

PHANTOM TRAFFIC

HEARING

BEFORE THE

COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION UNITED STATES SENATE

ONE HUNDRED TENTH CONGRESS

SECOND SESSION

APRIL 23, 2008

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SENATE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION

ONE HUNDRED TENTH CONGRESS

SECOND SESSION

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PHANTOM TRAFFIC

WEDNESDAY, APRIL 23, 2008

U.S. SENATE,
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
Washington, DC.

The Committee met, pursuant to notice, at 2:30 p.m., in room SR-253, Russell Senate Office Building, Hon. Daniel K. Inouye, Chairman of the Committee, presiding.

OPENING STATEMENT OF HON. DANIEL K. INOUE, U.S. SENATOR FROM HAWAII

The CHAIRMAN. This afternoon we deal with a matter that is rather complicated, and I would like to commend the Vice Chairman of the Committee for bringing this matter up, and he is in the process of drafting a measure which I will be cosponsoring. I will, without objection, yield the floor, yield the chair to the Vice Chairman because he is the expert on phantoms.

[Laughter.]

The CHAIRMAN. I have very little expertise on phantoms.
[The prepared statement of Senator Inouye follows:]

PREPARED STATEMENT OF HON. DANIEL K. INOUE, U.S. SENATOR FROM HAWAII

It is easy to forget the small miracle of science that takes place every time you pick up a phone and make a call. No matter where you are in the country and no matter who you are calling, you are connected in a fraction of a second. This is possible because all telephone companies are required to interconnect with each other, to complete a phone call even if the carrier has no relationship with the calling party.

Historically, for the system to work, phone companies have sought compensation for the services they provided to other carriers. Today, many telephone companies complain that too many of the calls to their customers arrive lacking signaling information necessary for billing purposes. This so called "phantom traffic" financially burdens small carriers in particular.

I applaud Vice Chairman Stevens' desire to shine a light on this issue. Today's hearing allows us to explore the scope of the problem caused by phantom traffic. It also allows us to discuss legislation Vice Chairman Stevens intends to introduce that would direct the Federal Communications Commission to improve its signaling rules with respect to the transmission of information necessary for billing purposes.

I welcome the opportunity for the Committee to consider possible solutions to phantom traffic. As communications networks and consumer services have evolved over the past decade, the problem has grown more, not less, complex. Ultimately, we should strive for rules that ensure fair compensation for all service providers while encouraging continued innovation and greater network efficiency.

I look forward to hearing the testimony from today's witnesses on this issue.

**STATEMENT OF HON. TED STEVENS,
U.S. SENATOR FROM ALASKA**

Senator STEVENS. That is just because he never listened to that old radio program. Remember *The Phantom*? That is the problem.

I do thank you, Mr. Chairman. I thank you for scheduling the hearing. I am delighted that we have this series of witnesses.

Phantom traffic is a definite problem for rural carriers in our home State of Alaska and throughout rural America. Alaska providers face unique geographic challenges and depend on the ability to accurately bill other carriers for delivering traffic. However, phantom traffic prevents carriers from collecting funds that are rightfully owed to them by other carriers. This in turn impacts Universal Service and ultimately the telephone rates for customers in rural America.

During today's discussion, we will hear from a diverse cross section of the industry representatives. I am hopeful that this discussion will lead to an agreement that carriers should not disguise the origination of traffic.

Some will try to suggest that phantom traffic must be tied up in a broader discussion about reforming intercarrier compensation. In my opinion, that is not necessary. I think resolving this issue will make it easier to address those broader issues, but until this issue is settled, it will be almost impossible to attempt to solve the other problems that we have.

We have heard about the problems of phantom traffic for many years, and I have encouraged the Federal Communications Commission to actively analyze this issue. It is time now to try to find a solution and it is time for the FCC to pull back the mask and see who or what is behind phantom traffic.

I look forward to working with my colleagues here on this committee to address the problem, and I thank Senator Inouye, Senator Dorgan, Senator Smith, and Pryor, Thune, and Snowe for agreeing to cosponsor legislation that I hope to introduce today. This legislation would very simply require the FCC to establish rules within 12 months imposing a duty on originating carriers, including Voice over Internet Protocol providers, as well as intermediate carriers to ensure that all traffic has sufficient signaling data to enable accurate billing. It is unfair to the system to have some people disguise their traffic and not pay for it as others do. In establishing these rules, the FCC should consider at a minimum industry standards for signaling, technical implications of signaling equipment currently being used in industry, and costs incurred in modifying equipment to accommodate any changes that may be necessary to accurately reflect the origination of any signal.

And I do thank you as witnesses for participating. I look forward to your testimony.

I am sorry to be a little bit late, Mr. Chairman. I had about 70 young people from Alaska over there on the steps of the Capitol. If they had been from New York, there would have been 700. You understand. That is a large group for us.

In any event, I would welcome Charles McKee, Director of Government Affairs, Sprint Nextel; and Mr. Lawrence Sarjeant, Vice President, Federal Legislative and Regulatory Affairs of Qwest; Ms. Angela Simpson, Director for Government and Regulatory Affairs

of Covad Communications and President of the VON Coalition; and Mr. Raymond Henagan, General Manager of the Rock Port Telephone Company. Gentlemen and lady, if it is all right with you, we will proceed in that order and call on Mr. McKee first.

**STATEMENT OF CHARLES W. MCKEE, DIRECTOR,
GOVERNMENT AFFAIRS, SPRINT NEXTEL CORPORATION**

Mr. MCKEE. Good afternoon, Chairman Inouye, and Vice Chairman Stevens, and members of the Committee. My name is Charles McKee and it is my privilege to be here today.

On behalf of Sprint, I would like to take this opportunity to thank Vice Chairman Stevens and Chairman Inouye for your leadership and commitment to fostering the growth of the competitive telecommunications industry and for this opportunity to discuss Sprint Nextel Corporation's perspective on the issue of phantom traffic.

Sprint does not condone fraudulent activities of any kind, nor does it support activities designed to avoid legitimate compensation obligations between telecommunications carriers. Sprint does not believe, however, that there is a significant volume of telecommunications traffic that is being manipulated for fraudulent purposes and, accordingly, does not believe legislation in this area is necessary at this time.

On the contrary, Sprint believes that most disputes characterized as phantom traffic are a result of the inherent limitations of the existing public switched telephone network and ambiguity regarding the legal status of various types of telecommunications traffic.

The rates applied for the termination of traffic vary widely, even though the actual service provided, completion of a call to an end-user, is largely identical in all circumstances. These varying rate levels result in many disputes between the billing and billed companies over whether the correct rate level was applied on a particular call and what amount is actually due. Accordingly, it is not surprising that what one carrier characterizes as fraud another carrier would consider entirely appropriate under existing rules.

The testimony of all the witnesses here today acknowledges that there are many different means of exchanging billing information and that the existing network infrastructure is inherently limited in its ability to provide billing data even with the best signaling information. The lack of signaling data can result from many limitations in the network, such as the existence of multiple tandems or the limited signaling capability of a particular route, and likewise, given that carriers do not agree on what rate should apply to certain types of traffic, such as Voice over Internet Protocol traffic, the receipt of signaling information will not resolve those disputes.

Accordingly, while Sprint does not object to an obligation that all telecommunications providers populate appropriate signaling information, Sprint does not believe this change alone will address the core causes of today's billing disputes.

Given the complex questions that surround these payments, it is important that any legislation in this area be carefully crafted to avoid unintended consequences. We, therefore, applaud the narrow and focused approach of this proposed bill. Indeed, Sprint would encourage the Committee to expressly state that it is not attempt-

ing to modify existing intercarrier compensation obligations, for example, the manner in which the jurisdiction of traffic is to be determined or the type of network architecture required for the exchange of traffic.

Specifically, any legislation should expressly acknowledge that it is not establishing a new rule that called and calling party numbers should always be used to determine the jurisdiction or rate applicable to a call for billing purposes. In this increasingly mobile world, the use of phone numbers to determine a caller's location for intercarrier compensation purposes does not reflect the growth of wireless and Voice over Internet Protocol technology.

Similarly, Sprint urges the Committee to ensure that the legislation does not require carriers to reengineer their network architecture in an inefficient and costly manner. Specifically, the legislation should make explicit that these call identification obligations should not require carriers to segregate different types of traffic onto separate facilities or require direct connection between carriers. Such measures are not necessary to address the issue of billing and could increase the cost of service to consumers.

Ultimately, Congress or the FCC must come to terms with these broader issues of intercarrier compensation that are not being addressed here. The existing system is inherently irrational and is suppressing investment particularly in rural areas. Reform of this broken system is critical to sustaining robust competition in the telecommunications industry.

Thank you for your time, and I would be happy to take any questions you may have.

[The prepared statement of Mr. McKee follows:]

PREPARED STATEMENT OF CHARLES W. MCKEE, DIRECTOR, GOVERNMENT AFFAIRS,
SPRINT NEXTEL CORPORATION

Good afternoon Chairman Inouye and members of the Committee. It is a privilege to be here today. Thank you for this opportunity to discuss Sprint Nextel Corporation's perspective on proposed legislation addressing the question of network traffic identification or "Phantom Traffic."

In my testimony today, I will outline Sprint's understanding of the term Phantom Traffic, the significance of this issue to Sprint and the potential consequences of this legislation. Sprint does not condone fraudulent activities of any kind, nor does it support activities designed to avoid legitimate compensation obligations. Sprint does not believe, however, that there is a significant volume of telecommunications traffic that falls within these categories and does not believe legislation in this area is necessary at this time. On the contrary, Sprint believes that most disputes regarding "Phantom Traffic" are a result of inherent limitations of the existing Public Switched Telephone Network and ambiguity regarding the legal status of various types of telecommunications traffic.

While Sprint questions whether this specific issue warrants legislative action, it applauds the narrow and focused nature of this proposed bill. Given the complex questions that surround the payments exchanged between telephone companies, it is important that any legislation in this area be carefully crafted to avoid unintended consequences. This legislation is appropriately limited and appears designed to avoid these unintended consequences. Ultimately, however, Congress or the FCC must come to terms with the broader issues of intercarrier compensation that are not addressed here. Reform of this broken system is critical to sustaining robust competition in the telecommunications industry.

The Meaning of Phantom Traffic

Under current FCC rules, telecommunications carriers can impose charges on one another when they exchange telecommunications traffic. These charges vary based upon the type of carrier, the location of the callers, the manner in which the traffic is exchanged and the format or protocol of the traffic. There are at least nine dif-

ferent classifications of rates between carriers. The rules governing these charges are now very complex, and I will not attempt to outline or explain them in this testimony. For purposes of this proceeding, it is sufficient to state that these charges can only be assessed if the carrier receiving a call from the Public Switched Telephone Network is able to identify the carrier responsible for payment and the appropriate rate to be applied.

Phantom Traffic is not a term defined within the Communications Act or the FCC's rules and has been used by different parties to refer to different issues. Accordingly, the term itself is somewhat ambiguous in nature. As Sprint understands the issue, however, "Phantom Traffic" describes telecommunications traffic that either lacks sufficient information to identify the carrier responsible for payment or which lacks sufficient information to determine the rate to be applied to the traffic. This lack of information can be the result of many different causes, from the type of network used to transmit traffic, to disputes over the legal status of the traffic exchanged.

