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Before the
Federal Communications Commission
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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)
)
Revision of the Commission's Rules to Ensure)
Compatibility with Enhanced 911 Emergency)
Calling Systems)

CC Docket No. 94-102
DA 98-1936

To: The Commission

COMMENTS OF BELLSOUTH CORPORATION

BellSouth Corporation ("BellSouth"), by its attorneys, hereby responds to the Commission's *Public Notice*, "Additional Comment Sought on Wireless 911 'Strongest Signal' Proposal," DA 98-1936 (Sept. 22, 1998). The *Public Notice* seeks comment on an *ex parte* presentation filed by the Ad Hoc Alliance for Public Access to 911 ("Alliance") on September 17, 1998. The Alliance has asked the Commission to require that analog cellular handsets be capable of automatically selecting the strongest available signal to complete a 911 call when the signal from the handset user's provider is "inadequate." Although a modification of earlier strongest signal proposals, the current proposal continues to be plagued by threshold technical problems which will impair, rather than advance, the provision of 911 service to the public. Accordingly, BellSouth agrees with other public safety organizations that it cannot support the specifics of the modified Alliance proposal.

DISCUSSION

In October 1995, the Alliance filed a petition for rulemaking asking the Commission for the first time to require that mobile handsets be equipped to scan all cellular control channels on both Systems A and B and to select and use the channel with the strongest cellular signal whenever a 911

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call was placed.¹ The original proposal was strongly opposed by the commenters,² who challenged its technical feasibility and showed that the public interest would be harmed, not served, by the proposal:

- First, the use of differing air interfaces by cellular carriers — analog AMPS and digital TDMA, CDMA, and GSM — could preclude phones from switching to the strongest signal. Thus, even if phones were automatically programmed to select the strongest signal, the user would be unable to complete the call if the carrier possessing that signal used an incompatible air interface.
- Second, the strongest signal in a mobile environment is transitory, because the signal strength varies as the caller moves, changing at both the handset and the base station. As a result, a strong signal at the location where a call is placed could dissipate as the party moves, thus defeating the purpose of seeking out the stronger signal in the first instance.
- Third, selecting the strongest *control* signal is not a guarantee that the caller is receiving the strongest *voice* signal.

In response, the Alliance modified its proposal by specifying that cellular telephones should be required to select the strongest *compatible* signal of any cellular carrier.³ The Commission sought further comment, recognizing that the lack of standards as carriers move to a digital environment was indeed a technical impediment.⁴ Again, however, there was near uniform opposition from commenters of all stripes, including carriers, manufacturers, trade associations and, importantly,

¹ See *Amendment of Part 22 of the Commission's Rules to Enable a Cellular Telephone User Effective and Reliable Access to 911 Service*, Petition for Rulemaking of the Ad Hoc Alliance for Public Access to 911 at 4-7 (Oct. 27, 1995); see also *Public Notice*, "Commission Seeks Comment on Petitions for Rulemaking filed by Ad Hoc Alliance for Public Access to 911 in Conjunction with Wireless Enhanced 911 Rulemaking Proceeding," CC Docket No. 94-102 (Nov. 13, 1995), 60 Fed. Reg. 58593 (Nov. 28, 1995).

² See December 15, 1995 Comments of AT&T Wireless Services, Inc. at 6-8; BellSouth Corporation and BellSouth Cellular Corp. at 2-5; Bell Atlantic NYNEX Mobile, Inc. at 4; North Carolina RSA 3 Cellular Telephone Co. at 2-3; Personal Communications Industry Association at 6-7; Rural Cellular Association at 5-7; Southwestern Bell Mobile Systems, Inc. at 2.

³ See Reply Comments of Ad Hoc Alliance for Public Access to 911 at 5-6 (Jan. 16, 1996).

⁴ See *Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, CC Docket No. 94-102, *Report and Order and Further Notice of Proposed Rulemaking*, 11 F.C.C.R. 18676, 18746-47 (1996) (FNPRM).

three public safety groups — the Association of Public-Safety Communications Officials International, Inc. (“APCO”), the National Association of State Nine One One Administrators (“NASNA”), and the National Emergency Number Association (“NENA”).⁵ None of the parties, including BellSouth, challenged the Alliance’s laudable goal of ensuring that a user be able to make a 911 call. The problem seen with the Alliance’s proposal was that it was technically flawed and would actually *decrease* 911 call completion rates.

