BEFORE THE

FLORIDA PUBLIC SERVICE COMMISSION

Docket No. 070699-TP

Petition of Intrado Communications Inc. Pursuant to Section 252(b) of the Communications Act of 1934, as amended, to Establish an Interconnection Agreement with Embarq Florida Inc.

REBUTTAL TESTIMONY OF THOMAS W. HICKS

May 28, 2008

Q: PLEASE STATE YOUR NAME, TITLE, AND BUSINESS ADDRESS FOR THE RECORD.

A: My name is Thomas W. Hicks. My business address is 1601 Dry Creek Drive, Longmont, CO, 80503. I am employed by Intrado Inc. as Director - Carrier Relations. I also serve as the Director – Carrier Relations for Intrado Inc.'s telecommunications affiliate, Intrado Communications Inc. ("Intrado Comm"), which is certified as a competitive local exchange carrier ("CLEC") in Florida.

Q: PLEASE DESCRIBE YOUR RESPONSIBILITIES FOR INTRADO COMM.

A: I am responsible for Intrado Comm's carrier relations with incumbent local exchange carriers ("ILECs"), such as Embarq Florida Inc. ("Embarq"), CLECs, wireless providers, and Voice over Internet Protocol ("VoIP") providers.

Q: WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A: The purpose of my testimony is to explain Intrado Comm's position on the following unresolved issues: Issue 1(a), (b), and (d); Issue 3(a) and (b); Issue 4(a), (b), and (c); and Issue 5(a) and (b).

Issue 1(a): What service(s) does Intrado Comm currently provide or intend to provide in Florida?

Q: DOES EMBARQ'S REPRESENTATION OF SCENARIOS 1 THROUGH 3 ACCURATELY REPRESENT THE INTRADO COMM COMPETITIVE 911 SERVICE OFFERING?

A: Embarq's technical depiction of the scenarios is accurate, however the testimony characterizing the scenarios as separate, non-related, and distinct occurrences is misleading at best. The Intrado Intelligent Emergency Network (IEN)® is best described as a competitive local exchange service that is purchased by public safety answering points ("PSAPs") so as to receive, process, and respond to calls to 911 placed by consumers of traditional dial tone services, wireline and wireless, as well as emerging IP-based communication services. The introduction and deployment of an advanced E911 system will require interconnection and interoperability with existing E911 systems which are provided by the ILEC. This includes interoperability amongst PSAPs served by competing Selective Router providers. Furthermore, as both Intrado Comm and Embarq are authorized to provide local exchange services to end users, there will be a mutual exchange of E911 traffic when each Party is designated as an E911 Service provider. It is immaterial if Intrado Comm is providing local dial tone services in its E911

tariff offering; Intrado Comm is authorized to provide such services and any terms and conditions of a 251 interconnection agreement should reflect that ability. Embarq's Scenario 1, where Embarq is the designated E911 service provider and Intrado Comm will pass E911 traffic and database information, is appropriate for a 251 interconnection agreement. Scenario 2, which Embarq states is not appropriate for a 251 agreement, merely reflects the reciprocal side of a mutual exchange of E911 traffic when Intrado Comm has been designated the E911 service provider and therefore is appropriately addressed in the context of a 251 agreement. Lastly, Scenario 3 is the interconnection required to make competing local exchange 911 networks interoperate without a degradation of service that may ensue when competitive entrants roll out services. The FCC clearly understood that network interoperability of competing local exchange networks is a keystone of the Telecommunications Act of 1996. Scenario 3 is appropriately addressed in the context of a 251 agreement because it goes to the heart of making competing E911 networks interoperable for the benefit of consumers. Therefore, it is apparent that each of Embarq's self described scenarios are in reality inter-related and inter-dependent events that are properly addressed by a 251 interconnection agreement.

Q: WHERE DOES SUBSEQUENT TESTIMONY SUPPORT INTRADO COMM'S POSITION THAT EMBARQ DOESN'T UNDERSTAND THE CONCEPT OF A COMPETITIVE E911 SERVICES PROVIDER?

A: Mr. Maples' various descriptions of how carriers provide E911 Services is confusing and inconsistent. Mr. Maples testimony on page 4 states once an entity like Embarq or Intrado Comm receives a contract to provide E911 services that entity has a monopoly. Moving on to page 6, in his description of associated exhibits, Mr. Maples discusses how two providers of E911 services are "co-providers" of services who are not in competition with each other but instead have "primary" and "secondary" responsibilities to PSAPs. This totally contradicts the previous statement about an entity having monopoly status when it wins a contract to provide E911 Services. Then, on page 7, Mr. Maples reverts back to his assertion of a sole source monopoly provider when Intrado Comm is designated as the E911 Services provider. Page 20 finds Mr. Maples reverting to the non-competing "co-provider" arrangement that allows multiple providers to serve a PSAP but stating this arrangement is in place at the behest of PSAPs wishing to back each other up. Maples later states on page 33 these types of "co-provider" arrangements, put in place based on PSAP requests to have PSAP to PSAP interoperability, are not between competing E911 Service providers. Further muddying the descriptive waters is Maples' testimony on page 35 where he confuses Embarq, as a provider of local exchange dial tone services, needing to interconnect to Intrado Comm where Intrado Comm has been designated the E911 Service provider. He is claiming there is no sense of multiple providers operating within the same serving area at the same time. This description implies his original contention that 911 services are only offered to PSAPs in