The Significance of the Issue

While there are significant disputes over which rates apply and which carriers are responsible for payment in various scenarios, almost all carriers recognize that traffic must be identified so that a billing carrier knows where to send its invoices and the rate to apply. This identification can occur in different ways. Most commonly, carriers use information provided during the transmission of the call using a special signaling protocol. This signaling information provides, among other things, the calling party number, the called party number and, depending on the type of call, the charge number ("CN"). (It is this network that enabled caller ID, for example). Information for billing can also be provided after the call is completed through the exchange of records between companies. These records frequently identify the responsible party based upon the trunk group originating the traffic. In yet other situations, companies may negotiate payment factors based on traffic studies that are used to generate invoices based on the total volume of traffic (as opposed to call-by-call records).

Despite the sinister label, the vast majority of "phantom traffic" is not the result of intentionally wrongful or nefarious conduct. Rather the lack of identifying information or the lack of sufficient information to determine a call's jurisdiction (or rate) is most frequently the result of the current architecture of the Public Switched Telephone Network, regulatory ambiguity regarding the appropriate rating and routing of particular types of traffic, and the creation of new services, such as Voice over Internet Protocol (VoIP), that do not fit neatly within the current rules.

For example, under current rules, the jurisdiction or rate to be applied to a call depends, in part, on the location of the calling and called party. In the traditional wireline network, the location of a party was generally determined by their phone number, which was associated with a fixed address. With the advent of mobile phones, however, the location of a caller can no longer be determined merely on the phone number used. A call from a New York mobile telephone to a traditional Kansas City telephone will appear identical from the perspective of the landline network, whether the caller was in either New York or Kansas City. Likewise, new voice applications using Internet protocol can be initiated on any broadband connection and may not have a single fixed location.

In Sprint's experience, however, the amount of traffic that cannot be identified through any of the means I previously mentioned is relatively small. Wireless carriers, for example, frequently negotiate traffic factors to account for the issue of mobility. These factors require wireless carriers to pay higher rates on a proportion of the traffic exchanged with other carriers on the assumption that some percentage of the calls exchanged were in a different jurisdiction and thus subject to a different rate. These factors are established based upon traffic studies that review data over a period of days or months rather than call-by-call signaling information. Although it is not always reliable to determine the location of a wireless caller based only on the called and calling numbers, the reality is that most carriers have found appropriate means to measure and identify this traffic, and are meeting their payment obligations.

Consequences of the Legislation

Sprint currently identifies all traffic it originates on the Public Switched Telephone Network and accordingly does not object to the imposition of such an obligation on other providers of voice communications. Indeed, Sprint agrees that providers of voice communication should not be permitted to affirmatively disguise their voice traffic or otherwise take steps to avoid a legal obligation to compensate the carriers with whom they exchange traffic.

Sprint notes, however, that the issue of traffic identification is closely related to the broader issue of intercarrier compensation. Indeed, the only reason to measure traffic in this way is in order to impose charges. Given the complexity of that subject, this legislation appropriately avoids attempting to restructure the current rules. The issue of intercarrier compensation reform has been the subject of thousands of pleadings and years of debate. Legislation which purports to address the relatively narrow issue of "Phantom Traffic" or traffic identification should appropriately avoid addressing these larger questions. Indeed, Sprint would encourage the Senate to clarify that this legislation is not intended to modify the current intercarrier compensation rules.

Specifically, the legislation should expressly acknowledge that it is not establishing a new rule that called and calling party numbers should always be used to determine the jurisdiction or rate applicable to a call for billing purposes. In this increasingly mobile world, the use of phone numbers to determine a caller's location for intercarrier compensation is backward-looking and ignores the trends of wireless and Voice over Internet Protocol ("VoIP") technology. Until Congress or the FCC are prepared to address all of the ramifications associated with changes in the manner in which calls are rated and routed, it should avoid any action that would further distort the current broken system.

Similarly, Sprint urges the Senate to ensure that the legislation does not require carriers to re-engineer their network architecture in an inefficient and costly manner. Specifically, the legislation should make explicit that these call identification obligations do not require carriers to segregate different "types" of traffic onto separate facilities or require direct connectivity between carriers. Such measures are not necessary to address the issue of billing and could increase the cost of service to consumers. Sprint is concerned, however, that this legislation could be read to require inefficient trunking arrangements that would disrupt the existing network architecture, which currently allows carriers to combine traffic of different types or jurisdictions on the same facilities. While Sprint does not believe this is the intent of the legislation, we urge the Senate to carefully review the language in this context.

Future Reform

Once again, Sprint commends the Senate staff for crafting such narrow legislation. Sprint does not condone fraudulent efforts to mask a carrier's identity or to avoid compensation obligations. Sprint, however, does not believe the specific issue of Phantom Traffic currently warrants legislation. While Sprint can support narrow legislation addressing traffic identification, we urge the Senate to avoid unintended changes to the already complex and dysfunctional intercarrier compensation regime.

Unfortunately, the issue of intercarrier compensation, including both switched and special access, is not one that can be avoided much longer if viable competition is to remain in the telecommunications marketplace. The distortions in the current system that heavily favor incumbent carriers and outdated technologies threaten to undermine the successes of the 1993 and 1996 revisions to the Telecommunications Act. Sprint strongly urges Congress to address these broader issues as soon as possible.

Senator STEVENS. Thank you, Mr. McKee.

Mr. Sarjeant, who is the Vice President of Legislative Affairs for Qwest, please.

STATEMENT OF LAWRENCE E. SARJEANT, VICE PRESIDENT, FEDERAL LEGISLATIVE AND REGULATORY AFFAIRS, QWEST COMMUNICATIONS INTERNATIONAL, INC.

Mr. SARJEANT. Good afternoon, Mr. Chairman and Mr. Vice Mr. Chairman. My name is Lawrence Sarjeant, and I am Vice President, Federal Legislative and Regulatory Affairs for Qwest. Qwest thanks the Committee for focusing attention on the phantom traffic issue by holding this hearing, and I appreciate the opportunity to share Qwest's views on phantom traffic with you.

Qwest provides local telephone service, broadband Internet access service, and VoIP service in 14 states that cross three U.S. time zones. Qwest also operates a long distance network and one of the world's largest Internet backbones. Qwest provides a variety

of other telecommunications and information services on a nationwide basis for businesses and state and Federal Government agencies. In providing these services, Qwest utilizes a network that consists of both traditional public switched telephone network, PSTN, facilities and state-of-the-art broadband and other IP-based facilities.

Qwest commits considerable investment capital and other resources on an annual basis to operate and maintain its facilities. For example, Qwest invested \$800 million in 2007 to augment the broadband capabilities of its network, including delivering higher speeds to all of its sales channels. This was a part of the approximately \$1.67 billion in total Qwest capital investment for 2007. Further, Qwest recently announced a planned 2008 capital investment of \$300 million to extend fiber optics deeper into its local network supporting Internet access services.

Given the breadth and diversity of its services and the size of its capital investment, Qwest cares deeply about ensuring that the public policy environment in which it operates is one that is investment-friendly. This is certainly a primary focus of the 1996 Telecommunications Act as evidenced by the specific requirement in section 157 that the Federal Communications Commission, the FCC, encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans by utilizing regulating methods that remove barriers to infrastructure investment. It is this goal of bringing advanced telecommunications capability to all Americans that should guide our communications policy deliberations and actions.

Unfortunately, the communications industry is experiencing a serious problem with certain industry participants avoiding their intercarrier compensation obligations to those carriers that own and operate the PSTN. If legitimate intercarrier compensation costs cannot be recovered because of such arbitrage, less capital is available for future network investments and consumers lose.

The term "phantom traffic" describes a number of different situations in which traffic is not adequately identified, making appropriate billing for the traffic difficult or impossible. This happens for a variety of reasons, but generally it occurs because the current intercarrier compensation regime has not kept pace with technological and competitive changes in the communications market and, as a result, has made certain arbitrage opportunities possible.

In today's communications world, both traditional telecommunications carriers and service providers utilizing more recent technologies depend upon the ability to interconnect with one another and exchange traffic. Because the exchange of traffic sometimes involves different types of services that are accorded different regulatory treatment, intercarrier compensation is accomplished through a variety of arrangements.

In any arrangement where service providers must compensate each other, it is essential that they negotiate agreements that spell out the terms and conditions by which they exchange traffic and that they also exchange adequate call data to enable accurate billing. Phantom traffic occurs in part because not all service providers obtain adequate agreements that ensure that other carriers receive the call data necessary for billing.

Qwest and others have asked that the FCC address phantom traffic on an interim basis, one, by reinforcing that the 1996 Telecom Act requires and enables all types of service providers to enter into agreements for the exchange of traffic, and two, by expanding the scope of the FCC's rules that require the passage of information necessary for accurate billing.

Call records. The exchange of call records pursuant to an agreement provides information to facilitate billing and is in fact the industry standard and the most common way in which information is exchanged for billing purposes. While service providers are already able to negotiate commercial terms for the exchange of call records as a part of their agreements, they all too often fail to obtain agreements in the first place and, when they do obtain agreements, sometimes fail to negotiate for the necessary call records.

Signaling rules. Signaling is just one method of passing some of the information necessary for accurate billing, and the existing call signaling rules were targeted to a narrow subset of traffic, interstate traffic using the most common, traditional public switched telephone network signaling protocol. As the communications marketplace becomes increasingly diverse and PSTN-based services become a complement to a variety of non-PSTN-based services, it is necessary to expand the FCC's signaling rules.

Qwest believes that comprehensive intercarrier compensation reform that creates a holistic bill-and-keep-at-the-edge regime for all traffic is the only true and complete solution to the phantom traffic problem. Nonetheless, expeditious adoption of an interim solution addressing agreements and signaling rules is an important step in mitigating the phantom traffic problem.

Thank you.

[The prepared statement of Mr. Sarjeant follows:]

PREPARED STATEMENT OF LAWRENCE E. SARJEANT, VICE PRESIDENT, FEDERAL LEGISLATIVE AND REGULATORY AFFAIRS, QWEST COMMUNICATIONS INTERNATIONAL, INC.

Good morning Mr. Chairman and Members of the Committee. My name is Lawrence Sarjeant, and I am Vice President for Federal Legislative and Regulatory Affairs for Qwest Communications International, Inc. (Qwest). I appreciate the opportunity to share Qwest's views with you at today's hearing on the issue of phantom traffic.