For example, CTIA noted that “the Alliance proposal reflects a naive misunderstanding of how CMRS networks dynamically control power channels and hand-off calls to provide reliable communications. . . . [I]f adopted, the Alliance proposal would lead to more dropped calls and less reliable emergency communications.”⁶ Other commenters noted continuing technical concerns with the proposal, even as modified, demonstrating that:

- The Alliance’s modified proposal, which purports to address concerns about incompatible air interfaces, was of marginal value because it would apply only to cellular carriers using analog technology, which is inconsistent with the growing conversion and use of a variety of digital interfaces.⁷
- The proposal continued to rest on the incorrect assumption that the strongest signal will identify the closest cell site. Because of the effects of terrain and buildings, a strong signal at a given location might not be from the closest cell, thus making locating a 911 caller more difficult.⁸

⁵ See, e.g., September 25, 1996 Comments of American Mobile Telecommunications Association, Inc. at 6; Ameritech Corporation at 7; APCO, NENA and NASNA at 6; AT&T Wireless Services, Inc. at 4; Bell Atlantic NYNEX Mobile at 5; GTE Service Corporation at 7; Nokia Telecommunications, Inc. at 5; Omnipoint Communications, Inc. at 4; Personal Communications Industry Association (“PCIA”) at 11; Rural Telecommunications Group at 7; Southwestern Bell Mobile Systems, Inc. at 7; Telecommunications Industry Association at 12.

⁶ See Reply Comments of Cellular Telephone Industry Association (“CTIA”) at 4 (Oct. 25, 1996). Southwestern Bell echoed this sentiment: “Apparently, Ad Hoc does not have practical knowledge of real-world wireless design.” See Reply Comments of Southwestern Bell Mobile Systems, Inc. at 8 (Oct. 25, 1996).

⁷ See, e.g., Reply Comments of AT&T Wireless Services, Inc. at 6 (Oct. 25, 1996).

⁸ See, e.g., October 25, 1996 Reply Comments of AT&T Wireless Services, Inc. at 6; CTIA at 5-6; Southwestern Bell Mobile Systems, Inc. at 8.

- A system's capacity, not variations in signal strength, is determinative of whether a call goes through. Calls will be blocked if there are not enough channels available. Under the Alliance proposal to route all calls to the system producing the strongest signal, the system may be overloaded and unable to process all 911 calls.⁹
- Adopting the Alliance's proposal would require more than mere software upgrades — it would require the retrofitting of all existing handsets.¹⁰

When the Commission issued its *Memorandum Opinion and Order* in this docket on December 23, 1997, it recognized that interested parties had numerous opportunities to develop proposals and present their views on many issues, including the strongest signal proposal.¹¹ It thus rejected efforts to defer further consideration of the strongest signal proposal, and instead encouraged parties to work towards resolving the issue on their own. The Wireless E 9-1-1 Implementation Ad Hoc ("WEIAD"), a group representing the wireless industry, the public safety community, and consumer groups, attempted to do so, but in a Joint Report submitted to the Commission on January 30, 1998, was unable to reach a consensus on the strongest signal proposal, due to continuing technical obstacles.¹²

In a Separate Report submitted to the Commission concurrently with the Joint Report, the Alliance agreed to limit its strongest signal concept to cellular phones operating in analog mode, and included a consultant's study prepared by the Trott Communications Group purporting to bolster its proposal.¹³ Once more, the three national public safety organizations — APCO, NENA and

⁹ See, e.g., Reply Comments of CTIA at 6-7 (Oct. 25, 1996).

¹⁰ See, e.g., October 25, 1996 Reply Comments of AT&T Wireless Services, Inc. at 6; Southwestern Bell Mobile Systems, Inc. at 8.

¹¹ See *Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, CC Docket No. 94-102, *Memorandum Opinion and Order*, 12 F.C.C.R. 22665, 22736 (1997) (*MO&O*).

¹² See Report of CTIA, PCIA, APCO, NENA, NASNA, Alliance in CC Docket No. 94-102 (Jan. 30, 1998) ("Joint Report").

¹³ See Separate Report of the Ad Hoc Alliance for Public Access to 911 in CC Docket No. 94-102 at 7-9 & Attachment 5 (Jan. 30, 1998) ("Separate Report").

