still uses the Internet protocol addressing. The provider could be your phone, your cable, the wireless or even the electric company that provides electricity to your home; we could have a new technology over that.

What we are actually seeing with these different offerings in a new type of service. And I would call this an advanced Internet communication service. Toward that end, Mr. Chairman, I introduced a bill yesterday, 4757 The Advanced Internet communication Service Act which addresses the issues before us today in a manner that allows for future advanced Internet communication services like VOIP to develop without being stifled at every step of the process. As we move forward in debating changes to the Telecom Act we should be mindful that we examine the provisions of services, not each individual application. Our bill establishes advanced

Internet communication services as a unique form of services that removes the debate that now exists in the State and in the industry as to whether to classify AICS or the Advanced Internet Communication Service as an information service or a telecommunications service.

Further, by establishing the AICS or interstate services we eliminate the regulatory uncertainty of a myriad of different State regulatory approaches that would impede investment in these new services.

So, I believe, Mr. Chairman, this is the approach to do, to set up and then we have established for future generations what we can do.

I'd also as a unanimous consent, Mr. Chairman, enter into the Federation for Economically Rational Utility comments that were filed by the FCC on VOIP NPRM. I believe that these comments offer unique perspective from a number of individuals, State commissioners on how a light regulatory hand should be applied to this type of technology by unanimous consent.

Mr. UPTON. Without objection.

[The information referred to follows:]

Before the
Federal Communications Commission
Washington, D.C. 20554

	)	
	)	
In the Matter of	)	WC Docket No. 04-36
IP-Enabled Services	)	
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COMMENTS OF
THE FEDERATION FOR ECONOMICALLY RATIONAL UTILITY POLICY (FERUP)

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I. INTRODUCTION

The Federation for Economically Rational Utility Policy (FERUP) agrees with the preliminary finding of the Federal Communications Commission (FCC) in its March 10, 2004 NPRM, that Voice over Internet Protocol (VoIP) services are changing and evolving so rapidly that they are not well suited to the model of regulation that has traditionally been applied to circuit switched telephone services. Still, in an effort to "preserve jurisdiction," some state regulators are fervently trying to "fit VoIP neatly" into the telecommunications service box or some similar definition under state law. Although perhaps well-intentioned, these regulators are trying to preserve a regulatory model that is increasingly losing its purpose as intermodal competition, including that provided by VoIP, flourishes.

While VoIP may be "crammed" by regulatory fiat into the existing regulatory scheme, it simply will not "fit neatly." To encourage competing communications technologies such as VoIP, the better approach is for federal and state regulators to work collaboratively on a way to: (i) identify those limited social issues where government *should* intervene; (ii) identify whether such intervention is most appropriately carried out by state or federal regulators (or some combination); and (iii) limit that intervention to resolving issues that will *not* be adequately addressed by the competitive market.

FERUP's comments make the following key points:

- VoIP is a nascent technology that is borderless (*i.e.,* at a minimum, interstate) in nature, that is driving innovation, and that is spurring robust product, service and price competition.
- The existing telecommunications regulatory regime – an outgrowth of the economic regulation of monopolies and a regime designed to forge competition in the wireline telecommunications industry – is not suited to IP-enabled services, such as VoIP, and should be scrapped in favor of a new regulatory model that respects basic economic principles.

- The borderless (*i.e.,* interstate) nature of IP-enabled services and the need to avoid a patchwork of fifty different state policies argue strongly for regulation at the national level (with a rational mechanism to ensure that the legitimate concerns of states are addressed).

- A national policy should be minimalist in nature – economic regulation (including the terms and conditions of service) is not warranted in today's emerging IP-enabled market; the focus should be on social policy (*e.g.,* E911, universal service).

- IP-enabled services, such as VoIP, do not have to be classified as telecommunications services and such services need not be subjected to the full range of telecommunications regulations in order to address public safety and welfare concerns.

II. EMERGING TECHNOLOGY

The fundamental issues raised by this NPRM are whether IP-enabled services, such as VoIP, should be regulated and, if so, how? In resolving these issues, the FCC should remain focused on the key relevant facts:

- VoIP is a nascent technology.

- VoIP is a borderless technology. Unlike the circuit-switched network, the IP network is connectionless. Traffic is global in nature and not defined within the limited jurisdiction of states.

- VoIP is part of an IP network that is being built-out at the "edges."

- There is no dominant VoIP provider, and there appears to be low barriers to entry.

- VoIP is spurring robust price competition and new service offerings by both old and new players.

- VoIP is a disruptive technology that is driving innovation and forcing greater cost-effectiveness among all providers that will greatly benefit consumers.

- VoIP is forcing all providers to move from the provision of traditional, stand alone voice services to advanced services, combining voice with information, multi-media and networking applications, driving investment in broadband and infrastructure deployment.

III. CLASSIFICATION & JURISDICTION

A. Outdated Regime

In addressing VoIP and other emerging communications technologies, policymakers must first ask the fundamental question, what justifies regulation? Telecommunications regulation has its genesis in the economic regulation of monopoly telephone companies. With the advent of local competition regulation in 1996, the inquiry has turned to whether and where the monopoly persists, the exercise of monopoly power, and meeting certain social goals relevant to communications (e.g., E911 and universal service) that may not exist in a free-market world. The regulator is challenged even further by emerging technologies like VoIP, because these technologies often are exotic to the traditional network (PSTN), and do not have the monopoly characteristics of this network. To the extent there is a purpose for regulation of emerging communication technology today, policymakers must examine: (i) whether or not the same level of ILEC-style regulation is necessary to protect the public; (ii) whether or not the regulatory structure created to deal with a monopoly provider should be applied to competing providers (including ILECs) in an increasingly competitive market; and (iii) if the old structure is inappropriate to the new conditions, what new regulatory structure should take its place.

Reduced to its essence, the original telecommunications regulatory structure was created to address American Telephone & Telegraph's (AT&T) and other incumbent carriers' monopoly over most of the local and long distance network within their geographic service area. In the nascent telephony market, "connecting the dots" (i.e., the circuit switches) across the country required a market leader with the resources and the economies of scale/scope to drive the process. The resulting social contract: AT&T was given a monopoly, the *quid pro quo* for which was economic regulation of that monopoly by government. Economic regulation, served as a

proxy for competition. A strong state role was appropriate under this model due to the physical nature of the circuit-switched network in the state, the presence of localized monopolies, and the predominately intrastate nature of local telephony.

Regulation has not kept pace with innovation. Current state and federal regulations generally are designed to forge competition in the wireline telecommunications industry (by encouraging new wireline entrants, or CLECs) while maintaining certain legacy regulations for the incumbent wireline provider (ILEC). Notably, the competition that the landmark Telecommunications Act of 1996 is intended to spur is primarily ILEC versus CLEC wireline competition – not competition from other technologies, such as wireless and VoIP.

The rapid pace of innovation requires more frequent examination of traditional regulatory models. The advent of VoIP, for instance, makes the once-ensconced intercarrier compensation and universal service programs into crisis mode. Decisive change is mandatory. As VoIP and other technologies mixing voice and information services become more prevalent, the needlessly complicated current intercarrier compensation scheme will fall apart, as will the collection method for universal service.

The line that the 1996 Telecommunications Act draws between "telecommunications services" and "information services" is increasingly blurred. Whatever the historic appropriateness of the distinction, technological advances have made it increasingly difficult to distinguish in a meaningful way between a telecommunications service and an information service. Indeed, VoIP represents the convergence of voice and information: the voice packet is 1's and 0's, and is indistinguishable from a data or video packet. It is consistent with the deregulatory purpose of the 1996 Act to exempt new communication technologies from the plethora of obligations that accompany a telecommunications service classification.

B. Scrap the Current Classification System

Classification of a service as "telecommunications" or "information" is, under the current regime, of critical importance. The ultimate classification determines rights and obligations to which a provider of the service will be subjected, and thus has tremendous financial and competitive impacts on market participants. The current uncertainty surrounding the regulatory treatment of IP-enabled technologies, such as VoIP, will likely result in additional development and deployment being delayed, depriving consumers of the opportunity to enjoy new and innovative services at low costs.[1]

Policymakers should accept that the current system and its fixed classifications (i.e., information or telecommunications service, Title I or Title II regulations, inter- or intra-state) are not suited to the rapidly changing IP-enabled market. Development of new rules, and to the extent necessary, new statutes that consider new technologies and our most educated guess as to the future of the communications industry, is a better solution.

In the words of California Public Utilities Commissioner Susan P. Kennedy, "[a]ny attempt to simply graft on some new definition or category to try to fit VoIP into the current regulatory scheme will fail."[2] Although the "information service" designation is far less

[1] The FCC provided some certainty with its recent order finding that the pulver.com VoIP service is an unregulated information service under the FCC's jurisdiction. While not comprehensive, the FCC's decision on this more narrowly-defined VoIP service will, hopefully, serve to rein in some state efforts to regulate the nascent technology. The FCC's carefully crafted language sends a strong signal to the states and possibly opens the door wide enough for other VoIP service providers to be afforded provide services in a manner to achieve similar regulatory treatment.

While more comprehensive reform is preferable, the pulver.com decision has provided some much needed clarity and guidance. It also sends a clear message that the FCC is willing to take a deregulatory approach to VoIP within the limits of its existing authority. Where the FCC can do so, it should continue to send such signals.

[2] Some regulators insist that VoIP is a "telecommunications service." Regulators appear concerned that VoIP service will escape the reach of traditional regulation without a way for regulators to rein it in. While some correctly maintain that an FCC ruling that VoIP meets the definition of a telecommunications service would not *require* the FCC to apply the gamut of telecom regulations, one thing is certain – it could. Such an outcome would not provide true regulatory certainty to the nascent VoIP industry.

troublesome than that of "telecommunications service," it is by no means a good or permanent fit either.

A new system is necessary to end the jurisdictional squabbles between state and federal regulators, allowing both to shift focus to areas where some form of regulation is justified. These disputes have served no useful purpose save enriching lawyers. A state's obsession with preservation and expansion of perceived jurisdiction as an end in itself does not serve the interests of the public. The current state of telecommunications regulation encourages rent-seeking by both the states and regulated carriers. Those who benefit from regulation are reluctant to relinquish those benefits, even for the greater good.

C. National Regulation

Sound public policy argues strongly that any regulation of IP-enabled services such as VoIP occur uniformly. Ideally, those services should be regulated at the national level with a mechanism to ensure the concerns of the states are recognized and addressed.

First, IP-enabled services are typically "borderless" and, thus, necessarily interstate in nature. Unlike with the circuit-switched network, which developed in states and then between states, traffic over an IP network does not follow any prescribed geographic path, and thus, cannot be defined as within the limited jurisdiction of states. An otherwise "local" call between

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In an effort to preserve the ability to regulate in the future while agreeing that VoIP entrants need time to get a foothold, some may propose that the FCC forbear from applying telecom regulations "for a short period of time," "in the interim," or "until the market develops." Arguably, FCC pronouncements of forbearance from applying telecom regulations could provide a hint of certainty. However, there is no guarantee that the FCC would not change its policy based on some later event or changes in the Commission itself. An ill-advised ruling that VoIP is a telecommunications service would simply give the FCC too much discretion to pursue additional regulation.

Another argument by some regulators for classification of VoIP as a "telecommunications service," and thus application of traditional telecom regulation to VoIP, is that many VoIP calls "touch" the PSTN on one end of the call or the other. This argument is not compelling. Calls to and from wireless subscribers often "touch" the PSTN at one end or another, yet they correctly are not regulated as a telecommunications service and enjoy a thriving competitive market. In fact, numerous states (consistent with the national deregulatory policy) exclude wireless carriers from their definitions of telecommunications for purposes of state regulation. The same should hold true regarding IP-enabled services. Touching the PSTN does not alone justify a "telecommunications service" finding or the regulation that such a finding implies.

two neighbors may – and probably will – carom between servers or gateways in different states before reaching the end user. And there is no way to predetermine the path the call will travel. It is "local" only in the sense that it begins and ends within the borders of a single state.

Second, uniform national regulation over IP-enabled services would provide greater regulatory certainty than would a patchwork of fifty different state policies. This country is at a crossroads. Policymakers at the state level feel forced to choose between giving up their regulatory oversight of a new technology that is functionally similar to telephony and subjecting that vibrant new technology to legacy regulation. Unfortunately, a patchwork of disparate state regulatory treatment of VoIP has already begun.

Contrast California and Florida. In the words of California Public Utilities Commissioner Susan P. Kennedy,

> California was one of the first and few states in the nation to declare VoIP to be a telecommunications service under the law. The CPUC came to that conclusion without the benefit of a single policy discussion or hearing on the issue. We acted quickly to "preserve our jurisdiction."

While not a decision by the state commission, Florida's Legislature passed legislation declaring that VoIP, "free of unnecessary regulation, regardless of the provider, is in the public interest." It also specifically excludes VoIP from the definition of "service" for purposes of regulation by its public service commission.

VoIP, a technology that promises competitive alternatives for our consumers, should not be subject to political whim across numerous states and communities. A national policy – one that is deregulatory in nature and sends an unambiguous signal to the market that the U.S. is receptive to emerging communications technologies – is the best protection against inconsistent and burdensome state regulation.

National federal authority does not denote federal regulation. Recognizing that existing regulations are not entirely appropriate for VoIP, the FCC has considerable discretion to forbear from applying them. On the other hand, the FCC has shown a willingness to step in with reasonable and finite regulatory solutions to address certain social policy issues that it believes will not be addressed adequately by the market.

A national policy would subject the emerging IP-enabled industry to a single jurisdiction that, even if not ideal, is vastly preferable to a patchwork of fifty states imposing fifty policies. Armed with this greater regulatory certainty, VoIP providers likely will be more willing to expand services in more areas, even in states that now are considered riskier regulatory environments like California.

D. "Mixed Use" Rationale

The FCC should exercise jurisdiction over "mixed use" VoIP services, where the end-to-end jurisdictional analysis is impossible because the location of at least one end of the communication is unknown. Further, the "mixed use" nature of the facilities for "Vonage-like" services, coupled with the difficulty of determining the jurisdictional nature of a communication in instances where the location of one end of the communication is unknown, provides a basis for FCC jurisdiction. This approach avoids the "either-or" dilemma of attempting to pigeonhole IP-enabled technologies like VoIP into "telecommunications service" or "information service" definitions. Presumably, it also would avoid a patchwork of fifty different state policies and would deliver the benefits of a uniform, national policy under federal jurisdiction.

IV. ECONOMIC REGULATION

A. No Economic Regulation of VoIP

The economic regulation[3] to which many regulators have, unfortunately, become accustomed is not rational in today's emerging IP-enabled market. In a competitive market, economic regulation is a certain disincentive to the investment that is required to build out the next-generation networks. VoIP, for example, is part of an IP-enabled network that is being built out by intermodal competition where there is no dominant player. As such, VoIP providers should not be subject to rules designed to substitute for competition in monopoly markets.

B. Retire the Duck

The "quacks like a duck" rationale should be retired. VoIP is not a telecommunications service in the traditional sense. Undoubtedly, it "quacks like a duck" in that it provides a similar function to traditional phone service (i.e., voice service), and some consumers perceive it as a substitute for POTS. In fact, VoIP joins the growing list of potential substitutes to POTS, including the unregulated and enormously successful wireless service. Although that point is compelling for those of us who argue that *the justification for economic regulation diminishes when a market provides consumers with a choice of substitutable products*, it does not mean that VoIP equates to traditional telephone service. VoIP's true competitive worth should be determined by the consumer, and policies that allow VoIP and other emerging technologies to vie for that consumer as an alternative to POTS, unencumbered by outdated regulatory shackles, should prevail.

[3] Economic regulation refers not merely to the setting of rates or prices (i.e., conditions typically set by the market) but also to regulation of the terms and conditions of service (typically a market function) and to certain administrative regulation (such as requiring the payment of fees to support a state commission's regulatory work).

C. Regulatory Parity (Regulate Down) and the Nascent Services Doctrine

As a normative principle, technological parity should result in regulatory parity. Two avenues exist for achieving regulatory parity: "regulating up" or "regulating down." Intra- and intermodal service and price competition for voice services are occurring on a national scale and from firms competing via different platforms. Incumbent and competitive traditional phone companies, wireless companies, and different categories of VoIP providers are all competing for market share. Because the VoIP market is competitive and consumers have choice, regulatory symmetry amongst platforms is the ideal. Regulatory symmetry works to send accurate price signals, maintain a level playing field, and promote merit-based competition (as opposed to regulatory arbitrage). At a minimum, VoIP providers – including new firms and established ones – should be subject to the same (de)regulatory regime.

We recognize, however, that there may be a period of asymmetric regulation between nascent and traditional technologies, not to give newer technologies an unfair advantage, but because of statutorily and administratively imposed restrictions to deregulation of traditional telephony. This concept is inherently recognized in Commissioner Kathleen Abernathy's Nascent Services Doctrine.[4] The Doctrine holds that "regulators should exercise restraint when faced with new technologies and services. Such restraint should facilitate the development of new products and services without the burden of anachronistic regulations, and in turn promote the goal of enhancing facilities-based competition."[5] Once the competitor demonstrates market viability, then the Commission will reevaluate the regulations applied to all the competitors in

[4] Kathleen Q. Abernathy. The Nascent Service Doctrine. Remarks of FCC Commissioner Kathleen Q. Abernathy Before the Federal Communications Bar Association New York Chapter (NY, July 11, 2002), *available at* http://216.239.57.104/search?q=cache:i8e3AwazNigJ:www.fcc.gov/Speeches/Abernathy/2002/spkqa217.pdf+Nascent+Technologies+Doctrine&hl=en&ie=UTF-8.
[5] *Id.* at 2.

the field and make an assessment as to what the regulatory standards should be. The regulatory timeline under the Nascent Technology Doctrine is:

1) Competitor with a 'new technology' enters the market
2) No regulation is placed on the competitor
3) Competitor demonstrates market viability
4) Commission examines new technology and applicable market
5) Commission assigns regulation to the new technology or keeps it unregulated.[6]

The Nascent Service Doctrine should be applied to both nascent *technologies*, which "appear in the market without any clear sense of the services they will ultimately support or the markets in which they will ultimately compete," and to nascent *services*, "new competitors to incumbents in already-defined markets."[7] The Nascent Service Doctrine promises to "deliver benefits to consumers by developing facilities-based competition, both intermodally and intramodally," and "reduce unnecessary regulatory burdens and ultimately achieve regulatory symmetry for all providers."[8]

The Nascent Service Doctrine is essentially "putting a name to the face" for the success of insurgent or Shumpeterian technologies. Over the last 100 years, it is deregulation or light-touch regulation that has opened the economic flood gates for new innovative technologies to enter into the market. For example, satellite TV (DBS) was able to compete with cable because it was not subjected to the same regulatory restrains as cable modems. Wireless was able to compete with wireline because the same heavy-handed regulations were not imposed on wireless providers.[9]

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[6] *Id.* at 2
[7] *Id.* at 3
[8] *Id.* at 3.
[9] Abernathy at 4.

There is, however, a caveat to the Doctrine. While Abernathy advocates deregulation, she recognizes that certain circumstances warrant "targeted" regulation. She indicates three circumstances where some regulation may be needed: 1) to promote public policy; 2) prevent competitors from imposing externalities on one another and to protect consumers from market failures; and 3) to eliminate barriers to entry.[10]

Applying the Nascent Services Doctrine to VoIP, we first note that the variety of VoIP providers and products suggests that significant competition solely among VoIP offerings is here, or at least appears to be arriving soon. Additionally, VoIP is competing against traditional ILEC and CLEC phone service, as well as against wireless phone service. In light of the development of these competitive markets, there is no logical basis for subjecting VoIP to outdated rules designed to forge competition in monopoly markets or to regulate monopoly providers. Rather, a limited national policy is needed to address only those social goals that are both necessary and unmet by the market.

As substitute products and services continue to emerge, "regulating down" will enable competition to replace the regulator. It is axiomatic that regulation is a poor substitute for competition. Again, the best way to ensure regulatory parity is for Congress and/or the FCC to set national policy with respect to competing VoIP and other IP-enabled technologies. Likewise, it is appropriate for the FCC to examine whether rapidly changing technologies are creating such competition to telecommunications services that a lighter regulatory regime is appropriate for both telecommunications and information services. Otherwise, competition from new types of services like VoIP threatens the very existence of the plain old telephone network.

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[10] *Id.* at 4

V. SOCIAL REGULATION[11]

While VoIP and other emerging technologies should not be subject to economic regulation at the state level (and to only minimal, non-discriminatory regulation, if any, at the national level), social regulations that policymakers determine (i) are of significant societal importance and (ii) cannot be adequately addressed by market forces may be necessary. The FCC should adhere to the principle of limited "necessary" regulation. VoIP providers do *not* have to be classified as telecommunications companies and VoIP services need not be subjected to the full range of telecommunications regulations in order to address public safety and welfare concerns.

A. E911

The provision of functionally equivalent E911 service should not be left solely to the market to address. While market forces would likely render differences in VoIP 911 services and traditional telephony 911 services largely indistinguishable over time, the societal importance and public safety implications are too great to be overlooked in the meantime.

The FCC should, however, afford a reasonable opportunity for the industry to develop an adequate system before instituting mandatory compliance standards. (This approach occurred with wireless 911 services; locating the caller via triangulation or GPS was not imposed as an initial requirement.) Resolution of the 911 service issue is likely important to the long-term ability of VoIP providers to achieve maximum customer growth – i.e., customers likely desire 911 functionality. This existing incentive, when combined with the threat of a government-

[11] It should be noted that some VoIP providers have indicated a willingness to accept certain social responsibilities, particularly with regard to 911, CALEA, and universal service. Furthermore, many of these players likely would be willing to assist both federal and state agencies that may receive consumer complaints, regardless of whether an agency has jurisdiction to resolve the complaint, in the interest of consumer satisfaction with their product.

developed resolution, should result in the proper impetus for a timely industry proposal to close the gap between VoIP and traditional telephony 911 services.

The VoIP industry and ultimately the FCC should consider the possibility of adopting the 911 system being developed for mobile services for use with VoIP devices or applications. A host of other options that should be evaluated in the effort to arrive at a timely and cost-effective solution likely exist. Given the mobile nature of the caller, the ultimate solution may involve some customer responsibility to identify his or her location to emergency authorities.

In the interim, VoIP providers should be required to inform consumers if their VoIP service does not offer 911 service that is functionally equivalent to that provided by traditional telephone providers. The FCC could, after industry input, adopt uniform, national guidelines for VoIP providers regarding disclosure requirements in interacting and establishing initial VoIP service with potential consumers.

Lastly, VoIP providers utilizing the 911 system should bear their "fair share" of maintaining the 911 system. Regulatory parity argues that those who use the system should, regardless of the platform used, support the system.

B. Universal Service

Universal service presents another fundamental policy challenge. While, as a general matter, nascent technologies should not be burdened with old taxes, the country has established universal service policies that require funding. As consumers increasingly turn to substitutes for a taxed service, not subjecting those substitutes to USF obligations results in regulation picking market winners and losers. Some competitors – but not others – would bear the brunt of funding the program. To further a uniform, non-discriminatory policy, the FCC must ultimately subject

the "proper pool" of participants to non-discriminatory USF funding obligations.[12] Regardless, VoIP providers would *not* have to be subjected to the full range of common carrier/telecommunications regulation in order to require VoIP providers to contribute to the USF.

Ultimately, any extension of USF obligations to VoIP providers (or others) should *not* constitute new or additional revenue for the government to redistribute. Rather, it should reflect a reallocation of a burden amongst some group of similarly situated competitors. It is far preferable for policymakers to determine the amount needed to meet a defined universal service goal and charge the pool of participants for their share of the needed amount.

Finally, if VoIP providers ultimately are required to share in the burden, they ought to be considered for USF distributions. However, the FCC perhaps should examine equity issues associated with consumers who pay USF charges on multiple lines and should examine methods to prevent multiple USF distributions to the same consumer.

C. CALEA

Because the FCC has indicated that it will release another NPRM with respect to law enforcement and CALEA requirements, FERUP's comments are limited to the following preliminary principle: while such regulations should be balanced against the ultimate economic impact, there appears to be a role for the federal government to subject VoIP providers to similar law enforcement and CALEA requirements as traditional telecommunications providers. Completely exempting VoIP providers from laws designed to protect our homeland may provide a dangerous and publicized loophole for those seeking to inflict harm on our citizens.

[12] Defining the "proper pool" might consider factors such as: the share of the voice market held by the provider (so as to exclude providers with but a negligible share of the market); whether the VoIP is a computer-to-computer application (such as Skype); or whether the VoIP does not "touch" the PSTN at either end.

D. Consumer Protection

Existing federal and state generic consumer protection laws are sufficient to address the vast majority of consumer protection issues. Specific issues the FCC should consider include how to apply Local Number Portability and Do Not Call restrictions uniformly on all carriers, including VoIP providers, that utilize North American Numbering Plan resources. Absent a compelling need to initiate a rule to address other VoIP-specific consumer issues, the competitive market should provide adequate protection, as is the case in the highly competitive and highly successful wireless industry. That said, FERUP also would support VoIP providers voluntarily providing contact information and escalation lists to federal and state agencies that are likely to receive consumer complaints about VoIP service regardless of an agency's jurisdiction over such providers. This approach is aimed at getting consumers in touch with those in the company that can provide timely assistance in getting the consumer's concerns resolved. This approach has worked well in Florida with respect to consumer complaints regarding wireless service, which is specifically excluded from the state commission's jurisdiction. State regulatory commissions currently handle most consumer complaints (even of unregulated industries)[13] and have developed considerable expertise in dealing with those issues. State commissions should continue to have a significant role in facilitating the resolution of consumer complaints.

VI. INTERCARRIER COMPENSATION

Intercarrier compensation is a critical issue with respect to VoIP. The current system, designed to recover a local telephone provider's costs of providing access to the PSTN to other carriers, is both complicated and broken. Because VoIP traffic travels at least in part over an IP

[13] The Florida Public Service Commission, for example, regularly assists putting customers in touch with companies, including wireless companies not regulated by the Commission, in order to resolve consumer issues.

platform, VoIP challenges the broken compensation regime. This NPRM presents a new opportunity to examine *and* modify the way wireline providers currently are compensated for use of their infrastructure.

The current scheme was created as a regulatory construct designed to deal in part with the high cost of maintaining network infrastructure. In that sense, intercarrier compensation has become a support mechanism, which is now relied on by many high cost providers. The system worked so long as there was no way to bypass the system. Now, there is, to the extent VoIP calls can be made without the use of the PSTN.

Some policymakers appear to have coalesced around idea that any voice traffic, regardless of technology, that connects to the PSTN should pay existing traditional access charges. In fact, the FCC's recent decision regarding the AT&T petition suggests exactly that. However, this widely-endorsed solution: (1) can only be temporary; (2) may not be consistent with larger goals, such as promoting regulatory parity and competition among multiple platforms; (3) will not solve the universal service problem in the long run; and (4) will seriously disadvantage one network platform, the PSTN, as carriers move as much traffic as possible to competing networks (cable, wireless, and the Internet). Although it may be appropriate as an interim measure while policymakers focus on comprehensive reform of the intercarrier compensation framework, the FCC decision in the AT&T petition is akin to placing a band-aid carefully over a festering blister.[14] Regulators should be hesitant to *fully* extend the current intercarrier compensation system to VoIP providers who touch the PSTN exactly because that would drive customers and carriers to purposefully avoid the PSTN, thus harming LECs and the Universal Service Fund even more. Regulators should not artificially decrease demand against the PSTN in a misguided attempt to meet unachievable social goals.

It is critically important that the FCC not allow a temporary and ultimately unsustainable solution on VoIP providers to become entrenched in an already fragile intercarrier compensation regime. It is even more critical that the FCC not allow states to fill a regulatory vacuum with a patchwork of differing classifications on VoIP providers with regard to paying access charges, universal service contributions and other intrastate fees and charges. Instead, policymakers need to find a broad long-term solution to the intercarrier compensation dilemma, both with regard to VoIP *and* traditional service providers. Access reform that recognizes the weaknesses of the current system and, at a minimum, considers and addresses the implications of what appears to be a major industry shift to VoIP, is desperately needed. Currently, the FCC awaits at least one known industry effort to address intercarrier compensation reform. If the industry is unable to reach consensus in the near term, the FCC should occupy the field of jurisdiction forthwith and proceed with its own resolution.

VII. CONCLUSION

Instead of wasting more time over who gets to regulate which piece of a competitive communications market, federal and state regulators should work collaboratively to: (i) identify issues where government *should* intervene; (ii) identify whether such intervention is most appropriately carried out by state or federal regulators (or some combination); and (iii) limit that intervention to resolving issues that will *not* be adequately addressed by the competitive market. As for the industry, VoIP providers should be seeking market solutions to as many of these issues as possible, a method that will greater reduce the threat of government regulation of the service.

VoIP is not well suited to the model of regulation that traditionally has been applied to the provision of circuit switched telephone services by a monopoly. The FCC's aggressive

schedule for addressing the plethora of thorny issues surrounding this emerging technology is encouraging. Based on FCC actions to date that indicate a general willingness to regulate sparingly or to forbear from regulation completely depending on the nature of a particular VoIP service, we look forward to increasing announcements of innovative VoIP service roll-outs across the country and to increasing alternatives for the consumers in our states.

In closing, FERUP echoes the sentiments of Colorado Public Utilities Commission Chairman Greg Sopkin, who stated, "There should be minimal, rational regulation (as determined by the FCC) so there will be little incentive to flout it. And that regulatory model should apply to all modes of telephony to the extent feasible, lest we – the regulator – pick the winners and losers."

* * * * *

The Federation for Economically Rational Utility Policy (FERUP), founded in 2004, is a new, national organization of state utility commissioners who believe in reforming regulation through proven economic principle. FERUP questions command and control thinking endemic to so much governmental regulation, preferring a rigorous application of rational economic theory to today's rapidly evolving network industries. www.ferup.org (coming soon)

These comments herein represent, collectively, those of the individual signatories to the comments and do not necessarily represent the positions of either the public utility commissions on which the signatories serve or the states in which the signatories serve.

Dated: May 28, 2004

Respectfully submitted,

GREGORY E. SOPKIN, CHAIRMAN
Colorado Public Utilities Commission

THOMAS L. WELCH, CHAIRMAN
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JACK R. GOLDBERG, VICE-CHAIRMAN
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RUDOLPH "RUDY" BRADLEY, COMMISSIONER
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KEVIN CRAMER, COMMISSIONER
North Dakota Public Service Commission

CHARLES M. DAVIDSON, COMMISSIONER
Florida Public Service Commission

SUSAN P. KENNEDY, COMMISSIONER
California Public Utilities Commission

CONNIE MURRAY, COMMISSIONER
Missouri Public Service Commission

Mr. STEARNS. And I thank you, Mr. Chairman.

Mr. UPTON. Both Mr. Stupak and Mr. Buyer waive. Get an additional 3 minutes.

Mr. Wynn?

Mr. Doyle?

Mr. Towns?

Mr. TOWNS. Thank you very much, Mr. Chairman. Let me begin by first thinking you for holding this hearing.

The landscape of the telecommunications industry is constantly changing and the ramifications due to the development of Voice over Internet Protocol would be enormous. While still in it's beginning stage, adoption of this new technology is rapidly growing and widespread adoption is expected within the next few years.

As we look upon the horizon and try to predict the development of this new technology, I believe we should strive for a regulatory framework that protects the consumers, encourage investment and innovation and fosters competition; all of this should occur at the same time.

In my district where many constituents still do not have a dial up Internet connection, let alone broadband service, VOIP is not an option for the foreseeable future. So I am concerned about what happens to regular local phone service for these consumers if the high paying profitable customer migrate to VOIP. The migration of consumers to this new service and the regulatory treatment of VOIP will have serious consequences for universal service and the maintenance of the existing public switch telephone network.

I am pleased that most companies considering VOIP recognize that we must balance the need to promote the technology with the need to protect certain consumers. The question is where is that balance?

I hope hopeful today's witnesses might help bring some clarity to this issue. To encourage investment companies must be able to operate under a predictable national framework of services, pricing and intercarrier compensation. The fact that the service, like all Internet traffic operates without borders makes VOIP more appropriate actually for the Federal Government for the FCC to look into.

Finally, as we work toward the framework that levels the playing field among all telecommunications competitors, I am not convinced at this point that we can foster the most competitive environment by just tackling VOIP or whether a broader approach toward all Internet services is needed. I look forward to hearing from all of the witnesses about these issues and would like especially to welcome, of course, Cablevision because they are from a New York company so you know I want to welcome them especially.

And of course, Mr. Chairman, I yield back the balance of my time.

Mr. UPTON. Mr. Fossella?

Mr. FOSSELLA. Thank you, Mr. Chairman.

By acknowledging the success of Voice Over IP it is clear that competition can thrive if allowed and consumers would benefit. And I speak primarily to welcome Mr. Tom Rutledge of Cablevision for taking time to join us today.

Cablevision has been a leader in providing the New York area including portions of Brooklyn with Voice Over IP. In addition to being the first company to roll out their services system wide, Cablevision has successfully worked with law enforcement to include E911 and to meet all law enforcement access and surveillance requests. This exemplifies the will private industry has to do the right thing without government's heavy regulatory hand.

While Voice Over IP remains a new interstate and international service to consumers, it's clear that private industry through their determination to provide competitive services and to remain unregulated has been able to build a competitive telecommunications venue that can address public safety and full access concerns without government intervention.

I believe the individuals within the industry should be applauded for their accomplishments to invest capital to offer consumers more choice and new innovative products and services. And if anything comes out of this hearing today, Mr. Chairman, I would hope we can bring the Pickering household up to speed. As a New Yorker, we believe we are on cutting edge and I do not get to Mississippi often, but I had no idea. Perhaps if anything, we could take a little collection for Mr. Pickering.

I yield back.

Mr. BUYER. He might be able to give you some free minutes.

Mr. Davis?

Mr. Boucher?

Mr. BOUCHER. Well thank you very much, Mr. Chairman. I want to compliment you this morning for focusing the committee's attention on a matter of far reaching consequence for the telecommunications marketplace.

The arrival of advanced communications offered over the Internet, notably Voice over Internet Protocol service promises a broad telecommunications transformation. VOIP with its packet switched architecture offers a far more convenient and less costly means of making telephone calls than currently used circuit switched technology. Internet-based telephone calling will bring digital clarity, greater flexibility and a wider array of service offerings and substantial consumer savings over the analog circuit switched technology that is now widely in use.

New businesses will be formed to offer VOIP and existing telephony providers will develop new business models around the technology as well. As video based IP services are broadly introduced in the future, even greater market transformations will occur.

As the private sector both welcomes and accommodates these dramatic changes, a new regulatory framework is required. Yesterday our committee colleague, Mr. Stearns and I, introduced a measure that is designed to provide that new regulatory framework. Our goal is to treat all advanced IP applications, including VOIP, with a lite regulatory touch. Since every Internet user who is equipped for advanced services will have a broad choice of service providers, the services will be highly competitive. Accordingly, the regulations which have governed monopoly telephone networks should not apply to the new competitive Internet-based technologies. It's time for an entirely new regulatory framework for Internet based communications.

In introducing the Advanced Internet Communications Services Act of 2004, Mr. Stearns and I are seeking to help frame the debate on advanced Internet communications regulation in anticipation of a broader telecommunications overhaul in the Congress, which we believe will begin in 2005. By suggesting basic ground rules today, we're hoping to make a substantial contribution to the rewriting of the 1996 Telecommunications Act. That law was an analog statute. It related to traditional telephone service only. The Internet is only mentioned collaterally in that section dealing with the Communications Decency Act, which by the way was unceremoniously declared unconstitutional by a nine to nothing vote of the Supreme Court.

It is now time to have a bill that focuses on the Internet solely, and the measure that we have put forth is one such measure. Our bill would declare that all advanced Internet communication services including VOIP, video and data applications are interstate services subject to the exclusive jurisdiction of the Federal Communications Commission. The services in our bill will be specifically excluded from the categories of either information service or telecommunication service, the categories into which services are now placed.

As advanced Internet communication services, IP services will have their own set of regulatory principles as embodied within the text of the bill. Neither the FCC nor any State would be permitted to regulate the rates, charges, terms or conditions or entry into or exit from IP-based businesses.

Regarding VOIP specifically we would direct the FCC to regulate lightly in order to assure a protection of the public safety interest by having E911 capability, by assuring an appropriate contribution to the Universal Service Fund, by assuring access for persons with disabilities and providing just and reasonable intercarrier compensation when a call that originates as a VOIP called terminates on the public switched network as a regular telephone call.

The bill requires parity and regulatory treatment among all providers of advances services and would break from traditional regulation by ceasing the regulation of specific industries in different ways. So in the future all services would be regulated in a similar manner by a common set of rules, whether the platform be operated by a cable company, by a telephone company or some other provider of broadband services.

Mr. Stearns and his staff have done an excellent job in working with us as this measure was structured. And I want to commend them for their outstanding effort.

It is my hope that today's witnesses will comment on some of the principles that we have embodied in our bill as they survey the landscape for VOIP regulation today and recommend to us what it should look like in the future.

I want to welcome our witnesses. And thank you very much, Mr. Chairman, for assembling this timely discussion.

I yield back.

Mr. UPTON. Mr. Barton?

Chairman BARTON. Thank you, Mr. Chairman. I have a formal statement for the record. I assume that it's been allowed to be entered into the record.

Mr. UPTON. It will be without objection.

Chairman BARTON. And I will just simply summarize, and I welcome the panel. I think this is a very important hearing. I think VOIP is going to be huge. It makes cell phone expansion, you know, look like wagon trains when it gets going.

And I think we do need a Federal bill. I think we need to do the absolute minimum in terms of regulation, and I applaud the hearing that Mr. Upton is holding today.

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

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

Mr. Chairman, thank you for calling this hearing today. The Internet has dramatically changed the way we communicate, shop, learn, and entertain ourselves. And now Internet Protocol (IP) technology is changing the market for voice communications.

Voice Over Internet Protocol (VOIP) services use IP technology to packetize voice signals and send such signals in packets over the Internet. This is a much more efficient means of sending voice signals than traditional circuit-switched technology. The increase in efficiency enables VOIP providers to offer services at lower costs and using less bandwidth. This should translate into lower prices for consumers and innovate applications that can be provided in the bandwidth previously reserved for circuit-switched phone calls.

VOIP services have great potential. And many companies, such as the ones before us this morning, are turning that potential into reality today. I applaud the efforts of companies using multiple technology platforms to offer consumers IP-based services.

Congress and the FCC need to ensure that these companies are able to operate free from stifling regulations. In particular, VOIP providers should not have to battle with 51 different sets of rules across the country. There should be only one, federal set of rules that apply to VOIP.

And those rules should be absolutely minimal. VOIP should not become the communications medium of choice for terrorists. And consumers who subscribe to VOIP services should have access to E911 capabilities. But VOIP services should not be treated like plain old telephone service and VOIP providers should not be treated like common carriers.

VOIP services are likely to be a very disruptive force in the communications industry, one that will benefit consumers substantially. Let's make sure that government does not limit VOIP's growth.

Mr. Chairman, thank you for holding this hearing. I look forward to the testimony of our witnesses.

Mr. UPTON. Thank you.

Mr. Bass? A waive.

Mr. Terry?

Mr. TERRY. Partially waive.

I just want to welcome my friend Mick Jensen. He is not a constituent because he lives just a couple of miles outside of my district. Nonetheless he has been a good family friend for as long as I can remember and, frankly, one of the first people I met with to discuss telecommunications policy before I was even on this committee. I consider a Mick a mentor of mine in this area, and welcome him today.

Mr. UPTON. That concludes our opening statements.

[Additional statements submitted for the record follow:]

PREPARED STATEMENT OF HON. PAUL E. GILLMOR, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OHIO

Thank you Mr. Chairman for this opportunity, not only to gauge the state of competition in the communications sector, but to lay the groundwork for addressing the insurgence of new technologies under current telecommunications law.

With the enactment of the Telecommunications Act of 1996, we were certainly not as dependent on email or our cell phones when conducting business, and of course

there wasn't a blackberry in sight. With the recent explosion in email, wireless, broadband, and soon, voice over Internet Protocol (VOIP) services, yesterday's advanced services such as Internet dial-up and land-lines are losing steam.

I should also point out, that while telecommunications industry investment remains weak, consumers have an array of new services to choose from, reaching farther out to serve rural areas like my Ohio district. Furthermore, as we have seen according to the recent trends, as more people subscribe to broadband Internet access, more consumers become aware of and are more likely to take advantage of innovative VOIP services; and with it comes lower costs, spurring traditional companies within the industry to provide these enhanced features, creating more competition and most importantly, the ability to meet customers' demands. In terms of regulation, we must continue to provide a communications environment conducive to new investment, manufacturing, competition, and lower prices for our constituents.

I welcome the well-balanced panel of witnesses and look forward to learning more about the latest breakthroughs in VOIP technology and its potential impact on the current telecommunications sector marketplace. Again, I thank the Chairman and yield back the remainder of my time.

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

Thank you, Mr. Chairman.

I look forward to our hearing today on what may be the phone service of tomorrow, Voice Over Internet Protocol (VOIP). The concept of telephone competition when we were crafting the Telecommunications Act of 1996 was based on the principle of shared facilities. Now we are nearing a world where consumers will benefit from competition, but instead of it being just one platform shared by competitors, it will be intermodal in nature. Consumers can choose what connection or "pipe" that provides broadband into their homes—be it copper, cable, wireless or satellite—and expect a reasonably similar suite of services on each platform.

This is a truly exciting time, and one where innovation is rewarded. It does, however, require that we in Congress review the overall assumptions upon which the Telecom Act is based. The lines between voice and data communications has been blurred. The principles behind the Universal Service Fund need to be addressed, and what obligations one has under emergency services needs clarification. We also need to ensure that those of us in rural America are not left using 19th Century technology in a 21st Century world.

Who would have imagined just eight short years ago that one could use their cable provider for voice services, or their phone company for video? Well, now we are entering that world. That's why this is an important hearing to tackle these matters in anticipation of a redrafting of the Telecom Act for this next Century of communications.

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 calling this hearing.

Once again, we—the members of this subcommittee and indeed all of Congress—are presented with advances in technology that have passed our nation's laws and regulations.

Voice over Internet Protocol is an exciting technology that turns the home computer into a telephone.

So the question being asked today is a simple one—is this a phone or computer program?

If only the answer were as easy. In fact, there seems to be an inverse correlation to the ease of the question to the difficulty of the answer.

Questions of intercarrier compensation, 911, CALEA, the USF program and disabled accessibility are all on the table.

From my point of vantage point the easiest parts of the answer are ALL VOIP systems must be completely integrated with the emergency 911 system and accessibility for the disabled. ANYTHING LESS IS UNACCEPTABLE.

The systems must all be able to be accessible to law enforcement when they have a proper court order.

Intercarrier compensation is a hearing unto itself—so I will skip that for now!

That leaves USF—the program that provides subsidies for rural telephone services and the E-Rate program that funds Internet access for our schools and libraries.