Before I address the phantom traffic issue directly, I just want to give a little background about who Qwest is and why we care so much about this issue. As you may know, Qwest provides local telephone service, broadband Internet access service, and VoIP (voice services using an IP protocol) service in fourteen states across the Central, Mountain and Pacific time zones. Qwest also operates a long-haul long distance network and operates one of the world's largest Internet backbones. Qwest also provides a variety of other telecommunications and information services on a nation-wide basis (*i.e.*, both inside and outside of its local service area). These services include VoIP service and a broad variety of other innovative telecommunications solutions provided to businesses and state and Federal Government agencies. In providing these services, Qwest utilizes a network that consists of both traditional Public Switched Telephone Network (PSTN) facilities and state-of-the-art broadband and other IP-based facilities. Qwest commits considerable investment capital and other resources on an annual basis to operate and maintain these facilities. By way of example, Qwest invested approximately \$800 million in 2007 to augment the broadband capabilities of its network, including delivering higher speeds to all of its sales channels.¹ This was a part of the approximately \$1.67 billion in

¹As stated in the Earnings Release for Qwest's 4th Quarter and Full-Year 2007 results.

total Qwest capital investment for 2007.² On top of that, Qwest recently announced a planned 2008 capital investment of \$300 million to extend fiber optics deeper into its local network supporting state-of-the-art Internet services.³

Promoting an Investment-friendly, Consumer-friendly, Market-based Environment

Given the breadth and scope of its services and the size of its capital investment, Qwest cares deeply about ensuring that the public policy environment in which it operates is one that is investment friendly. This is certainly a primary focus of the 1996 Telecommunications Act, as evidenced by the specific requirement in Section 157 that the Federal Communications Commission (the "FCC") "encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans . . . by utilizing . . . regulating measures that remove barriers to infrastructure investment." It is this goal of bringing advanced telecommunications capability to all Americans that should guide our communications policy deliberations and actions. Policies that discourage investment in communications infrastructure by making such investment uneconomic operate at cross-purposes with the goal of encouraging the timely and ubiquitous deployment of advanced communications capability to all Americans. Phantom traffic bears on a carrier's ability to make investments in advanced telecommunications capabilities by depriving it of the compensation it is due for handling the traffic of other communications providers. We are experiencing a serious problem with certain industry participants avoiding their intercarrier compensation obligations to those carriers that own and operate the PSTN. Facilities-based providers of communications services such as Qwest have high fixed costs. If we cannot recover our legitimate costs because of such arbitrage, less capital is available to us for future network investments to achieve the Congress's goal of bringing advanced telecommunications capability to all Americans. If this happens, consumers lose. Qwest commends the Committee for its interest in this issue and shining a spotlight on it by holding this hearing.

The Phantom Traffic Problem

The term "phantom traffic" describes a number of different situations in which traffic is not adequately identified, making appropriate billing for the traffic difficult or impossible. This happens for a variety of reasons, but generally occurs because the current intercarrier compensation regime has not kept pace with technological and competitive changes in the communications market, and as a result, has made certain arbitrage opportunities possible. In today's telecommunications world, both traditional telecommunications carriers and service providers utilizing more recent technologies all depend upon the ability to interconnect with one another. The intercarrier compensation regime, in turn, governs the manner in which interconnecting communications service providers give or receive compensation when these service providers exchange traffic. Because the exchange of traffic sometimes involves different types of services that are accorded different regulatory treatment, intercarrier compensation is accomplished through a variety of arrangements. In some circumstances, service providers agree to exchange no compensation while accepting each other's traffic. This is called "bill and keep." In other cases, local exchange carriers exchange or carry traffic pursuant to tariffs or carrier agreements that define the terms and conditions for the provision of compensation. For long distance services, there are both interstate and intrastate tariffed access charge regimes that are regulated by the FCC and state public service commissions, respectively. Under these regimes, long distance carriers typically pay local exchange carriers to deliver and receive long distance calls to and from local customers. Among competing local exchange carriers, there are the reciprocal compensation rules, which allow a local exchange carrier to be compensated by another local exchange carrier for the termination of local traffic. When wireless carriers exchange traffic with wireline carriers, there are yet additional rules. In some cases, traffic merely transits an intermediate carrier's network, but the transit provider neither originates nor terminates the call. In any compensation arrangement where service providers must compensate each other, it is essential that they not only negotiate agreements that spell out the terms and conditions by which they exchange traffic, but that they also exchange adequate call data to enable accurate billing.

Phantom traffic occurs, in part, because not all service providers obtain adequate agreements that ensure that other carriers receive the call data necessary for billing, particularly in those circumstances where the call signaling data is not ade-

²*Id.*

³As stated in the Earnings Release for Qwest's 3rd Quarter of 2007 results.

quate. Moreover, because intercarrier compensation treatment varies by jurisdiction, some service providers have the incentive to engage in arbitrage when they exchange traffic. For example, because interstate access rates are typically lower than intrastate access rates, access traffic is sometimes erroneously designated as interstate when in fact it is jurisdictionally intrastate. Similarly, access traffic is sometimes erroneously designated as local traffic because intercarrier compensation rates for local traffic are lower and/or because such a designation improperly seeks to shift the compensation burden to another carrier (*e.g.*, an originating carrier may be due compensation for access traffic but owe compensation for local traffic). In other words, phantom traffic occurs because certain service providers seek to pay less than they should, seek to avoid their compensation obligations altogether, or seek to receive compensation when they should be paying. Regardless of how it happens, phantom traffic is a large problem. Estimates as to the amount of revenue lost annually to phantom traffic have varied in filings in the FCC's intercarrier compensation proceeding (Docket WC No. 01-92) from \$600M to \$2B. The FCC is currently studying potential intercarrier compensation reform proposals that would largely address this problem by eliminating differences in intercarrier compensation treatment based on the type of traffic. However, it may be some time before comprehensive intercarrier compensation reform occurs. Because of this, Qwest and numerous other industry representatives are encouraging the FCC to at least adopt interim measures that would provide significant relief from the phantom traffic problem.

Qwest's Phantom Traffic Position

Qwest and a diverse group of industry representatives have asked that the FCC address phantom traffic on an interim basis by: (1) reinforcing that the 1996 Act requires and enables all types of service providers to enter into agreements for the exchange of traffic; and (2) expanding the scope of FCC rules requiring the passage of information necessary for accurate billing. The first principle is important because signaling is just one method of passing some of the information necessary for accurate billing. The exchange of call records pursuant to agreement also provides information to facilitate billing and is, in fact, the industry standard and the most common way in which information is exchanged for billing purposes. While service providers are already able to negotiate commercial terms for the exchange of these call records as part of their agreements, they all too often fail to obtain agreements in the first place and, when they do, fail to negotiate for the necessary call records. The second principle is important because the FCC's existing call signaling rules were targeted to a narrow subset of traffic—*i.e.*, interstate traffic using the most common traditional PSTN signaling protocol. The rules do not cover, for example, voice calls originated in IP protocol which terminate on the PSTN. As the communications marketplace becomes increasingly diverse and PSTN-based services become a complement to a variety of non-PSTN-based services, it is necessary to expand the FCC's signaling rules.

Again, Qwest believes that the best interim solution to phantom traffic is to merely expand the scope of current rules as discussed above. To be clear, given the nature of the arbitrage problem underlying phantom traffic, Qwest believes that comprehensive intercarrier compensation reform that creates a holistic bill-and-keep-at-the-edge regime for all traffic is the only true and complete solution to the phantom traffic problem. The solution described above, addressing agreements and signaling rules, is only an interim step. But, it is an important step, and Qwest hopes it can be taken expeditiously.

Thank you.

Senator STEVENS. Thank you very much.

The next witness is Ms. Angela Simpson, Director for Government and Regulatory Affairs of Covad Communications and President of the VON Coalition. Ms. Simpson?

STATEMENT OF ANGELA SIMPSON, DIRECTOR, GOVERNMENT AFFAIRS, COVAD COMMUNICATIONS; AND PRESIDENT, VOICE ON THE NET (VON COALITION)

Ms. SIMPSON. Thank you, Chairman Inouye, Vice Chairman Stevens. My name is Angela Simpson. I am Director of Government Affairs at Covad Communications and the President of the VON Coalition.

I am proud to be here representing a group of high-tech innovators who are ushering in a new world of communication opportunity. We believe VoIP can be a force for increased competition and innovation and a driver for broadband deployment and economic growth. With the right policies, VoIP competition can save consumers billions of dollars over the next several years, and as the Nation faces economic challenges, VoIP is now projected to be the number one job creator of any industry in the country. But this promise and potential are at risk if rules of the last century's telephone network are arbitrarily imposed onto the Internet.

Phantom traffic is a somewhat sinister sounding phrase coined by some incumbent phone companies to refer to traffic that may not conform to the billing methods used by those carriers. In essence, such traffic confuses the terminating carrier because the traffic may not contain information that the legacy system can easily handle. Some attribute fraudulent motives to phantom traffic, but it is inaccurate to view all phantom traffic as fraud or theft. There are other innocent and valid reasons for this phenomenon.

Namely, the current compensation scheme does not reflect the technological realities of today's communications market. Many new technologies like some VoIP services have no business reason to track information in the traditional way, and to do so would require extensive and costly network modifications simply to generate artificial information.

While VoIP technologies may not be the primary cause of the so-called phantom traffic problem, some of the proposed solutions put forth have very real potential to stall emerging VoIP benefits and limit consumer choices. For these reasons, the VON Coalition respectfully urges policymakers to carefully consider two key principles before acting on phantom traffic.

First, to help accelerate the transition to a nationwide broadband network, we believe regulators should create technologically neutral incentives rather than disincentives for exchanging traffic between Internet networks and the legacy phone network.

And second, rather than reflexively applying yesterday's rules to tomorrow's technologies, we encourage the Committee to take a practical, forward-looking approach that extends VoIP-driven benefits throughout the economy.

Those who seek quick action on the narrow issue of phantom traffic might create the short-term appearance of solving a problem, but the related fallout is likely to have significant, unintended negative consequences. The best approach is for policy experts at the FCC and stakeholders to eliminate the phantom traffic issue by enforcing existing rules and establishing a new compensation regime that fosters fair competition.

Many proposed solutions to the phantom traffic phenomenon tend to tie together the signaling issue, the identification of the IP voice packet, and the compensation issue. This is neither necessary nor advisable. A combination of FCC enforcement of its current rules, minor changes in the current call signaling requirements, and completion of the broader FCC policymaking provides a far more rational solution.

It is also important to note that some legacy carriers themselves bear a part of the blame for the phantom traffic issue where they

have not updated their networks to accommodate SS7 technology. Before imposing burdensome, new technical and regulatory requirements on the entire VoIP industry, those carriers should be required to make the necessary updates to their networks to be able to handle the existing signaling information.

We are concerned that proponents of new traffic signaling regulation have not adequately demonstrated a quantifiable problem that cannot be addressed through better enforcement of existing rules. This is a necessary precondition for any additional actions. Any fix should also consider impacts on other laws, broadband deployment, and the regulation of the Internet in general. There is no need to conduct open heart surgery to fix a paper cut.

Regardless of the path taken, however, the VON Coalition believes that no one should have the right to block allegedly improperly labeled traffic. Because such action is blatantly discriminatory, policymakers should never tolerate or permit blocking of IP traffic under any circumstances.

The VON Coalition believes that acting on an ad hoc basis at this stage is unwarranted. However, to the extent that this committee does act, it should focus its initial efforts on quantifying the scope of the phantom traffic problem. This is a legitimate debate. The risks associated with retrofitting outdated technological and compensation regimes onto bold, new communications tools vastly outweigh the temporary financial rewards some of these ILEC's seek.

VoIP technology has benefited people across America from cities to suburbs to exurbs, and it has been especially important for consumers living in rural America who are just now beginning to enjoy the benefits of broadband and voice competition. Facilitating Internet-based voice communication can help all consumers to benefit from voice competition and innovation. It can also help communities connect to a new world of remote job opportunities, resulting in rural economies becoming an engine for higher paying information age jobs.

However, imposing rules meant for yesterday's phone network on tomorrow's digital age would adversely affect these vast consumer benefits. We urge the Committee to take extreme caution in how it proceeds with this phantom problem.

Thank you.

