

**Before the
Federal Communications Commission
Washington, DC 20554**

In the Matter of)	
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911 Governance and Accountability)	PS Docket No. 14-193
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Improving 911 Reliability)	PS Docket No. 13-75
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To: The Commission

**REPLY COMMENTS OF
THE BOULDER REGIONAL EMERGENCY TELEPHONE SERVICE AUTHORITY
ON POLICY STATEMENT AND NOTICE OF PROPOSED RULEMAKING**

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Summary

As widely agreed by the commenters herein, 9-1-1 calls are intrastate calls, based upon the fact that they originate and terminate within the same state. They are thus subject to state jurisdiction.

Contrary to the arguments of Intrado, regulation of 9-1-1 service, including traditional cost-based tariff regulation, is appropriate. 9-1-1 service continues to have many of the indicia of a natural monopoly, and additional characteristics which make such regulation appropriate. In addition, competition in a market typified by a relatively small number of customers for a mission critical service, each located in a separate jurisdiction, would make competitive provision of the service inefficient and increase overall costs of service. Competition will not increase volumes of calls over which to spread fixed costs, or otherwise result in efficiencies to offset the increased costs.

Consolidation of PSAPs as suggested by the Competitive Carrier Association may improve the reliability and performance of the 9-1-1 system in the abstract; but it will interfere with the effective provision of emergency response. Operation of the 9-1-1 system is not an end in itself, but is to support public safety.

TracFone tries to bootstrap into this docket its Emergency Petition for Declaratory Ruling and its supplemental Petition for Rulemaking in WC Docket No. 11-42. TracFone's comments are outside the scope of this proceeding.

Other commenters have recommended that a mechanism be developed for the expeditious delivery to PSAPs of the telephone numbers of people who tried but were unable to reach a PSAP during 9-1-1 service disruption, and that the states be provided direct access to the

Commission's Network Outage Reporting System and Disaster Information Reporting System. The Commission should address these requirements.

Finally, 9-1-1 service has a limited customer base and limited margins; while a mission critical service benefitting from the economies of scale and resources of dominant LECs in the provision of the service. A careful balance must be struck between enforcement of regulations, and avoiding making the service uneconomic. The states are in the best position to strike this balance.

The Commission should terminate this proceeding without adopting the proposed rules, and confirm that the states have jurisdiction over 9-1-1 calls. This will enable the states to adopt and enforce regulations appropriate to their requirements.

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The Boulder Emergency Telephone Service Authority (“BRETSA”), by its attorney, hereby submits its Reply Comments on the Commission’s November 21, 2014 Policy Statement and Notice of Proposed Rulemaking in the above-captioned proceeding (“NPRM”).

I. Oversight of 9-1-1 Falls Within State Jurisdiction.

BRETSA is pleased with the broad agreement that oversight of 9-1-1 falls within the jurisdiction of the States (and/or the proposed rules exceed the Commission’s authority).¹

¹ See Alaska Rural Coalition Comments, at 2 (“The ARC supports a policy of deferring most regulatory oversight of 911 reliability to the state commission,”), ATIS Comments, at 4 (“Some ATIS NRSC members will be commenting on the Commission’s lack of authority with regard to the proposed rules, and ATIS shares their concerns....”), AT&T Comments at 4, 8 (“Most of the grounds for legal authority cited by the Commission...are clearly not applicable and provide the Commission with no legal basis for the usurpation of local authority.” “the Commission fails to make the case that existing mechanisms—i.e., state laws and local contracts between PSAPs and the 911 system service provider—cannot adequately address the concerns raised in the Notice.”) California PUC Comments, at 2 (“the FCC must not usurp state and local governance of this vital issue.”), CTIA Comments, at , fn. 30 at 12 (The Commission also should avoid actions that might inhibit the ability of state and local authorities to manage 9-1-1 services efficiently and effectively....”), iCert Comments, at 5-7, Intrado Comments at 39 (“NG911 services are distinguishable (jurisdictionally and otherwise) from the service itself which today falls under the control of the states - - in no small measure due to the fact that virtually all 911 calls are intrastate.”), ITTA Comments, at 7

While NENA wholeheartedly supports this Commission usurpation of state jurisdiction over 9-1-1, this is apparently based upon its *mis*understanding that jurisdiction is based upon the location of the facilities over which the communications are transmitted.² As demonstrated by BRETSA's Comments, it is well established that calls which originate and terminate in the same state are *intrastate* calls.³

BRETSA is confident that state legislatures and utility commissions are capable of understanding and exercising appropriate oversight over “novel 9-1-1 system service architectures” and “somewhat esoteric 9-1-1 service elements.”⁴

Where states have chosen to deregulate 9-1-1, the Commission should respect these decisions rather than seeking to regulate intrastate services beyond its jurisdiction. Even though BRETSA successfully opposed the deregulation of 9-1-1 service in Colorado (for which OSPs strongly lobbied); BRETSA recognizes that other states have the right to regulate or deregulate services as they deem appropriate. The fact that BRETSA, NENA or the Commission would take

