

DT 99-020

**Investigation of Congestion on the
Public Switched Telephone Network**

Order Addressing Modification to Tariff

O R D E R N O. 23,962

May 3, 2002

I. BACKGROUND

Pursuant to RSA 374:1, every New Hampshire utility is required to furnish service and facilities that are reasonably safe and adequate and in all other respects just and reasonable. Concerned over network congestion, the New Hampshire Public Utilities Commission (Commission) initiated Docket No. DT 99-020, by Order of Notice on February 8, 1999, to seek a solution to deteriorating service to New Hampshire telephone customers caused by "the proliferation of Internet usage." *Re Congestion on the Telephone Network Caused by Internet Traffic*, 84 NH PUC 220 (1999).

This proceeding was prompted by increasing consumer complaints regarding fast-busy signals and dial-tone delay, substantiated by monthly reports from Verizon New Hampshire (f/k/a New England Telephone and Telegraph Company d/b/a Bell Atlantic-New Hampshire, hereinafter referred to as Verizon). As a result of the prehearing conference, where all incumbent local exchange carriers (ILECs) in New Hampshire were made mandatory

parties to the docket, the Commission issued Order No. 23,185, 84 NH PUC 220 (1999), adopting a procedural schedule, granting all requests for intervention, and approving an agreement among the parties and Staff to proceed in a collaborative effort to attempt to resolve the network congestion problem informally, rather than in a formal adjudicative proceeding.

The collaborative effort advanced by engaging in a series of technical sessions through November 1999. During this time frame, a number of intervenors indicated that they had joined the New Hampshire ISP Association (NHISPA) and chose to participate in the docket as a single party represented by NHISPA.¹

In November of 1999, it became apparent that the case could not be resolved through collaboration. Requests were then made that the case proceed using a schedule more appropriate for a contested case. Order No. 23,395, issued by the Commission on February 2, 2000, 85 NH PUC 50 (2000), approved a revised procedural schedule which allowed for a period of discovery and the filing of testimony. Hearings held on November 2 and 3, 2000, focused on a number of issues regarding methods to relieve

¹ The parties represented by NHISPA include ValleyNet, Inc., FCG Networks, MV Communications, Destek Networking Group, John Leslie Consulting, Metro2000, Inc., North Country Internet Access, Sugar River Valley Online, Seabreeze Communications, TTLIC Internet, and Turnpike Technologies.

congestion including a proposed solution that became known as "dry copper." An ISP witness, Mr. John Leslie, explained that dry copper was recommended first by the NHISPA as a solution to network congestion. Mr. Leslie indicated the ISPs believed Verizon should make copper available

through a retail tariff to New Hampshire ISPs, so that we could go out and, at our own risk, buy the DSL equipment that was becoming available at the time we proposed this, connect it at both ends, and just completely bypass the switch. It would obviously completely remove any congestion that there could be on

the telephone company switch, because the customer would connect to us without ever going near the switch.

Transcript, November 2, 2000, p. 14.

On March 29, 2001, the Commission issued Order No. 23,666, resolving certain issues in the case and giving rise to the dry copper tariff issue that is the subject of this Order. Primarily, the Commission took steps to encourage migration from line side connections through the waiver of Centrex termination liability in specified cases; adopted procedures to identify ISPs when ordering measured business service for internet access; and expressed its desire to limit new line-side Internet service installations.

The Commission also considered whether the offering of dry copper as a retail service would likewise serve to alleviate network congestion. However, the Commission was unable to

evaluate the costs and benefits of dry copper on the record before it. Thus, the Commission directed Verizon to develop an illustrative tariff for a dry copper retail service and instructed Staff to "analyze the illustrative tariff in terms of the costs and benefits regarding network congestion relief." Order, p. 34.

On May 29, 2001, Verizon submitted the illustrative tariff, calling it a Series 9000 Channel private line channel, DSL-capable, copper loop offering. Following the submission of the Staff's cost-benefit analysis on the illustrative tariff, and comments received by the NHISPA and Destek, the Commission held hearings on December 4 and 12, 2001. Subsequent to the hearings, Staff and the Parties submitted their written closing remarks. During the December 2001 hearings, the ISPs argued that the Series 9000 channel was not the appropriate tariff to accomplish their goals. Instead, they asserted that Verizon should use a tariff similar to the "BANA" offering which is currently found in the Series 1000 channel tariff.

