

MEMORANDUM

TO: Commissioners Clark, Wefald and Cramer
PUD

FROM: Bill Binek and Pat Fahn

DATE: January 7, 2005

RE: BEK Communications Cooperative, et al. v. SmartNET, PU-2967-03-666

The Commission held a hearing in this complaint case on May 25, 2004. Both parties have submitted initial and response briefs. The Commission on July 26, 2004 received the last brief filed in the case. On October 20, 2004, the Commission issued its order to postpone the decision in this proceeding in order to receive guidance from the FCC regarding the regulatory treatment of VoIP

To date the FCC has issued three decisions this year in an attempt to establish regulatory certainty regarding regulatory obligations of providers of IP-enabled services—the *Pulver Declaratory Ruling*¹, the *AT&T Declaratory Ruling*² and the *Vonage Declaratory Ruling*³. In addition the FCC has its *IP-Enabled Services Proceeding*⁴ pending in which it plans to address remaining questions regarding the regulatory treatment of VoIP.

Pulver Declaratory Ruling

In the *Pulver Declaratory Ruling*, the FCC declared that pulver.com's Free World Dialup (FWD) service to be an unregulated information service that is subject to the FCC's jurisdiction. Pulver's FWD service offers users of broadband Internet access the opportunity to join other such users worldwide in talking with one another directly over the Internet as well as communicating directly via video or text. Pulver does not offer transmission service or transmission capability so FWD members must have an existing broadband Internet access service. In addition, members must acquire and appropriately configure Session Initiation Protocol (SIP) phones or unload software that enables their personal computers to function as "soft phones." Then a member is given a Pulver-assigned five or six digit FWD number (not a North American Numbering Plan (NANP) number) to facilitate using the member's broadband service to make VoIP calls or other types of peer-to-peer communications with other FWD members. The FWD number is completely portable to any broadband accessible location to where a member may go.

¹ *Petition for Declaratory Ruling that pulver.com's Free World Dialup is Neither Telecommunications Nor a Telecommunications Service*, WC Docket No. 03-45, Memorandum Opinion and Order, 19 FCC Rcd 3307 (2004) (*Pulver Declaratory Ruling* or *Pulver*).

² *Petition for Declaratory Ruling that AT&T's Phone-to-Phone IP Telephony Services are Exempt from Access Charges*, WC Docket No. 02-361, Order, 19 FCC Rcd 7457 (2004) (*AT&T Declaratory Ruling*).

³ *Vonage Holdings Corporation Petition for Declaratory Ruling Concerning an Order of the Minnesota Public Utilities Commission*, WC Docket No. 03-211, Memorandum Opinion and Order, ___ FCC Rcd ____ (2004) (*Vonage Declaratory Ruling*).

⁴ *IP-Enabled Services*, WC Docket No. 04-36, Notice of Proposed Rulemaking, 19 FCC Rcd 4863 (2004) (*IP-Enabled Services Proceeding*).

The FCC determined that Pulver's FWD is neither "telecommunications" or "telecommunications service" as defined by the federal Telecommunications Act (Act) and as interpreted by the FCC but is an unregulated "information service."

Under the Act, "telecommunications" is "the transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received."⁵ "Telecommunications service" is "the offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of the facilities used."⁶ "Information service" is "the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications, and includes electronic publishing, but does not include any use of any such capability for the management, control, or operation of a telecommunications system or the management of a telecommunications service."⁷

Under North Dakota law, there is no definition for "telecommunications." "Telecommunications service," under North Dakota law "means the offering for hire of telecommunications facilities, or transmitting for hire telecommunications by means of such facilities whether by wire, radio, lightwave, or other means."⁸ A "telecommunications company" means a person engaged in the furnishing of telecommunications within the State of North Dakota.⁹