(“[T]he NPRM ignores the proper role of the states on 911 service-related matters by proposing a national governance structure that is tantamount to federalizing 9-1-1.”), King County E911 Program Comments, at 2 (“King County agrees with the WUTC comments that nothing in the NPRM should impede state commissions or local governmental authority over reliable 911 service, and that federal efforts should assist, or complement, state and local governance efforts rather than act to supersede them.”), National Association of Regulatory Utility Commissioners (“NARUC”) Notice of Written and Oral Ex Partes, filed November 25, 2014, at 1 (“Whatever technology or the mode of service – working voice or data 911 service is unquestionably an intrastate telecommunications service....”), National Association of State 911 Administrators Comments, at 1 (“[A]ny approach the Commission adopts in its rules must complement and enhance state and local control over 911 services.”), State of Vermont Enhanced 9-1-1 Board Comments, at 2 (“We believe that it is not necessary or advisable to implement a federal structure that would have the effect of dictating to jurisdictions what they can and can’t do to best serve their constituents.”), Telecommunication Systems, Inc. Comments, at 8 (“TCS believes the Commission should respect the authority of its state-managed counterparts.”), United States Telecom Association Comments, at 4-7 (“[O]ther than discrete mandates concerning the 911 dialing code and E911 requirements for wireless and interconnected VoIP providers, Congress did not apparently intend the Commission to go beyond a role consisting of encouragement, support, consultation and cooperation [with *efforts by states*].”), Verizon Comments, at 14-16 (“The proposed rules exceed the scope of the Commission’s statutory Authority.”), Virginia State Corporation Commission Comments, at 4 (“[T]he FCC should be careful in crafting its NG911 regulations to not interfere with states’ statutory and regulatory authority to manage jurisdictional 911 emergency services.”), Washington Utility Commission Comments, at 4 (“the UTC supports federal guidance on 911 reliability and resiliency, but urges the Commission to focus on measures that are complementary to, and do not limit or restrict, state and local government efforts.” “the vast majority of 911 calls...are jurisdictionally intrastate.”),

² NENA Comments at 7, 8.

³ BRETSA Comments, at 33-36. *See also, e.g.*, NARUC Notice of Written and Oral Ex Partes, at 1.

⁴ *See* NENA Comments, at 2-3, 8.

a different action does not justify denying a state its Constitutional authority. Statutes and regulations can be repealed or amended and new statutes and regulations adopted. If citizens believe their elected officials have acted contrary to the public interest, their remedy is at the ballot box.

Surprisingly, NENA states that “[i]n the development of standards for NG9-1-1, a critical aim of the public-sector stakeholders who comprise the vast majority of NENA’s membership was to ensure that individual functional entities and network services could be purchased from *diverse providers on an interoperable and competitive basis*,”⁵ but then states that “a federal backstop could help to alleviate reliability distortions caused by the relatively limited market power of 9-1-1 authorities faced with *a small (and still-consolidating) sell-side market* for many core 9-1-1 services.”⁶ Whether the 9-1-1/NG9-1-1 market is characterized by an increasing diversity of providers, or by a small and consolidating number of providers; state utility commissions are experienced and capable of adopting regulations appropriate to market conditions.

II. State Regulation of 9-1-1 Service, Including Cost-Based Tariff Regulation, is Appropriate and Preferable to Commission Regulation.

In its Comments, “Intrado takes exception to many of the premises used by the Commission in its proposals—particularly in relation to evolving technology standards and a nascent competitive NG911 market.”⁷ This includes the Commission’s statement that “market

⁵ NENA Comments, at 4-5 (Emphasis added). BRETSA’s sense is that a majority of PSAPs would prefer to contract with a single BESP/SSP for 9-1-1 service, rather than being distracted by and incurring the costs of negotiating the purchase of “individual functional entities and network services” from “diverse providers on an interoperable and competitive basis.” (“Basic Emergency Service Provider,” or “BESP” is the term used in Colorado for the provider which aggregates and routes 9-1-1 calls to PSAPs; essentially the equivalent of a “System Service Provider” (“SSP”) as that term is used by the Commission.)

⁶ NENA Comments, at 9 (Emphasis added).

⁷ Intrado Comments, at 7.

forces alone may be insufficient to prevent catastrophic impacts stemming from unchecked aggregation of function into one or two locations across multiple state boundaries.”⁸

Thus, while Intrado agrees with and provides authority for state jurisdiction over 9-1-1; Intrado simultaneously argues that regulation of 9-1-1 is unnecessary and would be counterproductive.⁹ Intrado specifically argues that “prescriptive regulation will cause market failure” and that traditional cost-based, rate-of-return regulation of NG9-1-1 Service is inappropriate.¹⁰

BRETSA has had a long and important relationship with Intrado, and is proud of the accomplishments of this company which is headquartered in Boulder County, Colorado, and whose founders were employed in the Boulder County Sheriff’s Department at the time they launched the company. Intrado provides ANI/ALI service in Colorado, provided BRETSA’s initial ENS service, and is the provider of BRETSA’s hosted PSAP telephone system, GIS services, and text-to-911 service. Intrado has a well-earned reputation for its uncompromising dedication to public safety and provision of high availability, highly reliable services and systems.

Intrado’s own comments demonstrate its importance in the area of 9-1-1 service.¹¹ Intrado is the dominant institution in the 9-1-1 Industry. Nevertheless, cannot agree with the characterization of 9-1-1 or NG9-1-1 markets as competitive, or that “prescriptive regulation” or rate-of-return regulation is inappropriate.

⁸ In The Matters of 911 Governance and Accountability and Improving 911 Reliability, Policy Statement and Notice of Proposed Rulemaking, P.S. Docket 14-193 and P.S. Docket 13-75 respectively, adopted November 21, 2014, Released November 21, 2014, fn 122, p. 24, available at https://apps.fcc.gov/edocs_public/attachmatch/FCC-14-184A1.pdf.

⁹ See, e.g., Intrado Comments, at 32 (“Imposing regulation at this time would only deepen the market failure by reversing the positive effects of 911 competition, reinstating disincentives associated with a single provider systems which will impede innovative momentum, and causing another technology gap.”)

¹⁰ Intrado Comments, at 30.

¹¹ Intrado Comments, fn. 1 at 1.

