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

In the Matter of	)	
	)	WC Docket No. 08-83
Competitive Provision of 911 Service Presented by Consolidated Arbitration Proceedings	)	WC Docket No. 08-185

COMMENTS OF INTRADO INC. AND INTRADO COMMUNICATIONS OF VIRGINIA INC.

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Before The
FEDERAL COMMUNICATIONS COMMISSION
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In the Matter of	)	
	)	WC Docket No. 08-33
Competitive Provision of 911 Service Presented by Consolidated Arbitration Proceedings	)	WC Docket No. 08-185

COMMENTS OF INTRADO INC. AND INTRADO COMMUNICATIONS OF VIRGINIA INC.

Intrado Inc. and Intrado Communications of Virginia Inc. (collectively, "Intrado"), respectfully makes this submission in response to the request of the Federal Communications Commission ("Commission" or "FCC") for comments on "the specific issue of how competition in the provision of the 911 network to the [public safety answering points] PSAPs and other public safety agencies would impact the provision of public safety services in Virginia."[1] As the innovator of the Intelligent Emergency Network,® a comprehensive emergency communications architecture for the nation's next-generation emergency communications needs, Intrado wholeheartedly endorses the Commission's continued development and support of policies necessary to promote competitive 911 services. Given the consequential benefits to public safety and network reliability and furthering of the Commission's interest in broadband development and market competition, competitive 911/E911 services will secure manifest advantages for consumers and public safety agencies alike.

[1] WC Docket Nos. 08-33 and 08-185, *Comment Sought On Competitive Provision of 911 Service By Consolidated Arbitration Proceedings,* consolidated proceedings (rel. June 4, 2009).

Background

Intrado Communications was established in 1999 as a wholly owned subsidiary of Intrado Inc., which itself was formed in 1979. Intrado has provided data management and location-based routing infrastructure, technology, and services to phone companies, public safety organizations and government agencies for more that twenty-five years. Its experience with the 911/E911 infrastructure is extensive, encompassing the incorporation of new technologies into legacy public safety networks, as well as the development of state-of-the-art solutions for emerging communications systems. With a combination of thought leadership, investment in research and development, technological implementation, and system integration, Intrado has paved the way for refining automatic location identification (ALI) and call routing features nationwide, irrespective of the type technology or device used. Through local partnerships with public safety organizations, for example, Intrado was a pioneer in so-called "reversed 911" technologies, a tool used by officials for the rapid identification of disasters within a specified geographic area, community notification, and timely instruction for evacuation or other appropriate action. In the mobile context, Intrado made wireless Phase I and Phase II[2] a reality. Location based solutions delivered for Intrado's carrier customers have enabled the location of some 70,000 wireless 911 callers per day. For voice-over-IP ("VoIP") service providers, Intrado was the first in the nation in 1994 to make native VoIP 911 call routing possible and has led the industry since. Intrado has enhanced the provision of each aspect of 911/E911 service, maintaining a dynamic ALI database used to store subscriber information for emergency call routing to the nearest PSAP; pre-positioning the delivery of the master street address guide to be ready at the moment of a 911 call; and providing regionally distributed access points for aggregating VoIP 911 traffic into existing 911/E911 networks.

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[2] CC Docket No. 94-102, *Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems* (Notice of Proposed Rulemaking adopted Sept. 19, 1994).

In recent years, Intrado has concentrated on the development and implementation of a seamless emergency network that essentially neutralizes the distinctions between communications devices, communications protocols, and calling locations for purposes of call routing and caller location display. The resulting Intelligent Emergency Network® architecture provides the means for seamlessly integrating Internet protocol ("IP") -based voice and data information into the nation's existing 911/E911 network, which allows new applications, like texting and video to be integrated into the 911 system, addresses network congestion and disabled PSAPs through the establishment of dynamic call routing and "virtual PSAPs," facilitates ubiquitous exchange of a wide array of emergency-related data between PSAPs and emergency responders, regardless of the originating communications platform, and promotes cooperation between PSAPs and public safety agencies.[3]

As a company at the forefront of advanced 911/E911 technology, Intrado has a strong interest in the full-scale enablement of competitive emergency communications services. No less important, though, has been Intrado experience as consultant and vendor to, and observer of, the 40-year old 911/E911 system, which stands in desperate need of the vitality and innovation offered by competition if it is to meet the communications challenges of the twenty-first century.

I. THE COMPETITIVE PROVISION OF THE 911 NETWORK AND SERVICES TO PSAPS FORWARDS THE COMMISSION'S STATUTORY MANDATES TO PROMOTE SAFETY OF LIFE AND PROPERTY, COMPETITION, AND TO ADVANCE NATIONWIDE BROADBAND DEVELOPMENT

Pursuant to Section 151 of the Communications Act of 1934, as amended ("Act"), the Commission has a Congressional mandate "to promote competition and reduce regulation in order to secure lower prices and higher quality services for American telecommunications

[3] *See, e.g.*, HP Corporation, *News Release: HP and Intrado Collaborate to Deliver Safer, Faster 9-1-1* (May 4, 2005), http://www.hp.com/hpinfo/newsroom/press/2005/050504a.html ("With the Intelligent Emergency Network, public safety officials at all levels of government can cost-effectively integrate new technologies and take advantage of enhanced public safety applications. For example, a 9-1-1 caller could transmit a photo of a suspect taken with a cell phone directly to a 9-1-1 call taker. That image, along with other pertinent information, could then be instantly available to a wider set of responders and responding agencies at all levels of government, thus increasing efficiency and control in a crisis situation.").

consumers and encourage the rapid deployment of new telecommunications technologies."[4] The Commission has repeatedly relied upon a related "principle of openness" to ameliorate the stifling qualities of existing oligopolistic communications network and thereby "promote competition, protect consumers, and spur technological innovation."[5]

In the context of emergency communications, the Commission has seen fit to apply this mandate in several matters. In *Virgin Mobile USA, L.P. Petition for Forbearance from 47 U.S.C. § 214(E)(1)(A)*,[6] the Commission granted limited forbearance from facilities-based federal universal service support to Virgin Mobile, a pure wireless reseller. This exemption only encompassed Virgin's Lifeline service and was predicated upon, *inter alia*, Virgin's agreement to "provide its Lifeline customers with 911 and enhanced 911 (E911) access regardless of activation status and availability of prepaid minutes . . . [and] E911-compliant handsets and replace, at no additional charge to the customer, non-compliant handsets of existing customers who obtain Lifeline-supported service."[7] The Commission concluded "that Virgin Mobile's Lifeline offering will compete with at least one other Lifeline offering, whether from the underlying CMRS provider, if this provider is an ETC, or from the incumbent wireline carrier. *We also believe that this competition will spur innovation amongst carriers in their Lifeline offerings, expanding the choice of Lifeline products for eligible consumers*."[8] Reflecting on the consequences of granting forbearance and eliminating the facilities-based requirement, the Commission determined the conditions were necessary because it:

> has an obligation to promote 'safety of life and property' and 'to encourage and facilitate the prompt deployment throughout the United States of a seamless,

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[4] Preamble to the Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56.

