

**EXHIBIT A TO EMBARQ'S ANSWER TO THE PETITION  
OF INTRADO COMMUNICATIONS OF VIRGINIA INC.**

Before The  
**FEDERAL COMMUNICATIONS COMMISSION**  
Washington, D.C. 20554

In the Matter of the Petition )  
of Intrado Communications of Virginia Inc. for Arbitration )  
Pursuant to Section 252(b) of the Communications Act ) WC Docket No. 08-33  
of 1934, as amended, to Establish an Interconnection )  
Agreement with Central Telephone Company of Virginia )  
and United Telephone Southeast LLC )  
(collectively, "Embarq") )

**RESPONSE OF EMBARQ TO LIST OF UNRESOLVED  
ISSUES SUBMITTED BY INTRADO COMM**

**ISSUE I-1 – IS INTRADO COMM ENTITLED TO SECTION 251(C) INTERCONNECTION FROM EMBARQ?**

**Intrado Comm Position:**

According to Intrado Comm, the 911/E911 service that it provides to PSAPs should be classified as telephone exchange service, even when the service is IP-enabled. Intrado Comm also claims that Section 251(c) of the Act governs all aspects of the interconnection between Intrado Comm and Embarq even in situations where the PSAP has designated Intrado Comm as the primary 911 service provider. Intrado Comm argues that this is necessary since Embarq purportedly has uneven bargaining power and maintains a dominant position in the local market.

**Embarq Position:**

Embarq agrees that Intrado Comm may be a telecommunications carrier entitled to interconnection under Section 251(a), but Embarq does not agree that the 911/E911 services that Intrado Comm provides to PSAPs qualify as telephone exchange service in situations where the PSAP has designated Intrado Comm as the primary 911 service provider. Intrado Comm has acknowledged in the Florida arbitration that it neither offers dial tone local exchange services to end user customers nor does it have plans to do so in the foreseeable future. Under such circumstances, Section 251(c) does not govern how Embarq fulfills its obligation to interconnect with Intrado Comm to obtain 911 service for Embarq's end users, and it does not entitle Intrado Comm to obtain access to UNEs.

Moreover, 911/E911 services are not local telephone exchange services, but rather are unique emergency services that do not fall into the categories contemplated under Section 251(c) of the Act. Embarq's position is based on the unique characteristics of 911 service, including the following:

- 1) The requirements of federal law that all voice providers must provide end user access to 911 service;
- 2) The FCC's description of the Wireline E911 Network is notes that it is "separate from" the Public Switched Telephone Network ("PSTN");
- 3) The absence of competitive market alternatives once the PSAP has designated a party to act as the exclusive Wireline E911 Network provider for a given PSAP serving area;
- 4) The one-way nature of the traffic, i.e., it flows only from the end user who dials 911 to the PSAP who will provide the emergency services;
- 5) The fact that 9-1-1 traffic is jurisdictionally agnostic;
- 6) The fact that Inter-carrier compensation does not apply to 911 service; and
- 7) The funding of 911/E911 services and the Wireline E911 Network through end user surcharges.<sup>1</sup>

These unique characteristics of 911/E911 emergency services differentiate such service from telephone exchange service, and help to illustrate why it is not subject to Section 251(c) interconnection and unbundling requirements. This conclusion is further illustrated by the particular regulatory and practical implications that are discussed throughout this Response in connection with other issues, and the Section 251(c) issue cannot be fully understood or resolved without examining the circumstances described in connection with other issues.

As suggested by the foregoing characteristics, when an end-user dials 9-1-1 and is connected to a PSAP they receive a specialized, unique service that ultimately dispatches the appropriate emergency personnel to the end-user's location in response to their call for help. The

---

<sup>1</sup> The characteristics of 911/E911 services were described in the pre-filed testimony of James M. Maples in the Florida arbitration proceeding (Docket No. 070699-TP).

Commission has found that 911/E911 service provided today is a combination of telecommunications services and information services.

Consistent with the Joint Board's recommendation, we support the telecommunications network components necessary for access to 911 service and access to E911 service, but not the underlying services themselves, which combine telecommunications service and the operation of the PSAP and, in the case of E911 service, a centralized database containing information identifying approximate end-user locations. As noted by the Joint Board and commentors, the telecommunications network represents only one component of 911 and E911 services; local governments provide the PSAP and generally support the operation of the PSAP through local tax revenues. **We conclude that both 911 service and E911 service include information service components that cannot be supported under Section 254(c)(1), which describes universal service as "an evolving level of telecommunications services."** Accordingly, we include only the telecommunications network components necessary for access to 911 and E911 services among the services that are supported by federal universal service mechanisms.<sup>2</sup> (Emphasis added to original).

The network used to provide emergency services is referred to as the Wireline E911 Network, which the Commission has stated is separate from but interconnected with the Public Switching Telecommunications Network ("PSTN") for the provision of emergency services.<sup>3</sup> Today, the Wireline E911 Network is typically comprised of a voice network and a separate data or information network, as described further below.

Voice Network: In the standard configuration the voice network carries E911 calls from customers dialing 9-1-1 to special switching equipment ("selective router") which is the point of demarcation between the PSTN and the Wireline E911 Network. The selective

---

<sup>2</sup> See *In the Matter of Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, FCC 97-157, Report and Order, Released: May 8, 1997, "FCC USF Order" at ¶ 74.

<sup>3</sup> See 47 C.F.R. §9.3, "Wireline E911 Network. A dedicated wireline network that: (1) Is interconnected with but largely separate from the public switched telephone network; (2) Includes a selective router; and (3) Is utilized to route emergency calls and related information to PSAPs, designated statewide default answering points, appropriate local emergency authorities or other emergency answering points."

router directs the emergency calls to the appropriate PSAP based on the geographic location of the caller.

Data Network: The data network is accessed by the PSAP during the emergency call to retrieve geographic location information about the caller based on the caller's telephone number or pseudo-telephone number.

This configuration is poised for dramatic changes as standards for the Next Generation 911 Network ("NG-911") are finalized and plans for deployment are being developed. For example, Section 102 of the recently enacted New and Emerging Technologies 911 Improvement Act of 2008 directs the National Telecommunications and Information Administration to prepare a national migration plan for migrating to NG-911 and report to Congress within 270 days. These highly anticipated changes are not secret, and they are certainly among the reasons that Intrado Comm is seeking to expand its entry into additional markets.

The NG-911 network is being designed to incorporate advances in technology to enable not just voice but video and text capabilities. It will be an IP-based solution requiring modifications to many components of the emergency communications infrastructure. The FCC Bureau of Public Safety and Homeland Security describes the development effort as follows:

The National Highway Traffic Safety Administration (NHTSA), under the U.S. Department of Transportation, was established in 1970 to carry out public safety programs. The ENHANCE 911 Act of 2004 authorized NHTSA and the National Telecommunications and Information Administration to establish a national 9-1-1 Implementation Coordination Office to administer a grant program for Public Safety Answering Points (PSAPs). The Office reports implementation progress, makes recommendations to Congress on E 9-1-1 needs, and administers new federal cost-share grants to state and local E 9-1-1 agencies for implementation and operations.

The Next Generation 9-1-1 Initiative is a research and development project to help define the system architecture and develop a transition plan to establish a digital, Internet Protocol (IP)-based foundation for the delivery of multimedia 9-1-1 “calls.”<sup>4</sup>

It is clear, then, that the services provided over the NG-911 network will be IP-enabled services.<sup>5</sup>

NG-911 emergency services will be provided over the Wireline E911 Network that Intrado Comm is marketing to PSAPs. Intrado Comm has indicated that its network uses IP technology to merge the voice and information services over a single facility.<sup>6</sup> These facilities provide direct connectivity to the Internet eliminating the need for special gateways for VoIP

---

<sup>4</sup> See the FCC Public Safety and Homeland Security Bureau website.

<sup>5</sup> See *In the Matter of IP-Enabled Services*, WC Docket No. 04-36, Notice of Proposed Rulemaking, Released: March 10, 2004, “IP-Enabled NPRM” at note 1, which states as follows:

“Specifically, the scope of this proceeding – and the term “IP-enabled services,” as it is used here – includes services and applications relying on the Internet Protocol family. IP-enabled “services” could include the digital communications capabilities of increasingly higher speeds, which use a number of transmission network technologies, and which generally have in common the use of the Internet Protocol. Some of these may be highly managed to support specific communications functions. IP-enabled “applications” could include capabilities based in higher-level software that can be invoked by the customer or on the customer’s behalf to provide functions that make use of communications services. Because both of these uses of IP are contributing to important transformations in the communications environment, this Notice seeks commentary on both, and uses the term “IP-enabled services” to refer to “applications” as well as “services.” Recognizing the broad scope entailed by this definition, we invite comment below on how we might more rigorously distinguish those specific classes of IP-enabled services, if any, on which we should focus our attention. We emphasize, however, that this Notice does not address standard-setting issues for the Internet Protocol language itself, which are more appropriately addressed in other fora, or other items outside this Commission’s jurisdiction, such as Internet governance.

