

Report of the Michigan Public Service Commission to

Governor Jennifer Granholm,

Senate Technology and Energy Committee

And

House Energy and Technology Committee

**Pursuant to Section 304(9) of the
Michigan Telecommunications Act.**

Date: _____

TABLE OF CONTENTS

- I. History of Proceedings**
- II. Explanation of Virtual NXX or Virtual FX**
- III. Conclusions and Recommendations**

Introduction

On November 21, 2005, Governor Jennifer M. Granholm signed into law 2005 PA 235, which amended 1991 PA 179 entitled “Michigan Telecommunications Act”, MCL 484.2102 *et seq.* Among other changes, Act 235 created a new § 304(9), which provides:

A call made to a local calling area adjacent to the caller’s local calling area shall be considered a local call and shall be billed as a local call. Effective December 31, 2007, a call made to a called party who is not located within the geographic area of the caller’s local calling area or an adjacent local calling area as defined by the commission's order in case numbers U-12515 and U-12528, dated February 5, 2001, is not a local call if the tariff of the provider originating the call does not classify the call as a local call.

The commission shall convene a workgroup of interested parties for the purpose of resolving issues surrounding virtual NXX. Virtual NXX is the assignment of a telephone number to customers who are not physically located in the exchange to which the NXX is assigned. The workgroup shall consider the utilization of virtual NXX services to transport interexchange traffic and the associated inter-carrier compensation. Prior to July 1, 2006, the commission shall submit a report to the governor and the house and senate standing committees with oversight of telecommunication issues on the progress of workgroup discussions. The report shall include a commission policy statement relating to the provision of virtual NXX services, and recommendations for legislation, if any.

As required by § 304(9), this document provides the governor and the legislature with a report of the progress made by the workgroup created by the Michigan Public Service Commission. At the conclusion of this report, the Commission includes its policy statement relating to virtual NXX (which are also known as VNXX or virtual FX) services, and also a recommendation regarding the need for additional legislative action.

Part I - History of Proceedings:

At its November 22, 2005 meeting, Commission commenced Case No. U-14683, which convened a workgroup to investigate and discuss the activities necessary to allow the Commission to issue the report required by Section 304(9) by July 1, 2006. The Commission assigned Orjiakor Isiogu, Director of its Telecommunications Division, to immediately commence a collaborative process to address VNXX issues.

Mr. Isiogu scheduled a preliminary meeting of the parties on December 5, 2005. The parties represented the large and small incumbent local exchange carriers (“ILECs”), competitive local exchange carriers (“CLECs”), Internet Service Providers (“ISPs”), the Telecommunications Association of Michigan (“TAM”) and the Michigan Exchange Carrier Association (“MECA”), as well as the MPSC Staff.¹ Additionally, the MPSC Staff established a website where various materials and comments were posted for the parties’ use.

At the initial meeting on December 5, 2005, all interested parties were asked to provide a “description” of virtual NXX and to identify, preliminarily, issues associated with VNXX. Eleven parties or groups of parties responded to this request and submitted preliminary statements by December 7, 2005. The MPSC Staff then directed several workgroup meetings of the interested persons.² Initially, the workgroup met to determine the scope of issues to be discussed. At the December 20, 2005 meeting, the parties created a list of issues to direct their discussions. The issues concerned how to appropriately identify and describe VNXX calls, how VNXX calls are generally carried on networks today, and how various carriers compensate each

¹ Workgroup participants included: ACD.net, AT&T, CenturyTel, Inc., Climax, Comcast, IServ, MCI, MECA, MiACT, MidMich.Net, MPSC Staff, M33 Access, Pac-West, Sage Telecom, TalkAmerica, TDS, TelNet, TAM, Verizon North, Inc. and Verizon North Systems.

² The MPSC Staff-directed workgroup met in 2005 on December 5, December 9, December 13 and December 20, and in 2006 on January 5, January 12, January 19, January 24, January 31, February 7, February 21, April 4 and _____ to be added as appropriate _____.

other for the costs of transporting VNXX calls when such calls are exchanged between two carriers' networks. In addition, the workgroup recognized and discussed that the FCC has several pending intercarrier reform dockets open and that VNXX was one piece of the larger intercarrier compensation and interconnection reform puzzle.³ A complete listing of the issues is attached to this report as Exhibit A.