a monopoly serving arrangement. Page 41 reflects a return to PSAPs being served by two companies and paying both companies for service. Finally, on page 22 in his testimony with supporting testimony on page 44, Mr. Maples offers a final dizzyingly confounding justification for Embarq's unilateral decision to use its existing Selective Routers to "call sort" 911 traffic from Embarq end offices destined for PSAPs served by different 911 systems, which refutes its earlier assertion that tandem to tandem interoperability is only deployed at the behest of PSAPs. The testimony on page 22 asserts trunking each Embarq end office to an Embarq Selective Router and then sending the call to Intrado Comm's tandem via inter-Selective Router trunks is "more efficient for Embarq" but it makes no mention of PSAP preferences. It is evident by this "fluid" shifting point of view that Embarq does not understand the services Intrado Comm intends to deploy. Mr. Maples lack of understanding regarding the services offered by Intrado Comm is further evidenced by his inability to discern between services offered by Intrado Comm and its parent company, Intrado Inc.

Q: PLEASE EXPLAIN WHY INTRADO COMM STATES EMBARQ IS UNABLE TO DISCERN BETWEEN INTRADO COMM OFFERINGS AND THE OFFERINGS OF INTRADO INC.

A: Mr. Maples' explanation of E911 call flows for wireline, wireless, and VoIP service providers concludes with a statement of how these carriers can purchase services from Intrado Comm in a wholesale arrangement which would be used to deliver the calls to the Embarq E911 network. However, the

wholesale services he described are currently sold by Intrado Inc to wireline, wireless, and VoIP providers and are not intended to replace the current E911 infrastructure maintained by ILECs such as Embarq. These services are not the competitive services for which Intrado Comm is seeking interconnection with the incumbent.

It is obfuscation on the part of Embarq to introduce these wholesale offerings of Intrado Inc. as proof that Intrado Comm does not need 251 interconnection. Intrado Comm will provide competitive E911 Services that will be sold as retail services to PSAPs in competition with the retail services Embarq currently offers to PSAPs pursuant to tariff as regulated services. These retail, local exchange network telecommunications services are no different than the types of local network services other CLECs offer to their customers and for which they are entitled to Section 251 interconnection with the ILECs. Embarq's effort to confuse Intrado Inc's wholesale services with Intrado Comm's retail services can only be to deter competition in marketing retail E911 services to PSAPs.

Q; ARE INTRADO COMM'S INTRODUCTION OF COMPETITIVE E911 SERVICE OFFERINGS REALLY THAT SIMILAR TO THE COMPETION OF SERVICES IN THE DIAL TONE MARKET?

A: Yes. The Intrado Comm E911 Services are analogous the services Embarq markets to PSAPs via its E911 tariff for Florida. Intrado Comm is therefore a competitive provider in the Embarq territory. Currently, all PSAPs served by an Embarq router have the ability to transfer calls among each other without

having to request any unique "peering arrangement" as described by Embarq in its testimony. Should any of Embarq's PSAP customers served by a specific Selective Router choose to take to Intrado Comm's competitive E911 Services they would lose this transfer ability absent any interoperability between the two competing networks. PSAPs who have a choice amongst competing E911 Service providers, much like consumers who have choices in the local dial tone market, should have the ability to complete and receive calls from each other. Competing carriers establish such interoperability amongst themselves not through commercial agreements but instead rightfully utilize the constructs of the federal Telecommunications Act of 1996. Section 251 interconnection is also the proper framework for competing local exchange providers to establish interconnection for the mutual exchange of traffic. Both Intrado Comm and Embarq have the requisite authority to offer not only E911 Services but traditional dial tone services. Therefore, parties will have to establish the means to not only exchange transferred 911 calls amongst their respective PSAPs but also have a mutual exchange of 911 traffic from their respective dial tone end users when both are operating within the same rate center or exchange areas.

Issue 1(b): Of the services identified in (a), for which, if any, is EMBARQ required to offer interconnection under Section 251(c) of the Telecommunications Act of 1996?

Q: WHY ISN'T A PEERING ARRANGEMENT BETWEEN INTRADO COMM AND EMBARQ A MORE APPROPRIATE VEHICLE FOR OBTAINING THE INTERCONNECTION INTRADO COMM NEEDS?

A: Peering arrangements are typically used between non-competing 911/E911 providers located in adjacent territories. Rather, Intrado Comm is going to actively sell a competing 911/E911 service in Embarq's Florida serving area. Section 251 interconnection was developed for competitors operating in the same geographic area rather than non-competitors operating in adjacent territories.

Q: ARE YOU AWARE OF HOW THE FCC DEFINES "INTERCONNECTION"?

A: While I am not a lawyer, I understand that the FCC has defined "interconnection" as the linking of two networks for the mutual exchange of traffic.

Q: DOES THE ARRANGEMENTS INTRADO COMM SEEKS TO IMPLEMENT WITH EMBARQ FIT WITHIN THAT DEFINITION?

A: Yes. Intrado Comm seeks to link its network with Embarq's network for the mutual exchange of traffic between the Parties' end users.