II. TARIFF OFFERINGS

Order No. 23,666, at page 10, defines dry copper as consisting of copper loops that have no electronics or power connected and have been conditioned by removing any load coils, bridged taps or other devices used in the provision of voice

services. It is anticipated that the conditioned copper loops would be provisioned in twos, with one loop running from an end user's premises to a Verizon Central Office (CO), where it would be connected directly to another copper loop extending from the CO to the ISP's premises. The loop would not pass through the Verizon switch.

A. Summary of the Illustrative Dry Copper Offering

Verizon's illustrative Series 9000 channel tariff offering would be a point-to-point, two-wire metallic non-loaded facility, consisting of two links cross-connected in the Verizon CO. Verizon proposes the product be available where there are "existing and available facilities." Verizon suggests that it would guarantee end-to-end electrical connectivity but would offer no other performance guarantees. Pricing, according to Verizon, would include a monthly fee, an initial nonrecurring charge, and charges for line conditioning.

Verizon's illustrative tariff also contains a number of technical restrictions designed to ensure that the Series 9000 channels would be used in a manner compatible with other Verizon and CLEC facilities and services. Verizon proposes that the Series 9000 channel would not be made available in any CO where any Verizon affiliate or CLEC offers ADSL services.

Verizon asserts that there is no readily available information regarding the costs of provisioning a service comparable to the Series 9000. Verizon, therefore, priced the service based on a POTS-like service using a forward-looking, total service long-run incremental cost methodology.

B. Private Line Service Series 1000

Verizon currently offers a Private Line Service, Series 1000 Channel that is a "two-wire metallic or other effectively equivalent unconditioned channel furnished for use with telephone company provided service arrangements or customer provided signaling equipment." Tariff NHPUC No.83, Part B, Section 2.1.2, B. There is a "sub voice" component to the offering which is a two point or multi-point channel suitable for transmission up to 150 baud and provided for use with data equipment. *Id.*, at § 2.1.2, C.

III. POSITIONS OF THE PARTIES AND STAFF

A. NHISPA

The New Hampshire Internet Service Providers Association (NHISPA or "Association") is in favor of the availability of a retail tariff for copper loops to Internet Service Providers and others to carry symmetric digital subscriber line (SDSL) signals. The Association avers that it presented potential resolutions to the problem of network

congestion created by internet usage and its inherent hold patterns that not only alleviate public safety concerns, but which do so in an economic and competitive manner.

The NHISPA believes that modifying the Series 1000 tariff to allow for SDSL traffic will provide a means of relieving congestion on the PSTN by removing certain internet traffic from the switches and trunks that tie those switches together, while reducing costs to Verizon and providing an innovative product to customers. Further, NHISPA asserts, based on the expertise of a Verizon witness, the current use of SDSL technology on T-1 lines by Verizon is without problems, and that based on NHISPA members' experience using these lines for SDSL service without problems, there are no technological barriers associated with a dry copper offering. NHISPA states that, assuming *arguendo* there is a concern with spectral interference, the tariff can include a specific provision that when spectral interference can be traced to the use of the series 1000 tariff for SDSL service, the service must be modified to remove the interference or discontinued.

The Association claims that there is no jurisdictional concern related to the Commission's authority to modify the series 1000 tariff. It asserts that if federal law prohibited the use of the series 1000 tariff for SDSL traffic it would also

prohibit any data traffic through the series 1000 services, which it does not. Moreover, the Association asserts that while ISP traffic may have been ruled by the Federal Communications Commission (FCC) to be interstate in nature it does not preclude this Commission from acting with regard to intrastate tariffs. The Association points out that the FCC, *In the matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996* Inter-Carrier Compensation for ISP-Bound Traffic CC Docket No. 96-98 and No. 99-68 (February 26, 1999), at paragraph 20, found:

Our determination that at least a substantial portion of dial-up ISP-bound traffic is interstate does not, however, alter the current ESP² exemption. ESPs, including ISPs, continue to be entitled to purchase their PSTN links through intrastate (local) tariffs rather than through interstate access tariffs. Accordingly, the Association contends that the Commission has authority to allow ISPs to gain access to the PSTN through intrastate tariffs.

Finally, the NHISPA, through Mr. Leslie, asserts that the following modifications should be made to the Series 1000 Channel provision of the Verizon No. 83 tariff:

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An ESP is an Enhanced Service Provider, of which Internet Service Providers are a subset.