<sup>6</sup> See Intrado Comm pre-filed direct testimony of witness Hick’s describing Intrado Comm’s network, at p. 5, line 1 and p. 6, line 4. (Florida arbitration proceeding - Docket No. 070699-TP) See also the Ohio Commission Order in the Intrado Comm Certification proceeding (Docket No.07-1199-TP-ACE) at p. 7, which acknowledges that Intrado Comm’s network “is a secured and private IP-managed network.”

providers such as Vonage. Using such technology, Intrado Comm is positioned to route the new multimedia 9-1-1 calls referred to by the FCC.

Despite the advent of NG-911 capabilities, Intrado Comm makes the statement in its Petition that it “isn’t providing anything new”<sup>7</sup>. However, this position is in direct conflict with statements made by Intrado Comm’s witnesses in testimony previously filed in Ohio and Florida proceedings.<sup>8</sup> In addition, Intrado Comm’s Petition is not consistent with the requirements that many PSAPs are including in their “Requests for Proposals” on contracts that are currently out for bid.

Intrado Comm is attempting to minimize its use of IP as an issue in this docket because of the regulatory implications surrounding NG-911 which have been raised by Embarq in the arbitrations which are pending between the parties in Ohio and Florida. Intrado Comm apparently wants the Commission to make a determination on its Petition based on a regulatory framework that only takes into account the legacy 911 architecture, without any consideration of the public policies that should be applicable to the information rich capabilities of NG-911 (e.g. data, texting, video, etc). Simply put, Intrado Comm’s position is at odds with much of the industry when it claims that IP-enabled services such as those applicable to NG-911 should be classified as telephone exchange service. Furthermore, whether under the existing 911 legacy architecture or the emerging NG-911 infrastructure, such emergency service is provided using a

---

<sup>7</sup> See Intrado Comm Petition at p. 3, at which Intrado states that “[t]he competitive 911/E911 services Intrado Comm intends to offer are not new, but are supported by an IP-based technology network.”

<sup>8</sup> See Hicks pre-filed direct testimony page 5, line 1 through page 7, line 14. Spence-Lenss pre-filed direct testimony page 6, line 16 through page 7, line 20. (Florida arbitration proceeding - Docket No. 070699-TP). See also, Hicks pre-filed direct testimony page 5 line 4 through line 14, and Spence-Lense pre-filed direct testimony page 7 line 7 through line 23. (Ohio arbitration proceeding - Case No. 07-1216-TP-ARB).

universally dialed number over a one-way trunk and selective router that are dedicated components of the Wireline E911 Network that don't permit the end-user to initiate calls to other end users throughout the entire local exchange area. Thus, the service Intrado Comm seeks to provide is not telephone exchange service.

**(a) 911 Service is Unique**

As discussed earlier, Emergency 9-1-1 calls are a unique form of communication. Emergency calls from end-users to the PSAP are jurisdictionally agnostic and the concept of exchange is essentially irrelevant. That is, emergency service calls are not considered either local or long distance (i.e., exchanges are irrelevant) for compensation purposes. In addition, emergency calls generally originate and terminate within a state, but not necessarily, and they flow in only one direction (end-user to PSAP). Intercarrier compensation does not apply to these calls. In other words, carriers do not charge originating or terminating switched access for these calls to each other or to any third party (such as an interexchange carrier) or to the end-user placing the call. E911 calls are also not considered Section 251(b)(5) traffic subject to reciprocal compensation,<sup>9</sup> nor would it be good public policy to establish such a requirement.<sup>10</sup>

Emergency service calls are directed to the PSAP based on the geographic location of the customer originating the call rather than based upon the number called (keeping in mind that the

---

<sup>9</sup> The comments referring to Intercarrier compensation are based on Embarq's experience negotiating Interconnection Agreements for 12 years and not based on any Commission ruling. Embarq has never attempted to charge reciprocal compensation for 9-1-1 calls nor has any other carrier that Embarq connects to every attempted to charge reciprocal compensation for 9-1-1 calls.

<sup>10</sup> The application of reciprocal compensation to 9-1-1 calls would effectively establish an ISP like arbitrage scheme, which has been and continues to be the subject of much dispute nation wide. The Commission would have difficulty justifying the exemption of 9-1-1 calls from reciprocal compensation should it classify them as telephone exchange.

number dialed for every PSAP throughout the U.S. is universally “911”). This characteristic of emergency 911 calls, by itself, makes it distinct from virtually all other types of traffic. Outbound calls from the PSAP are placed over separate voice lines not provisioned on the Wireline E911 Network.

Also, as noted previously, the cost of providing E911 service is largely paid for by government agencies,<sup>11</sup> which receive their revenues from taxes or fees levied on end-users. Again, this significantly distinguishes emergency services from other types of services that do not utilize the Wireline E911 Networks. This is also borne out by the funding mechanism under Va. Code Ann. § 58.1-1730, which imposes a charge of \$0.75 as a monthly tax on end-users to support E911 services in the Commonwealth. Moreover, this statutory funding mechanism does not preclude Embarq from implementing its 911/E911 tariffs in Virginia.

Not only are the technical and financial characteristics of 911 service unique, but the nature of the demand for such 911 service also distinguishes it from other types of services. Most notably the Commission’s Rules require all providers of voice services that are interconnected to the PSTN to provide their customers with access to E911 service, and therefore such carriers have an obligation to arrange interconnection with the Wireline E911 Network.<sup>12</sup> Similarly, the nature of competition between 911 service providers differs from other types of services, since there is only one PSAP within each designated geographic area, and the PSAP designates one entity to act as the exclusive primary 911 service provider for that geographic area.

---

<sup>11</sup> See *In the Matters of IP-Enabled E911 Requirements for IP-Enabled Service Providers*, WC Docket No. 04-36, WC Docket No. 05-196, First Report and Order and Notice of Proposed Rulemaking, Released June 3, 2005, “*VoIP 911 Order*” at ¶18.

<sup>12</sup> See 47 C.F.R. §9, §20.3, §64.3.

In light of these unique features of emergency 911 service, it is not surprising to find that such service fall neatly within the ambit of Section 251(a) of the Act. Whereas, interconnection is the physical linking of two networks for the *mutual* exchange of traffic.<sup>13</sup> The interconnection obligations contained in Section 251(c) of the Act only apply to Incumbent Local Exchange Carriers (“ILECs”) such as Embarq, while other telecommunications carriers such as CLECs and CMRS providers have a more general obligation to interconnect pursuant to Section 251(a) of the Act.<sup>14</sup> VoIP providers do not currently have interconnection rights directly under these statutes due to the uncertainty surrounding the regulatory classification of VoIP service.

The duty to interconnect defined in Section 251(c) of the Act only extends to telephone exchange service and exchange access,<sup>15</sup> which does not include 9-1-1 calling.<sup>16</sup> It is for that reason that interexchange carriers are explicitly prohibited from seeking interconnection under

---

<sup>13</sup> See 47 USC §51.5.

<sup>14</sup> See *In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996 and interconnection between Local Exchange Carriers and Commercial Mobile Radio Service Providers*, CC Docket No. 96-98 and CC Docket No. 95-185, First Report and Order, Released August 8, 1996, “*First Report and Order*” at ¶ 220 and ¶¶992 through 995.

<sup>15</sup> See 47 U.S.C. § 153(47) (B) for the definition of telephone exchange service and 47 U.S.C. § 153(16) for the definition of exchange access.

<sup>16</sup> See 47 U.S.C. 251(c) (2) states as follows:

- (2) Interconnection - The duty to provide for the facilities and equipment of any requesting telecommunications carrier, interconnection with the local exchange carrier’s network -
  - (A) for the transmission and routing of telephone exchange service and exchange access;
  - (B) at any technically feasible point within the carrier’s network;
  - (C) that is at least equal in quality to that provided by the local exchange carrier to itself or to any subsidiary, affiliate, or any other party to which the carrier provides interconnection; and
  - (D) on rates, terms, and conditions that are just, reasonable, and nondiscriminatory in accordance with the terms and conditions of the agreement and the requirements of this section and Section 252.

Section 251(c) for the exclusive provision of interexchange services.<sup>17</sup> In addition, Section 251(c) interconnection cannot be used for the exclusive provision of information services.<sup>18</sup>

When the FCC discussed E9-1-1 interconnection in the context of requiring interconnected VoIP providers to provide E9-1-1 service, the FCC did not hold that interconnection for such calls was governed by Section 251(c)(2). Instead, the FCC stated that such interconnection was pursuant to Section 251(a), as reflected in the following excerpt from the VOIP 911 Order:

We note that the Commission currently requires LECs to provide access to 911 databases and interconnection to 911 facilities to all telecommunications carriers, pursuant to Sections 251(a) and (c) and Section 271(c)(2)(B)(vii) of the Act.<sup>19</sup>

This statement from Commission's 911 VoIP Order demonstrates that access to 911 databases and interconnection to 911 facilities are governed by three sections of the Act, Section 251(a), Section 251(c), and Section 271(c)(2)(B)(vii). The associated footnote reference delineates how each of these sections applies.

*See* 47 U.S.C. § 251(a)(1) (requiring all telecommunications carriers “to interconnect directly or indirectly with the facilities and equipment of other telecommunications carriers”); 47 U.S.C. § 251(c) (requiring incumbent LECs, other than those exempted by Section 251(f), to make available unbundled network elements to requesting telecommunications carriers); 47 C.F.R. § 51.319(f) (“An incumbent LEC shall provide a requesting telecommunications carrier with nondiscriminatory access to 911 and E911 databases on an unbundled basis, in accordance with Section 251(c)(3) of the Act . . . .”); *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers; Implementation of the Local Competition Provisions of the Telecommunications Act of 1996; Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket Nos. 01-338, 96-98, 98-147, Report

---

<sup>17</sup> *See* 47 C.F.R. § 51.305(b).