[The prepared statement of Ms. Simpson follows:]

PREPARED STATEMENT OF ANGELA SIMPSON, DIRECTOR, GOVERNMENT AFFAIRS,
COVAD COMMUNICATIONS; AND PRESIDENT, VOICE ON THE NET (VON COALITION)

Thank you, Chairman Inouye, Vice Chairman Stevens, and distinguished members of the Committee. My name is Angela Simpson. I am Director of Government Affairs at Covad Communications and President of the Voice on The Net or VON Coalition¹—the voice for the VoIP industry. On behalf of the VON Coalition, I

¹The Voice on the Net or VON Coalition consists of leading VoIP companies, on the cutting edge of developing and delivering voice innovations over Internet. The coalition, which includes AT&T, BT Americas, CallSmart, Cisco, CommPartners, Covad, EarthLink, Google, iBasis, i3 Voice and Data, Intel, Microsoft, New Global Telecom, PointOne, Pulver.com, Skype, T-Mobile USA, USA Datanet, and Yahoo! works to advance regulatory policies that enable Americans to take advantage of the full promise and potential of VoIP. The Coalition believes that with the right public policies, Internet-based voice advances can make talking more affordable, businesses more productive, jobs more plentiful, the Internet more valuable, and Americans more safe and secure. For more information, see <http://www.von.org>.

thank the Committee for the opportunity to appear before you today to discuss the so-called phantom traffic issue.

I am proud to be here representing a group of high-tech innovators who are helping to usher in a new world of communications opportunity. We believe VoIP can be a force for increased competition, a platform for innovation, a driver for broadband deployment, and a vehicle for continued economic growth. In fact, with the right policies, VoIP competition can save consumers an astounding \$111 billion over the next 5 years—putting real money back into consumers’ pockets through the power of competition at a time when families really need it.² And by harnessing VoIP as a broadband driver, just a 7 percent increase in broadband adoption could create an estimated 2.4 million new jobs.³ Indeed, as the Nation faces economic challenges, VoIP is now projected to be the number one job creator of any industry in the country.⁴

But the promise and potential that I outlined above are at risk if rules meant for the last century’s telephone network are arbitrarily imposed on to the Internet. This would not only stall and stifle these vast consumer and small business benefits, but it runs counter to the course the Committee has charted over the years to promote competition, investment, and innovation.

“Phantom traffic” is a somewhat sinister-sounding phrase used by some incumbent phone companies to refer to communications traffic that does not conform to the billing methodologies used by those terminating LECs. In essence, such traffic “confuses” the terminating carrier’s systems because, in some instances, the traffic does not contain information that the legacy carrier’s system utilizes to determine the traffic’s regulatory classification for compensation purposes. Some read fraudulent motives into phantom traffic by suggesting that the originators affirmatively alter or remove the information necessary for intercarrier compensation billing purposes in order to make traffic appear to be the type of traffic that is assessed lower termination fees. But it is inaccurate and simplistic to view “phantom traffic” as fraud or theft. There are other, innocent and valid reasons for the “phantom traffic” phenomenon.

Namely, the current compensation scheme does not reflect the technological realities of today’s communications market. Many new technologies, like some VoIP services, have no business reason to track such information in the traditional way that the ILECs would prefer. And to do so would require extensive network modifications simply to generate artificial information. For example, many innovative Internet-based communication services and technologies are not tied inextricably to North American Numbering Plan (“NANP”) numbers, which are the foundation of many intercarrier compensation calculations. In other instances, the consumer is simply utilizing the full range of features of a technology, whether IP-enabled or wireless, such as using a communications device to originate calls from locations unrelated to the calling party number.

While VoIP technologies may not be the primary cause of so-called phantom traffic problems, some of the proposed “solutions” put forth have the very real potential to stall the vast emerging benefits and limit consumer choices in the future. For these reasons, the VON Coalition respectfully urges the Committee to carefully consider two key principles before it advances any legislation related to phantom traffic that might forestall these vast consumer benefits:

- First, to help accelerate the transition to a nationwide broadband network, we believe regulators should adopt rules that create technologically neutral incentives rather than disincentives for exchanging traffic between Internet networks and the legacy phone network. This means strengthening and reforming interconnection and intercarrier compensation policies as a whole.
- Second, rather than automatically applying yesterday’s rules to tomorrow’s technologies, we encourage the Committee to support a practical, forward-looking approach that empowers consumers, extends VoIP driven benefits, and boosts productivity in the economy. Extreme caution should be taken to not unduly impede the FCC’s comprehensive intercarrier compensation reform efforts

²Micra report (available online at http://www.micradc.com/news/publications/pdfs/Updated_MiCRA_Report_FINAL.pdf) found that VoIP competition can save consumers \$111 billion over the next 5 years.

³Just a 7 percent increase in broadband adoption could result in an additional 2.4 million jobs per year created. See http://www.connectednation.com/documents/2008_02_21_TheEconomicImpactofStimulatingBroadbandNationally_AConnectedNationReport_001.pdf.

⁴The industry leading the way in terms of employment growth over the next few years will be Voice over Internet Protocol providers (VoIP), according to economic research firm IBISWorld, with average annualized jobs growth of around 19.4 percent through 2012. See <http://www.ibisworld.com/pressrelease/pressrelease.aspx?prid=116>.

currently underway and to avoid the serious unintended negative consequences that could arise by virtue of a reflexive “band-aid” fix to the “phantom traffic” issue.

We are concerned that a “shoot then aim” approach to solving the so-called phantom traffic issue could have the unintended effect of stifling innovation and stalling investment in this still nascent IP-enabled communications industry. Those who advocate for quick action on the narrow issue of phantom traffic might create the appearance of solving a problem, but the related fallout is likely to have significant and unintended negative repercussions. For example, a band-aid fix imposed on VoIP services is likely not to adequately solve the problem experienced by the LECs, and will disproportionately harm VoIP providers and their consumers. A better approach is for policy experts at the FCC and industry stakeholders to eliminate this phantom traffic issue once and for all by establishing a new intercarrier compensation regime that fosters fair competition and innovation to the benefit of consumers and small businesses nationwide. The FCC has the tools and the appropriate authority to develop the balanced, pro-competitive, and forward-looking policies that are needed here. Indeed, the FCC opened such proceeding in 2001, but has yet to act partly because they are overwhelmed by a tidal wave of petitions seeking to eliminate statutory interconnection obligations.

I. Proposed Phantom Traffic “Solutions” Confirm the Failures of the Current Compensation Structure

Many proposed solutions to the “phantom traffic” phenomenon tend to inextricably tie together the signaling issue and the compensation issue. This is neither necessary nor advisable, especially if Congress or the FCC is contemplating an interim solution. A combination of vigilant FCC enforcement of its current rules, potentially minor changes in signaling requirements, and completion of broader FCC policymaking provide far more rational solutions.⁵

There are two distinct issues that proponents of phantom traffic solutions seek to resolve. The first issue involves the information about a call that is generated and exchanged. The FCC’s rules already address this concern, but they need to be enforced.⁶ Vigorous FCC enforcement of its existing rules can go a long way toward solving the phantom traffic problem. It is also important to note that certain ILECs themselves bear part of the blame for the phantom traffic issue where they have not updated their networks to accommodate Signaling System 7 (“SS7”) technology. But before such ILECs seek to impose burdensome new technical and regulatory requirements on the entire VoIP industry, they should be required to make the necessary upgrades to their own networks to be able to handle “necessary” signaling information prior to suggesting that other intermediate carriers assume any additional burdens.

Current signaling requirements could potentially be fine-tuned to further address the situation to the extent such actions are technically, operationally, and economically feasible for all, to the extent that they are necessary for an interim solution to be effective, and in a manner that spreads the burden equitably between all entities in the transmission chain. To this end, the VON Coalition could support a requirement that, where technically and operationally feasible with the network technology deployed at the time the call was originated, the originating providers transmit the telephone number received from or assigned to the calling party. For PSTN connected services, all providers in the communications stream pass currently generated call identifying information without modification. This requirement would not apply where no telephone number is assigned to the calling party. Importantly, however, the VON Coalition does not support any new obligations to generate call identifying information where such information does not generate organically.

The second issue involves the compensation structure for traffic that does not meet the billing requirements of legacy terminating phone companies. Proponents of additional regulatory burdens seek to impose backward-looking obligations and high access rates on new entrants and new technologies in the guise of “phantom traffic” solutions for two underlying reasons. First, the current compensation struc-

⁵The Commission has taken a strong view against piecemeal decisions that might “stymie comprehensive reform.” For example, in rejecting a recent forbearance petition, the Commission was concerned that “such relief would . . . require us to prejudge important issues pending in broader rulemakings and otherwise distort the Commission’s deliberative process.” *Petition of SBC Communications Inc. for Forbearance from the Application of Title II Common Carrier Regulation to IP Platform Services*, Memorandum Opinion and Order, 20 FCC Rcd 9361 (2005).

⁶Specifically, carriers that utilize SS7 signaling *already* are required to transmit the calling party number associated with an interstate call to interconnecting carriers. 47 C.F.R. §64.1601(a).

ture does not reflect current technological and market realities and disproportionately benefits legacy terminating LECs. And second, some are seeking to remedy deficiencies in their own networks and billing systems at the expense of others. Comprehensive intercarrier compensation reform is one of the fundamental policy issues currently being considered by the FCC.

The so-called phantom traffic “solutions” not only won’t solve these fundamental policy challenges, but worse, they will delay the reform that is necessary to put all carriers on a level playing field. A rush to judgment on the phantom traffic issue, without proper consideration of the broader interests of consumers and small businesses would be a dramatic departure from the Federal goals on compensation reform which include encouraging network efficiency and investment, and the development of efficient competition.⁷

II. Congress Should Proceed Cautiously to Avoid Negative Unintended Consequences of New Phantom Traffic Regulation

The VON Coalition cannot over-emphasize the need to proceed cautiously. There is a significant danger of negative unintended consequences of going too far to fast here. As an initial matter, we are concerned that proponents of one-off phantom traffic regulation have not adequately demonstrated a quantifiable problem that cannot be adequately addressed through vigilant enforcement of existing rules. Information regarding the true size and scope of the so-called phantom traffic problem, and tending to show that it is a significant problem that cannot be addressed by FCC enforcement, is a reasonable and necessary precondition for any additional regulatory requirements. There is also insufficient evidence that the long-term costs to consumers, service providers, and our economy from a new Internet regulatory scheme imposed to address any quantifiable phantom traffic problem—are outweighed by any short term benefit to incumbents. In addition to this fundamental cost-benefit analysis, the Committee should refrain from acting until the impacts of any such action on existing law (such as the Call Home Act), broadband deployment, and the Internet generally, are understood. There’s no need to conduct open-heart surgery to fix a paper cut.

IP networks and the gateways that enable the transition between broadband communications and the PSTN are critical links for empowering consumers and driving economic benefits related to IP-enabled communications. That’s why it’s critical to consider the technical variations of networks and not try to retrofit new technologies into legacy network solutions. By avoiding rules that create new and onerous obligations to generate call identifying information where such information does not generate organically, policymakers can help ensure continued investment in IP-enabled networks, and avoid backward-looking decisions that can stifle innovation, impede technology investment, and slow the transition to broadband communications.

Regardless of the path taken, the FCC should never permit terminating carriers to resort to “self-help.” Some ILECs have suggested that both intermediate and terminating carriers should have the right to block “improperly labeled traffic.” Because such action blatantly gives competitors the ability to discriminate and is customer affecting, policymakers should never tolerate or permit blocking of any IP traffic under any circumstances.