A. Consolidation of Resources Increases Risk.

Intrado seeks to rebut statements it cites from the NPRM that:

The retirement of legacy infrastructure and the transition period in which multiple technologies may be in use simultaneously, however, raise reliability and interoperability challenges that cannot be ignored. IP-based 911 networks are more geographically diverse than their legacy counterparts and are likely to provide more services such as 911 call routing and ALI across multiple states and jurisdictions. In comparison to legacy 911 networks, IP-based networks rely more on remote servers and databases rather than locally situated switch-based components to support key 911 functions. Even as they make new capabilities possible, these changes in network architecture also raise new issues and vulnerabilities that did not exist in the legacy 911 environment.¹²

and

We cannot wait for future and potentially more catastrophic 911 system failures to consider these crucial questions – the stakes are too high.¹³

and National Association of State Utility Consumer Advocate’s (“NASUCA”) statement:

The consolidation of critical resources in a small number of databases increases the risk of a catastrophic failure affecting numerous customers.¹⁴

See Intrado Comments at 32, 33 (Intrado sometimes refers to NASUCA as “NARUCA”). In

rebuttal, Intrado states:

[T]here is no evidence in the record showing that aggregating functionality - - coupled, or not, with geographic diversity across multiple states - - is *the cause* of NG911 failures, or will *inherently* have catastrophic impacts, or that such configurations alone justify regulatory intervention. In fact, such configurations have worked well for many years.¹⁵

As BRETSA stated in its Comments, service disruptions such as the April, 2014 multistate NG9-1-1 outage should have been anticipated with such a significant transition in the systems and technology used to deploy and provide 9-1-1 service. The 9-1-1 community must apply the lessons available from this incident to avoid and limit the severity of future outages.

¹² NPRM, para 13, p7-8.

¹³ NPRM, para. 37, p. 17.

¹⁴ NASUCA Comments, at 1.

¹⁵ Intrado Comments, at 33-34.

“The aggregation of functionality coupled with geographic diversity” did not *cause* the failure; but the aggregation of functionalities at just *two* NG9-1-1 Data Complexes nationwide assured that any service disruption would have wide-spread impacts. The scope and scale of an outage (the number of jurisdictions, 9-1-1 calls and people affected) is inherent in the scope and scale of consolidation.

A key advantage of IP-based networks and systems is that processing can be widely distributed and data transmitted over highly survivable networks. A key feature of the NENA NG9-1-1 standards, as BRETSA understands them, is that Data Complexes are assembled out of standard, off-the-shelf components, and are therefore relatively inexpensive to deploy as compared with custom-designed and built systems. Other would-be NG9-1-1 vendors who have made proposals in Colorado, for example, proposed systems which would feature two interconnected and redundant Data Complexes in Colorado, and a third Data Complex located in another region of the country. With this deployment the failure of any single NG9-1-1 Data Complex, while no less serious, would have a more limited impact. The relative cost to a state of deployment of state-specific PSAPs rather than having traffic for the states aggregated with that of other states is not known to BRETSA; but BRETSA believes such questions of system architecture are for each state to make through regulatory processes or contract negotiations.¹⁶

BRETSA is concerned that such a high level of consolidation of NG9-1-1 Data Complexes may be the result of cost and pricing advantages for *providers* in a market the providers see as competitive. Once a provider has deployed two redundant national data complexes, it may well realize economies of scale and a price advantage vis-à-vis competitive providers in provisioning services to additional customers (states or PSAPs) through those same

¹⁶ If NG9-1-1 service providers have the market power to decline to deploy NG9-1-1 Data Complexes within a state, then the NG9-1-1 market is not competitive and alternative regulatory approaches are essential.

Data Complexes. It could also provide a price advantage vis-à-vis competitors who might propose an alternative network configuration, such as one with more distributed Data Complexes. This is an example of how a free market approach might not be consistent with provision of a mission-critical service, and state regulation may be implicated. State regulation may also be necessary to assure that the various stakeholders in the 9-1-1 ecosystem “play well together.”

To the extent Intrado argues that “governmental regulators do not actually build networks or systems and are not in the best position to dictate ‘how’ to accomplish the task,”¹⁷ network and system architecture is a matter of science and technology, not magic. NG9-1-1 is supposed to involve integration into 9-1-1 service of technologies from which commercial and consumer markets have long benefited. While BRETSA respects Intrado’s expertise in the areas of 9-1-1 and NG9-1-1, that expertise is neither exclusive nor impenetrable.

State and local authorities have every right and expectation of establishing specifications for 9-1-1/NG9-1-1 systems and services, so long as they are willing to bear the costs of their requirements.

B. State Authority Necessarily Includes The Ability to Set Policy.

Intrado concurs with the Commission’s statement that “collaborative governance is not just good governance, but essential to maintaining the vital benefits of 911.”¹⁸ Intrado then defines “cooperative federalism” as “a regulatory structure in which a federal statute provides for state implementation of federal policy.” *Id.*, fn. 32. However the ability to set policy, rather than to simply implement policy, is the *sine qua non* of governance. State jurisdiction of intrastate

¹⁷ Intrado Comments, at 38.

¹⁸ Intrado Comments, at 12, citing NPRM, para. 34

calls is not limited to merely implementing federal policy, but includes the ability to adopt policies meeting the needs and interests of the state.

The Washington Utilities and Transportation Commission (“WUTC”) states that (i) it is critical that states be provided secure and confidential access to the Commission’s Network Outage and Reporting System,¹⁹ (ii) all required entities should be required to simultaneously submit annual certification, compliance or audit reports to designated state governmental officials,²⁰ and (iii) 9-1-1/NG9-1-1 providers should be required to provide load balancing separately for 9-1-1 call volumes in each state, with dynamic distribution so that all 9-1-1 call volumes are constantly and consistently distributed on a real-time basis between multiple databases and call-processing facilities.²¹ Commission confirmation of state jurisdiction over 9-1-1 service, an intrastate service, would eliminate any question as to the Washington legislature’s and WUTC’s (or any other state’s) ability to adopt statutes and regulations requiring providers to submit copies of such FCC filings, and provide 9-1-1/NG9-1-1 service as specified by the state.