<sup>18</sup> *See* 47 C.F.R. § 51.100(b).

<sup>19</sup> *See VoIP 911 Order* at ¶38.

and Order and Order on Remand and Further Notice of Proposed Rulemaking, 18 FCC Rcd 16978, 17332, para. 557 (2003) (“[B]ecause of the unique nature of 911 and E911 services and the public safety issues inherent in ensuring nondiscriminatory access to such databases, we conclude that . . . competitive carriers must continue to obtain unbundled access to those databases to ensure that their customers have access to emergency services.”); 47 U.S.C. § 271(c)(2)(B)(vii)(1) (requiring BOCs to provide nondiscriminatory access to 911 and E911 services to other telecommunications carriers); *Application of Ameritech Michigan Pursuant to Section 271 of the Communications Act of 1934, as Amended, to Provide In-Region, InterLATA Services in Michigan*, CC Docket No. 97-137, Memorandum Opinion and Order, 12 FCC Rcd 20543, 20679, para. 256 (1997) (“[S]ection 271 requires a BOC to provide competitors access to its 911 and E911 services in the same manner that a BOC obtains such access, *i.e.*, at parity.”); *id.* (“For facilities-based carriers, nondiscriminatory access to 911 and E911 service also includes the provision of unbundled access to [a BOC’s] 911 database and 911 interconnection, including the provision of dedicated trunks from the requesting carrier’s switching facilities to the 911 control office . . .”). Of course, if we find interconnected VoIP to be a telecommunications service, or if a provider of interconnected VoIP holds itself out as a telecommunications carrier and complies with appropriate federal and state requirements, access under these provisions would be available to those providers as well.<sup>20</sup>

The footnote clarifies that the reference to Section 251(a) applies to interconnection, which is consistent with Embarq’s position. In addition, the reference to Section 251(c) applies to unbundled access to 911 and E911 databases, and the final reference to Section 271 only applies strictly to Bell Operating Companies, which does not include Embarq.

**(b) Intrado Comm Has Negotiating Leverage When it Provides the Wireline E911 Network**

As the Commission is aware, 47 U.S.C. § 251(c) was enacted to ensure that new entrants with little or no bargaining power enjoyed the benefits of a level playing field when seeking to provide telephone exchange service. When it comes to 911/E911 services, however, such is not the case. For example, if a PSAP designates Intrado Comm as the E911 service provider, then Embarq must request access to Intrado Comm’s Wireline E911 Network. Such request is based

---

<sup>20</sup> See *VoIP 911 Order*, at p. 23, note 128.

on Embarq's legal obligation to provide 9-1-1 dialing to its end-users.<sup>21</sup> The Commission could, and very likely would, levy significant fines against Embarq if Embarq failed to provide 9-1-1 access to its end-users.<sup>22</sup> Under this scenario, the tables would be turned and Intrado Comm would be the in the position of the "monopoly provider" of 911/E911 service to the PSAP. Due to the potential threat of fines and the shift in which company is the "monopoly" PSAP provider, Embarq has no ability to thwart competition. Rather, Embarq has an incentive to ensure that Intrado Comm is in the best position possible to provide the service that enables Embarq's end-users to access Intrado Comm's Wireline E911 network.

Under these circumstances it is clear that every carrier (including Embarq) must go to Intrado Comm in order to enable 9-1-1 calling for their end-users within the PSAP's serving area. Embarq, just like any other requesting carrier would have to negotiate with Intrado Comm to establish connections between Intrado Comm's selective router and Embarq's switches or selective router, obtain downloads of the official MSAG from Intrado Comm, and also arrange for the ability to load Embarq's end-user location information into the official ALI database maintained by Intrado Comm.

---

<sup>21</sup> See 47 C.F.R. §64.3.

<sup>22</sup> See 47 C.F.R. §1.80(b)(2), which states as follows:

"If the violator is a common carrier subject to the provisions of the Communications Act or an applicant for any common carrier license, permit, certificate, or other instrument of authorization issued by the Commission, the amount of any forfeiture penalty determined under this section shall not exceed \$130,000 for each violation or each day of a continuing violation, except that the amount assessed for any continuing violation shall not exceed a total of \$1,325,000 for any single act or failure to act described in paragraph (a) of this section."

During such negotiations, Intrado Comm is in the drivers seat and has tremendous bargaining power with respect to controlling access to its Wireline E911 Network. The PSAP designates only one entity as the primary emergency service provider, and once such designation has been made, other carriers (including ILECs such as Embarq) don't have alternatives to meet their legal obligations to provide 9-1-1 dialing service to their end-users.

Section 251(c) was not intended to address situations where a single entity is designated by a PSAP to act as the primary emergency service provider. Such situations do not involve competition in sense of multiple providers operating within the same geographic market (i.e. within a single PSAP serving area) at the same time, since carriers cannot choose between multiple alternative Wireline E911 Networks to obtain access to 911 service for their end users.

Furthermore, there are good public policy reasons for not applying Section 251(c) to interconnection with Intrado Comm under circumstances where Intrado Comm has been designated as the primary emergency service provider. Since Section 251(c) only applies to ILECs, then every other type of carrier (e.g. CLEC, CMRS and VOIP providers) that negotiates with Intrado Comm to access the Wireline 911 Network would do so under Section 251(a) instead of Section 251(c). It would be discriminatory and unreasonable to require Embarq to pursue interconnection with Intrado Comm under Section 251(c) while at the same time allowing other types of providers to interconnect under Section 251(a).

Surprisingly, Intrado Comm claims in its petition that it is not obligated to interconnect with any carrier under Section 251(a).<sup>23</sup> However, Intrado Comm claims to be a LEC, which is a carrier, and all carriers have an obligation to interconnect under Section 251(a) of the Act. The

---

<sup>23</sup> See Intrado Comm Petition, Attachment 1 at p. 11.

record is also clear that non-ILECs are bound by Section 251(a),<sup>24</sup> including companies that provide both telecommunications and information services.<sup>25</sup>

**(c) Embarq Has No Legal Obligation to File Agreements Pre-Dating the 1996 Act**

Under 47 C.F.R. § 51.303, ILECs were once required to file for approval, with the appropriate state commissions, all pre-existing interconnection agreements that were entered into prior to February 8, 1996. This rule was reviewed as part of the appeal in *AT&T Corp. v. Iowa Utils. Bd.*, 525 US 366, 119 S. Ct. 721(1999). Upon remand by the United States Supreme Court, the Eighth Circuit Court of Appeals ultimately vacated 47 C.F.R. § 51.303.<sup>26</sup> As a result, Embarq is not required to file any pre-existing interconnection agreements contrary to Intrado Comm's demands.<sup>27</sup> Moreover, absent any legal requirement to do so, Intrado Comm also fails to cite any relevant reason why Embarq must be compelled to file such agreements, as no compelling reason exists. In addition, the filing of any pre-existing February 8, 1996 interconnection agreements will have little, if any real value to the Commission's assessment of the core issue in this matter, which is, whether Intrado Comm is entitled to interconnection under 47 U.S.C. § 251(c).

**Relevant Authority:**

47 U.S.C. § 251(a)

47 U.S.C. § 251(c)

---

<sup>24</sup> See *First Report and Order* at ¶¶ 220 and 992.

<sup>25</sup> *Id.* at ¶ 995.

<sup>26</sup> *Iowa Utilities Bd. v. FCC*, 219 F. 3d 744 (8<sup>th</sup> Cir. July 18, 2000).

<sup>27</sup> See Intrado Comm Petition, Attachment 1 at p. 12.

*In the Matter of Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, FCC 97-157, Report and Order, Released: May 8, 1997 at ¶ 74.

47 C.F.R. §9.3

*In the Matter of IP-Enabled Services*, WC Docket No. 04-36, Notice of Proposed Rulemaking, Released: March 10, 2004 at note 1.

Va. Code Ann. § 58.2-1730

*FCC VoIP 911 Order* at ¶18.

47 C.F.R. §9, §20.3, §64.3

47 U.S.C. §51.5

*FCC First Report and Order* at ¶ 220 and ¶¶ 992 through 995

47 U.S.C. § 153(47) (B)

47 U.S.C. § 153(16)

47 U.S.C. § 271(c)(2)(B)(vii)

47 C.F.R. § 51.305(b)

47 C.F.R. § 51.100(b)

*VoIP 911 Order* at ¶38

*VoIP 911 Order*, at p. 23 note 128

47 C.F.R. §64.3

47 C.F.R. § 51.303

**ISSUE I-2: SHOULD CONTRACT PROVISIONS GOVERNING INTERCONNECTION TO INTRADO COMM'S NETWORK BE INCLUDED IN A SECTION 251(C) INTERCONNECTION AGREEMENT (SECTIONS 55.2.1(C), 55.4, 55.4.1, 55.4.2, 55.4.4, 55.4.6)?**

**Intrado Comm Position:**

When a PSAP designates Intrado Comm as the primary 911/E911 service provider, and Embarq needs access Intrado Comm's Wireline 911 Network to in order for Embarq to provide 911 service to Embarq's end-users, the terms and conditions under which Embarq interconnects with Intrado Comm's network should be included in a Section 251(c) Agreement. Furthermore, Intrado Comm can require that Embarq establish multiple Points of Interconnection on Intrado Comm's network for such interconnection.