Q: DO INTRADO COMM'S PROPOSED EDITS TO THE EMBARQ INTERCONNECTION AGREEMENT UNFAIRLY SHIFT COSTS TO EMBARQ AND IS INTRADO COMM "GAMING THE SYSTEM" AS TESTIFIED BY EMBARQ?

A: The answer to both of the questions is a firm and resolute no. In fact, it can be inferred that it is Embarq that is actually gaming the system by its continued insistence to meld together Embarq's responsibilities, as a provider of dial tone services, to provide end users access to E911 Systems and Embarq's responsibilities to PSAPs as a provider of E911 services. These are two separate sides and distinct service for Embarq. Introduction of competition into the E911 Services arena will enable the introduction of new and highly valuable services to not only the PSAPs but to emergency responders, law enforcement, and consumers.

Mr. Maples' testimony clearly sets out the demarcation point between the responsibilities of CLECs, wireless, carriers, and VoIP providers when providing their respective end users access to E911 Services. He makes numerous references to the King County decision and extrapolates from that ruling the demarcation point for all dial tone equivalency providers. The exact same demarcation point should also rightfully apply to Embarq. However, because Embarq mistakenly asserts it should continue to recover costs from PSAPs served by Intrado Comm for the delivery of Embarq end user 911 calls to the Intrado Comm E911 system. Similarly Embarq also improperly is seeking to recover costs from Intrado Comm-served PSAPs for submission of subscriber data used to create E911 ALI records. Neither of these attempts to charge PSAPs are appropriate once Intrado Comm is the network provider to those PSAPs.

Q: EMBARQ CLAIMS IT WOULD BE CREATING THE ALI RECORDS WHEN INTRADO COMM IS THE DESIGNATED E911 SERVICES PROVIDER. SHOULDN'T THEY BE ENTITLED TO COST RECOVERY IF THEY PERFORM THIS ACTIVTY?

A: Embarq's assertions regarding the creation of ALI records on pages 42-43 are not correct. When Intrado Comm serves as the E911 Services provider Intrado Comm is the entity creating the ALI record provided to the PSAP in conjunction with the E911 calls delivered by Intrado Comm to such PSAPs.

As a part of its normal business operations, Embarq extracts certain subscriber data from their internal systems as a part of the provisioning of local dial tone to its customers. This data is formatted into an industry recognized NENA recommended format and then submitted to Intrado Comm for the creation of E911 call routing databases and ALI subscriber records. This extraction process is done by every other local provider, wireless, CLECs and VoIP providers alike, who do not receive compensation from the PSAPs for this activity as it is an activity associated with the provisioning of dial tone services and not E911 services. To insist that Embarq has a right to bill PSAPs served by Intrado Comm for ALI via the Embarq E911 tariff is truly an example of Embarq gaming the system. There is no justification for Embarq to be compensated for ALI when no other local carrier is being compensated for creating and providing the underlying network information that ultimately goes into Intrado Comm's provisioning of ALI services to its PSAP customers. As the Commission determined in the recent declaratory

statement, the PSAPs are not required to pay for services they do not request or receive from the ILECs.

Issue 1(d): For those services identified in 1(c), what are the appropriate rates?

Q: WHAT RATES FOR INTRADO COMM SERVICES SHOULD APPEAR IN THE ICA AND WHAT ARE THE APPROPRIATE RATES?

A: Intrado Comm has proposed rates to govern Embarq's interconnection to Intrado Comm's Intelligent Emergency Network®, such as port termination charges. The charges proposed by Intrado Comm are similar to the entrance facility and port charges imposed by Embarq on competitors for interconnection to Embarq's network. A copy of Intrado Comm's proposed rates are attached as Exhibit No. _____, Hicks Rebuttal TH-7.

Issue 3(a): What trunking and traffic routing arrangements should be used for the exchange of traffic when Intrado Comm is the designated 911/E911 Service Provider?

Issue 3(b): What trunking and traffic routing arrangements should be used for the exchange of traffic when Embarq is the designated 911/E911 Service Provider?

Q: WHAT TRUNKING AND TRAFFIC ROUTING ARRANGEMENTS SHOULD BE USED FOR THE EXCHANGE OF TRAFFIC WHEN INTRADO COMM HAS BEEN DESIGNATED BY THE GOVERMENTAL AUTHORITY TO PROVIDE 911/E911 SERVICES?

A: The optimal way for carriers to route their traffic to the appropriate 911 provider is to establish direct and redundant trunk configurations from ILEC

originating offices to multiple, diverse 911 network access points. This would require the carrier to sort its calls at the originating switch, and deliver the calls to the appropriate 911 routing system over diverse and redundant facilities (this technique is known as "Line Attribute Routing"). This trunk and transport configuration minimizes the switching points, which reduces the potential for failure arising from the introduction of additional switching points into the call delivery process. Also, should one path be unable to complete the call, the presence of an alternative diverse facility greatly enhances the ability for the emergency call to be delivered to the PSAP.

Q: IS LINE ATTRIBUTE ROUTING TECHNICALLY FEASIBLE?

A: Yes. Through synchronization of the Master Street Address Guide ("MSAG") and building appropriate tables in Embarq's digital end offices, accurate Line Attribute Routing is technically feasible.

Q: IS INTRADO COMM ASKING EMBARQ TO CHANGE ITS ENTIRE 911 NETWORK TO ACCOMMODATE INTRADO COMM'S PREFERENCE TO USE "LINE ATTRIBUTE ROUTING" TO ROUTE TRAFFIC?

