

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)
)
IP-Enabled Services) WC Docket No. 04-36
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To: The Commission

**Comments of the
Boulder Regional Emergency Telephone Service Authority**

The Boulder Regional Emergency Telephone Service Authority (“BRETSA”), by it’s attorneys, hereby submits its comments in the above-captioned matter.¹

I. The Ubiquitous E9-1-1 Service Is a Matter of General Public Interest.

The availability of E9-1-1 Service throughout the country, regardless of location, time or service provider, is in the general public interest. The decision of a consumer to subscribe to a telephony service which does not include E9-1-1 service is not simply a matter of consumer choice solely impacting that consumer, but impacts his neighbors, the public in general, taxpayers, and public safety agencies.

Calls to 9-1-1 are often placed by individuals other than those requiring assistance. It is often a neighbor who reports and accident or altercation, a neighbor’s phone that is used to report a gas leak, or a passing motorist or other witness who reports an auto accident. If available telephones are not capable of connecting to Public Safety Answering Points (“PSAP”) by dialing

¹ BRETSA is an E911 authority board created pursuant to an intergovernmental agreement among Boulder County Colorado, and the cities and fire districts located in Boulder County, Colorado. BRETSA administers surcharges applied to all telephone lines and wireless phones within the County, pursuant to state statute, to fund the provision of E9-1-1 service.

9-1-1, emergency assistance cannot be summoned for the service subscriber or others for whom assistance may be required.

When a call is placed to 9-1-1 over a typical telephone line (Plain Old Telephone Service, or “POTS” line) in Colorado, the call is routed over a redundant 9-1-1 network to a PSAP serving the area from which the call was placed, based upon the NXX code and exceptions tables. The call arrives at the PSAP via dedicated 9-1-1 trunks and is routed to a dispatcher position at a Computer Aided Dispatch (“CAD”) terminal, where the Automatic Location Information (“ALI”) associated with the Automatic Number Identification (“ANI”) of the phone (line) used by the caller, is displayed. Additional information concerning the incident location can also be displayed, and the radio systems for dispatch of public safety officers are available. The caller-location information allows the PSAP to (i) accurately identify the location of the emergency and avoid dispatching public safety officers to an incorrect location, (ii) quickly identify multiple calls related to a single emergency, and (iii) interdict false or harassing calls. Calls delivered to a PSAP via the Colorado 9-1-1 network can also be easily transferred, with associated ALI data, to another Colorado PSAP via the 9-1-1 network trunks and tandems, in the event that the call was initially misrouted.

As indicated, the availability of the ALI information associated with a 9-1-1 call limits the potential for dispatch of public safety officers to an incorrect location, which would delay assistance to the party requiring it. It also allows for interdiction of false 9-1-1 calls and assists in identification of multiple calls related to a single incident. Because public safety units responding to false alarms, or multiple units dispatched to a single incident, would not be available to respond to other locations, response to other or real emergencies could be delayed if the ALI information was unavailable. Because public safety agencies must provide a sufficient number of

units to respond to reasonably anticipated emergencies, the dispatch efficiencies provided by ALI facilitates “right-sizing” public safety agencies and translate to efficiencies in expenditures of tax revenues.

In the case of VOIP calls at present, however, there is no reliable or seamless method of routing the call to the PSAP serving the area in which the caller is located. In some cases, 9-1-1 calls cannot be connected at all. BRETSA understands that, in some instances, calls for emergency assistance must be made, or are routed by the VOIP service provider, to administrative lines at PSAPs. These calls are not transmitted over 9-1-1 trunks and cannot be transferred to a different PSAP if necessary, do not arrive with ALI information, and are not processed through a CAD system with the many advantages provided. The processing of emergency calls received via administrative lines are also extremely inefficient in terms of use of PSAP personnel. Indeed, BRETSA understands that some PSAPs may not even answer administrative lines at all times, and answering of administrative lines is secondary to answering of calls arriving via 9-1-1 trunks. Thus, if VOIP is permitted to erode the ubiquity and efficiency of the E9-1-1 system, the general public and not just the VOIP subscriber will be adversely impacted.

II. Rules Mandating E9-1-1 Functionality for All Telephony Services Should Be Part of the Level Play Field On Which All Telephony Service Providers Compete.

“E9-1-1 Functionality,” meaning (i) the ability of a Telephony Service subscriber to reach the PSAP serving the area in which he is located by dialing 9-1-1, (ii) the transmission of the call to the PSAP via 9-1-1 network trunks, (iii) provision to the PSAP of a call-back number, (iv) the transmission of caller location information to the PSAP, and (v) liability for State or local fees, surcharges or taxes to offset the costs of provision of E9-1-1 service, where required, should be a fundamental requirement of any Telephony Service. The E9-1-1 Service is too

important not to be a fundamental requirement of such services; not only for the subscriber but for the public safety agency, the taxpayer and the public in general.