**Embarq Position:**

Issue I-2 can be broken down into four separate areas of dispute, which can be described as follows:

- First, there is the threshold issue of whether or not the terms and conditions between Embarq and Intrado Comm should be included in a Section 251(c) or Section 251(a) agreement when Intrado Comm has been designated to provide the Wireline E911 Network. This question will be resolved with issue I-1.
- The second area of dispute involves Intrado Comm's attempt to force Embarq to establish two separate Points of Interconnection ("POI") on Intrado Comm's network, irrespective of whether such arrangement were governed by 251(c) or 251(a). This question concerns disputed language under Section 55.4.2 of the Agreement.
- The third area of dispute involves Intrado Comm's attempt to prevent Embarq from using its own selective router to aggregate traffic and route it to Intrado Comm's selective

router. This controversy concerns disputed language under Sections 55.4.1 and 55.4.4 of the Agreement, and such matters are addressed later in issue II-1.

- And finally, the fourth area of dispute encompasses the rates that Intrado Comm will charge Embarq for connecting with Intrado Comm's Wireline E911 Network, and involves some disputed language under Sections 55.4.4 of the Agreement. This matter is addressed in Issue I-7.

So, the only aspect of Issue I-2 that is not addressed elsewhere is whether or not Intrado Comm can force Embarq to establish two separate POIs on Intrado Comm's network, under either § 251(c) § 251(a). Despite the threshold issue, and in the spirit of compromise, Embarq agreed to voluntarily establish a single POI at Intrado Comm's selective router within the context of a commercial, Section 251(a) agreement. However, Embarq continues to disagree that Section 251(c) mandates such an outcome. Embarq will establish a separate POI on Intrado Comm's network for redundancy at Embarq's discretion. This position is at parity with how Embarq treats other carriers that connect to Embarq's selective router when Embarq provides the Wireline E911 Network.

While it can be argued that redundant networks are more reliable. The question in this proceeding does not turn on whether or not redundancy is desirable or even technically feasible, but whether or not Section 251(a) or Section 251(c) require Embarq to incur the cost of establishing two separate transport routes to two separate Intrado Comm selective routers. Unfortunately for Intrado Comm, there is no legal requirement to establish an additional and unnecessary protective layer in an ILEC's network simply to quell the desires and potential fears of just one carrier. The bottom line is that best practices and standards are not part of the requirements under the Act. Rather, Embarq is responsible for the quality of service that it

provides to its end-users for 9-1-1 calling, but it is not required to provide special treatment vis-à-vis a redundant belts and suspenders approach to network architecture to satisfy the Wireline E911 Network provider (e.g. Intrado Comm) or the PSAP. This is especially true, so long as Embarq is expected to bear the cost of ensuring the transport of the 9-1-1 call to the selective router. As a result, any discussion of establishing POIs on Intrado Comm's network should be discussed pursuant to Section 251(a) of the Act, which applies to all telecommunications carriers.

Section 251(c)(2) does not impose on non-incumbent LECs the duty to provide interconnection. **The obligations of LECs that are not incumbent LECs are generally governed by Sections 251(a) and (b), not Section 251(c).**<sup>28</sup> (Emphasis added to original.)

In addition, the fact that some of the NG-911 capabilities are information services provides further support for requiring such interconnection under § 251(a).

We conclude that, if a company provides both telecommunications and information services, it must be classified as a telecommunications carrier for purposes of Section 251, **and is subject to the obligations under Section 251(a), to the extent that it is acting as a telecommunications carrier.**<sup>29</sup> (Emphasis added to original.)

No regulations or rules have been established for interconnection under Section 251(a) of the Act; however, parties negotiating under Section 251(a) should be treated equally since the obligation is a general obligation of all telecommunications carriers. Embarq's offer to Intrado Comm is at parity with how it treats other carriers that connect to Embarq's network when Embarq provides the Wireline E911 Network. Certainly, 47 U.S.C. § 251(a) does not give

---

<sup>28</sup> See *First Report and Order* at ¶¶ 220 and 992.

<sup>29</sup> *Id.* at ¶ 995.

Intrado Comm the right to dictate how Embarq must engineer its network nor does it lend itself to warrant Commission action to establish such a requirement. Moreover, Section 251(c) fails to provide support for Intrado Comm's position, which states as follows:

47 U.S.C. § 251(c)(2) establishes ILEC interconnection obligations:

- (2) Interconnection - The duty to provide for the facilities and equipment of any requesting telecommunications carrier, interconnection with the local exchange carrier's network -
  - (A) for the transmission and routing of telephone exchange service and exchange access;
  - (B) at any technically feasible point within the carrier's network;
  - (C) that is at least equal in quality to that provided by the local exchange carrier to itself or to any subsidiary, affiliate, or any other party to which the carrier provides interconnection; and
  - (D) on rates, terms, and conditions that are just, reasonable, and nondiscriminatory in accordance with the terms and conditions of the agreement and the requirements of this section and Section 252.

The statute provides four criteria that are required to be met with respect to interconnection. Subsection (A) limits the traffic type to telephone exchange or exchange access. Subsection (B) clarifies that the POI chosen by the requesting carrier must be within the ILEC's network. The equal in quality requirement in subsection (C) means that any interconnection with the ILEC on the ILEC's network must be equal in quality to what the ILEC provides itself or any other party. That means that as an ILEC, Embarq cannot allow one carrier to select one interconnection type on Embarq's network and then deny another carrier's request for that same interconnection type on Embarq's network. Finally, subsection, (D), sets forth that the rates, terms, and conditions of the interconnection on the ILEC's network should be just, reasonable, and nondiscriminatory.

In its Petition, Intrado Comm asserts that the goals of the Act are to promote competition in all segments of the communications market generally, and also to promote reliability and

redundancy in the 911 network. As a result of its belief concerning redundancy, Intrado Comm adds to the requirements of the Act by proposing artificial duties on the ILEC for greater reliability than what Congress or the Commission have either required or contemplated. This is true concerning Intrado Comm's position that Embarq must have two separate routers and also locate the POI in Intrado Comm's network. As a result, Intrado Comm makes it clear that it seeks impose self-enumerated artificial obligations on Embarq that are not supported by the Act, the Commission's rules or Commission precedent.

For example, the fact that the POI must be on the ILEC's network was established in the Local Competition First Report and Order.

Section 251(c)(2) imposes upon incumbent LECs "the duty to provide, for the facilities and equipment of any requesting telecommunications carrier, interconnection with the local exchange carrier's network . . . for the transmission and routing of telephone exchange service and exchange access." Such interconnection must be: (1) provided by the incumbent LEC at "any technically feasible point within its network;"<sup>30</sup> (Emphasis added to original).

The regulations resulting from the Commission's First Report and Order support Embarq's position that the POI has to be within the ILEC network and, most importantly, those regulations list various physical points that are on the ILEC network for this purpose. Specifically, 47 C.F.R. § 51.305, states the following concerning interconnection:

- (a) An incumbent LEC shall provide, for the facilities and equipment of any requesting telecommunications carrier, interconnection with the incumbent LEC's network:
  - (1) For the transmission and routing of telephone exchange traffic, exchange access traffic, or both;
  - (2) At any technically feasible point within the incumbent LEC's network including, at a minimum:
    - (i) The line-side of a local switch;

---

<sup>30</sup> See *First Report and Order* at ¶173.

- (ii) The trunk-side of a local switch;
- (iii) The trunk interconnection points for a tandem switch;
- (iv) Central office cross-connect points;
- (v) Out-of-band signaling transfer points necessary to exchange traffic at these points and access call-related databases; and
- (vi) The points of access to unbundled network elements as described in Sec. 51.319;<sup>31</sup>

A POI that is within the ILEC network is one that is located ***within*** the territory that the ILEC serves. In other words, a CLEC cannot establish a POI for Embarq's Virginia exchange within a different ILEC's exchange. Similarly, the POI must be ***on*** the ILEC network. That is, it must be physically located on a piece of equipment or facility that is part of the ILEC network. The very fact that interconnection is defined as the physical linking of two networks for the mutual exchange of traffic clearly means that the networks meet at a physical point.

Even if the networks are linked at a mid-span meet pursuant to 47 U.S.C. § 251(c)(2), the Commission's First Report and Order states that the ***POI remains on the ILEC network***, and ***not at the mid-span meet point*** as the Commission made clear in the following holding from that order.

***In a meet point arrangement, the "point" of interconnection for purposes of Sections 251(c)(2) and 251(c)(3) remains on "the local exchange carrier's network" (e.g., main distribution frame, trunk-side of the switch), and the limited build-out of facilities from that point may then constitute an accommodation of interconnection.(see ¶198- fn 1347 See, supra Section IV.E., above, discussing accommodation of interconnection.)<sup>32</sup> (Emphasis added to original).***

---

<sup>31</sup> See 47 C.F.R. §51.305.

<sup>32</sup> See *First Report and Order* at ¶553.