NASNA — responded on February 23, 1998 with specific continuing concerns.¹⁴ First, the two licensed cellular carriers in each geographic area provide not only separate voice channels, but also separate 911 trunks, resulting in a duplication of capacity that would be lost under the Alliance's proposal. Second, some carriers are meeting Phase I and II caller mandates sooner than others, and it is better to receive a 911 call with Phase I and/or Phase II location technology, even if it is on a signal that is weaker than the other carrier which may not have such technologies in place. The public safety groups also expressed concern that the strongest signal concept is having a chilling effect on the desire of carriers to meet Phase I and II deadlines ahead of schedule.¹⁵ Again, they argued that the Trott Report overlooks the fact the signal strength need only be adequate, not the strongest. Finally, they noted that existing phones can already be built or programmed to switch to the alternate carrier if the user's carrier provides no signal or an inadequate signal, which should address the Alliance's concerns regarding coverage holes.

The Alliance responded by submitting the subject *ex parte* presentation on September 17, in which it argues that the concerns of the other public safety organizations can be satisfied by its further modified proposal to require the selection of the strongest signal if the signal from the user's provider is "inadequate" at the time the call is placed. In support, the Alliance submitted yet another Trott report. The public safety groups responded as follows:

We have not supported the "strongest signal" proposal offered by the Ad Hoc Alliance for Public Access to 911 ("Alliance"), due to concerns regarding the impact on 9-1-1 networks. We documented our concerns with that proposal in a submission to the Commission on February 23, 1998 from APCO, NASNA and NENA, the National Emergency Number Association. More recently, on September 17, the Alliance submitted a modified proposal to the Commission which reflects at least

¹⁴ See Public Safety Response to the Alliance Trott Report in CC Docket No. 94-102 (Feb. 23, 1998) ("Public Safety Response").

¹⁵ They ask: "What carrier would agree to collect a surcharge for, and build, 9-1-1 location technology if the 'strongest signal' rule could cause their system to be bypassed when needed most?" *Id.* at 2.

some aspects of an “adequate signal” approach. While the Alliance inappropriately attempts to characterize our position regarding this latest proposal, we do acknowledge that it is a significant step in the right direction. The Alliance now appears to agree that the best solution is to attempt to establish a threshold for “adequate” communications (which may not be on the “strongest signal”) and an alternative path to the PSAP for when that threshold is not met. However, *we are not prepared to support the specifics of the modified Alliance proposal, which still contains some significant technical problems.*¹⁶

BellSouth agrees with these public safety groups that the Alliance’s proposal continues to have significant technical problems for all of the reasons established in the record during the many earlier rounds of discourse. The subject has now been debated for almost three years, facing nearly uniform opposition from other public safety groups, carriers, manufacturers, and trade associations. The only supporter of the Alliance’s ever-changing proposal is — the Alliance itself.

As Southwestern Bell aptly noted in an earlier stage of this proceeding, “the Commission should cease the consideration of this impractical, misguided, and technically flawed idea, as doing so is an unproductive expenditure of the time and energy of all those involved with wireless E911.”¹⁷ In sum, the Alliance’s strongest signal proposal is not in the public interest and should be rejected.

¹⁶ See Letter from Jack Keating, President, APCO, and James Beutelspacher, President, NASNA, to William E. Kennard, Chairman, FCC at 1-2 (Sept. 21, 1998) (emphasis added); see also Letter from Leah Senitte, President, NENA to William E. Kennard, Chariman, FCC at 1 (Sept. 22, 1998).

¹⁷ See Reply Comments of Southwestern Bell Mobile Systems, Inc. at 10 (Oct. 25, 1996).

CONCLUSION

Accordingly, BellSouth respectfully requests that the Commission again decline to adopt the Alliance's "strongest signal" proposal for the public interest reasons stated herein.

Respectfully submitted,

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October 7, 1998

CERTIFICATE OF SERVICE

I, Brooke Wilding, hereby certify that on this 7th day of October, 1998, copies of the foregoing "Comments of BellSouth Corporation" in CC Docket No. 94-102 were served via hand delivery on the following:

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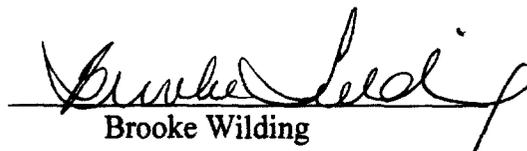
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