C. Regulation Has Not Retarded The Deployment of NG9-1-1.

Intrado variously attributes the failure of more states to have deployed NG9-1-1, in part, on provision of 9-1-1 service on a regulated-monopoly (cost-based, rate-of-return) basis.²²

Transition to NG9-1-1 is not a goal in itself. The goal of local and state governments and agencies in this area is to procure highly reliable 9-1-1 service, balancing the costs of the service with effective emergency response.

¹⁹ WUTC Comments, at 5.

²⁰ *Id.*, at 8.

²¹ *Id.*, at 9.

²² Intrado Comments, at 31.

1. States Have Not Transitioned to NG9-1-1 Because It Is Not Yet As Reliable As Legacy 9-1-1 Service.

Intrado itself states, NG9-1-1 is a nascent technology for which the standards are still being developed. Indeed, as BRETSA understands it, the NENA i3, a version or subset of which is currently being deployed, is an interim standard. As Intrado also states, “[t]he transition to NG911, reflected in the i3 standard, represents the most complex, sweeping change to 911 since its inception and dwarfs the changes needed to integrate wireless and VoIP 911,”²³ “every technology transition undergoes service disruptions,”²⁴ and “[t]here is every reason to expect similar challenges in the transition to NG911 - - made even more challenging because it effectively involves a quantum-leap, technological replacement of the overall system and represents, by far, the largest and most complex shift in emergency communications since the introduction of selective routing with ALI systems over thirty years ago.”²⁵ Given the critical importance of 9-1-1 reliability, why would states, agencies and PSAPs rush to transition from a highly reliable, tested and true 9-1-1 system to a new technology solution “where they have every reason to expect service disruptions?” Is it not more prudent for states, agencies and PSAPs to wait for such “challenges” to be identified and resolved?

2. States Have Not Transitioned to NG9-1-1 Because It Does Not Yet Offer Any New and Useful Functionality.

A significant reason that states, agencies and PSAPs are not rushing to transition to NG9-1-1 is that for many, NG9-1-1 will not provide any new functionality. It will only result in the transmission to PSAPs of the same 9-1-1 calls they currently receive but in digital format—at greater cost than traditional 9-1-1 service. Indeed, some proponents of NG9-1-1 have stated that

²³ Intrado Comments, at 6.

²⁴ Intrado Comments, at 33.

²⁵ Id.

the reason PSAPs must transition to NG9-1-1 is that the PSTN will soon sunset and the selective routers essential for current 9-1-1 service will go away.

BRETSA understands that some states which have migrated to NG9-1-1 have done so due to a lack of redundancy and diversity in their 9-1-1 networks, and for those states NG9-1-1 does provide a new and useful functionality. But states like Colorado enjoy a redundancy and diversity within their 9-1-1 network.

Other rationales that have been provided would not appear to justify transition to NG9-1-1 at this time. Text-to-911 messages can be transmitted to PSAPs over ESInets, but the development of delivering text messages to PSAPs “out-of-band” via browser at no cost to the PSAP, or via dedicated digital line, eliminates text-to-911 as a reason to transition to NG9-1-1.²⁶

Some promoting NG9-1-1 tout the ability of the public to use it to send photos and videos to PSAPs. While BRETSA has questioned the utility of this capability in the ordinary case, whether the benefits will outweigh the costs, and whether dispatchers would not currently be directing callers to transmit photos or videos to smartphones or e-mail addresses procured for that purpose; that functionality is not now available through NG9-1-1. Providers are not yet required or apparently able to provide multi-media messaging to 9-1-1, so the ability to receive such messages cannot serve as a reason to transition to NG9-1-1.

One potential benefit of NG9-1-1 is the rule-based call-routing it may enable. However the alternative destinations to which 9-1-1 calls might be dynamically routed do not generally currently have (i) a means to know which incidents are already being responded to, which First Responder units are on duty and available for dispatch, the business rules of the PSAP or First

²⁶ BRETSA notes that in Colorado, even before the introduction of text-to-911, dispatchers used text-messaging over their personal smartphones to coordinate the rescue of individual lost in the Colorado backcountry, and the Denver PSAP procured two smartphones and advertised their numbers to the deaf and hard-of-hearing community as a means for members of that community to reach 9-1-1.

Responder agency to dispatch, (ii) access to the radio and tone-out systems to dispatch First Responders, or have authority or (iii) the benefit of governmental immunity in dispatching for other jurisdictions. Current 9-1-1 systems have contingent and alternative routing capabilities available in the event of an overflow or outage situation; yet some PSAPs simply have calls routed to their non-emergent lines, or have them ring busy. There are considerations beyond the *availability* of alternative routing capabilities.

NG9-1-1 may provide for mitigation of Phase I Misroutes. In the case of a Phase I Misroute, information taken by the Dispatcher at the first (misroute) PSAP and entered into the CAD system, could be transferred with the call to the correct PSAP. However CAD-to-CAD interfaces would also need to be developed. This remedial measure would still result in the delay of (i) the call being routed to, and answered and information being taken at the wrong PSAP, (ii) the dispatcher needing to identify the correct PSAP to which the call should be routed, and (iii) transfer of the call to the correct PSAP. A much better that solution is to route 9-1-1 calls to the correct PSAP in the first instance.

The manner of state regulation of 9-1-1 has not impeded the transition to NG9-1-1. The transition to NG9-1-1 has not progressed because it will cost more without providing new functionality, and service disruptions are still to be expected due to the scope and scale of the technology change. New security issues, and costs related thereto, also accompany the transition to NG9-1-1. From the perspective of states, PSAPs and the surcharge- and tax-paying public in states with redundancy and diversity in their 9-1-1 networks, the question is *not* why they have not yet transitioned to NG9-1-1, but *why should they?*

D. Traditional Rate-of-Return Regulation of 9-1-1 and NG9-1-1 Service Is Appropriate.

Intrado argues that prescriptive and traditional rate of return regulation is no longer necessary given current technologies and competition.