It is evident, based on well settled Commission precedent that §251(c) only permits a CLEC the ability to choose a point of interconnection that must be within the ILEC's network.<sup>33</sup> Despite this, Intrado Comm only desires to recognize §251(c) for its own self serving purposes. As a result, Intrado Comm twists the Commission's precedent relating to ILEC interconnection obligations under 251(c) to imply that interconnection on the ILEC's network only applies when such a requirement benefits the requesting carrier

While Section 251(c) addresses requirements related to interconnection *on the ILEC's network*, the Commission has declined requests to rule that Section 251(c) requires the ILEC to interconnect on the requesting carrier's network. As a matter of fact, Paragraph 220 of the Commission's First Report and Order, states that this issue was best left to negotiations and arbitrations between the parties. And, in the Virginia Arbitration Order at footnote 200, the Commission recognized that interconnection within the ILEC network is governed by 251(c) while interconnection on a competing carrier's network is governed by Section 251(a). Therefore, any interconnection by Embarq to points on Intrado Comm's network must fall under the provisions of Section 251(a).

Further, Embarq does not agree that it has an obligation under Section 251 (c) to interconnect at Intrado Comm's selective router, for 911 traffic or otherwise. However, during the course of negotiations and the state arbitration proceedings, Embarq did agree to interconnect to Intrado Comm's network under the terms of a Section 251(a) commercial agreement. Embarq's reasons for agreeing to this in a commercial context are two-fold. First, Embarq recognizes that under the Commission's rules Embarq is required to provide 9-1-1 calling to its end users. As a result, Embarq must seek to interconnect with Intrado Comm if Intrado Comm is

---

<sup>33</sup> See 47 CFR § 51.305.

designated by the PSAP as the 911/E911 network provider. However, such action by Embarq does not translate into the corollary that Embarq has an obligation to interconnect at Intrado Comm's selective router, for 911 traffic or otherwise. Second, since this scenario involves Embarq interconnecting with a carrier that is not an ILEC, this arrangement is governed by Section 251(a). Therefore, the Commission should adopt Embarq's position on this issue and order the parties to include the applicable terms in a separate commercial agreement or in an agreement that clearly delineates between 251(a) and 251(c) obligations.

**Relevant Authority:**

47 U.S.C. § 251(a)

47 U.S.C. § 251(c)

FCC First Report and Order at ¶¶ 173, 220, 553, 992 and 995

47 C.F.R. §51.305

**ISSUE I-3: SHOULD CONTRACT PROVISIONS THAT GOVERN TRUNKING BETWEEN SELECTIVE ROUTERS AND PSAP-TO-PSAP CALL TRANSFER BE INCLUDED IN A SECTION 251(C) INTERCONNECTION AGREEMENT (SECTIONS 55.1.4, 55.5)?**

**Intrado Comm Position:**

Interconnections between two Wireline E911 Networks, where one of the network providers is an Incumbent LEC, should be negotiated pursuant to and included in a Section 251(c) agreement.

**Embarq Position:**

The only outstanding disagreement with respect to the terms contained in Issue I-3 is whether or not a connection between two Wireline E911 Network provider's networks is subject to § 251(c)(2) of the Act. The resolution of Issue I-1 will certainly have a bearing on the outcome of this matter as well.

Wireline E911 Networks establish connections with other wireline E911 Networks for the purpose of redirecting 9-1-1 calls from one PSAP to another PSAP via dedicated trunking between the Selective Routers of such providers (i.e., inter selective router trunking). These inter selective router trunks connect two separate Wireline E911 Networks, each of which are defined as separate from the PSTN according to the Commission. In addition to dedicated trunking between selective routers, it is also possible to establish data connections between the two ALI databases of the providers so that the PSAP that receives the forwarded call also has access to the 9-1-1 caller's personal information. This is another form of an ALI steering arrangement.

These types of configurations are not between competing Wireline E911 Network providers that are operating within the same geographic area; rather, these are arrangements established between peers that are providing service to different PSAPs in adjacent areas. Such

arrangements are not developed in a vacuum but require the cooperative efforts of multiple parties, including each of the participating Wireline E911 Network providers, public safety authorities, and state and local governments. Such cooperation recognizes that an emergency service provider that has been designated by a PSAP as the primary provider, may also act as a “secondary” provider to a different PSAP that has designated a different primary emergency service provider in an adjacent area. Finally, this system has been in place and working for a number of years and it would be unfortunate to subject such peering arrangements to the adversarial arbitration process.

In addition, as part of its experience in the real world, Embarq already has an established practice of implementing router to router connections with other Wireline E911 Network providers. Embarq also has ALI steering arrangements with wireless and VoIP 911 database management system providers. The terms and conditions of these existing arrangements are contained in commercial agreements or tariffs, and are not made pursuant to Section 251(c) interconnection agreements.

**Relevant Authority:**

See Relevant Authority listed under Issue I-1

**ISSUE I-4: SHOULD CONTRACT PROVISIONS THAT GOVERN TRUNKING AND TRAFFIC ROUTING WHEN INTRADO COMM IS THE DESIGNATED 911/E911 SERVICE PROVIDER BE INCLUDED IN A SECTION 251(C) INTERCONNECTION AGREEMENT (SECTIONS 55.1, 55.1.3)?**

**Intrado Comm Position:**

Section 251(c) Interconnection Agreement between Intrado Comm and Embarq should contain terms and conditions for the reciprocal exchange of 911/E911 traffic. The law gives Intrado Comm the right to determine the types of trunks that will be installed between the two networks.

**Embarq Position:**

The disputed terms and conditions contained in Issue I-4 are directly related to the outcome of Issue I-1 as discussed above. Embarq has opposes including the terms proposed by Intrado Comm on the grounds that such terms must be included in a Section 251(a) commercial agreement. Both Sections 55.1 and 55.1.3 of the proposed agreement include terms that are only applicable when Intrado Comm provides the Wireline E911 Network.

Embarq also objects to Intrado Comm's edits to the terms it has proposed at §55.1 since the original proposed language of that section was only intended to refer to *non-emergency* traffic routed and exchanged in either direction. Intrado Comm's inclusion of the additional reference to 911 is unnecessary. The real issue is with the other more specific terms that are being disputed belong in a §251(a) or §251(c) agreement.

**Relevant Authority:**

See Relevant Authority listed under Issue I-1

**ISSUE I-5: WHETHER CONTRACT PROVISIONS THAT GOVERN THE ORDERING PROCESS SHOULD BE INCLUDED IN A SECTION 251(C) INTERCONNECTION AGREEMENT (SECTION 72.14)?**

**Intrado Comm Position:**

When Intrado Comm provides 911/E911 service to PSAPs that Embarq needs access to in order for Embarq to provide 911 access to Embarq end users, the terms and conditions for how Embarq orders services from Intrado Comm should be included in a Section 251(c) Agreement.

**Embarq Position:**

The disputed terms and conditions contained in Issue I-5 are directly related to the outcome of Issue I-1 as discussed above. Essentially, the issues stem from Intrado Comm acting as the Wireline E911 Network provider. Embarq has opposed including the terms in a § 251(c) agreement on the grounds that they should be included in a § 251(a) commercial agreement.

**Relevant Authority:**

See Relevant Authority listed under Issue I-1

**ISSUE I-6: SHOULD CONTRACT PROVISIONS GOVERNING 911/E911 DATABASE ACCESS WHEN INTRADO COMM IS THE DESIGNATED 911/E911 SERVICE PROVIDER BE INCLUDED IN A SECTION 251(C) INTERCONNECTION AGREEMENT (SECTIONS 75.2.7, 75.2.8)?**

**Intrado Comm Position:**

When a PSAP designates Intrado Comm as the primary 911/E911 provider, and Embarq needs access to Intrado Comm's Wireline 911 Network in order to ensure that Embarq can provide 9-1-1 access to its end-users, the terms and conditions for how Embarq accesses the 911/E911 databases managed by Intrado Comm should be included in a Section 251(c) Agreement.

**Embarq Position:**

The disputed terms and conditions contained in Issue I-6 are directly related to the outcome of Issue I-1 as discussed above. Essentially, these issues stem from Intrado Comm acting as the Wireline E911 Network provider. Embarq has opposed including the terms in a §251(c) agreement on the grounds that these terms should be included in a § 251(a) commercial agreement.

**Relevant Authority:**

See Relevant Authority listed under Issue I-1

**ISSUE I-7: SHOULD CONTRACT PROVISIONS REGARDING THE RATES TO BE CHARGED BY INTRADO COMM BE INCLUDED IN A SECTION 251(C) INTERCONNECTION AGREEMENT (SECTION 55.4.4, PRICING SCHEDULES)?**

**Intrado Comm Position:**

When a PSAP designates Intrado Comm as the primary 911/E911 service provider, and Embarq needs to access to Intrado Comm's Wireline 911 Network in order to ensure that Embarq can provide 9-1-1 access to its end-users, the prices for the services that Embarq orders from Intrado Comm should be included in a §251(c) Agreement.

**Embarq Position:**

The disputed terms of §55.4.4 of the proposed agreement includes a reference to the line attribute routing issue, which is discussed at Issue II-1 supra. The remaining dispute under Issue I-7 relates to what rates, if any, Intrado Comm will charge Embarq for connecting with Intrado Comm's Wireline E911 Network. Like many of the previous issues, whether or not such rates must be included in a §251(c) agreement or a §251(a) agreement will be resolved with Issue I-1.