A: No. Intrado Comm is simply requesting that when Intrado Comm is designated as the local PSAP's 911 network provider for an area containing Embarq end users, that the affected end user's 911 calls are forwarded to Intrado Comm on direct, dedicated 911 trunks. This is no different than how Embarq currently routes traffic when it or another ILEC serves as the E911 network provider. However, where a portion of an end office is served by

PSAPs hosted by separate wireline E911 networks, Intrado Comm is requesting that the necessary sorting of the calls to determine which wireline E911 network is to receive the call be performed at the end office through the use of the caller's line attributes, rather than inserting a second stage of switching at another central office.

Q: IF THE FLORIDA COMMISSION DETERMINES EMBARQ MAY USE ITS EXISTING SELECTIVE ROUTERS TO PERFORM "CALL SORTING" FUNCTIONS IN LIEU OF LINE ATTRIBUTE ROUTING, SHOULDN'T EMBARQ GET COST RECOVERY FROM THE PSAPS WHO RECEIVE 911 CALLS FROM THE SORTED END OFFICES?

A: No. The establishment of call routing from a switch or end office over a particular trunk group to an E911 selective router is clearly on the local exchange service provider's side of the demarcation point. Delivery of a call to the appropriate E911 selective router is a local exchange service function of providing access to the E911 Network. Delivery of the E911 call to the appropriate PSAP and the delivery of caller associated location information is part of the E911 services provided to the PSAP by its network providers, not access to E911 Services that a caller's local service provider makes available to that caller. The delivery of a 911 call to the appropriate E911 selective router, whether it be by Line Attribute Routing or call sorting via a central office running an E911 Selective Router application, is still access to E911 services for the benefit of end user subscribers, and, the costs of delivery to the selective router should be borne by that subscriber's local service provider

and recovered its subscribers just as it is done by CLECs, VoIP, and wireless carriers.

Even if the Commission concurred with Embarq's assertions that Line Attribute Routing is too onerous and costly for Embarq to deploy and continued to allow Embarq to "call sort" with its central offices running a selective routing application, it would still be inappropriate for Embarq to charge Intrado Comm or its PSAPs. Allowing Embarq to recover costs from PSAPs for this "call sorting" arrangement would give Embarq preferential treatment over CLECs and other local service providers (wireless and VoIP) while subsidizing a technologically inefficient provisioning system that has not fundamentally changed since the advent of competition in the local exchange service market.

Q: WHY DO YOU THINK EMBARQ IS OPPOSED TO USING LINE ATTRIBUTE ROUTING?

A: In his condemnation of Line Attribute Routing, Mr. Maples indicates the problems it would cause Embarq. Every issue he mentions has to do with the provisioning of local exchange dial tone service and the ability to deliver each call to the appropriate E911 selective router. Embarq's immediate inability to support Line Attribute Routing has its roots in Embarq's initial E911 network design in a monopoly environment. In that environment, there would be no need to segregate end office traffic because E911 was a "closed loop" system - - Embarq would provide E911 services to PSAPs who served Embarq end office subscribers. Therefore, there was no need to sort calls between E911

systems on the other hand, in a competitive environment CLECs and other local service providers often serve larger geographic areas with a single switch. Consequently a CLEC switch may need to support 911 call delivery to different E911 selective routers – for example there are four in the South Florida LATA. Thus, competitive local providers much integrate the Master Street Address Guide into their provisioning systems so as to allow for the ability to assign line attributes for Line Attribute Routing. Embarq posits that PSAPs who choose Intrado Comm should pay Embarq to sustain these inefficient provisioning processes when no other local carrier does this. The reality is this is the way it is going to have to be as further competition is introduced in the local network by Intrado Comm and other providers. Embarq is entitled to design its network as it wants, but it should bear the cost of its inefficient design.

Q; WHAT ABOUT EMBARQ'S CONTENTION IT SHOULD BE COMPENSATED FOR USING ITS SELECTIVE ROUTER TO SERVE AS AN AGGREGATOR AND CALL SORTER FOR EMBARQ END OFFICE TRAFFIC?

A: Intrado Comm does not recommend the use of the Selective Router to serve as a call sorter to segregate end-office traffic destined for different E911 Services providers. Intrado Comm advocates the use of some type of line attribute routing that segregates the traffic at the end office. This minimizes potential points of failure in both the switching of the call as well as the transport circuit design. Should the Commission determine that Embarq may elect to

use the existing Embarq Selective Routers to segregate end office traffic destined for different E911 systems, then Embarq should not be allowed to recover this cost from a PSAP served by a competitor. This is because the Selective Router providing services to the PSAP, not the Selective Router serving as a call segregator, should be considered the demarcation point for cost recovery purposes. Embarq is obliged to do this as a legal obligation to provide its end users access to E911 services. This is supported by Embarq's own testimony regarding the description of E911 Services and the use of the Selective Router as the demarcation between the PSTN and the E911 network. To "project" E911 Services function on the Embarq Selective Router when it is functioning in lieu of class marking so as to continue to have PSAPs subsidize local dial tone provisioning is disingenuous on the part of Embarq. In a competitive dial tone market CLECs do not get cost recovery from PSAPs for the submission of subscriber data to E911 Database Management Systems; for E911 database error investigation, correction, and re-submission to E911 Database Management Systems; for end office segregation of end user 911 traffic destined for different E911 systems; and for delivery of voice and ANI to an E911 Selective Routers. Embarq should not be allowed to "game the system" by imposing E911 tariff rates for these local dial tone responsibilities.