III. Getting to the Right Intercarrier Compensation Regime

Only a few years ago, five rural ILECs and U.S. Telecom wrote to this Committee arguing that the FCC should not take interim steps to clarify the correct compensation regime for VoIP because “[t]hese issues should be addressed comprehensively and not in a piecemeal fashion, as the FCC has previously recognized.”⁸ They argued that to “act on an ad hoc basis on only one aspect of a much larger problem at this stage is totally unwarranted.” And they asked for help in preventing the “FCC from taking any hasty, ill-timed, and ill-conceived action.”⁹

The VON Coalition likewise agrees that acting on an ad hoc basis on only one aspect of a much larger problem at this stage is totally unwarranted, especially when the *ad hoc* solution being proposed by the ILECs is likely to impose high per-minute access charges on VoIP providers. Such access charges would overcompensate ILECs because they do not remotely reflect the true costs of traffic exchange, while at the same time stifling consumer benefits of IP-enabled communications and

⁷ See *Developing a Unified Intercarrier Compensation Regime*, Notice of Proposed Rulemaking, 16 FCC Red 9610, 9612 (2001).

⁸ Eastern Rural Telecom Association, Independent Telephone and Telecommunications Alliance, National Telecommunications Cooperative Association, Organization for the Promotion and Advancement of Small Telecommunications Companies, United States Telecom Association, Western Telecommunications Alliance Letter to Senator Daniel K. Inouye (Feb. 3, 2005).

⁹ *Id.*

slowing broadband adoption in the United States. Instead, we urge the Committee to encourage regulators to continue to focus attention on completing action on its omnibus intercarrier compensation reform proceeding. Such an approach avoids imposing costly but temporary “band-aid” requirements on broadband communication, protects VoIP consumers from arbitrary price increases, and ensures that new investment in IP-enabled networks, applications, and services is not unnecessarily deterred.

The current regime is, in a word, broken and the apparent catalyst behind the request for new phantom traffic solutions is the very issue that should be driving the FCC to adopt comprehensive compensation reform: rapid technological changes in the communications industry have made virtually all current compensation and billing mechanisms obsolete. Thus, to the extent this Committee acts, it should focus its initial efforts on quantifying the scope of the “phantom traffic” problem. The existence of a problem is a gating issue, and estimates as to the size and scope of the problem vary greatly. Congress should focus on doing no harm prior to mandating new regulatory constructs. The risks associated with retrofitting outdated technological and compensation regimes onto bold new communications tools vastly outweigh the financial rewards these ILECs seek.

IV. Conclusion

VoIP technology has benefited people all across America from cities to suburbs to exurbs. And it has been especially important for consumers living in rural America who are just now beginning to enjoy the benefits of broadband and voice competition. Enabling Internet-based voice communication can help consumers (particularly rural consumers) to benefit from voice competition, encourage rural telecom companies to extend broadband infrastructure more affordably, allow remote businesses to transform the way they operate, and help rural communities to connect to a new world of remote job opportunities, resulting in rural economies becoming an engine for higher paying information age jobs.

However, imposing rules meant for yesterday’s phone network on to tomorrow’s digital age would adversely affect these vast consumer benefits. The VON Coalition in no way endorses fraudulent removal of call signaling information. Many legacy telephone companies, however, would use this fear as a means to burdensomely regulate the balance of innocent VoIP actors. We urge the Committee to take extreme caution in how it proceeds with this “phantom” problem.

Thank you very much. I am happy to answer questions.

Senator STEVENS. Thank you very much.

Our last witness is Mr. Raymond Henagan, General Manager of Rock Port Telephone Company. Mr. Henagan?

STATEMENT OF RAYMOND HENAGAN, GENERAL MANAGER, ROCK PORT TELEPHONE COMPANY; ON BEHALF OF THE NATIONAL TELECOMMUNICATIONS COOPERATIVE ASSOCIATION

Mr. HENAGAN. Good afternoon, Senators. Thank you for inviting me here today.

Before I outline the problems, please understand that small rural carriers get about 29 percent of their revenues from carrier payments. Schemes to avoid these payments make it difficult to afford service to rural consumers.

The first key problem is carriers are not sending all the detailed information required for proper billing. Recent analysis of our records show that 11 percent of the calls sent for termination on Rock Port’s network lack of calling party’s number. Sherburne Telephone Company in Minnesota also discovered that 30 percent of their terminating calls arrive without valid CPN.

Second, Rock Port and most other small carriers are not receiving all the detailed call records from the tandem carrier who provides us with connections to the outside world. To give you an idea of the size of the problem, in 2007 we saw over 18 percent of our minutes being sent over Rock Port’s network were traveling for free

because they are not receiving the call records needed to bill for these calls.

Third, many rural carriers cannot send an accurate bill out to certain wireless carriers because we are not privy to the necessary traffic information. Wireless carriers insist on using traffic factors to bill access charges for nonlocal calls. However, this factor is not based on real traffic. Not surprising, these percentages range from 0 to 3 percent. We need actual traffic information to be able to negotiate agreements with wireless carriers on an equal playing field.

Fourth, rural carriers are receiving letters from carriers refusing to pay access bills claiming the FCC has given them permission to use their networks for free because they are IP. Now, you and I both know these are regular voice calls, people talking to people. Because these companies have sprinkled IP fairy dust on them, they think they get a free ride. IP technology has never been magic. Everyone has it. I have it. AT&T has it. IP is a technology. It is not a service. It is not a network. It is not the Internet. These are regular voice calls.

Senators we need your action at the Federal level. Present policy is failing to get me critical billing information and is giving these carriers excuses for not paying for calls they sent to our network. Additionally, the FCC is not allowing us to block the non-pay carriers, and this is like an unconstitutional taking. What other business is required to give away its product or services free due to government action?

NECA has filed a petition asking the FCC to extend its call signaling rules to all voice service providers who use the PSTN regardless of the technology that is used. NECA has asked the FCC to allow carriers to use phone numbers as a default proxy for billing purposes when wireless carriers do not provide real traffic data or when you cannot mutually agree upon a traffic factor. Granting NECA's petition would be a good first step.

We also need the FCC to confirm all users of the network. The network must pay for its use. FCC has stated this is a policy and has implemented rules and has said voice services are the same as telephone services in the customer's eyes, but has not confirmed that voice calls are subject to its access rules like all other calls. If FCC lets this continue, Americans who live in rural areas will likely see their phone bills escalate, their quality of services will be decreased, a large reduction in investment in broadband, and an increase in Universal Service contributions.

Senators Missouri is the "Show Me State." So I am asking you to please show us some action on this critical issue. Thank you.

[The prepared statement of Mr. Henagan follows:]

PREPARED STATEMENT OF RAYMOND HENAGAN, GENERAL MANAGER, ROCK PORT TELEPHONE COMPANY; ON BEHALF OF THE NATIONAL TELECOMMUNICATIONS COOPERATIVE ASSOCIATION

Introduction

Good afternoon Senators, and thank you for this opportunity to share with you today the serious financial problems that phantom or unbillable traffic is presenting for America's small rural telecommunications carriers. For the past 10 years I have served as the General Manager of the Rock Port Telephone Company in Rock Port, Missouri, and my professional career in the telecommunications industry spans more than 38 years.

In addition to Rock Port and the National Telecommunications Cooperative Association (NTCA), I am also appearing on behalf of the Organization for the Promotion and Advancement of Small Telecommunications Companies (OPASTCO), and the Western Telecommunications Alliance (WTA).

Specific Company Dynamics

Organized as a cooperative, Rock Port's top priority has always been to provide every one of its consumers, who are also its owners, with the very best telecommunications and customer service possible. Rock Port serves 1,695 access lines across its 187 square mile rural service area. This is about 9 lines per square mile. The population throughout our service area is aging, and the average county wage is \$21,373. We employ a total of 9 people—yes, 9—and our annual revenue is \$1.6 million. By comparison, Embarq, which is a Tier 2, or midsize, carrier, has 18,000 employees and total revenues for 2007 of \$6.37 billion.¹ Verizon, which is a Tier 1, or large carrier, has 235,000 employees and last year generated consolidated operating revenues of \$93.5 billion.²

The entrepreneurial spirit of Rock Port is representative of its approximately 1,100 small rural counterparts in the industry, who together serve 50 percent of the Nation's land mass. We have always been early adopters of new technologies, and it's been no different with regard to Internet Protocol (IP) capabilities. Presently, Rock Port makes high-speed broadband available to 90 percent of its customers and we expect that figure to be 100 percent within 3 months. Due to this commitment, rural Americans today are enjoying universal telephone service, access to broadband Internet services, and enhanced emergency preparedness.

Yet, small rural companies simply do not enjoy the economies of scale and scope that would permit them to interconnect with every service provider in America who might send a call to one of their customers. Most small rural carriers, including Rock Port, interconnect with a larger carrier, such as Embarq or Verizon, who in turn provides them with access to all other telecom service providers. We call these intermediary carriers "tandem providers."

Rural Telecom Network Cost Recovery

Due to the extremely high costs associated with serving rural markets, small carriers like Rock Port depend on three primary sources of revenue to provide the cost recovery that is necessary to provide advanced, high quality services to rural Americans. They are: (1) intercarrier compensation payments from other carriers, (2) direct payments from our own customers, and (3) support from the Federal Universal Service Fund (USF). Using the analogy of a three legged stool, if any one of these three legs are missing or shortened, the stool is thrown off balance and the company mission is toppled.

Intercarrier compensation payments are made by one carrier to another for the use of its network, for example when one of Carrier A's customers calls one of Carrier B's customers. Intercarrier compensation takes the form of either interstate access charges, intrastate access charges, or reciprocal compensation charges.

The term "phantom traffic" refers to voice communications traffic on the public network that lacks sufficient information for billing purposes. In other words, carriers do not receive the information necessary to know *who to bill* or *what rate to bill* for the call—thus under today's policy the call remains unbilled. In some cases, because rural carriers do not receive the billing information, they cannot identify the traffic traversing their networks—thus the term "phantom." Increasingly, rural carriers are discovering blatant schemes intended to avoid the payment of access charges entirely. This translates into dramatic losses of legitimate cost recovery revenue for telecommunications carriers of all sizes, while the carriers are still obligated to provide and maintain the facilities.

NECA has estimated that small rural carriers across the Nation typically receive about 29 percent of their total net telephone company operating revenue from intercarrier payments. For some companies, this percentage is as high as 49 percent of total net operating revenue. So, you can see how important these intercarrier payments are for providing affordable service to rural consumers. You can see why we view the growth of phantom traffic and other schemes to avoid paying intercarrier fees with such concern. And you can see why this is a topic critical enough for this Committee and Federal policymakers in general to address.

¹ See, <http://investors.embarq.com/phoenix.zhtml?c=197829&p=irol-irhome>.

² See <http://investor.verizon.com/>.

Identification of Phantom Traffic

Recognizing or identifying phantom, or unbillable, traffic is not always automatic or easy. The inherent dilemma with phantom traffic is that, by its very definition, it is essentially hidden and thus extremely difficult to identify or track. And by extension, it is very difficult to quantify its overall negative impact.

In its most insidious form, phantom traffic is a result of some carriers stripping the data completely, manipulating the data into an unreadable form, or the outright refusal to pay the intercarrier bill for the calls they send to another carrier's network. In other cases, phantom traffic materializes as a result of an originating service provider's failure to attach appropriate call signaling information to its traffic. And in its most subtle form, phantom traffic is merely the outcome of flawed policies that allow for false jurisdictional classification of calls, which results in the erroneous billing of lower charges. All forms distort marketplace competition and force carriers inappropriately to seek cost recovery through other means. For rural carriers this means higher access charges for those who do pay and increased reliance on the Universal Service Fund.