As to the level of the rates, Embarq does not object to Intrado Comm's proposed rates. The rates that Intrado Comm has provided in its filing as part of Attachment III (see the price list) are the same as the rates Intrado Comm has proposed in Ohio and Florida. The rates are for securing ports on Intrado Comm's selective router when Intrado Comm serves as the PSAP provider. Intrado Comm's rates are similar to the rate that Embarq charges for the same functionality. Embarq's willingness to agree to these terms within the context of a §251(a) commercial agreement is further proof that Embarq has offered to interconnect with Intrado Comm at parity.

**Relevant Authority:**

47 U.S.C. § 251(a)

47 U.S.C. § 251(c)

**ISSUE II-1: SHOULD EMBARQ BE REQUIRED TO IMPLEMENT LINE ATTRIBUTE ROUTING TO ENSURE THE EFFICIENT AND RELIABLE DELIVERY OF 911/E911 CALLS (SECTION 55.4.7)?**

**Intrado Comm Position:**

When Embarq needs access to in order for Embarq to provide 911 access to Intrado Comm's Wireline 911 Network in order to ensure that Embarq can provide 9-1-1 access to its end-users, Intrado Comm can require Embarq to implement line attribute routing at the end office level rather than allowing Embarq to use its selective routers to determine whether the call should be routed to Intrado Comm or another 911/E911 service provider. Intrado Comm asserts that line attribute routing is more efficient and reliable than selective routing and that the law requires Embarq to implement any technically feasible interconnection demanded by a requesting carrier.

**Embarq Position:**

Existing precedent and 47 U.S.C. §251(c) do not require Embarq to implement line attribute routing. As a matter of fact, Intrado Comm's demand for Embarq to implement line attribute routing in split wire centers is an attempt by Intrado Comm to extend its reach on Embarq's side of the POI and dictate how Embarq engineers its own network and provides services to Embarq end-users. Even if the Commission finds that the terms and conditions for Embarq's connection to Intrado Comm's Wireline E911 Network should be included in a §251(c) interconnection agreement, it must reject Intrado Comm's position concerning the implement of the line class routing issue.

(a) **Line Attribute Routing is Not the Most Efficient and Reliable Method for Routing 9-1-1 calls**

Intrado Comm positions this issue by characterizing line attribute routing as “the most efficient and reliable method possible”<sup>34</sup> of routing 9-1-1 calls, yet Intrado Comm provides little to support its contention. In fact, there is evidence to the contrary, indicating that line attribute routing, which may also be referred to as class marking, may actually increase the possibility of routing failure.

When Embarq has a central office that provides service to end-users residing in multiple counties (split wire center) and thus has multiple PSAPs to route 9-1-1 calls to, it is necessary to determine which PSAP to route each end-user’s 9-1-1 call to. Today, Embarq routes all the 9-1-1 traffic from central offices that serve a split wire center over a combined 9-1-1 trunk group to a selective router to make that determination. Selective routers were developed precisely for making these routing decisions. Selective routers identify each end-user telephone number with a location (address) that is in turn associated with a specific PSAP. There are direct trunks from the selective router to each PSAP. Embarq has automated the process of provisioning end-user customer information into the appropriate routing tables to accomplish this task. This process provides extremely accurate and reliable routing resulting in near perfect ratings

On the other hand, line attribute routing or class marking is a manual process in which each end-user’s telephone number is programmed in the serving central office to switch 9-1-1 calls from each end-user to a specific 9-1-1 trunk group that is connected to the PSAP that serves the portion of the split wire center where such end-user is located. The manual process would switch end-users located in a different portion of the split wire center to different 9-1-1 trunk groups connected to a different PSAP which serves that portion of the wire center. Line attribute

---

<sup>34</sup> See Intrado Comm Petition at p. 32.

routing under Intrado Comm's view would require multiple 9-1-1 trunk groups to Intrado Comm's selective router rather than a single 9-1-1 trunk group from Embarq's selective router. One 9-1-1 trunk group would be needed for each PSAP. Provisioning line attribute routing would require a manual process because the systems and processes for accomplishing the task do not exist and the processes and systems in place for selective routing are totally separate and do not operate in the same manner nor are they connected to the switch provisioning systems. Implementing line attribute routing would essentially be attempting to duplicate the functionality of a selective router in a central office switch. Intrado Comm's proposed language would require Embarq to modify its local service provisioning processes nationwide and incur the very significant additional costs of re-engineering and installing new 9-1-1 trunks and transport throughout its entire network for no legitimate reason.

NENA describes class marking, which Intrado refers to as line attribute routing, in one of its tutorials as follows: "Class marking in the end office is typically a manual process and error prone in comparison to mechanized Selective Routing control." By comparison, selective routing is well established as the most efficient way to switch 9-1-1 calls and is integral to providing virtually all E911 services. It is more efficient to use less trunking rather than more trunking, and using selective routing does not introduce any additional points of failure when compared to class marking. When class marking is used the point of failure for determining how to route the customers 9-1-1 call is at the central office. When selective routing is used to determine how to route the customers 9-1-1 call the point of failure is the selective router, not at the central office. If double switching goes against industry recommendations for 911/E911 service integrity as Intrado Comm claims then no inter selective routing would be deployed, which goes against Intrado Comm's proposal to provide terms for selective routing in the

agreement.<sup>35</sup> Furthermore, if eliminating points of failure is used as justification for deploying class marking or line attribute routing, then you could also argue that such 9-1-1 calls and ANI should be routed directly to each PSAP, which could in turn query the ALI database, eliminating the need to go through Intrado's selective router since it would constitute a potential point of failure. Of course, such routing would be highly inefficient and would pose difficulties for PSAPs to accept such trunks, and it shows that Intrado's primary justification for class marking is not persuasive.

Class marking or line attribute routing is also not essential for the default routing of 9-1-1 calls. Default routing involves 9-1-1 calls that lack selective routing information, which represents about two tenths of one percent of 9-1-1 calls according to NENA.<sup>36</sup> Further, NENA has also stated that class marking may actually result in more misrouted calls "than would occur for the occasional ANI failure default call" due to the manual process involved with class marking.<sup>37</sup> Thus, it makes more sense for the industry that has years of 911 experience to determine the best network architecture for the NG-911 network rather than having one carrier attempt to impose its preferred approach through the arbitration process on a carrier by carrier basis.

---

<sup>35</sup> See Intrado Comm Petition at p. 33.

<sup>36</sup> See NENA Standard for Enhanced 9-1-1 (E9-1-1) Default routing Assignments and Functions, NENA 03-008, Version 1, January 19, 2008, §3.5.

<sup>37</sup> *Id.*

(b) **Embarq is Not Obligated to Bear the Cost of Implementing Unreasonably Expensive Forms of Interconnection**

Even if line attribute routing (i.e. class marking) were technically feasible, as Intrado Comm claims in its petition,<sup>38</sup> and even if Commission deems that interconnection with Intrado Comm's Wireline E911 Network is subject to Section 251(c), Embarq is not required to make modifications to its network to accommodate the particular form of interconnection desired by Intrado Comm at any cost. Intrado Comm conveniently fails to directly address cost recovery at any point, which is clearly one of the primary issues that must be resolved prior to deploying the NG-911 infrastructure. Intrado Comm points to the implementation of equal access as an example of the technical feasibility of implementing line attribute routing,<sup>39</sup> while failing to mention that it was an industry solution that addressed cost recovery of the exorbitant expenditures that were imposed on the industry while employing new switch functionality.<sup>40</sup>

In fact, Intrado Comm not only fails to address Embarq's cost recovery for any mandated use of class marking, Intrado Comm attempts to make Embarq responsible for covering Intrado's costs for selective routing when Embarq does not employ class marking. The terms proposed by Intrado Comm at Section 55.4.7.2, read as follows:

**55.4.7.2 Split Wire Center Call Delivery Cost - Embarq shall be responsible for any and all costs incurred by Intrado Comm resulting from Embarq's inability to segregate its End-User 911 Service or E911 Service call traffic at an End Office Level and resulting in call hand-offs from Intrado Comm's network to another E9-1-1 service provider's network.**

Thus, Intrado is basically making a "heads Embarq loses, tails Intrado wins" proposition with respect to implement line attribute routing. That is, if Embarq uses its selective routers to segregate traffic between PSAPs instead of using line attribute routing at the end office level,

---

<sup>38</sup> See Intrado Comm Petition at p. 34.

<sup>39</sup> See Intrado Comm Petition at p. 32.

<sup>40</sup> See In the Matter of MTS and WATS Market Structure Amendment of Part 69 of the Commission's Rules for recovery of Equal Access Costs; Report and Order in CC Docket No. 78-72; Release Number FCC 89-16 37601; Released February 17, 1989, 4 FCC Rcd 2104.

these terms can be interpreted to give Intrado Comm the right to charge Embarq for selective routing that Intrado Comm performs when it hands such calls to another emergency service provider in a split wire center, even though such costs for selective routing are paid for by the PSAP.<sup>41</sup> Of course, if Intrado Comm can impose such costs on ILECs such as Embarq instead of seeking normal recovery from the PSAPs, then it would provide Intrado Comm an unfair advantage with respect to the rates that it could offer to PSAPs.