As my colleagues know, USF and E-Rate are funded by a fee on long distance usage. However, VOIP doesn't use long distance as a measure—and as it becomes more popular one can only assume that revenues for USF will decline.

Thus, due to this point I must withhold taking a position on how best to classify VOIP until a much better proposal of how to fund the USF and E-Rate emerges.

I am aware that Chairman Barton has concerns about the management of the E-Rate program—and I join him with those concerns. There have been terrible abuses and outright fraud in by vendors of the E-Rate program. Let me be clear—that is stealing from kids. It is wrong. It WILL end.

I look forward to working the Chairman and my colleagues on improving the management of the E-Rate program.

As to VOIP, I know a number of my colleagues have introduced legislation to deal specifically with its regulatory framework, however I think that it would be best to address this in context of a larger re-write of the 1996 Telecommunications Act. We should not try and keep plugging holes in a law that was written for the analog age with digital age band-aids.

Mr. UPTON. At this point we are ready to hear the statements from the witnesses. We are joined by a very good panel led by Mr. Jeffrey Carlisle, Senior Deputy Bureau Chief of the Wireline Competition Bureau from the FCC. Mr. Jeffrey Citron, Co-Founder and Chairman and Chief Executive Officer of Vonage Holdings Corp. in New Jersey. Ms. Margaret Greene, President and regulatory External Affairs from BellSouth. Mr. Michael Jensen, CEO of Great Plains Communications from Nebraska. Mr. Jim Kirkland, General Counsel and Senior VP for Covad Communications. Ms. Kathy Martine, senior VP from AT&T. Mr. Robert Nelson, Michigan Public Service Commission, Chairman of the Committee on Telecommunications, obviously from Lansing and from the National Association of Regulatory Utility Commissioners. Mr. Thomas Rutledge, Chief Operating Officer of Cablevision Systems in New York and Mr. Ronald Vidal, Group VP, Emerging Opportunities from Level 3 from Colorado.

Your statements are made a part of the record in their entirety. We would like to limit your remarks to 5 minutes, which the subcommittee will be able to ask questions.

Mr. Carlisle, we'll begin with you.

STATEMENTS JEFFREY J. CARLISLE, SENIOR DEPUTY BUREAU CHIEF, THE WIRELINE COMPETITION BUREAU, FEDERAL COMMUNICATIONS COMMISSION; JEFFREY CITRON, CO-FOUNDER, CHAIRMAN AND CHIEF EXECUTIVE OFFICER, VONAGE HOLDINGS CORP.; MARGARET H. GREENE, PRESIDENT, REGULATORY AND EXTERNAL AFFAIRS, BELLSOUTH CORPORATION; S. MICHAEL JENSEN, CEO, GREAT PLAINS COMMUNICATIONS; JAMES KIRKLAND, GENERAL COUNSEL AND SENIOR VICE PRESIDENT, COVAD COMMUNICATIONS; CATHY MARTINE, SENIOR VICE PRESIDENT, AT&T CORPORATION; HON. ROBERT B. NELSON, MICHIGAN PUBLIC SERVICE COMMISSION, CHAIRMAN, COMMITTEE ON TELECOMMUNICATIONS, THE NATIONAL ASSOCIATION OF REGULATORY UTILITY COMMISSIONERS; THOMAS M. RUTLEDGE, CHIEF OPERATING OFFICER, CABLEVISION; AND RONALD VIDAL, GROUP VICE PRESIDENT, EMERGING OPPORTUNITIES FROM LEVEL 3

Mr. CARLISLE. Good morning, Mr. Chairman, and distinguished members of the subcommittee. It is my pleasure to come before you today to discuss Voice over Internet Protocol also known as VOIP.

On March 10, 2004 the Commission initiated its study of VOIP by releasing its notice of proposed rulemaking in the IP-enabled services proceeding. Before describing the status of this proceeding, it is useful to first discuss how VOIP should be viewed by regulators in light of the changes this technology is bringing to the market for telecommunication services.

Saying that VOIP is just another way to make a phone call is like saying Amazon.com was nothing more than another way to sell books. This ignores the fact that ecommerce, whether it was Amazon.com, eBay or any number of retail providers over the Internet, changed the way we buy books and everything else.

The Internet changed fundamentally the way service providers compete for and relate to their consumers. VOIP is better understood as bringing this dynamic to voice communications. How so?

The traditional voice network delivered its service over a dedicated centrally managed network. Whoever the owned the pipe into your home owns you as a customer. On the Internet the voice application, in fact all applications, are separated from the physical transmission network. They ride over it but are agnostic as to who provides the network as long as the network is capable of carrying Internet protocol. Thus, anyone who can attach a server to the Internet can allow 2 people, or 3, or 4, or 100 to talk to one another. Voice inevitably is becoming an application just like any other; less like a stand alone service that you pay a separate monthly bill for and more of a free or almost free add on to something else you buy.

VOIP changes the market in two other ways. It accelerates the adoption of broadband, and thus accelerates the migration of various services from dedicated network to multi-use broadband platforms. If you can get more with a broadband connection, whether that connection is provided by DSL, cable modem or any other technology, you're more likely to buy it as a consumer; a dynamic that promotes competition and brings significant consumer benefit.

VOIP also changes the market by internationalizing voice communications. You can download VOIP software from a provider in the U.S. or anywhere in the world.

These are fundamental changes to an industry that has been regulated for 70 years on the assumption that all provides are monopolies protected by an elaborate regulatory regime and all providers use dedicated narrow band networks. I believe it would irrational for regulators to ignore these changes and apply legacy regulations reflexively without seriously examining whether they are relevant.

History provides two very useful examples; cellular and the Internet. These technologies were left free to develop outside of common carrier regulation, notwithstanding long hard fought battles to impose that regulation. Today the American consumer and the American economy enjoy significant benefits because we steered that course. These two industries grew from reaching a handful of consumers to touching millions of lives everyday, all in the absence of significant common carrier regulation.

The Commission's NPRM should be viewed in this light. The FCC has begun to examine VOIP because development of this promising technology might very well be hampered by unjustified, conflicting regulatory requirements that will result as different courts and State commissions begin to address this area. In this environment the Commission cannot simply assume that inaction will be sufficient to engender an environment of innovation and competition.

The NPRM first asks whether the Commission can best serve the public interest by continuing its policy of minimal regulation of the Internet and applications provided over it. It asks how the Commission should classify different types of VOIP applications and what the nature of Federal State jurisdiction is over these applications.

The NPRM asks how the Commission can best implement regulations designed to advance specific societal goals such as access to emergency services, access for people with disabilities and universal service. And asks whether economic common carrier regulation which protects against abuses by monopoly providers continues to have relevance in the IP environment.

In response to the NPRM the Commission has received over 150 initial comments from a wide variety of sources: VOIP applications providers and existing wireline companies, individual, State public utility commissions, public interest advocacy groups, 911 administrators and high technology companies such as Microsoft and Cisco. While these comments provide a rich source of material, the Commission will receive any more. Reply comments on due on July 14.

In conclusion, treatment of VOIP will very likely have some of the farthest reaching consequences of anything the Commission considers in the near future. Consumers, including industries that rely on advanced communications, are counting on policymakers to get it right.

The Commission will do its best. But while the Commission has some discretion to fine tune treatment of new technologies, it must act within the scope of its current congressional directives, which divide the world into regulated telecommunication services and unregulated information services. If VOIP and other new technologies

are changing the telecommunications market such that new regulatory approaches are necessary, it may be time to consider whether the tools the Commission has today are sophisticated enough for the task. In the meantime, we will move forward with our job. The guidance and leadership of Congress is important to the success of our process. Accordingly, we at the FCC would like to thank you, Mr. Chairman, for calling this hearing and we look forward to working with you and other members of the subcommittee on these issues.

Thank you very much.

[The prepared statement of Jeffrey J. Carlisle follows:]

PREPARED STATEMENT OF JEFFREY J. CARLISLE, SENIOR DEPUTY CHIEF, WIRELINE COMPETITION BUREAU, FEDERAL COMMUNICATIONS COMMISSION

Good morning, Mr. Chairman and distinguished members of the Subcommittee. It is my pleasure to come before you today to discuss services and applications that use voice over Internet Protocol ("VOIP"), and the status of our examination of them at the Federal Communications Commission (the "FCC" or the "Commission").

I. THE IMPORTANCE OF VOIP

The Commission has pending before it a number of proceedings initiated by petitioners about VOIP, and has initiated a broad examination of issues related to it. As an introduction to the status of these proceedings, it is helpful to discuss why the emergence of VOIP raises important issues, why the Commission, as indicated in the IP-Enabled Services Notice of Proposed Rulemaking ("IP-Enabled Services Proceeding"), is examining the best way to establish a minimally regulated environment for VOIP, and why prompt action to clarify the regulatory regime applicable to VOIP is crucial to the future of electronic communications and America's place as the leading innovator in the field.

A. VOIP is Changing the Nature and Business of Voice Communication

VOIP is seen by some as simply an alternative technology for transmitting a traditional voice telephone call. This purely functional view, sometimes referred to as the "if it quacks like a duck, it's a duck" argument, is short-sighted for two reasons.

VOIP Technology is Radically Different From Traditional Voice Telephony. The functional view ignores the fact that VOIP technology is merely an application that rides over the public Internet, or over dedicated data networks, just like any other application. And on public or private data networks the bitstream created by a VOIP application is no different than any other bitstream on that data network—it can be incorporated into other bitstreams, modified or enhanced by simply changing server or client software. Thus, voice can now be easily paired with data and video in ways that for all practical purposes cannot be achieved over the traditional network. Adding enhancements to voice, or voice to other applications, is no longer a question of a common carrier spending millions of dollars to purchase and implement modifications to highly complex circuit switches—it's a question of adding a new feature in the next software release. Moreover, consumers no longer need to pay rates well above cost for a la carte offerings of voicemail, caller ID, and other enhanced features—these features may be included in their VOIP package for free. Consumers can change their service selections simply by logging on to their VOIP application provider's website, or by choosing a new provider with more attractive features.

VOIP is a Radically Different Way of Doing Business. The above description of what VOIP is and can do still focuses on the function the consumer is receiving, and one could say that, however amazing and easy these functions are to provide, VOIP is still a way of making a "phone call." But this raises the second reason why a purely functional approach is short-sighted—VOIP is much more than an alternative way of making a "phone call"—it is an alternative way of doing business. Saying VOIP is just another way to make a phone call is very much like saying that Amazon.com is simply an alternative technology for selling books, without any broader consequences for markets or consumer behavior. As it turns out, e-commerce is much more than that—it changed the way we shop for things. It changed the market for books, and everything else, by opening a truly worldwide market to any retailer who could attach a server to the Internet, or any individual who could open an E-Bay account.

So how does VOIP change the business of telecommunications? By allowing data networks to carry voice communications at comparable levels of quality to the traditional circuit-switched network, and to do so more flexibly and efficiently, VOIP changes the dynamics of the market for telecommunications services in three ways.

The first way VOIP changes telecommunications markets is that it changes voice from the primary service provided by common carriers into nothing more than just another application on the network. Yesterday, voice applications were delivered over a dedicated network that required an enormous and well-capitalized service provider in order to maintain basic infrastructure. And the provider demanded a protected monopoly in return for doing so. Tomorrow, the voice application—in fact, all applications—will be separated from the physical transmission network. Anyone can attach a server to the Internet to allow two people—or three, four, five or a hundred—to talk to one another, just as anyone can connect a server to the Internet to provide email, file sharing, or any other service. The implications for how voice services are marketed and purchased are staggering. No longer is innovation the sole province of the monopoly provider, who may face little pressure to innovate. Rather, innovation in telecommunications can come from any entrepreneur, small company or enterprise that can connect to the network. This is the consequence of moving voice communications to the Internet, where intelligence is on the edge of the network instead of a tightly controlled core.

With these kinds of developments, saying that a VOIP application is another way of making a phone call is like saying that an automobile is just another way of going someplace in your horse and buggy. VOIP means that voice will no longer be a dedicated service for which consumers pay a separate monthly bill. VOIP may be part of your wireless phone service, as it already is with many push-to-talk services; it may be bundled together with video and data service that you buy from your cable, telephone, satellite or power company; or you may buy it from dozens of providers over the Internet; or you may simply have it as part of a software package that you buy for some other purpose. Most likely, you will buy it in all of these different ways. Accordingly, when VOIP separates the voice application from the physical network, the question is no longer whether consumers will benefit from competition in the voice market. Clearly, they will. The question is, *how long it will be until voice competition is no longer an issue, because voice has become an almost free add-on to something else you buy from multiple sources.*

In this respect it is useful to compare the evolution of the voice market to that of the market for email. There, too, a different and dynamic business model changed how we communicate, with significant consumer benefit. Email appears to be "free." But email application providers thrive in a market where intense competition drives innovation. Advances in email provided by Hotmail, Google and Yahoo become headline news. Consumers can acquire email applications from their ISP, select web-based mail from third parties supported by advertisements, outsource mail services, or operate email servers on their own networks. In the same way, consumers will benefit from a market for voice applications thriving with competition, innovation and choices suited to their needs at significantly reduced costs—but with significant rewards for agile and smart companies capable of delivering the best service.

The second way VOIP changes telecommunications markets is that it accelerates the migration to all digital, multiuse infrastructures. Whatever the benefits of removing the voice application from a dedicated infrastructure, obviously we will still need companies capable of maintaining the digital infrastructure that carries it. This business, too, is changing. For many markets in the United States, infrastructure will no longer be the monopoly environment of the traditional network. Rather, an entire range of broadband technologies, such as DSL, cable modem, broadband wireless, WIFI, Ultra Wide Band, satellites and broadband over power lines will provide connectivity. When networks simply provide transmission, and are not tied to a single application like voice or cable television, networks become highly substitutable for one another and competition increases dramatically, again rendering significant benefits to the consumer. Furthermore, the offering of demand-creating applications such as VOIP promotes deployment of broadband facilities, and increases in deployment in turn promote further development of VOIP and other Internet applications. Thus, applications and broadband create a virtuous circle that promises to confer significant benefits to American consumers and the American economy as a whole.

The third way VOIP changes telecommunications markets is that it internationalizes voice communications. Just like many other applications provided over the Internet, it doesn't matter where the provider is located—a server providing a VOIP application could be down the street, or in the next state, or it could be in Britain, Ukraine, India, or, as is currently the case with Skype, in Estonia. A voice application provided through servers located in foreign countries, with the customer in the

U.S. using nothing more than software downloaded from the Internet and purchasing a broadband connection from a third party, looks very different from the service provided by traditional phone companies. While I will discuss regulatory issues in greater detail later in my testimony, allow me to note here that this fundamental shift in how the voice application is provided has obvious implications for regulation. Federal or state regulators can apply any number of possible regulatory requirements to VOIP technology, but if regulators decide to do so we must acknowledge that it may be very difficult for us to enforce these requirements, that we will place voice providers in this country at a competitive disadvantage to voice providers located in relatively less regulated countries, and that, as providers relocate abroad, we will cause the loss of desirable jobs in the high technology sector.

Much of what I have described is a look into the reasonably foreseeable future. But VOIP is already changing the market's dynamics, even though it has not yet become ubiquitous. In 1998, VOIP carried less than 0.2% of the world's international voice traffic. In 2002, VOIP carried 10.4%, and, in 2003, is estimated to have carried 12.8%. Recently, Cablevision announced that it would provide a bundled package of digital cable, high speed Internet, and unlimited local and long distance calling for $90. If you consider what consumers pay for digital cable and broadband in the marketplace today, at this price, the voice service is essentially free. This is exactly what one would expect when voice, which uses relatively little bandwidth, is provided over a high bandwidth connection.

There are other indications that VOIP, while only gradually making its way into the public consciousness, is nevertheless growing at an increasing pace. A report released June 27 by the Pew Internet & American Life Project and the New Millennium Research Project estimates that approximately 14 million Americans have already made some sort of voice communication over the Internet. Skype, an Internet-based VOIP service that allows its members to speak to one another with crystal clarity for free over a peer-to-peer network connection, has been downloaded over 15 million times by users around the world.

B. Why Take Action Now?

To be sure, the Commission has long relied on a policy of limiting regulatory intrusion on the Internet and applications provided over it. The Commission could have waited and raised the question of how VOIP is regulated at some point in the future, after it matured. At the end of 2003, incumbent local exchange carriers ("ILECs") and competitive local exchange carriers ("CLECs") served over 181 million access lines in the United States, and even at astronomical growth rates it will be some time before VOIP services and applications constitute a significant portion of the U.S. voice market. But there are two factors pressuring for Commission attention and, by implication, legislative action.

First, industry actors are deploying these applications today, and are bringing their questions to the Commission. VOIP only started to become used more broadly in the domestic market within last two to three years. Thus, the Commission has seen companies occupying niches across the telecommunications industry—VOIP applications providers, ILECs, data companies and interexchange carriers ("IXCs")—file petitions seeking clarification from the Commission regarding regulatory treatment of VOIP beginning in September of 2002.[1] The petitions filed over the last two years demonstrate the need for a measure of certainty on important regulatory questions, and, while the petitions are pending, create their own measure of uncertainty as to how the FCC is going to apply its current regulations in this very new environment.

Second, because of the historic and important role of state public utility commissions in regulating intrastate telecommunications, states have now begun to look at these questions, raising the possibility of differences among state regulatory regimes, and between various state and federal regulatory regimes. Some state commissions have decided to wait until this service further develops or until the FCC acts. But others have moved forward to examine VOIP, and some, such as Minnesota and New York, have already taken steps to classify VOIP applications as regulated telecommunications services. Federal courts in both states have stayed the effectiveness of these rulings. Nevertheless, companies offering VOIP are dealing today with multiple attempts to apply potentially inconsistent regulatory regimes, with the imminent prospect of more to come.

[1] The Commission did receive a petition regarding VOIP services as early as 1996, and received another following the release of its 1998 report to Congress regarding universal service, often called the "Stevens Report." There was not, however, any consequential activity following these petitions.

It is not surprising, then, that while there is investment capital that would fuel even further innovation, there is hesitance to bring this capital to market while the regulatory regime remains unclear. While this might be said of any number of areas of telecommunications law, it is particularly true of VOIP, given that much of the innovation in the area is coming from small companies and entrepreneurs who are most vulnerable to shortages of investment capital. Accordingly, the FCC has begun to examine this area not because it is looking for something to do, or because it is interested in any way in regulating the Internet. The FCC has begun to examine this area because there is a demonstrated need for clarity in the face of growing deployment of VOIP and the very real possibility that this deployment will be hampered by burdensome and conflicting regulatory requirements.

II. THE IP-ENABLED SERVICES PROCEEDING

Because of the need for the Commission to provide clarity to consumers, industry and the investment community, on March 10, 2004, the Commission released its Notice of Proposed Rulemaking ("NPRM") on IP-Enabled Services, docket number 04-36. This NPRM asked commenters to tell the Commission how it could best craft a regime for VOIP that would encourage innovation and ensure that the benefits of this technology could reach consumers.

The NPRM discusses how VOIP will change how voice service is delivered to business and residential customers, and then starts from the question of whether the Commission can best serve the public interest by continuing its policy of minimal regulation of the Internet and applications provided over it. It asks for comment as to how the Commission could determine whether a service using VOIP is a regulated telecommunications service or an unregulated information service under the 1996 Act. Should the Commission establish the line at the point where VOIP technology interfaces with the public switched telephone network? Should the Commission use a purely functional approach that makes the distinction based on whether the given service is a replacement for traditional telephony? Should the Commission use a test that examines whether the service substitutes for traditional telephony as determined by a traditional market analysis? Should the Commission instead adopt a layered approach, view VOIP purely as an application riding over a network, and thus regulate applications very lightly while applying a more stringent regime to facilities? And what impact should it have on the Commission's analysis that VOIP can be provided via peer-to-peer services that simply connect two users, as opposed to the centrally managed networks used by traditional service providers? In the case of traditional service providers, there is an entity to regulate that, presumably, has some control over and information about the calls routed over its network. In the peer-to-peer case, consumers communicate directly with one another, and aside from establishing the link, the provider of the peer-to-peer application may have little or no control over the call.

Related to the question of classification, the NPRM asks how the Commission might best achieve a minimally regulated environment. If classified as an information service, the service is nevertheless subject to the Commission's general jurisdiction to regulate all interstate and international communications by wire and radio. Alternatively, even if a service is classified as a telecommunications service, Congress has directed the Commission to forbear from enforcing its own regulations or the requirements of the statute if enforcement is not necessary to protect consumers, ensure against unjust, unreasonable or unreasonably discriminatory practices, or protect the public interest.

The NPRM goes on to solicit comment as to jurisdiction. It notes the Commission's recent order in response to a petition for declaratory ruling filed by Pulver.com regarding Free World Dialup—as described in the petition, a free peer-to-peer application facilitating voice communication between members of a closed group, which does not break out to the public switched telephone network. The Commission's order was released on February 19, 2004, and held that Free World Dialup was an information service subject to federal jurisdiction. The Pulver.com order further held that state regulation treating Free World Dialup like a regulated telecommunication service would most likely be preempted given the Commission's finding and an explicit Congressional policy against burdening the Internet with unnecessary federal and state regulation. The NPRM acknowledges that the Pulver.com Order only addressed one type of VOIP, and asked about the extent to which the reasoning in the case can be applied to other types, such as VOIP applications that interface with the public switched telephone network.

Having solicited comment on how the Commission should classify VOIP, and who should have jurisdiction as to whether to regulate VOIP, the NPRM then asks what regulations, if any, should apply, and develops an important distinction. The NPRM

asks whether regulations that were designed to protect against the power of a monopoly provider of services, with control over the bottleneck facility of the wire into the consumer's home, have any application in an environment where consumers can choose any number of applications providers, and use those applications over multiple networks. That is, why does it make sense to require VOIP application providers to obtain prior permission from the government to enter or leave the market, or to conduct acquisitions, mergers or initial public offerings? Why should VOIP application providers file tariffs or comply with regulatory accounting requirements? These measures were designed to place the government in a position to control the power of potentially abusive monopoly providers. If technology has redressed the imbalance in power between consumers and providers by lowering barriers to entry and allowing the consumer to choose his or her service provider, and change that choice easily, does this type of economic common carrier regulation continue to have any relevance, at least as regards providers using VOIP? Certainly, precedent indicates that where competitive choice is possible, lower regulatory burdens are justified. This has been the case with cellular providers, which are not subject to many of the common carrier requirements that might otherwise apply to them. It has also been the case with nondominant wireline providers. The NPRM solicits comment on these issues.

This class of economic common carrier regulation is distinguished from requirements that might be generally thought of as social obligation regulation. These are the kinds of requirements that, as a society, we have decided should apply to any provider of voice services, as opposed to only those providers that have a dominant market position. Thus, even if a provider of voice is not dominant, it may nevertheless be a good idea to ensure that its customers can have access to emergency services through that provider. Even if the market for voice services is changing in fundamental ways, it is still a basic goal of the Communications Act to ensure that all Americans have access to reasonably comparable services at affordable prices. Certainly, one might say that free voice service essentially achieves that goal. But if it is necessary to purchase some form of broadband facility in order to reach it (not to mention equipment and software), then it may be necessary to examine how we understand universal service and support for it may need to change over time. The social obligations raised in the NPRM and related proceedings include emergency service via the 911/E911 system, access to telecommunications by people with disabilities, universal service, and authorized law enforcement access to electronic communications—important societal goals that should not be compromised as the market changes. But the NPRM recognizes that the method of reaching those goals may very well change, and that the versatility of VOIP might, for example, actually result in better 911 service and superior access for individuals with disabilities. Accordingly, while it makes clear these goals continue to be important, the NPRM also asks how the Commission can best achieve them in the new environment, acknowledging both the problems and opportunities presented by new technology.

III. COMMENTS ON THE IP-ENABLED SERVICES PROCEEDING

I am pleased to report to you that the response by the public to the NPRM has provided the Commission with a rich record, and features original and thought-provoking analyses of the issues. By May 28, 2004, the date for filing of initial comments, the Commission had received over 150 sets of comments. These comments have come to the Commission from a wide range of sources, indicating the broad interest this proceeding engenders not only among industry actors, but across American society as a whole. These sources include:

- 15 state public utility commissions, and two organizations representing state commissioners, the Federation for Economically Rational Utility Policy and the National Association of Regulatory Utility Commissioners;
- county 911 administrators;
- the Department of Homeland Security and the Department of Justice;
- groups involved in studying and advocating public policy as it relates to high tech issues, such as the Electronic Frontier Foundation;
- public interest groups that represent specific groups of consumers, such as AARP, the American Foundation for the Blind, Communication Service for the Deaf, the National Consumer League and the Ad Hoc Telecommunications Users Committee;
- trade groups that represent the interests of industries, as well as some industries related to but outside the world of traditional wireline telephony providers, including the Telecommunications Industry Association, CTIA, NCTA, the Information Technology Association of America, and the High Tech Broadband Coalition;

- Internet Service Providers;
- many well-known high technology companies such as Microsoft and Cisco;
- local exchange carriers, both incumbent and competitive, as well as the Association for Local Telecommunications Services, CompTel/Ascent, and the United States Telecommunications Association;
- rural telephone companies, as well as organizations relating to our representing them, such as NECA, NTCA and OPASTCO; and
- numerous VOIP application providers, such as 8X8, Pulver.com, Callipso, Dialpad, Vonage, and the Voice on the Net Coalition.

In any proceeding, a record of this size and scope would provide a significant resource for the Commission to draw upon, and it certainly does so here. However, this is only half of the story—reply comments are due on or before July 14, 2004, and the Commission reasonably expects to receive significantly more material.

At the present time, the record can best be characterized as follows. The parties have, by and large, acknowledged the significant changes that VOIP technology will bring. They differ, however, as to the specific regulatory implications of that change.

A number of commenters, largely state commissions and rural incumbent local exchange carriers ("rural ILECs"), argue that if VOIP provides the functional equivalent of a voice call, then it should be regulated in the same way as traditional voice telephony. Others argue for a multi-factor test to determine whether a service should be regulated or not. For example, NCTA argues that a VOIP application should be subject to the same regulation as telecommunications service providers if the following applies: (1) it makes use of 10 digit numbers under the North American Numbering Plan; (2) it is capable of receiving calls from the public switched telephone network at one or both ends of the call; and (3) it represents a possible replacement for traditional telephone service. However, NCTA also argues that if a service meeting all of these criteria also uses IP protocol between the service provider and the consumer, including use of an IP terminal adapter and/or IP-based telephone set, it should be subject to minimal regulation. Still others, such as AT&T, SBC, many of the high technology companies and software providers, and all VOIP application providers, argue that functional approaches or factor approaches are doomed to obsolescence as technology develops, and that the Commission should instead broadly classify services using IP technology, or at least those reaching or leaving the customer in IP format, as information services.

Another strain of comments advocates a layered approach to regulation. Commenters such as MCI and others argue that the primary benefit of using IP to transmit voice is that it allows industry to move from using networks that are optimized for and dedicated to a single function, voice, to a network capable of delivering multiple functions. Accordingly, regulation should reflect the fact that services and applications are no longer tied to the physical infrastructure. If dozens or hundreds of competing services and voice applications are provided over the infrastructure layer, there is little or no justification for continued common carrier regulation at those levels. Rather, the focus of common carrier regulation should be on underlying facilities, where issues of market power might still exist.

Interestingly, differences on classification among commenters did not necessarily translate to differences over jurisdiction. Some rural ILECs, their trade organizations, many of the commenting state commissions and NARUC argue that VOIP applications, if they are classified as telecommunications services, can and should be regulated at the state level. Some state commissions, such as the Maine Public Utilities Commissioner, advocate for less for a strict delineation of federal and state jurisdiction, as opposed to a partnership between federal and state regulators, with the Commission responsible for ensuring an effective overall regulatory scheme. Other rural ILECs, the Federation for Economically Rational Utility Policy, and virtually all companies interested in offering VOIP applications, whether ILEC, IXC, CLEC, VOIP provider or other high tech company, have argued that VOIP applications are inherently interstate—that it is impossible to determine geographic end points for calls when customers can use VOIP applications from anywhere in the world, that IP networks ignore domestic and international boundaries when transporting bits, thus rendering the intrastate/interstate distinction meaningless, and that the Internet and services provided over it have always been considered to be subject to federal jurisdiction only.

With regard to whether economic common carrier regulation should apply, high tech companies and VOIP application providers overwhelmingly also agreed that there is no need for it. Many commenters that argued some VOIP applications should be classified as telecommunication services, nevertheless, also argued that they should be subject to federal jurisdiction only and that the Commission should forbear from applying economic common carrier regulation. The Illinois Commission, while arguing that state and federal regulation should coexist, with preemption only

applying to state requirements that are inconsistent with federal requirements, nevertheless thought that extension of traditional utility regulation to emerging IP-enabled services was unwarranted. Some state commissions and many commenting rural ILECs concluded that VOIP applications should be subject to the same level of regulation as traditional voice providers, although America's Rural Consortium pointed out that this parity could be achieved through federal preemption of state regulation of voice service and removal of regulations from both VOIP and traditional providers.

As for social obligation regulation, there was general agreement among the commenters that universal service, 911 and other issues of this type will continue to be important in the new environment. There was, however, disagreement as to how best to achieve these goals. VOIP application providers and many of the technology-oriented trade groups tended to argue that obligations like access to 911 should only be made mandatory over time in response to a market failure, and that there has already been significant progress through voluntary industry action. They also argued that universal service and access charges should not apply until broader reforms to these systems are completed, as otherwise the Commission would impose unsustainable systems on a new technology. Many others have argued for mandatory application of these requirements, with most commenters focusing on specific areas: groups involved with advocating for disabilities access argued that mandatory disabilities access requirements should apply; some incumbent and rural ILECs that receive support from the Universal Service Fund and access charges argue that these obligations should apply pending changes in the system.

The Commission has received a wealth of comments that truly represent views across the spectrum. While I have made some initial generalizations here, the Commission is waiting for the remainder of the record to come in and looks forward to seeing these issues explored in even further detail.

IV. RECENT ACTIONS

In addition to our work on the IP-Enabled Services Proceeding, the Commission is also working on several petitions regarding VOIP. I'll first describe two recent orders the Commission issued in this area, and then summarize the remaining petitions.

The Commission recently resolved the following petitions:

- *Pulver.com.* As I previously mentioned, on February 19, 2004, the Commission released an order resolving a petition for declaratory ruling filed by Pulver.com. In that order, the Commission found that Pulver.com's Free World Dialup Service was neither telecommunications nor a telecommunications service, but was instead an information service subject to federal jurisdiction, and that state regulation conflicting with this classification would most likely be preempted. This order was significant in terms of clearly establishing that Internet-only voice applications would be treated very much like any other applications traveling over the Internet: as being unfettered by federal or state regulation.
- *AT&T.* On April 21, 2004, the Commission released an order resolving a petition for declaratory ruling filed by AT&T. In this order, the Commission denied AT&T's request to exempt its use of VOIP from access charges, when AT&T only used the technology to transport calls that originated and terminated on the public switched telephone network, and did not provide any enhanced functionality, cost savings, or net protocol conversion for the end user. This transport was carried out as part of AT&T's conventional service offerings and was transparent to the consumer. The Commission issued this decision to bring to an end self-help AT&T was engaging in to avoid access charges that would normally apply to its routing of long distance calls. The Commission, by issuing this decision, did not prejudge the application of access charges to other types of VOIP service, which are still subject to consideration in both the IP-Enabled Services Proceeding and the Intercarrier Compensation docket. Thus, this decision was explicitly limited to the factual circumstances described by AT&T.

Petitions pending before the Commission are as follows:

- *Vonage.* On September 22, 2003, after the Minnesota Public Service Commission ruled that Vonage's service was a regulated telephone service under state law, Vonage filed a petition for preemption of this decision. Subsequently, Vonage obtained a reversal of this decision from a federal district court. An appeal of that court decision to the United States Court of Appeals for the Eighth Circuit is pending, while Vonage's preemption petition is still pending before the Commission.
- *Level 3.* On December 23, 2003, Level 3 filed a petition for forbearance, requesting that the Commission forbear from applying access charges to calls that origi-

nate or terminate as Internet protocol calls on one end, with the other end originating or terminating over the public switched telephone network. Level 3 excluded from its petition those areas served by rural ILECs as defined in section 251(f)(1) of the Communications Act. The twelve month deadline for Commission action in this proceeding is December 23, 2004, with a possible extension of three months beyond that date.

- *SBC.* On February 5, 2004, SBC filed a petition for forbearance asking the Commission to find that services and applications provided over Internet protocol platforms are information services subject only to federal jurisdiction, and as such to forbear entirely from applying Title II common carrier regulation to such services. The twelve month deadline for Commission action in this proceeding is February 5, 2005, with a possible extension of three months beyond that date.
- *Inflexion.* On February 27, 2004, Inflexion filed a petition for declaratory ruling, asking the Commission to find that calls made to or from Inflexion's VOIP service in areas that it characterizes as underserved are exempt from access charges. Inflexion's definition of underserved areas incorporates areas served by rural ILECs that Level 3 explicitly declined to cover in its petition.

Although the Commission hopes to focus its efforts on resolving the questions posed by the NPRM, these petitions also provide possible areas of resolution for specific questions related to VOIP. Please also note that many of the issues that relate to universal service and intercarrier compensation are being considered in other dockets by the Commission. Moreover, the Commission expects to release in the near term a Notice of Proposed Rulemaking addressing issues regarding VOIP and the Communications Assistance for Law Enforcement Act ("CALEA") raised by the Department of Justice, the Federal Bureau of Investigation, and the Drug Enforcement Agency in their recently filed petition for rulemaking. Consideration of VOIP issues will not delay broader resolution of those dockets, and the Commission hopes to move expeditiously on all fronts.

V. CONCLUSION

The Commission has indicated in the IP-Enabled Services Proceeding and in its resolution of various petitions that it is cognizant that VOIP is leading to significant developments in telecommunications markets. Perhaps most importantly, from the perspective of a regulator, VOIP is changing the nature of the relationship between consumers and providers. Thus, it would be wholly irresponsible for any regulator to impose obsolete regulations reflexively, simply in order to protect a legacy regime. The examples of cellular technology and the Internet are perhaps most instructive in this respect. In both cases, the technologies were left to develop free of many of the regulatory requirements and regimes applicable to common carriers, notwithstanding long and hard fought battles to impose such requirements. Today, the American consumer and economy are far better off because of the deregulatory course that has been steered—these two industries now touch millions of lives, bring considerable benefits to consumers, and generate substantial economic growth. All in the absence of common carrier regulation.

Thus, while the Commission deals with many significant issues, it is very likely that treatment of VOIP will have the farthest-reaching consequences of anything the Commission will consider in the near future. The Commission is not simply considering minor adjustments to specific regulations—the Commission is considering the future of electronic and optic communication for many years to come. Consumers, the many industries that rely on information technology and advanced communications in their business, the telecommunications, computer and software industries, and the investment community are all counting on the Commission to get it right. It is no overstatement to say that the world, also, is watching how the U.S. decides to treat these services. Telecommunications regulators and policy makers in other countries want to know whether the United States will create an environment that is conducive to growth and investment in innovation, or an environment where the United States figures as little more than an also-ran because other countries, with clear national policies, have been able to surpass it.

I will conclude by noting that I believe it is important when dealing with the public policy implications of revolutionary new technologies to start from the perspective of how to best create the world we all want to live in, rather than applying regulatory structures that may have been rendered obsolete. The relevant question is how we as a society deal with the fundamental change in electronic communication we are witnessing, rather than falling into rather abstract fights over definitions. This being said, the Commission can only act as it may be allowed under the Act, which divides the world into regulated telecommunications services and un-

regulated information services. While the Commission certainly has some ability to fine tune treatment of new technologies given its discretion and the flexibility granted to it by Congress, the Commission is still constrained by this structure. If you believe that VOIP and other new technologies are working changes in the telecommunications market such that new regulatory approaches are necessary, you may need to consider whether the tools the Commission has today are sophisticated enough for the task.

In the meantime, the Commission will move forward with its work, and the guidance and leadership of Congress is important to the success of its process. Accordingly, we at the FCC would like to thank you, Mr. Chairman, for calling this hearing, and we look forward to working with you and other members of the Committee on these issues.

Mr. UPTON. Thank you very much.

Mr. Citron?

STATEMENT OF JEFFREY CITRON

Mr. CITRON. Good morning Chairman Upton, Ranking Member Markey and members of the committee. That you for the opportunity to be here today.

I'm Jeff Citron. I'm CEO of Vonage Holdings Corp. We are the leading providing of consumer and small business VOIP services in the United States with over 200,000 subscriber line equivalents.

Vonage is at the forefront of this new emerging market, which approximately 400,000 users and as such, we are confronting public policy issues that have never been seen before. Policy makers are asking us what is voice IP? Is it like a phone or is more like email? Will it replace the traditional switch networks or just be another option for consumers? How can public safety needs be met and improved upon?

Indeed, VOIP is turning the traditional notions of telephony on their heads as it blends voice and data into existing new offerings never seen before.

In the face of such uncertainty and change there is a tendency by some to try and wedge this new technology into a common carrier regime, a mild design for monopoly wire line owners. I hope this committee will not act out of fear as others have, and instead exercise its leadership and understanding by creating a new national framework that keeps this innovative technology free from inappropriate regulation therefore enabling it to evolve and grow where the possibilities are endless.

For the first time in history consumers are experiencing widespread residential local and national competition. Competition in turn lowers prices and improves offerings. Vonage offers customers the ability to replace their existing telephone service with voice over IP for as little as $14.99 a minute. This also includes 500 minutes of national calling with the most popular features like caller ID with name, call waiting and voice mail and host of more all included for free.

At the same time, Vonage is meeting its public policy goals by supporting universal service, CALEA, 911 and local number portability. And the good news doesn't stop here. Everyday people upgrading their dialup Internet connections to get access to this new killer application, it offers better value and many new innovative features.

Now, as consumers increasingly demand these new services, the capital markets have finally taken notice. This has spurred invest-

ment capital to flow into new and existing companies such as ours which in term has lead to the creation of new jobs, increased capital spending on telecom equipment. But this resurgence is already in jeopardy under attack by disparate interests which for fear of change and lack of understanding suggest that voice over IP must be subject to a full suite of common carrier regulation. These disparate groups ignore the difference between VOIP offerings and traditional wireline networks with complete disregard for the underlying interstate nature of the service. Should you allow improper regulation to take hold, consumers and the telecom industry will suffer greatly.

And Congress has already shown its leadership by enacting critical social policy goals. It then became incumbent on all of this operators to work together with the FCC to achieve these goals. Vonage has demonstrated our commitment in this area of becoming the first portable or mobile VOIP provider to adopt a basic 911 solution.

Vonage continues in its commitment to universal service by paying indirectly into the Universal Service Fund. And furthermore, new technologies such as voice over IP can help meet the USF's primary goal of providing affordable communication services to everyone everywhere without the need for costly subsidies.

As for intercarrier compensation, virtually every participant in the system has acknowledged that there is a need for reform of the settlement system. And there needs to be put in place a system, a national carrier intercompensation system ensuring fairness for all parties including new entrants. While this work is underway, it'll be reckless to subject VOIP providers to a broken system.

Now Vonage is fully committed to meeting the needs of law enforcement personnel and has already responded to numerous requests, subpoenas from government agencies. If policymakers are concerned that the CELEA statute may not apply to VOIP providers, then they should address the deficiencies of the CELEA statute.

As Congress consider VOIP issues, we remind that the Internet applications are interstate in nature, whether they be voice IP applications, sending bits of sound from one destination to another or a web browsing program sending bits of an image and text back and forth. Each bit of data deserves the same treatment regardless of what content it is carrying.

Congress exercises far reaching leadership by promoting Internet development, and now we need Congress to act again. We enthusiastically support proposed legislation as a thoughtful and sensible compromise that would ensure our voice over IP providers can continue to innovate, create jobs and allow America to recapture its lead over this technology.

I look forward to answering any questions you may. Thank you very much for this opportunity.

[The prepared statement of Jeffrey Citron follows:]

PREPARED STATEMENT OF JEFFREY CITRON, CHAIRMAN AND CHIEF EXECUTIVE OFFICER, VONAGE HOLDINGS CORPORATION

I. INTRODUCTION.

Good morning Chairman Upton, Ranking Member Markey, and Members of the Committee, and thank you for inviting me to appear before you today. I am Jeffrey Citron, Chairman and CEO of Vonage, the leading voice over Internet protocol ("VOIP") provider in the United States.

I am honored to be here today. This Committee has been at the center of the technological and telecommunications revolution that has swept the United States over the last decades. Now, we have reached a critical juncture with the emergence of new technologies, and it is imperative that Congress exercise its leadership to pave the way for these technologies before their progress is halted by impenetrable regulatory roadblocks. Going forward, the members of this Committee will play a key role in ensuring that the United States maintains its dominant position in the international technology community, and that every American is able to experience the communications advances that are being developed on what seems like a daily basis. As such, I sincerely value the opportunity to contribute to the debate about VOIP services.

Headquartered in New Jersey, Vonage uses a VOIP software solution to bring voice communications service to consumers nationwide. Vonage customers use a third-party provided broadband connection to make Internet calls, either to another user on the Internet, a traditional telephone, a wireless customer, or a user of another Internet protocol ("IP") network. Regardless of the type of call, a Vonage customer uses a computer and a broadband Internet connection. Through the use of special software and the Internet, Vonage provides its customers with a new communications tool that offers exciting new features and functionality at a significant cost savings to traditional telephone service. Further, because the Vonage service requires customers to use a broadband Internet connection, Vonage's VOIP service drives broadband adoption. For the first time, many of Vonage's customers now find they have a reason to subscribe to high speed Internet service. Indeed, Internet telephony is stimulating the telecommunications and Internet industries, and the economy as a whole.

The consumer and investor response to our VOIP product has been remarkable. As recently as 2001, Vonage was in the research and development phase, and the company did not fully launch its service until 2003. Nevertheless, Vonage is already the clear Internet telephony industry leader, commanding about 50 percent of the market share with a national reach that accounts for more IP telephony lines than the entire North American cable industry combined. Just this week, Vonage will activate its 200,000th line.

While the response to our product is overwhelming, VOIP is still in its infancy, with only .1 percent of all U.S. telephony subscribers, according to Merrill Lynch. As the market and the technology develop, we encourage policy makers to resist wedging this promising new technology into rigid regulatory boxes that were created for legacy monopoly communication systems and markets. Vonage's form of VOIP is an "information service" like e-mail, and rides over the Internet, which is inherently interstate and incongruous with artificial boundaries.

We understand that critical public policy needs must be met in the context of VOIP, and we commit to working with policy makers on issues such as 911 emergency calling, law enforcement interception, disability access, and the provision of universal service. Meeting these needs, however, does not require that VOIP be regulated under a system of rules created decades ago, intended to govern the conduct of wireline carriers who faced no competition.