At Rock Port, the unbillable or phantom traffic traversing our network is substantial—over 18 percent of total minutes. Unfortunately, Rock Port is not alone. They say misery loves company, and we seem to have plenty of it. Industry estimates show between 20 percent and 30 percent of such intercarrier traffic cannot be billed because it lacks sufficient billing information.³ This figure is growing as service providers find new ways to avoid paying intercarrier compensation.

In 2007 alone, Rock Port lost access revenue equal to about \$37 per access line per year—because we did not have enough information to bill for the calls. Over the course of 8 years, say from 2000 to 2008, this would amount to about a half million dollars. While this may seem like peanuts up here in Washington D.C., where I come from it translates into meat and potatoes. I would not like to have to tell my customers that their phone bills have to go up to pay for someone else's free ride on the network we are obligated to build, maintain and support. Unlike the industry's larger carriers, we small rural carriers do not have the scale, market alternatives, or customer numbers to make up the revenue elsewhere—nor should we have to. And if we do not meet our financial targets, our sources of financing for introducing new technology and modern, advanced communications services dry up PDQ—pretty darn quick.

Key Phantom Traffic Problems

One of the key causes of phantom traffic is the failure of certain carriers to send all of the call signaling information (intentionally or unintentionally) required for proper billing. The FCC does have a rule requiring carriers sending an interstate call to transmit the Calling Party's Number (CPN). This information helps carriers establish what rate to bill and can help identify what service provider sent the call. This information is also required in order for law enforcement officers to trace the call, for emergency workers to track the calling party, and to provide Caller ID services. Yet, if the number is altered or stripped off entirely, as it often is, these statutory and regulatory objectives are easily frustrated.

A case in point involves the Alaska Communications Systems Group which in 2005 sent a letter to the FCC describing traffic being terminated in Alaska as "local" traffic, but which in fact originated from out-of-state phones.⁴ In this case, the intermediary carrier had replaced the telephone number of the originating caller with a local Alaska number in order to disguise the jurisdiction of the call and thereby avoid paying the access charge. ACS indicated that in the month of October 2005 alone, over 20 percent of minutes to Fairbanks had this problem.

Recent analysis shows about 11 percent of calls other carriers sent Rock Port for termination on our network lacked a CPN. Another Kansas company received about 11.7 percent of calls without CPN. Sherburne Telephone in Minnesota recently performed a similar analysis only to discover, to their surprise, that about 30 percent of their terminating traffic arrives without a valid CPN.

A second key problem faced by Rock Port and most other small rural carriers is we don't receive all the detailed call records from the intermediate "tandem" carrier who provides us with connection to the outside world. If we don't receive this information, we cannot bill for the traffic.

³*E.g.*, Letter from Donna Epps, Verizon, to Marlene H. Dortch, FCC, CC Docket No. 01-92 (Nov. 1, 2006), attachment, at 11. Letter from Karen Brinkmann, Latham & Watkins, to Marlene H. Dortch, FCC, CC Docket No. 01-92 (July 1, 2005), attaching presentation entitled "Phantom Traffic: Problem and Solutions", Balhoff & Rowe (May 2005), at 5.

⁴Letter from Karen Brinkmann, Latham & Watkins, LLP, to Marlene H. Dortch, FCC, CC Docket No. 01-92 (Dec. 12, 2005).

In 2000, we at Rock Port discovered that we were not receiving call records for about 25 percent of the minutes traveling over our network. Because we could not bill for them without these records, they were traveling for free. Armed with this information, we negotiated with the tandem provider to alter how its network switches were configured so that they could send us complete records. We thought the problem was essentially solved. In 2007, however, we did a comparison of the minutes our own switches recorded with the number of minutes contained in the bill records we receive from the tandem provider. We had recorded 10.5 million minutes, but received call records for only 8.6 million minutes. That left 1.9 million minutes that we could not bill for. The percent of phantom traffic on our network had climbed from 14.5 percent in 2006 to 18.2 percent in 2007. There is no logical technical reason why we should not be receiving accurate call records from the tandem provider that tracks our network's actual traffic volume.

And it is certainly not just Rock Port. Our industry colleagues in Montana had a problem big enough to convince state lawmakers to address the issue of phantom traffic by adopting a state law in 2003 that required carriers to send call signaling information and required tandem transit providers such as Qwest to provide complete call records. The rural carriers use this data to crosscheck their own network data, which has helped reduce phantom traffic loss levels from 10 percent to less than 5 percent of their volume. A similar initiative was enacted in South Dakota in 2004, though it was recently overturned on procedural grounds tied to preemption. Likewise, industry colleagues in Washington and Oregon took their phantom traffic case to their state PUCs, providing data showing as much as 50 percent of the traffic on their local interconnection trunks was "phantom." In 2005, however, these PUCs decided that it was more appropriate to bring these issues to the FCC for consideration. Clearly with this level of state activity, it is obvious this is an issue that is crying out for Federal action.

Some industry players argue that when we don't receive call signaling or records, we can still bill based on "traffic factors". These are percentages given to us by the sending carriers that are to be used for assigning traffic into the interstate, intrastate or local categories—by which we then assign rates. The sending carriers provide absolutely no supporting data to back up these unilateral traffic factors, and studies have shown that the factors do not represent the actual traffic patterns on the network. Therefore, the third "phantom traffic" problem is that we have no means to verify the accuracy of these traffic factors. These carriers will only accept and pay a bill reflecting these factors.

This is particularly critical for traffic from wireless carriers. Rural companies in South Dakota ran a study to compare the non-local wireless traffic factor (for calls that cross a wireless Major Trading Area, *i.e.*, inter-MTA calls) given to them by one wireless carrier with the actual percent of non-local wireless (inter-MTA) calls on their networks. They found that as much as 30 percent of total wireless traffic terminating on their network was inter-MTA, compared to the 3 percent inter-MTA factor given to them by this wireless carrier. And many of their wireless agreements have a 0 percent inter-MTA factor. These South Dakota companies are, therefore, not able to bill the correct rate for the 25–30 percent of wireless traffic that is legally subject to access charges. In 2004, the amount of access revenue lost due to these unrealistic factors represented an astonishing \$12 to \$39 per access line per year. In light of this demonstrated lack of "good faith", it is clear that small rural carriers need the FCC to provide them with additional negotiating leverage to be able to negotiate inter-MTA traffic factors that are realistic and reflect the actual usage on the network.

The final dilemma associated with phantom traffic that I will discuss today involves the outright refusal of so-called VoIP providers to pay their access charge bills. Rural carriers across the Nation are receiving an increasing number of letters from interconnected carriers refusing to pay access charge bills, claiming the calls were "IP." Laurel Highlands Tel (PA) has provided the FCC evidence that carriers such as ChoiceOne are not only refusing payment of access charges, but may also be enticing other carriers to migrate their traffic to its "free" network. Montana Telecom Association provided the FCC with similar letters from CommPartners, which admitted that 90–100 percent of its terminating traffic to various Montana ILECs is interexchange, but stated that "because this traffic represents VoIP transmissions rather than circuit-switched telephone calls, your company is not entitled to collect access charges on these calls." NECA has also provided a number of such letters to the FCC.

At the end of the day, you and I both know these are nothing more than voice calls—people talking to people. But because these companies have sprinkled "IP fairy dust" on them, they think they should get a free ride on our network.

IP technology has never been magic—controlled by a few magicians in their Internet labs. I have IP technology in my network, AT&T has it and Verizon has it. Public telephone networks around the world are introducing IP technology into their networks. IP is a technology—it is not a service, it is not a network, and it is not the same as the Internet. IP is today’s iteration of communications technology—not tomorrow’s iteration—and once again, however delivered these calls are just voice calls.

But because the FCC has not yet confirmed that access charges apply to interconnected VoIP service, these CLECs are claiming their services are “enhanced” and, therefore, exempt from access charges. Because the FCC has remained silent, more and more rural phone companies are receiving letters from service providers who refuse to pay the intercarrier bills for calls they agree they sent to rural telecom company networks. And current Federal policy requires us to continue giving our product away to companies who refuse to pay for it, even when we do send them a bill.

Please tell me why we allow other utilities to stop service when we are late in payment, why I could not check into my hotel until my credit card company agreed to make payment, and we let banks foreclose on homeowners and take their homes from them when they don’t pay their mortgages, but we do not take service away from these “high tech” companies who won’t pay their bills?

Turning Point

So, the big question is—what can be done about phantom traffic?

First, the FCC needs to require all service providers to send all the telephone numbers and other traffic identifiers—just like is required for an ATM cash transaction to take place. NECA has filed a petition for an interim order with the FCC asking it to: (a) Extend their existing call signaling rules to all interconnected voice service providers; (b) Require accurate CPNs be transmitted with all calls, regardless of jurisdiction and regardless of technology used; (c) Clarify that the true CPN must be provided, not a number associated with intermediate switches, gateways, or platforms; (d) Require all intermediate service providers to transmit signaling information unaltered; and (e) Clarify that the originating and terminating telephone numbers can be used as a default proxy to determine jurisdiction of calls for billing purposes, when traffic factors cannot be mutually agreed or data on the actual origination or termination point is not provided. Almost every segment of the telecom industry in America has expressed support for strengthened call signaling rules. Yet, we are still awaiting some action on this front.

Second, I need to be able to bill for all the calls on my network. I need to receive call records for all the calls, and when I don’t, I need the tools to hold the person who sent those calls to me accountable. The Montana state law may provide a good model for Federal action. It requires the tandem transit providers to provide call records to the terminating carriers. However, when I don’t receive those call records, I need to be able to charge the guy at the other end of the trunk who is sending me those calls without the records. Just like in the children’s game of telephone, I can only see the person next to me who is passing me the message. I cannot see the person originating the message. The guy at the other end of the trunk can then pass the charges down to the next guy who is sending him the traffic, and so on down the food chain. I cannot hold some unknown, unnamed service provider accountable without such tools.

Third, we need a federally-approved tool that will provide small carriers with the ability to negotiate realistic traffic factors for non-local, inter-MTA wireless calls with wireless carriers. The NECA petition has proposed the use of the “telephone numbers rule” as a reasonable proxy for when actual traffic data is not provided or a traffic factor cannot be mutually agreed. A 2004 South Dakota study has demonstrated that using call records and using telephone numbers produces fairly close results. We believe the telephone numbers rule is a reasonable proxy, and will give wireless carriers a strong incentive to bring real traffic data with them to the negotiating table.

And finally, we need the FCC to affirm that all users of the network must pay for its use. The FCC has stated that this is the policy, has implemented rules, has said that VoIP services are the same as telephone services in the customer’s eyes. But the FCC has not yet confirmed that VoIP calls are subject to its access charge rules just like all other voice calls. This has allowed service providers to sprinkle the “IP fairy dust” over their refusals to pay their access bills and to claim they should be treated different—that they are Internet Service Providers—rather than what they really are, which is providers of voice calls used by people to talk to other people.