The workgroup discussions acknowledged that the Commission has issued a number of decisions involving virtual FX and intercarrier compensation issues. The Commission has ruled that calls by a customer to a number designated in a carrier's tariffs as a local call but served via a virtual FX arrangement must be rated on the customer's bill as local calls pursuant to the carrier's retail tariffs and may not be charged as toll calls.⁴ With regard to intercarrier compensation issues, the Commission has taken the position that voice virtual FX calls are to be considered local calls and are subject to reciprocal compensation requirements under § 251(b)(5) of the Telecommunications Act of 1996. 47 U.S.C. § 251(b)(5).⁵ Where the virtual FX traffic is ISP-bound (i.e., terminate to an Internet Service Provider), the Commission has indicated that the FCC's transitional compensation rates apply.⁶

³ The FCC opened its current investigation by recognizing it would, "begin a fundamental reexamination of all currently regulated forms of intercarrier compensation." Notice of Proposed Rulemaking, *In the Matter of Developing a Unified Intercarrier Compensation Regime*, CC Docket No. 01-92, FCC 01-132, ¶ 1 (rel. April 27, 2001). As it further noted: "We are particularly interested in identifying a unified approach to intercarrier compensation – one that would apply to interconnection arrangements between all types of traffic passing over the local telephone network." *Id.*, ¶ 2.

⁴ Opinion and Order, *In the matter of the complaint of Glenda Bierman against CenturyTel of Michigan, Inc. d/b/a CenturyTel*, Case No. U-11821 (April 12, 1999).

⁵ Order Adopting Arbitrated Agreement, *In the matter of the petition of Coast to Coast Telecommunications, Inc., for arbitration of interconnection rates, terms and conditions, and related arrangements with Michigan Bell Telephone Company, d/b/a Ameritech Michigan*, Case No. U-12382 (Aug. 17, 2000).

⁶ Order, *In the matter of the application of TelNet Worldwide, Inc. for arbitration of interconnection rates, terms, and conditions and related arrangements with Verizon North Inc. and Contel of the South, Inc., d/b/a Verizon North Systems*, Case No. U-13931 (Oct. 14, 2004).

Although these decisions were discussed during the workgroup sessions, the workgroup members agreed that the workgroup sessions were not an appropriate forum to seek resolution of disputed positions on prior Commission decisions. The workgroup participants agreed that the Commission was, consistent with its legal authority and jurisdiction, free to modify its prior rulings. And the participants reserved their rights to take positions in the workgroup sessions for the purposes of compromise that might differ from a position a party might take in a formal proceeding before the Commission or in other forums.

In the early meetings, the MPSC Staff and the parties agreed to defer the discussion of appropriate compensation for VNXX calls until the other various issues were discussed, in particular, the first four issues on the December 20, 2005 issues list. Several groups of parties provided responses to these first four issues in early January. In addition, parties provided diagrams to facilitate the explanation of how VNXX works, as well as case studies, positions on ISP bound traffic and establishing a single point of interconnection, and related articles in the press.

In addition to discussing the issues already noted, starting at the meetings in January 2006, the parties discussed various FCC and court decisions related to VNXX and intercarrier compensation issues generally. At the January 24, 2006 workgroup meeting, AT&T's representative Philip Bowie presented a review of national industry initiatives related to intercarrier reform. In addition, Mary Alberts, an attorney for CompTel and Andrew Margeson, a staff member from the Oregon Public Service Commission, provided perspectives of the intercarrier compensation issues from the federal arena.

During this discussion, the participants noted that there was a general recognition among regulatory agencies, including the FCC, and industry stakeholders that the present intercarrier

compensation system and carrier interconnection rules should be revised. Among other drawbacks, most parties believe the present system does not adequately account for technological and marketplace developments over the past two decades and retain rules that are not competitively or technologically neutral. Moreover, the present rules tend to perpetuate, rather than reduce, the need for regulation.

Recognizing the need for change, various national industry groups and regulators, including the Intercarrier Compensation Forum (ICF) and the National Association of Regulatory Utility Commissions (NARUC) Intercarrier Compensation Task Force, have engaged in extended discussions at the federal level, in an effort to develop an industry-wide consensus plan for a broader reform of the system.⁷ Whatever its ultimate terms, this plan would:

- Establish uniform interconnection rules to govern the exchange of all traffic, including VNXX traffic on the public switched telephone network.
- Establish new, unified and industry-wide compensation rules that reflect current and future technologies.
- Accommodate all carriers' concerns, including the unique circumstances of rural carriers.
- Provide a specific and reasonable transition mechanism away from current rules.