Q: IS EMBARQ'S PROPOSED ALTERNATIVE INTERCONNECTION METHOD TO INTRADO COMM ON PAGE 22 OF MAPLES' TESTIMONY A SOUND METHOD TO USE INSTEAD OF INTRADO

COMM'S RECOMMENDED INTERCONNECTION CONFIGURATION OF INDIVIDUAL AND IDENTIFIABLE TRUNK GROUPS?

A: No. This alternative offering has major drawbacks should the Embarq router fail or there be a facility failure between Embarq and Intrado Comm. Embarq's alternative method recommends all Embarq end offices currently trunked to Embarq routers remain trunked to Embarq routers and then Embarq will establish a single connection to Intrado Comm's E911 System. This proposed alternative is rife with potential failure points and therefore is not the optimal configuration for E911 purposes. The first major failure point is the Embarq Selective Router. Running all Embarq end offices through the Embarq Selective Router now introduces a single point of failure for 911 traffic originating from Embarq End Offices. If the Embarq Selective Router fails then end user 911 calls destined for Embarq served PSAPs as well as Intrado Comm served PSAPs would never be processed, and Embarq end users dialing 911 would receive a re-order or all circuits busy messages. However, if the Embarq end offices segregated the 911 traffic at the originating source and sent the calls out separate trunk groups, one to Embarq for Embarq destined PSAPs and one to Intrado Comm for Intrado Comm destined PSAPs, then failure of the Embarq router would only impact the Embarq end users who are served by a single Embarq router for E911. The Intrado Comm destined traffic, if interconnected as Intrado Comm recommends to a minimum of two diverse points, would not experience such

a failure as Intrado Comm's E911 system shall be supported by 3 geographically diverse and redundant routers. Embarq's recommendation of a single connection from the Embarq Router to the Intrado Comm E911 network poses another single point of failure should that facility between the systems be compromised. Intrado Comm's E911 design with a minimum of two points of interconnection and individual trunk groups from each end office served by Intrado Comm's PSAPs is in accordance with NRIC best practices and NENA recommended guidelines for Default Routing. Please see attached Exhibit No. ___, Hicks Rebuttal TH-8.

Q: WHAT DOES INTRADO COMM MEAN BY THE TERM "DESIGNATED" WHEN REFERRING TO THE ENTITY SERVING THE PSAP OR MUNICIPALITY?

A: The term "designated" refers to the certificated telecommunications provider that has been chosen by the PSAP or municipality to be the provider of 911/E911 services or of ANI, ALI, and Selective Routing from the 911/E911 selective router (or its functional equivalent) to the PSAP.

Q: SHOULD THE TERM "DESIGNATED" OR THE TERM "PRIMARY" BE USED TO INDICATE WHICH PARTY IS SERVING THE PSAP OR MUNICIPALITY?

A: Use of the term "designated" is more appropriate in the interconnection agreement. The term "primary" implies that there is a "secondary" provider. Moreover, the use of the term "primary" may be confused with the use of the

term "primary PSAP" as defined by NENA, which refers to an entirely different concept.

Q: WHY IS THE TERM "DESIGNATED" MORE APPROPRIATE?

A: In a competitive 911 market, a PSAP has the right to chose or designate the entity from which it seeks to purchase 911/ E911 services. This is similar to presubscription. A PSAP picks a carrier to provide its network service. For example, a PSAP might designate different 911 network services providers, for example one carrier for wireline 911/E911 calls and another carrier for wireless 911/ E911 calls. Whether a PSAP "presubscribes" to a single, competitive 911 service provider or presubscribes to two, one for wireline and one for wireless, there is no "secondary" 911/ E911 services provider.

Q: IN YOUR VIEW, WHY DOES EMBARQ SEEK TO USE THE TERMS "PRIMARY/SECONDARY" RATHER THAN DESIGNATED?

A: The concept of a "secondary" provider is a Hobson's choice scenario attributable to the ILEC that is reluctant to cede control of its end user 911 calls to a competitive provider. The incumbent desires to leverage the fixed asset of its selective router to sort end user 911/E911 calls between its 911/E911 system and a competitor's system. The incumbent refers to this as a "secondary" provider to justify continuing to charge the rates set forth in its E911 tariff for selective routing to PSAPs who may switch to a competitive provider like Intrado Comm. Optimally, in a competitive 911/E911 market, each voice provider should implement within its ***local exchange dial tone***

provisioning processes the ability to sort 911/E911 and deliver calls from the originating office to the appropriate 911/E911 service provider.

Q: IS A 911/E911 SERVICE PROVIDER'S ABILITY TO BILL FOR CERTAIN SERVICES DETERMINED BY WHETHER IT IS A "PRIMARY" PROVIDER OR "SECONDARY" PROVIDER?