When the Commission established the criteria for technical feasibility, the Commission justified its reasoning on the basis that requesting carriers were required to pay ILECs for the cost of interconnection.

**Of course, a requesting carrier that wishes a “technically feasible” but expensive interconnection would, pursuant to Section 252(d)(1), be required to bear the cost of that interconnection, including a reasonable profit.**<sup>42</sup> (Emphasis added to original).

If, as SBC contends, we are to presume that Congress was aware of the Commission’s analysis of the technical feasibility of 900 call blocking, the 1996 Act appears squarely to reject that view of technical feasibility. Moreover, unlike the costs of providing 900 call blocking, which we imposed largely on LECs in the *900 Service* order, as noted above, to the extent incumbent LECs incur costs to provide interconnection or access under Sections 251(c)(2) or 251(c)(3), **incumbent LECs may recover such costs from requesting carriers.**<sup>43</sup> (Emphasis added to original).

Section 251(c)(2) lowers barriers to competitive entry for carriers that have not deployed ubiquitous networks by permitting them to select the points in an incumbent LEC’s network at which they wish to deliver traffic. Moreover, because **competing carriers must usually compensate incumbent LECs for**

---

<sup>41</sup> See *In the Matter of Revision of the Commission’s Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, Request of King County, Washington*, CC Docket 94-102, Order on Reconsideration, Released July 24, 2002, “King County Reconsideration Order” at ¶1. See also *VoIP 911 Order* at ¶ 14.

<sup>42</sup> See *First Report and Order* at ¶199.

<sup>43</sup> See *First Report and Order* at ¶200.

**the additional costs incurred by providing interconnection**, competitors have an incentive to make economically efficient decisions about where to interconnect.<sup>44</sup> (Emphasis added to original).

We also conclude that, as long as **new entrants compensate incumbent LECs for the economic cost of the higher quality interconnection**, competition will be promoted.<sup>45</sup> (Emphasis added to original).

Moreover, since **requesting carriers will bear the costs of other methods of interconnection or access**, this approach will not impose an undue burden on the incumbent LECs.<sup>46</sup> (Emphasis added to original).

Intrado Comm is demanding that Embarq implement costly changes in its network without agreeing to compensate Embarq for those changes. Its position regarding the implementation of line attribute routing or class marking is not widely accepted within the 911 community. In addition, Intrado Comm it is attempting to interfere with Embarq's control over its own network, which is especially egregious when one considers that Intrado Comm's interference is on Embarq's side of the POI.

(c) **Embarq does Not Require all Carriers to Implement Line Attribute Routing When They Connect to Embarq's Selective Router:**

Intrado Comm claims that Embarq is not agreeing to provide interconnection at parity by refusing to implement line attribute routing since Embarq's standard agreement require the implementation of such routing.<sup>47</sup> This claim is false. The standard language of Embarq's interconnection agreement states that separate trunks will be established connecting the CLEC end office to each 911/E911 tandem. The terms do not dictate to the CLECs how they engineer

---

<sup>44</sup> See *First Report and Order* at ¶209.

<sup>45</sup> See *First Report and Order* at ¶225.

<sup>46</sup> See *First Report and Order* at ¶552.

<sup>47</sup> See Intrado Comm Petition, Attachment 1 at p. 34.

their network to determine which trunks to put their end-user 9-1-1 calls on, nor do the terms require the CLEC to use direct end office trunks. In addition, the terms do not require separate end office trunks for each PSAP serving the CLEC's end-users. The terms offered by Embarq do not prevent CLECs from employing a selective router to determine which 911/E911 tandem the call should be routed to, and Embarq is not opposed to them doing so. No company, not even Intrado Comm, has specifically raised that issue with Embarq. CLECs may not have invested in selective routers and implemented the processes and systems needed to operate them efficiently, but Embarq does not know what CLECs have deployed within their network unless the CLECs advise Embarq that they have such facilities. CLECs are likely to have fewer access lines than Embarq, which has a direct impact on how they engineer their networks and the cost they are willing to incur (e.g. by investing in selective routers). Had Intrado Comm asked about such an arrangement during the course of negotiations, Embarq would have agreed to that form of interconnection, but Intrado did not raise the issue.

**Relevant Authority:**

47 U.S.C. §251(a)

47 U.S.C. §251(c)

In the Matter of MTS and WATS Market Structure Amendment of Part 69 of the Commission's Rules for recovery of Equal Access Costs; Report and Order in CC Docket No. 78-72; Release Number FCC 89-16 37601; Released February 17, 1989, 4 FCC Rcd 2104

*In the Matter of Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, Request of King County, Washington, CC Docket 94-102, Order on Reconsideration, Released July 24, 2002, "King County Reconsideration Order" at ¶1.*

*VoIP 911 Order at ¶ 14*

*FCC First Report and Order at ¶¶ 199, 200, 209, 225 and 552*

**ISSUE II-2: HOW SHOULD THE TERM “END USER” BE DEFINED AND WHETHER IT MUST BE USED IN THE INTERCONNECTION AGREEMENT (SECTION 1.54 AND VARIOUS OTHER SECTIONS)?**

**Intrado Comm Position:**

Intrado Comm believes that an end user is any individual or entity that subscribes to or uses any Telecommunications Service sold to it by Intrado Comm, including both retail and wholesale services.

**Embarq Position:**

It is Embarq’s position that the term “end-user” has always referred to the retail customer of a telecommunications services provider, however, in its Petition Intrado Comm claims that its interconnection agreement with Embarq must contain a definition for the term “End-user” in order to avoid conflicts. Intrado Comm also claims that there has been much controversy surrounding the definition of the term and refers the Commission’s attention to an arbitration award for Sprint.<sup>48</sup> Embarq is aware that in many states ILECs have been attempting to thwart Sprint’s wholesale activities by claiming that Sprint did not provide service to end-users. Embarq has never taken that position and does not intend to do so with Intrado Comm.

Despite the fact that Embarq’s standard contract does not include a formal definition of the term “end-user,” Embarq offered to include the following definition as an accommodation to Intrado:

1.54 For the purposes of this agreement “End-User” means the individual that makes the 9-1-1 call or the PSAP receiving the call for the purpose of initiating the emergency or public safety response.

---

<sup>48</sup> See Intrado Petition, Attachment 1 at p. 35.

This definition proposed by Embarq is consistent with the common understanding that an end-user ultimately consumes a retail service. The wording proposed by Embarq also takes into consideration the fact that the primary service at issue is 9-1-1 service, and it directly addresses Intrado's concern regarding the classification of a PSAP as an end user. Unfortunately, Intrado Comm has proposed the following definition of "end user" which is impermissibly broad including virtually any entity that buys services from it.

1.54 "End-User" means the individual that subscribes to (subscriber of record) and/or uses the Telecommunications Services provided by Embarq or Intrado Comm.

Intrado Comm's proposed definition of "end-user" would include carrier or carrier like entities that not only consume retail services but also those who purchase wholesale services. An entity buying a wholesale service that such entity in turn uses as an input for providing a retail service is not an end-user. The Commission confirmed this position in its Time Warner Decision:

To resolve the confusion over the meaning of "wholesale," we affirm the longstanding Commission usage of a wholesale transaction of a service or product as an input to a further sale to an end-user, in contrast to a retail transaction for the customer's own personal use or consumption. *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket No. 98-147, Second Report and Order, 14 FCC Rcd 19237, 19423, para. 13 (1999) ("Black's Law Dictionary defines retail as '[a] sale for final consumption in contrast to a sale for further sale or processing (i.e., wholesale) . . . to the ultimate consumer.'" (quoting Black's Law Dictionary 1315 (6th ed. 1990)).<sup>49</sup>

Embarq has several hundred interconnection agreements that refer to the term "end-user" (not capitalized) as it is commonly understood within the industry and these agreements do not have a separate, formal definition of the word. Intrado Comm has further exacerbated the issue

---

<sup>49</sup> See *In the matter of the Petition of Time Warner Cable Request for Declaratory Ruling that Competitive Local Exchange Carriers May Obtain Interconnection Under Section 251*, Memorandum Opinion and Order, WC Docket No. 06-55, DA 07-709, Released March 1, 2007, "Time Warner Decision", at note 19.

not just by capitalizing each use of the term “end-user” as it appeared in the original standard contract language, but Intrado Comm has also substituted the term “end-user” for other words such as “customer” and “subscriber”. Some of Intrado Comm’s proposed uses of the term “end-user” would substitute such term for “carrier.” In some of these instances, the term end-user clearly would not apply to a carrier. For example, the definition of Directory Assistance Database (Section 1.40) or Service Order Information (Section 1.108). In these instances the term “end-user” would apply to the ultimate consumer of the retail service.