In the *Pulver Declaratory Ruling* the FCC stated that the "heart of 'telecommunications' is transmission." It found that Pulver neither offers nor provides transmission to its members because FWD members bring their own broadband. FWD acts as a type of directory service informing members when fellow FWD members are on line. The FCC determined that the fact that Pulver's server is connected to the Internet via some form of transmission is not in and of itself relevant to the definition of telecommunications. The FCC stated that "Pulver may 'use' some telecommunications to provide its FWD directory service but that does not make FWD itself telecommunications." In granting Pulver's petition, the FCC stated that "declaring FWD to be an unregulated information service subject to Commission jurisdiction will facilitate the further development of FWD and Internet applications like it and those offerings, in turn, will encourage more consumers to demand broadband service."

AT&T Declaratory Ruling

The next petition addressed by the FCC was the *AT&T Declaratory Ruling*. AT&T, in its petition sought a declaratory ruling that its phone-to-phone IP telephony services were exempt from the access charges applicable to circuit-switched interexchange calls.

⁵ 47 U.S.C. § 153(43).

⁶ 47 U.S.C. § 153(46).

⁷ 47 U.S.C. § 153(20).

⁸ N.D.C.C. §49-21-01(20).

⁹ N.D.C.C. §49-21-01(19).

AT&T's phone-to-phone IP Telephony service consists of an interexchange call that is initiated in the same manner as a traditional interexchange call. Customers using the service place and receive calls with the same telephones they use for all other circuit switched calls. The initiating caller dials 1 plus the called party's number, just as in any other circuit-switched long distance call. The call is routed over a Feature Group D trunk, and AT&T pays originating interstate access charges to the calling party's LEC. Once the call gets to AT&T's network, AT&T routes it through a gateway where it is converted to IP format, and then AT&T transports the call over its Internet backbone. (This portion of the call is the only portion that differs in any technical way from a traditional circuit switched interexchange call which AT&T would route over its circuit-switched long distance network). To get the call to the called party's LEC, AT&T changes the traffic back from IP format and terminates the call to the LEC's switch through local business lines rather than through Feature Group D trunks. AT&T does not pay terminating interstate access charges.

The FCC determined that the service AT&T provides is a telecommunications service upon which interstate access charges may be assessed. The FCC decision was specifically limited to the type of service AT&T described in that proceeding, which is an interexchange service that: (1) uses ordinary customer premises equipment (CPE) with no enhanced functionality; (2) originates and terminates on the public switched telephone network (PSTN); and (3) undergoes no net protocol conversion and provides no enhanced functionality to end users due to the provider's use of IP technology. The FCC stated that its analysis in the *AT&T Declaratory Ruling* applies to services that meet the three criteria listed above regardless of whether only one interexchange carrier uses IP transport or if multiple service providers are involved in providing IP transport.

The FCC stated that it was adopting the order in the *AT&T Declaratory Ruling* to provide clarity to the industry with the respect to the application of access charges pending the outcome of the comprehensive *IP-Enabled Services* rulemaking proceeding, but then stated that that "[w]e in no way intend to preclude the Commission from adopting a different approach when it resolves the *IP-Enabled Services* rulemaking proceeding or the *Inter-carrier Compensation* rulemaking proceeding."

The FCC pointed out that VoIP can be provided over the public Internet or over private IP networks, and can be transmitted over a variety of media such as copper, cable, fiber, or wireless. VoIP is unlike traditional circuit-switched telephony which establishes a dedicated circuit between parties to a voice transmission. VoIP relies on packet switching which divides the voice transmission into packets and sends them over the fastest available route. VoIP allows a provider to maintain a single IP network for both voice and data.