Since the initial presentation on this subject to the workgroup, various participants have provided additional updates regarding the industry-wide discussions. The parties have reported that these discussions are continuing and that the FCC intends to implement nationwide intercarrier compensation reform prior to December 31, 2006.

⁷ These discussions have at times resulted in the filing of specific proposals in the pending FCC reform dockets. For example, the Intercarrier Compensation Forum filed a proposed reform plan for consideration by the FCC in its *Development of a Unified Intercarrier Compensation Regime* docket (CC Docket 01-92). Other interested parties and groups have made similar filings with the FCC.

AT&T, VERIZON & TALK AMERICA PROPOSED REPORT – MARCH 31, 2006

In the early February 2006 timeframe, the VNXX workgroup discussed the appropriate compensation for VNXX calls, whether under the current regulatory framework or in the future.

By the February 21, 2006 meeting, parties were ready to set a timeline for proposing draft report language to be used by the MPSC Staff in its submission to the MPSC. A schedule was established, which called for parties to circulate initial drafts by March 31, 2006 and replies by April 14, 2006. The MPSC Staff presented a preliminary report to the Commission on May __⁸, 2006. This report formed the basis of the Commission's present report and recommendations.

⁸[Staff should fill in this date.]

Part II - Description of VNXX

A. Description

The familiar ten-digit telephone numbers used throughout North America reflect a standardized format, consisting of several segments, which themselves have somewhat unfamiliar and/or acronym-based names. Therefore, when discussing VNXX or virtual FX, several terms must first be defined. Telephone numbers follow the format of NPA-NXX-XXXX. The first three digits are the “NPA,” which refers to the Numbering Plan Area (*i.e.*, NPA) of the North American Numbering Plan (NANP), in other words the “Area Code.” The next three digits, “NXX”, generally identify a specific telephone exchange.⁹ The final four digits of a telephone number (“XXXX”) generally identify the specific subscriber line to which a call will terminate.

Virtual NXX is the assignment of a telephone number or numbers to a customer that is not physically located in the exchange where the NPA-NXX is homed or assigned. A VNXX or virtual FX arrangement permits end users in the local calling area where the NPA-NXX is homed to dial “local” calls (*i.e.*, “toll free”, without incurring toll charges) to reach the end user served by the virtual NXX arrangement even though the party called is not physically located in the same local calling area. In some cases involving virtual NXX, the called party is not located within the same LATA as the party originating the call.¹⁰ Generally, virtual NXX is used for the

⁹ A telephone exchange is generally the central office (or one of several contiguous central offices) and associated facilities in a specific geographic area in which a telephone company provides local exchange service.

¹⁰ Under § 251(e) (1) of the Act, the FCC has the authority for numbering and it may delegate certain administrative duties related to this responsibility. Accordingly, the assignment of NPA-NXX codes is governed by the North American Numbering Plan Administrator. A Local Access and Transport Area (“LATA”) is a geographic calling area established at the time of the Bell System divestiture. There may be one or several area codes (NPAs) within a LATA. For example, the Detroit LATA, which includes the greater Detroit metropolitan area and covers the southeastern portion of Michigan has the following area codes within it: 248, 313 586, 734, 810 and 947.

delivery of one-way inbound traffic to an end user served by the virtual NXX arrangement, most commonly to deliver dial-up ISP-bound traffic.

Diagram A depicts a typical VNXX example where the VNXX customer is a dial-up Internet Service Provider (ISP) served by Carrier B. In this example, the ISP's server is physically located in the Detroit local calling area. The ISP obtains service using a Port Huron telephone number, meaning that the NPA-NXX is assigned to an exchange in Port Huron, from Carrier B. This enables end users in the Port Huron local calling area to dial the ISP's Port Huron NPA-NXX as a "local" call (*i.e.*, "toll free" without incurring toll charges). The call originates in the Port Huron local calling area and terminates to the ISP server that is physically located in the Detroit local calling area.