If the FCC lets this continue, Americans who live in rural areas will likely see their phone bills increase and the quality of their services decrease. IP-originated voice services are expected to account for more than 20 percent of all voice calls in 2008, 33 percent in 2010, and 40 percent in 2011. We simply cannot afford to give the use of our networks away for free. The Coalition of Telecom Manufacturers has said that if this continues, it will result in large reductions in telecom infrastructure investment, particularly investment in broadband access technologies. I can tell you, Senators, this will certainly be true in rural America, and will jeopardize the national objective of ubiquitous broadband Internet access.

Conclusion

Senators, time is of the essence. With each passing day, small rural carriers lose millions in intercarrier compensation revenue. We are not asking for special treatment. We are only asking for carriers that use our network to pay for its use. It is anti-competitive to allow some carriers to avoid these fees while others pay, and it is affecting the ability of small rural carriers to roll out new technology and services to rural America.

Americans today uniformly rely on communications infrastructure and services to satisfy their commerce, safety, security, entertainment, and leisure needs. Moving forward, these needs will be met via a combination of 2-way voice, video, and data options. Ensuring that small rural companies have the financial wherewithal to meet these needs is the primary reason to take action to exterminate phantom traffic. Lack of action on phantom traffic is putting in jeopardy rural carrier's ability to help us achieve our shared national objective—ubiquitous and robust broadband capable infrastructure.

Senator Stevens has been hard at work drafting a legislative proposal that would go a long way toward helping resolve the phantom traffic issue by providing the FCC with specific guidance on actions it could take to ensure this practice is stopped. Please support Senator Stevens in his efforts to address phantom traffic through this legislation. And please urge the FCC to take immediate action by granting NECA's Petition. You know—Missouri is the "Show me" state, and we'd sure be pleased if you could show support for our concerns on this crucial matter. Thank you.

Senator STEVENS. Well, thank you very much.

Mr. Chairman, do you have any questions?

The CHAIRMAN. I wish to say for the record that Senator McCaskill of Missouri has asked me to express her regret in not being able to attend this afternoon's hearing because at this moment she is presiding in the Senate chamber.

Senator STEVENS. Thank you.

I am perplexed. Ms. Simpson, I would probably come to you first because you indicate that you think the FCC is right in not imposing any requirement on the originating carrier to properly disclose the type of information that would allow billing by the final terminating carrier. The rural telephone companies are primarily those who receive these calls and must deliver them. I take it you take the position that they have no right to just turn around and send it back.

Ms. SIMPSON. Well—

Senator STEVENS. Why not? Why do we not just say to the rural carriers, if you get something that does not have identification of where it came from, send it back to whoever gave it to you?

Ms. SIMPSON.—well, the lack of information about where it came from does not prevent it from being terminated onto the network.

Senator STEVENS. Well, it does because what you do, as Mr. Henagan says, you force the terminating carriers to pay the cost of delivery when they have no way of billing anybody.

Ms. SIMPSON. Senator Stevens, I would disagree with that statement.

Senator STEVENS. Will you tell me how they can bill?

Ms. SIMPSON. Well, VoIP providers do pay for the termination of traffic. Many VoIP carriers have agreements with incumbents for the termination of traffic. So—

Senator STEVENS. They do not apparently have it with rural carriers. They have it with the big city carriers. We are talking about the tentacles of this communication system. You go out to the end. You are dealing with rural areas like our area or like the islands in Hawaii. They are going to receive these without any information of who to bill.

Ms. SIMPSON.—well, yes, sir. I mean, there are instances where VoIP providers try to reach agreements with rural carriers and rural carriers either refuse to enter into agreements or—

Senator STEVENS. You know why, do you not? The legacy carriers have more investment, and the other carriers that come in on broadband and Voice over the Internet Protocol have very little investment in their communications system. Do you disagree with that, Mr. Sarjeant?

Mr. SARJEANT. The rural incumbent carriers have made a lot of investments to put in place the public switched network which is really the core on which all other networks to some extent rely, whether they be wireless or IP-based. So clearly, there is a tremendous amount of investment that has been made by incumbent local exchange carriers in the public switched telephone network.

Ms. SIMPSON. Senator Stevens—

Senator STEVENS. Pardon me. My mind goes back to the time when Senator Inouye and I used to sit here at this same table and talk about the fact that all of the telephone ads and the television said these rates do not apply in Alaska and Hawaii. We introduced a resolution that called for rate integration, and that rate integration required that Alaska and Hawaii become part of the Union. We were already a state, but we were not in the union of communications.

That gradually led to what we called rate integration task forces, and they finally figured out how to do that. You know what it was. It was the interstate rate pool that paid for the termination of these calls and allowed us to come into the total communications system, but because the cost of getting to our states was greater than any other states—at that time, there were basically legacy carriers. They were basically terrestrial. And we finally came in.

Now, what you are saying, Ms. Simpson, is those areas like ours, which are still operating basically on the systems that in many instances you all got rid of 20 years ago, should incur the costs of modernization to catch up with VoIP, notwithstanding the fact that you are asking them to terminate calls that came from VoIP with no compensation. As Mr. Henagan says, how can they do that unless they get some compensation which will justify the investment in the modernization you require?

Ms. SIMPSON. Senator Stevens, I would not suggest at all that the VON Coalition believes that rural carriers should not be compensated for the cost of terminating other folks' traffic.

And I would also just note that the interconnected VoIP providers pay into the Universal Service Fund at rates higher than traditional wireline carriers or wireless carriers. So, indeed, we are helping rural carriers invest in their networks.

What the issue comes down to is not necessarily the rates that would compensate them for the cost of terminating traffic. What we are talking about here is sort of the broader issue that the FCC is currently investigating, which is bringing the whole intercarrier compensation regime to a more modern and equalized type of a system.

Senator STEVENS. I do not want to pick on you.

Mr. McKee, you said something that also made me write it down as you were talking. Where does the ultimate carrier get its income to really affect the delivery unless there is some identification on the message that allows them, in effect, to back-charge and collect and get part of the cost of originating that call?

Mr. MCKEE. Senator, we do not disagree that all calls should be identified and that the signaling record should be populated.

Senator STEVENS. Well, what should we do with the people that do not do it? You pick up VoIP and send it through your systems and through your switch, but you do not require the identification. You know when it is coming through the switch it does not have the information, and yet you send it on.

Mr. MCKEE. Well actually, Senator, Sprint—I will not try to speak for other telephone companies, but Sprint, when it originates VoIP traffic, it does populate CPN when it passes it out to the PSTN.

Now, the lack of information on the other end can be for different reasons, not because Sprint did not populate the signaling record at the beginning of the transmission of the call—

Senator STEVENS. Are you suggesting someone erases it?

Mr. MCKEE.—well, not that they erase it, but—

Senator STEVENS. That has been one of the suggestions one of my carriers made, that there is someone in this business who is automatically erasing the system so that no one can be properly billed.

Mr. MCKEE.—well, again, we have not seen evidence that there is a significant amount of traffic where people are erasing it. The nature of a way in which, for example, tandems operate frequently do not pass along information, or if two tandems are involved in the call, it is not unusual for some of that call information to be stripped. That is why that type—

Senator STEVENS. Who strips it?

Mr. MCKEE.—well, again, it is not as if it has been intentionally removed. It is just not information that continues to flow with the call because it is broken when it passes through that switch.

And the way in which traditionally we have handled that issue is through billing records so that tandem owner will collect the necessary information. It may not flow in the signaling protocol. It may not be part of an automated system, but instead billing records are passed after the fact. So that is one way in which that issue gets addressed.

So, again, part of my testimony was there are many different ways to exchange information that allows these carriers to bill. Again, Sprint in no way objects to carriers billing for the traffic they receive.

In fact, one of the issues that wireless carriers have is that we also cannot bill for a large portion of the traffic we receive. It is

not because we do not get sufficient information, but because the FCC has set rules up in such a way that inter-exchange carriers, for example, are permitted to terminate traffic on the wireless networks without compensating us.

It is a part of, again, what I characterize as an irrational inter-carrier compensation structure, and we are hopeful that all of these issues get addressed by the FCC since they have had a docket outstanding since 2001.

Senator STEVENS. I tell you, you sort of indicate that the bill that I am about ready to introduce is meaningless.

Mr. MCKEE. No. I am not suggesting that it is meaningless, sir. Again, our concern here is that much of the dispute in this area is, again, not because of intentional fraudulent acts, but because of either inherent structural problems within the network that do not allow signaling to occur not because—

Senator STEVENS. Well, if I initiate a call over VoIP, I should have within my system—the carrier that I contact with my Internet call—something that identifies where the call originated. Would you not agree with that?

Mr. MCKEE.—we would agree that the CPN, the standard fields that are provided for—

Senator STEVENS. That is the first carrier that my VoIP message intersects. Right? They would put the identification on where it came from, would they not?

Mr. MCKEE. Generally, yes. That or else they would have to contract with somebody to do that. In other words, when—

Senator STEVENS. You are not suggesting that just because I originated on VoIP, I am automatically originating phantom calls. None of us believe that.

Mr. MCKEE.—no, no, of course, not.

Senator STEVENS. So the first carrier that really received that message ought to have some identification on it, do you not think? I think that is their responsibility to see that is done, and if it is done, then the terminating carrier is going to get paid. And the problem is how to figure it out because a lot of the carriers are like Mr. Henagan's carrier and those in our States which are still legacy carriers. They are using lines and using a lot of ground equipment that you all are not going to be using any longer. But they have to be compensated for it or they are going to go out of business. Thirty percent of their business is coming in through VoIP now and not getting compensated. Now, how can they survive?

Mr. MCKEE. Well, again, Senator, we are not disagreeing that calling party number information should be part of the populated record. Not at all.

Senator STEVENS. But VoIP users are almost being told that it is cheaper to do that, and the only reason it is cheaper is no one is sending the information along with the message so that they have to pay when it finally is terminated. Would you not agree?

Mr. MCKEE. I agree that there are certainly carriers that are offering discounted services. The services that Sprint provides we are careful to ensure that we are compensating the carriers we hand that traffic off to. Now, if that means that we are at a competitive disadvantage, that may be the case, but I cannot speculate on what other carriers are doing.

Senator STEVENS. Mr. Henagan, my people tell me that the lack of this compensation for this phantom traffic is putting them in the position where they cannot afford to go to broadband. Do you think this is a burden on these legacy carriers to carry this phantom traffic and puts them in a position where they cannot modernize?

Mr. HENAGAN. That is correct, Senator. To the future, we are not going to be able to modernize to go to broadband if this continues on at the pace that it is going. In 2006, overall all the phantom traffic that came through was 14.5 percent. In 2007, it jumped up to over 18 percent. If this continues on, it will not be long until it will be over 50 percent of the traffic that is coming through, and I will not have the funds at that time to continue on with broadband expansion.

Senator STEVENS. Mr. Sarjeant, does the FCC have a sufficient record of phantom traffic to move forward and find a solution now in your opinion?

Mr. SARJEANT. Yes, Qwest believes that it does and Qwest believes that it could act forthwith and address at least on an interim basis and begin to mitigate the damages associated with phantom traffic in very short order. So we believe they have a record. As Mr. McKee pointed out, the intercarrier compensation proceeding was opened in 2001. So it is a longstanding programming, and the issues of phantom traffic have been debated for some period of time now.

Senator STEVENS. Mr. McKee, is this going to require that we tell the FCC they must adopt new, different switching technologies in order to solve this problem?

Mr. MCKEE. I hope that is not the case, Senator. Obviously, that would create significant expense within the industry.