Failing to apply new thinking to this new technology carries serious consequences. VOIP providers would have to divert their energies to complying with a patchwork of 51 sets of regulations of questionable merit to this new technology. Compliance would not only be difficult, but in many cases impossible. The result of misguided state efforts to regulate new Internet applications is draining resources away from deployment and innovation. Already, Americans are missing out on the benefits of competition and advanced functionality that citizens of Japan and China readily enjoy. Americans are losing out on broadband adoption and the economic benefits it brings. On a broader level, the failure by the United States to capitalize on this opportunity is retarding further innovation, driving VOIP providers off-shore, and contributing to the export of technology, jobs, and the tax base. American technological competitiveness is suffering, and we are already lagging behind many countries in Asia and Europe in broadband deployment and VOIP offerings.

Congress and this Committee have exercised visionary leadership with respect to the Internet by codifying in the Telecommunications Act of 1996 a policy of exempting "information services" and thereby the Internet from common carrier regulation. That critical step put this nation on a path toward great advances in Internet technology, and ultimately to the creation of VOIP. We now look to Congress to continue its bold leadership, for a step back would have catastrophic consequences. Time is of the essence, as states have already begun the process of applying antiquated rules to this promising new technology. On the federal level, the Federal Communications Commission ("FCC") appears to be headed in the right direction, but will need your support and guidance as it struggles to ensure that these new technologies flourish while at the same time meeting important public policy goals. We are relying on Congress to reject ill-fitting regulatory models and focus on principles that value consumer benefits, innovation, and economic development.

II. VOIP CREATES CONSUMER AND ECONOMIC BENEFITS.

VOIP technology furthers a number of national policy goals. It provides consumer benefits such as lower prices, innovative features, and competition. Vonage's VOIP service, and similar VOIP services, drive broadband adoption, as high speed access is a prerequisite for using the services. Further, this new technology stimulates economic development and American competitiveness.

VOIP Technology. Vonage's service is a software application, independent of the underlying transmission facilities that carry the calls to the Internet. Vonage's VOIP service converts analog voice transmissions into digitized data packets and transmits these packets over either the public Internet or managed IP networks. These data packets are routed using Internet protocol, which is the world's most common method for sending data from one computer to another.

Vonage's Product. The Vonage service operates using a VOIP platform to transmit voice over the public Internet. Vonage customers place calls using computer equipment that is connected to the user's high-speed wireline, cable, or fiber-to-the-home connections, Wi-Fi network, and eventually new networks that have not yet been built. The digital signal is sent over the public Internet, then in some cases, back through a traditional phone network to the receiving party's phone. In order to permit Vonage's end users to communicate with end users on the traditional public switched telephone network ("PSTN"), Vonage had to make our service reverse-compatible with today's technologies. However, our product is also forward compatible; if the receiving party also is a Vonage customer, the call is transmitted wholly across the Internet, never touching the traditional phone network. Forward-compatibility also enables us to terminate calls to wireless phones and other IP networks without ever touching the PSTN.

In some cases, Vonage customers utilize a software program loaded on their computers to make a call. In other instances, the customer will use the special computer adapter. When using the special adapter, the broadband Internet connection is bridged to an ordinary phone essentially serving the same function as a microphone and headset when attached to a computer. In the near future, because Vonage provides a software application similar to instant messaging or e-mail, Vonage customers will be able to use a Wi-Fi cordless handset or even personal digital assistants ("PDAs") or other Internet-enabled device loaded with special "softphone" software.

Consumers Get More for Less. Through innovative software and hardware, Vonage provides its customers with increased functionality and significant cost savings. For example, the Vonage service package includes voicemail, caller ID, call waiting, call forwarding, call transfer, 3-way calling, repeat dialing, call return, caller ID block, and call hunt for no extra charge. Vonage customers experience such enhanced functionality as local number portability, area code selection, the ability to use multiple phone numbers, web based voicemail retrieval, national number mobility, and online features management. For this multitude of services, Vonage offers customers flat rate billing options that range from $14.99 per month for 500 minutes anywhere in the United States and Canada to $29.99 for unlimited residential local and long distance calling in those areas.

Competition. Congress has made it a national priority to encourage telecommunications competition. While great strides have been made by traditional telecommunications providers in the competitive business and long distance markets, there has been no meaningful competition in the local residential market. VOIP providers are accelerating competition in this area, realizing technological advancements and lowering consumer costs, all of which are goals Congress sought to achieve with the 1996 Telecommunications Act.

Even within the VOIP market, companies have implemented a variety of consumer offerings that generally fall under the "VOIP" banner, two of which are consumer applications: computer-to-computer and computer-to-phone. Using computer-to-computer products, the call dialing and receiving party both must possess special premises equipment that differs from an ordinary analog telephone. Vonage customers can talk computer-to-computer, and Vonage's service is also capable of reverse-compatibility with the legacy phone system by performing the net protocol conversion necessary to allow customers on the Internet to communicate with customers on traditional switched networks and vice versa, largely known as computer-to-phone VOIP. Additionally, Vonage users are able to communicate with many other kinds of networks, such as wireless networks and IP networks. In short, Vonage both enables reverse-compatibility with existing services while readying consumers for the technologies and functionalities of the future, when all networks will be IP based.

Broadband Deployment. While an estimated 85 percent of U.S. homes currently are capable of receiving broadband Internet access, only about 20 percent of all U.S. homes (23 million total broadband subscribers) have adopted the technology. These numbers pale in comparison to countries such as Korea and Canada. Those countries had broadband penetration levels at almost twice that of the United States. Also impressive is the development of broadband services in Japan. In 2001, there were less than 10,000 digital subscriber line ("DSL") broadband customers in the entire country. In just three years, the broadband market has swelled to over 10 million customers.

Because VOIP services require a broadband connection to achieve the necessary speed and "always on" functionality, VOIP provides consumers with the incentive to upgrade to these broadband networks. In fact, many Vonage customers upgrade to broadband simply to use our service. Often these customers find that they can receive the additional benefits of Vonage's service *and* high speed broadband for less money than it typically costs to purchase a traditional telephone service and narrowband Internet access. VOIP penetration drives broadband adoption, which in turn promotes broadband deployment.

American Competitiveness. Investment in the technology sector will drive innovation and help America reinforce its role as the world technology leader. This role is at stake given that broadband deployment has lagged in this country, and VOIP adoption in other countries has already surpassed the U.S. That growth has been attributed, in no small part, to the Internet telephony services that some Japanese broadband providers offer, like Yahoo! BB, which already has 3 million VOIP users. The only way America can maintain its position as the world's technology leader is to foster the growth of new technologies like VOIP.

Economic Benefits. VOIP can spur a telecommunications industry rebound and contribute to the national economic recovery. The telecommunications industry, which once helped drive the technology boom of the mid-to-late nineties, has been hard hit by the nation's economic slump. Merrill Lynch estimates the S&P integrated telecom index fell about 64 percent from January 2000 to January 2004, while the broader market fell only about 24 percent. According to a 2004 VentureOne report, investment levels in the communications sector are down to 1996 levels.

Internet telephony can help revive the telecommunications, technology, and equipment sectors and the economy in general. Excitement surrounding VOIP services has already increased investment. A VentureOne report stated that IT investments increased to $2.3 billion last quarter, up from $2.1 billion in the third quarter. That increase, which was the first time IT funding had demonstrated sequential growth since 2000, was due in part to several large investments in VOIP providers. Further, several VOIP equipment manufacturers, such as Sonus, Cisco, Lucent, and Motorola posted large stock price gains for 2003, partially due to increasing interest in VOIP equipment and services.

III. CONGRESS SHOULD CONTINUE ITS POLICY OF ALLOWING "INFORMATION SERVICES" TO GROW UNFETTERED BY REGULATION.

In an effort to stimulate innovation and competition in the Internet sector, Congress and the FCC have long respected policies that differentiate "information services" from regulated telecommunications services. While Internet telephony may, in some respects, resemble traditional telephony from a consumer perspective, from a technical and regulatory perspective, Vonage provides an "information service."

Federal Precedent. Federal policy has long differentiated "telecommunications services" and "information services." The FCC distinguished between "basic services" and "enhanced services" as far back as 1980 in the FCC's *Second Computer*

Inquiry, 77 FCC 2d 384 (*Computer II*). Basic services are essentially telecommunications common carrier services that are regulated under Title II of the Communications Act of 1934. The FCC concluded that regulation of enhanced services is unwarranted because the market for those services is competitive and consumers benefit from that competition. *Id.* at 433. The FCC acknowledged that notwithstanding this decision, there is a communications component in some enhanced services. *Id.* at 435. The FCC reaffirmed the distinction between basic and enhanced services in its *Computer III* proceeding in 1986. *Third Computer Inquiry,* 104 FCC 2d 958 (*Computer III*).

Congress Codifies Distinction. The Telecommunications Act of 1996 mirrors this distinction with its definitions of "telecommunications service" and "information service." The 1996 Act defines "telecommunications service" as "the offering of telecommunications for a fee directly to the public or to such classes of users as to be effectively available directly to the public regardless of the facilities used." 47 USC 153(46). The Act defines "telecommunications" as "transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received." 47 USC 153(43). By contrast, the 1996 Act defines "information service" as "the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications, and includes electronic publishing, but does not include any use of any such capability for the management, control, or operation of a telecommunications system or the management of a telecommunications service." 47 USC 153(20).

By codifying these definitions, Congress set out a policy of separating regulated common carrier services from Internet services to encourage innovation and competition. Congress found that "[t]he Internet and other interactive computer services have flourished, to the benefit of all Americans, with a minimum of government regulation." 47 USC 230(a)(4). In order "to promote th[is] continued development," the 1996 Act reaffirmed the "policy of the United States' of maintaining the Internet "unfettered by Federal or State regulation." 47 USC 230(b).

"Information Services." By these definitions, VOIP is an information service, and not a telecommunications service. VOIP is a software application that rides on broadband Internet networks. VOIP service offers the "capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications." 47 USC 153(20).

Policy Has Worked. The government's policy of encouraging innovation through a regulatory safe harbor sparked unimagined innovation in Internet development, and led to the development of VOIP. For years, VOIP services were more theory than reality, and were largely ignored by policy makers. The neglect proved positive as entrepreneurs and inventors saw an open playing field and were provided incentive to create. VOIP is rapidly growing, and should be allowed to continue, without the trappings of common carrier regulation. Now, as VOIP is gaining consumer acceptance, policy makers have announced an intention to explore and even regulate the service, but this would be a mistake. As I have noted, VOIP still only accounts for .1 percent of U.S. telephony subscribers. The technology is in its infancy, and should be allowed to grow consistent with the policy that led to its inception.

To that end, policy makers should clarify the existing statutory framework to ensure that it continues to reward innovation, foster consumer benefits, and facilitate broadband deployment and the growth of the Internet. In this respect, it is imperative to make clear that VOIP services such as Vonage's are not telecommunications services, but rather are interstate information services.

IV. THERE ARE SERIOUS RISKS TO PREMATURELY REGULATING VOIP.

Regulating VOIP prematurely could threaten the consumer and economic benefits that have already resulted from this nascent technology. While the technology is beginning to reach the mass market, it is still evolving, and it is too early to know what regulations, if any, are necessary. What is known, however, are the risks of regulation.

Patchwork of State Regulation. Failure to establish a federal policy protecting the growth of VOIP could result in a patchwork of premature, burdensome state legislation and regulations, crippling the domestic VOIP industry. Overregulation, particularly differing regulations in all 50 states and the District of Columbia, will make it impossible for VOIP to grow. Newer companies like Vonage do not have the resources to participate in proceedings at every state utility commission, nor to comply with 51 sets of differing regulations that may each have the same goal, but may require us to comply in different ways. The Internet, by its very nature is an interstate service, incapable of being divided into artificial boundaries. Policy makers

should recognize this inherent feature of the Internet when formulating policy and applying such policy to applications riding over the Internet.

Vonage's Experience. Vonage experienced first hand the strain that burdensome state regulations can place on a nascent technology company. The Minnesota Public Utilities Commission ("PUC") last year asked Vonage to obtain a certificate of authority to provide a telephone service. Vonage had less than 500 customers in Minnesota, yet was forced to vigorously oppose the Minnesota PUC to avoid the establishment of an improper state level precedent. As a result of the arguments asserted by Vonage, the United States Federal District Court for the District of Minnesota ruled in Vonage's favor on October 14, 2003 and issued a permanent injunction.

Notwithstanding the outcome in Minnesota, the New York Public Service Commission ("PSC") in May of this year issued a similar order asserting its jurisdiction over the interstate information services that Vonage provides. Once again, Vonage was forced to seek relief in Federal court. Just last week Magistrate Judge Eaton in the Southern District of New York indicated his intention to issue a preliminary injunction precluding the PSC from imposing legacy telecommunications regulations upon the company.

While Vonage is pleased with these decisions, successfully fighting these cases is a serious drain on Vonage's resources, and continues to be burdensome. The Minnesota PUC is currently appealing the case for a second time and a hearing on the issuance of a permanent injunction in New York is scheduled for early next year. This litigation is forcing Vonage to use valuable human and financial resources to fight court battles, directing these resources away from service enhancements and innovations, including technical solutions to meeting public policy goals. Vonage simply can not afford to continue to duplicate this effort in 48 other states and the District of Columbia. We would be driven out of business.

We hope that federal policy makers will take action to make clear to states that VOIP is an interstate information service, thereby halting the march of the states to regulate it.

National Policy Issues. With resources stretched thin for VOIP providers, overregulation by the states or the federal government would slow technological development. With the uncertainty that is created by this regulatory hodgepodge, capital will dry up. If the U.S. becomes a hostile environment for VOIP, domestic innovation will slow, risking this nation's role as a technology leader. Furthermore, since VOIP services are provided over the Internet, they can be launched from anywhere on the globe. Providers like Skype are already offering services from off-shore locations. Not only would it be a loss of this nation's technology base, once providers move off-shore, the U.S. would have no access to the services and thus face difficulties meeting public policy goals such as 911 service, universal service, or law enforcement intercepts for these off-shore services. The U.S. would also lose an important tax base, and would see a further exportation of service jobs.

V. VOIP PROVIDERS CAN MEET PUBLIC POLICY GOALS.

While policy makers are rightfully concerned about how VOIP fits in with public policy goals, VOIP can assist in meeting these aims, and in some cases it even holds more promise than legacy systems. VOIP will, of course, have to meet public policy goals in ways that are technically feasible for its technology, and government should help facilitate such growth through an understanding of the capabilities and limitations of the technology.The issues public policy makers most often identify as areas of concern are compliance with emergency 911 capability, disability access, universal service, law enforcement access to call intercepts, and intercarrier compensation. However, public policy goals can be and are being met without classifying VOIP as a telecommunications common carrier service.

911 Dialing. The ability to access emergency services through dialing 911 is an important feature for consumers of telephony, whether it is plain old telephone service, wireless service, or VOIP service. VOIP service offers the promise of truly exciting functionality in this area. While we are building solutions now, ultimately VOIP will offer consumers and emergency workers more functionality than the services of today. For example, VOIP customers in the future might be able to access 911 services through any Internet-equipped device, such as a Blackberry, PDA or instant messaging product. In addition to the customer's precise location, emergency workers may be able to instantly and seamlessly access that customer's medical history, while at the same time a separate message could notify the customer's primary physician or family members of the emergency situation.

Vonage is the VOIP industry leader in providing a 911 solution to its customers. Similar to traditional telephone service, Vonage customers who dial "9-1-1" on their handsets have their calls forwarded to the Public Safety Answering Point ("PSAP")

for that customer's designated area. There are, however, several technology issues that currently cause the Vonage solution to differ in certain respects from traditional 911 service.

First, similar to cellular providers, the mobility of the Vonage service prevents it from being able to identify the actual geographic location of customers that place a call using the Vonage software. Thus, Vonage requires customers to register their location before they are able to use the 911 service, and then routes any 911 calls to the PSAP serving that location. Because of the mobility of VOIP customers, Vonage is developing technology solutions to provide enhanced location information to PSAPs. We are currently in the midst of several trials of a new solution, in Rhode Island, Minnesota, Washington and Texas.

Second, in order to route 911 calls to a PSAP's dedicated 911 lines, Vonage must obtain interconnection to the incumbent LECs. While some incumbents are cooperating with Vonage and local PSAPs, others are refusing to work with Vonage and local PSAP administrators to foster interconnection arrangements or technical trials. The reaction has been mixed, to say the least. In this area, it would be helpful for Congress to encourage the LECs to provide such assistance as access to trunk interconnection so we can fulfill our commitment to offering wireline-comparable 911 services.

Vonage makes the limitations inherent in its 911 service clear to all Vonage customers and is continually working to remedy these issues. Vonage is working with the National Emergency Number Association ("NENA"), which recently adopted a joint resolution with the VOIP industry, to develop technical solutions for VOIP 911, and we are regular participants in the NENA working group. We participated in the FCC's March 18, 2004, Internet Policy Working Group "Solutions Summit" on 911/E911 issues associated with Internet-based communications services. Further, Vonage is working to upgrade its 911 service and negotiating with competitive LECs to obtain indirect access to the E911 trunks.

Vonage is confident that it will be able to offer a 911 solution to its customers in the near future that is comparable to that offered by traditional telecommunications providers. All of this is being done despite the fact that VOIP is not classified as a common carrier service nor required to provide these offerings.

Disability Access. Individuals who have disabilities should have full access to the range of developing technologies. While VOIP technology and deployment are in the early stages, VOIP providers anticipate software solutions to disability-related obstacles to service. Given the flexibility of software solutions, we anticipate that VOIP providers will ultimately be able to offer greater functionality than the traditional legacy systems.

Universal Service. Congress has expressed its commitment to ensuring that rural and underserved areas receive telecommunications services equivalent to those found in more high-density or well-funded locations through the Universal Service Fund ("USF"). In this context, Congress is contemplating USF reforms and may consider the role of VOIP services as part of that exercise. While it has been suggested that VOIP is a threat to the fund and therefore VOIP services must be regulated as telecommunications services, in fact the existing system is "failing" for a number of reasons and VOIP does not need to be regulated as a common carrier service in order to make direct contributions to USF.

The FCC has opened a rulemaking in which it is examining ways to ensure that USF support remains sustainable. As part of that proceeding, it has recognized that numerous factors are contributing to the decline in monies paid into the USF, and the emergence of VOIP services is only one small piece of that puzzle. For example, the decline in long distance rates, the proliferation of flat-rated calling plans and bundled service packages, and the substitution of wireless, e-mail, instant messaging, and other services for traditional long distance calling have all reduced monies flowing into USF.

VOIP providers can and do pay into the fund as end-users, and there is flexibility under current law to accommodate VOIP services in relation to USF. Even if policymakers determine that VOIP providers should contribute directly to USF, such a result could be achieved under existing law. The FCC has broad statutory authority to modify the current contribution metrics without engaging in any perversion of the dichotomy between information and telecommunications services. FCC Chairman Powell testified before this Committee on October 30, 2003, that the FCC has "legal authority to assess Universal Service contributions against information service providers that use telecom." Under current law, VOIP providers offer information services, but they use some underlying telecommunications services. VOIP providers need not be regulated as carriers to be required to contribute to universal service.

Unfortunately, the USF distributions currently are weighted heavily towards the support of legacy narrowband networks, which are not capable of supporting

broadband Internet access services or the modern applications that run on these broadband networks. This continued support of legacy networks at the expense of the deployment of modern broadband networks and applications will only serve to further distance the United States from the rest of the world leaders in terms of broadband adoption and the development of modern applications, such as VOIP. Therefore, Vonage believes it is important that any USF reform efforts should consider policies that encourage construction of broadband-capable networks in high cost areas.

Law Enforcement Intercepts. Without exception, Vonage has complied with all subpoena requests from law enforcement, including providing call logs, records, and other detailed account information. In the future, Vonage software will also allow law enforcement intercept capabilities. Vonage is committed to assisting law enforcement and will comply with VOIP requirements determined by policy makers. The FCC has announced its intention to open a proceeding to consider the interaction between CALEA and VOIP. Vonage looks forward to participating in that proceeding, and in working toward a technical solution wherein VOIP providers can continue to assist law enforcement in their surveillance efforts. It is not necessary, however, to classify VOIP as telecommunications services in order to meet law enforcement needs.

Intercarrier compensation. Intercarrier compensation has been included in the panoply of issues that policy makers are considering as they evaluate the impact of VOIP services on the market and on public policy. Vonage does not connect directly to the phone network, but rather contracts with carriers to transport its calls to their destination on the public switched network. Vonage has not thus far participated in proceedings related to VOIP access charges (computer-to-computer calls are subject to Internet industry voluntary peering arrangements for termination to other computer users). Nonetheless, Vonage recognizes, as many policy makers do, that the access charge system is broken and in need of repair. However, Vonage emphasizes that VOIP is not the source of the access system's ills; these problems have myriad causes and predated the emergence of VOIP by several years. VOIP consumer products, such as Vonage's service, will not have an impact on access charges for a long while to come, as we represent only .1 percent of telephony subscribers.

The existing system of intercarrier compensation is complex, imposing unique charges on each different type of carrier and each different type of service. The FCC has recognized that these disparities are unsustainable in a converging and increasingly competitive market and has been examining intercarrier compensation reform for almost three years. Vonage urges Congress to support the FCC's efforts to reform this broken system.

In Section 254(e) of the Telecommunications Act of 1996, Congress required the FCC to make the implicit subsidies in the access charge regime explicit, and the monies to be collected in the Universal Service Fund. The FCC has begun the process of making interstate USF support explicit and reducing subsidies implicit in interstate access charges. We are hopeful that the FCC will finish these reforms as quickly as possible and that the states will also take up this important matter and remove implicit subsidies and rationalize their intercarrier compensation systems as well.

Removing implicit subsidies from the system of access charges and imposing a single cost-based termination charge on all types of providers and traffic should end any alleged arbitrage opportunities and bring rationality to the system.

VI. RECOMMENDATIONS.

As Congress contemplates the role of VOIP as a provider of consumer voice services, we offer our perspective on what policies would help VOIP to grow. First, Congress should make clear that VOIP is an interstate service, like the Internet itself. Doing so will bring regulatory clarity, which will stimulate investment and promote further consumer benefits. Second, Congress should reaffirm that VOIP services such as Vonage's are "information services," and therefore VOIP providers such as Vonage are information service providers. Public policy needs can be met without regulating communications over the Internet as if they were being provided by a telecommunications carrier.

We look forward to working with Congress during this exciting time. We hope that Congress will continue its support for Internet based technology, by allowing the sector to grow unfettered by ill-fitting regulations that were designed for legacy systems. Any less would imperil VOIP carriers like Vonage in the face of what will soon become overwhelming regulation. VOIP providers have something valuable to offer to consumers, but we can only move forward by focusing our limited resources

on improving our service, growing, and meeting critical public policy mandates like those this Committee is considering.

Accordingly, we are pleased to offer our unqualified support for Rep. Pickering's bill, which would help keep VOIP on an innovative, disruptive path by clarifying jurisdictional lines for VOIP services. This bill offers thoughtful direction on difficult issues such as intercarrier compensation, USF, 911 services and law enforcement access to VOIP technology. We urge this Committee to markup this bill as soon as possible.

I look forward to answering any questions you might have. Thank you.

Mr. UPTON. Ms. Greene?

STATEMENT OF MARGARET H. GREENE

Ms. GREENE. Mr. Chairman, members of the subcommittee, thank you for inviting me here today and for recognizing that telecom policy really is about technology. Voice over IP, the technology bringing us together today is disruptive, but it is merely a technology not the disruptive industry shock. The real shock, the earthquake that has disrupted the global telecom landscape is the increasing mobility and convergence of networks and devices.

The industry is moving in clear fundamental directions, from wireline to wireless, from narrow band to broadband. And all things broadband and wireless are moving to IP. The profound implications of that are becoming more evident everyday. Surely wireless and broadband networks have changed your communication experience, and yet their impact remains largely absent from our policy decisions.

A few facts. Disruptive shock No. 1: Wireline to wireless. More and more customers go to wireless. In 2002 wireless customers surpassed wireline customers in number. Wireless minutes dramatically increased while wireline voice minutes, especially in long distance, declined. And yet wireline policy continues on much as it has for the last decade, if not for the last seven decades.

Disruptive shock No. 2: Narrow band to broadband. In the digital broadband era once separate technologies have converged. Two-thirds of the traffic on BellSouth's network is not data, text, photo, video. No longer just plain old voice. The combined effects of broadband and IP are profoundly disruptive; broadband because of the rich applications that it can deliver to consumers and IP because it is quickly becoming the common denominator across all communications. Whether it is your cell phone, your laptop or your interactive pager; most any form of communication people are using today is either at or moving toward an IP platform.

Where Internet applications like email and instant messaging replace over 40 percent of what used to be local phone calls. Broadband competitors have names like BellSouth and Comcast, but also Microsoft, Cisco, Vonage, Skype. Apple, IBM, Earthlink. VOIP, it is real, it is imminent, it is a new software application which creates a new market.

VOIP technology allows voice to be turned into data and carried over the network in packets. It is not a new network, but it is a use of existing networks. Cable telecom companies and many others are rapidly moving forward deploying VOIP technology. Best Buy and Circuit City sell a Vonage starter kit for $29.99. Cablevision launched voice over IP across its entire footprint. Time Warner now offers voice over IP in Charlotte and Raleigh-Durham and

shortly throughout the region. Cox has rolled out in Roanoke. Comcast plans to offer VOIP service to 40 million customers by the end of 2005. AT&T has launched CallVantage in 34 markets and plans to sign up a million customers by the end of 2005.

At BellSouth we have explained our VOIP solutions for our business customers and we are exploring ways to bring increased functionality and technology to our residential customers.

But why are these statistics important? Because they show that broadband, wireless, IP telephony, high speed unconstrained and always on communications are here today. These are the shocks that technology has unleased in our telecom ecosystem, and we have not even mentioned the impact of broadband over power lines.

How policymakers respond to these shocks will be a major determinant of the course of the industry. The response must be timely, but it must also be comprehensive and balanced. It must recognize that the functionally equivalent technologies need to be lumped together and treated alike, not separately considered or singled out for preferential treatment. And we must recognize that government cannot keep pace with the technology cycle, and should not try to legislate on a technology specific basis.

For this reason, we think voice over IP should not be the subject of stand alone legislation. But nor should it be the subject of 51 different approaches. Like most of telecom policy, it should be jurisdictionally interstate and subject to the exclusive jurisdiction of the FCC.

Much of the value of VOIP comes from the value of being able to be carried on the ubiquitous public network. Today there are two broadband capable networks that exist; cable and wireline telecommunications with the promise of two more, fixed wireless and power lines. Yet only the wireline network has the burden of legacy social dues which include governmental intervention and control at both the retail and the wholesale level. Access charges were established to provide compensation for these social responsibilities. Nothing changes that equation when VOIP is involved. Those that use the public switch network should pay compensation for its use.

Additionally, the underpinning and main prerequisite for providing VOIP service is a broadband connection which between 85 and 90 percent of U.S. households can now obtain from a provider other than their incumbent local exchange telephone company. And that is why I would like to recognize the Boucher-Stearns bill as a positive contribution to the regulatory debate. That bill recognizes the role that networks play in the development and growth of voice over IP by freeing the underlying IP broadband networks from legacy regulation.

IP-enabled services should be free of economic regulation, of discriminatory regimes like computer inquiry rules that stifle innovation and raise the cost of broadband services. Instead we need to shift the focus to vital issues facing us such as universal service contributions across all technological platforms; 911, access for the disabled, privacy safeguards and cooperation on homeland security. With that focus we can ensure that this technology brings the greatest benefits to consumers as quickly as possible.

Thank you.

[The prepared statement of Margaret H. Greene follows:]

PREPARED STATEMENT OF MARGARET H. GREENE, PRESIDENT—REGULATORY AND EXTERNAL AFFAIRS, BELLSOUTH CORPORATION

Mr. Chairman, Congressman Markey, members of the Subcommittee, thank you for giving me the opportunity once again to testify before you to present BellSouth's views on Voice over Internet Protocol (VOIP). Your hearing today is timely and I am sure it will prove to be a valuable contribution to the consideration of the many issues that VOIP presents. Today, we have the Congress, State Legislatures, Federal Courts, the Federal Communications Commission (FCC) and State Regulatory Commissions all looking intensively at this issue.

VOIP is a software application that allows voice to be turned into data and carried over the network in packets. VOIP is not a new network, but a use of the existing network to provide new voice alternatives. The underpinning and main prerequisite for providing VOIP service is a broadband connection, which between 85 and 90 percent of U.S. households can now obtain from a provider, other than their incumbent local exchange telephone company. Additionally, in the 9 BellSouth states, DSL now passes more than 75% of all households. Riding on this competitive infrastructure, a wide range of providers are deploying and marketing VOIP services nationwide. All six major cable operators, which collectively reach 85 percent of U.S. households, have begun commercial deployment of VOIP, or have announced plans to do so imminently. VOIP services are now being offered in markets throughout the country by incumbent local exchange carriers such as BellSouth, AT&T and other inter-exchange carriers, CLECS and a new breed of VOIP-only competitors such as Vonage and Pulver.com. Here are a few examples demonstrating that VOIP is real. It is imminent and it will transform voice into another data application—

- Best Buy and Circuit City are now both making available a "Vonage Broadband Phone Service Starter Kit" for $29.99 after a $50 rebate.
- Cablevision has already launched VOIP across its entire footprint.
- Time Warner now offers VOIP in Charlotte and Raleigh-Durham and will shortly expand throughout the region.
- Cox has rolled out in Roanoke, Virginia.
- Comcast announced plans to offer VOIP service to 40 million customers by the end of 2006.
- AT&T has launched its CallVantage service in 34 markets and plans to sign up 1 million customers by the end of 2005.

VOIP providers now market their service as a primary-line replacement, and the majority of consumers are purchasing the service as such. Significant numbers of consumers have already abandoned circuit-switched service in favor of VOIP, and their ranks are rising very rapidly. Added functionality and price points are the cornerstone of why consumers are moving to VOIP. Analysts predict that, within the next three years, local telephone companies will lose up to 10 percent of their line to cable-operator providers of VOIP services, and millions of additional lines to other VOIP competitors. On June 14, 2004, the *New York Times* reported on a Mercer Management Consulting survey that indicated that as many as 30% of all U.S. homes will subscribe to VOIP in the next three years. This is astronomical growth given that the same article reported that the market research firm, IDC, is expecting only 600,000 such VOIP subscribers by the end of this year, with Vonage being the current dominant provider with 200,000.

Why such a massive increase in three years? The answer is that there has been an earthquake in telecommunications. The industry is moving in clear fundamental technological directions—from wireline to wireless; from narrowband to broadband—and all things broadband and wireless are moving to IP.

VOIP services match the functionality of conventional circuit-switched voice in many respects, including voice quality, total home wiring, and number portability, and are typically priced 30-40 percent or more below comparable circuit-switched offerings. VOIP providers also offer many features that are unavailable on conventional circuit-switched networks.

Most importantly, VOIP is promoting adoption of broadband service itself. As FCC Chairman Powell and AT&T CEO David Dorman have both indicated, VOIP is now widely viewed as the "killer app" for broadband service. Because VOIP will give consumers an increased incentive to subscribe to broadband service, it will expand the base of broadband customers, and thereby lower the average cost of providing broadband service. Today, about 24 million customers—22 percent of U.S. households—currently subscribe to broadband; 30 percent will by the end of 2004 and almost 40 percent by the end of 2005. As the participation by Best Buy and Circuit City in marketing Vonage VOIP service attests, the incremental cost, for these broadband customers, of adding VOIP service is low. This is due to the fact that the principal incremental cost of adding VOIP, for a customer who already has a

broadband connection, is for a relatively inexpensive adapter that encodes the analog signal into digital packets.

Given that VOIP service costs considerably less, many customers would likely substitute VOIP for circuit-switched service, even if there was some difference in quality or functionality. But as industry analysts, competitive carriers, and equipment vendors now uniformly agree, VOIP provides comparable or superior quality and functionality to conventional circuit-switched service.

Change is in the process of occurring as we speak here today, and there are a number of issues that need to be addressed concerning VOIP, broadband and economic regulation of these applications and services.

A. JURISDICTION—STATE OR FCC

When you have VOIP phone service, your phone number no longer has a relationship to your physical location. The user can choose any area code offered by the VOIP provider, and it need not be an area code where you live. Two examples that I will cite for you will illustrate what this is all about.

First, on June 14, 2004, Brian M. Carney, the Deputy Editorial Page Editor of the *Wall Street Journal Europe* wrote a column for the Op-Ed page of the Wall Street Journal (U.S. edition) entitled "*VOIPification (No, It's Not In the Dictionary . . . Yet)*. Mr. Carney tells us in this article that he lives and works in Brussels, Belgium, where he is a Vonage customer and that he has a phone in his apartment that is assigned a telephone number with a 917 (U.S.) area code. 917 is one of the area codes for New York City. As he points out in his article: "friends and relatives in New York can call for the cost of a local call and we can call them—or anyone else, anywhere in the U.S. or Canada—for a fixed monthly fee of around $30."

The second example involves the decision by the Minnesota Public Utilities Commission (MPUC) to require Vonage to comply with Minnesota laws that regulate telephone companies. This MPUC determination was appealed to Federal District Court and the court granted Vonage a permanent injunction against this MPUC action finding that Vonage's service was an information service not subject to state jurisdiction. The court pointed out in its recitation of the facts in this case that at that the time of the MPUC decision (September 2003) that Vonage had 500 customers with billing addresses in Minnesota. It also had 38 customers with Minnesota billing addresses who had requested telephone numbers not geographically situated within Minnesota and 88 customers with billing addresses outside of Minnesota.

What these two examples illustrate is that VOIP is not an intrastate communication service within the meaning of Section 2(b) of the Communications Act of 1934. Yes, you can make a call on a VOIP phone say from here on the Hill to our offices on 21st Street, but you could also take that VOIP phone on vacation with you to Florida and call back to the office on 21st Street. The two calls would use the same phone number, and the actual location of the caller is unknown. IP enabled services, meaning services such as broadband internet access and applications such as VOIP that rely on the IP protocol, should be determined to be jurisdictionally interstate and subject to the exclusive jurisdiction of the FCC.

At least two state legislatures (Florida and Pennsylvania) have passed laws pertinent to VOIP. A number of states regulatory bodies such in Alabama, California, Colorado, Illinois, New York, Ohio and Wisconsin are considering issues raised by VOIP, either on their own, or in response to petitions from interested parties. This jurisdictional confusion should be ended as it creates a climate of uncertainty that is not conducive to investment and innovation.

We have followed the development, introduction and deliberations regarding the two major VOIP bills that have been introduced to date in the Congress "H.R. 4129 introduced by Congressman Pickering and S.2281 introduced by Senator Sununu. Both bills wisely provide that VOIP applications are to be subject to Federal government jurisdiction and delegation of that authority to the states is prohibited by the terms of the bills.

B. REGULATORY TREATMENT

IP enabled services that include VOIP applications and broadband internet access services should be free of economic regulation, by which I mean the authority to regulate any IP enabled service with respect to its rates, charges, terms or conditions for any such service as well as authority to regulate entry into or exit from the IP-enabled services market. This withdrawal of economic regulation is warranted by the fact that as the FCC has recently noted: "[a]s communications migrate from networks relaying on incumbent providers enjoying monopoly ownership of the under-

lying transmission facilities to an environment relating on numerous competing applications traversing platforms, power over the prices and terms of service necessarily shifts from the provider to the end user."

Today's disparate regulatory treatment assigned to providers of "telecommunications services" and "information services" is inappropriate in the context of IP enabled services. The VOIP and broadband markets are widely competitive, making economic regulation of these services and applications inappropriate and unwarranted.

In the current VOIP market, there are already multiple providers of VOIP offering services in non-traditional ways. Hosted voice providers, free of economic regulation such as Vonage currently dominate the VOIP market. Cable operators, also free of legacy economic regulations, continue to invest in their own VOIP infrastructure and are expected to dominate the consumer cable VOIP market by the end of this year. The result of all of this largely unregulated (with the significant exception of the BOC new entrants) investment activity is that VOIP is now competitive with those voice services available over traditional circuit switched networks. These competitive circumstances also make the elimination of economic regulation of these circuit switched services likewise warranted.

The market for broadband internet access is equally as competitive as the VOIP market. Broadband over cable is now available to more than 85% of all U.S. households and should be available to 90% by the end of this year. Small businesses are increasingly turning to cable for broadband access service and inter-exchange carriers, not ILECs, have captured most of the business broadband market. Moreover, inter-modal competition continues to grow by means of fixed wireless while the nation's largest electric utility companies have been conducting broadband over power line (BPL) trials. The Power Line Communications Association estimates that BPL will reach between 750,000 and 1 million customers by the end of this year and independent industry analysts estimate that BPL could reach 6 million power lines by 2006.

Given these market conditions, IP enabled services should be free of economic regulation and Bell operating companies that are non-dominant in the provision of broadband services should no longer be subject to legacy type regulation, such as the *Computer Inquiry* rules that stifle innovation in, and raise the cost of, the broadband services that are essential to VOIP. The legal, technological and market circumstances of the early 1980's when the *Computer Inquiry* rules were established are very different than those that exist in broadband today.

Neither H.R. 4129 nor S.2281 totally accomplishes these regulatory reform goals. They do for VOIP applications, but not for broadband internet access services. We believe that legislation should not, as these bills both do, address only a single application such as VOIP as Congress will, if this approach is taken, surely wind up having to legislate on each flavor of new communications technology. Given the rapid pace of change in communications, this would surely be a futile effort. At a minimum, the issues revolving around the jurisdiction and regulation of all broadband services should be addressed.

C. SOCIAL POLICY OBJECTIVES

All IP enabled services, even though free from economic regulation, should contribute to federal universal service support mechanisms, be subject to inter-carrier compensation obligations, provide access to the disabled, provide emergency 911 services and provide assistance to law enforcement. Simply put, the regulatory framework should be constructed so that all analogous IP enabled services are treated the same, regardless of transmission technology or legacy regulation.

1. Universal Service and Inter-carrier Compensation

There should be a regulatory framework designed to provide incentives to invest in new services and facilities, which will eventually require a comprehensive and holistic overhaul of current universal service funding and PSTN access charge regimes that will eliminate opportunities for arbitrage. Steps must be taken to level the playing field in both these areas through the establishment of a competitively neutral mechanism for universal service funding and for a unified inter-carrier compensation regime that eliminates existing distortions and arbitrage opportunities. By doing so, there will be eliminated any incentive for carriers to characterize their IP-enabled service offerings exclusively to avoid legitimate contribution and compensation obligations.

In the final analysis, the essential rule should be that those who use the PSTN should pay for its support, regardless of how their service or application is classified or categorized for regulatory or taxation purpose. If the PSTN is not equitably supported and available for VOIP customers to reach other customers, the value propo-

sition of VOIP service would disappear. Local exchange carriers have a right to recover the legitimate costs imposed on their networks in the origination and termination of interstate communications. A PSTN interconnecting provider's use or substitution of IP technology does nothing to change the nature of the interconnecting provider's use of the network. A government policy or requirement that allows some providers to avoid access charges, because of the technology that they use would therefore deprive local exchange carriers of appropriate compensation for their property. Those that use the Public Switched Telephone Network to terminate their traffic should pay compensation for this use.

The Federal Universal Service Support Programs are in serious need of comprehensive reform from both the contribution and distribution perspectives. As I indicated in my testimony before this Subcommittee last September regarding Universal Service :

> "As communications migrate to broadband, the old world base of universal service funds—local and long distance wireline is shrinking. And increasingly, alternate technologies, like cable modem and VOIP, offer directly competitive services while being exempt from the social responsibilities attendant to universal service. Like so many other aspects of our current regulatory scheme for telecommunications, this puts the historic providers of universal service, those living with the legacy of using wireline revenue flows to subsidize social goals, at a competitive disadvantage in a robustly competitive marketplace. This situation cannot exist without serious detriment to the regulated carriers and it must be fixed.
>
> Fixing this competitive/social policy mismatch means, for the issue of universal service, ensuring neutrality on both sides of the equation. Parity of obligation must exist between those who offer functionally equivalent telecommunications services. If broadband connections are to be assessed, as DSL is today, then functional equivalents, like cable modem service, must pay."

These observations are as timely today as they were when I shared them with you last year. Neither the House nor the Senate bill comprehensively reforms Federal Universal Service—the Congress needs to.

2. E 911 Requirements

An IP-enabled information service that (1) includes a voice capability component and (2) is either (a) assigned a North American Numbering Plan (NANP) telephone number or (b) can call a line assigned to a NANP telephone number and (3) either (a) originates or terminates or both originates and terminates calls on the PSTN or (b) is a substitute for traditional voice communications, should comply with E911 requirements that are economically and technically reasonably achievable given the nature of the technology and the associated costs. IP-enabled service providers that meet the foregoing test should be required to fulfill 911 emergency call processing requirements in a manner that is not unnecessarily disruptive of the overall market development of IP-enabled services. The industry should be allowed to develop reasonable solutions for accomplishing E911 requirements through the adoption of open and voluntary industry standards prior to imposing any government mandated standards.

The National Emergency Numbering Association ("NENA") has been actively addressing, with industry support and participation, various proposals for "migratory paths" for IP-enabled services. BellSouth strongly encourages reliance on NENA for guidance on leading the industry toward operational and technical solutions and standards that would enable VOIP and IP-enabled services to move forward in manageable stages.

Both H.R. 4129 and S.2281 require the FCC to appoint a representative industry organization to develop consensus guidelines, protocols or performance standards in this area. So long as, NENA and in turn the Emergency Services Interconnection Forum ("ESIF"), for the purpose of creating an American National Institute Standard ("ANSI"), are brought within this ambit , the industry will be able to develop the appropriate and desired standards.

3. CALEA

BellSouth has a very long history of cooperating with law enforcement, which has existed long before the promulgation of CALEA. BellSouth has been an active participant in the development of technical standards and products necessary to comply with CALEA and has devoted substantial time and resources to upgrade its network to deploy CALEA-compliant solutions. BellSouth remains committed to working together with the FBI, Department of Justice and other members of the industry to develop standards for IP enabled services that fall within the scope of CALEA.

D. CONCLUSION

VOIP is a new application which has created a new market, and the rules need to fit that new market—no economic regulation, no entry and exit requirements, no unbundling obligations, and limited regulations which apply equally to all providers to address public safety issues. But the networks which enable VOIP are not new. Today there are two networks that exist: cable and telecommunications, with the promise of two more: fixed wireless and power lines. Yet only the telecommunications network has the requirement to provide voice ubiquitously with a host of social responsibilities while having its profits diluted by the obligation to unbundle and sell pieces to its competitors at below cost.

VOIP is just an application using this network to transport voice carried in packets. Our network was created to provide ubiquitous service to all customers. Access charges were established to provide compensation for that network, which is today still saddled with many social obligations not shared by other network providers. Nothing changes that equation when VOIP is involved. Those that use the Public Switched Telephone Network should pay compensation for its use.

So the question is not whether VOIP will disrupt the industry. The disruption has begun. At this point how regulation or legislation responds will determine whether the technology is disrupted. A light handed regulatory approach which is limited to ensuring parity for all providers, public safety requirements, incentives for broadband investment, and compensation for the Public Switched Telephone Network will allow the technology to bring the greatest benefit to consumers as quickly as possible.