1) That the Series 1000 tariff be interpreted to apply the signal strength limits of ANSI T1.413 instead of the outdated limits currently written there, subject to:

a) ADSL limits being applied in the "normal" direction (Verizon's choice); and

b) SDSL being the standard.

2) That customers of Series 1000 lines be required to notify the telephone company of the specific equipment they attach to these lines; and that customers of newly-ordered lines should attach only equipment which is certified under FCC Part 68.

3) That the Series 1000 tariff be interpreted to prefer paths which do not go all the way back to the Central Office, in order to reduce the dangers of total interruption of telecommunications in the event of terrorist attacks.

4) A provision that allows requests to remove load coils and bridged taps at the actual cost per hour.

5) A provision that makes the "cross-wired" circuits available from remote SLCs.

B. Verizon NH

Verizon NH believes that the ISPs' dry copper proposal suffers from numerous technical and practical impediments.

Verizon NH states that the implementation of a dry copper offering: (1) would be an uneconomic solution to alleviating network congestion; (2) would be unnecessary as Verizon has already prudently relieved congestion on the public switched network utilizing more efficient means; and, (3) is fraught with technical impediments that have the potential to not only degrade existing voice grade services, but inhibit the future deployment of DSL services in New Hampshire by both ILECs and CLECs.

Verizon argues that dry copper does nothing to reduce the congestion attributable to other growing applications of the PSTN including burgeoning cellphone usage and flat-rated, discounted toll pricing plans. See Verizon Brief, dated January 22, 2002, at p.3. The Company further points out that there were no reportable instances of congestion on the Verizon NH network since mid-year 2001. *Id.*, citing 12/4/01 Tr. at 81.

Verizon goes on to claim that the deployment of dry copper to relieve network congestion is "uneconomic when compared to the cost of remediating congestion through prudently engineered additions to the switch (line units) or interoffice trunks." *Id.*, at 3. It argues that since the costs of the upgrades are entirely sunk, while dry copper costs are fully incremental, this confirms that network additions are the most

reasonable congestion relief strategy in New Hampshire. *Id.* The Company also conveys that both Staff and Verizon have demonstrated the risks of technical impediments associated with the deployment of dry copper. Moreover, Verizon argues that the ISPs' claim that the interference concerns are overstated is ill-founded. It asserts that while DSL may be currently deployed through a series 1000 (BANA) circuit, it is too early to know the adverse consequences, since only a handful of applications are known to exist statewide. *Id.*, at 3-4.

According to Verizon, any requirement mandating the deployment of dry copper would not be in the public interest. Verizon claims the "wisdom in promoting the public policy objective of ubiquitous broadband deployment by requiring that Verizon build and furnish copper facilities is intuitively false and perversely ironic." *Id.*, at 5. While it agrees that accelerating the pace of broadband deployment is an important policy concern, Verizon avers that dry copper is not the silver bullet. *Id.* In fact, the Company asserts that the record establishes that the "reverse DSL" phenomenon would inhibit the ability of other local carriers to deploy conventional DSL from the Verizon central office. *Id.*, citing 12/4/01 Tr. at 26. Additionally, Verizon states that there is no evidence that demonstrates why Verizon's existing offering of unbundled DSL -

compatible loops as UNEs does not better support a policy of deploying broadband.

Verizon NH suggests that the ISPs' "business plan" can be achieved today using the existing wholesale unbundled network elements, provided the ISPs take the necessary steps towards certification with the Commission to qualify as CLECs. It argues that the Commission would be allowing an ISP to operate as an unregulated telecommunications carrier where the ISP was offering DSL services to the public over dry copper. The Company also suggests because DSL services are telecommunications services it would be contrary to the public interest to allow a few select providers to operate without Commission regulation while other providers such as CLECs and ILECs are regulated as common carriers. *Id.*; see also Exhibit I, Kennan letter dated 5/29/01. Verizon cites, in Exhibit 1, *AT&T v. City of Portland*, 216 F.3d 871, 878 (9th Cir. 2000) for the proposition that while conventional ISPs provide unregulated information services, the provision of internet transmission is a telecommunications service under the TAct.

C. The Independents

The Independents assert that the requested service is interstate in nature and, therefore, within the exclusive jurisdiction of the Federal Communications Commission. See Trial

Memorandum, 1/22/02 p. 1. The Independents further conclude, based on the record developed in the December 4 and 12, 2001 hearings, that the offering of dry copper as a retail service (i) is not necessary to alleviate network congestion, (ii) is not likely to enhance the deployment of broadband technology, and (iii) poses unacceptable risks to network reliability. Accordingly, the Independents urge the Commission to reject the illustrative tariff filed by Verizon NH and close the docket.