The FCC discussed definitions that were developed in the *Computer Inquiries* line of decisions.¹⁰ In those decisions, the FCC created a distinction between basic services and enhanced services. The FCC stated that a basic service is transmission capacity for the movement of information without net change in form or content. FCC stated that an enhanced service, by contrast, contains a basic service component but also involves some degree of data processing that changes the form or content of the transmitted information. The FCC then stated that generally, services that result in a protocol conversion are enhanced services, while services that result in no net protocol conversion to the end user are basic services. The FCC concluded that enhanced services constitute the electronic transmission of writing, signs, signals, pictures, etc., over the interstate telecommunications network and therefore are subject to the FCC's jurisdiction.¹¹ In the *Non-Accounting Safeguards Order*¹², the FCC determined that the term "telecommunications service" as defined in the Act is similar to the FCC's *Computer Inquiries* definition of a basic service, and that the term "information service" as defined in the Act is similar to the *Computer Inquiries* definition of an enhanced service.¹³ In the *Stevens Report*¹⁴, the FCC discussed differences between computer-to-computer IP telephony and phone-to-phone IP telephony. In computer-to-computer IP telephony, the FCC stated that callers use software and hardware at their premises to place calls using internet access provided by an unregulated Internet service provider (ISP), and the ISP may not even be aware that a voice call is taking place.¹⁵ In discussing phone-to-phone IP telephony, the FCC stated "we tentatively intend to refer to services in which the provider meets the following conditions: (1) it holds itself out as providing voice telephony or facsimile transmission service; (2) it does not require the customer to use CPE different from that CPE necessary to place an ordinary touch-tone call (or facsimile transmission) over the public switched telephone network; (3) it allows the customer to call telephone numbers assigned in accordance with the North American Numbering Plan, and associated international agreements; and (4) it transmits customer information without net change in form or content."¹⁶

In deciding that AT&T's phone-to-phone IP telephony service was a telecommunications service, the FCC stated that users of AT&T's service receive no enhanced functionality by using the service. Users of AT&T's service obtain only voice transmission with no protocol conversion, rather than information services such as access to stored files. More specifically, the FCC stated that AT&T does not offer the customers a "capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information", and that therefore its service was not an information service under Section 153(20) of the Act. The FCC pointed out that end-user customers do not order a different service, pay different rates, or place and

¹⁰ *Computer I, II, and III Decisions* (Specific citations are omitted)

¹¹ *Computer II Final Decision*, 77 FCC2d at 432. para. 125.

¹² *Implementation of the Non-Accounting Safeguards of Sections 271 and 272 of the Communications Act of 1934, as Amended*, CC Docket No. 96-149, First Report and Order and Further Notice of Proposed Rulemaking, 11 FCC Rcd 21905 (1996) (*Non-Accounting Safeguards Order*).

¹³ *Non-Accounting Safeguards Order*, 11 FCC Rcd at 21955-58, paras 102-107.

¹⁴ *Federal-State Joint Board on Universal Service*, CC Docket No 96045, Report to Congress, 13 FCC Rcd 11501 (1998) (*Stevens Report*).

¹⁵ *Stevens Report*, 13 FCC Rcd at 11543, para. 87.

¹⁶ *Stevens Report*, 13 FCC Rcd, 11543-44, para. 88.

receive calls any differently than they do through AT&T's traditional circuit-switched long distance service. The FCC determined that the decision to use the Internet backbone to route certain calls is made internally by AT&T and constitute "internetworking" conversions which the FCC has found to be telecommunications services.¹⁷ The FCC noted that AT&T merely uses the Internet as a transmission medium without harnessing the Internet's broader capabilities, and that end users receive no benefits in terms of additional functionality or reduced prices.

Vonage Declaratory Ruling

The most recent petition addressed by the FCC was the *Vonage Declaratory Ruling*. Vonage, in its petition sought a declaratory ruling requesting that the FCC preempt an order of the Minnesota Public Utility Commission imposing regulations applicable to providers of telephone service on Vonage's DigitalVoice service.

DigitalVoice is a service that enables subscribers to originate and receive voice communications and provides a host of other features and capabilities that allow subscribers to manage their personal communications over the Internet. DigitalVoice resembles telephone service provided by the circuit switched network in that it enables the sending and receiving of voice communications and provides certain familiar enhancements like voicemail, but there are fundamental differences between DigitalVoice and regular telephone service.