Mr. UPTON. Mr. Jensen?

STATEMENT OF S. MICHAEL JENSEN

Mr. JENSEN. Good morning Chairman Upton and members of this committee. I am Mich Jensen, CEO of Great Plains Communications.

It is a privilege to have the opportunity to share some thoughts with you about the exciting evolution of Voice Over Internet from the perspective of a telecommunications service provider serving a high cost rural area of our nation.

I also appreciate the concern you have for maintaining and advancing universal service in rural areas, and I want to note especially my appreciation of the efforts of your fellow committee member, by friend Congressman Lee Terry.

Great Plains Communications is a family owned telephone company headquarters in Blair, Nebraska. We had a very humble beginning in 2009 when my wife's father began to build what is now Nebraska largest independent telecommunications company. We serve 32,000 access lines in 76 communities with absolutely the best telephone service possible.

Great Plains had Nebraska first all buried cable distribution plant, first digital switchboard, first all digital network and we were the first to bury fiberoptic cable. However, there was a deeper more basic principle that guided our growth and development: Keep the customers as your highest priority. Serve them as you want to be served. Be a part of their community.

Our family is now in its fourth generation of ownership of Great Plains Communications and those principles have not changed. We now provide much more than local telephone service. We have deployed broadband Internet services to every single community we serve, even those that have fewer than 100 people. Our cable television business has the latest digital TV technology and we also offer long distant services. None of that would have ever been possible without our customers in hometown Nebraska loyally paying their telephone bills every month. Intercarrier compensation and

universal service also played a very key role in our network buildout and upgrades.

Great Plains is representative of the Nation's small rural incumbent local exchange carriers and I am indeed honored to be appearing today on behalf of the hundreds of local exchange carriers that are represented by NTCA and OPASTCO, and more importantly on behalf of the several million subscribers that we serve together.

VOIP technology certainly is intriguing. The ability to send voice, data and other information over the Internet or using Internet protocol is one that all companies both large and small must deploy. However, as promising as the technology may be, VOIP is a long way from replacing traditional telephony. It is merely an evolution, not a revolution of technology.

In the haste to jump on the VOIP bandwagon, Congress must guard against legislation that has the potential to ravage the underlying networks that carry not only VOIP but every other form of telecommunication service. I comment Congressman Pickering on his work bringing this important issue to the forefront. However, VOIP is but one of the many technologies that has a potential to transform the telecommunication industry.

Instead of looking at single technology such as VOIP, the committee must look at the telecommunications industry as a whole and seek to construct a broad framework that will allow the industry and the regulations that govern it to adopt the rapidly changing technologies now and in the future. Rather than prohibiting any form of regulatory oversight of VOIP, policymakers should be taking steps to ensure that the underlying telecommunication infrastructure is properly deployed and maintained. Without universal service and compensation by carriers that utilize real company's networks, the United States would not have the high quality network that exists today. Without this new network, new technologies like VOIP would simply not be possible.

Exempting VOIP providers from universal service obligations and access would lead to disinvestment in network infrastructure and result in deterioration of the national network.

I would like to lay out a balance and sustainable approach to VOIP. VOIP and other IP-enabled service providers should be required to pay access charges regardless of their regulatory classification as an information or telecommunication service.

Next, the underlying network upon which all calls, including VOIP are carried must continued to be supported to enable the deployment of existing and new technologies and to uphold the doctrine of universal service. Also, the definition of universal service must evolve to include broadband services so that all Americans have access to them.

Further, the universal service contribution base should be expanded to include cable, wireless and satellite broadband Internet access service providers and VOIP and other IP-enabled service providers since those providers benefit from that national network.

Next, rather than Federal preemption across the board, the FCC should allow for the possibility that some IP-enabled services may fall under exclusive State jurisdiction or shared State and Federal jurisdiction. The FCC must also ensure that all consumers, particu-

larly those in rural areas are protected from power that large carriers would possess were IP to be deregulated.

VOIP providers should be required to comply with the same 911, CALEA and disability access rules as incumbent providers.

I strongly encourage the committee to take its time to ensure any legislation ultimately adopted is comprehensive and must avoid a piecemeal approach to telecom reform. Congress must continue to support the longstanding policy of providing all Americans with access to comparable affordable telecommunication services now and in the future.

Mr. Chairman, thank you for this opportunity to speak on a topic on a topic so critical to the future success of rural telecommunication.

[The prepared statement of S. Michael Jensen follows:]

PREPARED STATEMENT OF S. MICHAEL JENSEN, GREAT PLAINS COMMUNICATIONS ON BEHALF OF THE NATIONAL TELECOMMUNICATIONS COOPERATIVE ASSOCIATION

Good Morning Chairman Upton and members of the committee. I am Mick Jensen, CEO of Great Plains Communications. Great Plains is a family-owned telephone company in Blair, Nebraska. We had a very humble, and by today's standards, very primitive beginnings in 1909. Those were the days when telephone service was a challenge to provide and a luxury to have. It was in that environment that my wife's grandfather started down the path to building what is now Nebraska's largest independent telecommunications company, serving 34,000 access lines in 76 communities in the state with the absolute best telephone service. Along the way, our founding family members established themselves and our company as true pioneers. We developed some of the first techniques anywhere for burying telephone lines; an innovation that helped make America's telecommunications networks the most reliable in the world. We were the first company in Nebraska to develop an all-digital switching network, and we were the first to install fiber optics in the state. But, beyond the technical innovations that identified us, there was a deeper, more basic principle that guided our growth and development—keep the customers as your highest priority. Serve them as you want to be served. Be part of their community. Take care of them, and they will do their part to take care of you.

Our family is now into its fourth generation of ownership of Great Plains Communications and those principles have not changed. By building on that foundation, we now provide much more than local telephone service. We have deployed some form of broadband Internet services to every single community we serve, even those that have fewer than 100 people. We have built a cable television business that has the latest digital TV technology in 31 communities. We began offering long distance services a couple of years ago, and we have established ourselves as the experts in utility locating and damage prevention services.

None of that would have ever been possible without our customers in hometown, Nebraska loyally paying their telephone bills every month. We owe it all to them and we must look out for their best interest whenever possible.

Great Plains is representative of the nation's small, rural incumbent local exchange carriers. The good things we stand for and do, make our rural communities a better place in which to live and work. That is why I am honored to be appearing today on behalf of the hundreds of rural local exchange carriers that are represented by NTCA and OPASTCO, and more importantly, on behalf of their several thousand employees and several million subscribers.

NTCA members and their fellow rural independents provide service to seven percent of this nation's access lines, but actually cover 40 percent of the landmass of this country. We have a mission of service that supersedes profit making. That is why we appreciate the opportunity to provide feedback on all of the regulatory and legislative activity surrounding Voice over Internet protocol or VOIP.

Today the vast majority of Americans use their landline and wireless telephones to place and receive voice calls. Over the next several years there will be some migration of voice communications from landline and wireless telephone service to Voice over Internet protocol (VOIP) service. During this migration there will be a significant number of VOIP originated calls terminating on the public switched telephone network (PSTN). Until the day when all American households and businesses completely migrate from the PSTN to an IP-network to place and receive calls, which may take decades, there will always be VOIP call traffic using and imposing

costs onto the PSTN. Even if all VOIP and other IP-enabled services were accommodated on broadband-only-facilities, the costs of these facilities are still higher in rural areas. Some form of access and/or universal service will be needed to ensure that rural consumers continue to receive access to advanced telecommunications and information services that are reasonably comparable in urban and rural areas of the United States.

Recognizing that the transition of all voice communications to an IP-only platform will not occur in a flash cut, policymakers should take a flexible and evolving approach to deciding the issues related to the regulatory classification and level of regulation placed on specific types of VOIP and IP-enabled services and should follow competitively neutral principles when considering the formulation of VOIP policy.

First, to the extent that VOIP and IP-enabled service providers use the PSTN to originate or terminate voice calls, they should be subject to the same inter-carrier compensation obligations as interexchange carriers (IXCs), irrespective of whether the traffic originates on the PSTN, on an IP network, on a wireless network, or on a cable network. Second, all VOIP and IP-enabled service providers, regardless of their VOIP service's regulatory classification as an "information service," "telecommunications service," "cable service," or "wireless service," should be required to contribute to the universal service fund (USF) to ensure that all Americans have access to affordable communications services. Third, VOIP providers should adhere to similar regulatory obligations to provide consumers with 911 service, CALEA compliance and disability access, or require VOIP providers to provide other alternatives that meet the public's interest in security and safety. Fourth, policy should allow for the possibility that some VOIP and IP-enabled services may fall under exclusive state jurisdiction or shared state and federal jurisdiction. Fifth, policymakers should expand the list of USF contributors to include cable, wireless and satellite broadband Internet access service providers and facilities-based and non-facilities-based VOIP/IP-enabled services providers to ensure all Americans, rural and urban, have access to affordable and comparable communications services.

Regulation is necessary in order to provide for equitable and non-discriminatory compensation to underlying carriers that supply VOIP providers access to their networks to complete VOIP originated calls. Without universal service and compensation by carriers that use rural networks, we would not have the ubiquitous high quality network we have today. Exempting such companies would lead to a disinvestments in network infrastructure and result in the deterioration of the national network in the future. Simply because VOIP providers use an IP-network platform to provide voice communications, VOIP providers should not be granted with Most Favored Nation (MFN) status and be given a free pass on access charges. This will only create an unfair competitive advantage in favor of VOIP providers in the highly competitive voice communications market. VOIP providers and competing voice providers using different network platforms all impose terminating traffic costs on rural ILECs. In order to adhere to the FCC's principle of competitive neutrality, all VOIP and other IP-enabled service providers must be required to pay access charges. All providers, regardless of the technology they utilize, should pay for their use of other carrier's networks.

Existing VOIP providers do not actually make universal service fund (USF) contributions. As VOIP calls move more voice minutes off the PSTN, these lost minutes and revenues assessed for USF funding will increase the overall USF contribution burden on existing landline and wireless telecommunications carriers. Over time, this will make it more and more difficult for some small, high-cost, rural ILECs to recover the cost of their total network facilities. Consequently, some high-cost ILECs that provide the high-speed Internet connections may not have enough access revenues and/or USF support to cover their costs. Without these rural networks many consumers in high-cost rural areas would be left without landline, wireless and/or cable telephone and broadband service. To avoid this outcome, NTCA urges Congress and the FCC to require all VOIP/IP-enabled service providers to contribute to the universal service fund to support the underlying networks that enable broadband Internet access to carry VOIP traffic.

In addition, all VOIP providers should be required to adhere to similar regulatory obligations concerning 911, CALEA and disability access services. VOIP consumers deserve the same protections that other voice carriers are forced to provide. Landline, wireless, cable and VOIP providers provide similar voice services. No provider of voice communications services, regardless of the technology used to provide the service, should have an unfair competitive advantage in the marketplace. Imposing similar 911, CALEA and disability access obligations on VOIP providers will promote the public health and safety and ensure competitive neutrality.

We also ask Congress to urge the Commission to refrain from making a blanket ruling that it has exclusive federal jurisdiction over all VOIP and/or IP-enabled

services. The Commission has recognized that if an information service is characterized as "purely intrastate" or it is practically and economically possible to separate interstate and intrastate components of a jurisdictionally mixed information service without negating the federal objectives, state commission jurisdiction could apply over such services. With the creation of new IP-based services and their tracking mechanisms there will likely be some "purely intrastate" VOIP and IP-enabled services and the ability to track the intrastate and interstate components of these services. The FCC should allow for the possibility that some VOIP and IP-enabled services may fall under exclusive state jurisdiction or shared state and federal jurisdiction.

The enhanced service provider (ESP) exemption for Internet service providers (ISPs), which provides ISPs with an exemption from access charges and USF contributions should also be eliminated. With the implementation of the CALLS and MAG access reform plans for non-rural and rural ILECs, access charges have been reduced to historical lows and are based on cost. At the same time, ISP usage of the PSTN has continued to increase dramatically and has placed a significant and rapidly growing cost burden on ILECs without adequate compensation for ISP usage. If VOIP services are added to the list of services exempt from access charges and USF contributions, the entire universal service funding system will be at risk of collapsing. All ISP's and VOIP service providers using the PSTN must pay access charges and universal service contributions.

Finally, just as the current definition of universal service must evolve to keep pace with consumer needs and evolving technology, so must the USF assessment base. The universal service support ensures comparable and affordable services throughout the Nation. Cable, wireless and satellite broadband Internet access providers and facilities-based and non-facilities-based VOIP and other IP-enabled services providers will benefit from the nationwide network made possible by universal service. They should therefore all contribute. Expanding the list of contributors to the fund will be critical to this Nation's continued success in providing all Americans, rural and urban, access to affordable and comparable communications services.

In addition, as the committee moves forward on telecom policy, we would implore the committee to remain cognizant of the following specific areas that are so critical to rural carriers and the consumers they serve—the preservation of universal service for the high cost carriers, compensation by carriers that use rural networks; targeted regulation over outright deregulation in order to protect rural consumers; reasonable access to spectrum; and, finally, strong, meaningful leadership to encourage nationwide broadband deployment and ensure a level playing field for all carriers in this competitive environment.

Congress must continue to support the longstanding policy of providing all Americans with access to comparable affordable telecommunications services at comparable rates now and in the future. That is why public policy must ensure that the underlying networks that deliver voice, and data to consumers remains affordable and reliable. Therefore, it is essential that the regulatory treatment of VOIP applications not negatively impact the existing public switched network or slow the deployment of broadband in rural areas.

Mr. Chairman, thank you for this opportunity to provide testimony on a topic so critical to the future success of rural telecommunications.

Mr. UPTON. Mr. Kirkland?

STATEMENT OF JAMES KIRKLAND

Mr. KIRKLAND. Good morning, Chairman Upton, Ranking Member Markey and members of the subcommittee. My name is James Kirkland, and I am Senior Vice President and General Counsel of Covad Communications.

Let me start by thanking the chairman for convening this important hearing on VOIP services, and for asking Covad to provide its perspective on these important issues. We would also like to commend Congressman Pickering for his leadership on these issues in introducing the VOIP Regulatory Freedom Act of 2004. We support the Pickering bill's national declaration that VOIP is an unregulated information service, with a focus on industry-led, rather than government-mandated solutions. We believe that this deregulatory

framework is a good starting point for further dialog on this very important technology.

Covad is very excited to be a critical ingredient in the deployment of voice over IP. We've invested hundreds of millions of dollars in building a facility's based alternative broadband network to compete with the large incumbent providers who provide broadband services. Our network reaches more than 50 million homes in 35 States.

Our facilities include state-of-the-art DSLAM or DSL multiplexers that are located in 2000 central offices throughout this country, as well as 19 Internet points and presence. Our network incorporate local loops provided by the incumbent carriers, but other than those local loops is entirely facilities-based.

Covad was responsible for kick-starting DSL competition in the United States. In fact, we were the first company to launch commercial DSL service in the United States. We currently provide service to 500,000 consumers and businesses.

We also provide competitive DSL services so that our partners like AT&T can compete in the bundling arena providing full bundles of broadband and telecommunication services.

We agree with everything that's been said about the potential for voice over IP to revolutionize the telecommunications industry within the next few years. And Covad will be at the forefront of that.

One critical fact about voice over IP is that for this service to really effectively work, broadband is required. And so diverse sources of broadband will be critical ensuring that VOIP develops in a competitive manner. Covad's management of our own facilities allows us not simply to provide service on a best efforts basis over a third party's network, but to control the quality of the communications that reside over a network. Some of the early entrants currently provide service over existing networks such as the phone company and cable network on what's called a best efforts basis. To put that into practical terms, if you are using your broadband connection to download files and you're also using it to make phone calls, the phone calls will vie with the data usage for that broadband pipe, and the quality of service is not necessarily guaranteed depending on what your usage patterns are.

Covad by being a facilities-based carrier is able to engineer its network to ensure that voice, which you really don't want interruptions of, gets the priority over the network and the quality can be maintained. So facilities-based competition is essential to allow differentiation, competition across all different features and allow consumer's choice of who their provider is.

On the other hand, if you limit the facilities-based competitors to two, the decisions on how VOIP is deployed, the features that you get will be dictated by the decisions of essentially two entities in anyone market. And Covad submits that the history of innovation in this country is driven as much by the small entrepreneurial companies as by the large well funded incumbents with substantial resources to invest.

Next week we are celebrating the launch of VOIP service in Washington, DC. And I think all of you will have received invitations, and we hope you can hope. Voice over IP, while we have

talked about it a lot today, it is hard to really understand what it is until you actually see a service like CallVantage or like Vonage, or like our service which we acquired by a company called Gobeam. The amazing diversity of features that you can get is really something that you have to see to believe. It is also, I am sure you have all had the experience of looking at all the data that is in your computer and then having to write down on a scrap of paper what a phone number is so you can dial it over your phone connection. VOIP eliminates all that. You can do instantaneous conference calls, instantaneous callback just by clicking your mouse. And it really is a great service. We're very excited about it.

Again, I think Covad's perspective here is that VOIP does have tremendous potential, but the true potential of VOIP will not be met unless there is full facilities-based competition. We still need to utilize phone company loops. These are a ubiquitous resource that was developed with ratepayer money. We believe that it is the only ubiquitous infrastructure. While we hear much talk of new technologies, it is the only network that connects virtually all homes and small businesses in this country. And without continued access to unbundled elements in the network, it will be very difficult for competitive facilities-based competition to develop.

And I look forward to the questions from the panel.

[The prepared statement of James Kirkland follows:]

PREPARED STATEMENT OF JAMES KIRKLAND, GENERAL COUNSEL AND SENIOR VICE PRESIDENT, COVAD COMMUNICATIONS GROUP, INC.

INTRODUCTION

Good morning Chairman Upton, Ranking Member Markey, and Members of the Subcommittee. My name is James Kirkland, and I am the General Counsel of Covad Communications. Let me start by thanking Chairman Upton for convening this important hearing on VOIP services, and for allowing me the opportunity to offer Covad's perspective on ensuring the rapid rollout of VOIP. Let me also commend Congressman Pickering for his leadership on these issues by introducing the VOIP Regulatory Freedom Act of 2004, H.R. 4129. We support the Pickering bill's national declaration that VOIP is an unregulated information service, with a focus on industry-led, rather than government-mandated, solutions. We believe that the deregulatory framework set forth in the Pickering bill is the right place to start in considering the critical policy issues raised by VOIP.

COVAD: LEADING FACILITIES-BASED VOIP COMPETITION

Covad will be at the forefront of deployment of VOIP technology. Covad was the first company to deploy mass market DSL services in the nation. Covad has invested hundreds of million of dollars in building the leading nationwide facilities-based broadband network, reaching nearly 50 million homes and businesses in 35 states. Covad's broadband facilities include Digital Subscriber Line Access Multiplexers (DSLAMs), IP routers, and ATM switches in over 2000 central offices across the nation.

Today, Covad continues to invest in facilities-based competition. This year, Covad acquired a leading VOIP service provider, Gobeam, and in March we raised $125 million in new capital to help fund a nationwide VOIP rollout. By the end of 2004, Covad plans to roll out its business-class VOIP services nationwide to 100 major markets. In 2005, Covad will develop consumer VOIP services across its nationwide broadband facilities.

Covad is particularly excited by the revolutionary enhanced features that VOIP services make possible, in comparison to the relatively limited features available with legacy POTS services. As its name suggests, Voice over Internet Protocol based services bring the flexibility and capacity for rapid innovation found in other IP enabled services to public voice services. These services have traditionally relied upon the hard wired, and relatively inflexible, capabilities of the public telephone network. Covad's VOIP services illustrate the power of this combination of voice and

IP. Covad's services provide businesses with all of the capabilities of expensive PBX systems, with little investment in hardware. Each user receives a unique phone number to consolidate their multiple phone numbers. Find me and follow me capabilities allow calls to find you no matter what phone you are using, and are all configurable in real time using a "Dashboard" web-interface to manage incoming and outgoing phone calls through a computer. The service includes a personal virtual fax number to handle all incoming faxes; a unified visual mailbox to manage voicemail and faxes like e-mail; and robust call logs and integration with Microsoft Outlook, allowing users to make and return calls from their PC. Covad's VOIP services also include easy to use web collaboration and voice conferencing tools. These features dramatically enhance the speed and ease with which end users can access the enhanced functionalities of VOIP telephony, combining the familiarity of a traditional telephone handset with the flexibility and power of a computer-based interface.

Covad's services are available today. Gobeam, which was a small, venture capital backed company, had 13,000 VOIP lines in service when Covad acquired it. Covad is now launching this service nationwide. Next week, to celebrate our launch of VOIP services in the Washington, D.C. area, Covad will host a launch party with live demonstrations of its new VOIP services. We will shortly send you all invitations for this event, and welcome the opportunity to demonstrate our innovative VOIP services firsthand.

CURRENT MARKET

It is not an understatement to say that facilities-based VOIP services truly hold the potential to revolutionize the telecommunications industry, all within a few short years. Indeed, the VOIP revolution is not just around the corner—it is already underway. The U.S. VOIP market has been forecasted to grow to more than five million subscribers by 2007, a five-fold increase over 2002 levels. Furthermore, the Internet Protocol-PBX market, which has just under 100,000 lines today, is expected to grow to more than 1.7 million lines by 2007. Covad adds a unique and critical ingredient to this revolution—namely, its own nationwide, facilities-based broadband network. Covad's management of last-mile broadband transmission facilities enables it to offer VOIP services that rival the legacy public switched telephone network in their reliability, quality of service, and public safety features, such as access to 911. Because Covad's VOIP services are facilities-based, they offer more than simply a rough, "best efforts" imitation of traditional telephone services. Instead, Covad's VOIP services offer a complete, high quality alternative to traditional telephony services—with all the additional features and enhancements that VOIP makes possible.

FOSTERING FACILITIES-BASED COMPETITION

Covad is able to provide innovative new services like VOIP because Congress had the vision and the foresight in 1996 to create a flexible regulatory framework to manage the transition from local telephone monopolies to robust local competition. This transition is still at a very early stage. The local telephone network remains the sole, ubiquitous public infrastructure connecting virtually every home and business in this country. By requiring that the local telephone companies allow competitors to utilize and integrate these ubiquitous loops into innovative, facilities based service platforms, competitors can develop new and innovative services like VOIP.

True innovation in the provision of telecommunications services requires that a service provider control both the "application" portion of the service it provides as well as the underlying transmission capabilities used to carry a service. By controlling its own broadband facilities, which utilize telephone company loops from customer premises to central offices where Covad maintains its own broadband points of presence, Covad is able to control the quality of service it provides to its customers, and introduce innovative features that are both software and network based. On the other hand, if the loops which connect homes and businesses become the exclusive province of a single phone company in any area, the deployment of new technologies like VOIP will be determined by the decisions and business objectives of one, or at most two large incumbents that control facilities in any market. Covad respectfully submits that the history of innovation in this country has been driven as much, if not more, by small entrepreneurial companies as large, well funded incumbents. If VOIP is to truly flourish, there must be room for both small and large competitors. With the competitive spur of smaller, often nimbler and more focused competitors, the large incumbents are far more likely to deliver on their promises of future investment in advanced facilities.

Without robust facilities-based competition from multiple players, Covad believes that the revolutionary potential of VOIP may not be fully realized, or may be realized much more slowly. At this initial stage in the development of VOIP services, VOIP service providers that do not operate their own broadband transmission facilities have had some initial success in developing the marketplace for VOIP services. For example, in a few short years, Vonage has grown its subscriber line count to more than 100,000 consumers and small businesses across the nation.[1] AT&T recently announced its own entry into the third party VOIP marketplace, with the rollout of its CallVantage Service. AT&T plans to enter 100 major markets by year's end, and expects to sign up 1 million consumers and businesses for CallVantage services by year-end 2005.[2]

These services offer innovative features, but are limited by their providers' lack of control over the facilities used to carry them. Indeed, as Banc of America Securities recently wrote,

> Because they have no legacy voice business, the virtual carriers, like Vonage, have every reason to press ahead aggressively . . . But they have significant risks long term. The current regulatory arbitrage from which they benefit (namely the ability to circumvent access charges and the USF), may go away eventually; they have little brand awareness or reputation; they can't bundle multiple services; and they are at the mercy of the infrastructure provider to maintain the plant sufficiently; and, at least today, they can't offer a quality of service (QoS) guarantee.[3]

Control over and operation of underlying broadband transmission facilities will confer significant advantages to service providers offering integrated transmission and VOIP services, such as:

> [the abilities] to control the quality of service, leverage existing customer relationships and take advantage of their on-the-ground field service networks to assist with customer installation.[4]

For example, Covad's control over its network based facilities allows it to use packet prioritization techniques to ensure that voice quality is maintained even as a user downloads large files or watches streaming media.

Competition in the underlying transmission facilities layer will become increasingly *more* important over time in ensuring the competitiveness of services and applications like VOIP. In other words, to preserve and extend the competition being created by third party providers of IP enabled services, it will become increasingly more important to preserve and extend competition in the underlying provision of broadband transmission services. Robust competition in the broadband transmission facilities layer for competitors like Covad who are unencumbered by legacy businesses will help ensure that the exciting innovation being witnessed today in the provision of third party IP enabled services like VOIP will continue unabated.

IMPORTANCE OF BROADBAND COMPETITION

Robust facilities-based competition in the provision of the broadband services that VOIP requires does not yet exist. Amidst all the hype over the broadband future and new technologies, the underlying reality is stark. In most areas of the country Covad remains the only provider of broadband access services left to compete with cable and ILEC broadband. According to the Commission's latest data, the incumbent telephone companies and cable providers control more than 93% of the nation's broadband access lines.[5] Moreover, many end users lack a choice even amongst this limited set of two providers—for example, cable providers have historically focused their network deployment in residential areas, leaving most businesses with the incumbent telephone company as their only broadband option. In fact, recent figures show that cable penetration in the small business segment has actually dropped:

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[1] *See* "Vonage Becomes First Broadband Telephony Provider To Activate 100,000 Lines," Press Release, Vonage, Feb. 2, 2004 (available at http://www.vonage.com/corporate/press_index.php?PR=2004_02_02_0).

[2] *See* "AT&T Ushers In New Era in Communication With Launch of AT&T CallVantage Service—New Jersey," Press Release, AT&T, March 29, 2004 (available at http://www.att.com/news/item/0,1847,12989,00.html).

[3] *See* "Straight Talk on VOIP," David W. Barden, et al., Banc of America Securities Equity Research, April 15, 2004, at 4.

[4] *See* "Everything Over IP," Glenn Campbell, et al., Merrill Lynch Research Report, March 12, 2004, at 19 (available at http://www.vonage.com/media/pdf/res_03_12_04.pdf).

[5] *See High-Speed Services for Internet Access: Status as of June 30, 2003,* Industry Analysis and Technology Division of the Wireline Competition Bureau, Federal Communications Commission, at Table 5 (December 2003). Specifically, out of a total of 23,459,671 high-speed lines (over 200kbps in at least one direction), RBOCs served 7,266,765 lines, other ILECs served 948,828 lines, and cable providers served 13,684,225 lines.

"We projected cable modem would surpass DSL in this [the small business] segment by year-end 2003. However, cable modem penetration *dropped precipitously* in the small business market, or businesses with between 20 and 99 people. Cable operators also achieved limited success in the remote office market, reaching only 4.2 percent of the market in 2003."[6] As the Yankee Group now recognizes, "*DSL operators dominate* the U.S. [small business] broadband and enterprise remote-office broadband market."[7] Even more fundamentally, as both the Department of Justice and the FCC have long recognized, duopoly conditions are insufficient to produce competitive outcomes. Duopoly competition is problematic not simply because the firm with the larger market share may exercise market power, but also because *both* participants are likely to have the incentive and ability to maintain prices above competitive levels rather than attempting to ruthlessly compete with each other, as they would need to do in a market with multiple firms.[8] Accordingly, as the FCC has concluded, "both economic theory and empirical studies" indicate that "five or more relatively equally sized firms" are necessary to achieve a "level of market performance comparable to a fragmented, structurally competitive market."[9] Most importantly, large incumbents with substantial investments in existing facilities are less likely, left to their own devices, to be aggressive innovators in disruptive technologies like VOIP.

The incumbent telephone companies, with substantial legacy businesses, face conflicting incentives in deploying VOIP which threatens their core circuit-switched voice businesses with VOIP services:

> SIP threatens to strand the Bells' core network . . . VOIP customers bypass, obsolete and strand the Public Switched Telecom Network (PSTN).[10]

Given nearly $150 billion invested in circuit-switched telephone plant,[11] it is easy to see why incumbent telephone companies have severely conflicting incentives in rolling out VOIP: "the Bells will be reluctant to cannibalize themselves . . .".[12] The Bells' history in deploying DSL technology is instructive. As is now widely acknowledged, the incumbent phone monopolies were slow to deploy ADSL precisely because it threatened to cannibalize lucrative, legacy monopoly services such as ISDN, T1, and second line telephone service.

The cable industry also has conflicting incentives. Cable providers have much stronger incentives to aggressively roll-out bundles of VOIP and broadband transmission. After all, "[r]elative to the Bells, [cable's] major advantage is obviously that it doesn't have a legacy voice business it needs to protect."[13] Viewed in the broader context of their own legacy monopoly, however, the picture gets murkier. Under duopoly conditions, the ILECs and cable providers have every incentive not to aggressively compete in each others' core businesses:

> [W]e think cable operators are wary of being too successful . . . the chief risk is that being too successful in VOIP could induce the Bells to be more aggressive in the data and video businesses (such as ratcheting up marketing activity and price pressure). To put it another way, we think cable operators want to be successful with VOIP only up to the Bells' threshold of pain; maximizing the value of VOIP may not maximize the value of the cable business if it invokes a predatory response . . .[14]
>
> [W]e think cable regards the potential Bell threat as much larger [than virtual carriers like Vonage] and we think it is highly unlikely to risk baiting the Bells with an aggressive push into VOIP just to preempt what it regards as a smaller threat.[15]

Indeed, alongside the flurry of press announcements announcing cable operators' ambitious future VOIP rollout plans is a note of caution:

> Most are wary of using big, new capital expenditures to take on entrenched local phone giants, such as Verizon, while they are also spending heavily on

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[6] Yankee Group, *Cable and DSL Battle for Broadband Dominance* (February 2004), at 4-5 (emphasis added).

[7] *Id.* at 4 (emphasis added).

[8] *See* United States Department of Justice/Federal Trade Commission, *Horizontal Merger Guidelines,* Section 2 (rev. Apr. 8, 1997).

[9] Report and Order, *2002 Biennial Regulatory Review—Review of the Commission's Broadcast Ownership Rules and Other Rules Adopted Pursuant to Section 202 of the Telecommunications Act of 1996,* 18 FCC Rcd. 13620, ¶ 289 (2003).

[10] *See* "SIP Happens: How VOIP Technology 'Re-unbundles' Telecom," Scott Cleland, et al., Precursor Telecom and Media Research, Apr. 12, 2004.

[11] *See id.*

[12] *See* "Straight Talk on VOIP," supra n. , at 4.

[13] *See* "Straight Talk on VOIP," supra n. , at 5.

[14] *See id.*

[15] *See id.* at 6.

fancy, new set-top boxes and cable modems. "To dislodge a competitor that large takes a lot of money, and cable operators are still loaded with debt," says Richard Nespola, CEO of telecom consultant TMNG. "Investors would not jump for joy."[16]

This economic reality highlights another limitation of duopoly competition in the IP transmission layer. To the extent that the cable industry does pursue VOIP services, this is no guarantee that the industry will make further investments to optimize their transmission networks for VOIP. They may merely elect to provide VOIP services on a "best efforts" basis utilizing their existing internet access capabilities. In this scenario, cable companies would not drive any significant transmission layer innovation, but would simply be "virtual" voice carriers, like Vonage, over their own networks.

Unlike the established telephone and cable companies, Covad has no legacy business to protect—Covad has always been a broadband company, with a network designed from the ground up to provide advanced broadband services like VOIP. Covad has every incentive to roll out VOIP services as quickly as possible to as many businesses and consumers as it reaches. Thus, we believe that including Covad's facilities-based VOIP offerings in the overall marketplace will significantly speed the rate at which broadband services like VOIP are adopted.

TRANSITION TO FULL FACILITIES-BASED COMPETITION

Covad is well aware of the controversy surrounding unbundling requirements. Recently, the U.S. Court of Appeals for the D.C. Circuit has issued a ruling that many predict will result in the phase-out of UNE-P competitive voice services. Although Covad disagreed in many significant respects with the Court's reasoning, the Court's decision is now the law of the land. Today, Covad stands ready to participate in the transition to facilities-based services, including VOIP, that do not rely on unbundled phone company switching. Covad believes strongly that the Court's decision and the expected phase out of unbundled switching should not and need not mean the death of telephone competition. Instead, by migrating to facilities-based VOIP services using unbundled loops, competitive carriers can respond to the Court's mandate, ensuring that consumers retain continued choice among multiple telephone providers. Covad stands ready to meet the Court's mandate and offer that choice, with a facilities-based VOIP solution. Furthermore, Covad is currently the leading nationwide provider of wholesale broadband services, including broadband services to many of the companies currently relying on UNE-P. Thus, Covad is well poised to answer the Court's call by providing a migration path for these companies away from UNE-P and onto facilities-based VOIP services.

In order to achieve this transition, it is critical that the FCC respond to the Court's decision by quickly developing judicially sustainable rules for competitive access to critical last-mile transmission facilities. For facilities-based mass market VOIP competition to transform from vision to reality, Covad will need continued non-discriminatory access to unbundled local loops and local transport. These last-mile transmission facilities provide the critical link between end users and Covad's backhaul network facilities. These simple last-mile transmission links, which no single company could ever duplicate, represent the bare minimum unbundling regime needed to fully realize a facilities-based VOIP revolution. And, as I've already mentioned, Covad's facilities-based broadband network and existing wholesale relationships offer a viable migration path for the 20 million consumers currently served using UNE-P. But this transition cannot happen overnight or without rules that foster facilities-based competition such as ensuring that hot cut processes facilitate an orderly transition from UNE-P to UNE-L and maintaining rate stability.

The experiences of countries like South Korea and Japan are instructive. Both nations enjoy significant leads over the U.S. in broadband penetration, and both nations have experienced explosive growth in broadband deployment after adopting and enforcing unbundling regimes. South Korea's market-opening measures included $400 million in loans to *competing* broadband carriers,[17] the formation of a new company (Hanero) to compete with incumbent Korea Telecom,[18] and opening Korea Telecom's network with requirements for local loop unbundling, including

[16] *See* "Cable Poised to Offer Phone Service—Just Not So Fast," USA Today, May 27, 2004.
[17] *Seoul's Strong Hand Sets Pace on Web,* International Herald Tribune Online, November 26, 2001.
[18] *Id.*

sharing of the local loop.[19] The result has been thriving competition in the broadband market, with three main suppliers,[20] and rock-bottom prices (as low as $25 a month[21]) for consumers. As a result, "[a]t the end of June 2003, South Korea ranked third in the world by the total number of DSL lines and first in the world in terms of DSL penetration, with 14.27 DSL lines per 100 population."[22] Japan's market-opening measure included being one of the first countries to introduce line sharing, reducing line sharing charges to the lowest rates in the world, reducing collocation costs, shortening provisioning intervals, and unbundling backhaul facilities.[23] As a result of such actions, at the end of 2003, Japan led the U.S. in broadband penetration, and a competitor named Softbank—not the incumbent—was the top DSL carrier in Japan.[24] The experiences of South Korea and Japan show that maintaining competitive access to local loop and transport facilities spurs the deployment and adoption of innovative new services like broadband. Similarly, preserving competition among multiple facilities-based providers of VOIP will dramatically speed the pace at which VOIP services are developed, deployed and adopted here in the U.S.

SOCIAL POLICY OBJECTIVES

Apart from the minimal regulation over last-mile transmission facilities needed to preserve competition among multiple service providers, we believe that regulators should adopt a generally deregulatory stance towards VOIP. We believe there is promising evidence that traditional social policy objectives can be met without enacting new regulatory requirements for VOIP services. For example, last December, the National Emergency Number Association (NENA) and the Voice on the NET (VON) Coalition, of which Covad is a member, announced a voluntary agreement on approaches to provide VOIP subscribers with basic 911 service, and to work together to develop solutions for enhanced 911 functionality. Likewise, in the area of law enforcement access to IP enabled services, industry standards setting bodies have been working on developing solutions enabling law enforcement access to packet-mode and broadband transmission technologies, calling into question the need for intrusive new regulation of overlying information services like VOIP.

Furthermore, we believe that many critical social policy objectives can be met by focusing on enforcing and rationalizing existing telecommunications service regulations, rather than by extending them to information services like VOIP. For example, we generally believe that regulators should refrain from imposing legacy access charge regulations on VOIP services, and instead should focus their efforts on reforming existing regulations to develop a comprehensive intercarrier compensation mechanism. Similarly, rather than imposing new universal service obligations on information services like VOIP, we believe that regulators can help safeguard universal service by rationalizing the existing contribution mechanism, so that all providers of broadband transmission services contribute equitably. In sum, we believe that the enforcement of existing regulations on broadband telecommunications service providers like Covad, combined with voluntary industry collaborative efforts and standards setting, can meet critical social policy objectives like public safety and universal service—without imposing intrusive new forms of regulation on information services like VOIP.

CONCLUSION

Mr. Chairman, Members of the Subcommittee, we are in the midst of a revolution in the telecommunications industry. We are witnessing a revolution away from the limitations of traditional phone service to all of the enhancements, efficiency gains and innovation that VOIP makes possible. We are witnessing a revolution away from competition through legacy circuit switches to facilities-based competition over packet-switched broadband networks. We are witnessing a transformative revolution in the way the entire telecommunications industry does business. Covad is excited

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[19] *See* "Developments in Local Loop Unbundling," Organisation for Economic Cooperation and Development, Working Party on Telecommunications and Information Services Policies, Sept. 10, 2003, at 49 (available at http://www.oecd.org/dataoecd/25/24/6869228.pdf).

[20] *Korea Broadband,* PDS Consulting Short Paper, Version 12 June 2003.

[21] *Seoul's Strong Hand Sets Pace on Web,* International Herald Tribune Online, November 26, 2001.

[22] *South Korea,* Korea Broadband Overview, Point Topic, October 20, 2003.

[23] *On a roll: Japan's success with DSL,* Ovum Research, DSL: Business Models for Exploiting the Local Loop, July 2002.

[24] *How the "Japanese Miracle" of Broadband Came About,* Glocom Platform, Japanese Institute of Global Communication, Colloquim #43, December 24, 2003.

to be part of that revolution, and looks forward to working with the Subcommittee to maximize the potential of a facilities-based, broadband future.

Thank you again for this opportunity and I welcome questions from the panel.

Mr. UPTON. Ms. Martine?

STATEMENT OF CATHY MARTINE

Ms. MARTINE. Mr. Chairman and members of the committee, thank you for giving me the opportunity to discuss voice over IP today.

AT&T intends to provide IP-based services to all of the key market segments; large enterprises, call centers, small offices, teleworkers and residential users. We have been delivering voice over IP services in the business market since 1997, and in March 2004 we launched our residential VOIP service known as AT&T CallVantage. Now, less than 4 months later, it is offered in 22 States and 72 major markets. Soon it will be available in over 100 markets.

VOIP is the foundation for our future. Much of the Silicon Valley will benefit from an IP explosion. Small and medium sized businesses will also profit from affordable VOIP services. The resulting productivity gains can, in turn, drive broader economic growth. These benefits will only emerge if policymakers limit regulations to a light handed regime, and most importantly avoid saddling VOIP with flawed intercarrier compensation requirements.

We support the legislation proposed by Congressman Pickering which recognizes the need for regulatory restraint if VOIP is to develop to its fullest potential. Let me provide some details on these points.

As you have heard, VOIP holds the promise of choices and capabilities far beyond today's offerings. In the IP environment VOIP services and features can be provided and enhanced much more efficiently. VOIP could well be the killer application that drives broadbanded option.

AT&T fully intends to lead the VOIP revolution. We have invested heavily to upgrade our total network including some $3 billion in 2003 alone.

AT&T CallVantage service provides a host of new advanced features such as the ability to detect voicemail from your computer and dynamically control your feature settings yourself.

Innovations will increase as manufacturers, service providers and software developers take advantage of the ability to integrate voice, data and advanced consumer computer capabilities.

AT&T has been committed to providing a choice in the market for local telephone service. We have invested billions of dollars in our own facilities. Today we provide local service to more than 4.3 million residential users and 4.5 million business lines. Last year AT&T began developing residential VOIP services as yet one more means of competing for local phone customers.

The recent Federal court decision invalidating the FCC's unbundling rules could impede our deployment of VOIP. Without access to unbundled network elements, AT&T will not be able to offer residential local services to households that lack broadband services. AT&T will also have far less ability and incentive to invest in VOIP absent a mass market base of customers.

Equally important to our ability to deploy VOIP are the decisions that the Congress and the FCC make about its regulation. We welcome the fact that many policyholders and makers such Congressman Pickering support a hands off approach to VOIP. His bill recognizes that to accomplish this goal a Federal framework makes the most sense.

We agree with those who have said VOIP services must provide access for the disabled, enable 911 and cooperate with requests from law enforcement agencies. These are issues that the industry is working hard to resolve, and AT&T is taking a lead in this efforts. There is no need to regulate in these areas barring a demonstrated failure by the industry to act appropriately.

The universal service and intercarrier compensation schemes are badly broken and require substantial revisions before they can or should be applied to VOIP.

Noting about VOIP threatens universal service. The real threat is the shrinking base of interstate revenues that support the system today. AT&T has proposed moving to a flat rate charge for each assigned and user telephone number. This system would include VOIP and would be competitively neutral and provide a solid foundation for the fund.

The Commission's access charge regulations are especially unworkable, but the long promised overhaul has yet to occur. The emergence of VOIP services dramatically underscores the urgent need for intercarrier compensation reform. VOIP providers collectively serve only several hundred thousand customers while the Bells serve nearly 100 million. Having VOIP providers subsidizing the incumbents cannot be the right answer. No one demanded that the auto industry subsidize the buggy manufacturers, the computer industry the typewriter providers or email providers the post office. And contrary to some claims, VOIP providers do not get a free ride when they don't pay legacy access charges. VOIP providers purchase high speed or other local business lines to connect to the public switch network and pay for termination as an enhanced service.

AT&T agrees that affordable service needs to be maintained in high cost areas of the country. Applying the old access charge regime to VOIP will not achieve this result. If VOIP is to deliver on its promising potential, then it can not be regulated like plain old telephone service. Today we are asking your support to keep that from happening so that all Americans can realize the competitive and innovative benefits of VOIP technology.

Thank you for inviting me here today, and I look forward to your questions.