First, the Independents contend there is no need for a dry copper tariff to alleviate network congestion as there is uncontroverted evidence that the problem has already been solved. *Id.*, citing 12/12/01, Tr. p.65. The Independents, therefore, assert that there is no further need for consideration of the illustrative tariff. The Independents recognize that the ISPs are propounding dry copper as a means to enhance broadband deployment, but suggest that dry copper will not result in any substantial increase in penetration levels. *Id.*, at 3.

The Independents point out that the docket provides no evidence that the cost of providing the dry copper service would support the offering at price levels which the NHISPA and Destek claim are necessary to make the service viable in the market. In fact, the Independents suggest that the record is unclear as to

the nature of the services proposed to be provided over the copper circuits. *Id.* For example, the Independents note that some witnesses were rejecting the ADSL service and demanding an SDSL alternative which has a component of high speed upstream capability not typically required for internet service. *Id.*, citing 12/04/01, Tr. p.110. The Independents, like Verizon, claim this suggests that the ISP objectives appear to include the ability to offer teleconferencing and other telecommunications services.

Finally, the Independents assert that the record demonstrates that a dry copper offering, such as the one proposed by the NHISPA and Destek, *i.e.*, the Series 1000 channel, poses an unwarranted risk to the network. The Independents maintain that it was incumbent on the NHISPA and Destek to come forward with evidence to support the claim that SDSL service could be operated without causing interference to the network. According to the Independents, neither the Association nor Destek met their burden as the proponent of the tariff. While the Independents agree that a Verizon witness testified that SDSL could be operated without causing interference, they point out the witness qualified this statement by suggesting that the ISPs needed to ensure adherence to the industry standards with regard to deployment distances,

signal power limits, transverse balance and other technical considerations. *Id.*, at 4 citing 12/4/01, Tr. p. 23.

The Independents suggest that the NHISPA approach should be rejected. They state that the Commission should not allow an approach of trying different modifications until they cause harm to the service of other customers, but rather the Commission should base network utilization on sound engineering and appropriate standards. Moreover, the Independents point out that the ISPs freely admit they abuse the Series 1000 tariff offering and, given that circumstance, the ISPs cannot be relied on to follow tariff provisions.

D. Robert J. Landman

Mr. Robert Landman, an intervenor in the docket, presented testimony before the Commission at the December 2001 hearings and also filed final comments in the proceeding. His comments reflect his opinion that the state needs "affordable broadband for telecommuting." Landman Brief at p.1. He believes that BANA dry copper is the appropriate solution. He claims that the ISPs can safely, without interference, use modern SDSL technology over BANA copper alarm pairs.

E. Destek

Destek maintains that the benefits of the dry copper products are obvious and that the Series 9000 illustrative

tariff as presented by Verizon is not necessary to achieve the benefits. Destek comments that the Series 1000 (BANA or Alarm) offering is a proven alternative that can help the congestion problem on the New Hampshire PSTN. See, Destek ltr, dated 1/22/02, p. 2. It asserts a potential market will be created simply by modifying the Series 1000 tariff to update it for power requirements and speed limits for data transmission. *Id.*, at 4.

Destek posits that the issues raised both by Verizon and Staff are invalid. It argues the Commission has jurisdiction over the dry copper product as both ends of the Series 1000 circuit fall within the borders of New Hampshire. According to Destek, the pricing of the copper loop should be based on the series 1000 prices and that the Series 9000 illustrative tariff price of \$64.00 is not supported through pricing analysis. *Id.*

Destek claims that ISPs, networking companies and ordinary citizens have been using the Series 1000 circuits to deliver internet and data networking services in New Hampshire for many years without severe technical issues that would impede the network. The Company further claims that if internet users are given a cost-effective choice they will migrate from dial-up access.

Destek argues that copper is an abundant resource with 15% of the PSTN infrastructure lying idle and, therefore, should be put to use. It appears to Destek that Verizon's objections to a dry copper alternative stem from its inability to compete on a level playing field, and its opposition to allowing consumers to reap the benefits of competition. *Id.*, at 6.