Competition is not an end in itself. Competition can promote effective, reliable and cost-efficient. Rate-of-return regulation is not an end in itself, but a means of providing for efficient, reliable and cost-effective service in a market which is not competitive.

The 9-1-1 market has many of the indicia of a natural monopoly—and also has a very small number of customers with only one customer in each state or county. 9-1-1 service features very high capital costs of service deployment, and very low marginal costs per unit of production (per call). Once a provider is providing service to the one customer in any jurisdiction, no other provider is going to construct facilities and deploy service to the area on the possibility that the PSAP will someday change service providers. The cost of changing service providers will also be significant, while it is unclear how the standards-based and interoperable NG9-1-1 services of different providers would be distinguished. Given these characteristics of NG9-1-1 service, it is unclear to BRETSA whether a provider would be subject to competitive incentives once it had deployed service to a customer.

There are also efficiencies in a single provider 9-1-1 system. While PSAPs generally serve individual cities or counties, and sometimes small groups of counties; telephone service provider's networks or service areas do not conform to jurisdictional boundaries. With monopoly 9-1-1 service, all OSP's route their customers' 9-1-1 calls to a single BESP/SSP, which determines the jurisdiction in which the caller is located and routes the call to the PSAP for that jurisdiction. With competing providers serving multiple jurisdictions, and those jurisdictions subscribing to 9-1-1 or NG9-1-1 service from different competitive BESP/SSPs, each provider

would have to implement a selective router function to determine the BESP/SSP to which the call should be routed. With separate providers serving different jurisdictions, separate transport facilities may be required along the same routes to just to carry 9-1-1 calls from even adjacent counties, and to neighboring PSAPs. OSPs may be required to provide facilities or pay transport costs to multiple BESP/SSPs NG9-1-1 Data Complexes. Further, competing BESP/SSPs must interconnect to enable transport of Phase I Misroutes between PSAPs which are customers of different BESP/SSPs. Such inefficiency must increase overall costs of 9-1-1 service, and BRETSA does not see a concomitant benefit. It may also inhibit efficient network configurations. The efficiencies of a single-provider 9-1-1 system is the reason there is generally only one BESP/SSP in a state or region; BRETSA believes the exceptions prove the rule.

While competition is thus likely to increase the overall costs of service, competition can in general lead to providers developing more efficient means of providing service, introducing service of varying levels of quality or reliability at different price points, or providers cutting prices or offering optional features to increase calling (Minutes of Use) over which fixed costs can be spread. However 9-1-1 service must be of the highest quality and reliability. 9-1-1 service is price inelastic; people do not call 9-1-1 because of price considerations but because of the occurrence of incidents perceived to require a public safety response. Nor do end users pay for 9-1-1 calls in any event. As for the introduction of features, as a matter of policy we probably want to make features equally available to all areas of each state, and spread the costs among all users in the respective states, rather than to establish a have and have-not distinction between different jurisdictions.

The historical disadvantages of rate-of-return regulation are that it encourages inefficiency, and discourages innovation, because providers' profits are equal to a fixed

percentage of their cost of providing service. The less efficient a provider is and thus the greater its costs, the greater the *amount* of profit it will earn at its approved rate (percentage) of return. However regulators now use forward-looking cost studies to encourage efficiency, and some modern approaches provide for providers to retain a portion of increased margins from improved efficiency in providing service.

It is essential that 9-1-1 service be standards-based, to assure reliability, compatibility and interoperability of service among jurisdictions. Innovation in 9-1-1 service is being driven by NENA's standards-development processes, other standards organizations and the Commission. As a policy matter, we do not want individual 9-1-1 service providers introducing innovations into their 9-1-1 service or systems which would could result in incompatibilities. Unregulated ongoing side-by-side (PSAP-by-PSAP or agency-by-agency) competition in 9-1-1 service could otherwise result in the tapestry of incompatible and proprietary systems serving adjacent jurisdictions and agencies as has occurred in the public safety radio services.

Like Colorado, in which 75% of the population resides in just 10% of the area of the State lying along the Front Range, many states have high and low cost areas. This raises all of the same issues the Commission and state utility commissions faced with the introduction of competition in the general telephone market, including concerns with competitors cream-skimming low-cost areas, the lack of market incentives for providers to service high-cost areas, provider-of-last-resort requirements, service impairment or discontinuation approval requirements, replacement of implicit subsidy mechanisms with much more costly and inefficient explicit subsidy mechanism. The difference is that given the limited market for 9-1-1 service and the unique service characteristics and requirements, the benefits of competition cannot justify the costs.

Finally, for a market to be competitive, there must be low barriers to market entry and exit. BRETSA does not believe this characterizes the market for 9-1-1 services. The costs of deploying service to any PSAP are such that a provider would likely require a minimum term of service. As discussed above, once service is deployed, the cost of a PSAP transitioning to another provider constitutes a barrier to entry. These costs include deployment of network facilities meeting service requirements, assuring hardware and systems and interfaces are compatible, training personnel on new systems, and the risk of service disruptions as a result of the transition.

Competition may also take unanticipated forms. In 2011 NextGen Communications, Inc. filed an application with the Colorado Public Utilities Commission in CPUC Docket No. 11A-531T for certification as a BESP (SSP) to provide NG9-1-1-type Services. NextGen appeared to intend to provide NG9-1-1 service for the purpose of terminating to PSAPs only those calls originating on the networks of OSP's which contracted with NextGen's parent, TCS, for certain 9-1-1 call management services. NextGen thus proposed a previously unanticipated model of competitive 9-1-1 service in which OSP's would select the BESP/SSP to deliver their calls to the PSAPs, and the BESP/SSP would deliver only the 9-1-1 calls originating on the networks of the OSPs which had contracted with it. This would result in 9-1-1 calls being split between two 9-1-1 networks where a single network was previously sufficient. PSAPs would have connect with the multiple BESP/SSPs selected by the different OSP's, increasing technical complexity, operating expenses and opportunities for service disruptions. The PSAPs would have to pay for the service ordered by the OSPs unless the PSAP was willing to refuse to accept 9-1-1 calls from a given OSP and its selected BESP/SSP. Of course a PSAP could not refuse to accept 9-1-1 calls, so BESP/SSP service to OSPs would be highly competitive while service to the PSAPs would be

non-competitive (the PSAP would have to pay whatever the BESP/SSP charged or refuse to accept 9-1-1 calls). Competitive incentives would thus result in BESP/SSPs offering lower and lower prices in the competitive markets, eventually paying OSPs for the opportunity to manage, route and deliver their 9-1-1 traffic, while increasing charges to the non-competitive portion of the service—to the PSAPs—to cover the costs of providing the service, plus the costs of acquiring the business of the OSPs, plus whatever profit margin they desired.