DigitalVoice customers must have access to a broadband connection to the Internet, and because Vonage does not offer Internet access service, DigitalVoice customers must obtain a broadband connection to the Internet from another provider.

The location of the broadband connection does not matter, nor does it matter whether or not the same broadband connection is used every time the subscriber accesses the service. That is because DigitalVoice is fully portable, so customers may use the service anywhere in the world they can find a broadband connection to the Internet.

DigitalVoice requires customers to use specialized customer premises equipment (CPE). Types of specialized CPE that customers may choose from include: (1) a Multimedia Terminal Adapter (MTA), which contains a digital signal processing unit that performs digital-to-audio and audio-to-digital conversion and has a standard telephone jack connection; (2) a native Internet Protocol (IP) phone; or (3) a personal computer with a microphone and speakers, and software to perform the conversion (softphone). In some instances, customers may attach a conventional telephone to the specialized CPE that transmits and receives the IP packets, but a conventional phone alone will not work with Vonage's DigitalVoice service.

¹⁷ *Non-Accounting Safeguards Order*, 11 FCC Rcd at 21957-58, para. 106.

DigitalVoice offers customers integrated capabilities and features that allow customers to manage personal communications dynamically including real-time multidirectional voice functionality. In addition to voice, features include voicemail, three-way calling, online account and voicemail management, and geographically independent telephone numbers. Once the CPE and software are installed and configured, the customer may place or receive calls over the Internet to or from anyone with a telephone number, including another Vonage customer, a customer of another VoIP provider, a customer of a commercial mobile radio service (CMRS) provider, or a user reachable only through the public switched telephone network. The subscriber's outgoing calls originate on the Internet and are routed over the Internet to Vonage's servers. If the destination is another Vonage customer or user on a peered service, the server routes the packets to the called party over the Internet and the communication terminates via the Internet. If the destination is a telephone attached to the PSTN, the server converts the IP packets into appropriate digital audio signals and connects them to the PSTN using the services of telecommunications carriers interconnected to the PSTN. If a PSTN user originates a call to a Vonage customer, the call is connected, using the services of telecommunications carriers interconnected to the PSTN, to the Vonage server which then converts the audio signals into IP packets and routes them to the Vonage customer over the Internet.

DigitalVoice uses NANP numbers as the identification mechanism for the user's IP address, but the NANP number is not necessarily tied to the user's physical location for either assignment or use, in contrast to most wireline circuit-switched calls. The NANP number correlates to the user's digital signal processor to facilitate the exchange of calls between the Internet and the PSTN using a mechanism that users are familiar with to identify the user's IP address. But a call to a Vonage customer's NANP number can reach that customer anywhere in the world and does not require the user to remain at a single location.

The FCC, in granting Vonage's petition and preempting the Minnesota order, found that the characteristics of DigitalVoice preclude any practical identification of, and separation into, interstate and intrastate communications for purposes of effectuating a dual federal/state regulatory scheme, and that permitting Minnesota's regulations would thwart federal law and policy. The FCC reached its decision without establishing whether DigitalVoice would be classified as telecommunications or information service under the Act for determination of the appropriate federal regulations, if any, that would govern the service in the future.

There is no specific statutory provision regarding jurisdiction over services like DigitalVoice. The FCC noted that Congress set up a dual regulatory regime for communications under the 1934 Act. The FCC has exclusive jurisdiction over "all interstate and foreign communication" and "all persons engaged . . . in such communication."¹⁸ Jurisdiction is reserved to the states "with respect to intrastate communication service . . . of any carrier."¹⁹

¹⁸ 47 U.S.C. § 152(a).

¹⁹ 47 U.S.C. § 152(b).