B. Current compensation model, architecture

Virtual NXX arrangements have given rise to issues associated with appropriate intercarrier compensation and network architecture. The intercarrier compensation arrangements applied to VNXX traffic vary from state to state, and result from various state commission decisions and interpretations in arbitrations and other dockets. Additionally, there are variations in how some states have applied compensation schemes to voice (non-ISP) VNXX traffic versus ISP-bound VNXX traffic. Depending on the state (and variations may occur between interconnection agreements within a state) compensation arrangements have included the following types of scenarios:

- The classification of VNXX as interexchange ("non-local") traffic subject to originating access charges to be paid by the terminating carrier to the originating carrier.¹¹

¹¹ Order No. 449960, issued in, *Application of AT&T Communications of the Southwest, Inc. for Compulsory Arbitration of Unresolved Issues With Southwestern Bell Telephone Company Pursuant to § 252(b) of the Telecommunications Act of 1996*, Cause No. PUD 200000587, p. 13 Okla. Corp. Com. (March 14, 2001).

- “Bill and keep” arrangements whereby – as between two or more carriers involved in the transport of the call – no intercarrier compensation payments are made among the carriers.¹²
- The classification of VNXX as “local” traffic, which thereby subjects the call to reciprocal compensation charges to be paid by the originating carrier to the terminating carrier.¹³
- The classification of VNXX as local traffic subject to reciprocal compensation charges to be paid by the originating carrier to the terminating carrier, with a corresponding “transport charge” to be paid by the terminating carrier to the originating carrier for the carriage of that traffic beyond the originating local exchange.¹⁴

As discussed above, in Michigan, the Commission has ruled that VNXX traffic is local traffic subject to §251(b) (5) reciprocal compensation. The result is that, under existing Commission decisions, “voice” VNXX traffic is subject to the reciprocal compensation rate elements, and ISP-bound VNXX traffic is subject to the FCC’s interim rate, which is capped at \$0.0007 per minute.

In addition to these regulatory responses to VNXX compensation issues, some ILECs and CLECs have resolved these issues in the past several years through voluntarily negotiated agreements. These solutions allow carriers to avoid the uncertainty, expense, and polarized outcomes of litigation. These agreements, which are similar across carriers, typically entitle the CLEC to some compensation for transporting ISP-bound VNXX traffic in exchange for, among other things, the CLEC’s commitment to extend its network deeper into the ILEC’s network, thereby reducing a portion of the ILEC’s cost of transporting traffic.

¹² *Essex Telecom, Inc. v. Gallatin River Communications, LLC*, Order, Illinois Docket 01-0427, 2002 WL 31951289, at *5-7 (July 24, 2002).

¹³ *In the matter of the complaint of Coast to Coast Telecommunications, Inc., against GTE North Incorporated and Contel of the South, Inc., d/b/a/ GTE Systems of Michigan*, Michigan Case No. U-12090, p. 7 (February 22, 2000).

¹⁴ *In the Matter of Verizon California Inc. (U-10021-C) Petition for Arbitration with Pac-West Telecomm, Inc. (U5266-C) Pursuant to Section 252(b) of the Telecommunications Act of 1996*, Decision 03-05-075, May 22, 2003.

Part III - Conclusions and recommendations

A. Current Status

The Commission has issued numerous orders in its proceedings deciding issues or disputes relating to virtual FX and/or VNXX calls. The Commission is also aware of the ongoing proceedings at the FCC, the NARUC Inter-carrier Compensation Task Force, and the current discussions among many telecommunications carriers, related industry participants, and other interested parties engaged in an exercise to reform the existing rules for inter-carrier compensation and interconnection. These proceedings and forums are addressing broader reform issues, which include the narrow VNXX issue under discussion in Michigan.

The Commission has reviewed the discussions held by the workgroup convened in Case No. U-14683, and also has reviewed the various documents and other materials circulated among the participants. At this time, the Commission can make the following findings:

1. As a general matter, the Commission's current orders regarding inter-carrier compensation and VNXX arrangements remain in full effect. Under the Commission's present view, § 304(9) does not require the Commission to modify any of its orders or decisions. Nevertheless, the Commission may be presented with disputes related to VNXX arrangements in carrier-to-carrier arbitrations or other regulatory proceedings. Consistent with its statutory authority and rules of practice, the Commission will decide those issues when presented. The participants in the workgroup are not bound by the positions taken during their discussions and may take carrier-specific positions in other proceedings before the Commission.
2. There is no general consensus on the various disputed issues relating to VNXX among the parties involved in the workgroup. The workgroup participants worked openly and diligently to explore various positions on compensation structure, interconnection architecture, and the legal and policy effect of section 304(9). Despite this effort, however, the parties were unable to provide the Commission with any proposed policy that would have the support of a substantial number of the participants.
3. There is an increasingly likely possibility that the FCC will move forward with its announced policy to implement nationwide inter-carrier compensation reform and that these reforms will become effective, at least partially, prior to December 31,