BRETSA favors competition in initial selection of a 9-1-1 service provider, but believes that ongoing, side-by-side competition in the provision of 9-1-1 or NG9-1-1 service unnecessarily increases the overall cost and complexity of 9-1-1 service. The increased overall costs would ultimately be borne by PSAPs, and perhaps to an extent by OSPs, and the unnecessarily increased complexity unnecessarily increases risks of service disruption. The benefits of any price competition vis-à-vis cost-based rates will not overcome the increased facilities and service costs from redundant facilities and unused capacity.

Separating the ESInet-transport portion of the service which has more indicia of a natural monopoly, from the Data Complex LIS and call-routing portion of the service which has less indicia of natural monopoly, might permit competition with less adverse cost impacts. However BRETSA questions what is to be gained by doing so in such a standards-based service for such a minute segment of the overall telecommunications market. There is also value in the “one-throat to choke” approach of having a single provider responsible for provision of the end-to-end 9-1-1 service (from delivery of the call by the OSP to the 9-1-1 system, to delivery of the call and ALI data by the BESP/SSP to the PSAP). BRETSA believes that having a single provider for the end-to-end service would have operational, reliability, and cost benefits. With such a critical service as 9-1-1, it is useful to have one party responsible for resolving service issues and

outages regardless of their cause, rather than having multiple parties which may seek to avoid responsibility and cast blame on other providers due to liability concerns.²⁷

During presentations to a group of Colorado 9-1-1 Authorities regarding their proposals for deployment of 9-1-1 service in Colorado, both CenturyLink/Intrado and Bandwidth.com stated that it would not make sense to have more than one NG9-1-1 service provider in the state. With few exceptions, 9-1-1 service and NG9-1-1 service is provided on a statewide or regional basis, rather than BESP's/PSAPs competing on a statewide basis.

The hallmark of a competitive market is the ability of a customer to change providers if a provider does not meet its service requirements. If a provider's service proves unreliable, the customer can terminate the service and take service from another provider. In the context of 9-1-1 service, however, the consequences of unreliable or otherwise unsatisfactory service from the provider can have serious, life-or-death, implications for the public. The capability of a customer to take service from a new provider after a provider's service proves unreliable is scant remedy for the public which has suffered loss of life, limb or property due to that unreliability.

Potential liability, including liability to consumers, is an essential element of unregulated competitive markets. Consumer liability incentivizes firms to offer safe and reliable products and/or services. Absent such potential liability, regulatory oversight is required to assure that providers are qualified to provide the service or products, and provide reliable and safe products and/or services. In the case of 9-1-1 service, states have granted providers immunity or limited immunity in the provision of 9-1-1 service, and the quid pro quo is that providers accept regulation. If 9-1-1 service is deregulated in favor of competitive market forces, then the providers should not retain the immunity from liability that they currently enjoy.

²⁷ This is not to say that a state utility commission should not have the ability to (i) require providers of key elements of the finished service obtain CPCNs, (ii) include their costs in any cost study to approve tariffed rates, and (iii) initiate inquiries and enforcement actions against them.

Even where local agencies, PSAPs or a state 9-1-1 office contract for 9-1-1 service, oversight by a state utility commission is appropriate. State utility commissions have subject-matter knowledge, expertise and experience regulating telecommunications providers, and in the economic regulation of business. Their rulemaking, informal complaint and complaint procedures are more accessible, less costly and more expedient than litigation in the courts.

E. State Certification of Providers of 9-1-1 and NG9-1-1 Service Is Appropriate.

State oversight of 9-1-1 service, including certification of BESPs/SSPs, is standard. Some states have recently deregulated 9-1-1. OSP's lobbying for deregulation of telecommunications services in Colorado over the past several years made representations to the Colorado Legislature that regulation of 9-1-1 is not required and many other states which had deregulated telecommunications services generally had also deregulated 9-1-1 (although this does not appear to be the case). The OSP community stated that oversight of 9-1-1 could be a foot-in-the-door for utility commissions to regulate OSPs retail services, and a representative of a national service provider even claimed that if 9-1-1 were not deregulated, the Colorado Public Utilities Commission ("CPUC") might use authority over 9-1-1 to dictate what type of wireless device a consumer could have! Colorado, like other states, deregulated 9-1-1 but retained authority in the CPUC over Basic Emergency Service (9-1-1 service).

BRETSA successfully opposed deregulation of Basic Emergency Service in Colorado, and believes regulation is essential to assure effective, reliable and cost-efficient service. The 9-1-1 Authorities and PSAPs across the state should not have to replicate the expertise of the CPUC to negotiate for NG9-1-1 service. Through the tariff process, the CPUC will establish just and reasonable terms of service under which any 9-1-1 Authority can order service for its PSAPs, in a manner which will preserve ubiquity of 9-1-1 service in the state.