[5] *Applications for Consent to the Transfer of Control of Licenses XM Satellite Radio Holdings Inc., Transferor To Sirius Satellite Radio Inc., Transferee*, 23 FCC Rcd 12348, ¶ 128 (2008); *see also, e.g., Sprint Nextel Corporation and Clearwire Corporation*, Applications for Consent to Transfer Control of Licenses, Leases, and Authorizations, 23 FCC Rcd 17570 (2008) (separate statement of Commissioner Copps).

[6] 24 FCC Rcd 3381 (2009).

[7] *Id.* at ¶ 12

[8] *Id.* at ¶ 19 (emphasis added).

> ubiquitous, and reliable end-to-end infrastructure' for public safety. The provision of 911 and E911 services is critical to our nation's ability to respond to a host of crises, and this Commission has a longstanding and continuing commitment to a nationwide communications system that promotes the safety and welfare of all Americans, including Lifeline customers.[9]

In the *E911 Scope NPRM,* the Commission questioned what, if anything, could be expected of telematics service providers in light of their burgeoning "hot button" technology.[10] One year later, the Commission "recognize[d] that telematics systems may offer location capabilities that are either equivalent, or superior, to our E911 rules that apply to licensed carriers connecting to the [public switched telephone network]."[11] One provider reported "dead reckoning, map matching, and GPS technology that is capable of providing a location to within 11 yards," while another described "GPS capabilities in cars with its units [that] exceed the Commission's E911 accuracy requirements for wireless location technologies all over the country."[12] In contrast to the heavily regulated, noncompetitive 911/E911 wireline network,[13] telematics service providers have successfully met, *sua sponte*, "the expectations of consumers, the need to strengthen Americans' ability to access public safety in times of crisis, and the . . . abilit[y] to compete in a competitive marketplace."[14] So successful were these providers that a subsequent order cited telematics to support the proposition that all "Internet-based telecommunications relay system ("TRS") provider[s] must transmit all 911 calls via the dedicated Wireline E911 Network . . . ."[15]

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[9] *Id.* at ¶ 23.

[10] *Revision of the Commission's Rules to Ensure Compatibility with Enhanced Emergency 911 Calling Systems*, Further Notice of Proposed Rulemaking, 17 FCC Rcd 25576, ¶¶ 61-64 (2002) ("E911 Scope NPRM").

[11] *Global Mobile Personal Communications by Satellite (GMPCS)*, 18 FCC Rcd 25340, ¶ 72 (2003) ("*GMPCS Report and Order*").

[12] *Id.*

[13] While traditional wireline location accuracy is excellent and in fact sets the standard for call routing and locating callers, *i.e.*, using street addresses, in virtually every other category, the wireline 911 network has fallen desperately behind in terms of features and functionality that consumers have come to expect and rely on in the use of their communications systems and devices.

[14] *GMPCS Report and Order* ¶ 3.

[15] *See Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, 23 FCC Rcd 5255, ¶ 28, n.99 (2008) ("*TRS 911 Report and Order*")

The Commission should continue down this path and use its mandate to fully endorse and frame the competitive provision of 911/E911 networks and services. Competition in the provision of the 911 network to PSAPs and other public safety agencies will demonstrably increase the effectiveness, quality, and future worth of the nation's 911/E911 service. Benefits, akin to those witnessed in the case of competitive telematics services, will accrue across communications systems and state lines. Stakeholders – including consumers, public safety agencies (state and local, whose interests and rights should not be overlooked in the analysis extending beyond interconnection between carriers, which includes broader issues of a competitive 911 marketplace), and carriers – will be best served by a seamless 911/E911 network. The overall functionality and reliability of the nation's collective 911/E911 infrastructure will improve, greatly increasing the effectiveness of emergency responders in the event of widespread catastrophe or natural disaster, not to mention in the routine of answering and responding to approximately 240 million 911 calls per year. In the process, the Commission's charge to increase competition amongst all incumbent local exchange carriers ("ILEC") dominated telecommunications services, and its concomitant mandate to develop a nationwide broadband deployment strategy, will also be furthered.

A. Public Safety Benefits

Providing the interconnection rights and protocols necessary for the implementation of competitive 911/E911 service will result in public safety benefits to consumers and public safety agencies, thereby forwarding the Commission's statutory mandate to "promot[e] safety of life and property through the use of wire and radio communications."[16]

("We expect that providers will be able to use much of the same infrastructure and technology that is already in place for the delivery of 911 calls by interconnected VoIP service providers.").

[16] 47 U.S.C. § 151. *See infra*, Section II.

Consumers – the individuals who place an emergency phone call to summon police, fire, or medical assistance – have a vital interest in the seamless and reliable operation of the 911/E911 system. As the Commission has recognized in the mobile,[17] interconnected VoIP,[18] TRS,[19] and prepaid and resold wireless service and mobile satellite service contexts,[20] 911/E911 service levels should not fall below that of wireline 911/E911 service to ensure that this objective is achieved.[21] The 911/E911 network relies almost entirely on incumbent "local" networks (terminating at the PSAP). New technologies and devices are forced to 'dumb down', or put more gently, be made backward compatible with, the current 911/E911 infrastructure. This delays the integration of more advanced technologies and, in the meantime, causes a dangerous gap between what consumers believe is operational and what is really available to them. The National Emergency Number Administration has observed that "citizens ... reasonably expect to be able to contact 9-1-1 with technologies they use to communicate every day."[22] If a telecommunications device has a numeric keypad, consumers believe that they can contact emergency authorities and receive prompt assistance. Thus, the act of "dialing 9-1-1" should

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[17] *Revision of the Commission's Rules to Ensure Compatibility with Enhanced Emergency 911 Calling Systems*, 11 FCC Rcd 18676, ¶ 158 (1996) ("*E911 First Report and Order*") ("The goal in this proceeding has been to make wireless services as comparable as possible to wireline service in E911 access"); Ensuring Needed Help Arrives Near Callers Employing 911 Act of 2004, Pub. L. No. 108-494, 118 Stat. 3986 (2004). (establishing an E-911 Implementation Coordination Office).