The FCC stated that in applying the federal law to specific services and facilities it traditionally has applied its “end-to-end analysis” based on the physical end points of the communication. Under the “end-to-end analysis,” the FCC considers the continuous path of communications beginning with the end point at the inception of a communication to the end point at its completion. When the end points of a carrier’s service are within the boundaries of a single state, the service is deemed purely intrastate service subject to state regulatory jurisdiction. When a service’s end points are in different states or between a state and a point outside the United States, the service is deemed purely interstate service subject to the FCC’s exclusive jurisdiction. Services that are capable of communications both between intrastate end points and interstate end points are deemed to be “mixed-use” or “jurisdictionally mixed” services. Mixed-use services are generally subject to dual federal/state jurisdiction, except where it is impossible or impractical to separate the service’s intrastate from interstate components and the state regulation of the intrastate component interferes with valid federal rules or policies. When that occurs, the FCC may exercise its authority to preempt inconsistent state regulations that thwart federal objectives, and treat the jurisdictionally mixed services as interstate with respect to the preempted regulations.

The FCC determined that DigitalVoice service clearly enabled both intrastate and interstate communications, and therefore is a jurisdictionally mixed service over which the FCC has exclusive jurisdiction to determine the policies and rules, if any, that govern the interstate aspect of DigitalVoice service.

In the Vonage case, the FCC determined that the Minnesota PUC order directly conflicts with the FCC’s pro-competitive deregulatory rules and policies governing entry regulations, tariffing, and other requirements arising from the state regulations for services such as DigitalVoice.

The FCC also examined whether there was any plausible approach to separating DigitalVoice into interstate and intrastate components for purposes of enabling dual federal and state regulations to coexist without negating federal policy and rules. The FCC found that there was no plausible way of separation (preemption based on “impossibility”) because Vonage has no means of directly or indirectly identifying the geographic location of a DigitalVoice subscriber.

The FCC pointed out that the geographic location of the end user at any particular time is only one clue to a jurisdictional finding under the end-to-end analysis. The geographic location of the termination of the communication is the other clue, and it is similarly difficult or impossible to pinpoint. The impossibility results from the inherent capability of IP-based services to enable subscribers to utilize multiple service features that access different websites or IP addresses during the same communication session and to perform different types of communications simultaneously, none of which the provider has a means to separately track or record. For example, a DigitalVoice user checking voicemail or reconfiguring service options would be communicating with a Vonage server. A user forwarding a voicemail via e-mail to

colleague using an Internet-based e-mail service would be communicating with a different Internet server or user. An incoming call to a user invoking forwarding features could terminate anywhere the DigitalVoice user has programmed. A communication from a DigitalVoice user to a similar IP-enabled provider's user would terminate to a geographic location unknown either to Vonage or the other provider. The FCC noted that it is the total lack of dependence on any geographically defined location that most distinguishes DigitalVoice from other services whose federal or state jurisdiction is determined based on the geographic end points of the communications.

The FCC, after considering several different options to identify DigitalVoice communications that could be considered "intrastate" and subject to specific state jurisdiction, found that there is no practical way to sever DigitalVoice into interstate and intrastate communications that would enable a state to regulate intrastate calling functionalities without also reaching the interstate aspects of DigitalVoice. The FCC noted that Congress articulated its national Internet policy in 47 when it stated "[i]t is the policy of the United States – to preserve the vibrant and competitive free market that presently exists for the Internet and other interactive computer services, unfettered by Federal or State regulation."²⁰ The FCC commented that in interpreting section 230(b)(2) it could not permit more than 50 different jurisdictions to impose traditional common carrier economic regulations and still meet its statutory responsibility to realize Congress's objective.

The FCC also stated that it was guided by section 706 of the 1996 Act, which directs the FCC and state commissions to encourage the deployment of advanced telecommunications capability to all Americans by using measures that promote competition in the local telecommunications market and remove barriers to infrastructure investment.²¹ The FCC noted that Internet-based services like DigitalVoice are capable of being accessed only via broadband facilities, *i.e.*, advanced telecommunications capabilities under the Act.