F. OCA

According to the OCA, the Commission should allow the use of BANA circuits for the provisioning of high speed internet service. It claims that any potential problems with such provisioning are outweighed by the opportunity to offer high speed internet to rural communities, and business and residential customers.

The OCA also rejects the jurisdictional argument put forth by Verizon. The OCA argues that the state's regulatory authority to act in this area is preserved. It contends that Verizon's reliance on the FCC's opinion regarding intercarrier compensation is a distortion of the decision. Therefore, the OCA recommends that the Commission direct Verizon NH to file a provisional, one-year tariff on BANA circuits, and in three months file an analysis of any technical problems that may have arisen. If problems exist, the OCA suggests the Commission

should then conduct hearings to determine the feasibility of continuing the program.

G. Staff

While the Staff of the Commission testified that a dry copper offering was not necessary from the perspective of relieving congestion on the PSTN, it acknowledged that from a policy perspective the Commission might consider requiring Verizon to provide such an offering. Staff suggested, however, that this docket was not the forum in which the deployment of broadband throughout New Hampshire should be resolved.

Staff expressed concerns that a dry copper offering would not necessarily incent customers to abandon dial-up modems and switch to a DSL service. Staff argued that there was no evidence to support a migration away from dial-up access to the internet given the take rate in the state for Verizon's DSL service and the price sensitivity of the consumer.

IV. COMMISSION ANALYSIS

There are four principal objections to adoption of a dry copper tariff. The first is that this proceeding is solely an investigation of congestion, that congestion has abated, and that, in any event, dry copper is an uneconomic method of relieving congestion. Second, it is argued that a dry copper tariff is an inadequate method of encouraging broadband

deployment. Third, a concern has been raised that jurisdictional issues prevent implementation of a dry copper tariff. Last, it is reputed that the use of dry copper for broadband creates technical problems that undermine network reliability. We address the issues in turn.

A. Congestion

In Order No. 23,666, we stated that it was "our policy goal ... to relieve congestion which jeopardizes the PSTN's reliable performance thereby creating risks to public safety." Accordingly, we adopted several methods to move traffic from the line side of the network to the trunk side. We also considered whether the offering of dry copper as a retail service would serve to alleviate congestion but determined there was insufficient evidence on the record at that time to determine whether dry copper was an appropriate strategy. Therefore, we directed Verizon to file an illustrative dry copper tariff and supporting cost data.

Verizon, the Independents and Staff all asserted that inasmuch as congestion does not pose an immediate threat to the network, a dry copper tariff was inadvisable. On the other hand, the NHISPA, Destek and the OCA contended that a dry copper tariff would serve a needed prophylactic function to prevent future congestion. We are persuaded that network congestion,

when it occurs, poses a substantial safety concern and, therefore, it is reasonable to adopt all practicable measures designed to alleviate existing, or forestall potential, congestion. We find that a dry copper tariff's contribution to forestalling congestion merits its adoption on a trial basis.

B. Broadband Deployment

The New Hampshire Legislature has indicated its desire to promote competition in the telecommunications market through House Bill (HB) 456, 1997 Laws of New Hampshire Chapter 201:1, and codified at RSA 374:22-j. Moreover, the Federal Telecommunications Act of 1996 (TAct) includes as a goal the encouragement of the deployment of advanced telecommunications capability.

Specifically, Congress declared that encouraging the provision of new services and technologies to the public is a policy of the United States, and in section 706 of the Act provided specific direction to the FCC and each state Commission with regulatory jurisdiction over telecommunications services to:

encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans (including, in particular, elementary and secondary schools and classrooms) by utilizing, in a manner consistent with the public interest, convenience, and necessity, ... measures that promote competition in the local telecommunications market, or other regulating methods that remove barriers to infrastructure investment.

Recently, in a Federal Communications Commission Notice of Proposed Rulemaking entitled, *In the Appropriate Framework for Broadband Access to the Internet over Wireline Facilities*, the FCC noted that "widespread deployment of broadband infrastructure has become the central communications policy objective of the day." FCC 02-42, released February 15, 2002.

By making dry copper available to customers like internet service providers we are creating broadband deployment opportunities so that New Hampshire residential and business end-users have access to the technology and a choice of providers. While some argue a dry copper alternative is not the optimum choice in promoting broadband internet access because the technological evolution is to move away from copper to fiber optic transmission facilities, we note that the prevailing technology of the day is xDSL. *NPRM, Appropriate Framework For Broadband Access to the Internet Over Wireline Facilities*, FCC 02-42 (Feb. 15, 2002).