Senator STEVENS. I hope you will repeat that because everyone seems to think that the burden should remain on the poorer carriers at the end and the ones in the middle that are capable already are making these magnificent, monstrous investments. If there is a change, it will place an additional burden on them.

Now, why should they not help us find a solution?

Mr. MCKEE. I think we are more than happy to try and help you find a solution, Senator.

Senator STEVENS. I hope you will.

Mr. Chairman, I do not have any other questions. I really think if this continues, what the two of us saw when bringing our own States into the communications system will fail because we are the end of the system. We receive more traffic than we originate, and the burden on our people of receiving these messages from outside our States really means that these legacy carriers cannot continue to operate. They do not have a 17 percent profit to start with. So if you have a 17 percent burden on the average, in terms of this phantom traffic which they must deliver under current FCC rules, they are destined for failure. Above all, they are destined not be in a position to do what we want them to do and that is deploy broadband.

I hope that we will find some way to get the FCC involved in this and get the industry that is going to pay the price ultimately because if our people fail, you are still going to have to find some way to deliver your messages. Unless you have the legacy carriers sur-

vive, you have to find some way to deliver them, and I do not know you would do it under the existing system. And you cannot say that Sprint can deliver anywhere in the world or any of the rest of you can deliver anywhere in the world if you cannot deliver right here at home in terms of these small carriers in rural America.

Mr. Chairman, do you have any questions?

The CHAIRMAN. Yes. I would like to ask Mr. Henagan a question. How many people do you employ?

Mr. HENAGAN. On the telephone side, I employ nine people.

The CHAIRMAN. What is your gross income?

Mr. HENAGAN. It is \$1.6 million.

The CHAIRMAN. And according to your testimony, 11 percent of the calls would be phantom traffic. What is the dollar value of that?

Mr. HENAGAN. On a per access line basis, it is \$37 per access line.

The CHAIRMAN. \$7 per call?

Mr. HENAGAN. \$37 per an access line. It is about \$63,000 a year on my company as such for that today as such. And if you look at it over a 10-year period—and I have looked back over a 10-year period—it would be over a half a million dollars for a very small company.

The CHAIRMAN. And other small companies have had 20 or 30 percent of their traffic as being phantom?

Mr. HENAGAN. That is correct. As a whole, it is anywhere from 10 to 30 percent today that is coming in as phantom traffic.

The CHAIRMAN. So this will mean depriving some of your fellow workers a pay raise.

Mr. HENAGAN. That is correct.

The CHAIRMAN. I thank you very much, sir.

Senator STEVENS. There is a difference here between the phantom traffic and those messages that are missing billing information my staff tells me. There is a double problem here. One is the billing information has been stripped off. The other is phantom. Never had it.

Mr. HENAGAN. That is correct. Some of them we never get records whatsoever, and then some of them we get records in that have no billing information so that I have no idea who to bill for that call. So out of that, the tandem sends me the records and I have nobody to bill for some, and then the other is we have no records at all that ever come in.

Senator STEVENS. Ms. Simpson, after we had the original hearing in this room on our rate integration concept, the industry got together and came up with the interstate rate pool. It did not take an action of the Federal Government. It did not take an action of the FCC. They started the process toward change to accommodate the problems that were faced by the fact that we had two new States. Is it possible that industry could get together, in your opinion, and try to work this out without Federal regulation or without interference of Congress?

Ms. SIMPSON. I believe that it is possible and that the industry should work together. I mean, to be clear, the VON Coalition—we do support reasonable call signaling obligations for interconnected

VoIP providers where it is technically feasible and operationally feasible as well.

Senator STEVENS. What about where it is not and you are the receiving carrier? Do you have to deliver it anyway?

Ms. SIMPSON. Well, that becomes the situation where there needs to be a cost-benefit analysis, what is the size of the phantom traffic problem versus what is the cost of having VoIP providers modify all their networks to be able to provide the information the way the rural carriers want it, and then the corresponding problems with the economy, broadband deployment, and just regulation of the Internet. So I mean, there is definitely a cost-benefit analysis that has to be undertaken on a broader scope.

Senator STEVENS. I am reading between the lines that you think Congress is going to have to solve this problem.

Ms. SIMPSON. No. I definitely believe that there are ways for the industry to do it on their own and that there are ways for the FCC to do it within their current authority and their current expertise to help fix the problem.

Senator STEVENS. Well, these terminating carriers want to be paid for the phantom traffic at the same rate that they are paid for all other traffic that comes through their system. You are saying you think that you should be able to enter into some agreement where that is not the case. You said handle the traffic the way they want it. How should they handle it?

Ms. SIMPSON. According to the legacy telecommunications industry billing standards. It is difficult to retrofit Internet voice products, and when we are talking about voice products, there are so many different kinds. It is not necessarily the type that Sprint would provide or Covad would provide. We are talking about VoIP applications that do not even have any need whatsoever for a phone number, which would be one of the main parts of information that rural carriers would want for billing purposes.

Senator STEVENS. Well, it would seem to me that the FCC could require that no system could launch such a message without some identifying mark to see who is going to be billed for delivering it. Is that wrong?

Ms. SIMPSON. It is not necessarily wrong. I think it is one of the things that the FCC is currently working on.

Senator STEVENS. Well, that is new technology. That is what you have the luxury of in the major cities that they do not have the luxury of in Missouri and in some of the rural States and places like I live.

Ms. SIMPSON. There is also a difference, Senator Stevens, between the potential for having interconnected VoIP providers have to implement two different solutions, a temporary solution based on the existing intercarrier compensation regime, which would cost money for the VoIP industry to implement, and then presuming that the FCC, since it does have a proceeding open and it is working on it right now, does do comprehensive intercarrier compensation reform, then the VoIP industry has to turn around and implement yet another solution at yet another additional expense.

Senator STEVENS. Well, that implies that there is one solution for the areas where you have a monstrous number of messages and a

different solution for the areas where you have a smaller number in rural America.

Mr. McKee, do you agree with that, that there is a difference in the system where you are integrating between those entities who have already gone to broadband and been modernized and those that integrate with the legacy carriers that are still on the wirelines?

Mr. MCKEE. Let me try to answer your question, and if I do not do it right, I am sure you will let me know. But I think what you are asking—

Senator STEVENS. I used tubes once, remember?

[Laughter.]

Mr. MCKEE.—well, as I understand your question, you are saying, well, should these two systems be treated differently and I would say no, absolutely not. In fact, one of the things that we really hope the FCC will do is to try and unify the way in which all these systems are treated so that there can be one uniform set of rules that applies to everyone.

One of the problems we have right now is that there is not just one rate that is applied when you hand traffic to a carrier. In fact, there are nine or more different categories of rates that apply depending upon whether you are a wireless carrier, whether you are a long distance carrier, whether you are another CLEC, whether you are an ILEC, you know, the distance of the call. So there are a number of different rates here.

And what we would really hope to see is that the FCC addresses the thing in such a way that both IP providers, VoIP providers, it does not matter what kind of telecommunications you provide, you have an obligation to pay and it is some kind of straightforward, easily calculated rate that everybody knows they are going to have to pay, including pay to rural carriers.

Senator STEVENS. The intercarrier compensation proceeding has been pending before the FCC for 7 years now.

Mr. MCKEE. That is correct.

Senator STEVENS. How do you think we are going to get an answer to this question in time for these rural carriers to survive?

Mr. MCKEE. Well, I believe, Senator, you can probably bring some pressure on the FCC to do what they need to do.

Senator STEVENS. I think I can bring greater pressure on you guys who are making all the money to find some way to pass some of it on to the people who are failing. Certainly this is an industry problem more than it is an FCC problem. The industry is carrying messages that it knows will not be compensated for because the billing information is not there, regardless of whether it was deleted or just not there to begin with. They are passing it on. I would put the burden on whoever passes on a message that does not have that information, that they should pay from there on.

And I think that the industry ought to find some way to get together before that happens because I do believe we cannot wait for 7 years for this to be solved.

Mr. Chairman, I do not have any more questions. Do you have any more questions?

The CHAIRMAN. This may sound naïve, but Mr. McKee, if Mr. Henagan's company goes bankrupt with nine employees and \$1.6

million in income and it gets worse and worse, would your company be willing to take over the system?

Mr. MCKEE. Well, again, Senator, we have no desire for his company to go bankrupt. In fact, we are more than willing to pay them for the traffic that we send them.

Again, Sprint—I can only speak to my company—does populate identifying information for all traffic it sends to the PSTN, and we stand ready to compensate rural carriers for the traffic we send them.

We also contribute a significant amount of money to the Universal Service Fund to also help support those carriers, and I think that is certainly useful—

Senator STEVENS. Do not say you contribute. You said that before. That is not so. It is the user that pays that. That is a charge that the customer pays. It is not paid by the company at all. You just transmit the money that has been collected under Universal Service charges added to each customer's charge. That is not something you pay in the industry at all. And I have heard that several times in recent hearings here about how the industry is paying those. The consumer is paying those and has from the very beginning. It was an addition to interstate calls and it was the result of that conference we had on rate integration, but it is not something that is paid by the company. It does not come out of your top or your bottom line. It is something that is paid by the individual into that Fund. That is not your money. You did not earn it, and you did not pay it. So I hope you do not say to me again. OK?

Mr. MCKEE.—absolutely, Senator.

Senator STEVENS. Thank you.

Anything further, sir?

The CHAIRMAN. No.

Senator STEVENS. Thank you all very much. I am going to introduce the bill. I am not sure yet whether it is going to go very far after what I have heard from you all, but I do hope we will find some solution. Otherwise, rural carriers are going to go out of existence. They cannot continue to get these messages that they cannot identify, they cannot bill, and yet have the duty under the FCC current regulations to deliver without regard to being paid by anybody. It just will not work.

Thank you very much.

[Whereupon, at 3:35 p.m., the hearing was adjourned.]

A P P E N D I X

PREPARED STATEMENT OF HON. CLAIRE MCCASKILL, U.S. SENATOR FROM MISSOURI

Chairman Inouye, thank you for holding today's hearing on the subject of "phantom traffic." I regret that I am not able to attend the hearing due to my obligations as presiding officer in the Senate.

I want to thank you and Vice Chairman Stevens for inviting a Missouri witness to testify. Mr. Raymond Henagan, General Manager of Rock Port Telephone Company, has presented a compelling case as to why the Federal Communications Commission needs to address the problem of "phantom traffic" on our communications networks. I would be remiss to not also thank you for inviting Mr. Charles McKee from Sprint Nextel Corporation to testify. I often claim Sprint Nextel as a Missouri company because its headquarters is located just across the state line in Kansas and it is one of the largest private employers in the Kansas City metropolitan area.

Phantom traffic refers to telephone calls which do not contain identifying information that can be used for billing purposes between voice service providers. As the amount of phantom traffic has grown due to new technologies, so has the impact on the bottom line of telephone companies. Rural telephone companies have been especially impacted. According to one estimate by the National Exchange Carrier Association (NECA), phantom traffic has resulted in annual losses of approximately \$600 million for rural carriers and \$2 billion for the industry overall.

I know the Federal Communications Commission is looking closely at proposals to address phantom traffic and has received comments on various proposals from the wireless, cable, and voice providers. I am hopeful today's hearing sends a message to the FCC and industry that they must work constructively to come to an agreement. We need clarity and fair rules to identify traffic traveling over our Nation's telecommunications network.

Thank you again for holding today's hearing.

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