As 9-1-1 service becomes more complex with the transition to NG9-1-1, the Colorado 9-1-1 Community will likely rely even more heavily than in the past upon the CPUC with respect to the structure of the services and market, qualifications of service providers and pricing of offerings. In the NG9-1-1 environment, there will potentially be Data Complex provider(s), ESInet provider(s), database provider(s), hosted service provider(s), OSPs delivering calls into the 9-1-1 System in both analog and digital format, and calls potentially being delivered into PSAPs in both analog and digital format, significant new security issues, potentially separate transmission facilities transporting data between hosted service providers and PSAPs, areas in which there will be competitive network facilities for hosted services and areas in which there will be no effective competition, and at least a three-year transition period during which both the legacy and NG9-1-1 systems will operate until all PSAPs have been moved onto the NG9-1-1 system. The CPUC has the unique expertise and capability and authority in Colorado to oversee this complex transition to the complex new network of providers, facilities and services, for which governmental entities are customers.

With input from providers, the PSAPs and the general public, the CPUC can determine, *inter alia*, (i) which elements of the Colorado 9-1-1 ecosystem should be subject to competition and how that competition might be structured, (ii) which services a provider must obtain a CPCN to provide, and the certification requirements, (iii) which services should be competitively offered and which should be offered pursuant to cost-based tariffs, (iv) whether either implicit or explicit subsidy mechanism should be employed and, if so, how they should be structured, and what reporting requirements, including outage reporting, should be required; all to assure effective, reliable and cost-effective service.

A cost study of Basic Emergency Service in Colorado was last conducted in approximately 2007, in settlement of rate discrimination claims initially filed by BRETSA and the City of Federal Heights, Colorado. Undersigned counsel's recollection is that the 9-1-1 Authorities participating in the proceeding were ultimately able to review the agreement between Intrado and Qwest pursuant to which Intrado supplied ANI/ALI and related services for the Qwest Basic Emergency Service.²⁸ However they were not able to review the costs of the services Intrado provided Qwest under that contract. Thus, the BESP tariff was cost-based as to selective router and transport elements of the service, and as to the Intrado contract; but not as to the Intrado services under that contract. BRETSA and the other parties did not know whether the pricing of the Intrado services was non-competitive, competitive, or super competitive; but it would have served Qwest's interests for them to be super competitive since the tariff applied Qwest's approved rate of return to the contract price.

On a going-forward basis, if a state determines that NG9-1-1 service should be offered pursuant to tariff, states must have the ability to review the costing and pricing of component services provided by third parties, even if there is one provider which is responsible for the end-to-end service. In a tariffed service, providers should not have the potential to earn super competitive profits for substantive elements of the service by contracting them out to third-party providers. States must also be able to independently assess the qualifications of providers of all significant components of the finished 9-1-1 service, and to exercise oversight and enforcement of its rules against such providers which are otherwise immunized against liability.

²⁸ CenturyLink is the successor in interest to Qwest, which is the successor in interest to former BOC U.S. West.

III. PSAP Consolidation Will Harm Public Safety Effectiveness.

The Competitive Carrier Association (“CCA”) argues that the consolidation of PSAPs could “improve the reliability and performance of the nation’s 9-1-1 network.”²⁹ This irrational proposal would sacrifice the quality of emergency response to benefit the supporting 9-1-1 service. The greater goal is effective emergency response, not the convenience and economy of service providers. 9-1-1 service supports emergency response; emergency response does not support 9-1-1 service.

There may be instances where consolidation of PSAPs would make sense from an operational perspective. Evaluations and decisions regarding consolidations of PSAPs should be made by local public safety officials and state authorities.

IV. TracFone’s Comments Are Outside the Scope of Issues in This Proceeding.

In its comments, TracFone continues its quest to pad its profit margin on no-charge Lifeline service at the expense of 9-1-1 service and public safety. TracFone has made no showing that its service is uneconomic, and competing providers offer the service. TracFone also references its October 23, 2014 Emergency Petition for Declaratory Ruling (“Emergency Petition”), and December 23, 2014 Reply Comments, in Wireless Competition Bureau Docket No. 11-42. TracFone’s Comments are beyond the scope of the issues under consideration herein.

To the extent the Commission entertains TracFone’s Comments in this proceeding, it must incorporate into the record not only TracFone’s Emergency Petition and Reply Comments in WC Docket No. 11-42, but also the comments of BRETSA and other parties in WC Docket No. 11-42 as well. Among other things, BRETSA’s Comments demonstrate that the two Ninth

²⁹ CCA Comments, at 12. Rather than the nation having a 9-1-1 network, there are many state and regional 9-1-1 networks. While the Intrado NG9-1-1 network might be considered a national network, it does not serve all states. BRETSA believes separate state networks, which are interconnected, limit the consequences of service disruptions while allowing transfer of calls between jurisdictions.

Circuit cases upon which TracFone relies in its Emergency Petition were expressly overruled by *Sprint Telephony PCS, L.P. v. County of San Diego*, 543 F.3d 571, 578-79 (9th Cir. 2008), authority TracFone failed to disclose. TracFone also failed to disclose or distinguish *TracFone Wireless, Inc. v. Nebraska Public Service Commission*, 778 N.W.2d 452, (Neb. 2010), a case to which TracFone was a party and of which TracFone is certainly aware, in which the Court explained to TracFone that the authority on which it continues to rely was no longer good law. *TracFone Wireless, Inc. v. Nebraska Public Service Commission*, 778 N.W.2d at 464 (“[a]lthough TracFone claims that it is only required to demonstrate ‘a possible prohibition on the provision of services,’ more recent federal authority recognizes that under the plain language of [47 U.S.C.] § 253(a), to demonstrate preemption, a party must show actual or effective prohibition, rather than the mere possibility of prohibition.”) (Emphasis in original). In its Reply, TracFone inexplicably seeks to rescue its Emergency Petition by citing to *Level 3 Communications, L.L.C. v. City of St. Louis, Mo.*, 477 F.3d 528 (8th Cir. 2007), a prior Eighth Circuit case with which *Sprint Telephony PCS* brought Ninth Circuit authority into accord.