The FCC also stated that its Vonage decision is fully consistent with the Commerce Clause of the United States Constitution in that it prohibits a state from regulating commerce outside of that state's borders. The FCC stated further that DigitalVoice, like other Internet services, is likely the type of commerce that is of such a unique nature that it demands cohesive national treatment under the Commerce Clause.

In its concluding remarks in the Vonage case, the FCC stated that "for services having the same capabilities as DigitalVoice, the regulations of other states must likewise yield to important federal objectives."

BEK Communications Cooperative et al. vs. SmartNET Inc.

²⁰ 47 U.S.C. § 230(b)(2).

²¹ 47 U.S.C. § 706(a).

BEK Communications Cooperative et al., (Complainants) allege in their complaint that SmartNET, Inc. (SmartNET) is providing long distance telecommunications services to Bismarck, Fargo, Dickinson and surrounding communities. (Note: SmartNET is operated in North Dakota under the name CallSmart. Therefore, any reference to SmartNET includes CallSmart). The complaint alleges that SmartNET does not have authority to operate as a long distance telecommunications services provider in North Dakota and that SmartNET is obligated to pay access fees for use of local switched network facilities owned by the Complainants.

SmartNET asserts that it is not required to have a certificate of public convenience and necessity to operate in North Dakota because it does not operate as a telecommunications service provider. SmartNET asserts that it operates as a VoIP provider and not a telecommunications service provider, and therefore it has no obligation to obtain authority from the Commission to operate in North Dakota and is not required to pay access fees.

The Complainants witness testified that SmartNet operates three physical locations in North Dakota, those being Dickinson, Bismarck and Fargo. SmartNET has an agreement with Sprint for Internet services, and it has an agreement with DCN for transport services between Dickinson and Bismarck. SmartNET has local service agreements with Qwest for Bismarck and Dickinson and with IdeaOne for Fargo.

The Complainants' witness testified that a call from a Dickinson customer of SmartNET to a Bismarck location would be made by the Dickinson customer dialing a local directory number and then after a prompt or signal of some sort would dial 1 plus the long distance number for the Bismarck location. The call would be transported over the DCN transport facility leased by SmartNET to SmartNET's gateway device. The call is transported with no change from Dickinson to Bismarck. The call is converted to IP at the Bismarck gateway. It is then sent out on the Internet and then terminated back off the Internet in Bismarck and transferred to the local network to be delivered to the Bismarck customer location. According to the Complainant's testimony some calls may actually be delivered to Bismarck customers without going over the Internet. The SmartNET witness testified that there are two gateways in Bismarck. One of those gateways is connected to the Dickinson PRI and the other to the Bismarck PRI. The witness stated that every call is converted to IP and goes out on the Internet.

A call from Bismarck to Fargo is handled somewhat differently. The call from the Bismarck location is made in the same manner with the customer dialing a local seven digit number followed by a 1 plus long distance number. The call is terminated in the gateway in Bismarck where it is converted to IP and delivered to Sprint. The call is routed by Sprint to Fargo where it is converted at the Fargo gateway back to normal voice and delivered to the local switch to be terminated at the Fargo customer location.

A call from Fargo to Dickinson would essentially be a Bismarck to Fargo call in reverse, but at the Bismarck gateway it would be converted back to normal voice and

transported from Bismarck to Dickinson over the DCN facility and terminated to a local Qwest switch where it would be connected to the local directory number in Dickinson.

The Complainants state that for normal inter-exchange traffic within the state there is a code included in the call signaling between switching points so that the call can be recorded and associated with the carrier that originated the traffic. Some companies have extended service agreements with each other which result in all calls within the extended area being treated as local calls. Since SmartNET calls are originated as local calls, there is no code attached, so local exchange carriers have no way to measure or identify traffic going in or out of their exchange area that may be interexchange traffic.

SmartNET customers do not require DSL services or customer premises equipment (CPE) in order to use the service for long-distance calls. Customers use an ordinary telephone to ~~make-initiate~~ their call and, in the case of Bismarck, Fargo and Dickinson, the call is received over an ordinary telephone.