[The prepared statement of Cathy Martine follows:]

PREPARED STATEMENT OF CATHY MARTINE, SENIOR VICE PRESIDENT, AT&T INTERNET TELEPHONY, CONSUMER MARKETING AND SALES

Mr. Chairman and Members of the Committee, thank you very much for giving me the opportunity today to discuss Voice Over Internet Protocol. AT&T intends to provide IP-based services to all of the key market segments—large enterprises, call centers, small offices, teleworkers, and residential users. In March 2004, AT&T launched its residential VOIP service, known as AT&T CallVantagesm Service. Now, less than four months later, it is offered in 22 states and 72 major markets. By the end of September, it will be available in over 100 markets.

VOIP is the convergence of voice and data, with the potential to bring choice and innovation to the telecommunications marketplace. If allowed to grow unimpeded by

legacy regulation, it will offer consumers an increasing array of advanced features not available today to enhance ways of communicating and simplify busy lives.

VOIP will also contribute significantly to the business world. Teleworkers using VOIP will be far more productive and successful at their work. VOIP will bring the kind of advanced voice and data service now available only to Fortune 500 companies within the reach of small and medium-sized businesses. Much of Silicon Valley is now in the IP value chain and will benefit from an IP explosion in this market. The resulting productivity gains can, in turn, drive broader economic growth and raise standards of living for all Americans.

These benefits will only emerge, however, if policymakers limit regulation to a light-handed regime that allows VOIP to develop free of burdensome regulation at the federal, state or local level and, most importantly, avoids saddling VOIP with flawed intercarrier compensation requirements. The VOIP legislation proposed by Congressman Pickering—H.R. 4129—would do just this.

Imposing today's inflated access charges on nascent VOIP providers would severely impede the growth of VOIP. VOIP providers are already paying substantial compensation to local exchange carriers for the right to terminate traffic on their networks. They should not have to subsidize their established competitors as well. With respect to intercarrier compensation, the priority should be on reform rather than burdening innovative new services and technologies with an outmoded regulatory model heavy with subsidies.

If VOIP is to develop into a robust alternative service for residential consumers, then competitive carriers must first have the opportunity to develop the residential subscriber base for local voice service that is necessary to justify our continued and growing investment in VOIP. To accomplish this, we and other competitive local exchange carriers need ongoing access to unbundled elements of the Bell networks at reasonable rates. While we do not like being dependent on the Bell network, the transition cannot occur overnight.

Firm resolve in enforcing the pro-competitive policies of the 1996 Act is a necessary first step on the path to VOIP. Unfortunately, those policies are in dire jeopardy. In the face of the Administration's refusal to appeal the recent decision striking down the FCC's unbundling rules, we have reluctantly concluded that we cannot incur the costs to solicit any additional local and long distance customers in seven states. Without the swift adoption of new rules to ensure local competition, we will have to consider similar steps in other states. Such retrenchment in the offering of traditional communications services will directly hinder the growth of next generation VOIP services.

Let me provide more detail on each of these points.

VOIP HOLDS THE PROMISE OF NEW CHOICES, MORE CAPABILITIES AND THE POTENTIAL FINALLY TO ELIMINATE LOCAL TELEPHONE MONOPOLIES

VOIP holds the promise of choices and capabilities far beyond today's circuit-switched offerings. It enables consumers to enhance and tailor their communications services to their needs and lifestyles at competitive prices. It very well could be the "killer app" to drive widespread broadband adoption for which we have all waited. It could also be an important economic driver for our nation.

AT&T fully intends to lead the VOIP revolution for businesses and consumers. We have invested heavily to make the necessary changes to our network—some $3 billion in 2003 alone—and we have announced that we will be providing VOIP service in the top 100 markets in the country this year.

With VOIP, voice service is just another "hosted application" like e-mail, letting customers take their phone numbers wherever they go and access connections over any device, such as a standard home telephone, wireless phone, or computer. AT&T's consumer offer, AT&T CallVantagesm Service, for example, already includes a host of new advanced features, including advanced call forwarding features and "do not disturb" options that enable consumers to program the service so that the phone answers to their needs instead of the other way around. AT&T CallVantagesm Service provides subscribers a "Personal Call Manager Web Site," which gives subscribers complete control over their answering, voice mail and other capabilities. Subscribers can check their voicemail from their computer and forward information as a "talking" e-mail. These benefits will only increase as device manufacturers, network operators, service providers and application developers take full advantage of the ability to integrate voice, data and advanced computer capabilities.

In the IP environment, voice services can also be provided much more efficiently. IP technology allows for more efficient routing of calls than traditional circuit-switching. These efficiencies enable more innovative service packages. Current VOIP offerings allow customers that have a broadband connection to place unlimited

calls anywhere in the country for a single, low monthly price. The Alexis de Tocqueville Institution concluded earlier this year that government at all levels could save $3-10 billion annually—up to 60% of their current phone bills—by replacing circuit-switched service with VOIP. You should not, however, think of VOIP as "cheap phone service." It promises to be lower-cost, yes, but with a host of new communications management features and options that go well beyond today's "plain old telephone service" ("POTS").

AT&T'S HISTORY AS A LOCAL COMPETITOR

AT&T has long been committed to providing a choice in the market for local telephone service. Today we provide local service to more than 4.3 million residential lines and 4.5 million business lines, including 1 million small business lines. We have done so through a combination of facilities-based entry—we have invested billions of dollars in our own local facilities since 1996—and the lease of Bell network elements, both means established by Congress in 1996 and pursuant to rules crafted by the FCC as instructed by the Act.

In both the business and residential markets, however, facilities-based service requires a significant concentration of demand to be economic. To the extent multiple networks can ever economically compete, a significant customer base is needed to justify network deployment and reduce the risk of such deployment. Up to this point, the economic challenges presented by facilities-based competition and the incumbents' legacy advantages in this area have made the lease of capacity on the incumbent carriers' networks—"UNE-P"—the only viable means of competitive local market entry in the mass market.

I cannot emphasize enough how important access to fairly priced network elements is to the widespread availability of VOIP: without access to unbundled network elements at reasonable prices, AT&T will not be able to offer mass market residential local competition to those households that have not signed up for broadband service for reasons ranging from availability to affordability. And without a mass market customer base, AT&T will have far less ability and incentive to fund the customer support, billing and back-office systems that are necessary to offer VOIP services on a very large scale. Even then, we will not be able to compete if the Bells are allowed to restrict the ability of AT&T and other competitors to provide VOIP services to the Bells' DSL customers.

Until just last month, UNE-P provided the stepping-stone to facilities-based competition by enabling competitors to build a customer base that justifies investment in facilities. Unfortunately, however, a recent federal court decision invalidating the FCC's unbundling rules will prevent us from doing just that. AT&T strongly believes that this decision is both wrong and flatly contradicts Supreme Court precedent, but the Administration has refused to appeal it. The Bell companies' refusal to negotiate reasonable interconnection and leasing agreements in the wake of that decision has left AT&T no choice but to stop incurring the costs to solicit new local phone customers in many residential markets. With the Bell companies poised to raise wholesale rates for UNE-P as early as November, we will simply not be able to provide a bundle of local and long distance services economically and build the customer base for VOIP. We therefore urgently need interim rules ensuring fair competition so that more consumers will not face higher rates for their telephone service and to provide much-needed stability in the marketplace.

Interim rules should guarantee, at a minimum, that the rates competitors pay the Bells for lease of unbundled network elements do not rise above current levels, which have already been judged by the Supreme Court to allow the Bells a reasonable profit. The new rules must also foster the transition to facilities-based competition by ensuring that the Bell companies continue to provide so-called "UNE-L" access to copper loops, high-capacity loops, transport and dark fiber at current rates. UNE-L service will, among other things, allow competitors to offer service options to customers who lack the broadband connections that enable VOIP.

There is also a direct correlation to the availability of unbundled loops and the growth of broadband. Of the ten countries that surpass the United States in per capita broadband penetration, nine of them require local loop unbundling. AT&T proposed a plan earlier this year to transition from UNE-P to UNE-L, and even offered to pay higher wholesale rates if we failed to meet our own deadlines for construction, but the Bells were unwilling to enter into any such agreements.

The fact is, we do not regard UNE-P as a panacea, and we never have. We do not like being dependent on a reluctant supplier for our critical service inputs, and we are highly motivated to escape our dependence on the Bells. VOIP has the potential to allow us to end this dependence, but only if we and other national carriers can remain in the market today. If we are squeezed out of the local marketplace

now, our ability to deploy and grow our VOIP service will be far more difficult and take far longer, leaving VOIP as yet another technology controlled by the Bells.

Remember that these are the same companies that held back the deployment of DSL services to residential customers for some ten years so customers would have to take their other, higher priced services. Only when forced by competition, in that case the deployment of broadband Internet connections by cable operators and competitive carriers Covad and Rhythms, did the Bells finally introduce mass-market, high-speed Internet access service. Similarly, without the threat of losing customers to a VOIP rival, the Bells will have no incentive to invest in and deploy this new technology or the rich array of features it is capable of providing. Competition will spur VOIP investment by the incumbents, not deter it.

A "HANDS-OFF" APPROACH IS THE APPROPRIATE REGULATORY APPROACH FOR VOIP

Allowing VOIP to develop in the marketplace is a critical step to bringing this Nation into the digital age. AT&T welcomes the fact that many Members of Congress, such as Congressman Pickering, support a "hands off" approach to VOIP and have introduced legislation that would bring the benefits of competition and innovation to the telecommunications marketplace. Congressman Pickering's deregulatory approach to VOIP—H.R. 4129—acknowledges the need to reform the current subsidy system and allow this nascent service to flourish.

In particular, the bill recognizes that because the Internet is global in nature and these services will be deployed nationwide, a federal framework makes the most sense. Forcing U.S. VOIP providers to develop 50 different varieties of VOIP services to comply with a patchwork of potentially inconsistent state regulatory burdens could hinder their development. Continuing regulatory uncertainty as to federal versus state regulation of VOIP, or worse yet, the regulatory uncertainty that would accompany implementation of 50 different regimes to regulate VOIP, would inevitably impede investment, in direct opposition to the federal policy of creating a regulatory framework that promotes the growth and development of broadband services. Indeed, recognizing the critical importance of a uniform, nationwide deregulatory environment, the Pickering bill prohibits even the FCC from regulating VOIP applications except as specifically authorized.

Such an approach will be critical to VOIP's ability to lead the United States' broadband revolution: the United States' broadband penetration lags behind that of a number of other countries. Many of those who have higher rates of broadband penetration have recognized that allowing VOIP to flourish will contribute to a positive economy and allow them a competitive edge in the global marketplace. The United States, too, must protect its economic interests by abandoning outdated policies favoring and protecting incumbent revenue streams.

AT&T strongly supports the approach of this legislation. Allowing emerging VOIP services to develop free of unwarranted, legacy regulation allows carriers to design the service to respond to customer needs and interests, and to remain flexible in their business plans as customer preferences emerge, rather than be bound by a government-dictated vision of what the service should include and what is a benefit to consumers. As FCC Chairman Powell stated on February 8, 2004:

> the case for government imposed regulations regarding the use or provision of broadband content, applications and devices is unconvincing and speculative. Government regulation of the terms and conditions of private contracts is the most fundamental intrusion on free markets and potentially destructive, particularly where innovation and experimentation are hallmarks of an emerging market.

The wisdom of this approach was confirmed recently—in reverse—when a new local VOIP provider concluded it could not stay in business in any of the states in which it had been operating when faced with an order from Washington state regulators to register as a telephone company and comply with the same laws as other long distance companies (including the payment of access charges). Regulators must be able to approach VOIP service flexibly if they expect VOIP to bring its promised benefits to consumers and competition. As Congressman Upton has recognized, VOIP services "revolutionize how we communicate, and as is the case with any innovative technology, will call into question many aspects of today's antiquated regulatory regime."[1] Congressman Stearns has similarly recognized the "problem in pigeon-holing [VOIP] into an outdated regulatory framework."[2]

We agree with those who've said that providers of VOIP services must meet important social policies. Providing access for the disabled, enabling public safety (911)

[1] Congress Daily AM, February 24, 2004
[2] Congress Daily AM, February 5, 2004

response, and cooperating with lawful requests for information from law enforcement are issues that the industry can and is working to resolve, and AT&T is taking the lead in these efforts. While government has a legitimate role in ensuring that these things get done, it should refrain from regulating this new service in these or other areas in the absence of a demonstrated failure on the part of industry to act appropriately. We may also need some flexibility and reasonable transition periods to come into compliance, in recognition of the fact that IP-enabled services present different technical and operational issues than those considered when the legacy common carrier regulations were originally developed. Nonetheless, we believe that the enormous flexibility and power of VOIP promises to address these issues in ways superior to current circuit-switched technology.

Other legacy regulations, however, will require substantial revisions before they can or should be applied to VOIP. The universal service and intercarrier compensation schemes are irremediably broken and indeed, no longer make sense even in the context of the traditional, circuit-switched wireline telephone services for which they were developed. Prompt attention to these fundamental flaws in existing regulation is urgently needed so that IP-enabled services are not burdened with costly and outdated, broken regulatory schemes that would prevent VOIP services from reaching their potential.

Let me emphasize that nothing about VOIP threatens universal service. The problem with the universal service fund (USF) is that it is still supported by a shrinking base of interstate revenues for traditional telecommunications services. A growing fund with a shrinking base cannot be sustained. It's long past time for the universal service systems in this country to be reformed, and we support VOIP being part of the broader reform of the USF system. We think VOIP providers should contribute to a reformed universal service system—in a sustainable, fair, and nondiscriminatory manner.

AT&T has proposed a contribution system to the FCC that would replace the current revenues-based system with a numbers/capacity-based system that is fairer and more sustainable. Under our proposal, providers would pay a flat-rated charge for each assigned telephone number that maps to a unique end-user's service. Services known as "special access services" would also be assessed a flat-rated charge based on the capacity of the service. Such a system would be competitively neutral, and would provide a solid foundation for the fund because the use of numbers is increasing. Moreover, VOIP providers would be fully included, since their service nearly always uses traditional phone numbers—as would future technologies, which are likely to retain the use of numbering. The Commission has full authority to implement such reforms—but it has yet to do so. Carriers need clarity and predictability in the marketplace if they are to make the risky investment needed to make VOIP widely available.

Especially unworkable are the Commission's vastly outdated access charge regulations. The access charge scheme was developed decades ago to ensure that whenever a long distance company used the local network, it would subsidize local service by paying grossly inflated rates to the local carrier. While there was much in this framework to which one could object, it remained workable as long as local carriers and long distance carriers operated in separate markets. Its infirmities became apparent and unsustainable when those carriers entered each others' markets, and even more so when wireless companies and ISPs became the largest users of access minutes. For that reason, eight years ago, Congress ordered that implicit subsidies, including those in access charges, must be eliminated. Unfortunately, they still remain in place eight years later, and the FCC's long-promised overhaul of its intercarrier compensation regime has yet to occur. While Chairman Powell commendably opened a proceeding examining needed revisions as one of his first acts as Chairman, that docket remains unresolved more than three years later.

Now, the emergence of VOIP services dramatically underscores the urgent need for the Commission to complete intercarrier compensation reform. Whatever the historical wisdom of requiring interexchange carriers to subsidize through inflated access charges local exchange carriers operating in a different market, it makes no sense to require nascent VOIP providers to subsidize the monopoly local exchange carriers against whom they will be directly competing. VOIP providers collectively serve only several hundred thousand customers, while the Bells serve nearly one hundred million. It cannot be the right answer for the emergence of VOIP to subsidize the Bells.

The far better course is comprehensive reform of the intercarrier compensation regime to eliminate market distortions and opportunities for regulatory arbitrage. Nearly every segment of industry agrees that there is a need to move to a rational system in which all traffic is exchanged under the same compensation rules. Even OPASTCO—the Organization for the Promotion and Advancement of Small Tele-

communications Companies—acknowledges the need for intercarrier compensation reform, although its members directly benefit from current law. In a hearing before the Senate Commerce Committee on June 16, 2004, Arturo Macias, current Chairman of OPASTCO, testified that although it was important for rural carriers to be able to recover their costs of providing access to their networks, current intercarrier compensation rates are not cost-based, and OPASTCO would not oppose their reform.

Until that reform occurs, however, these legacy access charges should not apply to IP-enabled services, even on an interim basis. Even Qwest agrees with us that providers using IP at either the origination or termination points of telephone traffic should not pay access charges, even if the traffic at some point traverses the public switched telephone network. The imposition of above-cost access charges on IP telephony would radically alter the economics of providing VOIP services and would severely impede the development of those services.

Contrary to the Bells' claims, VOIP providers do not get a "free ride" when they don't pay access charges. To the contrary, VOIP providers typically purchase what are known as Primary Rate Interfaces ("PRIs")—a type of high-speed line—or other local business lines to connect to the public switched telephone network, and they pay substantial compensation to the terminating local exchange carrier for the right to do so.

AT&T agrees that affordable service needs to be maintained in high-cost areas of the country. Applying the legacy access charge regime to VOIP, however, is not the way to achieve this result and would prove counterproductive and market-distorting. It simply slows the deployment of new and desirable technologies while driving users away.

Today we are at a crossroads where we must call upon your leadership. If VOIP is to deliver on its promising potential—and offer something truly different in the marketplace—then it cannot be treated and regulated like plain old telephone service. We are asking for your support to keep that from happening, so that Americans can finally realize the long-promised benefits of widespread competition and the innovations promised by VOIP.

Thank you again for inviting me here today, and I look forward to your questions.

Mr. UPTON. Thank you.

Mr. Nelson?

STATEMENT OF ROBERT B. NELSON

Mr. NELSON. Thank you, Mr. Chairman. I applaud you for holding this hearing today on what you and others have noted is an exciting new innovation in the telecommunications industry and holds great promise for all residential and business customers alike.

As representative of our national association, I will address today the appropriate role for States in promoting VOIP in cooperation with our Federal partners.

Our challenge is to let innovation take its course while preserving the services and features consumers care about and expect in the telecom systems. State commissions want VOIP to succeed and have pursued a light touch policy where they have taken action. Despite the fears of some today, no State to date has pursued full scale economic regulation of VOIP. In fact, many States have chosen to forgo all regulation.

In answer to the question that the chairman posed in the title to this hearing, regulation can be tailored so it does not disrupt this new exciting technology.

The VOIP services attracting the most attention today are actually hybrids that bundle telecom services. They combine packets with origination of calls with completion of calls; in fact, 90 percent of VOIP calls are completed to the PSTN. They are marketed as substitutes for traditional telecom service and consumers are actually purchasing a means of connecting to the PSTN. In our view,

services that rely on healthy publicly switch telephone networks should support that network through universal service and participation in the carrier compensation. Without the support, the customers without access to broadband will be asked to share an even increasing burden to sustain this network.

We believe that consumer protection should apply to VOIP. Services that replace traditional phone services should meet consumer expectations. Consumers depends on their phones on ways they don't even realize. State commissions handle tens of thousands of consumer complaints every year on issues like slamming like cramming, service outages and service quality, clarity and honesty in billing and truths of deceptive marketing, privacy of customer billing, emergency dialing and these protections should apply to VOIP as well.

State commissions are well suited to be the watchdog and referee in these proceedings. We are the laboratories of democracy, if you will. We are local and staffed to be responsive. We provide a human voice to sort out these complaints and usually mediating or explaining the complaint to consumers. Distant Federal agencies would be hard pressed to handle this case load.

Cable industry representatives have suggested that States should arbitrate interconnection agreements for facilities-based GOIP providers as we have for wireless and CLECs. It is a role we are very much attuned to.

Chairman Powell and Ms. Martine have indicated that independent VOIP providers with no call origination facilities may not survive in the near future, And indeed, incumbent providers will step into VOIP and be the dominate providers. This indicates to me the packets which alone should not be a shield against all economic regulation. Market power is a better measure of that. Most VOIP providers have none of this market power, but we shouldn't unwittingly created a loophole for incumbents.

As Ms. Greene indicated earlier, we should look at the function nature of the service and not the underlying technology in developing our polices, otherwise we will create winners and losers as Congressman Dingell has indicated we should not do.

A consensus of State commissions have concluded that writing new polices around specific technologies will always leave us one step behind. It's tempting to put our thumb on the scale for new hot technologies, but that would actually distort the market.

Now, the New York Commission has taken this functional approach to heart and it looked at specific service offered by Vonage Holdings and found that economic regulations should not apply, but that 911 emergency dialing should apply. Vonage's web based form contract had some alarming terms, including the fact that it might not work after business hours. This would have dire consequences for a consumer who replaced his phone with a Vonage phone and had a heart attack after business hours. He might be very much out of luck. This is an interesting thing that Congressman Shimkus raised and something that this committee should be very much attuned to.

In addressing this dilemma the New York Commission's action were very narrowly tailored, flexible and practical. Both the New York and Minnesota Commissions have issued orders that have

now been enjoined by the courts, but they provide a worthwhile road map to a "light touch"' approach.

In terms of Representative Pickering's bill, I believe it is constructive in recognizing the interdependency of the VOIP service with the public switch network, and it does require participation in Federal USF, intercarrier comp and CELEA. Unfortunately, though, it pursues a technology specific approach that will build a new silo for VOIP and ultimately distort the market. By dismissing a State role out of hand it shortchanges consumers on consumer protection, interconnection, emergency dialing and competition. While we have just begin studying the Stearns-Boucher Bill, it too may have some of the same problems that the Pickering bill has. But it does leave out as well consumer protection in our view.

We appreciate and respect the dialog these bills have spurred, but at this time we cannot support them. We look forward, however, to participating in that dialog to see that new technologies like VOIP are allowed to flourish and achieve the promise that they hold within the framework of a "light touch" regulatory policy.

Thank you very much.

[The prepared statement of Robert B. Nelson follows:]

PREPARED STATEMENT OF HON. ROBERT NELSON, COMMISSIONER, MICHIGAN PUBLIC SERVICE COMMISSION AND CHAIRMAN, COMMITTEE ON TELECOMMUNICATIONS, NATIONAL ASSOCIATION OF REGULATORY UTILITY COMMISSIONERS

Mr. Chairman, Ranking Member Markey and members of the Subcommittee, I am Robert Nelson, Commissioner with the Michigan Public Service Commission and Chairman of the National Association of Regulatory Utility Commissioners' (NARUC) Committee on Telecommunications. Founded in 1889, NARUC represents the interests and consensus policy positions of State public utility commissions.

NARUC applauds your leadership for calling this hearing and appreciates the opportunity to testify today on the impact of Voice-Over-Internet-Protocol (VOIP) and other technologies on the ever-changing telecom market. Now is an exciting time for the telecom industry because so many innovative technologies are entering the market to enrich the lives of consumers and the productivity of businesses.

The challenge of policymakers is to stand aside and let innovation take its course wherever we can, while still preserving the services and features consumers care about and expect in their telecom system. This philosophy guides our inquiries at State commissions and will undoubtedly guide this Committee as it examines not just VOIP technologies but all the aspects of the Federal Telecommunications Act and its interaction with the evolving telecom marketplace.

State commissions are committed to making sure VOIP can reach its full potential for consumers and the marketplace. Just like members of Congress, State commissioners are constantly gathering information from industry and the various stakeholders to understand the unique business models, services, and consumer opportunities that have sprung up around VOIP technology. Several States have pursued a "light touch" regulation of VOIP services, while most have declined to regulate VOIP at all thus far. No state has pursued any degree of economic regulation of VOIP.

PSTN/VOIP HYBRID SERVICES

The VOIP services attracting the most attention are actually hybrid services that bundle together packet-switched origination of calls with the services of traditional competitive and long-distance phone companies, terminating well over 90 percent of their calls to the Public-Switched Telephone Network. Such services are generally marketed as replacements for traditional phone service and the product they are actually selling is access to (and the ability to receive calls from) millions of traditional PSTN phones in every home and office around the nation.

These PSTN hybrid services are more than just an "application," because unlike with any Internet application, the service provider must hand the traffic off to a traditional telecom carrier like Qwest or Level 3, convert the traffic to analog and avail itself of the interconnection agreements that have been negotiated with the local exchange carrier of the called party. Even the FCC has conceded that at least some

hybrid services, such as that featured in AT&T's petition, should be regulated as telecommunications services.

The vast majority of VOIP customers would never pay a dime for the service if they didn't have that universal access to the PSTN. As such, it is entirely appropriate for VOIP carriers to support the universality of the phone network that completes their business model, and for local exchange carriers to receive the same compensation for terminating their calls that similarly situated traditional telecom carriers must pay.

State universal service programs are an integral part of the universal service system because they fill in gaps that the federal program misses. Without state programs, consumers in many states would be shortchanged by the nationwide proxy formulas of the federal program. Making sure those state programs have a support base as the technology of the phone system evolves is critical to their long-term health. Such a support base is even more critical in light of the substantial contributions to the PSTN made by carriers and customers in the form of intercarrier compensation and federal universal service, which may be significantly depleted through the emergence of hybrid VOIP services.

CONSUMER PROTECTION

Consumers should also receive effective, responsive local consumer protection in the phone system of the future. If VOIP providers achieve even a measure of the success they have promised their share holders and venture capitalists, they will quickly progress beyond the technology-savvy early adopters and begin offering services to the average consumer.

Whether we realize it or not, we build our lives around a phone system that is reliable and dependable. The telecom business continues to be one where an ongoing consumer relationship is formed through an extensive and detailed legalese-laden contract that goes largely unread until there is a problem with the service. Often the contract locks the consumer into a year or more of services with stiff financial penalties for quitting the relationship early.

State Commissions handle tens of thousands of individual consumer complaints every year, covering such issues as:

- Slamming and cramming;
- Timely response to service outages, quality deterioration, etc.;
- Clarity and honesty in billing;
- Intrusive or deceptive marketing;
- Access to telecommunications services by blind and disabled consumers.
- Privacy of customer billing or calling records; and
- Making sure the emergency dialing service lives up to the trust that consumers put in it.

While much has been written about a new telecom system where different "layers" of service (transmission, application, etc) are offered by different companies, consumer protection obligations generally apply to whichever company maintains the consumer relationship (and collects the bill). Most complaints are resolved through Commission mediation or often just explanation, although some merit intervention and enforcement.

State Commissions are well suited to the watch dog and referee role because they are in the local communities, staffed to be responsive and have unique expertise in the telecom business. Depriving states of their consumer protection role would fragment the response effort and confuse consumers as they were shuffled from one agency to another based on the technology they were using—a federally mandated runaround. Distant federal agencies would be hard-pressed to handle the load.

INTERCONNECTION AND COMPETITION

Cable industry representatives recently commented that State commissions will likely have a critical role to play in arbitration of interconnection agreements as the facilities-based VOIP carriers seek to knit themselves into the larger phone network. State commissions have fulfilled this important role for years already and are prepared to safeguard the same rules of nondiscrimination and fair dealing for the VOIP industry as they have for CLECs and others.

Congressman Pickering's bill raises a related issue—also highlighted recently by FCC Chairman Michael Powell—of whether "independent" VOIP carriers with no call-originating facilities of their own will be able to survive if the facilities owners choose to favor their own VOIP products in the long run with preferential packet treatment. Vonage CEO Jeffrey Citron recently commented to the Washington Post that this might be an area that merits government intervention.

Also, it is important to clarify that simple use of packet switching should not absolve a company of all its competitive obligations. While a company like Pulver, Packet8 or Vonage may not be positioned to exert market power when it acts independently, it is entirely foreseeable that a traditional incumbent could migrate customers to VOIP service en masse and still position itself to exert market power, especially in regions where it was the exclusive facilities-based broadband provider.

FUNCTIONAL NATURE TEST

In assessing the impact of new communications technologies, a consensus of NARUC commissioners have come to the conclusion that writing broad new policies around specific technologies will always leave us one step behind and may even hurt the development of technology by sending distorted signals to the marketplace. Instead, NARUC's resolutions addressing VOIP emphasize that regulatory treatment should follow the functional nature of the service, not the way it works under the hood. Rather than looking to the technology itself, policymakers should look at the salient features of a service. In most cases, the starting point in our analysis should be what the service provides to the consumer.

The "functional nature" approach does not mean regulating new VOIP services just as if they were traditional circuit-switched service from Ma Bell. Rather it means a rigorous, intellectually honest dialogue about which public interest obligations are attached to which features of a particular service. If the physical structure of a particular service makes its carrier unable to exert market power, for example, that may impact whether the full panoply of economic regulations ought to apply.

The New York Public Service Commission took the functional nature approach to heart in its recent decision regarding Vonage Holdings Corp. It examined a specific service offered to New York consumers and found it to be a telecom service. Based on the salient traits of that service, the NY PSC found traditional economic regulations inapplicable, but it did rule that consumers should receive reliable 911 emergency dialing services.

The service was marketed as a replacement for traditional phone service but the lengthy standard contract that consumers had to sign contained some alarming provisions. Specifically, the company's Terms of Service agreement, on page 7 of a 15 page single-spaced document[1] said:

> "You acknowledge and understand that 911 dialing from your Vonage equipment will be routed to the general telephone number for the local emergency service provider (*which may not be answered outside business hours*), and will not be routed to the 911 dispatcher(s) who are specifically designated to receive incoming 911 calls at such local provider's facilities when such calls are routed using traditional 911 dialing." (emphasis added)

Imagine if a consumer in upstate New York who replaced his traditional phone line with this service had the rotten luck of experiencing a heart attack or stroke after "normal business hours." He dials 911 and, because it only goes to the business line, no one picks up. Brutal as it sounds, he is simply out of luck!!

The New York PSC's order suggested this was unacceptable but actually invited the company to work with them on an acceptable framework for achieving these important goals and to apply for waivers where traditional phone regulations did not apply. While the actions of New York and Minnesota have been enjoined by federal courts for the time being, they provide a worthwhile roadmap that illustrates a "light touch" approach that so many leaders of industry and government have sought.

THE "VOIP REGULATORY FREEDOM ACT"

By requiring the PSTN hybrid services ("connected VOIP applications") to participate in universal service and intercarrier compensation, H.R. 4129 recognizes those services' relationship with, and dependence on, the Public-Switched Telephone Network. This recognition is telling and crucial as we lay the foundations for a broader debate about telecom policy that this Committee will undoubtedly lead.

Unfortunately, H.R. 4129 suffers from a technology-specific approach that will only serve to create a new market-distorting regulatory "silo" or "stovepipe" for one particular technology, even though that technology will almost certainly evolve in unanticipated directions. With more time, state and federal policymakers could co-

[1] The Terms of Service agreement is contained in a small window that consumers may scroll through when signing up for Vonage service online. If copied and pasted into a Word document, it takes up 15 single-spaced pages. The document quoted above was last updated on April 27, 2004.

operate in parsing out functionalities and features that deserve more precise regulatory treatment and, in some cases, strategic forbearance.

We are also concerned that H.R. 4129, by dismissing a state role out of hand on such core issues as consumer protection, interconnection, emergency dialing, market power and state universal service programs, would deal consumers and competitors a poor hand at the outset of a new era in telecommunications.

NARUC commends Congressman Pickering and his cosponsors for their leadership in introducing the VOIP Regulatory Freedom Act because we appreciate and respect the dialogue it has spurred here in Congress and among other federal policymakers. While we cannot support H.R. 4129, we look forward to participating in that dialogue, on VOIP and the full range of telecom issues before this Committee, to craft a comprehensive federal telecom policy that will serve consumers well for decades to come.

Mr. UPTON. Mr. Rutledge?

STATEMENT OF THOMAS M. RUTLEDGE

Mr. RUTLEDGE. Mr. Chairman, Congressman Markey, members of the committee, my name is Tom Rutledge. I am the chief operating officer of Cablevision Systems Corporation in New York. Thank you for the opportunity to appear before the committee.

Eight years after the Telecommunications Act of 1996 advances in technology are giving consumers unprecedented ability to choose and create communications packages that meet their individual needs. Consumers can choose among wired and wireless platforms for a combination of waste, data and tech services regularly substituting different, newer products for old ways of communicating. Voice over IP service is an example of this competition, a true facilities-based service offering consumers greater choice and more value enabled by broadband networks and improved technologies over IP.

Since 1998, Cablevision has invested $5 billion in an advanced two-way broadband network that reaches 4.4 million homes in the New York metropolitan area. That investment enables us to offer consumers a range of more robust and valuable services, including our high speed broadband service, digital video, video on demand, 15 high definition television services, interactive services, and voice service.

Offered on our high speed broadband platform, "Optimum Voice," our QoS, quality of voice over IP service, is among the most successful products we have ever offered. Launched late last year, Optimum Voice today has more than 100,000 customers and is winning new customers at a rate of more than 3,000 per week.

Voice over IP is poised to evolve in conjunction with enhanced data and mobile services, such that the concept of voice service will mean something far different to users in the coming years than what it does today. Prior technological innovations did not change the fundamental character of plain old telephone service, POTS. VOIP, by contrast, will usher in a whole new kind of communications markets.

Our service, Optimum Voice, is already more than a tradition phone service, and this is just the beginning. In addition to offering our customers limitless local, regional and long distance calling and all the advanced features available from a traditional phone service, Optimum Vice is a suite of IP applications that includes functionality never offered before. Advanced call forwarding options let customers route calls to up to three different locations simulta-

neously. The data platform allows them to send and review voice messages on email. An interactive web portal lets subscribers customize the way they want to receive communications day-by-day, hour-by-hour, and with total control from any location. And it includes E911 and is capable of meeting all law enforcement access and surveillance requests.

It is notable that Optimum Voice today is totally unregulated by the States in which it is being provided. Because of this deregulatory environment, not in spite of it, Optimum Voice is succeeding with customers by meeting their needs, providing value and competing in the marketplace.

Technological advances in VOIP and related services are quickly overtaking specific regulations based on the legacy networks. The pace of these changes will quickly render inapplicable any very specific rule or classification based on what is even current technology. Even what appears to fit today will no longer fit tomorrow.

In this new world, I encourage policymakers to embrace the potential for consumer choice by establishing a broad, deregulatory, national framework that encourages new services and technological advancement. It is important that a new framework be developed that allows consistent State rules that foster growth of IP-based voice applications and permits the discipline of choice to ensure protection and value to consumers.

I commend Congressman Pickering for advancing a forward looking, deregulatory legislative approach to VOIP. Of special importance, the legislation establishes the principle that there must be a predictable, national framework for the development of these inherently mobile and borderless services that allows providers to respond to the marketplace, not the government, in designing, pricing and selling services. While some States understandably have an interest in VOIP, there must be recognition that clear rules of the road that operate on a national basis are essential for the service to expand and to offer the kind of choice and value envisioned by the 1996 Telecommunications Act.

In the tradition from legacy telephone regulation toward a modern, deregulatory framework appropriate for the new marketplace, we recognize that a number of existing policies must be rationalized. I commend Chairman Powell and his colleagues on the FCC for initiating proceedings to address each of these transitional issues. These include the legacy of access charges and intercarrier compensation, and creating new mechanisms for supporting universal service. The timely resolution of these issues by the Commission by Congress will provide much needed certainty to the providers seeking to grow and improve on this fledgling service.

We also recognize that there will continue to be need to address significant public safety and security issues. VOIP customers must have ready access to E911 and emergency services. Law enforcement must have access to VOIP applications to support the national security interests. These targeted policy goals can be achieved by narrowly tailored regulation or industry commitments without carrying forward the costly and dates regime of local retail phone regulation from a monopoly era.

Mr. Chairman, members of the committee, we are at the beginning of a realignment of mass-market communications, Internet-

based voice applications promise to give consumers real communications choices. These choices will not be limited to less expensive versions of POTS, although that is possible, but will include access to totally new products and services that will remake the entire concept of voice service. This is an exciting new market for Cablevision and our customers. We are proud to be a leader in offering voice over IP services at the forefront of this transition and look forward to working with this committee to establish policies that maximize its potential.

Thank you again for this opportunity. And I welcome questions from the panel.

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

PREPARED STATEMENT OF THOMAS RUTLEDGE, CHIEF OPERATING OFFICER, CABLEVISION SYSTEMS CORP.

Mr. Chairman, Congressman Markey, members of the Committee, my name is Tom Rutledge; I am the Chief Operating Officer of Cablevision Systems Corporation in New York. Thank you for the opportunity to appear before the Committee.

INTRODUCTION

Eight years after the Telecommunications Act of 1996, advances in technology are giving consumers unprecedented ability to choose and create communications packages that meet their individual needs. Consumers can choose among wired and wireless platforms for a combination of voice, data, and text services, regularly substituting different, newer products for old ways of communicating. Voice over IP service is an example of this competition, a true facilities-based service offering consumers greater choice and more value, enabled by broadband networks and improved voice technologies over IP.

BACKGROUND

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POLICY

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We also recognize there will continue to be a need to address significant public safety and security issues. VOIP customers must have ready access to E911 and emergency services. Law enforcement must have access to Voice over IP applications to support the nation's security interests. These targeted policy goals can be achieved by narrowly tailored regulation or industry commitments without carrying forward the costly and dated regime of local retail phone regulation from a monopoly era.

CONCLUSION

Mr. Chairman, members of the Committee, we are at the beginning of a realignment of mass-market communications. Internet-based voice applications promise to give consumers real communications choices. These choices will not be limited to less expensive versions of POTS—although that, too, is possible—but will include access to totally new products and services that will remake the entire concept of voice service. This is an exciting new market for Cablevision and for our customers. We are proud to be a leader in offering Voice over IP services at the forefront of this transition and look forward to working with this committee to establish policies that maximize its potential.

Thank you again for this opportunity and I welcome questions from the panel.

Mr. UPTON. Thank you.

Mr. Vidal?

STATEMENT OF RONALD J. VIDAL

Mr. VIDAL. Thank you, Chairman Upton, Congressman Markey, members of the subcommittee for inviting me here today to share my thoughts on Voice over Internet Protocol or VOIP.

I am Ron Vidal, I am the Group Vice President of Emerging Opportunities for Level 3 Communications. Part of my responsibility is looking into the future for new technologies and services on behalf of our company. But first a bit of background about Level 3 Communications.

Level 3 owns a 23,000 mole fiber optic long haul and metro network spanning both North American and Europe, which we built

between 1998 and 2001 at a cost of over $9 billion. Today we are a Fortune 500 company which operates one of the largest Internet protocol or IP backbones in the world and we sell our services wholesale to many of the world's leading communications and content companies.

We have also been an industry pioneer in softswitch, the core technology of VOIP. In fact, we hold patents on connecting packets switch data networks with the legacy public switch telephone network or PSTN.

Over the last 5 years we have carried over 250 billion minutes over our softswitch platform. Today we offer a full suite of wholesale VOIP services to our business and consumer customers. There is not a single circuit switch in our entire network.

Now let me turn to the regulation of VOIP. You know, it was not that long ago that VOIP occupied the fringes of the telecom world. Recently, however, VOIP has been able to replicate the quality of the PSTN at lower costs while delivering new features not possible over the PSTN. Well, why is that?

Well, first we have had 25 years of incredible performance improvements in computing, software and hardware all at affordable prices. And many of these technologies were invented and developed in districts represented by members of this committee.

Second, and in parallel, the development and worldwide adoption of the Internet connected those computers in ways unimagined just decades earlier. Again, a set of technologies largely invented and developed in the United States. Third, broadband has been rapidly adopted by businesses and in homes using many different technologies and many different services providers. With residential broadband adoption at over 20 percent, consumers in nearly every district represented by this Congress are voting with their checkbooks for the benefits of high speed Internet access.

Bottom line: All things digital are getting better, faster and more affordable. The fundamental technology building blocks are now in place to extend those benefits to voice. But the fate of VOIP does not rest with market forces or technology advances alone. In the past, all calls were PSTN-to-PSTN. Perhaps in the future all calls will be IP to IP. But for the foreseeable future we will have two different networks, each born in a different century connected to each other with different technologies and with different rules.

At the moment VOIP service providers and their customers continue to live in a kind of regulatory no-man's-land with much uncertainty. Fortunately, many members of this committee and the House recognize this and are acting to clarify the VOIP regulatory through bills recently introduced by Congressman Pickering, Stearns and Boucher. As you consider a course of action, I would urge you to keep three points in mind.

Point one, there is a strong need for Federal preemption. In the absence of clear Federal rules individual State PUCs have begun issuing conflicting rulings on VOIP. Congress needs to occupy the field on this important issue. Recently Commissioner Susan Kennedy of the California PUC and Commissioner Charles Davidson of the Florida PSC have both asked FCC Chairman Michael Powell to have the Federal Government preempt State jurisdiction no VOIP.

Point two: Legislate it with a light hand. Congress should not force VOIP into outmoded laws and regulations devised for the PSTN which were created at different times in history and largely to protect consumers from monopolies. In particular, the existing intercarrier compensation regime creates irrational economic incentives that distort the market. A free market economic model must be put in place.

Point three: VOIP service providers have an obligation to support social policies that the government has identified is in the public interest. This includes making sure that IP networks are compliant with industry standards for CELEA, E911 and access for the disabled, and that they contribute appropriately to Universal Service Funding. It is also appropriate for government to enact rules for VOIP services providers in these important areas.

With the history of computing and the Internet as a guide, extraordinary innovations are on the horizon for voice over IP. For example, we have a vision for how VOIP can improve E911 in ways that the PSTN simply cannot match.

Furthermore, VOIP shows promise as a killer application that will drive broadband penetration in this country. American companies, entrepreneurs and our capital markets have always been in the vanguard of technology innovation. Today they are again poised to lead the way in VOIP. But to be successful, however, these innovators and investors require a stable regulatory environment.

Remember, our leadership in computing and the Internet largely developed with little government regulation. I urge you to treat broadband and VOIP in much the same way. Congress has a real opportunity today to create an environment that will extend the country's long history of innovation into VOIP.

With that, I would be happy to answer any questions that you have, but thank you for the opportunity.

[The prepared statement of Ronald J. Vidal follows:]

PREPARED STATEMENT OF RON VIDAL, GROUP VICE PRESIDENT, EMERGING OPPORTUNITIES, LEVEL 3 COMMUNICATIONS, LLC

Thank you, Chairman Upton and members of the subcommittee for inviting me here today to share my thoughts on Voice over Internet Protocol (VOIP) services.

First I'd like to provide some background about our company. Level 3 owns a 23,000-mile fiber-optic long haul and metro network spanning both North America and Europe, which we built between 1998 and 2001 at a cost of $9 billion. Today it is one of the largest Internet backbones in the world.

Level 3 is less well known than some of the other telecom service providers here today. Besides being a young company, we sell our services on a wholesale basis to large communications and content companies, and do not sell directly to residential or business customers.

Today, we are a Fortune 500 company and our customers include:

- The ten largest communications carriers in the world;
- The nation's four largest local telephone companies;
- The nation's top 10 Internet Service Providers (ISPs);
- The six largest cable companies in the U.S.;
- Wireless companies serving more than 140 million U.S. subscribers;
- The 10 largest carriers in Europe;
- And many of the world's leading satellite companies, Internet content providers, media and entertainment companies, research and academic institutions, and government agencies.

Level 3 has been an industry pioneer in softswitch, the core technology of VOIP. In fact, we hold patents on a system and method for communicating voice and data over a packet-switched network that is adapted to coexist and communicate with a legacy Public switched Telecommunications Network (PSTN). Over the last five

years, we have carried over 250 billion minutes of dial-up traffic over our softswitch platform. We introduced the world's first carrier-grade, VOIP long distance service back in 1999, and today we offer a full suite of business, consumer and wholesale Voice-over-IP services to our customers. There is not a single circuit switch in our network.