In its Emergency Petition, TracFone stated that the Supplemental Nutrition Assistance Program provided by the USDA prohibits participation by states which assess state or local sales taxes or other taxes or fees on purchases made with food stamps, citing 7 C.F.R. §272.1.³⁰ This actually undercut TracFone’s petition, inasmuch as there is no equivalent Commission regulation pertaining to Lifeline services. On March 13, 2015, TracFone filed its “Supplement to Emergency Petition for Declaratory Ruling And, In The Alternative, Petition for Rulemaking” in WC Docket No. 11-42 petitioning the Commission to adopt rules similar to 7 C.F.R. 272.1. It would be improper to permit TracFone to bootstrap its supplemental Petition for Rulemaking into this proceeding through its Comments. In the event the Commission does consider

³⁰ TracFone Emergency Petition, fn. 29 at 15.

TracFone's rulemaking proposal herein and adopts the proposed rules, the Commission should (i) reduce the rate of reimbursement applicable to no charge Lifeline service, and (ii) adopt rules providing for direct support to PSAPs to offset the loss of support through adoption of the rules proposed by TracFone and preserve 9-1-1 service.

V. Requirements and Mechanisms Should Be Adopted For OSPs and Basic Emergency Service Providers/System Service Providers to Report to PSAPs Numbers From Which 9-1-1 Calls Were Placed During A Service Outage.

BRETSA agrees with the State of Vermont that in the event 9-1-1 calls are not terminated to a PSAP due to a service disruption, the caller's numbers and other identifying information should be reported to the PSAP at the earliest possible time.³¹ While BRETSA believes that the States should adopt statutes or regulations to require this, the Commission should also adopt a policy statement or rules to make clear that federal statutes and rules regarding privacy do not prohibit the disclosure of such information, and that commercially sensitive nature of customer information does not justify the withholding of such information.

OSP's may not know be able to identify the PSAP to which a 9-1-1 call from a particular number would be routed, particularly in the case of calls from wireless devices. Cooperation between the OSP and BESP/SSP may be required, and even this may not allow the BESP/SSP to identify the PSAP to which a specific wireless 9-1-1 call should have been routed. CSRIC, NENA/APCO or some other organization might undertake the task of developing standards or systems and methods for OSPs and BESP/SSPs to capture numbers of parties calling 9-1-1, sort them by jurisdiction (the PSAP to which they would be routed) and deliver them to the PSAP via alternate channel including browser or e-mail in near real time. In the event of a service

³¹ State of Vermont Enhanced 9-1-1 Board, at 3-5.

disruption, this would enable PSAPs to call parties which had called 9-1-1 within a few minutes of the parties calling 9-1-1, when assistance from First Responders might still make a difference.

These same standards, systems or methods might also allow OSPs and BESP/SSPs to provide the numbers of people who have called 9-1-1 during a PSAP outage and before alternative routing measures have been implemented. An organization which undertakes to establish standards, systems or methods should include in its work an analysis of the frequency with which service disruptions occur, the cost of implementing the standards, systems or methods or alternative standards systems or methods. States and PSAPs should be free to determine whether they wish to implement the solution.

One solution might be for an OSP's systems to automatically generate an e-mail when a 9-1-1 call is received at a wire center, cell site, or VoIP provider's router, which would include the time the call was received and the caller's number in the subject line, and additional information such as the cell-site on which the call was received. The e-mail would be transmitted to a BESP/SSP server at a diverse location from the 9-1-1 Selective Router or NG9-1-1 Data Complex (in case that facility was the location of the service disruption). The BESP/SSP server would use the caller number or cell site information to route the e-mail over the public internet to the PSAP to which the call should be routed.³² The PSAP would thus have a log of all calls initiated to the PSAP. In the event of a service disruption, the PSAP could sort the e-mail messages by subject to produce a list of all call received during an outage. (The subject line would start with the time at which the call was received by the OSP or BESP/SSP.) The PSAP

³² Because of the potential for the location at which the e-mails are generated to be isolated by the same service disruption impacting the ability to terminate the 9-1-1 calls to the PSAP, copies of the e-mails should be retained and for provision to the PSAP or authorized public safety personnel by alternative means or when service is restored.

could contact the callers without having to specially request them from the providers and wait for the providers to respond.

VI. States Should Be Provided Direct Access to the Commission’s Network Outage Reporting System and Disaster Information Reporting System.

BRETSA supports NARUC Board of Director’s Resolution TC-2 requesting the Commission expeditiously grant the California State Public Utilities Commission petition to allow states direct access to the Commission’s Network Outage Reporting System (“NORS”) and Disaster Information Reporting System (“DIRS”) for state-specific data. See WUTC Comments, at 6,

VII. The Commission Must Assure Its Rules and Enforcement Actions Do Not Make 9-1-1 Service Uneconomic.

9-1-1 Service represents a very small portion of the larger telecommunications market. For telecommunications providers generally, as opposed to specialized providers in the 9-1-1 space, the margins on 9-1-1 service are limited. Increases in costs of BESPs/SSPs will generally be reflected in increases in costs to the PSAPs, which have limited budgets. There is also the risk of regulations and enforcement actions making these services uneconomic. At the same time, BESP/SSP service has historically benefitted from the expertise, resources and economies of scale of the dominant LECs, with the wherewithal to maintain parts and supplies and commit personnel and resources to restore service after an outage or address other problems.

Without the potential for civil liability to hold providers accountable, the Commission or the state utility commission’s must exercise their enforcement authority, preferably in a forward looking manner when appropriate. The states are in the best position to strike the necessary balance and enforcing rules without making the service uneconomic.

VIII. Conclusion.

The Commission should terminate this proceeding without adopting the proposed rules, and confirm that the states have jurisdiction over 9-1-1 calls. This will enable the states to adopt and enforce regulations appropriate to their requirements.

Respectfully submitted,

**BOULDER REGIONAL EMERGENCY
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