2007. In particular, the Commission believes it more likely than not that the FCC will announce specific reform initiatives within the next year. These initiatives will reform carrier-to-carrier interconnection and compensation rules in a manner that will address calls transported using VNXX or virtual FX arrangements. It is likely that these reform initiatives will be implemented on a phased approach over several year time period.

4. Some carriers have been able to successfully negotiate and implement region-wide agreements addressing intercarrier compensation for VNXX traffic. Among other advantages, these agreements avoid the win-lose outcome of regulatory decision-making and allow both parties to give appropriate weight to their respective business interests to achieve an outcome that reflects a balanced marketplace solution to a longstanding regulatory problem.

B. Recommendation

Based upon the findings discussed above, the Commission has the following policy recommendations at this time.

1. The Commission recommends that the legislature enact no further revisions to section 304(9) at this time. The Commission makes this recommendation on the assumption that the FCC will, in the relatively near future, issue orders that will address broad intercarrier reform issues, including the VNXX and intercarrier compensation issues discussed in the workgroup.
2. In the interim, arms-length negotiations between carriers have, in many cases, produced solutions that obviate the need for regulatory intervention.
3. The Commission recommends that it should be permitted to provide the legislature continued updates on the issue of VNXX (and related) issues on a regular schedule (*e.g.*, approximately every six months) to provide the legislature with more recent information regarding (a) actions by the FCC in its intercarrier compensation reform proceedings and (b) actions or decisions on the VNXX (and related) issues by Michigan Public Service Commission in its various docketed proceedings and/or arbitrations between carriers.