Now let me turn to the regulation of VOIP.

It wasn't long ago that VOIP occupied the fringes of the telecom world—as a niche application of interest only to hard-core technologists.

Recently, however, VOIP has been able to replicate the quality of the public switched telephone network at far lower cost, while delivering new features and functionality not possible over older, legacy network systems.

Why is that?

First, we've had 25 years of incredible performance improvements in computers, software and hardware, all at affordable prices. Many of those technologies were invented and developed in districts represented by members of this Committee.

Second, and in parallel, the development and worldwide adoption of the Internet connected those computers in ways unimagined just decades earlier. Again, a set of technologies largely invented and developed in the United States.

Third, broadband has been rapidly adopted in businesses and homes, using many different technologies and many different service providers. With residential broadband adoption at over 20 percent, consumers in nearly every district represented by this Congress are voting with their checkbooks for the benefits of high speed Internet access.

Bottom line: All things digital are getting better, faster and more affordable, from word processing to entertainment. The fundamental technology building blocks are in now in place to extend those benefits to voice.

But the fate of Voice over IP does not rest with market forces or technology advancements alone. As most members of Congress know, government regulators will exercise significant influence over how VOIP technologies are deployed. I'm confident that technology questions will be answered by the market, but many remaining questions reside in the regulatory arena.

Today, there are misguided calls from some to regulate VOIP with the same policies that were developed for the PSTN, as a utility business. Others understand that VOIP requires a new approach more appropriate to the age of Internet Protocol, as a technology business. Twenty years ago, all calls were PSTN-PSTN. Perhaps 20 years from now, all calls will be IP-IP. But, for the foreseeable future, we will have two different networks connected to each other with different rules. As of yet, however, VOIP service providers, and their customers, continue to live in a kind of regulatory No Man's Land, with no clear direction from regulators.

This regulatory uncertainty, if it is prolonged, may undermine VOIP deployment in this country. Fortunately, many members of this committee and the House recognize this, and are acting to clarify the VOIP regulatory framework through bills like the one recently introduced by Congressman Chip Pickering.

As you consider a course of action, I would urge you to keep three points in mind:

There's a strong need for federal pre-emption. In the absence of clear federal rules, individual states PUCs have been begun issuing conflicting rulings on Voice over IP. Congress needs to occupy the field on this important issue. Recently, Commissioner Susan Kennedy of the California PUC and Commissioner Charles Davidson of Florida PSC have both asked FCC Chairman Michael Powell to have the federal government pre-empt state jurisdiction on VOIP.

Legislate with a light-hand. Congress should not force-fit VOIP into outmoded regulatory constructs devised for the PSTN, at a different time in history and to protect consumers from monopolies. In particular, the existing inter-carrier compensation regime creates irrational economic incentives that distort the market. In order to truly maximize the benefits of VOIP, a free-market economic model must be put in place.

VOIP service providers have an obligation to support social policies that the government has identified as in the public interest. This includes making sure that IP networks are compliant with industry standards for CALEA, E911 and access for the disabled, and that they contribute appropriately to Universal Service funding. It's entirely appropriate for government to enact rules for VOIP service providers in these important areas.

With the history of computing and the Internet as a guide, extraordinary innovations are on the horizon for VOIP. For example, we have a vision for how VOIP can improve E-911 by providing first responders with more accurate information as incidents develop, in ways that the PSTN simply can't match. Furthermore, VOIP shows promise as a "killer app" that will drive broadband penetration by enhancing the consumer value of broadband Internet service.

American companies, entrepreneurs and our capital markets have always been in the vanguard of technology innovation. Today, they are again poised to lead the way in VOIP, with new technologies and applications that will fundamentally change how we communicate. To be successful, however, these innovators and investors require a stable regulatory environment. Remember, our leadership in computers, software and the Internet largely developed with little government regulation. I urge you to treat broadband and VOIP in much the same way. Congress has a real opportunity today to help foster an environment that will ensure the country's long history of innovation continues with VOIP.

With that, I'd be happy to answer any questions you might have. Thank you.

Mr. UPTON. Well thank you very much.

I would like to say at the outset we are very appreciative of the member's attention, and I think we have had 25 members for opening statements and for much of the testimony. I am also very pleased that I followed the advice of Mr. Markey when I took the helm of this subcommittee Mr. Barton, that we have only one panel, not two. So I appreciate that.

A couple of questions. As Mr. Carlisle mentioned, the FCC's rulemaking asked the question as to whether the economic common carrier regulations are relevant for VOIP providers. And I would like to know if, maybe a yes, no, if there is a maybe perhaps. But we will go right down the row, Mr. Citron, do you think that common carrier regulations are relevant for VOIP provider?

Mr. CITRON. Absolutely not.

Mr. UPTON. Ms. Greene?

Ms. GREENE. Most of the common carrier regulations would not be. There are some very clear concerns about 911, USF, several others that have been mentioned.

Mr. UPTON. Mr. Jensen?

Mr. JENSEN. Common carrier rules probably are not in their entirety applicable. I think that is one of the complicating factors that we have and we need to work carefully on this through the future.

Mr. UPTON. Mr. Kirkland? You had better hit that mike button.

Mr. KIRKLAND. Sorry. Turned it off.

We believe that common carrier regulations should not apply to the service aspect of VOIP services. It is important, though, to distinguish that from the regulation of the underlying facilities over which they are carried. And we do believe there should continue to be obligations to unbundle facilities and provide access to competitors such as Covad.

Mr. UPTON. Ms. Martine?

Ms. MARTINE. We believe it should not.

Mr. UPTON. Mr. Nelson?

Mr. NELSON. Yes. I would agree with Ms. Greene that there are certain aspects of common carrier regulations that might apply, but for the most part we would support full scale common carrier regulations.

Mr. UPTON. Mr. Rutledge?

Mr. RUTLEDGE. We believe they should not apply.

Mr. UPTON. Mr. Vidal?

Mr. VIDAL. We believe they should not apply.

Mr. UPTON. Now, second question is is the regulatory uncertainty at both the State and the Federal level at all impeded the roll out of your VOIP services as you have looked at them.

Mr. Citron?

Mr. CITRON. Yes, it has. The clear uncertainty has made difficult for capital to be raised not only for service buyers like ourselves to deploy services, but also for the funding of the hundreds of different companies that will develop the technology and the equipment that goes into building these new advanced networks.

Furthermore, as we get attacked State by State, recently in New York and formerly in Minnesota and soon to be potentially from California, this gives us second thoughts about how we want to deploy our networks and where we should deploy those assets.

Mr. UPTON. Let me just ask as a follow up to that then part of your answer, Mr. Citron, if in fact it has impeded the unveiling of VOIP, what additional resources do you think you would need to deal with I guess you would have to say 51 different regulatory groups, 52 if you include the Federal Government.

Mr. CITRON. Yes. It's the opposite problem, is that right now we spend an inordinate amount of money in resources both internally and externally dealing with the regulatory landscape where for a company of our nature where a year ago we had 100 employees sit there and go with 51 jurisdiction PSCs, very difficult for us in order to allow us the freedom to really innovate and deploy resources in getting the service in the hands of Americans who really do need a national framework that provides clarity.

Mr. UPTON. Ms. Greene?

Ms. GREENE. Well, I feel Mr. Citron's pain here. We, too, believe that the lack of clarity has clouded our ability to invest at BellSouth. We need to have a national framework. We also need to have relief from computer inquiry rules which make us spend an inordinate amount of time deciding where we need to place investment, how that investment will be treated, how we need to classify, if there's anything we can do to protect from regulation. And then in addition, we need to have clarify and recognition of the fact that the broadband market is deeply competitive even at the network level and there needs to be a different hand in regulation.

Mr. UPTON. Mr. Jensen?

Mr. JENSEN. I think our challenge in ruling out the new services is more economic than anything else. We deal in one State. We have also had to up our regulatory and legislative representation, but we find it more on the Federal level than we do on the State level. We find ourselves coming to Washington much more than we did in the past, and that is a very costly trip for us. Our commission, on the other hand, understands what it is our customers need and to the extent that they can help us with the economics of rural America, they have been very helpful in this regard.

Mr. UPTON. Mr. Kirkland?

Mr. KIRKLAND. Yes. Covad uses a fairly limited set of unbundled elements including T1s and others in access to loops. And I think the fundamental uncertainty with the court decision around the disruption of that unbundling regime and the vacuum now does create uncertainty and inhibits our ability to invest. So we really look forward to the FCC, hopefully, working very hard to ensure a smooth transition with respect to fallout. But anytime you change the rules, you know, we raised private capital. We raised $125 million dollars to roll out VOIP, and we would like to know the ground rules that we are operating under both with respect to

regulation of VOIP itself, but also in the telecom regulatory framework in general.

Mr. UPTON. Ms. Martine?

Ms. MARTINE. Yes. We actually have been concerned about this because we think the Internet is not just a national opportunity for us, it is a global opportunity and uncertainty requires us to really establish a principle by which we invest our limited capital. So in some cases we have found the global reaction to our VOIP trials in some selective countries more open and predictable than we have seen so far in the U.S. But we definitely have a duty to our shareholders to ensure we invest in the most profitable opportunities for payback and we need to make certain we have servitude here.

Mr. NELSON. Yes. I would take issue with the fact that we may have 51 different forms of regulatory framework here. We really have just two models here. We have a lot of States who don't do anything on VOIP, who have made a decision not to regulate. Other States who have entertained a very light touch regulation focusing on consumer protection issues and 911. And I think it is important that certain cable companies have come in and asked for certificates. It is not a very onerous process, not very costly and the States can then have the discretion to decide how much regulation is warranted.

Mr. UPTON. Mr. Rutledge?

Mr. RUTLEDGE. As we made the investments in our cable system and expanded the capacity of those networks, we envisioned that we would have opportunities to involve ourselves in new telecommunication businesses. And, actually, making it work technically has been fairly simple.

The biggest issue we have, and we have been rolling out as fast as we can go, is that we really do not know what our costs our. And so we have a risk from a regulatory perspective that we are not sure of and cannot really quantify. And as that compounds, that creates issues for us.

So I think we need to go very quickly here and eliminate the risk of the marketplace that is caused by the regulatory uncertainty.

Mr. UPTON. Mr. Vidal?

Mr. VIDAL. Yes. I would just add anytime you are going to roll out a new product or service you have to ask yourself a few basic questions, such as what is it; how much does it cost to produce and how much can you sell it for in the marketplace. And whereas you can see a set of technologies available today that you can purchase and implement yourself, put them in a network, if it is strictly an Internet application such as email or supporting MP3 or any other myriad of Internet applications, that is a very straightforward answer to a fairly straightforward question. If, however, the application turns out to be voice, then you have to say what is going to cost for me to complete this set of packets over my network? You don't have an idea what your costs are, therefore it is difficult to figure out if you have an ongoing liability or not and what you should charge your customers for.

And part of this is also the fact that we need to interconnect these two disparate networks, as I mentioned in my testimony, that have completely different characteristics. And so we connect in

with the public switch telephone network, in our case, to 93 percent of the United States population also. That is also a fairly intensive activity in terms of dealing with every different telephone company and in front of every different State public utility commission. And so we would echo the fact that you do not know what your costs are and it is a laborious process to do so.

Mr. UPTON. Ms. Eshoo?

Ms. ESHOO. Thank you, again, Mr. Chairman for holding this hearing. And to all of the witnesses, thank you for your testimony.

I have four questions. The first one, and I am sure you have given thought to this but I do not know, I would like to hear what your thinking in preparation for this: In case of an emergency the telephone lines do not normally go down but the Internet can. What is the backup for voice over the Internet?

My second question is, and I think this is directed more to Covad and to AT&T, you are obviously bullish on voice over the Internet and you are moving quickly to make it available. Can you explain to what is left of the committee here today why you continue to need access to unbundled network elements?

My third question is to the FCC, and that is as we move toward a packet switched model for voice communications does not the contents of the packet become less and less relevant? I mean when do we get to the point where an email and a phone call are given equal treatment and subject to similar regulations?

And my last question, I think to Covad, is what are the alternatives to reach the last mile for most residential customers? If you are unable to negotiate that with an ILEC, what can you do to provide service?

So those are my four questions, and let us make time for whomever to answer them. Whoever would like to start on the whole issue of an emergency and voice over the Internet.

Mr. CITRON. Sure. I will take the first one.

First, one point in fact, POTS lines do go down, and they go down and 911 does not work.

Point two in fact, PSAPs, people who operate 911 response centers, do go down. We all remember New York City lost their entire 911 operation for almost an entire day due to a technical malfunction.

Third point. The Internet itself was designed in a manor in which for single point to failure. In theory, and in practicality, the Internet is much more resilient to any kind of disaster or problem which allow for the seamless of rerouting of packets in real time. Now, I will admit the last mile of these networks are all——

Ms. ESHOO. But what do you do about electricity?

Mr. CITRON. Electricity is a great question.

Ms. ESHOO. Well, that is my question.

Mr. CITRON. Sure. No. In the area of electricity, our customers who have that concern will use a battery backup. These battery backups are available two ways. One, increasingly imbedded in the physical devices and, two, also stand alone units that can provide an easily 8 hours worth of standby power in the event of a power outage.

Ms. ESHOO. Does anyone else want to respond briefly—because I have three other questions.

Mr. RUTLEDGE. At Cablevision we offer a similar battery backup for modems, but we also—you have to consider our cable plant itself is powered by the power grid. So if power goes out, we have built battery backup into our cable system at all the power supply locations that allows 4 hours of standby power.

The other thing that we have done, though, by upgrading our networks we have made them a lot more reliable. And we explain to our customers the kind of reliability we have built and we have done that through our high speed access business. So when we sell a voice over IP products we explain to customers that they are getting the same kind of reliability they get on their high speed access service. So they have a way of judging what they are buying. And so we think there is a marketplace expectation. Many customers also have cell phones today, in fact the vast majority of our customers have cell phones with similar E911 capabilities so that——

Ms. ESHOO. I wish there were more.

Mr. RUTLEDGE. [continuing] if there is a failure, it can work in.

Ms. ESHOO. Being very familiar with it.

Ms. MARTINE. I would like to support Mr. Rutledge's comments.

Ms. ESHOO. Yes.

Ms. MARTINE. We have seen also with customers full disclosure matters. Clearly with the amount of customers today that have broadband and in fact have taken advantage of web services it is very clear about 911 capability. We have actually marked it on the TA so people are fully aware of that.

Most customers who are early adopters and very technologically savvy have suggested, as Mr. Rutledge suggested as well, they have backup services with mobility services if their house phone does not work and they happen to have a VOIP phone as well, they go to their car if their cell phone is not working and charge it up. So that has not been barrier.

But again, we have to remember this is not a service that we expect all 100 million households in America to adopt overnight. This will take time and people will self-select who are willing to deal with those issues.

Ms. ESHOO. Yes. I think it is a good point to raise, though, given our heightened sensibilities about emergencies now.

Maybe we can get to the other three questions.

Mr. KIRKLAND. Sure. Maybe I'll take since you have a question in there for us.

Ms. ESHOO. Okay. Be as brief as possible.

Mr. KIRKLAND. Yes.

With respect to the emergency service issue, again this is the importance of facilities-based competition. Covad manages its own network, so the Internet goes down, our network goes down. Whereas, I think where you are relying on the facilities of a second provider, you are not in a position to control that critical input. So having multiple people doing that.

With respect to access to UNIs, the 1996 Act set forth a very flexible framework to manage the transition from local monopoly to competition. That transition is still at a very early stage, just like VOIP is at a very early stage.

We serve small businesses who often have only one option, which is the phone company, and we provide those small businesses with

an alternative. There are still consumers out there who do not have access to multiple alternatives. So, until there is full competition unbundling the framework of an Act is still critical.

We are looking at things like wireless, those technologies are available in very, very small percentages of the country. So there is really not an alternative to that ubiquitous phone network at this point.

Mr. STEARNS [presiding]. The time of the gentlelady has expired.

Ms. ESHOO. I did not make an opening statement.

Mr. STEARNS. I think we gave the extra time to you, as I understand. Did we do that?

We do not have you recorded as being here when the opening statement—it did not record you with an extra 3 minutes. That is what the staff shows.

Chairman BARTON. Well, Mr. Chairman, could I ask unanimous consent that the gentlelady from California have 2 additional minutes.

Mr. STEARNS. Yes. She has asked four questions, Mr. Chairman, and I am just thinking if all four questions are answered, it will be well over. And I would be glad to do what you suggest. I am just trying to in deference to all the other members that are here that if she has four questions, that we should try—and those questions can be submitted for the record to her and not necessarily take the entire time to answer those four questions. But if that is your——

Chairman BARTON. She should not ask such hard questions, see.

Mr. STEARNS. Yes. Yes. So——

Ms. ESHOO. By the time we comment on this we will use up another 3 minutes. So it is up to you gentlemen.

Mr. STEARNS. Mr. Chairman, what is your unanimous——

Chairman BARTON. I would yield to whatever the——

Mr. STEARNS. Well, I would say at this point the other three remaining questions that I suggest the panel submit those to us for the answer, and possibly we might have a second round.

With that, I would go to the chairman.

Chairman BARTON. Well, I do not want to cutoff the gentlelady. I would be happy to yield my time to the gentlelady from California.

Mr. STEARNS. The gentleman yields his time.

Ms. ESHOO. Mr. Chairman, you are enormously generous.

And I would just ask that two be answered in writing and that the gentleman from the FCC just briefly comment on the question to him, and then I will yield back.

Thank you very, very much, Chairman Barton.

Mr. CARLISLE. I can do so very briefly.

You asked when content of a packet becomes irrelevant. We are already there. That is the central issue in why this is an important and controversial debate.

You can look at VOIP from the point of view of telephony and say it looks like what a telephone does, or you can look at it from the point of the Internet and say it is one bit stream just like any other bit stream on the Internet and why are we taking that one bit stream out and treating it differently from email and file sharing and web browsing?

We are already there.

Ms. ESHOO. Thank you.

Thanks again.

Mr. STEARNS. I thank the gentlelady.

And the chairman is recognized for a remaining 4 minutes.

Chairman BARTON. I did have four questions, but I am just going to put one of them on the record and if we have time, I will get the others.

I am going to go to what I call the $64,000 question. Does everybody on this panel support a Federal bill that would preempt State regulation of VOIP? And if somebody says no, why not?

Mr. Nelson?

Mr. NELSON. Yes, Mr. Chairman. My testimony indicates that we believe there are certain meaningful roles the States can play in this debate, again under a light touch regulatory policy but working in cooperation with the Federal regulators as well. Such things as I have indicated, the enforcement of 911 provisions, the consumer protection provisions that we have outlined in our testimony and the interconnections agreements that have to be made between right now wireless companies and wireline companies, between CELECs and ILECs. Those same types of agreements can be arbitrated between VOIP providers and traditional wireline companies under the auspices of State commissions.

Chairman BARTON. Okay. Other than the person who regulates the State PUCs, does anybody oppose a Federal bill?

Mr. JENSEN. Mr. Chairman, I do not know that I would oppose a Federal bill if it were in concert with allowing input from the States.

I come from Nebraska, and we were required to provide equal access a number of years ago, we had long distance providers crop up faster than the dot.com mania that went around. And there were hearings for certification and rural setup. And as far as I know, we had one long distance company that locked its doors over 1 weekend and just abandoned the customers that they had signed up. I think that is a pretty good record when you consider all the number of people that were there.

I think our State commissions have the opportunity to know what my customers much more quickly than perhaps in Washington, DC. And our customers would have much greater access than they would having to come to Washington to work on quality of service, universal service and the other myriad of——

Chairman BARTON. Well, I think any Federal bill that passes is going to have adequate input from State regulatory authorities. But ultimately there has to be one final arbitrator, and it just seems to me self-evident that a service is not only national and interstate, but international, it seems to be an absolute no-brainer that there should be a Federal statute.

Now I understand what the gentleman is saying and I understand what you are saying, but when we created the existing telephone system, I mean there was obviously it was done on a monopolistic model based on local service and State service with some interstate service. I am old enough to remember when somebody said you had a long distance phone call, that was a big deal and you went right to the phone because you are getting charged a

$1.00 or something and it must be important; somebody had died or been born or something had happened because you just did not make long distance calls other than that.

Mr. JENSEN. One statistic that I might bring to your attention, and if I have it correctly it is subject to check, but 73 percent of our customers do not make an interstate phone call.

Chairman BARTON. Yes.

Mr. JENSEN. And so there is a lot of intrastate that goes on in our States, and I believe the State commissioners are useful in determining what should be happening there.

Chairman BARTON. My last question, I will put the others in the record, assuming that there is going to be a Federal bill that preempts State regulation, do we need to put a definition in the bill explicitly certifying in which cases these services are FCC jurisdictional? In other words, do we need to put a definition that defines an information service if it is purely a local loop, purely within a physical headquarters location or that that is not jurisdictional but if it goes across State boundaries or between buildings, or between different entities. Do we need to define what is jurisdictional if we pass a Federal statute or is that not necessary? Who wants to answer that one?

You want to think about it? I want to ask that they submit—get their lawyers to give them a credible answer to put that in the record, Mr. Chairman. And I have several other questions I will submit for the record.

And I yield back.

Mr. STEARNS. Thank you, Chairman.

Mr. Boucher?

Mr. BOUCHER. Thank you very much, Mr. Chairman. And I also want to thank the witnesses for taking their time today to educate us with respect their views on this very important matter.

I think it is has become increasingly clear that we are going to legislate with regard to Internet-based communication services in the next Congress. And I have perceived from your testimony basic anticipation of that legislation. And so I have several questions that are directed toward what the various elements of that legislative approach should be.

I think that in answer to Mr. Barton's question and to some of the previous questions including those of Ms. Eshoo, you have commented on whether or not there should be exclusive Federal authority. You have probably also commented to some extent on the need for basic consumer protection regulation. I heard Mr. Nelson comment on that.

And by the way, Mr. Nelson, the Stearns-Boucher Bill does leave open the opportunity for basic consumer protection regulation. That certainly is our intent.

So let me start by asking three basic questions, and you can make notes on these if you would like, and I appreciate your response to these general principles and whether or not you think a bill should contain them.

First of all, would you agree that we need a broad framework that encompasses all Internet-based communications, not just VOIP but a broader framework that, for example, would encompass video-based communications when the services that accommodate

that emerge in the future. That way we would not have to come back and legislate again and again every time there is a new Internet-based more sophisticated and capable Internet application.

As a second matter, would you agree that we should clearly say that these advanced Internet-based communication services are neither information services nor telecommunication services so that we make a clean break from the current regulatory regime into which existing services are required to fit?

And then third, would you agree that we should treat the offerors of all of these advanced services equally so that a cable service that is identical to a telephone service does not receive treatment from a regulatory standpoint that is different from that which the telephone services receives? Should we declare regulatory parity and neutrality with respect to all broadband platforms offering advanced communication services?

I have some other questions which I will also submit for the record, but those are the three that I would quickly like to have your responses to. And please be as brief as you can.

Mr. Carlisle, would you like to begin?

Mr. CARLISLE. Certainly. I would agree first that we should be looking at a broad framework again out of administrative efficiency if nothing else. The IP-enabled services NPRM was written deliberately to have a broad scope so once we issue an order, when somebody shows up with video and voice over IP we do not have to go back and formulate an entirely new regulatory system.

So a broad scope makes sense, although we have to be concerned about making sure that we do not then fade over into unintentionally regulating vast other portions of the Internet that have never been subject to regulation and nobody reasonably would argue that they should be brought into any regulatory regime.

Second, should we say they are neither information or telecom services and make a clean break? The NPRM raises these questions, and I think under our current rules there may be flavors of VOIP that clearly could be considered information services. I think the larger question, though, is whether we want to make a clean break.

In my written testimony I make the statement that I believe we should not be getting trapped into the definitional fight as opposed to figuring out what kind of world we actually want to live in for these services. And that would argue for a more sophisticated approach that allows a higher level of nuance to be applied to these services.

You may not want to say everything is a telecommunication service or everything is an information service. You may want to acknowledge there are different flavors.

And finally, should we treat all providers equally? I think there are very strong arguments for regulatory parity between industry actors that are in a similar positions. If you have two actors who are investing hundreds of millions if not billions of dollars in infrastructure, there may be very good arguments to say treat them the same, otherwise the regulation is driving investment in a specific direction.

Mr. BOUCHER. Thank you, Mr. Carlisle. I think we are going to move along given the time.

Mr. Citron?

Mr. CITRON. Thank you. One, yes, we do agree that there needs to be a broad framework that gives us all application that live above the physical layer.

I cannot give a comment as to whether we need to make a clean break from a telecom service or information service what is clear is it is definitely not a telecom service.

On the final point, regulatory parity. That is a very difficult question as you echo Mr. Carlisle's comments. Clearly, we have to recognize that voice over OP is not the same as wireline, and thus there never can be regulatory parity. Much in the same way, the wireline and wireless networks are not the same, and thus there is no regulatory parity there either. But within inside anyone in the industry, VOIP players against VOIP players, then clearly regulatory parity should exist.

Mr. BOUCHER. Thank you.

Ms. Greene?

Ms. GREENE. Yes, yes and yes.

Mr. BOUCHER. Thank you, Ms. Greene. That is the kind of answer I was looking for. You get the gold star.

Ms. GREENE. Thank you.

Mr. BOUCHER. Mr. Jensen?

Mr. JENSEN. I concur with Ms. Greene.

Mr. BOUCHER. Wonderful. Can we move along? Thank you very much.

Mr. Kirkland?

Mr. KIRKLAND. Yes, yes and it depends.

Mr. BOUCHER. Well, elaborate on depends just briefly.

Mr. KIRKLAND. Yes. I think, again, the distinction is to the extent people are providing like services, if BellSouth is providing the same service as Covad, as Vonage, then clearly regulatory parity should apply. I just think we need to be very careful about identifying situations in which market power still exists, people do not have alternative facilities. And the fact that those facilities may carry traffic that is IP or is voice over IP does not necessarily change the equation on market power——

Mr. BOUCHER. I understand. You want unbundling and interconnection to meet that. I understand it.

Ms. Martine?

Ms. MARTINE. Yes, but it is interesting VOIP is something that is being the catalyst to ask this question. There are many other applications on the Internet that are not regulated.

Mr. BOUCHER. So that is three yeses or one yes?

Ms. MARTINE. No, that is just the first one.

Mr. BOUCHER. I'm sorry.

Ms. MARTINE. The second one is yes.

And the third one I think we have not had a lot of time to digest your bill, but I think there are some issues that I support Mr. Kirkland's points with regard to IP UEL and facilities-based competition. We can't have the RBOCs being advantaged and the others not capable of supporting.

Mr. BOUCHER. Thank you.

Mr. Nelson?

Mr. NELSON. Yes. I would say yes, no and yes. And I can explain the no.

It is our position that many VOIP services should be classified as telecom services, such as Ms. Martine's service was classified by the FCC earlier this year. And it does not make any difference I think whether the digital conversation occurs in the network or at the customer location, as with Mr. Citron's product. But, having said that, there should be some forbearance because of the nature of this technology so that the full scale of common carrier regulation, as I indicated earlier, should not be applied.

Mr. BOUCHER. Thank you.

Mr. Rutledge?

Mr. RUTLEDGE. I think the answer to the first question is probably no that I think that most communications, most video will ultimately end up in an IP format. And so I just think that there is a opportunity now to get this nascent business off the ground with VOIP voice communications. But to take all IP and subject it to a new paradigm, I am not sure where that would go.

The classification question I am not sure matters.

And the last question, VOIP is not a traditional voice service and not a legacy telecom service. And we think it is a completely different product. And so if we were doing is lumped under the kind of treatment that currently exists to traditional phone companies, that would not be good.

Mr. BOUCHER. Okay. Thank you very much.

Mr. Vidal?

Mr. VIDAL. Yes. On the first no.

On the second we need to see a bit more details.

And on the third, regulatory parity presumes a parity amongst size, breadth scope of offers and I am not sure that is exactly the situation that——

Mr. BOUCHER. Yes. Let me say, Mr. Chairman, I appreciate your indulgence. And I am not going to ask another question in view of the time.

But, Mr. Vidal, I am surprised by your answer to the first one, and I would like to have an exchange with you——

Mr. VIDAL. Certainly.

Mr. BOUCHER. [continuing] subsequentially either verbally or in writing as to why you would say. That really does surprise me.

Mr. VIDAL. Certainly.

Mr. BOUCHER. Thanks to each of you. And thank you, Mr. Chairman.

Mr. STEARNS. The gentleman's time has expired.

Mr. Shimkus?

Mr. SHIMKUS. Thank you, Mr. Chairman.

Two questions that I will just put out in the open and for submission, because this line of questions has raised a question in my mind and a point I want to discuss.

Would you respond back to the committee who should be responsible to make sure that Voice over Internet Protocol service also includes E911 service? Is that something the State commissions, the FCC or the industry have to tackle? And it is listed on the questionnaire E911, but E stands for enhanced, which means cellular. We are eventually going to go to laptops, probably voice over IP.

So if you have got a laptop somewhere accessing enhanced 911, I mean do you have to have a GPS chip?

This is a great hearing because of all the different aspects.

So answer that for me if you can.

And the second question is can you tell what you are doing to make sure that consumers who use Voice over Internet Protocol service also can access 911, E911 services? If Voice over Internet Protocol services not today capable of supporting enhanced 911, when you believe you believe you will have E911 capable service?

Now, the question that has stirred my thoughts in this is a whole facilities-based discussion, which reminded me of other facility-based debates that we have had here, whether it was Tauzin-Dingell, my facilities-based discussion in telecommunications after visiting with Chairman Upton at the Verizon building after September 11. The Verizon building is right across the World Trade Towers, which had great damage. Verizon, obviously being a big company, could get that up and running relatively quick. Talks about entrenched regional Bells being able to reconnect where when you have what is not facility-based, how does a competitor who is using parts of the system get up?

So, the first question, and I know that Mr. Kirkland has said he is a facility-based operation; would anyone else claim to be a facilities-based operation by whatever definition you want to define that? And you can help education us on that?

Yes?

Mr. CITRON. Yes. Vonage would be considered a facilities-based operation with the perspective that we deploy network assets into the network but acts as bridges, both to bridge the current IP network to the legacy PSTN network, to also bridge to other IP networks and of course finally to also bridge to next generation wireless networks.

Mr. RUTLEDGE. Cablevision is also a different kind of facilities-based network in a sense that we have our own plant, our own wire that goes to every customer we serve. And it is complete and differentiated from the public switch network. So it is truly a facilities-based network.

Mr. SHIMKUS. So that is why your answers to some of these questions deal with if it is the regulation aspects under traditional phone regulation would not in your opinion be appropriate because you are not using the regular phone systems?

Mr. RUTLEDGE. That is correct. Now, we actually terminate calls to the public switching network——

Mr. SHIMKUS. Right.

Mr. RUTLEDGE. [continuing] through a CLEC that we happen to own called Lightpath, which also provides redundancy to the public switch network to big companies in New York, for instance, that want redundant routing in case there is an emergency of some kind. So we are actually in the business of selling redundancy as a communications business.

But separate from that we have a cable television network which is also capable of this IP communication system. And so we are selling IP communications on a cable network which is separate and distinct from the public switch network, which we do connect to, though.

Mr. VIDAL. If I may, I think it is worthwhile so we are all on the same page here, for what would be a consensus of facilities-based, right? Is it facilities-based in what used to be called the local loop or in the local access system, is it facilities-based in the long haul, is it facilities-based in the international, is it facilities-based inside the premise on each end?

In our particular case our facilities are literally about 36 inches deep across almost 23,000 miles of property in North America and Europe. I mean, we would consider that to be facilities-based. At some point in time there is going to be a facility there. It depends on who owns it, who has control of it and/or who is reselling it.

So I think maybe a definition or at least a consistent definition might be useful.

Mr. SHIMKUS. Just confirms my statement that I always make that the more you learn, the more you realize you do not know. It is a great job of being a Member of Congress.

Thank you.

Mr. STEARNS. The gentleman's time has expired.

The gentleman from Florida, Mr. Davis?

Mr. DAVIS. Thank you, Mr. Chairman.

My first question is for those of you who think that the Congress needs to act urgently to preempt State regulation. My question is which of you think that Congress needs to proceed urgently to preempt State regulation and if so, why do you think that is urgent?

Mr. RUTLEDGE. Cablevision thinks that you should act urgently because we are rapidly growing our business by thousands of customers per week in our service area and we really do not know what the regulatory treatment will be, what our costs are really going to be. You know, we are making estimates but we have no assurance that the cost estimates that we put in our business models are in fact correct. And as that base of customers gets bigger and bigger, the risk to us gets greater and greater. So we would like certainly.

Another thing is that we operate in the New York metropolitan area, which happens to be 3 States. So we have one television marketplace, one community with three different States that have potential regulatory authority and yet we are selling a single product and servicing a single product across that entire service area. And so we think that in order to get the same quality and the same pricing across our footprint, that you urgently need to preempt in this particular limited way for VOIP.

Ms. MARTINE. I would like to support that position. In addition to the comments made about the 3 States, many of you know VOIP is a mobile service so you could sign up for service in New York and move to Florida and keep your phone number. We need to have Federal regulation so that you do not have Florida regulating one way if you happen to live there then and a different way when you signed up for the service in New York. So it is very critical that there is national policy on this so you do not subject yourself to customer confusion and dissatisfaction saying I do not understand these are the rules under which I bought the service, why is not changing. And one of the features is mobility in addition to unlimited local and long distance service.

Mr. CITRON. I would like to echo the statements of Ms. Martine and Mr. Rutledge. I would also like to add that Vonage operates and has customers in all 50 States inside the United States. And from our perspective, we have already been attacked by a number of State regulators to try and take voice over IP and put it into common carrier regulation. Of course, we have successfully fended off all such attacks to date but at a price, and a very expensive price that causes us to rethink which markets we are going to go ahead and deploy assets in.

Ms. GREENE. Well, I do not disagree with anything that the previous witnesses have said in response to your question. I think that those are all reasons why we need to have a Federal policy. It is important that we get a timely Federal policy, but there are some real issues here about consumer protection that need to be addressed comprehensively and fully. It is more important to get it right than to get it done quickly.

Mr. JENSEN. If I might add just one more element. My segment of the industry being very rural and high cost serves 7 percent of the population of the United States, but we serve 40 percent of the land mass. And, unfortunately, many times in Washington and other places they forget about us when they are talking about all of the rules and regulations and parameters that you need to work with. And it just seems to me that a comprehensive rewrite rather than a piecemeal rewrite would better serve our customers in rural.

Mr. CARLISLE. I'll just briefly say that in a letter dated July 6 to Congressman Pickering, Chairman Powell stated: "The time has come for Congress and this Commission to confront the legal and policy environment for IP-enabled services, including VOIP services."

As I mentioned in my oral testimony and in more detail in my written testimony, the FCC can act and is moving forward to act as best we can. And it is a top priority for the Bureau to work on this. However, there are limits to our flexibility and if Congress believes that we need more sophisticated tools, then we are certainly in favor of Congress acting.

Mr. VIDAL. If I may, I would like to add just an add on to that, which is if we look at the problem from a different perspective, and that is the benefit of delay or is there a benefit of delay? So far we have heard a lot of comments about why there should be a benefit to moving quickly and I think my definition of quickly would implicitly include an accurately and correctly and rightly. But I have yet to hear an argument that suggests that the strains that VOIP is putting on universal service or the reduction in wireline access line counts is going to slow down anytime in the future. I do not see any indications from anyone that said that the consumers are going to turn around and not continue to operate in which they have been operating.

Thank you.

Mr. NELSON. Let me just add, if I may, I would support Mr. Jensen's call for a comprehensive review of the situation. The two States that have been most active, Minnesota and New York, have been enjoined by Federal courts. So there really is no urgency in my view.

Mr. DAVIS. For those of you that advocate a slower approach, a more comprehensive approach which I certainly understand, would you agree that this Congress could be at that issue for 2 or 3 years and that as time goes by, some States will at least begin to regulate all of you in terms of the delivery of the VOIP and further complicate the issue?

Mr. JENSEN. I can speak for one State; I would not see them as wanting to complicate the issue terribly. Their goal, like ours, is to get these services out as quickly as possible yet maintain the consumer protections that need to be there; CALEA, 911, TDD and these types of activities plus the quality of service. So, from our perspective I do not think that would be a problem.

Mr. NELSON. I would agree with that, too. I think most States are like Nebraska in that regard. They want to see this technology develop and they are not going to put unnecessary roadblocks in the way.

Ms. GREENE. Since I did put a caveat on my response to your question, this issue cannot go 2 or 3 years without being resolved.

Mr. CITRON. Well, from Vonage's perspective, the one who gets all the inquiries from the States, we do not have 2 or 3 years to wait. It will take that long and clearly if we listen to other commissioners in States, while Nebraska may—I am not sure if you are speaking for Nebraska, but whereas Nebraska may not act, may not move, surely Susan Kennedy from California has told us that California will regulate and trying to force a common carrier relation on voice over IP if the Federal Government does not step in, and I expect other States will follow.

Mr. DAVIS. I think all of us here appreciate your alls expression of confidence and how quickly this Congress can act on the broader rewrite. I hope you are correct.

But for those of you who all that advocate preemption at whatever particular time and as part of a particular package, should there be some carve out for State regulation in matters such a fraudulent advertising or billing?

Mr. RUTLEDGE. Yes. I think that you can certainly preempt VOIP regulation at the State level while not undercutting any of the consumer protection laws of the States. And, obviously, different States treat different consumer issues legally differently. And we already live in that world and are prepared to continue to live in that world. So I do not think that promoting this legislation as it is currently written you will undercut the State's authority generally to protect consumers.

Mr. CITRON. I would like to echo Mr. Rutledge's comments and further state that Vonage would not be opposed to States taking on that role. But just to make this committee aware that the States already have that role. Vonage today is already subject to a number of State laws throughout the land that deal with things like truth in advertising and other disputes that may arise with constituents that live with inside that State.

Mr. CARLISLE. If I may point out, if you think about it from the perspective of a function operating on a computer, for example, if you have a problem with your spreadsheet program or you have a problem with your word processing program, that is subject to action by State attorneys general enforcing consumer protection laws.

That does not necessarily need something like common carrier regulation as an additional layer in order to protect consumers.

You can think of it similarly for VOIP. We have asked those questions about consumer protection within the NPRM. We will be receiving comment on that, and considering it seriously.

Mr. DAVIS. Thank you.

Thank you, Mr. Chairman.

Mr. STEARNS. I thank the gentleman.

The gentlelady from New Mexico, Ms. Wilson.

Ms. WILSON. Thank you, Mr. Chairman.

I would like to yield 3 minutes to my colleague from Mississippi, Mr. Pickering.

Mr. PICKERING. I thank the gentlelady from New Mexico.

And I just have a quick comment, and it is basically focused on our most recent conversation here.

Everyone knows a broad telecom reform act will be very intensive and it will take at the minimum from today 3 years. I do not think anybody here who has ever done telecom policy has ever thought that we could do a broad telecom reform in the next year. At the very least it will take both years of the next Congress to get to comprehensive reform.

The other reality is that most people project that VOIP is going to have a rapid emergence in the marketplace. Some project up to 30 percent of the U.S. market will be voice over Internet within 3 years. That gives us great urgency to try to get where we have consensus. Where we have consensus among the industry from BellSouth to AT&T to cable to Covad to wireless where the lions and the lambs have lain down together is Federal preemption. And for the certainty of capital and for the certainly of new competition we need to in this Congress in this year go forward on the Federal preemption.

Now what else does that mean? In 911 my friend John Shimkus and Anne Eshoo both raised questions on public safety. We can have an industry led process with a date certain to make sure that everyone knows that we will have E911 and public safety as we have preemption.

To my friends at the State level, I would say we want to affirm that you continue to have consumer protections against fraud. And nothing in this bill or in a preemption would undermine that.

To my friends in rural areas, and I am from a rural area, this is not only a catalyst for capital and competition, but this would be a catalyst to reach universal service reform that will be sustainable.

We need to do the preemption now. We can do it in a way that acknowledges the USF intercarrier comp relationship between VOIP and the public switch telephone network. We can do those things, find consensus, move forward quickly so that we can unleash this new application, the capital, the competition and find ways to make sure that we do it in a reasoned wise way as it relates to public service, universal service or public safety, universal service and law enforcement.

Mr. Chairman, I would hope that we could find a way to get it done this year because if we wait, it will be 3 years and the market and the technology cannot wait that long.

Ms. WILSON. I had a couple of questions that I wanted to ask with respect to this technology, but I am in an interesting position of watching our incumbent telephone company in New Mexico do some really innovative things.

About a week ago they announced, Qwest announced that it is going to start offering Voice over Internet Protocol to business customers, and not just in places like Casper, Wyoming and Albuquerque, New Mexico and Billings, Montana but the list of cities that are going to be covered in their first year, 22 cities included Baltimore and Boston, Washington, DC and San Francisco, Seattle, Los Angeles, San Jose so that it is a nationwide business footprint from an incumbent carrier offering voice over IP. It is an interesting approach to business. And I also understand that they have a different way of charging carriers, voice over IP carriers for access charges.

And, Mr. Citron, I wanted to ask you how Qwest does access fees differently than other incumbent carriers and what that means? How does this work?

Mr. CITRON. Sure. Well, we are not 100 percent sure yet on how it is going to work. We have read Qwest's public announcement that they would no longer charge access fees on terminating VOIP traffic. We have contacted Qwest regarding that offering and we are currently in active discussions about putting together an interconnection agreement that would take advantage of that item.

I would welcome the opportunity to report back to you on the progress of those negotiations.

Ms. WILSON. I would be very interested in that and what that means. Because it looks as though we have one incumbent company that is kind of out there on the leading edge of this change of being both, a voice over IP offerer nationwide and an incumbent carrier. And I would be very interested to see what kind of business model you come up with that as that goes along.

I also understand that Qwest is offering something they call naked DSL, which is where a subscriber can purchase DSL from Qwest without also having to buy the local service form Qwest. And I wanted to ask Ms. Green does BellSouth plan to offer DSL on a stand alone basis to somebody who may want to come in and just buy DSL from BellSouth or do you believe that consumers who want to get DSL should also have to subscribe to BellSouth's local phone service?

Ms. GREENE. We do not currently offer naked DSL. Our DSL subscribers have to have our voice service at this point in time. But it is something that we are always looking at. Because as the wireless market matures, a stand alone DSL is a product that may be something that we need to put into the marketplace. We do not currently offer it.

Ms. WILSON. What do you think about another ILEC coming into your territory and offering VOIP?

Ms. GREENE. You know, one of the things that is interesting about your question and the thought that was going through my mind is we tend to think about the ILECs and the telecommunications industry as a monolithic industry, and we are not. We are very different companies. Each of us have different business plans. And one of the problems that we have with the current regulatory

regime is it treats everybody, including all the CLEC customers as if they have the same business model.