It would be preferable for “Telephony Services” to which the E9-1-1 Functionality requirements would apply, to be defined as any real-time voice communications service utilizing wire, fiber, or radio, regardless of the encoding or transmission techniques. However, VOIP telephony between two internet users without connection to the PSTN can be accomplished, for example, via internet-connected personal computers using relatively inexpensive computer software and hardware, purchased separately by the individual users, with no other service provider intervention. The application of E9-1-1 Functionality to these types of VOIP services would be impractical; and such service is not likely to supplant local POTS service providing E9-1-1 Functionality.² Thus, “Telephony Services” for which E9-1-1 Functionality should be mandated could be limited to those real time voice communications services, utilizing wire, radio, fiber or other optical technologies, which are capable of interconnecting with the PSTN.

Local Exchange Carriers (“LEC”), Competitive Local Exchange Carriers (“CLEC”), and wireless carriers are required to provide E9-1-1 Functionality. This places certain obligations and expenses upon these competitors in the telephony marketplace. In Colorado, a surcharge is also assessed on each telephone line and wireless subscriber of these carriers to offset the cost of the E9-1-1 network and service. It would provide the VOIP providers an unfair competitive advantage if they were relieved of the obligation and expense of providing E9-1-1 Functionality, and their customers were relieved of the obligation to pay the E9-1-1 Surcharge.

² It appears that at present, the markets for such services include interexchange-bypass, online-collaboration and video-conferencing, and other functionalities which are not intended to replace access to the PSTN.

The requirement to provide E9-1-1 Functionality should also apply *ab initio*, from the commencement of service, and not be triggered by achievement of a level of market penetration. As stated, the E9-1-1 Functionality is too vital not to require of any Telephony Service.

It will likely also be much more cost-efficient for service providers to deploy E9-1-1 Functionality at the time the service is deployed, rather than retrofitting the service to provide such functionality after some level of market penetration has been achieved, as was required in the case of wireless service providers. For example, a VOIP provider's implementation of E9-1-1 Functionality might involve use of Pseudo ANIs ("P-ANI") and databases of subscriber locations (and possibly WiFi node locations and associated IP addresses), which would be used for routing and to dynamically update the ANI/ALI provider's records when a 9-1-1 call is placed by a VOIP Telephony Service subscriber. It would certainly be more cost-efficient for the VOIP provider to gather the necessary location data and load its databases as it deploys its network and provisions customers, than to attempt to reconstruct this data after service has been deployed. In the former situation, there would be a lower marginal cost related to database development as the company sales and service representatives perform the myriad functions associated with network deployment and service provisioning, than in subsequently re-contacting customers and re-surveying network nodes and associated IP or MAC addresses for the sole purpose of developing such databases.

It should also be noted that the "retrofitting" of the wireless networks and services to provide E-911 Functionality placed additional burdens on PSAPs. Significant attention had to be devoted by PSAPs to negotiating agreements with the wireless carriers, demonstrating ability to use the "ALI" information provided by the wireless carriers, coordinating and verifying provisioning of the service, etc. Some carriers have given PSAPs "the run-around" as they

appeared to employ various tactics to delay implementation of the service. Some carriers also sought to require the PSAP's to develop unique solutions or work-arounds, rather than connecting with the PSAP's through the extant and efficient Colorado E9-1-1 network in accordance with the Colorado Plan.

VOIP Telephony providers (and Telephony providers utilizing other technologies) should not be permitted to avoid the E9-1-1 responsibilities born by competing carriers. To permit such market entrants to avoid these responsibilities, or to avoid them ab initio, would erode the effectiveness of the E9-1-1 system. It would also provide them an unfair cost advantage in market entry; an advantage which would in fact be subsidized by PSAPs, public safety agencies, taxpayers and indeed the public. The subsidy would occur because the VOIP Telephony provider would avoid the cost of providing E9-1-1 Functionality, at the expense of (i) the additional PSAP resources required to handle a calls which do not arrive at the PSAP serving the callers area, arrive without ALI data, and or arrive on administrative lines rather than 9-1-1 trunks, (ii) the additional PSAP resources required in connection with the subsequent service "retrofit," and (iii) the costs to the public safety agencies and the public in the loss in efficiency of the E9-1-1 Service resulting in increased incidents of units being dispatched to incorrect locations, multiple units being dispatched to a single incident, and resulting delays in public safety response.

BRETSA recognizes that waivers of the E9-1-1 Functionality requirements would necessarily be available on a case-by-case basis, but strongly urges that such waivers not be routinely granted.

III. E9-1-1 Functionality Requirements.

There are five distinct requirements that should be included in the mandatory E9-1-1 Functionality: (i) capability to route the calls to the PSAP serving the caller's location, (ii)

utilizing existing E9-1-1 networks where available as opposed to PSAP administrative lines, (iii) provision to the PSAP of a call-back number, (iv) provision of "ALI" data to the PSAP, and (v) payment of user fees, surcharges, or taxes assessed pursuant to state or local law to defray the cost of provision of 911 service. With respect to the requirement that "ALI" data be provided; where the VOIP service is equivalent to POTS service, the service address should be provided. Where the VOIP service is provided via wireless service, the location should be provided with the same resolution as is required in the case of wireless service. *See* 47 C.F.R. §20.18(h) . Where VOIP service is provided via an intranet, the locations of individual "stations" within the intranet should be utilized for call routing and for transmission of ALI to the appropriate PSAP.

Respectfully submitted,

**Boulder Regional Emergency Telephone Service
Authority**

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