In the residential market, the last mile is nearly always copper. Even as firms build out fiber closer to the customers' premises, the copper infrastructure will exist, and can be used to provide broadband service. Thus, our decision allows entities such as internet service providers to utilize the existing traditional telephone infrastructure to provision

broadband to both residential and business customers. The utilization of existing assets benefits not only the entities seeking to deploy DSL but the incumbent telephone company which might otherwise be forced to write off stranded copper investments or pass those costs on to its customers.

We believe our decision today does not thwart but instead promotes innovation in the telecommunications industry. Products have already been developed to serve subscribers who are beyond the range of a Central Office, and products will continue to be developed, as long as regulators do not create obstacles to competition. The FCC stated as much when it reiterated an earlier conclusion that "competition among service providers increases the quality of services made available to consumers." *Id.*, at 53, ¶131.

Still, Verizon claims that the public policy objective of rapid deployment of broadband is not enhanced by requiring it to build more copper facilities. It suggests that the phenomenon of "reverse DSL" interference would actually inhibit ILECs and CLECs from further deploying conventional DSL services. There is no optimum broadband deployment strategy, and there is no "silver bullet" in an evolving and often unproven technological arena. It is for that reason we find that a diversified deployment strategy is the logical response

and that all reasonable options should be pursued. Hence, we find that a dry copper tariff is in the public interest.

C. Jurisdiction

Verizon and the Independents argue that the primary users of a dry copper tariff will be ISPs, whose only source of business is providing internet service, which has been determined to be an interstate service. It is claimed that where xDSL transmission is used to provide internet access services these services are interstate and do not fall under our authority. See, *GTE Telephone Operating Companies*, 13 FCC Rcd 22466 (1998), CC Docket No. 98-79, FCC 98-292.³

In making the decision in *GTE Tel. Operating Cos.*, the FCC acknowledged that it traditionally determines the jurisdictional nature of communications by the end points of the communication and not the intermediate points of switching or exchange between carriers. *Id.*, at ¶17. The FCC unequivocally rejected the argument that an end-to-end ADSL communication must

³In this order, the FCC indicates that the decision is limited to the question of whether a new access offering by GTE which provides specifically for a dedicated connection, rather than a circuit-switched, dial-up connection, to ISPs and potentially other locations should only be tariffed at the federal level, as an interstate access service. The FCC so found. The FCC repeated this decision with regard to Bell Atlantic in *Bell Atlantic Telephone Cos., et al.*, FCC 98-317, CC Docket No. 98-168 (November 30, 1998). In *Bell Atlantic* the Company proposed to offer an Infospeed DSL service which enabled data to be sent at high speeds over copper facilities. The Company contended the service would among other things "reduce congestion on the public switched network." FCC 98-317, at ¶7. The FCC incorporated the reasoning set out in the *GTE DSL Order* in the decision at FCC 98-317 and found the DSL service was properly tariffed at the federal level.

be separated into an intra-state telecommunications and inter-state information service. Instead, it concluded that the communications at issue in the proceeding did not terminate at the ISP's local server but continued to the ultimate destination. *Id.*, at ¶¶19-20. The FCC said it therefore analyzed "ISP traffic as a continuous transmission from the end user to a distant Internet site." *Id.*, at ¶20. It found that the ADSL service in question was a special access service, warranting federal regulation under the "ten percent"⁴ rule. *Id.*, at ¶25.

The tariff at issue here, however, is distinguishable from the DSL tariffs discussed in the *GTE* and *Bell Atlantic* cases. Here, the ISP or other entity is simply purchasing a Series 1000 Channel private line, not a DSL service. As discussed above, it is anticipated that a facility will run from an end user's premises to a Verizon CO and a second facility will run from the CO to the ISP's premises, cross-connected at the CO and not passing through the Verizon switch. The incumbent is not offering DSL services as an input component to

⁴The 10 percent rule was adopted by the FCC in the MTS/WATS Market Structure Order in 1989 where the Commission recognized that mixed-use special access lines would be deemed interstate where interstate traffic exceeded more than 10 % of the total traffic on the special access line. The Commission specifically found that special access lines carrying more than de minimis amounts of interstate traffic to private line systems should be assigned to the interstate jurisdiction. See *GTE Tel. Operating Cos.*, at ¶ 23.

the ISP. Rather, the ISP is merely purchasing a conditioned private line under a modified tariff and using it as an input component to its unregulated highspeed internet access offering.