In fact, Qwest has the bulk of its revenues now, I believe, come from its long distance operation. And it in many ways are much more like Level 3 than it is like a BellSouth.

So each of our companies are different and we no longer have a monolithic telecommunications industry.

Ms. WILSON. Mr. Rutledge, I wanted to ask you does Cablevision require cable modem customers to buy VOIP service from Cablevision.

Mr. RUTLEDGE. No. In fact, most of our modem business was developed before we launched VOIP. So the vast majority of our modem customers do not have yet to buy VOIP.

Ms. WILSON. But if a cable modem subscriber wanted to get VOIP from one of your competitors——

Mr. RUTLEDGE. Oh, they do and can. Some of them are Vonage customers or AT&T customers. Yes, we do not prohibit them.

Ms. WILSON. Thank you.

I think this is one of the most interesting issue facing telecommunication, and it likely to cause tremendous changes in the way that we are able to communicate with friends and neighbors and do business around world. And I think I agree with my colleagues here on both sides of the aisle that this is an issue we will have to deal with sooner rather than later, because if we delay too long we end up preempting certain business models without giving guidelines up front as to what the rules of the game should be.

And I thank all of you for your time and helping to educate us.

Thank you, Mr. Chairman.

Mr. STEARNS. Then gentleman from New York, Mr. Engel.

Mr. ENGEL. Thank you, Mr. Chairman.

Mr. Pickering before he left gave an impassioned plea for Congress to act quickly saying that if we did not, it would take 3 years for us to do a total rewrite. My experience, I do not necessarily disagree with what he said, however my experience in Congress has told me that sometimes there are bigger and broader issues and you can use the need to deal with the smaller issue as a catalyst to deal with all the issues.

My concern would be that if we start dealing with VOIP on its own, that we never quite get to the total rewrite because there is really no impetus for doing that.

I do not know that we should try to keep plugging holes in a law that was written for the analog age with digital age Band-Aids. I think that we might be better to address this in context of a larger rewrite. I know that Mr. Davis, others, have asked the questions and that many of you have responded. But I am wondering if anybody else would care to comment?

Ms. GREENE. Well, you have more articulately expressed what my concerns are. Voice over IP is a tremendous pressure point in an obvious kind of sexy new technology. It is symptomatic of the tremendous disruption that the telecommunications industry has undergone. And to treat VOIP by itself I think could possibly be a mistake.

Mr. ENGEL. Well, anybody else?

Ms. MARTINE. I would suggest that this is a very new and nascent technology. As I mentioned, there are several hundred thousand customers and to overly handicap that with regulation at this stage we think is unnecessary and not relevant.

It needs the opportunity to grow without being handicapped by old regulation policies that were done in a very age of the telecommunications business where there was monopolistic incumbency to which degree is still in place, by the way.

Mr. CITRON. If I might add, if we do not take action in a relatively short period of time, not 3 years, something less than 3 years, there is a big risk of this issue will be oppressed to the point where all the new competitive players that come to the marketplace, both old world and new world companies, will be permanently impaired. And that would be unfortunate because the benefit of VOIP to consumers is very dramatic.

Mr. ENGEL. Let me ask Mr. Rutledge who was about to speak——

Mr. RUTLEDGE. Well, I was just going to say that—thank you, Congressman Engel. That a lot of customers, thousands of customers a week in our area are adopting this service. And so it is a very attractive product and it is rapidly becoming the communications choice of the New York marketplace. And so to impede it while granted there are lots of telecommunications issues that have to be resolved and there are a lot of open questions that are quite complicated in this changing landscape that have to be dealt with, we are really looking for an opportunity here to set a level field and set a ground work so we can develop this business and add a lot of value to consumers. And then over the period of time that it will take to develop the rest of the regulatory regime, I think you are going to have rapid adoption of this service. And so I think it would be a shame to hold up regulatory reform in the meantime for this particular application.

Mr. ENGEL. Mr. Rutledge, let me ask you, because I am a Cablevision consumer, I have it in my apartment in New York and I am told that 11,000 people just in my district alone have already signed up for VOIP, which is an——

Mr. RUTLEDGE. That is correct.

Mr. ENGEL. [continuing] unbelievable phenomenon. For your VOIP service you chose to deliver all your calls to a traditional telecommunication service provider called Lightpath. Can you tell us why Cablevision chose this business model.

Mr. RUTLEDGE. That is right. Well, it is because as customers make calls to each other, to the extent that the 11,000 customers in your district call each other, there is no actual termination of those calls anywhere outside the cable system. But in order to call someone who is on NYNEX or Verizon or SBC, or any other local exchange carriers in our service area, you have to terminate the call on their network. And so you have to have an interconnection agreement and you have to pay for that termination.

And so Lightpath is Cablevision's CLEC, and it is licensed tariffed company that has interconnection agreements. And so in order to actually transmit the call to the public switch network, we have to go through a regulated entity to do that. And that is why we chose the business model we did.

Mr. ENGEL. Thank you.

I am wondering if I could ask Ms. Greene a question. I'm quoting your testimony, and you stated that "we believe the legislation should not, as these bills both do, address only a single application such as VOIP as Congress will if this approach is taken surely wind up having to legislate on each flavor of new communications technology." That is what I asked before. Now, you said that you support a more holistic approach, and I do as well. My concern is funding for the E-rate program, but I want a clear level playing field that it is capable of being adapted to new technologies. So those are my goals that I mentioned before for a rewrite.

What are the top issues that BellSouth believes Congress needs to address?

Ms. GREENE. Well, I think that we need to have a Federal unified perspective. We need to be sure that the continuing support for access charges and universal service is a burden that is shared equally. We need to have technology neutral platforms and not isolate out an application without dealing with the underlying service networks and service providers as well. And then there are some very real social concerns.

I do not think that we want to have responsibility on our consumers to know whether or not the phone that they are picking up is 911 capable or to run out in the yard and pick up the cell phone if something happens. I think those are very real social concerns and they need to be addressed.

Mr. ENGEL. Okay. Thank you.

And thank you, Mr. Chairman, for your indulgence.

Mr. STEARNS. Mr. Buyer?

Mr. BUYER. Thank you for the help with the clerk.

I am going to ask some questions and we are going to go right down the line with the questions.

First question is, and we do not need long answers here, what is the right statutory classification? The IP-enabled services and VOIP, are they telecommunication services or are they information services? So just tell me; telecommunication services or information services. And we are going to go right down the line. Start with the FCC.

Mr. CARLISLE. Well, it depends on the flavor. Under our current rules some might be telecom services, as we found the AT&T service to be. Some might be information services as we found pulver.com's Free World Dialup to be. We have asked questions as to how the regulations might change.

Mr. BUYER. Next?

Mr. CITRON. Sure. Vonage's service should be an information service.

Mr. BUYER. Next?

Ms. MCCARTHY. I agree with Mr. Carlisle. Right now we do not have a clear way of separating. Whoever put in their testimony we need a Title 1.5, I think that I agree with that.

Mr. BUYER. All right.

Mr. JENSEN. I would go call them telecom, but I am not sure it makes any difference. I think they are still carried across our network and they need to be handled and charged the same as if they are all the same.

Mr. BUYER. Okay.

Mr. KIRKLAND. In Covad's view VOIP applications are generally information services.

Ms. MARTINE. At AT&T they are information services because they are stored content interacting with advanced features.

Mr. BUYER. All right.

Mr. NELSON. Any service that connects that PSTN should be the telecommunication service.

Mr. RUTLEDGE. At Cablevision we think they are an information service and are acting accordingly.

Mr. VIDAL. Yes. And last but not least here, if we think about things that have a computer on one end that transmits out Internet protocol, packets; it sure looks like an information service to us.

Mr. BUYER. Now with the CALEA, since CALEA does not apply to information services, should Voice over Internet Protocol providers comply with CALEA? Go right down the line, yes or no.

Mr. CITRON. Yes.

Ms. GREENE. Yes.

Mr. JENSEN. Absolutely.

Mr. KIRKLAND. Yes, and we do it today.

Ms. MARTINE. Yes.

Mr. NELSON. Yes.

Mr. RUTLEDGE. Yes, and we do it today.

Mr. VIDAL. Yes.

Mr. CARLISLE. Yes.

Mr. BUYER. Thank you for the confusion.

I do it but do not classify me as information services. Mmm.

To BellSouth, you just answered a question just a few moments ago about a shared burden, and I suppose you are referring to avoiding cost shifts that occur in the marketplace since you and others bear a pretty strong burden with the national telephone network. And if there is not a shared burden, then you obviously are shifting costs to customers. Is that what you were referring to?

Ms. GREENE. Well, really, there is two different levels that I am talking at. One of them is that there are the social costs of 911, CALEA and also universal service support. Those are things that are enjoyed by the wireline telecommunications industry today. But in addition to that there is the burden the social pricing that we have as an industry, meaning that we have a 100 years of social pricing where business subsidizes residential and urban subsidizes rural, and our State commissions still exercise control over our retail pricing. Access charges were put in place to help offset some of that burden. So our position is that if VOIP or another application that has a telecommunications substitute flavor and accesses the public switch telephone network, that access charges should apply at that.

Mr. BUYER. Well, let us go right to this one. How should Voice over Internet Protocol providers compensate local exchange carriers for the use of the public circuit switch telephone network? How should that be compensated? Go right down the line.

Mr. CARLISLE. We have already stated in the Pulver.com order and also in the NPRM that we believe services that use the PSTN in a similar manner should compensate it in an equitable way.

Mr. CITRON. Vonage believes that there needs to be broad based reforms on intercarrier compensation and until such time of reforms, it would be difficult to burden us with a method of compensation. For example, it can cost as much as .14 cents to terminate a call intrastate, yet to terminate a call just a few miles away may be as low as half a penny. The system is clearly broken and it needs to be fixed. But once it is uniform and national and treats all participants fairly, we would be glad to participate.

Ms. GREENE. And I do not disagree that there needs to be intercarrier compensation reform. But in the meantime, services like VOIP do not ride over air. They ride over existing networks.

Mr. JENSEN. There may be a need for intercarrier compensation reform, but today we must be compensated for people that use our network, especially in rural.

Mr. KIRKLAND. We agree that there are fundamental issues that need to be resolved. For example, mobile carriers terminate and use the ILEC network and pay a lot less than access charges. This is a new technology and it really should not be subject to a legacy regime. The legacy regime should be reformed.

Ms. MARTINE. We agree that the regime needs to be reformed and we should treat this traffic like ISP traffic is treated when they are terminate with an ILEC facility today.

Mr. NELSON. We at NARUC have embraced the need for intercompensation reform. And in that context we believe that there should be some contribution from all VOIP providers that touch the network.

Mr. RUTLEDGE. WE are currently paying on the unreformed intercarrier compensation structure and do think it needs to be reformed. But we are paying under it.

Mr. VIDAL. Yes. A clear agreement that the intercarrier compensation mechanism is broke and getting more broken by the day. In fact, we took the step about 6 or 7 months ago of filing a forbearance petition at the FCC for IP calls. One of the provisions that we believe is a key provision is to make sure that access charges continue to get paid to those rural carriers that currently have the rural exemption.

Mr. BUYER. Thank you.

Ms. Greene, what are you doing at BellSouth to offer the Voice over Internet Protocol to your customers and business and your consumers?

Ms. GREENE. We have several business services that we have put into the marketplace, both for our enterprise customers and small and mid size businesses. We are exploring putting voice over IP into our mass market consumer offer.

The problem that you have as a legacy company is that right now the functions that are available using voice over IP technology are not compelling to our customers. The price point is compelling to our customers. And I think that is why you have a lot of customers are making the move right now primarily for price. But we are constantly looking at the technology and we are also looking at how we can use voice over IP technology to transform our own cost structure to be able to better serve our consumers.

Mr. BUYER. So to an earlier question, you would consider offering a broadband service an a VOIP even if they did not sign up for your local service?

Ms. GREENE. We are considering it. We do not have that offer in place today.

Mr. BUYER. All right. Thank you.

Mr. STEARNS. Mr. Walden?

Mr. WALDEN. Thank you, Mr. Chairman.

Mr. Kirkland, I believe you said a couple of times that VOIP should not have to pay for the legacy costs of the network, is that correct?

Mr. KIRKLAND. No. In response to the last question, the question was should VOIP pay access charges. And I said that there is a legacy structure or framework that needs to be reformed. And as Ms. Martine pointed out, information services do not pay access charges now. As I said, the mobile carriers just as an illustration pay a different set of charges and access charges.

So my point was just to reform that legacy structure and, as I think, we are willing to pay to cover those costs if they are cost based. But part of the problem is they are not cost based right now.

Mr. WALDEN. But you would not be in any hurry necessarily to start paying those charges?

Mr. KIRKLAND. Well, from Covad's standpoint, you know we enable voice over IP carriers. We will be terminating traffic and we do expect that we will be paying access charges under the existing rules of the FCC in certain circumstances. So I was addressing what I thought the right outcome was.

Mr. WALDEN. I see.

Mr. KIRKLAND. And we pay for services from the ILECs all the time. We use their network on a regular basis and pay the costs for that.

Mr. WALDEN. All right. Ms. Martine, one of the issues I have is Universal Service Fund. I represent a very, very rural district, some areas less than one person per square mile. And I know there was comment made earlier, I think by Mr. Rutledge, that you cannot have VOIP without broadband.

And I guess the question I have is connecting those two. And the concern I have is that I think VOIP is going to take off like wild fire in the west in the summer for those who have access to broadband. And how do we maintain access to phone service at all in the very remote areas if you narrow that base of subscribers on the ILECs over the old legacy network, how do you maintain that infrastructure? Because it would seem to me if I am an ILEC in that model, it is the last group that I am going to have to deal with at all if the new wave of technology is over here on VOIP. What happens in these rural areas?

Cable will be there to the extent it is practical. But let us face it, you are not going to string out into some of these service areas, or if you did your investors would probably have you. So what do we here on Universal Service Fund?

And perhaps Ms. Martine, you could start, because I am curious about your comment about doing it by phone number and the affect that has in interindustry. Who loses——

Ms. MARTINE. Well, thank you for the question.

I think we believe that the USF regime needs to be reformed because the industry has changed from when it was first set up. We believe that the economics, and we could describe this to you in a formal writing if you would like, is just by using phone numbers or some other equivalence where you charged a fixed rate per number so that wireless companies, VOIP companies, telephone companies are all required to pay that, it is not like anyone gets a free ride. If you have a number, they have to pay a dollar or some associated fee that is recommended. And we believe there could be equivalence in the USF to that number, but it is not going to require—with declining interstate revenues, there is no way for USF to keep up with what the numbers used to be unless the numbers paid go up. And I think that is unfair to those carriers that are currently involved in intrastate that they have to pay more just because the overall utilization is going down.

So we want to see equality for wireless companies as well as traditional phone companies, as well as VOIP providers that everyone should be required to pay, not just those that do interstate.

Mr. WALDEN. All right.

Mr. VIDAL. Congressman Walden, it seems to me that one way of the many ways to look at the Universal Funding debate is financially as there are sources of cash that fund that program and there are uses of cash which are disbursements that are made to the high cost fund, to the low income fund and to Internet for Schools, etcetera, and a myriad of other programs.

Mr. WALDEN. For just Mississippi. No. Go ahead.

Mr. VIDAL. I did not quite get all that.

But it seems to me that the concentration today is on the sources of funds, not necessarily on the uses of funds. As near as I can tell, there is about $6.5 billion a year that goes into and out of the Universal Service Administrative—and it is distributed out by high cost, low cost and Internet to Schools. And I am not so sure I have heard anybody suggesting that the sources of funds—that the uses of funds should be different. It is just how do you fund a program——

Mr. WALDEN. No, I understand that.

Mr. VIDAL. Yes. And so I think to go back to the idea of there needs to be another mechanism, whether is on numbers or something that is a nondiscriminatory non-arbitrage type of funding mechanism that could stay in place for a long time so we are not back here in a few years.

Mr. WALDEN. Okay. Anyone else? Mr. Jensen?

Mr. JENSEN. One way to work through USF problem, and it is a problem and it is becoming worse and worse, is to enhance the number of participants that contribute to that fund as they utilize it. In other words, you use it you pay for it and help with the USF Fund.

One of the problems I have with Ms. Martine's analysis is I am not sure that that sends correct pricing signals. If you have flat rate, I am afraid that that would send some incorrect utilization of the resources that we have available and it needs much more discussion. But we need to enlarge the contribution base.

Mr. WALDEN. And Mr. Rutledge, tell me cable's role in USF, what it should be, what it is?

Mr. RUTLEDGE. Well, today we pay USF fees through the interconnection agreements that we have and through our Lightpath subsidiary which does call terminations in both directions.

But I do think that we do need a mechanism that will support the needs of the country. About 88 percent of the country through cable is serviceable with high speed access, so broadband. That leaves well over 10 million homes that are not. And what the communications technologies in those homes should be, what the most appropriate way to do it is, I really do not know. But we recognize that something has to be done. And so picking the appropriate mechanism to subsidize I think is also important. And we are willing to work out an equitable payment structure as an industry and contribute to that. But we need to work with you in doing that.

Mr. WALDEN. Do you have recommendation on what you would like to see on the cable side?

Mr. RUTLEDGE. I do not think we do today, but we would be glad to make some.

Mr. WALDEN. Okay. I would welcome those, from all of you, actually. Because I think this is an issue—well, I know it is an issue that the committee is going to address. It is one we need to address just as we need to address the whole regulatory framework governing telecommunication and voice. I mean, I cannot tell the difference between a packet of voice and a packet of data. It is all the same thing, it seems to me, technologically when it goes down the line or through the airwaves, or whatever. And it seems to me we have got these legacy regulations that every time we had a new development in telecommunication, we regulated it differently. And that, you cannot change this it seems to me without having winners and losers. If you change how USF is collected, somebody on this panel is going to benefit and somebody is going to lose, it seems to me. So I think we are going to have to balance this out so that it is fair, but in my mind there are going to be winners and losers. And the key is to make sure the consumers benefit in the end and we do not totally upend the business structure somewhere.

So I thank you for your testimony. It has been most helpful.

Thank you, Mr. Chairman.

Mr. STEARNS. I thank the gentleman.

My turn is next.

Mr. Carlisle, let me talk to you. California was one of the first and few States in the Nation to declare VOIP to be a telecommunication service. Now we have had other members ask how many people think VOIP is an information service. And we did not have a complete agreement on the panel here today.

I guess the question would be for you assuming that we have to come up with a Federal bill for a preemption that almost everybody agrees on, should we not come up with almost a new definition that would include voice, video, high speed data; and it might be something new? And I suggest that something new might be where you would take a letter and put it into the Internet function and it would have a dictation mode, and you would call up and it would come in and it would be dictated. So I could have a voice over delayed in which the computer would speak to me from a letter from you from yesterday.

Now, that is still voice over the Internet. But there are so many different things you could emerging technologies. Should we not rewrite the Telecom Act of 1996 to include maybe a new definition for voice, data, video and this emerging possible new technology? That way we would get out of this California deciding that it is a telecommunication service, Nevada an information service, Virginia a telecommunication and we would not have this disagreement. Why do we not go above all this and give it a new name and new regulation and set in place a new rewrite of the Telecom Act? What is wrong with that or is that okay?

Mr. CARLISLE. Well, one of the problems with the current structure that we have under the Act is that everything depends on an off/on switch. Is it a telecommunication service, is it an information service. So the dynamic that that creates is, is that groups that want to have a specific regulation applied say it is a telecommunication service without regard to any of the other number of things that might flow from applying that definition. It is a very sort of broad, sort of meat cleaver way toward approaching regulation.

Now we do have some flexibility. We can forebear from applying regulation to telecommunication service, and we may have some ability to apply regulations under our ancillary jurisdiction to an information service. But again, these are sort of making up for the fact that the structure is bipolar.

If Congress were to tackle this issue, I think a very useful way of starting is to avoid that debate entirely and define it as something different. Start from the point of view of what kind of regulation you want to have apply to it, if any, and define the service appropriately. That is a simpler way of approaching it. It starts from the ground up as opposed to——

Mr. STEARNS. Can I use your words? Then you would say if you were in the driver's seat and you could determine what would happen, you would go back to the Telecom Act, rewrite it such that you would establish what you want and then put it all into a new structure? Are you suggesting we rewrite the Telecom Act to take care of this?

For example, we have this intercarrier compensation system that they are asking forbearance for, you know. I mean, we just have this constant reiteration of problems. Should we not just come up with a whole new process here and rewrite it?

Mr. CARLISLE. Well, I think the FCC has ability under the current Act to address many issues in intercarrier compensation and Universal Service Fund.

Mr. STEARNS. So you think you can solve all these problems that we have talked today through the FCC?

Mr. CARLISLE. About VOIP today.

Mr. STEARNS. Yes.

Mr. CARLISLE. I think we can provide a certain amount of clarity. And when I say "certain amount," we can provide a lot. But we have to acknowledge that whatever we do we are going to be sued. There are going to be people who do not agree with our interpretation and implementation of the Act. So ultimately clarification will depend on whether whatever we do can be sustained in the courts.

Congress may also have to weather scrutiny in the courts. But, obviously, you have much more flexibility to start out from ground zero and buildup.

Mr. STEARNS. Mr. Rutledge, if your cable modem system was subject to regulation as the other transmission providers are, would you still be able to roll out the services as quickly as possible?

Mr. RUTLEDGE. First of all, we think the 1996 Act was generally successful and that you have a very competitive telecommunications marketplace. You have true facilities-based competition. You have the broadband roll out that has occurred since the Act was put in place. You have multiple competitors. And now you have very low cost voice services on a facilities-based competition level being provided.

So we think the Act needs some tinkering, and we think this particular bill is appropriate, but not necessarily a whole rewrite.

Mr. STEARNS. No, I do not mean a whole rewrite, but just maybe establish in the area of VOIP and video and data that we come up with a new name that includes the telecommunication service, information services and just blend them in together and then just have one establishment, a new definition and a new regulation that applies to everybody who is dealing with those services?

Mr. RUTLEDGE. Well, I guess I would have to see that.

Mr. STEARNS. Yes. I know. I know. I know.

Mr. RUTLEDGE. Before I said it was a good idea.

Mr. STEARNS. Yes.

Mr. Vidal?

Mr. VIDAL. I guess the key question here is how good do we think we are going be at in predicting the future. Right? In 1996 we thought we had a pretty good crystal ball into the future. And as I have heard someone say today, the Internet was given only collateral treatment in something that took 3 years to build.

So, what kind of accuracy can we build into the future for things not yet invented? I mean, VOIP was exactly this type of not yet invented a few years ago.

I would also submit to you I think that VOIP today may look a bit like an overnight phenomenon, but the stresses that have been occurring on the intercarrier compensation scheme, the seeds of those were sown long along. VOIP just happens to bring it to a head.

And I am not trying to get a particular answer on this as much as trying to raise a question, which is how should you treat things that have yet to be contemplated? Because whereas in the telephone industry, which I think was largely a centrally planned economy with centralized standards, bodies that met every couple of years over at the International Telecommunications Union. Today you have technologists around the world with a lot of capital or little capital building servers themselves and writing applications.

It just seems to me that it is tough to get ahead of the curve.

Mr. STEARNS. Anyone else? We have no more series of questions and we are getting to close out the hearing. And if there is anyone else who wanted to make a few concluding comments, we are very respective to that.

If not, we are not appreciate your time and effort.

Yes, Mr. Vidal?

Mr. VIDAL. Yes. I just wanted to leave with one thing, and that is that we have talked about a lot of things whereas voice over IP needs to be able to be backward capable into what the public switch telephone network functionality is today, like E911, CELEA, etcetera. But I would urge you to consider the fact that we may miss a golden opportunity if we do not think about the things that VOIP can do that the PSTN simply cannot do.

What is possible, for instance, in the E911 community if you are dispatcher is significantly different with VOIP than it is with simply getting a screen pop on a computer that shows a dialing number and a street address. We think that there are significant opportunities to increase public safety, to increase first responder safety, to bring interconnection in amongst organizations that have never had interconnection before.

So I would urge you to think that no only should we consider what we do to be backward compatible to the existing system, but to also give our imagination an opportunity to prosper into what is possible.

Mr. STEARNS. On that positive note, the subcommittee will adjourn.

[Whereupon, the subcommittee was adjourned at 1:11 p.m.]

[Additional material submitted for the record follows:]

W.J. "BILLY" TAUZIN, LOUISIANA
RALPH M. HALL, TEXAS
MICHAEL BILIRAKIS, FLORIDA
FRED UPTON, MICHIGAN
CLIFF STEARNS, FLORIDA
PAUL E. GILLMOR, OHIO
JAMES C. GREENWOOD, PENNSYLVANIA
CHRISTOPHER COX, CALIFORNIA
NATHAN DEAL, GEORGIA
RICHARD BURR, NORTH CAROLINA
ED WHITFIELD, KENTUCKY
CHARLIE NORWOOD, GEORGIA
BARBARA CUBIN, WYOMING
JOHN SHIMKUS, ILLINOIS
HEATHER WILSON, NEW MEXICO
JOHN B. SHADEGG, ARIZONA
CHARLES W. "CHIP" PICKERING, MISSISSIPPI
VITO FOSSELLA, NEW YORK
STEVE BUYER, INDIANA
GEORGE RADANOVICH, CALIFORNIA
CHARLES F. BASS, NEW HAMPSHIRE
JOSEPH R. PITTS, PENNSYLVANIA
MARY BONO, CALIFORNIA
GREG WALDEN, OREGON
LEE TERRY, NEBRASKA
MIKE FERGUSON, NEW JERSEY
MIKE ROGERS, MICHIGAN
DARRELL E. ISSA, CALIFORNIA
C.L. "BUTCH" OTTER, IDAHO
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Washington, DC 20515–6115

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July 19, 2004

Mr. Jeffrey Carlisle
Senior Deputy Bureau Chief
Wireline Competition Bureau
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Dear Mr. Carlisle:

On July 7, 2004, you testified before the Subcommittee on Telecommunications and the Internet in a hearing entitled "Voice Over Internet Protocol Services: Will the Technology Disrupt the Industry or Will Regulation Disrupt the Technology?" We now ask for your help on several additional questions (attached).

Because we wish to include the questions and responses in the printed record of this hearing, please respond no later than Wednesday, July 28, 2004. Please fax and e-mail the response. The faxed response should be directed to William Carty, Committee on Energy and Commerce, Majority staff, at 202-226-2447, and Voncille Hines, Committee on Energy and Commerce, Minority staff, at 202-225-5288. The e-mail copy of the response should be directed to (William.Carty@mail.house.gov) and Voncille Hines (Voncille.Hines@mail.house.gov). Due to the uncertainties of postal deliveries on Capitol Hill, we ask that your response not be sent through the postal service.

If you have any questions, please have your staff contact either Gregg Rothschild or Pete Filon, Minority Counsels to the Committee on Energy and Commerce, at 202-226-3400.

Sincerely,

JOHN D. DINGELL
RANKING MEMBER

Attachment

cc: The Honorable Joe Barton, Chairman
Committee on Energy and Commerce

The Honorable Fred Upton, Chairman
Subcommittee on Telecommunications and the Internet

The Honorable Edward J. Markey, Ranking Member
Subcommittee on Telecommunications and the Internet

Federal Communications Commission
Office of Legislative Affairs
Washington, D.C.20554

September 8, 2004

VIA HAND-DELIVERY

The Honorable John D. Dingell
Ranking Member
Committee on Energy and Commerce
2328 Rayburn House Office Building
Washington, D.C. 20515

Dear Congressman Dingell:

On behalf of Jeffrey Carlisle, attached for your review and handling, please find the written responses to the questions you submitted regarding Voice over Internet Protocol Services (VoIP) in connection with the Committee's July 7, 2004 hearing on VoIP.

The questions transmitted touch on important issues of universal service and 911 service. The Commission, under Chairman Powell, remains absolutely committed to advancing the digital migration in a way that will preserve the important goals of universal service and advancing important social policies like emergency 911 service. In our current proceeding, we are endeavoring to explore every aspect of VoIP service to ensure that our policies advance this new technology for the benefit of this nation's consumers in a way that also advances universal service, homeland security and access for the disabled community.

Please find the responses to your specific questions attached, which will also be transmitted electronically under separate cover by my office. If you have any questions or concerns, please do not hesitate to contact my office.

Sincerely,

Paul J. Nagle

attachment

Rep. Towns's Universal Service VoIP Questions:

1. **Many of my constituents do not have dial-up service let alone high speed Internet, so V-O-I-P is not an option for the foreseeable future for them. Because consumers migrating to V-O-I-P are likely profitable customers who use call waiting and other upgrades, which in effect subsidize costs, how will this growing migration affect the price of phone service for low-income or elderly consumers who just rely on basic phone service?**

As communications transitions to new infrastructures, the Commission has been clear that universal service remains a non-negotiable top priority. In its *IP-Enabled Services NPRM*, WC Docket No. 04-36, the Commission sought comment on whether providers of IP-enabled services, including VoIP providers, should contribute to the federal universal service mechanisms. We are currently reviewing the hundreds of comments and replies that were filed in late May and July, respectively. If the Commission determines that IP-enabled services (or some subset of IP-enabled services such as VoIP service) are interstate telecommunications services, by statute, those service providers must make federal universal service contributions in accordance with Commission rules. If the Commission determines that VoIP service is an information service, the Commission sought comment on whether it should exercise its permissive authority to require facilities-based providers to contribute to universal service. Given the significant issues concerning VoIP that remain pending at the Commission, it would be impossible for us to quantify what effect the growing numbers of consumers choosing VoIP service would have on the price of basic phone service.

Please be assured, however, that the Commission remains committed to the goals of universal service and to fulfilling its congressional mandate to ensure that quality services remain available at just, reasonable, and affordable rates. For example, in April of this year, the Commission released an order expanding eligibility criteria to enable more consumers to participate in the Commission's low income programs. Moreover, low income customers do not pay universal service fees. Because of these measures and our continuing work, I am confident that as networks continue to evolve, Americans who most need affordable access will continue to receive it.

2. **Your testimony suggests that there may come a time when voice service would be nothing more than an application and function like an add-on service. This presumes that consumers have a high-speed or broadband internet service to add on to. Does this change the long-term nature of the type of services universal service should support?**

As provided in the statute, the definition of universal service is "an evolving level of telecommunications services that the Commission shall establish periodically . . . taking into account advances in telecommunications and information technologies and services." In establishing (and modifying) this definition, the Commission and the Federal-State Joint Board on Universal Service (Joint Board) must consider certain factors, including whether such services: have been subscribed to by a substantial majority of residential consumers; are being

deployed in public telecommunications networks by telecommunications carriers; and are consistent with the public interest, convenience, and necessity. Two years ago, the Joint Board considered and declined to include advanced services in the list of services eligible for universal support. The Commission adopted the Joint Board's recommendation last July. Consistent with our congressional directive, the Commission and the Joint Board shall continue to revisit the definition of "universal service" and, of course, the types of services that should receive universal service support. Certainly, over the long term, it may very well be that technological change will drive a reexamination of the appropriate level of and mechanisms for support.

Rep. Eshoo's E911 Question

1. **One of the issues this Subcommittee has worked hard on during this Congress is making sure that consumers using wireless phone can access E-911 service. Can you tell me what you are doing to make sure that consumers who use VoIP service also can access 911/E-911 services? If VoIP service is not today capable of supporting E-911, when do you believe you will have an E-911 capable service?**

The Commission takes the public safety concerns related to emerging VoIP services very seriously. On March 10, 2004, the Commission issued the comprehensive *IP-Enabled Services Notice of Proposed Rulemaking* to examine in detail the public interest issues related to IP-enabled services, including access to emergency services by VoIP users. In that *Notice*, the Commission specifically sought comment on the potential applicability of 911, Enhanced 911 ("E911"), and related critical infrastructure regulation to VoIP and other IP-enabled services. On March 18, 2004, the Commission held a Solutions Summit specifically to address 911/E911 issues related to VoIP services. In multiple proceedings before the Commission, state and local government commenters have expressed concerns regarding public safety considerations related to VoIP and the current technical limitations of VoIP services in providing access to 911/E911 services. In addition, VoIP providers have described their current 911/E911 capabilities as well as efforts underway to enhance these capabilities. Indeed, the National Emergency Number Association has reached a voluntary agreement with a number of VoIP providers on approaches to provide VoIP subscribers with basic 911 service and to work together to develop solutions that may lead to VoIP subscribers receiving E911 functionality. We also are fully aware of the several VoIP-related bills pending in the House of Representatives and Senate. Against this backdrop, the Commission is carefully considering the public safety issues presented by emerging VoIP services, in particular access to 911/E911 emergency services, and is endeavoring to take action on this issue as expeditiously as possible.

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BUD ALBRIGHT, STAFF DIRECTOR

ONE HUNDRED EIGHTH CONGRESS

U.S. House of Representatives
Committee on Energy and Commerce
Washington, DC 20515–6115

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CHARLES A. GONZALEZ, TEXAS

July 19, 2004

Mr. Jeffrey Citron
Co-Founder, Chairman and Chief Executive Officer
Vonage Holdings Corporation
2147 Route 27
Edison, New Jersey 08817

Dear Mr. Citron:

On July 7, 2004, you testified before the Subcommittee on Telecommunications and the Internet in a hearing entitled "Voice Over Internet Protocol Services: Will the Technology Disrupt the Industry or Will Regulation Disrupt the Technology?" We now ask for your help on one additional question (attached).

Because we wish to include the question and response in the printed record of this hearing, please respond no later than Wednesday, July 28, 2004. Please fax and e-mail the response. The faxed response should be directed to William Carty, Committee on Energy and Commerce, Majority staff, at 202-226-2447, and Voncille Hines, Committee on Energy and Commerce, Minority staff, at 202-225-5288. The e-mail copy of the response should be directed to (William.Carty@mail.house.gov) and Voncille Hines (Voncille.Hines@mail.house.gov). Due to the uncertainties of postal deliveries on Capitol Hill, we ask that your response not be sent through the postal service.

If you have any questions, please have your staff contact either Gregg Rothschild or Pete Filon, Minority Counsels to the Committee on Energy and Commerce, at 202-226-3400.

Sincerely,

JOHN D. DINGELL
RANKING MEMBER

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cc: The Honorable Joe Barton, Chairman
Committee on Energy and Commerce

The Honorable Fred Upton, Chairman
Subcommittee on Telecommunications and the Internet

The Honorable Edward J. Markey, Ranking Member
Subcommittee on Telecommunications and the Internet

Questions for Mr. Jeffrey Citron
Co-Founder, Chairman and Chief Executive Officer
Vonage Holdings Corporation
from the Honorable Anna G. Eshoo
Committee on Energy and Commerce
regarding the July 7, 2004, Subcommittee on Telecommunications
and the Internet Hearing entitled
"Voice Over Internet Protocol Services: Will the Technology Disrupt the Industry or Will Industry Disrupt the Technology?"

1. One of the issues this Subcommittee has worked hard on during this Congress is making sure that consumers using wireless phone can access E-911 service. Can you tell me what you are doing to make sure that consumers who use VoIP service also can access 911/E-911 services? If VoIP service is not today capable of supporting E-911, when do you believe you will have an E-911 capable service?

VONAGE
THE BROADBAND PHONE COMPANY

August 3, 2004

The Honorable John D. Dingell
U.S. House of Representatives
2328 Rayburn House Office Building
Washington, DC 20515

Dear Ranking Member Dingell:

I am writing to you in response to the question you posed during the July 7 hearing on VoIP regarding the deliver of emergency calls from IP-enabled devices. As you are aware, the advent of VoIP poses difficult technical hurdles for the delivery of emergency calls.

To this end, Vonage commends this subcommittee for looking at these technical issues and believes that it should take an entirely new approach when evaluating various technical and operational issues with delivering IP-based emergency calls. There are several principles we must rely upon when discussing potential solutions to the technical issues we are faced with.

Phone numbers no longer have geographic significance. Because services like ours work over the Internet, they use IP addresses instead of phone numbers to determine where to route the call or where it's coming from, posing a significant problem for the 911 call routing system which relies upon phone numbers to determine geographic location. Because VoIP users can move their service, they are able to originate calls from anywhere, thus removing all geographic significance from the phone number the VoIP service happens to be using at that time.

IP-enabled services are nomadic and cannot recognize geographic boundaries such as counties, cities, states or even countries. The existing 911 system was designed for stationary devices, not ones that users can move around, posing routing issues as well as location information issues for the delivery of 911 calls.

The existing 911 call routing system was created in a monopoly environment. Changes in the telecommunications marketplace through the advent of

wireless phones and competitive local exchange carriers have resulted in a patchwork quilt of work-around solutions for delivering 911 calls. This patchwork of localized band-aids is incredibly limited when tasked with handling IP calls which use numbers that move around, as you are well aware this is the case with wireless services. Just as wireless devices roam, VoIP devices may not be local and contain new location information on an hourly basis, forcing several pieces of information to be dynamically provisioned into the databases dispatchers use.

But even as we confront these hurdles, Vonage and the VoIP industry have forged ahead, outside of a regulatory or policy mandate, making great strides in the area of social policy by developing basic 911 systems and instituting testing programs with several progressive states.

Vonage has taken a leadership role in the area of VoIP emergency calling, by becoming the first non-geographically-based VoIP provider to adopt a basic 911 solution. With our partner Intrado, we were the first ever provider to enable a nomadic, IP-enabled service to access emergency services. Vonage currently makes this solution, which utilizes customer provided address information to route the call across the internet and then the public telephone network to the geographically appropriate emergency calling center's administrative telephone number, available to all US customers. But the success of this solution is dependent on customers' accurate entry and updating of their physical addresses as they move from location to location. Otherwise, because VoIP users move their devices around and Vonage relies only on IP addresses to route the calls, physical locations are unknown.

Although we have made great inroads with our novel basic 911 solution, Vonage is not stopping here. Development is already under way with National Emergency Number Association (NENA), Network Reliability and Interoperability Council (NRIC), the FCC, and 911 boards in several states including Minnesota, Rhode Island and Washington, to test and provide advanced E911 technical solutions to the VoIP industry. Discussions are progressing in Texas (Harris County), Florida (Palm Beach County) and Massachusetts to implement several different E911 VoIP alternatives as well. The most progress has been made in trials where either all network elements are controlled by the local public safety entities, as in Rhode Island, or where local public safety officials are

successful in obtaining carrier cooperation through political or regulatory pressure (as in the cases of Minneapolis-St. Paul and King County, Washington).

Looking beyond the E911 capabilities of today, VoIP will revolutionize the capabilities of the 911 system of tomorrow through innovative data delivery solutions. In the future, VoIP will enable new IP-based "i911" systems that would allow for the transmission of medical data, patient history, comprehensive location information like floor plans and other valuable information to emergency field personnel. While this might sound like a pipe dream, these dreams are quickly becoming a reality.

The circuit switched infrastructure which the 911 call routing system has relied upon since the 1970's has experienced little innovation since its inception. New entrants like our service cannot be shoehorned into the existing infrastructure. With the advent of VoIP, the 911 call routing system must be re-examined keeping in mind new, more advanced capabilities and opportunities an IP environment can provide, but also enabling the same E911 functionality while we manage this transition. To begin this transformation to a better emergency services system we need the help of policy makers like you to gain access to elements of the current 911 system as well as encouragement to build a new, nationalized system for advanced services.

During your investigation into VoIP, we urge you to keep two key principles in mind. First, VoIP is an interstate service – like the Internet itself. Second, VoIP is an information service. If we insist on trying to force-fit VoIP into an archaic emergency calling system, then we are discouraging, rather than encouraging, innovation. We can, however, meet our collective goal of protecting consumers by seeking a unified national solution that recognizes the rapid growth of the Internet and the critical role it has come to play for consumers throughout the world.

Sincerely,

/s/ _____

Jeffrey A. Citron
Chairman and CEO
Vonage Holdings Corporation

W.J. "BILLY" TAUZIN, LOUISIANA
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July 19, 2004

Ms. Margaret H. Greene
President, Regulatory and External Affairs
BellSouth Corporation
675 W. Peachtree Street, N.W., Suite 4503
Atlanta, Georgia 30375

Dear Ms. Greene:

On July 7, 2004, you testified before the Subcommittee on Telecommunications and the Internet in a hearing entitled "Voice Over Internet Protocol Services: Will the Technology Disrupt the Industry or Will Regulation Disrupt the Technology?" We now ask for your help on several additional questions (attached).

Because we wish to include the questions and responses in the printed record of this hearing, please respond no later than Wednesday, July 28, 2004. Please fax and e-mail the response. The faxed response should be directed to William Carty, Committee on Energy and Commerce, Majority staff, at 202-226-2447, and Voncille Hines, Committee on Energy and Commerce, Minority staff, at 202-225-5288. The e-mail copy of the response should be directed to (William.Carty@mail.house.gov) and Voncille Hines (Voncille.Hines@mail.house.gov). Due to the uncertainties of postal deliveries on Capitol Hill, we ask that your response not be sent through the postal service.

If you have any questions, please have your staff contact either Gregg Rothschild or Pete Filon, Minority Counsels to the Committee on Energy and Commerce, at 202-226-3400.

Sincerely,

JOHN D. DINGELL
RANKING MEMBER

Attachment

cc: The Honorable Joe Barton, Chairman
Committee on Energy and Commerce

The Honorable Fred Upton, Chairman
Subcommittee on Telecommunications and the Internet

The Honorable Edward J. Markey, Ranking Member
Subcommittee on Telecommunications and the Internet

**RESPONSE BY MARGARET H. GREENE
PRESIDENT—REGULATORY AND EXTERNAL AFFAIRS
BELLSOUTH CORPORATION TO ADDITIONAL
QUESTIONS FROM THE HONORABLE EDOLPHUS TOWNS
REGARDING THE JULY 7,2004 HEARING ON
VOICE OVER INTERNET PROTOCOL SERVICES
COMMITTEE ON ENERGY AND COMMERCE
SUBCOMMITTEE ON TELECOMMUNICATIONS AND THE INTERNET
UNITED STATES HOUSE OF REPRESENTATIVES**

JULY 28, 2004

1. *Different legislative approaches have now been introduced to establish a regulatory framework for V-O-I-P. Do you think that we should write a statute that is focused solely on one technology or take a broader approach?*

A. We believe that legislation should not address only a single application such as VoIP as Congress will, if this approach is taken, surely wind up having to legislate on each flavor of new communications technology. Given the rapid pace of change in communications, this would surely be a futile effort. Most preferred would be legislation crafted to recognize the current state of communications with all of the intermodal options that exist and that is able to address future technologies as well. However, at a minimum, the issues revolving around the jurisdiction and regulation of all broadband services should be addressed. We must recognize the role that networks play in the development and growth of VoIP by freeing the new underlying IP broadband networks from legacy regulation. IP enabled services should be free of economic regulation, of discriminatory regimes like Computer Inquiry rules that stifle innovations in and raise the cost of the broadband services.