[18] *See, e.g., E911 Requirements for IP-Enabled Service Providers*, 20 FCC Rcd 10245, ¶¶ 36, 48 (2005) ("*VoIP E911 Order*").

[19] *See, e.g., Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, 23 FCC Rcd 11591, ¶ 1 (2008) ("*Second TRS 911 Report and Order*") (ensuring a "functional equivalency mandate" for TRS users); *TRS 911 Report and Order* ¶ 21 (adopting measures to "ensure that persons using Internet-based TRS can promptly access functionally equivalent 911 service.").

[20] *GMPCS Report and Order* ¶¶ 1-2.

[21] *TRS 911 Report and Order* ¶ 23 (recognizing the goal to have the most efficient and most reliable 911/E911 network possible regardless of the platform or technology used by the end user's service provider or the means by which the individual places the call).

[22] NENA, Next Generation Partner Program, *A Policy Maker Blueprint for Transitioning to the Next Generation 9-1-1 System: Issues and Recommendations for State and Federal Policy Makers to Enable NG9-1-1*, 2 (Sept. 2008), http://www.nena.org/sites/default/files/NG9-1-1PolicyMakerBlueprintTransitionGuide-Final_0.pdf.

bring no additional connectivity challenges and foster no additional delays simply because the communications device used to place the call is not a landline telephone.[23] Restrictions on the emergency calling capabilities of particular telecommunications services can severely compromise the public safety. Even if they are disclosed at the time of service purchase or are amenable to consumer amelioration,[24] limitations on automatic number or location functionality or delays in PSAP routing can prove life-threatening in an emergency.

As several 911/E911 observers industry watchers have noted, the existing emergency network isn't up to meeting consumer expectations. Jeff Robertson, Executive Director of the 9-1-1 Industry Alliance, observed that "[a]s more advanced wireless devices are put into use, the nation's 40-year-old 911 emergency system is becoming increasingly antiquated and unable to function properly for users of the new devices."[25] Dale Hatfield, Brad Bernthal, and Phil Weiser, who performed a comprehensive evaluation on the subject for the 9-1-1 Industry Alliance, concluded that America's "emergency communications networks" are hindered in their evolution because they "are unable to accommodate what is increasingly viewed as basic functionality inherent in many of today's advanced technologies."[26] As early as 1994, during the initial phase of E911 adoption, the Commission itself took care "that the effective operation of 911 services is not compromised by new developments in telecommunications."[27]

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[23] *See, e.g.*, *VoIP E911 Order* ¶ 23, n. 72 ("The record clearly indicates, however, that consumers expect that VoIP services that are interconnected with the PSTN will function in some ways like a 'regular telephone' service"); *TRS 911 Report and Order* ¶ 23, n.86 ("As we have stated previously, the goal of our E911 rules is to provide meaningful location information to first responders, regardless of the technology or platform employed").

[24] *See, e.g.*, 47 C.F.R. § 9.5(d)-(e) (affording interconnected VoIP service customers a means to update their "registered location" for 911/E911 location purposes in lieu of an automatic location method).

[25] W. David Gardner, *911 Services Can't Handle Advanced Wireless Devices, Services*, InformationWeek (May 7, 2008), http://www.informationweek.com/news/mobility/security/showArticle.jhtml?articleID=207600556.

[26] Dale Hatfield, Brad Bernthal, and Phil Weiser, 9-1-1 Industry Alliance, *Health of the US 9-1-1 System*, 6, http://www.911alliance.org/9IA_Health_of_US_911%20_2_.pdf.

[27] *Revision of the Commission's Rules to Ensure Compatibility with Enhanced Emergency 911 Calling Systems*, Notice of Proposed Rulemaking, 9 FCC Rcd 6170, ¶ 1 (1994) ("*E911 NPRM*").

The demands for increased 911/E911 reliability and functionality for consumers should ideally be met by PSAPs and public safety agencies. State and local governments, acting in concert with these organizations, are responsible for integrating existing emergency calling systems with emerging telecommunications services and enhanced 911/E911 technologies.[28] Yet new telecommunications and 911/E911 developments can result in daunting technical and operational challenges that require a national framework. The "emergence of IP as a means of transmitting voice and data and providing other services via wireless, cable, and wireline infrastructure," for example, "has significant implications for meeting the nation's critical infrastructure and 911 communications needs."[29]

The competitive provision of 911/E911 network and services, especially those based on IP technology, promise to bridge the gap between wireline, wireless and Internet-based telecommunications, and offer specialized solutions to specific technical needs. Instead of forcing states to build around an antiquated ILEC wireline network, these competitive services, while able to interoperate with the ILEC network, can offer specific improvements to deficiencies in a public safety agency's emergency response protocols, affording PSAPs enhanced call routing, database management, and automatic location services to improve the speed and accuracy of the agency's emergency response teams. Temporary fixes for current technological limitations, such as the "last known cell" for roaming mobile telephone customers,[30] should not be viewed as an acceptable solution and can be permanently addressed with "real time" location and number identification capabilities. Instant collaboration between emergency responders, public safety agencies, and callers is possible with the seamless exchange of voice, text, or IP-originated information. By providing 911 call completion services to enterprise customers, competitive 911/E911 service providers put public safety organizations in

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[28] *See VoIP E911 Order* ¶ 7; H. R. Rep. No. 106-25, 7-8 (1999).

[29] *VoIP E911 Order* ¶ 10.

[30] *See, e.g., Implementation of the NET 911 Improvement Act of 2008*, 23 FCC Rcd 15884 (2008) (statement of Chairman Kevin J. Martin).

direct touch with consumers despite the presence of an intermediary telecommunications service.[31] In short, competitive 911 services provide a cost-effective, technologically progressive method of addressing the "new communications technologies [that] have posed technical and operational challenges to the 911 system" and meets the Commission's goal of "adopt[ing] a uniform national approach to ensure that the quality and reliability of 911 service is not damaged by the introduction of such communications technologies."[32]

Collaborations between competitive service providers and public safety agencies have already achieved demonstrable technological gains for consumers. For example, on June 9, 2009, for the first time in the nation's history, Intrado initiated the first test of its text-to-911 solution, sending to Black Hawk County's new PSAP a text message through the native 911 network (and not utilizing an intermediary service). Formal activation of this service, which is planned for July 2009, is the direct result of cooperation between Intrado, i Wireless (a partnership between T-Mobile USA and Iowa Network Services), and RACOM Corporation.[33] One month earlier, the GM Corporation's OnStar service announced a nationwide partnership with Poison Control, affording their subscribers "the added peace of mind that Poison Control is just a button press away should they encounter any type of poisoning situation in their vehicle."[34]

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[31] As Colin Whitmore, emergency management consultant and EMS Commander for the Virginia Tech Rescue Squad on April 16, 2007, noted, "There's little reason, two years after the Virginia Tech tragedy, for any college or university to be excluded from a community's preparedness efforts. We must all equally share the responsibility of protecting and preparing the higher-education community through inclusion and open lines of communication. After all, that's what coordinated preparedness is all about." Colin Whitmore, *Are Students Lulled Into a False Sense of Security with Messaging Systems?*, Government Technology, 3 (Mar. 20, 2009), http://www.govtech.com/gt/625778?id=625778&full=1&story_pg=1.