One of Embarq’s primary concerns with the definition of End-user proposed by Intrado is the impact that it would have on access to unbundled loops. ILEC transmission facilities connecting an ILEC wire center or switch and another carrier’s wire center or switch are classified as transport and more specifically as entrance facilities. Embarq is not required to provide unbundled access to such facilities.<sup>50</sup> On the other hand, an unbundled local loop is a transmission facility that extends from a main frame or equivalent in an ILEC central office to the point of demarcation *at an end-user customer’s premises*.<sup>51</sup> If the Commission agrees with Intrado’s broad definition of an end user it would conceivably allow Intrado to characterize an entrance facility as an unbundled loop. Such regulatory arbitrage is inappropriate and while one might think that Embarq is simply being paranoid, CLECs have arbitrated the concept of “loop interconnection” as a way of circumventing the unavailability of entrance facilities on an unbundled basis. Furthermore, Intrado clearly understands Embarq’s concerns and while they have stated that regulatory arbitrage is not their intent they have steadfastly declined to propose any modifications to their definition to address Embarq’s concerns.

---

<sup>50</sup> See 47 C.F.R. §51.319(e)(1) and §51.319(e)(2)(i).

<sup>51</sup> See 47 C.F.R. §51.319(a).

Another concern that Embarq has is that Intrado is seeking to take advantage of the regulatory uncertainty surrounding the classification of Interconnected VoIP and characterize transport as local loops to reach carrier like entities such as Vonage. Companies like Vonage provide Interconnected VoIP service to end-users (as such term is commonly understood in the industry). Interconnected VoIP service is a replacement for telephone service and while the Commission has yet to rule that this type of service is either telecommunications or information, it has repeatedly treated these companies like carriers in several proceedings. Perhaps the most telling indication is the VoIP 911 proceeding where Interconnected VoIP providers were ordered to provide 9-1-1 access to their end-users, extending carrier obligations to them. Therefore, when Intrado sells 9-1-1 services to companies like Vonage, it is not selling services to end-users, but is selling wholesale services to a company that is acting like a carrier and selling telephone-like services to end-users. This is consistent with the definition of wholesale and retail services included in the Time Warner Decision. Companies like Vonage provide interconnected VoIP services, which are the retail services sold directly to end-users. Services that Intrado provide to companies like Vonage are wholesale transactions that are used as an input to a further sale to an end-user.

Embarq's definition does not exclude carriers when they are the ultimate consumer of a retail product. For example, a carrier buying voice service to be used by the carrier in conducting its own business would have access to 9-1-1 calling over that voice service and therefore be included in Embarq's definition.

**Relevant Authority:**

*In the matter of the Petition of Time Warner Cable Request for Declaratory Ruling that Competitive Local Exchange Carriers May Obtain Interconnection Under Section 251, Memorandum Opinion and Order, WC Docket No. 06-55, DA 07-709, Released March 1, 2007, "Time Warner Decision", at note 19*

47 C.F.R. §51.319(e)(1) and §51.319(e)(2)(i)

47 C.F.R. §51.319(a)

**ISSUE II-3: WHETHER THE TERM “DESIGNATED” OR THE TERM “PRIMARY” SHOULD BE USED TO INDICATE WHICH PARTY IS SERVING THE 911 AUTHORITY (SECTIONS 75.2.3, AND 75.2.4)?**

**Intrado Comm Position:**

PSAPs have the right to “designate” which entity provides services to them. The use of the term “primary” implies to Intrado Comm that there will always be a secondary provider. Embarq will not act as a secondary provider when Intrado Comm is designated as the 911/E911 service provider and Embarq cannot use a definition to justify inappropriate charges to Virginia public safety agencies.

**Embarq Position:**

The parties are disputing whether or not to use the word “designated” or “primary” in several sections of the agreement. Embarq’s standard agreement uses the term “primary” to refer to the company that provides the Wireline E911 Network directly to the PSAP. Intrado Comm had originally agreed to the use of the term but later changed the term to “designated”. Intrado Comm has claimed that Embarq’s use of the term mandates the existence of a secondary carrier and it has challenged the right of Embarq and other ILECs to charge PSAPs for certain services provided in the capacity as a secondary provider.<sup>52</sup> While the terms and conditions of this agreement do not affect Embarq’s right to apply its lawful tariffs, it is clear to Embarq that Intrado Comm is seeking to shift costs from PSAPs to Embarq by changing the existing compensation mechanisms. The use of this terminology is just one point of attack. In addition, the use of the term “designated” introduces unnecessary confusion.

---

<sup>52</sup> See Petition for Declaratory Statement Regarding Local Exchange Telecommunications Network Emergency 911 Service, by Intrado Communications Inc., before the Florida Public Service Commission, Docket No. 080089-TP.

Secondary providers do exist and are an integral part of the 9-1-1 system. Embarq is a secondary carrier in each of the 18 states it operates in and bills PSAPs for those services in 17 of the states.<sup>53</sup> The billing mechanism may vary between states, but billing takes place none-the-less. The primary provider is the company with overall responsibility for providing E911 Service to the E911 Authority. The primary provider generally provides Routing and/or Database service to the PSAP. The secondary provider is the company that provides support services to the primary provider, such as providing records for the ALI database. These support services allow end-user or subscribers served by the secondary provider to be integrated into the E911 system provided by the primary provider.

The use of the term “primary” does not mandate the existence of a secondary carrier. It is a term that is well understood in the industry as representing the carrier that directly provides service to the PSAP in question. The term “designated” does not enjoy that same clarity. For example, PSAPs can and do “designate” both primary and secondary providers;<sup>54</sup> therefore, the term could apply to either a primary or a secondary provider. Also, the terms at 75.2.2 specifically referred to in 75.1.2 can only be provided by the “primary” provider.

---

<sup>53</sup> Ohio has established a funding mechanism for wireline carriers where carriers bill their end-users for 9-1-1 service and keep the collected revenues. See Ohio Administrative and Revised Code § 4931.47.

<sup>54</sup> Intrado Comm originally proposed to use the terms “Primary” and “Secondary” to refer to the functions performed by carriers and acknowledged the fact that the 911 authority chose the functions each carrier provided. Unfortunately, ntrado Comm has subsequently changed the language to include undefined terms such as call hand-off and call sorting. *See Intrado Comm’s proposed language at Section 55.4.7.1.*

**Relevant Authority:**

47 U.S.C. § 251

Petition for Declaratory Statement Regarding Local Exchange Telecommunications Network Emergency 911 Service, by Intrado Communications Inc., before the Florida Public Service Commission, Docket No. 080089-TP

Ohio Administrative and Revised Code § 4931.47

**ISSUE II-4: WHETHER THE PARTIES SHOULD BE REQUIRED TO USE INDEPENDENT, THIRD PARTY AUDITORS RATHER THAN IN-HOUSE PERSONNEL (SECTION 8.1)?**

**Intrado Comm Position:**

Embarq's agreement includes a continuum of remedies to address disputes between the parties including a dispute resolution process, billing examinations, and audits. Independent third party auditors should be used for any audit conducted by Embarq. This is consistent with prior Commission decisions.

**Embarq Position:**

Embarq's language regarding the terms and conditions for audits should be approved by the Commission. Requiring all audits to be conducted by independent third-party auditors imposes unnecessary expense and the potential for dissension and delay on the audit process.

Intrado Comm wants the Commission to approve language that would *require* each party to hire an independent third-party auditor whenever a party wishes to conduct an audit of the services or charges of the other party. This requirement is unreasonable and should be rejected for numerous reasons. Intrado Comm's proposed requirement of independent, third-party auditors is a "solution" in search of a problem. Intrado Comm's expressed concern is purely speculative. The required use of third-parties is contrary to industry practice and would result in unnecessary expense. And use of third-parties will be less effective than audits performed by the parties themselves.

In the Florida proceeding, Intrado Comm attempted to defend the requirement of expensive, third-party audits by citing concerns over confidentiality and abuse of power. But Intrado Comm's concerns are utterly speculative or easily handled without the inefficient and expensive mandate for using independent third-party auditors. Intrado Comm also claimed in

Florida that the use of audits could be easily abused and could also be used to stifle competition. Unfortunately, Intrado Comm's concerns are completely speculative and not grounded in real world examples, and should be rejected outright.

Finally, to the extent Intrado Comm is concerned that an audit conducted by Embarq representatives would jeopardize the confidential nature of information belonging to Intrado Comm, that concern is also unfounded. The undisputed terms of the interconnection agreement between the parties provide for maintaining the confidentiality of information exchanged between the parties.

Under Intrado Comm's proposal, mandated third-party audits would inevitably preclude an audit if the amount in dispute was less than the predicted audit cost. Also, independent audits are not necessarily as effective as an audit conducted by the parties' own employees. Intrado Comm will be unable to demonstrate to the Commission that its desired language is consistent with industry practice. Embarq has negotiated hundreds of agreements in its operating areas that contain the language Embarq has proposed in this instance, and in no instance has a CLEC ever felt the need to arbitrate that provision.

Independent third-party audits should not be required, but should be optional with the parties. If the Commission does require independent third-party audits, the Commission should also require an equitable sharing of the third party auditor's expenses.

**Relevant Authority:**

47 U.S.C. § 251

## CONCLUSION

Embarq's positions on the disputed issues in this arbitration are fair, reasonable and consistent with 47 U.S.C. §251 and with Commission precedent. The Commission should therefore approve Embarq's position on each of the issues as set forth by Embarq in this Attachment and in Embarq's Answer while rejecting in whole, Intrado Comm's proposed language.

Respectfully submitted this 8<sup>th</sup> day of September 2008.

A handwritten signature in cursive script that reads "Edward Phillips". The signature is written in black ink and is positioned above a horizontal line.

Edward Phillips