2. *What type of service would you classify V-O-I-P as under the Communications Act: telecommunication, information, or neither, and why?*

A. Under the current statute, the key statutorily defined terms that one must refer to in making such a determination are codified in Section 3 of the Communications Act. These terms are telecommunications, telecommunications carrier, telecommunications service and information service, and they were drafted in 1995 and added to the Act in 1996. At that time in 1995, VOIP was virtually non-existent. Consequently, no one of these definitions was drafted, in my judgment, by the Congress with VOIP within its contemplation. For instance, the discussion of these terms, in the legislative history of the 1996 Act as reflected in the House Report for H.R. 1555, the Senate Report for S. 652, and the Conference Report for S. 652, contains no reference to the Internet, much less VOIP. Given that, the current statute is not structured such that all IP-enabled services fit into one Title. Instead, because of the statutory "tests" which determine whether a service is Title I (information service) or Title II (telecommunications service), we have, and may in the future continue to have, IP-enabled services which are deployed either as information services or as private or public telecommunications services, or perhaps as a combination of both.

In crafting new legislation, it is preferable to classify VoIP as neither an information service nor a telecommunications service. The current definitions for each do not clearly fit this boundary defying technology, and the legacy regulations that attach to either classification will only stifle innovation and harm consumers. Instead, it is preferable to create a new classification.

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CHARLES A. GONZALEZ, TEXAS

July 19, 2004

Mr. S. Michael Jensen
Chief Executive Officer
Great Plains Communications
1600 Great Plain Centre, P.O. Box 500
Blair, Nebraska 68008

Dear Mr. Jensen:

On July 7, 2004, you testified before the Subcommittee on Telecommunications and the Internet in a hearing entitled "Voice Over Internet Protocol Services: Will the Technology Disrupt the Industry or Will Regulation Disrupt the Technology?" We now ask for your help on one additional question (attached).

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Sincerely,

JOHN D. DINGELL
RANKING MEMBER

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cc: The Honorable Joe Barton, Chairman
Committee on Energy and Commerce

The Honorable Fred Upton, Chairman
Subcommittee on Telecommunications and the Internet

The Honorable Edward J. Markey, Ranking Member
Subcommittee on Telecommunications and the Internet

Question for Mr. S. Michel Jensen from the Honorable Anna Eshoo, Committee on Energy and Commerce regarding the July 7 hearing on VoIP.

Question: One of the issues this Subcommittee has worked hard on during this Congress is making sure that consumers using wireless phones can access E-911 service. Can you tell me what you are doing to make sure that consumers who use VoIP service can also access 911/E-911 services? If VoIP service is not today capable of supporting E-911, when do you believe you will have an E-911 capable service?

Answer: Access to 911 and E-911 services are extremely important to consumers and is something they have come to expect from their telecommunications providers and local public safety authorities. Great Plains has worked hard and invested necessary capital to ensure that our customers have access to these vital emergency service. Great Plains does not currently offer VoIP service. Access to emergency 911 services is tied to the provider. Ensuring that VoIP subscribers have access to these vital emergency services is the responsibility of the VoIP provider.

VoIP support of 911 services can be complex. In most cases, a VoIP subscriber has to take additional steps to activate 911 service. As is outlined on Vonage's website (http://www.vonage.com/features.php?feature=911), this does not ensure that all information will be received by a public safety answering point (PSAP) when a customer dials 911. This form ensures that when a VoIP subscriber dials 911 the call will be routed to the correct PSAP in their local area. The PSAP will NOT automatically receive the callers name and address. A VoIP call would be routed to a different number than traditional 911 calls. A VoIP subscriber would be required to provide the PSAP with their physical address, phone number and the nature of their emergency.

The mobile nature of VoIP service is also problematic for ensuring effective 911 calls. Since a VoIP subscriber can take their router with them it is almost impossible for a 911 center to know where a VoIP call is coming from. A VoIP subscriber could have a New York telephone number, live in Los Angeles and be making a 911 call from Chicago. A 911 call from a VoIP phone would be routed to the PSAP assigned to the home address of the subscriber, regardless of their actual physical location.

In addition, unlike traditional voice services, which are required to have a certain number of hours of back up power, Internet telephony service will not function during a power outage.

VoIP providers are working with the National Emergency Numbering Association (NENA) to address 911 issues but to my knowledge no resolution has been found to date. The failure to resolve emergency 911, and other critical issues, has weighed heavily in Great Plains' decision not to begin to provide VoIP service. Great Plains will not offer VoIP, or any service, to its customers until we can ensure the quality and high level of service that our customers have come to expect from Great Plains.

W.J. "BILLY" TAUZIN, LOUISIANA
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U.S. House of Representatives
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Washington, DC 20515–6115

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July 19, 2004

Mr. James Kirkland
General Counsel and Senior Vice President
Covad Communications
110 Rio Robles
San Jose, California 95134

Dear Mr. Kirkland:

On July 7, 2004, you testified before the Subcommittee on Telecommunications and the Internet in a hearing entitled "Voice Over Internet Protocol Services: Will the Technology Disrupt the Industry or Will Regulation Disrupt the Technology?" We now ask for your help on several additional questions (attached).

Because we wish to include the questions and responses in the printed record of this hearing, please respond no later than Wednesday, July 28, 2004. Please fax and e-mail the response. The faxed response should be directed to William Carty, Committee on Energy and Commerce, Majority staff, at 202-226-2447, and Voncille Hines, Committee on Energy and Commerce, Minority staff, at 202-225-5288. The e-mail copy of the response should be directed to (William.Carty@mail.house.gov) and Voncille Hines (Voncille.Hines@mail.house.gov). Due to the uncertainties of postal deliveries on Capitol Hill, we ask that your response not be sent through the postal service.

If you have any questions, please have your staff contact either Gregg Rothschild or Pete Filon, Minority Counsels to the Committee on Energy and Commerce, at 202-226-3400.

Sincerely,

JOHN D. DINGELL
RANKING MEMBER

Attachment

cc: The Honorable Joe Barton, Chairman
Committee on Energy and Commerce

The Honorable Fred Upton, Chairman
Subcommittee on Telecommunications and the Internet

The Honorable Edward J. Markey, Ranking Member
Subcommittee on Telecommunications and the Internet

Questions for Mr. James Kirkland
General Counsel and Senior Vice President
Covad Communications
from the Honorable Anna G. Eshoo
Committee on Energy and Commerce
regarding the July 7, 2004, Subcommittee on Telecommunications
and the Internet Hearing entitled
"Voice Over Internet Protocol Services: Will the Technology Disrupt the Industry or Will Industry Disrupt the Technology?"

1. One of the issues this Subcommittee has worked hard on during this Congress is making sure that consumers using wireless phone can access E-911 service. Can you tell me what you are doing to make sure that consumers who use VoIP service also can access 911/E-911 services? If VoIP service is not today capable of supporting E-911, when do you believe you will have an E-911 capable service?

2. If you are so bullish on VoIP, and moving so quickly to make it available, can you explain why you continue to need access to unbundled network elements?

3. What alternatives are available to you to reach the "last mile" for most residential customers? If you are unable to negotiate satisfactory terms with an ILEC, what can you do to provide service?

Covad Communications
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tel: 408-952-6400
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www.covad.com

August 29, 2004

William Carty
U.S. House of Representatives
Committee on Energy and Commerce
Majority Staff

Voncille Hines
U.S. House of Representatives
Committee on Energy and Commerce
Minority Staff

Dear Mr. Carty and Ms. Hines,

Enclosed please find Jim Kirkland's responses to further questions from the July 7, 2004 hearing on VoIP services. If you have any questions or need additional information, please contact me at the address below.

Sincerely,

Timothy Powderly
Legislative Affairs
202-220-0413
tpowderl@covad.com

1. One of the issues this Subcommittee has worked hard on during this Congress is making sure that consumers using wireless phones can access E-911 service. Can you tell me what you are doing to make sure that consumers who use VoIP service also can access 911/E-911 services? If VoIP service is not today capable of supporting E-911, when do you believe you will have an E-911 capable service?

Covad currently markets and sells a VoIP product to small businesses that provides the same 911/E-911 functionality as a traditional switched voice service, including the provision of customer number and location information to the relevant Public Safety Answering Point. From either the end-user's or the PSAP's perspective, there is no difference between our 911 offering and traditional circuit-switched 911. Bear in mind, however, that the service we market and sell is offered over a specific loop facility and intended to remain in one physical location. If the customer physically moves the VoIP equipment that we install to a different address, the VoIP service will not support the geographic location feature of E-911. We believe that the efforts of the VON Coalition and the National Emergency Number Association to address this issue will ultimately prove successful. As soon as the industry develops the appropriate standards and technology to fully support E-911 for VoIP services, we will adopt and deploy that equipment.

2. If you are so bullish on VoIP, and moving so quickly to make it available, can you explain why you continue to need access to unbundled network elements?

As exciting and promising as VoIP is, it is important to remember that VoIP functionality is in the first instance just a software application – like a web browser or an email package – that rides on top of a broadband connection. To get VoIP service, a customer must also order or already have a pre-existing broadband connection. Current third-party VoIP providers like Vonage provide only the software portion of the VoIP equation. These services offer innovative features, but are limited by the provider's lack of control over the broadband facilities. For instance, third party VoIP providers are limited in their ability to ensure the network quality of service and to ensure that repairs and upgrades to the network are made in a timely manner.

Access to unbundled network elements will play a crucial role in the deployment of VoIP and the development of a competitive VoIP marketplace. Covad has invested hundreds of millions of dollars in building out this nationwide network. Covad's facilities-based broadband network extends right up to the monopoly last mile of the phone network, and so Covad requires access to these monopoly loops to complete its network. Local phone company loops remain the only loop infrastructure connecting virtually all homes and businesses in the United States. The FCC has consistently found that local phone company loops are a natural monopoly and that no competitor will ever have the ability to duplicate these ubiquitous loops. So facilities based competition still requires access to phone company loops, and minimal regulatory oversight of loop access to ensure competition. We use a few additional monopoly unbundled network elements, such as access to connections between phone company switching offices where Covad has built its own facilities, that only the local phone company owns and controls.

It is important to keep in mind that the millions of local loops that make up the last mile of the legacy local phone network (as opposed to new fiber to the home facilities that many phone companies are talking about) were built over many years under monopoly conditions, often with a government protection of that monopoly. The phone companies have had ample opportunity to earn a return on their investment in these loops, and continue to earn very handsome profits on local phone service. The phone companies have also received other important benefits by virtue of their status as the primary providers of local service. Recall that when the FCC first provided spectrum for cellular service in the 1980s, one of two licenses in every local market was set aside for the local phone company serving that area, and awarded to that company for free. These spectrum licenses alone are now worth billions of dollars. In the 1996 Telecommunications Act, Congress created a framework that removed legal restrictions dating back to the AT&T divestiture that prohibited the Baby Bells from providing long distance service, in return for commitments to open their legacy local networks to competition. As a result of the removal of these restrictions, the Baby Bells are the fastest growing providers of long distance service, and are well on their way to dominating this market.

As a direct and indirect result of these government conferred benefits, the local phone companies are among the largest and most prosperous companies in the world, with market valuations in the tens of billions of dollars. Covad believes that ensuring that the public receives the benefit of competitive access to legacy monopoly local loops, under a minimally burdensome regulatory regime protecting this access, is a very small and very reasonable quid pro quo for the many benefits that the local phone companies have received throughout their history.

The few unbundled elements that Covad uses, in conjunction with Covad's extensive facilities, allow Covad to provide the VoIP application and the underlying broadband connection as an integrated package. Only by providing such a package and by maintaining control over the broadband connection are we are able to compete head-on with legacy monopoly phone service. If nothing else, the recent history of competition for traditional local voice services should demonstrate that effective and robust competition requires access to some unbundled network elements.

Finally, access to unbundled network elements promotes investment in broadband facilities. In fact, Covad has invested millions to make our network better able to manage VoIP services. If we sought to provide VoIP on a simple third-party basis rather than on a facilities-based basis using network elements, we would have no incentive to invest in additional broadband transmission facilities.

3. What alternatives are available to you to reach the "last mile" for most residential customers? If you are unable to negotiate satisfactory terms with an ILEC, what can you do to provide service?

Currently, there are few alternatives to reach the last mile for most residential customers. First, there are very limited access rights to the phone network, and no access rights to cable networks. Other technologies such as wireless broadband are years away from widespread deployment and commercial availability, and so at this point are purely speculative. We were able to negotiate a commercial deal with one ILEC for the provision of residential broadband services through line sharing, and we continue to pursue similar line sharing deals with the other ILECs. In the absence of such agreements, and without further FCC action to preserve line sharing, it will become exceedingly difficult to offer competitive DSL services to residential customers.

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July 19, 2004

Ms. Cathy Martine
Senior Vice President
AT&T Corporation
340 Mt. Kemble Avenue
Morristown, New Jersey 07920

Dear Ms. Martine:

On July 7, 2004, you testified before the Subcommittee on Telecommunications and the Internet in a hearing entitled "Voice Over Internet Protocol Services: Will the Technology Disrupt the Industry or Will Regulation Disrupt the Technology?" We now ask for your help on several additional questions (attached).

Because we wish to include the questions and responses in the printed record of this hearing, please respond no later than Wednesday, July 28, 2004. Please fax and e-mail the response. The faxed response should be directed to William Carty, Committee on Energy and Commerce, Majority staff, at 202-226-2447, and Voncille Hines, Committee on Energy and Commerce, Minority staff, at 202-225-5288. The e-mail copy of the response should be directed to (William.Carty@mail.house.gov) and Voncille Hines (Voncille.Hines@mail.house.gov). Due to the uncertainties of postal deliveries on Capitol Hill, we ask that your response not be sent through the postal service.

If you have any questions, please have your staff contact either Gregg Rothschild or Pete Filon, Minority Counsels to the Committee on Energy and Commerce, at 202-226-3400.

Sincerely,

JOHN D. DINGELL
RANKING MEMBER

Attachment

cc: The Honorable Joe Barton, Chairman
Committee on Energy and Commerce

The Honorable Fred Upton, Chairman
Subcommittee on Telecommunications and the Internet

The Honorable Edward J. Markey, Ranking Member
Subcommittee on Telecommunications and the Internet

Questions for Ms. Cathy Martine, Senior Vice President
AT&T Corporation
from the Honorable Anna G. Eshoo
Committee on Energy and Commerce
regarding the July 7, 2004, Subcommittee on Telecommunications
and the Internet Hearing entitled
"Voice Over Internet Protocol Services: Will the Technology Disrupt the Industry or Will Industry Disrupt the Technology?"

1. One of the issues this Subcommittee has worked hard on during this Congress is making sure that consumers using wireless phone can access E-911 service. Can you tell me what you are doing to make sure that consumers who use VoIP service also can access 911/E-911 services? If VoIP service is not today capable of supporting E-911, when do you believe you will have an E-911 capable service?

2. If you are so bullish on VoIP, and moving so quickly to make it available, can you explain why you continue to need access to unbundled network elements?

3. What alternatives are available to you to reach the "last mile" for most residential customers? If you are unable to negotiate satisfactory terms with an ILEC, what can you do to provide service?

Peter G. Jacoby
Vice President and Director
Congressional Relations

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202 457-2050
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August 4, 2004

The Honorable John D. Dingell
Ranking Minority Member
Committee on Energy and Commerce
2322 Rayburn House Office Building
Washington, DC 20515

Dear Congressman Dingell:

Please find enclosed AT&T's responses to the questions you submitted to Cathy Martine-Dolecki, Senior Vice President, AT&T Corporation, who appeared before the Subcommittee on Telecommunications and the Internet on July 7, 2004, during the hearing entitled, "Voice Over Internet Protocol Services: Will the Technology Disrupt the Industry or Will Regulation Disrupt the Technology?"

Please do not hesitate to contact me if I can be of further assistance.

Sincerely,

cc: The Honorable Joe Barton, Chairman, Committee on Energy and Commerce
The Honorable Fred Upton, Chairman, Subcommittee on Telecommunications and the Internet
The Honorable Ed Markey, Ranking Member, Subcommittee on Telecommunications and the Internet

Recycled Paper

1. **One of the issues this Subcommittee has worked hard on during this Congress is making sure that consumers using wireless phones can access E-911 service. Can you tell me what you are doing to make sure that consumers who use VoIP service also can access 911/E-911 services? If VoIP service is not today capable of supporting E-911, when do you believe you will have an E-911 capable service?**

On January 27, 2004, AT&T announced an agreement with Intrado Inc., a major provider of 911 infrastructure, systems and services, to develop an emergency calling solution for its residential broadband Voice over Internet Protocol (VoIP) service. Intrado VoIP Emergency Calling Services enables AT&T customers who dial 911 to reach emergency response centers. This evolutionary solution gives AT&T an effective way to process emergency VoIP calls nationwide for subscribers, letting AT&T route 911-dialed calls from the AT&T IP network via 10 digit calling to public safety answering points (PSAPs) that handle emergency calls and dispatch services such as police, fire or medical personnel. This solution is consistent with the principles for an interim solution agreed to in late 2003 between the National Emergency Numbering Association (NENA) and a number of VoIP providers. The six agreed to principles are referred to as "the NENA Principles."

AT&T has been investigating methods of offering E911 service to VoIP users and hopes to offer E911 capabilities where technically feasible for certain types of VoIP usage within six to nine months.

At the same time, AT&T has been at the forefront of working with the industry to develop the next generation of emergency 911 solutions for Internet telephony. While government has a legitimate role in ensuring that these things get done, it should refrain from regulating this new service in these or other areas in the absence of a demonstrated failure on the part of industry to act appropriately. We may also need some flexibility and reasonable transition periods to achieve these policy goals, in recognition of the fact that IP-enabled services present different technical and operational issues than those considered when the legacy common carrier regulations were originally developed. Nonetheless, we believe that the enormous flexibility and power of VoIP promises to address these issues in ways superior to current circuit-switched technology.

AT&T concurs with the NENA principle that "support for an administrative approach to maintaining funding of 911 resources at a level equivalent to those generated by current or evolving funding processes" is appropriate. AT&T believes that 911 resources should continue to evolve to readily accept and support E-911 calls from VoIP end users. VoIP is only one of the applications that challenge the current 911 system; upgrading the current 911 system to support VoIP is needed to allow the continuing development and deployment of new technology.

In view of the public safety interests it serves, 911 and E911 have never been, and can never be, treated as static. Applying legacy E911 requirements to VoIP is not a short cut to solving VoIP E911 compliance challenges and would not only stifle VoIP but also the innovation and enhancements to E911 that industry IP solutions may offer. IP-enabled 911 may offer enhanced capabilities that increase disabled accessibility to 911 services, offer 911 access to text device users, increase redundancy, serve homeland security

purposes, and provide additional information to responders –such as a building layout diagram.

2. **If you are so bullish on VoIP, and moving so quickly to make it available, can you explain why you continue to need access to unbundled network elements?**

Firm resolve in enforcing the pro-competitive policies of the 1996 Act is a necessary first step on the path to VoIP. Business cases based on a "build it and they will come" approach to deploying mass-market local facilities have been almost uniform failures. Congress recognized this when it passed the 1996 Telecommunications Act and provided for resale and the unbundled network elements platform (UNE-P) to enable carriers to develop local subscriber bases which would support a migration to building their own local facilities. In both the business and residential markets, however, facilities-based service requires a significant concentration of demand to be economic. To the extent multiple networks can ever economically compete, a significant customer base is needed to justify network deployment and reduce the risk of such deployment.

Today, AT&T provides local service to more than 4.3 million residential lines and 4.5 million business lines, including 1 million small business lines. We have done so through a combination of facilities-based entry -- we have invested billions of dollars in our own local facilities since 1996 -- and the lease of Bell network elements.

However, in view of the regulatory uncertainty generated by the Administration and FCC's decision not to appeal the D.C. Circuit reversal of the February 2003 order, AT&T has had to re-assess the business case for local and long distance residential markets. The re-introduction of regulatory uncertainty has strangled mass-market local competition in its very infancy. With the Bell companies poised to raise wholesale rates for UNE-P as early as November, we will simply not be able to provide a bundle of local and long distance services economically and build the customer base that so greatly facilitates our VoIP deployment. VoIP, which requires broadband, is not currently an option for the majority of our current local customers so we cannot simply migrate our existing UNE-P customer base to VoIP. And, the premature elimination of UNE-P makes it far more difficult for us to invest in facilities alternatives and VoIP.

3. **What alternatives are available to you to reach the "last mile" for most residential customers? If you are unable to negotiate satisfactory terms with an ILEC, what can you do to provide service?**

The Bell companies' refusal to negotiate reasonable interconnection and leasing agreements in the wake of the D.C. Circuit decision, and the Administration's failure to appeal it, has left AT&T no choice but to stop incurring the costs to solicit new local phone customers in its residential markets. As mentioned above, VoIP, which requires broadband, is not an option for the majority of our current local customers. About one in five U.S. households have the broadband infrastructure necessary to support VoIP telephony. Not all customers can afford broadband service today.

Without appropriate legislative and regulatory treatment, VoIP could develop into yet another technology controlled by the Bells. Remember that these are the same

companies that held back the deployment of DSL services to residential customers for some ten years so customers would have to take their other, higher priced services.

The prospects for competition will be thwarted if the Bells are allowed to continue such anticompetitive practices as refusing to sell their broadband service to customers that purchase voice service from a competitor, or requiring their broadband customer to purchase a local exchange line as well. The Bells' ability to restrict broadband customers from subscribing to anyone else's voice services has attracted widespread attention, and many states have sought to prohibit these anticompetitive practices -- but they continue. Unless we and other competitors are allowed -- quickly -- to fairly compete for voice customers, we will not be able to invest in VoIP, and VoIP will become just another Bell-controlled technology.

Moreover, AT&T will not be able to finance investment in residential last mile alternative access technologies without a UNE-P or a VoIP residential customer base. Without viable competitors, investment in alternative access technologies such as Broadband over Powerline and Wi-Max will be limited by the Bell rollout schedule. Given the dismal track record of the Bells on DSL, this could be some time.

W.J. "BILLY" TAUZIN, LOUISIANA
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July 19, 2004

Mr. Robert B. Nelson
Michigan Public Service Commission
6545 Mercantile Way, Suite 7
Lansing, Michigan 48911

Dear Mr. Nelson:

On July 7, 2004, you testified before the Subcommittee on Telecommunications and the Internet in a hearing entitled "Voice Over Internet Protocol Services: Will the Technology Disrupt the Industry or Will Regulation Disrupt the Technology?" We now ask for your help on one additional question (attached).

Because we wish to include the question and response in the printed record of this hearing, please respond no later than Wednesday, July 28, 2004. Please fax and e-mail the response. The faxed response should be directed to William Carty, Committee on Energy and Commerce, Majority staff, at 202-226-2447, and Voncille Hines, Committee on Energy and Commerce, Minority staff, at 202-225-5288. The e-mail copy of the response should be directed to (William.Carty@mail.house.gov) and Voncille Hines (Voncille.Hines@mail.house.gov). Due to the uncertainties of postal deliveries on Capitol Hill, we ask that your response not be sent through the postal service.

If you have any questions, please have your staff contact either Gregg Rothschild or Pete Filon, Minority Counsels to the Committee on Energy and Commerce, at 202-226-3400.

Sincerely,

JOHN D. DINGELL
RANKING MEMBER

Attachment

cc: The Honorable Joe Barton, Chairman
Committee on Energy and Commerce

The Honorable Fred Upton, Chairman
Subcommittee on Telecommunications and the Internet

The Honorable Edward J. Markey, Ranking Member
Subcommittee on Telecommunications and the Internet

Questions for Mr. Robert B. Nelson, Commissioner
Michigan Public Service Commission
Chairman, Committee on Telecommunications
National Association of Regulatory Utility Commissioners
from the Honorable Anna G. Eshoo
Committee on Energy and Commerce
regarding the July 7, 2004, Subcommittee on Telecommunications
and the Internet Hearing entitled
"Voice Over Internet Protocol Services: Will the Technology Disrupt the Industry or Will Industry Disrupt the Technology?"

1. One of the issues this Subcommittee has worked hard on during this Congress is making sure that consumers using wireless phone can access E-911 service. Can you tell me what you are doing to make sure that consumers who use VoIP service also can access 911/E-911 services? If VoIP service is not today capable of supporting E-911, when do you believe you will have an E-911 capable service?

Jul-30-04 02:16pm From-COMMERCE COMMITTEE DEMOCRATIC STAFF 2022255244 T-880 P.03/04 F-154

Jennifer M. Granholm
GOVERNOR

STATE OF MICHIGAN
PUBLIC SERVICE COMMISSION
DEPARTMENT OF CONSUMER & INDUSTRY SERVICES
DAVID C. HOLLISTER
DIRECTOR

J. Peter Lark
CHAIR

Robert B. Nelson
COMMISSIONER

Laura Chappelle
COMMISSIONER

July 28, 2004

The Honorable John D. Dingell
Ranking Member
Committee on Energy and Commerce
United States House of Representatives
2322 Rayburn House Office Building
Washington, DC 20515

Congressman Dingell,

Thank you for the opportunity to respond to additional questions from the July 7 hearing on VOIP before the Telecommunications and Internet Subcommittee.

NARUC supports the hard work the Committee has done on wireless E-911 issues because effective emergency dialing services are so integral to protecting the lives of our constituents and building a phone system for the 21st Century that serves the public interest. The fundamental question is whether particular VOIP services are part of the *sui generis* communications system of which the public expects safety, reliability, consumer protection and ubiquity.

NARUC members, including the Michigan Public Service Commission, are involved in E-911 assessments and mandates on all types of telecommunications carriers, including ILECs, CLECs and wireless service providers. In many cases, we also provide for the cost recovery to fund the Public Safety Answering Point (PSAP) trunk lines. In some cases, State governments have spent millions of dollars to renumber and name street addresses in a way that effectively integrated them into the E-911 databases.

While some packet-switched voice technologies, such as instant messenger or Xbox, may exist outside the phone system, it is absolutely crucial to hold the VOIP services that serve as effective phone replacements up to bedrock social obligations like E-911. After all, many of the VOIP services today are effectively selling access, not to other VOIP customers, but to every home and business in America that is connected to the Public-Switched Telephone Network (PSTN).

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NARUC members are not opposed to flexible ways for industry to meet its E-911 obligations, but we are absolutely opposed to transitioning any part of the industry – including VOIP – over to a voluntary model. If anything, advances in communications technology should provide the public with more safety – not less. These advanced technologies should be overseen by State governments to ensure that their benefits are made available to the public. As such, we would welcome the opportunity to work with Energy and Commerce Committee members on how to ensure the provision of effective E-911 services for VOIP consumers.

Best regards,

Robert B. Nelson
Commissioner

Jennifer M. Granholm
GOVERNOR

STATE OF MICHIGAN
PUBLIC SERVICE COMMISSION
DEPARTMENT OF CONSUMER & INDUSTRY SERVICES
DAVID C. HOLLISTER
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J. Peter Lark
CHAIR

Robert B. Nelson
COMMISSIONER

Laura Chappelle
COMMISSIONER

August 16, 2004

The Honorable Fred Upton, Chairman
Subcommittee on Telecommunications and the Internet
United States House of Representatives
2161 Rayburn House Office Building
Washington, D.C. 20515-2206

Dear Congressman Upton:

Thank you for the opportunity to respond to additional questions from the July 7, 2004 hearing on VOIP before the Telecommunications and Internet Subcommittee. My responses to the questions are attached on the following pages.

I appreciate the work of your Subcommittee to review the issues surrounding the provision of Voice Over Internet Protocol services. Please let me know if you have any further questions concerning your review of this matter.

Sincerely,

Bob

Robert B. Nelson
Commissioner

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Answers to Questions from Chairman Upton:

1. Internet access services being interstate – I don't agree with the premise, namely that the FCC's "mixed used" doctrine is applicable to VOIP services, or if applicable, that the doctrine has been judicially recognized. The FCC created the "mixed use" doctrine to establish jurisdiction over special access lines and it has been rarely used since that time. In fact, the Commission released a Reciprocal Compensation Declaratory Ruling on February 26, 1999, which concluded that ISP-bound traffic was "jurisdictionally mixed and largely interstate, and the reciprocal compensation obligations do not apply to this traffic."

On March 24, 2000, prior to release of a decision addressing these issues, the Court of Appeals for the District of Columbia Circuit vacated certain provisions of the Commission's reciprocal compensation ruling and remanded the matter to the Commission. The court questioned whether the FCC's jurisdictional analysis was dispositive of, or indeed relevant to, the question of whether a call to an ISP is subject to the reciprocal compensation requirements of section 251(b)(5). Bell Atlantic v. FCC, 206 F.3d 1. (2000).

Although the FCC attempted to resolve the issues remanded by the court in April, 2001, it declined to rely on the "mixed used" doctrine in doing so.

The Commission concluded that section 251(b)(5) of the Communications Act is not limited to local traffic as it had previously maintained, but instead applies to all "telecommunications" traffic except the categories specifically carved out in section 251(g). The Commission concluded that ISP-bound traffic falls within one of these categories - "information access" - and is therefore exempt from section 251(b)(5). Thus, the Commission ruled, such traffic is subject only to the Commission's general powers under section 201(b). In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act and of 1996 Intercarrier Compensation for ISP-Bound Traffic (rel. April 27, 2001, CC Docket 96-98, 99-68).

I would not agree that all forms of VOIP services are interstate in nature. The AT&T declaratory ruling issued by the FCC in April of this year (FCC 04-97) found that AT&T's VOIP offering was a telecommunications service and subject to interstate access charges. In so finding, the FCC noted that "AT&T obtains the same circuit-switched interstate access for its specific service as obtained by other interexchange carriers, and, therefore, AT&T's specific service imposes the same burdens on the same burdens on the local exchange as do circuit-switched interexchange calls." (Order, p. 9)

By this reasoning, the burden that AT&T's service imposes on the local exchange should engender reciprocal compensation, just as circuit-switched calls do. In fact, the FCC ruling notes that, for the AT&T service, "the incumbent LEC receives either (1) the rate paid for the PRI trunk if AT&T purchased it from the

incumbent LEC; or (2) the reciprocal compensation rate for terminating the call from the competitive LEC if AT&T purchased the PRI trunk from a competitive LEC." (Order, fn. 49)

As such, the portion of AT&T's VOIP service that terminates the call to the LEC should be deemed intrastate.

2. Technical feasibility and economic practicality – It is no more difficult to identify an intrastate component of many VOIP calls than it is to identify an intrastate component of a circuit-switched call. In the AT&T declaratory ruling, referenced in the answer to question #1, the FCC concedes that the only portion of a call that "differs in any technical way from a traditional circuit-switched interexchange call" is that portion that is transported over the Internet backbone. The technology necessary to identify the intrastate portion of a VOIP call, the portion that terminates the call to the LECs, either an AT&T VOIP call or a Vonage-type call, is virtually the same as the technology necessary to identify the intrastate portion of a circuit-switched call. Although the FCC has opened a rulemaking proceeding to examine the need to reform the current system of Intercarrier compensation and NARUC has developed a set of principles that we believe should be advanced in this proceeding, existing law requires telecommunications carriers, which presumably includes AT&T in its provision of VOIP service, to "establish reciprocal compensation arrangements for the origination and termination of telecommunications" (Sec 251(b)(5) of the Communications Act).

Moreover, the Communications Act still provides that: "Nothing in this chapter shall be construed to give the Commission [the FCC] jurisdiction with respect to (1) charges, classifications, practices, services, facilities or regulations in connection with intrastate communication service." (Sec. 152(b) of the Communications Act). Without the ability to provide some state oversight over calls that clearly have an intrastate component, the kinds of recent consumer problems identified in press accounts (Vonage outage, interception of customer calls) would go unresolved.

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BUD ALBRIGHT, STAFF DIRECTOR

ONE HUNDRED EIGHTH CONGRESS

U.S. House of Representatives
Committee on Energy and Commerce
Washington, DC 20515–6115

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July 19, 2004

Mr. Thomas M. Rutledge
Chief Operating Officer
Cablevision Systems Corporation
1111 Stewart Avenue
Bethpage, New York 11714

Dear Mr. Rutledge:

On July 7, 2004, you testified before the Subcommittee on Telecommunications and the Internet in a hearing entitled "Voice Over Internet Protocol Services: Will the Technology Disrupt the Industry or Will Regulation Disrupt the Technology?" We now ask for your help on several additional questions (attached).

Because we wish to include the questions and responses in the printed record of this hearing, please respond no later than Wednesday, July 28, 2004. Please fax and e-mail the response. The faxed response should be directed to William Carty, Committee on Energy and Commerce, Majority staff, at 202-226-2447, and Voncille Hines, Committee on Energy and Commerce, Minority staff, at 202-225-5288. The e-mail copy of the response should be directed to (William.Carty@mail.house.gov) and Voncille Hines (Voncille.Hines@mail.house.gov). Due to the uncertainties of postal deliveries on Capitol Hill, we ask that your response not be sent through the postal service.

If you have any questions, please have your staff contact either Gregg Rothschild or Pete Filon, Minority Counsels to the Committee on Energy and Commerce, at 202-226-3400.

Sincerely,

JOHN D. DINGELL
RANKING MEMBER

Attachment

cc: The Honorable Joe Barton, Chairman
Committee on Energy and Commerce

The Honorable Fred Upton, Chairman
Subcommittee on Telecommunications and the Internet

The Honorable Edward J. Markey, Ranking Member
Subcommittee on Telecommunications and the Internet

Jul-27-2004 03:36pm From- T-832 P.001/001 F-395

CABLEVISION

THOMAS M. RUTLEDGE
Chief Operating Officer

The Honorable John D. Dingell
Committee on Energy and Commerce
2328 Rayburn House Office Building
Washington, DC 20515

July 27, 2004

Dear Congressman Dingell:

This is to thank you and the members of the Subcommittee for the opportunity to testify on July 7 on the VoIP Regulatory Freedom Act of 2004. We appreciate your leadership on VoIP and the range of other communications issues you work on as Ranking Member of the full Committee. The legislation sponsored by Congressman Pickering offers an important deregulatory framework that will facilitate the continued introduction of competitive voice services.

In response to your request of July 19, enclosed are my responses to the questions from Congressman Towns and Congresswoman Eshoo regarding Cablevision's VoIP product for inclusion in the record of the hearing. We very much look forward to working with you and the other members of the Committee on this important legislation. Please do not hesitate to contact me if there is any further information or assistance we can provide.

Sincerely,

Thomas M. Rutledge

Enclosure

cc: The Honorable Joe Barton
The Honorable Fred Upton
The Honorable Edward J. Markey
The Honorable Edolphus Towns
The Honorable Anna G. Eshoo

1111 Stewart Avenue, Bethpage NY 11714-3581
516 803-1010 Fax 516 803-1183
rutledge@cablevision.com

Response of Thomas M. Rutledge
Chief Operating Officer, Cablevision Systems Corporation
to the Honorable Edolphus Towns
Committee on Energy and Commerce
July 7, 2004 Subcommittee on Telecommunications and the Internet Hearing
"Voice Over Internet Protocol Services: Will the Technology Disrupt the Industry or Will Industry Disrupt the Technology?"

1. Can you tell me what services and features your VoIP service offers to my constituents?

Subscribers to Cablevision's VoIP service – " Optimum Voice " -- receive unlimited local, regional, and long distance calling across the United States and Canada for a flat rate of under $35.00 per month. Optimum Voice includes: five custom-calling features (caller ID, call waiting, call return (*69), three-way calling, and call forwarding); a fully functioning E-911 service; and an interactive web portal that allows subscribers to access and manage their call features as well as view their calling history. Cablevision plans to introduce low-cost international calling to its service during the third quarter of 2004. Cablevision is evaluating additional capabilities for Optimum Voice, including features that would allow subscribers to integrate Optimum Voice with their video service.

2. I appreciate that the cable industry has recognized the social obligations that cable and other VoIP providers should comply with when offering their service. Can you tell us how Cablevision has overcome the technical challenges VoIP providers face when seeking to meet the needs of law enforcement and the disabled as well as providing enhanced 911 capability?

Cablevision provides its Optimum Voice customers full Enhanced-911 services that support name, location and dial-back capabilities to emergency service providers. With respect to surveillance, Cablevision offers a service that is fully capable of meeting law enforcement's needs. In addition, through the National Cable Television Association and CableLabs, Cablevision has participated in the cable industry's voluntary cooperation with the FBI to develop a specification for the PacketCable architecture that satisfies the FBI's concerns. With respect to persons with disabilities, Cablevision is working with its equipment vendors to develop a softswitch that is capable of supporting TTY devices and plans to offer this service in the near future. These efforts are further supported by the Federal Communications Commission's Technological Advisory Council (" TAC "), which has established a disability access focus group that currently is exploring ways to ensure assistive technologies (such as hearing aids) will work with VoIP technology. The TAC has invited a representative from CableLabs to present at its next meeting July 28, 2004. CableLabs intends to provide a brief presentation covering the cable industry's technical issues associated with deployment of VoIP technologies.

3. How has the regulatory uncertainty of possibly dealing with individual state regulatory regimes affected the rollout of new VoIP services?

Regulatory uncertainty at the state level creates a disincentive for companies to roll out innovative VoIP services that give customers many more services at a more competitive price than those offered by incumbent phone companies. A patchwork of state regulations is plainly counterproductive to providing incentives to roll out VoIP services that give consumers a more advanced and competitive voice product. Moreover, the technically advanced capabilities of these services (e.g., the capability to receive voicemails on personal computers or on television sets) make the application of static regulatory rules confusing and likely unenforceable. While we are working with our State commissions to develop a deregulatory approach toward this exciting new technology, a uniform federal framework will be critically important to continued investment and deployment of this competitive new service.

Response of Thomas M. Rutledge
Chief Operating Officer, Cablevision Systems Corporation
to the Honorable Anna G. Eshoo
Committee on Energy and Commerce
July 7, 2004 Subcommittee on Telecommunications and the Internet Hearing
"Voice Over Internet Protocol Services: Will the Technology Disrupt the Industry or Will Industry Disrupt the Technology?"

1. One of the issues this Subcommittee has worked hard on during this Congress is making sure that consumers' wireless phones can receive E-911 service. Can you tell me what you are doing to make sure that consumers who use VoIP service also can access 911/E-911 services? If VoIP service is not today capable of supporting E-911, when you do you believe you will have an E-911 capable service?

Cablevision shares the commitment to access to emergency services that the Subcommittee has demonstrated in the wireless arena. From the outset of Cablevision's plans to offer its innovative and price-competitive VoIP product, access to emergency services was and remains a priority. Today, Cablevision provides full Enhanced-911 service to all of its subscribers, which identifies the caller's location and transfers the 911 call to the appropriate public safety answering point.

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CHARLES A. GONZALEZ, TEXAS

July 19, 2004

Mr. Ronald J. Vidal
Group Vice President
Emerging Opportunities
Level 3 Communications, Inc.
1025 Eldorado Boulevard
Broomfield, Colorado 80021

Dear Mr. Vidal:

On July 7, 2004, you testified before the Subcommittee on Telecommunications and the Internet in a hearing entitled "Voice Over Internet Protocol Services: Will the Technology Disrupt the Industry or Will Regulation Disrupt the Technology?" We now ask for your help on one additional question (attached).

Because we wish to include the question and response in the printed record of this hearing, please respond no later than Wednesday, July 28, 2004. Please fax and e-mail the response. The faxed response should be directed to William Carty, Committee on Energy and Commerce, Majority staff, at 202-226-2447, and Voncille Hines, Committee on Energy and Commerce, Minority staff, at 202-225-5288. The e-mail copy of the response should be directed to (William.Carty@mail.house.gov) and Voncille Hines (Voncille.Hines@mail.house.gov). Due to the uncertainties of postal deliveries on Capitol Hill, we ask that your response not be sent through the postal service.

If you have any questions, please have your staff contact either Gregg Rothschild or Pete Filon, Minority Counsels to the Committee on Energy and Commerce, at 202-226-3400.

Sincerely,

JOHN D. DINGELL
RANKING MEMBER

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The Honorable Fred Upton, Chairman
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The Honorable Edward J. Markey, Ranking Member
Subcommittee on Telecommunications and the Internet

Questions for Mr. Ronald J. Vidal, Group Vice President
Emerging Opportunities
Level 3 Communications, Inc.
from the Honorable Anna G. Eshoo
Committee on Energy and Commerce
regarding the July 7, 2004, Subcommittee on Telecommunications
and the Internet Hearing entitled
"Voice Over Internet Protocol Services: Will the Technology Disrupt the Industry or Will Industry Disrupt the Technology?"

1. One of the issues this Subcommittee has worked hard on during this Congress is making sure that consumers using wireless phone can access E-911 service. Can you tell me what you are doing to make sure that consumers who use VoIP service also can access 911/E-911 services? If VoIP service is not today capable of supporting E-911, when do you believe you will have an E-911 capable service?

FAX to: William Carty Majority Staff, Energy and Commerce Committee 202 226 2447
Voncille Hines, Minority Staff, 202 225 5288

From: Ronald J. Vidal, Group Vice President, Emerging Opportunities
Level 3 Communications, LLC
1025 Eldorado Blvd
Broomfield, CO 80021
Contact: Jim Pribyl, VP, Government Affairs
720 888 7328

RE: Answers to Rep Eshoo 911 questions July 19 letter from Rep John Dingell

What is Level 3 doing to make sure that consumers who use VoIP service can access 911/E911 Services?

Level 3 is building a network infrastructure to support E911 capabilities in geographic territories where it intends to offer VoIP services. This means that Level 3 is installing direct interconnection trunks from our network to Public Safety Answering Points (PSAP), to ensure that our customers get full support for enhanced 911 services. On an interim basis or as a supplemental 911 support mechanism, Level 3 is also employing solutions such as 10 digit routing, where allowed, to the PSAPs.

If VoIP service is not today capable of supporting E-911, when do you believe you will have an E911 capable service?

For VoIP customers who use a traditional landline model, Level 3 will provide full E911 service, when its direct trunks have been deployed, and the PSAP or LEC 911 testing requirements have been completed. Level 3 orders its interconnection trunks from the Local Exchange Carrier (LEC) or PSAP depending on what is required within that local exchange territory. Level 3's E911 trunking is deployed in over 600 rate centers, with the intention of covering over 1100 rate centers by years'end.

While Level 3 has a solution for users who desire the service for a static location, some customers may take advantage of the inherent flexibility of VoIP services by moving their VoIP phone to alternate broadband connection locations, or choosing a non-geographically relevant telephone number, or having no telephone number at all. For those customers, the answer becomes far more complex.

The national landline E911 infrastructure is predicated on telephones that have fixed locations and telephone numbers that have geographic significance. By its nature, VoIP allows end users the flexibility to be served outside these traditional constraints.

Attempting to force VoIP into a traditional landline model has many challenges. Level 3 is actively participating in the National Emergency Number Association (NENA) working groups to expedite the implementation of a solution that can address the unique challenges of VoIP.

It will require VoIP carriers, equipment vendors,LECs, PSAPs and regulatory agencies to work in a coordinated fashion to achieve results in the attempt to ensure E911 is technically feasible for VoIP services. All parties play a role in developing and testing engineering standards, creating procedures for call handling, remittance calculation, tarriffing and a wide array of other tasks. Nevertheless, Level 3 is hopeful that initial implementation will commence in 2005. However, without Federal intervention, the timing of ubiquitous deployment may be delayed.

○