[32] *VoIP E911 Order* ¶ 8.

[33] *See* Fox Business, *Iowa 9-1-1 Call Center First in Nation to Successfully Trial 9-1-1 Text Messaging*,http://www.foxbusiness.com/story/markets/industries/health-care/iowa----center-nation-successfully-trial----text-messaging/ (June 9, 2009)*;* Luke Meredith, *Northeast Iowa county set to receive 911 texts*, Chi. Trib. (June 10, 2009), http://archives.chicagotribune.com/2009/jun/10/health/chi-ap-ia-emergencytexting.

[34] GM Corporation, *OnStar to Partner with Poison Control*, GM Corporate Information - Safety Initiatives News (Mar. 19, 2009),

Recent tragedies like the April 16, 2007 Virginia Tech and February 14, 2008 Northern Illinois University shootings have emphasized the need for seamless communications to and among emergency responders according to consumer expectations.[35] Drastic state budget cuts for emergency preparedness have minimized the possibility that any improvement can be produced within the confines of the existing 911/E911 system - as a recent *Urgent Communications* article observed, "the states of Oregon, Hawaii and Delaware have taken millions of dollars collected as 911 fees and transferred it to their general funds, and several other states have considered taking similar action," eviscerating federal support for 911 grant programs and leaving Phase II upgrades for PSAPs uncompleted.[36] Competitive 911/E911 service offers the only means of advancing the Commission's statutory duty to promote the safety of life and property in a timely, sound, and comprehensive fashion.

B. Network Reliability Benefits

The terrorist attacks of September 11, 2001 and the destruction wrought by Hurricane Katrina in 2005 reminded the country of its dependence on a survivable emergency calling network to coordinate the efforts of numerous emergency responders. Yet even in the narrower context of a heart attack, house fire, or convenience store robbery, an inefficient or antiquated 911/E911 system can have devastating consequences. The redundant and robust construction and advanced network architecture of competitive 911/E911 services will do much to strengthen the quality and consistency of the country's emergency response efforts, enhancing public safety on a local, regional, and nationwide level according to the Commission's concomitant mandate.

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http://www.gm.com/corporate/responsibility/safety/news/2009/poison_031609.jsp.

[35] *See* Gardner, *supra*, n. 26 ("Robertson noted that it's difficult and often impossible to send text from cell phones and make it understandable at 911 centers. The problem surfaced in painful reality in the recent tragic Virginia Tech shootings. 'Many students expected that they could text message the 911 dispatch center with vital information, only to find out that the 911 network does not support text messaging, photos, or multimedia messages'").

[36] Donny Jackson, *Funds for 911 must be protected*, Urgent Communications (May 28, 2009), http://urgentcomm.com/policy_and_law/commentary/911-funds-protection-20090528/?dsq=10428769#comment-10428769.

The existing 911/E911 system is limited in size by the geographical operating area occupied by the responsible ILEC, and in scope by the technology, funding, and capacity that the specific ILEC sees fit to allocate. In contrast, a fully competitive 911/E911 market can operate without these artificial limitations and can augment existing 911/E911 systems. Competition in the provision of the 911 network to PSAPs and other public safety agencies will increase the number of connections among and between PSAPs, including those which, today, operate in separate ILEC regions. This adds to the redundancy of the nation's 911/E911 network as a whole, a vital quality for addressing systemic challenges and an important component of the Commission's charge. Outages – due to endemic network-wide failures or as byproduct of attempting to repair unrelated system problems – can isolate individual PSAPs.[37] This in turn can lead to a flood of traffic in other working PSAPs, increasing the chances of a tardy or erroneous deployment of emergency responders far distant from the actual emergency. Each diverse PSAP connection adds another layer of defense against this outcome, addressing the Commission's long-standing interest in diagnosing and preventing 911/E911 outages in wireline[38] and emerging[39] telecommunications systems. It also diminishes the possibility of

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[37] *See, e.g.*, Ernesto Londoño, *Backup System Failed During Weekend 911 Disruption*, Wash. Post (Dec. 18, 2007), http://www.washingtonpost.com/wpdyn/content/article/2007/12/17/AR2007121701765.html (describing a three-hour PSAP failure due to phone service outage and backup system malfunction, which resulted in fire damage to a consumer's home).

[38] *See, e.g.*, Network Reliability and Interoperability Council, *U.S. Telecommunications Industry Nears Year 2000 Readiness*, 1999 WL 547450 (July 23, 1999) (assessing telecommunications network outages and PSAP readiness in light of Y2K concerns); *Amendment of Part 63 of the Commission's Rules to Provide for Notification by Common Carriers of Service Disruptions*, 10 FCC Rcd 11764, ¶ 21 (1995) (911 outage reporting requirements instituted because "these increasingly complex and concentrated [E911 PSAP] systems justified federal interest in discovering any common threats to their reliability.").

[39] *See, e.g.*, *Federal Communications Commission Releases Agenda for Summit on Deployment and Operational Guidelines for Next Generation IP-Enabled 911 and E911 Services*, 2009 WL 368557 (Feb. 12, 2009) (evaluating development of standard for "call-handling in the event of call overflow or network outages"); *New Part 4 Of The Commission's Rules Concerning Disruptions To Communications*, 19 FCC Rcd 3373, ¶ 25 (2004) (applying service and call identification outage reporting requirements in "anticipat[ion] that the public safety community and 911-type services will also evolve to utilize new technologies, services, and platforms . . . to all communications providers for which we are proposing general outage-reporting requirements.").