SmartNET witness, Bruce Burke, described the design of the SmartNET network in Bismarck and Fargo as being very similar to or exactly the same as a dial-up Internet design. There is a local connection, an access gateway, an authentication server, a billing server, an Internet router, and a connection to the Internet. The design of the network at the Dickinson site is different than Bismarck and Fargo. The witness referred to the Dickinson network as a TDM-type network. Time division multiplexing (TDM) is a technique that shares a transmission channel between users by dividing transmission time by allotting to each device a time slot during which it can send or receive data. Time division multiplexing involves interleaving in time the narrow pulses of pulse-code modulation (PCM) or delta modulation (DM) to form one composite digital signal for transmission. De-multiplexing of the time-multiplexed pulse streams at the receiver is accomplished by gating appropriate pulses into individual channel filters. The witness stated that the DCN circuit will only handle 24 conversations, so as the transport circuit on the DCN network filled up, SmartNET will transition to an Internet circuit or an IP connection. The witness stated that the effort by SmartNET is to design and prepare for the IP as it grows into the future with new products and services.

The SmartNET witness stated that all of the traffic except the incidental traffic to Dickinson is routed through the Internet. The witness described the connection between Dickinson and Bismarck as being similar to a "leaky PBX" in the North Dakota college network where someone from Grand Forks who wants to make a call to Dickinson can make a local call by leaking out of the PBX at the Dickinson State College.

The SmartNET witness stated that the company has plans to expand operations in North Dakota and to develop and offer new services. The witness stated that SmartNET's has spent three years working to get voice quality at an acceptable quality that is good enough for the general public and business applications. The witness stated SmartNET is experimenting with a new product called "Phone Home" which has

been sent to a dozen servicemen in Iraq. Phone Home gives servicemen the ability to make phone calls through an Internet connection to friends and family in Dickinson free of charge. SmartNET is implementing a callback feature where two calls are established from an Internet connection, a call from the originating number and a call from the destination number. SmartNET equipment originates the two phone calls and ties the two calls together. SmartNet is working with a group to try to change voice to e-mail and to change e-mail to voice. Another application SmartNET is looking at is a product to give an individual the ability to communicate into the Internet with voice and have the messages converted to wave files and sent out as e-mail.

SmartNET currently has different voice packages. There is a flat rate service for unlimited long distance to 48 states and Canada. There is also a per minute plan to same areas. In addition there is an international calling plan allowing customers to call anywhere in the world.

The SmartNET witness agreed on cross examination that most SmartNET customers in North Dakota use a regular telephone without enhanced capability in order to make a call using the SmartNET network. The witness stated that customers use their local lines to access the network. SmartNET does not believe it should be required to compensate the local carrier for use of its lines because SmartNET believes it is an Internet Service Provider (ISP). SmartNET states that the design of its network is exactly the same as any dial-up Internet infrastructure.

SmartNET states that telephone companies are being compensated. They are being compensated by the end user for the local lines, and they are being compensated by SmartNET for the connection from SmartNET's Internet access point to the local telephone company. SmartNET states that it does not use the local service of any of the Complainants. Some customers of SmartNET use local facilities of the Complainants to get to SmartNET. SmartNET uses local facilities of Qwest and IdeaOne.

SmartNET acknowledged that all of its service originates on the public switched network (PSTN) and SmartNET puts them on the Internet. The witness explained that on the terminating side, SmartNET terminates calls in Bismarck, Dickinson and Fargo through its PRI connections. All other traffic is sent to two VoIP termination providers and is terminated through those companies whether the calls are terminated in other locations in North Dakota or anywhere else. SmartNET originates those calls and puts them out on the Internet, but does not know how the calls are treated on the terminating end—the termination provider makes that determination.