A: An ILEC should not be entitled to charge a PSAP for services that have not been ordered. Accordingly, when Intrado Comm has been designated to serve as the 911 service provider, the ILEC should not be entitled to charge the PSAP for selective routing services, ALI services, and/or data base management services. The ILEC is no different than any other local exchange carrier and/or telecommunications service provider (*i.e.*, CMRS, CLEC, VoIP service provider, MLTS provider, etc.). As all other providers receive no cost recovery from an PSAP for any investment necessary to sort 911 call traffic to determine which selective router to route the call to, an ILEC should not be entitled to recover its costs for sorting 911 traffic whether accomplished via Line Attribute Routing or via the use of a second stage of switching using a selective routing application to sort and forward the 911 calls. This is consistent with the Commission's recent decision "The law is clear that telecommunications companies may not charge for services they do not provide."

Issue 5(a): Should specific terms and conditions be included in the ICA for inter-selective router trunking? If so, what are the appropriate terms and conditions?

Issue 5(b): Should specific terms and conditions be included in the ICA to support PSAP-to-PSAP call transfer with automatic location information ("ALI")? If so, what are the appropriate terms and conditions?

Q: DO INTRADO COMM'S PROPOSED TERMS AND CONDITIONS FOR DEPLOYMENT OF INTER-SELECTIVE ROUTER TRUNKS UNFAIRLY SHIFT COSTS TO EMBARQ?

A: No. The ubiquitous and unconditional deployment of inter-selective router trunks is a natural requirement when interconnecting competing E911 systems. Intrado Comm understands there are costs associated with the deployment of this functionality and, as a competitive E911 services provider, is prepared to attribute those costs to overhead as a part of doing business in a competitive E911 market. Inter-selective router trunks are a key element in interoperability of competing E911 networks so the PSAP's end user callers will have a comparable level of service functionality that it has in today's ILEC monopoly model. Look at the processes and functionality Embarq and CLECs had to deploy to assure the comparable level of service when the local exchange market shifted from a monopoly service provider to a competitive model. Competitive entrants had to deploy processes associated with Local Number Portability ("LNP") and hot cuts so subscribers could have the same user experience when changing local exchange service providers. Congress and the FCC wisely understood that the ILEC would not voluntarily make migration to competitive service providers a smooth and easy transition. Therefore, they mandated LNP and charged the state regulatory bodies with

establishing service migration benchmarks and standards so as to assure an optimal consumer experience. The Florida Legislature and this Commission have mandated similar requirements and policies in order to make competition work. It is no different in this new area that is now subject to meaningful and effective competitive choices.

Q: IN WHAT TYPES OF SITUATIONS WOULD INTER-SELECTIVE ROUTER TRUNKING BE USED?

A: Interoperability between 911 networks, such as that created by inter-selective router call transfers, could mean the difference between saving a life or property through the provision of voice and location data or an emergency response disaster. Inter-selective router trunking enables PSAPs to communicate with each other more effectively and expeditiously. Misdirected calls can be quickly and efficiently transferred to the appropriate PSAP with the appropriate caller details which will improve public safety's ability to provide accelerated emergency responses. Full interoperability allows the ANI and ALI associated with an emergency call (*i.e.*, the information needed by the public safety agency to respond to the caller's emergency) to remain with that communication when it is transferred to another selective router and/or PSAP. Today, when Embarq is the 911 network provider if the call is required to be re-routed over the PSTN, the caller's ANI and ALI are lost and the valuable information needed to assist emergency services personnel is unavailable. As a matter of public policy, it is critical that with the deployment of advanced and/or next-generation 911/E911 services by Intrado

Comm or others that the network interconnections are geographically diverse and redundant where technically feasible. The public benefit of such diverse and redundant interconnection arrangements is well recognized by the FCC. In its *Best Practice ES01 - Diverse Interoffice Transport Facilities*, the FCC's Network Reliability and Interoperability Council states, "When all 9-1-1 circuits are carried over a common interoffice facility route, the PSAP has increased exposure to possible service interruptions related to a single point of failure (e.g., cable cut). The ECOMM Team recommends diversification of 9-1-1 circuits over multiple, diverse interoffice facilities" (relevant excerpts as Exhibit No. ___, Hicks Rebuttal TH-8).

Q: DOES THIS COMPLETE YOUR REBUTTAL TESTIMONY?

A: Yes.

Intrado Communications Inc.

IEN INTERCONNECTION PRICING SCHEDULE

	One Time Fee	Monthly Recurring Charge
Per DS1	$250.00	$127.00
Per DS0	$250.00	$ 40.00

Network Reliability Council Focus Group IV

Essential Communications During Emergencies Team Report

Findings and Recommendations Pertaining to Emergency Service Network Reliability

January 12, 1996

Focus Group Leader: M. Michael Foster
GTE Telephone Operations

Focus Group Mentor: Arthur Prest
Cellular Telecommunications Industry Association

6. Essential Services Best Practice Recommendations

Best Practices are those countermeasures (but not the only countermeasures) that go furthest in eliminating the root causes of outages. *Network Reliability: A Report to the Nation* contained a total of 27 Best Practices pertaining to 9-1-1. All 27 original Best Practices have been rewritten and expanded to include alternate technologies where appropriate. These 27, and new best practices ES28 through ES33, being introduced by the ECOMM Team are categorized as follows. The ECOMM Team believes implementation of these practices will improve the reliability of the Public Switched Telephone Network (PSTN) and minimize the potential for interruption to vital emergency communications.