911/E911 vulnerability to telecommunications sabotage, a growing threat to otherwise highly survivable fiber optic networks.[40]

IP redundancy and diversity also permits emergency calls to be alternatively routed in the event of communication failure as well as quickly transferred between PSAPs that, due to restrictions inherent in legacy switches, may otherwise be limited in their ability to transfer 911 calls to the appropriate PSAP. Given the Commission's emphasis on foregoing intermediaries to provide a direct link between a consumer and the relevant PSAP,[41] competitive 911/E911 services wholly compatible with the legacy wireline 911/E911 system architecture are vital, if calls are to be rapidly and seamlessly rerouted or transferred in times of network distress. Properly interconnected competitive 911/E911 services could provide the interoperability and PSAP rerouting unavailable in the Hurricane Katrina crisis, ensuring that emergency calls are properly received and answered even in the midst of a compromised telecommunications network. For example, during Hurricane Katrina:

> thirty-eight 911 call centers ceased to function. Limited training and advanced planning on how to handle rerouting of emergency calls under this situation created serious problems. As an example, the City of Biloxi was able to relocate their 911 call center prior to landfall; however, representatives relocated to the facility did not have full 911 capabilities. This severely hampered their ability to effectively route 911 calls to the appropriate agencies. The Katrina experience identified that there appeared to be a lack of 911 PSAP failovers and some deficits in training on routing and handling of calls when a crisis and rerouting occurs. . . . According to FCC data, more than 3 million customer phone lines were knocked out in the Louisiana, Mississippi and Alabama area following Hurricane Katrina. The wireline telephone network sustained significant damage both to the switching centers that route calls and to the lines used to connect buildings and customers to the network. Katrina highlighted the dependence on tandems and tandem access to SS7 switches. The high volume routes from tandem switches, especially in and around New Orleans were especially critical and vulnerable. Katrina highlighted the need for diversity of call routing and avoiding strict

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[40] *See* Mark Gomez, Ken McLaughlin & Julia Prodis Sulek, *San Jose police: Sabotage caused phone outage in Santa Clara, Santa Cruz counties*, San Jose Mercury (Apr. 9, 2009), http://www.mercurynews.com/ci_12106300.

[41] *See, e.g., TRS 911 Report and Order* ¶ 14 (establishing location identification requirements in the case of TRS emergency calls constitutes " a unique challenge" due to the necessary presence of a communications assistant).

> reliance upon a single routing solution. One tandem switch, which was critical for 911 call routing, was lost from September 4 to September 21.[42]

If competitive 911/E911 services like the Intrado Intelligent Emergency Network® architecture are directly interconnected with the legacy wireline 911/E911 network, an alternative pathway for emergency calls is available. Nonfunctional or technically deficient PSAPs (such as those only partially compliant with the Commission's Phase II E911 standards) might be bypassed; overburdened PSAPs might temporarily enlist the assistance of other call centers to coordinate a joint response to an influx of aid requests. IP-based competitive 911/E911 services can, by virtue of their construction, leverage their near-immunity to wireline switch overloads and outages that can critically suspend the functionality of the traditional 911/E911 network. IP technology also permits the rapid deployment of "virtual PSAPs," in which calling centers are established (and calls routed on a real-time basis) at any broadband-equipped location where qualified public safety authorities have congregated. This technology encourages emergency communication coordination and forwarding on a platform-independent basis, thereby increasing consumers' chances of reaching a PSAP even if mobile and wireline voice communications are impossible.[43] Instead of a one-to-one serial connection – a landline telephone call over a single wireline system to an isolated PSAP – competitive 911/E911 services offer the possibility of parallel connections, where a variety of telecommunications devices transmit calls over a redundant network to the appropriate PSAPs or temporary call centers, which may pool resources and distribute call load as circumstances warrant.

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[42] *Recommendations of the Independent Panel Reviewing the Impact of Hurricane Katrina on Communications Networks*, Notice of Proposed Rulemaking, 21 FCC Rcd 7320 ("*Katrina NPRM*") (citing attached Independent Panel Reviewing the Impact of Hurricane Katrina on Communications Networks, *Independent Panel Reviewing the Impact of Hurricane Katrina on Communications Networks, Report and Recommendations to the Federal Communications Commission*, 71 Fed. Reg. 38578-79) (Jul. 7, 2006)).

[43] *Recommendations of the Independent Panel Reviewing the Impact of Hurricane Katrina on Communications Networks*, 22 FCC Rcd 10541, ¶¶ 11, 13 (2007) ("*Katrina Order*") (describing "the Katrina Panel's recommendation that we act to enhance the public safety community's awareness of non-traditional emergency alternative technologies that might be of value as back-up communications systems in a crisis" and "agree[ing] that improving the public safety community's knowledge of, and training in, alternative technologies would improve preparedness for future crises . . . including two-way paging, satellite, IP-based systems, WiFi and WiMAX.").

Competitive 911/E911 services will advance the Commission's goals of enhancing public safety in times when the nation's emergency response capabilities are subjected to extreme stress. The redundant quality of these services, coupled with the amenability of their IP-based architecture to interface with a wide variety of communication devices, meets the two "reliability and resiliency" best practices identified by the Hurricane Katrina Panel (with the aim of ensuring "a more robust 911 and E911 service") and subsequently flagged by the Commission for proactive implementation.[44] Competitive 911/E911 services, by their very nature, answer the call for "placing and maintaining 911 circuits over diverse interoffice transport facilities (*e.g.*, geographically diverse facility routes, automatically invoked standby routing, diverse digital cross-connect system services, self-healing fiber ring topologies, or any combination thereof)."[45] Diverse connection and routing pathways to PSAPs afford "[n]etwork operators, service providers, equipment suppliers and public safety authorities . . . alternative methods of communication for critical personnel."[46]

In the *Katrina Order*, the Commission expressed its intent to ensure that, "immediately following any large disaster, there is an efficient means by which federal, state and local officials can identify and locate private sector communications assets that can be made rapidly available to first responders and relief organizations."[47] If the Commission endorses and enables meaningful competitive 911/E911 services, these officials can be certain that key private communications assets meeting this goal will be available tomorrow, and may adjust their disaster planning measures accordingly.

C. Benefits to Competition and Broadband Development

Competitive 911/E911 systems rooted in IP-based technology, such as those offered by Intrado, can utilize the inherent flexibility of the underlying transmission method to offer a

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44 *Id.* at ¶ 74; *Katrina NPRM* ¶ 16.

45 *Katrina Order* ¶ 74.

46 *Id.*

47 *Id.* at ¶ 61.

variety of customizable emergency calling solutions for PSAPs, wireline and wireless carriers, other service providers, and enterprise customers. The sophistication and breadth of these solutions sharply contrast with the typical "one-size-fits-all" emergency services offered by antiquated ILEC systems, affording a true competitive choice for the first time in the forty-year history of 911 services. 911/E911 service will no longer be fractured according to artificial local access and transport boundaries, but can exist on a national level, offering tailored service to particular locales according to real-world geographic concerns. The widespread deployment of technologically sophisticated competitive 911/E911 services, seamlessly integrated, can accomplish these goals, and in the process of doing so, advance the Commission's strong interest in creating a national broadband deployment strategy.