SmartNET believes that there is a protocol conversion at the point the call enters the gateway. It changes from an IP protocol to an IP packet where it goes out on the Internet and migrates to one of the termination providers.

Staff Comments

On August 2, 2004, Staff sent a memorandum to the Commission recommending that the Commission delay making a decision in this case until the FCC issues its order in its *IP-Enabled Services Proceeding*. Staff continues to recommend that the Commission take no further action in this matter until the FCC issues its order in its rulemaking proceeding.

While there are similarities between SmartNET's network and the networks discussed in the FCC's Declaratory Rulings in *Pulver, AT&T and Vonage*, there are **substantial** differences as well.

In *Pulver*, members must have special equipment that enables their computers to function as soft phones. Members are assigned an FWD number that is not a NANP number to make VoIP calls. The FWD number is completely portable to any broadband accessible location. In *Pulver*, the FCC stated that transmission is the "heart of telecommunications," and it found that Pulver neither offers nor provides transmission to its members because FWD members bring their own broadband.

The *Pulver* decision is not particularly helpful in this determination because it is strictly a computer-to-computer arrangement, so the network is not configured nor operated the same as SmartNET.

There are similarities between the AT&T and SmartNET VoIP services. In both AT&T and SmartNET services, regular phones are used to originate and, in some instances, terminate calls over the networks and no enhanced functionality are included. However, we don't know that all SmartNET calls are terminated using regular phones. With both companies a call originates ~~and terminates over~~ on the PSTN ~~with and~~ Internet transport is used for part of the transport distances somewhere in between. A protocol conversion is required to transport the call on the Internet. ~~However, t~~ The protocol is the same at the beginning and the end of a call originating and terminating at locations in Bismarck, Fargo and Dickinson that are served by Smartnet. ~~the call is the same, and t~~ Therefore, there is no "net protocol conversion." and no enhanced functionality.

There ~~is~~ are differences between the AT&T and SmartNET. First, as noted earlier, not all calls originating at a Bismarck, Fargo or Dickinson location served by SmartNET will terminate at a location served by SmartNET and therefore may terminate on a computer rather than a regular telephone. Therefore, there may be a "net protocol conversion". Second, wWith AT&T's service, long distance calls are originated using "1 plus" dialing. With SmartNET's service the customer must dial a local number to access SmartNET's network and, after a prompt, the customer dials the number of the person being called. SmartNET claims to be in the process of developing or implementing some enhanced capabilities for customers.

There are both similarities and differences between *Vonage* and SmartNET. One major difference is that Vonage customers cannot access the network using a regular phone. They must have specialized customer premises equipment. Vonage customers must also obtain a broadband connection to the Internet from another provider. The Vonage service is portable, so customers can use the service anywhere they can find a broadband connection to the Internet. Vonage offers enhanced capabilities to its customers. Vonage subscribers' calls originate on the Internet rather than the PSTN. Calls will be terminated on the PSTN if the destination telephone is attached to the PSTN. Vonage's system uses NANP numbers as the identification mechanism for the user's IP address, but the NANP number is not tied to the user's physical location.

One of the key determinations by the FCC in *Vonage* was that there was no plausible approach to separating the interstate and intrastate components for purposes of enabling dual federal and state regulations to coexist without negating federal policy and rules. Therefore the FCC preempted state jurisdiction.

A SmartNET customer can place intrastate, interstate or international calls, and all calls, at some point, go out on the Internet. We don't know if the service provided by SmartNET is the type of jurisdictionally mixed service for which the FCC would preempt state jurisdiction. The reason for the uncertainty is that we don't know whether, with the installation of appropriate equipment, SmartNET could or could not identify the origination and destination of a call.

Staff believes that the guidelines set forth by the FCC in *Pulver*, *AT&T* and *Vonage* are not adequate to determine how a court or the FCC would determine whether SmartNET is subject to state jurisdiction. Staff recommends that the Commission delay making a decision in this case until the FCC issues its decision in the *IP-Enabled Services* rulemaking proceeding.