Category	New Best Practice No.	Former Best Practice No.
6.1 Defensive Measures for Interoffice Facilities...		
6.1.1 Diverse Interoffice Transport Facilities	ES01	112
6.1.2 Diverse Interoffice Transport Facilities with Standby Protection	ES02	113
6.1.3 Diverse Interoffice Transport Facilities Using DCS	ES03	114
6.1.4 Fiber Ring Topologies for 9-1-1 Circuits	ES04	115
6.1.5 Red-Tagged Diverse Equipment	ES05	125
6.2 Alternate Path when the Primary 9-1-1 Interoffice Facility Fails...		
6.2.1 Alternate PSAPs from the 9-1-1 Tandem Switch	ES06	118
6.2.2 Alternate PSAPs from the Serving End Office	ES07	119
6.2.3 PSTN as a Backup for 9-1-1 Dedicated Trunks	ES08	121
6.2.4 Wireless Network as Backup for 9-1-1 Dedicated Trunks	ES09	122
6.2.5 Intraoffice 9-1-1 Termination to Mobile PSAP	ES10	123
6.2.6 Backup PSAP in the LECs Serving Office	ES11	124
6.3 Defensive Measures for 9-1-1 Tandem Switches...		
6.3.1 Dual Active 9-1-1 Tandem Switches	ES12	116
6.3.2 Re-home to backup 9-1-1 Tandem Switch	ES13	117
6.3.3 Redundant Paired 9-1-1 Tandems	ES14	126
6.3.4 Multiple Diverse Tandem Switches with Diverse DCSs	ES15	127
6.3.5 TOPS as a 9-1-1 Tandem Backup	ES16	120

Table 6-1 NRC Essential Service Best Practices

Category	New Best	Former Best

	Practice No.	Practice No.
6.4 Reverse Trends toward Centralization	ES17	109
6.5 Local Loop Diversity	ES18	128
6.6 Network Management Center and Repair Priority	ES19	129
6.7 Diverse ALI Data Base Systems	ES20	130
6.8 Mass Call Management...		
6.8.1 Move Mass Calling Stimulator away from 9-1-1 Tandem Switch	ES21	131
6.8.2 Pre-Planning for Mass Calling Events	ES22	132
6.9 Contingency Planning...		
6.9.1 Contingency Plan Development	ES23	133
6.9.2 Contingency Plan Training	ES24	134
6.9.3 Public Education on Proper Use of Essential Communications	ES25	135
6.10 Improve Communications among Network Providers and PSAPs	ES26	111
6.11 Common Channel Signaling (CCS)	ES27	110
6.12 Critical Response Link Redundancy/Diversity	ES28	New
6.13 Media and Repair Link Redundancy/Diversity	ES29	New
6.14 Private Switch/Alternative LEC ALI	ES30	New
6.15 CMRS - Emergency Calling	ES31	New
6.16 Cable Television Services	ES32	New
6.17 Outage Reporting	ES33	New

Table 6-1 NRC Essential Service Best Practices

Some of the best practices are alternate solutions for improving network reliability, and implementation of one practice may negate the need to implement another. For example, if one

were to implement Best Practice ES03, it would not be necessary to implement Best Practice ES01 since the concept of facility route diversity is achieved in both practices.

6.1 Defensive Measures for Interoffice Facilities

Best Practices ES01 through ES05 describe practices that promote safeguarding of network facility paths between the callers end office and the PSAP.

6.1. Best Practice ES01 Diverse Interoffice Transport Facilities

When all 9-1-1 circuits are carried over a common interoffice facility route, the PSAP has increased exposure to possible service interruptions related to a single point of failure (e.g., cable cut). The ECOMM Team recommends diversification of 9-1-1 circuits over multiple, diverse interoffice facilities.

Diversification may be attained by placing half of the essential communication circuits on one facility route, and the other half over another geographically diverse facility route (i.e., separate facility routes). Many LECs deploy diverse interoffice facility strategies when diverse facilities are already available. (See Figure 6-1)

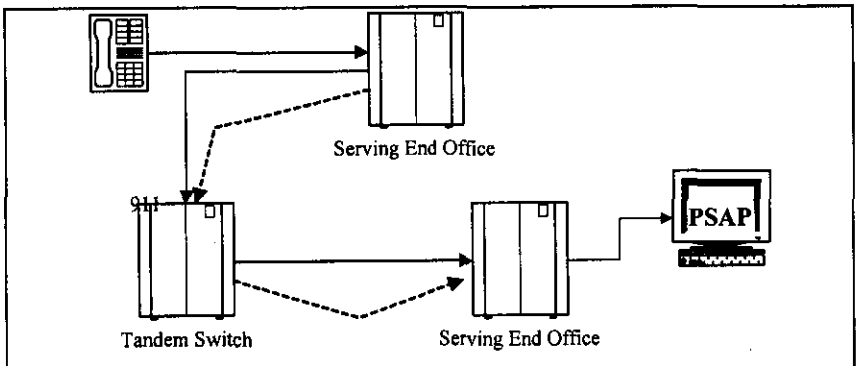

Figure 6-1 Interoffice Facility Architecture with Diversity

6.1.2 Best Practice ES02 Diverse Interoffice Transport Facilities with Standby Protection

A variation of the facility diversity architecture is deployment of a 1-by-1 facility transport system. This architecture is protected by a standby protection facility that is geographically diverse from the primary facility. Because no calls are lost while switching to the alternate transport facility during primary route failure, this architecture is considered self-healing.