The deployment of competitive 911/E911 systems will introduce consumer choice into one of the few remaining ILEC-dominated telecommunications services. In *Policy and Rules Concerning the Interstate, Interexchange Marketplace*, the Commission explained that its "policy of complete detariffing," in keeping with "pro-competitive, deregulatory objectives of the 1996 Act," would ensure that "carriers in the interstate, domestic, interexchange marketplace will be subject to the same incentives and rewards that firms in other markets confront."[48] So strong was this objective, and so manifest the benefits, that the Commission sought "ultimately to accomplish the same result in every telecommunications market, because we believe that effectively competitive markets produce maximum benefits for consumers, carriers, and the nation's economy."[49] Endorsing and enabling competitive 911/E911 service will introduce these benefits to one of the last remaining closed, ILEC-controlled telecommunications markets. The Commission will be one step closer to completing a process that dates back to 1979 - that of

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[48] 11 FCC Rcd 20730, ¶ 4 (1996).

[49] *Id.*

"deregulat[ion] so far as possible consistent with the public interest in the emerging competitive telecommunications market."[50]

Additional salutary effects will flow from this decision. "As competition develops," the Commission will be able to dispense "from adopting prescriptive regulations to relying on market forces to promote the public interest."[51] As witnessed in the case of telematics, competition will likely spur the development of emergency communications technology so sophisticated and accurate as to outdistance the Commission's rulemaking process. Technological innovation in the competitive 911/E911 market may also provide the building blocks for growth in other industries, an important economic goal for the incoming National Telecommunications and Information Administration ("NTIA") leadership.[52] The Commission will also be acting in accord with its highly effective *laissez-faire* approach to Internet regulation with respect to those competitive 911/E911 services based on IP technology.[53]

IP's integral role in evolving 911/E911 services means that the FCC's decision to open the emergency communications market will advance the goals of broadband deployment, and the creation of a national broadband strategy, shared by Congress, the White House, and the Commission.[54] In 2008, Congress passed the New and Emerging Technologies 911

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[50] *Policy and Rules concerning rates for competitive common carrier services and facilities authorizations therefor*, Notice of Inquiry and Proposed Rulemaking, *77* F.C.C.2d 308, ¶ 2 (1979).

[51] *Review of Regulatory Requirements for Incumbent LEC Broadband Telecommunications Services*, Notice of Proposed Rulemaking, 16 FCC Rcd 22745, ¶ 17, n. 38 (2001).

[52] *See, e.g.*, Telecommunications Reports, *Strickling, Chopra Pledge To Boost Broadband At Confirmation Hearing*, TR Daily (May 19, 2009), http://www.tr.com/online/trd/2009/td051909/index.htm (summarizing NTIA nominee Lawrence Strickling's intent to increase the competitiveness of all American businesses by providing capital to "incumbents and entrepreneurs" for "growth and innovation" in communications).

[53] *See, e.g.*, 47 U.S.C. § 230(b)(2) ("It is the policy of the United States . . . to preserve the vibrant and competitive free market that presently exists for the Internet and other interactive computer services, unfettered by Federal or State regulation").

[54] *See, e.g.*, Telecommunications Reports, *supra*, n. 53 (announcing White House Office of Science and Technology Policy nominee Aneesh Chopra's intent to "make 'broadband more abundant.'"); American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, 419-420, 123 Stat. 115, 512-513 (2009) (instructing the Assistant Secretary of Commerce for Communications and Information and FCC to develop a national broadband access improvement and demand stimulation plan).

Improvement Act of 2008 ("NET911 Act"),[55] intending to bring about "the next step in th[e] evolution" of the 911/E911 system by "transition[ing] . . . the 911 infrastructure to an IP-enabled system . . . [that] allows for greater flexibility in the types and amount of information that may be transmitted and shared by emergency service providers."[56] The Commission's subsequent public inquiry, *A National Broadband Plan for Our Future*, reflected on "[w]hat broadband policies would best promote the deployment of next generation 911 (NG 911) networks, including emergency services IP networks."[57] Opening 911/E911 service to competition meets these objectives, permitting the immediate deployment of a highly advanced, IP-enabled emergency communications network that can meet the needs of all extant telecommunications service providers.

As the Commission noted in its *VoIP E911 Order*, interconnected IP voice providers are free to take advantage of "off-the-shelf" solutions to achieve the Commission's E911 service implementation standards. IP-based competitive 911/E911 services will provide more choices for prospective broadband service providers, lowering compliance costs for and increasing consumer confidence in burgeoning VoIP services. Rather than simply providing a selection of existing 911/E911 services designed for other calling platforms and requiring integration, the Commission has the opportunity to permit broadband providers access to highly tailored, eminently compatible emergency calling service, thereby increasing the speed and frequency of deployment.[58] As existing wireline and mobile providers demand similar quality of emergency service, an IP-based 911/E911 system will further increase the nation's routine use of broadband technology. No less important is PSAP adoption of IP-enabled competitive 911/E911 services,

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55 Pub. L. No. 110-283, 122 Stat. 2620 (2008).

56 H.R. Rep. 110-442, 8 (2008), *reprinted in* 2008 U.S.S.C.A.N. 1011, 1013.

57 *A National Broadband Plan For Our Future*, GN Docket No. 09-51, Notice of Inquiry, FCC 09-31, ¶ 75 (rel. Apr. 8, 2009).

58 *VoIP E911 Order* ¶ 31 (noting that "the uniform availability of E911 services may spur consumer demand for interconnected VoIP services, in turn driving demand for broadband connections, and consequently encouraging more broadband investment and deployment . . . .").

which will necessarily "improve access to, and use of, broadband service by public safety agencies" and thereby meet another Congressional imperative in the process.[59]

As the nation completes its transition toward a truly competitive telecommunications market, driven in large part by the utility and flexibility of IP technology, its 911/E911 system must also evolve. The Commission should cast off the last vestiges of the ILEC-dominated, LATA-defined emergency communications system and, in accordance with its broadband mandate, fully unleash the potential of IP-based competitive 911/E911 services.