The FCC's intent was not to limit state authority in this regard.⁵ The NHISPA makes this point convincingly. It argues the FCC's Declaratory Ruling in CC Docket No. 96-98 reaffirmed that ISPs are entitled to purchase links through intrastate tariffs rather than through interstate access tariffs. *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, Inter-Carrier Compensation for ISP-Bound Traffic*, 14 FCC Rcd. 3689 (1999), ¶20, FCC 99-38 (released February 26, 1999).

Pursuant to RSA 374:3, the Commission is responsible for the general supervision of all public utilities conducting business in this state and the plant owned, operated or controlled by such utility. Accordingly, we have general authority over Verizon's infrastructure. The Commission can therefore assure that facilities are available to, among other things, encourage competing broadband technologies to develop. Also, to the extent that DSL offerings will eliminate congestion

⁵See also, *California ISP Association, Inc. v. Pacific Bell Telephone Company*, __ PUR 4th __, (CA, 2002); CA PUC, Case 01-07-027, Order dated March 28, 2002 (CA PUC finding that Congress did not have clear and manifest intent to preempt all state authority when dealing with DSL Transport).

on the network, as Bell Atlantic admitted to the FCC in its DSL interstate tariff proceeding, the Commission has the responsibility to ensure utilities meet their service obligations under RSA 374:1. Neither the TAct nor the FCC displaces our authority to ensure the safety of New Hampshire consumers. See 47 U.S.C.A. §253(b).

While it is true that if ISPs were to become CLECs they would have access to unbundled network elements under 47 U.S.C.A. §251(c), we do not believe that is a necessary step inasmuch as an ISP can currently purchase a BANA circuit under a retail tariff. With the modifications we are requiring in the Series 1000 Private Line tariff, we are simply requiring Verizon to offer a conditioned private line through intrastate tariffs.

D. Technical Impediments

With regard to baud limits, the Series 1000 tariff should reflect signal strength limits of the Technical Standards found in ANSI T1.413. The baud limits found in the Series 1000 tariff should be modified, therefore, to accommodate the service that is being offered.

Verizon points out in its final comments, limiting the Series 1000 modifications to only allowing SDSL may ameliorate interference problems associated with "reverse DSL." Mr. Bishop, a Verizon witness, testified that spectrum utilized by

ISPs would be traveling in a direction opposite from the signal transmitted by the LECs "which might preclude ADSL from being used -- deployed in that cable from the central office."

12/04/01, Tr. p. 26. We also heard testimony, however, that techniques exist for dealing with spectral interference. Mr. Leslie, while admittedly not an expert on the matter, indicated that Verizon might be able to monitor the signal levels at the various frequency ranges, to determine whether the signals placed on that line exceed the ANSI specifications. He also opined that it would then be up to the CLECs [or ISPs] to figure out how to make their equipment work with it. *Id.*, at 165.

We believe the appropriate manner to deal with the possibility of technical interference is to allow the ISP to deploy whatever form of service it chooses and if interference develops then Verizon can bring down the line until a solution is developed between Verizon and the customer. Verizon would not be held responsible or liable for the disconnection so long as it is based on a reasonable determination that the ISP deployment has created interference. If no solution is reached, either party can petition the Commission for an expedited ruling on the matter. One way in which to mitigate the technical interference problems is to require all customers purchasing the Series 1000 private lines to notify the Company (Verizon) of the

specific equipment they attach to these lines. Accordingly, we shall require such notification. Customers will also be required through a tariff provision to attach only equipment which is certified under FCC Part 68.

E. Conclusion

We believe that requiring Verizon to offer DSL-ready and capable facilities to internet service providers will serve to forestall congestion and expand access by New Hampshire consumers to infrastructure that provides broadband capabilities. The decision is not one in which the Commission undertakes to regulate Verizon's broadband network. Nor are we taking action requiring Verizon to provide unbundled network elements to entities that are not telecommunications carriers. The decision is one that allows customers to purchase a desired private line service under a modified retail tariff.

We will require Verizon-NH to file a compliance tariff modifying the existing Private Line, Series 1000 Channel offering consistent with this ruling. To assess the potential obstacles that may exist, we will require Verizon to offer the modifications addressed in this order for a period of 18 months. By requiring Verizon to modify its Series 1000 tariff for a trial period, the Commission, Verizon, and those buying out of the tariff can better assess the necessity, feasibility and

functionality of such an offering. In this way, potential obstacles, such as technical interference, can be identified and perhaps remedied in the near-term.