6.1.3 Best Practice ES03 Diverse Interoffice Transport Facilities Using DCS

Earlier NRC Focus Group recommendations suggested using diverse interoffice transport facilities from the called serving end office via two diverse Digital Cross-connect Systems (DCS) for concentration. This approach provides diversity and, due to the concentration by the DCS network elements, offers a less costly network solution. Circuit rearrangement activity under this configuration will less likely result in the circuits being placed into non-diverse facilities. (See Figure 6-2)

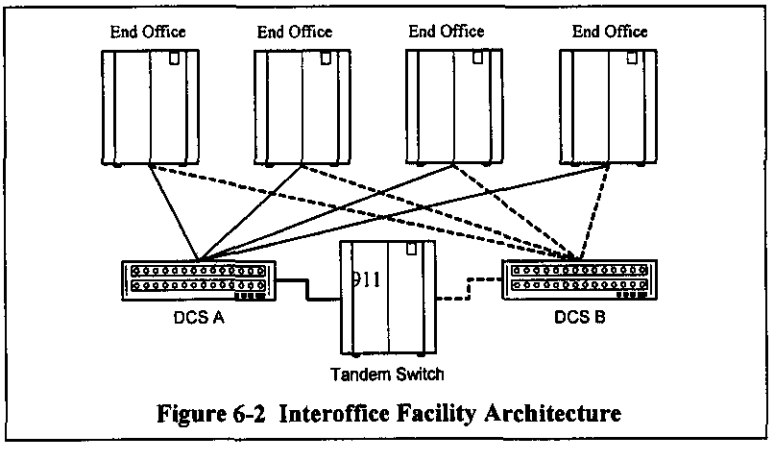

Figure 6-2 Interoffice Facility Architecture

6.1.4 Best Practice ES04 Fiber Ring Topologies for 9-1-1 Circuits

Fiber optic network elements offer network service providers the ability to aggregate large amounts of call traffic onto one transport facility. Traffic aggregation opposes the diverse facility transport recommendations defined in this document. However, fiber rings permit a collection of nodes to form a closed loop whereby each node is connected to two adjacent nodes via a duplex communications facility.

Fiber rings provide redundancy such that services may be automatically restored (self healing), allowing failure or degradation in a segment of the network without affecting service. Fiber rings are used in some metropolitan areas, ensuring essential communications service is unaffected by cuts to fibers riding on the ring. Ring features and functionality are part of the Synchronous Optical Network (SONET) technical requirements. The ECOMM Team believes

when essential communications is placed on SONET rings, service interruptions are minimized due to the self-healing architecture employed. (See Figure 6-3)

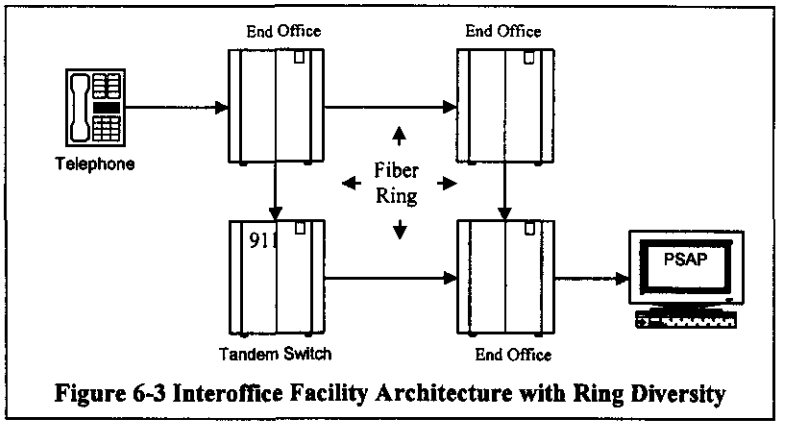

Figure 6-3 Interoffice Facility Architecture with Ring Diversity

6.1.5 Best Practice ES05 Red-Tagged Diverse Equipment

Depending on LEC provisioning practices, the equipment in the central office can represent single points of failure. The ECOMM Team supports the common LEC practice of spreading 9-1-1 circuits over similar pieces of equipment, and marking each plug-in-level component and frame termination with red tags. The red tags alert LEC maintenance personnel that the equipment is used for critical, essential services and is to be treated with a high level of care.

6.2 Alternate Path when the Primary 9-1-1 Interoffice Facility Fails

Best Practice ES06 through ES11 provide practices that promote establishment of alternate call paths between the caller's end office and the PSAP serving office.

6.2.1 Best Practice ES06 Alternate PSAPs from the 9-1-1 Tandem Switch

A common method of handling PSAP-to-Tandem transport facility interruptions is to program the 9-1-1 tandem switch for alternate route selection. If the 9-1-1 caller is unable to complete the call to the PSAP, the tandem switch would automatically complete the call to a pre-programmed directory number or alternate PSAP destination. The alternate PSAP may be either administrative telephones or another jurisdiction's PSAP positions, depending upon the primary PSAPs pre-arranged needs. (See Figure 6-4)