II. THE FCC's EXTENSIVE STATUTORY AUTHORITY AND WELL-ESTABLISHED PRECEDENT SUPPORT THE FURTHER DEVELOPMENT OF THE FEDERAL FRAMEWORK TO ENSURE ADEQUATE FACILITIES FOR THE PURPOSE OF PROMOTING SAFETY OF LIFE AND PROPERTY

The Commission's jurisdiction over 911/E911 service springs from its mandate in Section 151 of the Act to utilize the nation's wire and radio infrastructure to promote the safety of life and property. The unique public safety concerns of 911 service, and its "virtually ubiquitous and . . . long-standing nationwide status as the wireline national code for quick and easy access to emergency services," have fostered additional statutory interpretations to ensure its extension to evolving telecommunications technologies.[60] This vast panoply of authority likewise embraces the development of competitive 911/E911 services, which will themselves offer a new and comprehensive approach towards evolving telecommunications technologies.[61]

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[59] Pub. L. 111-5, 420, 123 Stat. 115, 513 (2009); *see also A National Broadband Plan for Our Future* ¶ 75 (questioning how a "[next generation] 911 migration plan [might] assist with ensuring access to broadband service by public safety answering points (PSAPs) and establishing appropriate benchmarks").

[60] *Implementation of 911 Act; The Use of N11 Codes and Other Abbreviated Dialing Arrangements*, 15 FCC Rcd 17079, ¶ 9 (2000).

[61] Just as the Commission has used these sources of authority to implement various intermediary technical standards on telecommunications carriers to meet its goals (e.g., the Phase II E911 requirements on wireline and mobile carriers), so too will the Commission be able to effectuate all technical arrangements in support of meaningful 911/E911 competition, such as the promulgation of necessary interconnection and peering arrangements between ILECs and competitive 911/E911 service providers.

AT&T first allocated wireline emergency access via the digits "9-1-1" in 1968, the telephonic code that would ultimately function as "a single, nationally used three-digit number that is easy to remember and dial in emergency situations."[62] Routing emergency telephone calls to PSAPs "over dedicated telephone lines," the 911 system was designed to ensure that emergency calls "are recognized and answered as emergency calls by professionals trained to assist callers in need of emergency assistance."[63] As early as 1968, FCC Defense Commissioner Lee Loevinger recognized the challenges of implementing a "simple universal telephone number to summon aid."[64] Loevinger cited "[f]ormidable difficulties" in implementation "arising in part out of the size and complexity of the United States," such as "the fact that political boundaries within which emergency agencies are organized do not correspond to boundaries of the telephone exchanges."[65] He also reflected on the mutability of the system according to technological advancement, given "that there may very well be better systems developed in the future, and new techniques and new equipment may permit means of employing the telephone which are not now practical . . . ."[66] These same geographic concerns and technological advancement considerations are directly relevant to the competitive provision of 911/E911 services to PSAPs today. Only through a nationwide emergency communications service market can these forty year-old stumbling blocks finally be overcome.

The development of E911 technology in the early 1990s led the Commission to declare its intent "to ensure broad availability of 911 and enhanced 911 services to users of the PSTN whose health and safety may depend on 911 emergency services systems"[67] by way of Section

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62 *E911 NPRM* ¶¶ 3-4.

63 *Id.* at ¶ 4.

64 Lee Loevinger, *The Universal Emergency Service Number - The Problems and Some Answers -*, Lee Loevinger Correspondence (Feb. 27, 1968), http://www.911dispatch.com/911/history/loevinger_letter1.html.

65 *Id.*

66 *Id.*

67 *E911 NPRM,* ¶ 1.

151.[68] The Commission relied upon this mandate to insist upon equivalency between wireline E911 offerings and those of other telecommunications services[69] including, most recently, those of emerging Internet-based technologies, pursuant to the finding that "regardless of the regulatory classification, the Commission has ancillary jurisdiction to promote public safety by adopting E911 rules for interconnected VoIP services."[70] The Commission has determined that both the technological basis and broad mandate of Section 151[71] support the "adopt[ion] [of] an immediate E911 solution that applies to all interconnected VoIP services" that "most appropriately discharges the Commission's statutory obligation to promote an effective nationwide 911/E911 emergency access system,"[72] a finding that has been upheld against charges of high implementation cost or impracticability.[73] The Commission has clearly held that the need for a resilient, reliable, and uniform emergency calling system, per the demands of public safety, places equal demands on all carriers, despite differences in incumbency status or telecommunications service technology.[74]

A key piece of Congressional legislation recognized the Commission's preeminent role in promoting a unified, technologically progressive emergency calling system. The Wireless Communications and Public Safety Act of 1999 ("911 Act")[75] explicitly designated 9-1-1 as the "universal emergency telephone number"[76] through the Commission's plenary numbering authority.[77] Drawing upon the Commission's long-standing "commitment to the rapid

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68 47 U.S.C. § 151.

69 *See E911 First Report and Order* ¶¶ 8, 158; *GMPCS Report and Order* ¶¶ 12-13.

70 *VoIP E911 Order* ¶ 26.

71 *See Id.* at ¶¶ 28-29.

72 *Id.* at ¶ 36.

73 *See Nuvio Corp. v. F.C.C.*, 473 F.3d 302, 307-08 (C.A.D.C. 2006) (citing Commission's judgment of "the threat to public safety" as a countervailing response to economic concerns).

74 *See Katrina Order* ¶ 96.

75 Pub. L. No. 106-81, 113 Stat. 1286 (1999).

76 *See* 47 U.S.C. § 251(e)(3).

77 47 U.S.C. § 251(e)(1) (affording the Commission "exclusive jurisdiction over those portions of

implementation of the technologies needed to bring emergency assistance to wireless callers throughout the United States"[78] – evidenced by an emphasis on promulgating "rules ... intended to be technology-neutral" and to "encourage the most efficient and effective technologies to report the location of wireless handsets, the most important E911 feature both for those seeking help in emergencies and for the public safety organizations that respond to emergency calls"[79] – the 911 Act directed the establishment of a "seamless, ubiquitous, and reliable end-to-end infrastructure for communications, including wireless communications, to meet the Nation's public safety and other communications needs."[80] The House Report[81] elaborated on these Congressional goals, stressing the need for federal leadership in encouraging technological innovation amongst the states:

> One section of the legislation directs the FCC to play a much more assertive role in encouraging and assisting the States to deploy these advanced safety systems. . . . There is a wide variation in State and local emergency communications systems in the United States. . . . The purpose of the legislation is to encourage investment in emergency communications systems and other public safety initiatives, so that emergency organizations of States and localities are equipped with 21st Century technology to address the public safety challenges they currently face. . . . [T]he legislation is intended to encourage the Commission and the States to develop and implement coordinated State plans to upgrade 911 systems - and to do so with all the affected parties involved in the process. The physics and market structure of commercial wireless telecommunications, and the nature of emergency medical services mean, as a practical matter, that the end-to-end emergency communications systems contemplated by the legislation cannot be entirely developed in many or most cases on a city by city, or county by county basis, although local government will play a central planning and implementation role.