Exhibit A – Issues List

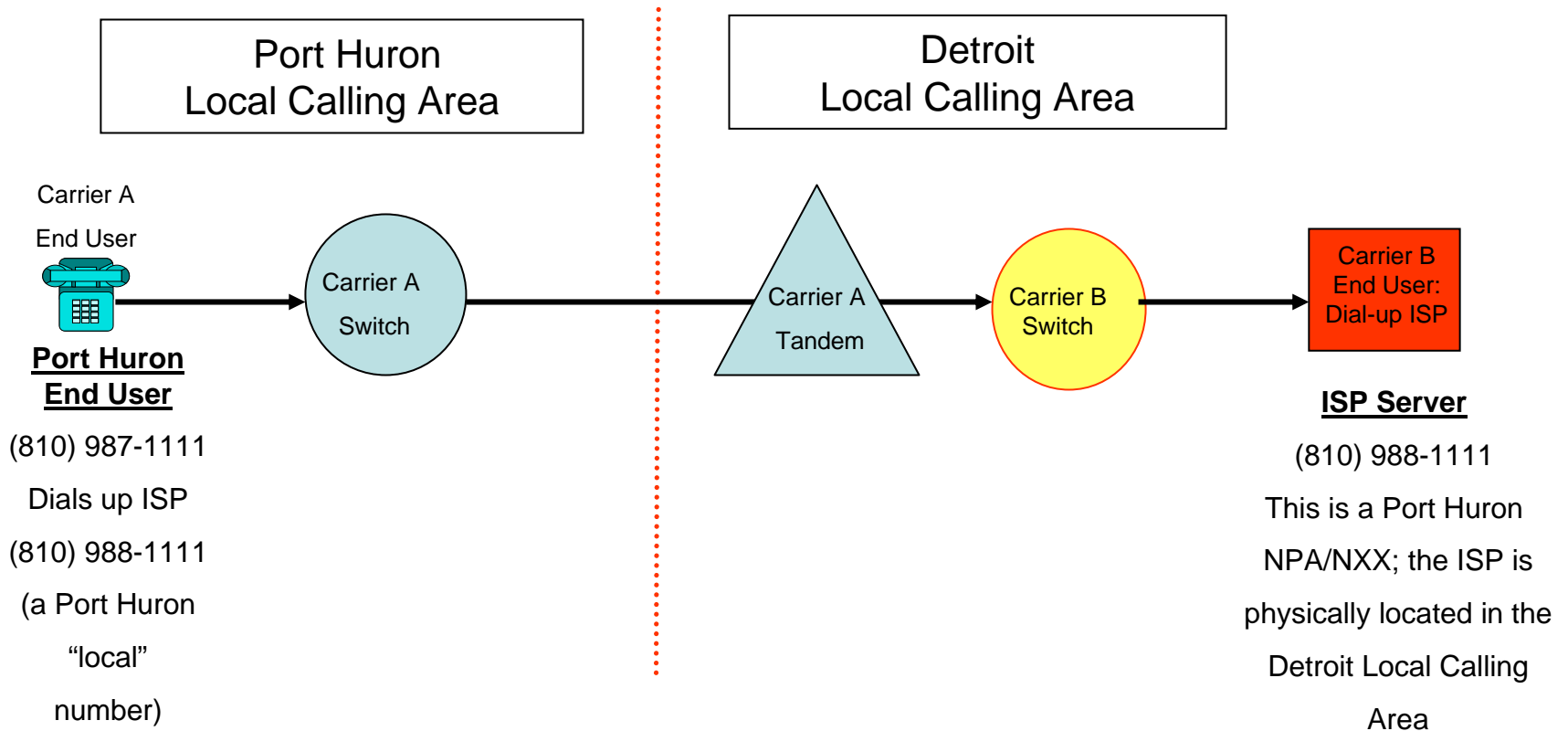
- 1) What factors determine whether a call is a local or non-local call?
 - a) How should the term “physically located” be defined?
 - b) How should the term “called party” be defined?
- 2) How widespread is the use of VNXX in Michigan?
- 3) Can VNXX calls be tracked?
 - a) notification;
 - b) administrative burdens;
 - c) LNP issues/complications, and
 - d) accounting method for tracking VNXX calls
- 4) Would there be an effect on emerging technologies if VNXX is eliminated? For example such as on:
 - a) VOIP;
 - b) Cellular;
 - c) Ability of a customer to take a phone number with them everywhere, and
 - d) Broadband.
- 5) Is any carrier legally or technically foreclosed from offering a service that utilizes VNXX?
- 6) Is any VNXX traffic subject to preemption by the FCC?
- 7) Should one carrier’s tariffs limit, or expand, the service offerings of another carrier? Is there a role for the MPSC?
- 8) How does VNXX affect network investment?
- 9) Is there evidence of benefit or harm from VNXX service?
- 10) How, by whom, and when, will end users be notified which calls will become toll calls effective 12/31/07?
- 11) What is the appropriate compensation method for VNXX?
 - a) Is it:
 - i) 251(b)(5) reciprocal compensation;
 - ii) ISP bound compensation;

- iii) bill and keep, or
 - iv) originating switched access charges.
- b) Will and how will the following FCC dockets impact compensation for VNXX?
- i) Reform of Intercarrier Compensation System, cc docket No. 01-92; and
 - ii) Intercarrier Compensation on Internet Protocol Traffic, WC docket No. 04-36.
- c) Has anything changed since previous MPSC decisions on VNXX?
- d) Can the MPSC continue to apply its previous decisions after 12/31/07?
- e) Who is the cost causer/retail service provider of VNXX service?
- f) Are there costs incurred by the originating provider, or network providers for VNXX that would not be incurred in handling a non-VNXX local call?

Diagram A – VNXX Example

Virtual NXX Example

In this example, Carrier B provides service to a dial-up ISP physically located in the Detroit local calling area and assigns the ISP a telephone number from the Port Huron local calling area. This arrangement permits end users in the Port Huron local calling area to dial the call as a “local” call (i.e., “toll free”, without incurring toll charges) to reach the ISP physically located in the Detroit local calling area.



For this example, under current MPSC rulings, traffic that is ISP-bound is subject to the FCC’s *ISP Remand Order* rate of \$0.0007 per minute for ISP-Bound traffic, to be paid by Carrier A to Carrier B. If the traffic is not ISP-bound, then under current MPSC rulings, the traffic is considered “local” traffic for compensation purposes, based on the telephone number dialed, and Carrier A would pay Carrier B its applicable reciprocal compensation rates. It is expected that forthcoming FCC decisions (e.g., in Docket 01-92) will impact carrier compensation arrangements, including those for Virtual NXX and Virtual FX.