V. IMPLEMENTATION

A. Terms

We acknowledge that requiring Verizon to provide the modified tariff for a trial period, may not provide the degree of regulatory and business certainty needed by ISPs and other customers before making any initial investments. However, those that purchase will be grandfathered, *i.e.*, once an entity purchases from the modified tariff it will be able to continue using the facilities beyond the trial period, unless after notice and hearing the Commission finds the public interest is no longer being served by this offering.

We have considered Verizon's arguments regarding the extent of plant that might be needed for the offering. We will limit the tariff, during the trial period, to available facilities. Verizon, however, will be required to show the Commission that facilities do not exist before declining service in a particular area. Likewise, we are cognizant of the concerns expressed by Verizon regarding the deployment of dry

copper in remote terminals and therefore will not require Verizon to provision such an offering during the trial period.

As we are requiring this tariff to be offered on a trial basis, we believe it is in the public interest to monitor the use of the tariff for that period. Accordingly, we will require Verizon to report on a monthly basis the number of private lines requested under the tariff. The report should indicate the number of lines purchased, the name of the purchaser, the exchange in which the private line is purchased, and the number of requests for lines rejected for no facilities.

Verizon will also be required to report any technical interference as incidents occur. If no Commission action is required, Verizon will indicate how it remedied the problem and what additional resources were needed to rectify the problem.

B. Pricing

As we have determined that it is in the public interest to modify the Series 1000 tariff, we believe the pricing in that tariff for nonrecurring (NRC) charges and monthly recurring line charges is appropriate. In Verizon's May 29, 2001 filing of the Illustrative Dry Copper Tariff the Company indicated that the pricing of the Series 9000 product consisted of a monthly recurring charge, a nonrecurring

charge (NRC) and nonrecurring line conditioning charges where necessary. In comparing the proposed Series 9000 prices against the Series 1000 prices, we observe some similarities but we also note some inconsistencies.

Since the service contemplated by this proceeding is merely a conditioned Series 1000 Service, we believe it is reasonable to adopt the Series 1000 pricing for the NRC⁶ and recurring charges and establish a retail line conditioning charge. Because the dry copper service will require the same 2 point channel as the Series 1000 Service we reject Verizon's monthly service pricing in the proposed Series 9000 service.

Likewise, we reject the conditioning costs as excessive. We accept the NHISPA's request that the tariff contain a provision that allows requests to remove load coils and bridged taps at actual costs. We believe, however, that some mark-up is justified. Staff presented us with Exhibit 4 at the hearing which is the Staff dry copper cost vs. line unit cost. In that exhibit Staff calculated revised rates for conditioning using a 10 percent markup. In reviewing the wholesale charges we recently approved in Order 23,948 (April 12, 2002) and the retail rates for conditioning expressed in

⁶The proposed Series 9000 and the existing Series 1000 private line channel service reflect the same nonrecurring charge of \$240.00.

Exhibit 4, we find the retail rates used by Staff in Exhibit 4 cover the wholesale price and contribute to joint and common overhead. We will, therefore, approve the rates set forth in Exhibit 4 for line conditioning charges. We also note that this is a trial period and believe that the Exhibit 4 rates are a satisfactory means for pricing the nonrecurring charges associated with line conditioning at the retail level. Accordingly, for purposes of this trial period we believe the rates as currently found in the Series 1000 tariff plus the nonrecurring line conditioning rates as expressed in Exhibit 4 are reasonable.

Based upon the foregoing, it is hereby

ORDERED, that a dry copper tariff offering is in the public interest on a trial basis for the period July 1, 2002 through December 31, 2003; and that it is

FURTHER ORDERED, that Verizon New Hampshire modify its Series 1000 Private Line Channel Tariff Offering to meet the requirements specified herein, and that it is

FURTHER ORDERED, that Verizon New Hampshire file a compliance tariff with the Commission, consistent with the requirements discussed above, no later than 45 days from the date of this Order, and it is

FURTHER ORDERED, that Verizon meet the reporting requirements as specified in this order.

By order of the Public Utilities Commission of New Hampshire this third day of May, 2002.

Thomas B. Getz
Chairman

Susan S. Geiger
Commissioner

Nancy Brockway
Commissioner

Attested by:

Debra A. Howland
Executive Director & Secretary