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the North American Numbering Plan that pertain to the United States"); *see also Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, 11 FCC Rcd 19392, ¶ 268 (1996) (intervening history omitted), *aff'd in part, rev'd in part, Verizon Communications, Inc. v. F.C.C.*, 535 U.S. 467 (2002) ("By retaining authority to set broad policy on numbering administration matters, we preserve our ability to act flexibly and expeditiously on broad policy issues and to resolve any dispute related to numbering administration pursuant to the 1996 Act."); *Administration of the North American Numbering Plan*, 78 Rad. Reg. 2d (P & F) 821, ¶ 1 (1995).

[78] *E911 First Report and Order* ¶ 6.

[79] *Revision of the Commission's Rules to Ensure Compatibility with Enhanced Emergency 911 Calling Systems*, 12 FCC Rcd 22665, ¶ 5 (1997).

[80] Pub. L. No. 106-81, 2, 113 Stat. 1286, 1287.

[81] H. R. Rep. No. 106-25, 8.

The related *Implementation of 911 Act* relied heavily on the Commission's plenary numbering authority to ensure 911 functionality and reliability in accordance with the 911 Act, such as "implement[ing] a permissive dialing period, during which emergency calls will be routed to the appropriate emergency response point using either 911 or the seven- or ten-digit number to allow time for the education of consumers as to the transition to the use of 911."[82] To maintain "consisten[cy] with the purpose of the 911 Act," the Order required 911 calls to "be routed to an 'appropriate authority.'. . . if there is no statewide default answering point as of the release date of this Order, carriers shall begin delivering 911 calls to an appropriate local emergency authority, for example, the existing local law enforcement authority."[83]

The Commission subsequently utilized the 911 Act as the basis for requiring several disparate technologies, including mobile satellite systems and resold and prepaid wireless services, to provide enhanced 911 services.[84] It also extended its plenary numbering authority to interconnected Internet-based TRS systems[85] and interconnected VoIP services, affirming "[t]he Commission's authority to require network changes to provide the E911 features that have long been central to the nation's 911 infrastructure."[86]

Each of these sources of authority – the fundamental mandate to promote public safety through wired and wireless technologies, the expansive plenary numbering authority, and the repeated statutory instructions to promote and oversee a unified, technologically-progressive enhanced 911 network – afford the Commission substantial latitude in shaping the next-generation 911/E911 system. Exercised in concert with the Commission's statutory

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82 *Implementation of the 911 Act The Use of N11 Codes and Other Abbreviated Dialing Arrangements,* 16 FCC Rcd 22264, ¶ 16 (2001).

83 *Id.* at ¶ 25.

84 *GMPCS Report and Order* ¶¶ 2, 13.

85 *Second TRS 911 Report and Order* ¶¶ 21-22 ("The record reflects a general consensus that Internet-based forms of TRS should have a uniform numbering system to facilitate interoperability between deaf and hearing users and to support comprehensive E911 service.").

86 *VoIP E911 Order* ¶ 33, 35.

responsibility to promote "enhanced competition in all telecommunications markets, by allowing all providers to enter all markets,"[87] the Commission has the ability to eliminate today's inconsistent, state-by-state classification of 911 services by designating a fully competitive nationwide emergency communications market. Instead of a deductive approach to technological challenges - designating specific standards for integrating emerging telecommunications services with wireline 911/E911 networks - the Commission has the ability to take an inductive approach, removing barriers to an open, nationwide market, and enabling competitive forces to meet specific service demands.

Two additional sources of authority, predicated on the competitive and broadband deployment goals discussed in the preceding section, are directly applicable to the development of IP-based competitive 911/E911 services. Section 230 of the Act provides "[i]t is the policy of the United States to preserve the vibrant and competitive free market that presently exists for the Internet and other interactive computer services, unfettered by Federal or State regulation."[88] Section 706(a) directs the Commission to encourage the deployment of "advanced telecommunications capability to all Americans" by using measures that "promote competition in the local telecommunications market" and remove "barriers to infrastructure investment" in developing new technologies and services for public use.[89] Fully endorsing and enabling IP-based competitive 911/E911 services fulfills both of these statutory duties.

CONCLUSION

In its 2005 *VoIP E911 Order*, the Commission observed that "the American public has developed certain expectations with respect to the availability of 911 and E911 emergency

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[87] *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996; Interconnection between Local Exchange Carriers and Commercial Mobile Radio Service Providers*, 11 FCC Rcd 15499, ¶ 4 (1996) (intervening history omitted), *aff'd in part, rev'd in part, AT&T Corp. v. Iowa Utils. Bd.*, 525 U.S. 366 (1999).

[88] 47 U.S.C. § 230(b)(2).

[89] *See A National Broadband Plan For Our Future* ¶ 110; *Appropriate Regulatory Treatment For Broadband Access To The Internet Over Wireless Networks*, 22 FCC Rcd 5901, ¶ 27 (2007).

services . . . ."[90] As communications technology has advanced, so have these expectations, to the point where the nation's citizenry can no longer be tolerant of a myriad of half-functional emergency calling options for their mobile or IP-based telecommunications devices. Nor can public safety agencies, witnessing the efficacy and utility of global information exchange in the private sector, easily restrict themselves to the few routing options offered by ILEC controlled 911/E911 systems. Competition - that driver of innovation and growth in the interexchange industry since 1996 - is the only means by which emergency communication services can effectively catch up, and the needs and desires of all stakeholders be fulfilled.

[90] *VoIP E911 Order,* ¶ 6.

The Commission has paid witness to the value of competition in the telematics and Lifeline contexts. In addition to opening one of the last ILEC-dominated telecommunications services to competition, enabling competitive 911/E911 service will secure benefits both immediate (increased public safety and network reliability) and long-term (increased deployment of broadband and consequential benefits to IP-based service providers) that will flow from a seamless and ubiquitous nationwide 911/E911 infrastructure. It is now incumbent upon the Commission to use its considerable authority, as advocate for competition, overseer of the nation's emergency communications system, and architect of the nation's next-generation broadband network, to remove those last remaining barriers hindering competitive 911/E911 service.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I, Matthew L. Conaty, certify that on this 6th day of July 2009, I served a copy of the foregoing Comments of Intrado Inc. and Intrado Communications of Virginia Inc. on the following via the method indicated:

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