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American Mobile Telecommunications Association
The Business Communications Industry Association

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

David L. Furth, Chief
Commercial Wireless Division
Wireless Telecommunications Bureau
Federal Communications Commission
2025 M Street, Room 7002
Washington, DC 20554

EX PARTE FILING
CC DOCKET NO. 94-102 - E911 CAPABILITY
CC DOCKET NO. 95-116 - TELEPHONE NUMBER PORTABILITY

Dear Mr. Furth:

In anticipation of a meeting between your staff and representatives of the American Mobile Telecommunications Association, Inc. ("AMTA" or "Association") regarding certain technical aspects raised in the above-entitled proceedings relating to the Specialized Mobile Radio ("SMR") industry, you asked AMTA to provide a summary of the positions it intended to present. The following represents our understanding of the state-of-the-art of various SMR technologies as relevant to those issues.

As you know, the Association has already urged the Commission to correct the "covered SMR" definition used in both of the above, as well as other, proceedings.[1] AMTA's modified definition is intended to reflect more accurately the FCC-described distinction between traditional, primarily dispatch SMR operators providing essentially localized service to business customers and those SMR systems deploying high capacity, consumer-oriented systems with intelligent, in-network switching capability that permits automatic, seamless interconnected call handoff between base stations. Ongoing discussions with SMR equipment manufacturers and operators have confirmed that there are fundamental differences in the equipment capabilities of systems designed to serve those distinct markets that should be reflected in the final rules adopted in these proceedings. Those differences are detailed on the attached chart in respect to E911 capabilities, and are summarized below for both proceedings.

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1 See, CC Docket Nos. 94-54, 94-101, 95-116 and ET Docket No. 93-62; Petition for Declaratory Ruling, filed December 16, 1996.

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E911 COMPATIBILITY

911 REQUIREMENTS By October 1, 1997, covered SMR providers must process all 911 calls to PSAPs without user validation from handsets with MIN or equivalent, and transmit calls by the speech/hearing disabled through use of TTY devices. Calls from handsets without MIN or MIN-equivalent must be transmitted if requested by PSAP.

- Virtually all SMR handsets now being marketed are equipped with keypads, but the interconnect function is disabled for the vast majority of units that subscribe to dispatch service only. Customers using such units are, of course, not receiving CMRS service. It is technically possible for interconnected units to transmit the digits 9-1-1 and for the system to recognize the numbers as a telephone call, although in some systems that will require translating 911 into a seven digit number.

- Subscriber units on traditional, analog, business-oriented SMR systems do not have MINs or MIN-equivalents. Units are identified by codes, but multiple units within a fleet may be assigned the same code. Thus, there is nothing unique about these units that would permit a PSAP to contact them in a callback mode. Interconnected units on more advanced, higher-capacity, typically digital systems may be assigned a MIN-equivalent unique unit identifier used for internal system validation purposes (IMSI).

- Subscriber units on traditional SMR systems typically operate in a simplex or half-duplex mode which does not permit TTY capability. Analog cellular acoustic couplers cannot be used without adding data capability for that purpose exclusively. Some systems may provide service to the speech/hearing disabled through data messaging, thereby bypassing the need for TTY devices.

E911 PHASE I REQUIREMENTS Covered SMR providers must have initiated actions by October 1, 1997, and completed actions by April 1, 1998, to relay Automatic Number Identification ("ANI") and base station location to PSAPs to facilitate PSAP callback capability.

- Only the iDEN system permits PSAP callback without translation by the SMR system. Even that capability is dependent on the local landline network signaling capability since ANIs and "pseudo-ANIs" can be relayed only if both the wireline and wireless systems deploy SS-7 signaling. Only the most technically sophisticated, highest-capacity SMR systems would have a need for or be able to cost-justify SS-7 interconnection.

E911 PHASE II REQUIREMENTS Covered SMR providers must identify and transmit the latitude/longitude of mobile units within a radius of 125 meters with 67% reliability by October 1, 2001.

- The vast majority of covered SMR providers operate single site, high-power facilities rather than cellular-like system designs with multiple, proximately located transmitters. Therefore, a location technique relying on triangulation among base stations would be unusable by the majority of traditional SMR systems. GPS, or some alternative technology, would need to be added to every subscriber unit to satisfy this requirement, entailing redesign of every piece of equipment. Arguably, addition of a MIN equivalent and/or locating technology to SMR equipment for the sole purpose of E911 compliance would result in, not only significantly heavier, larger and more costly equipment, but a virtually new technology.

TELEPHONE NUMBER PORTABILITY

Covered SMR systems must be capable of delivering calls to ported numbers by December 31, 1998, and must offer service provider portability in the 100 largest MASS and be able to support nationwide roaming by June 30, 1999.

- The most significant obstacle to compliance is in the way most SMR systems utilize telephone numbers. Only the advanced, higher-capacity, consumer-oriented systems assign individual telephone numbers to handsets. The majority of SMR handsets do not have interconnect service, and, therefore, have no relationship with the PSTN. Those units with interconnect programming operating on traditional SMR systems typically share a limited supply of telephone numbers assigned to the SMR operator. Indeed, some smaller SMR systems are not interconnected with the local exchange network as a connecting carrier, but instead contract for a number of business lines as an end user. Those lines, in turn, are made available on a shared basis to customers whose units have interconnect capability.

- It is AMTA's understanding that the necessary upgrades to the PSTN to allow number portability will only occur to SS-7 facilities. Therefore, for those SMR operators with a lesser form of interconnection, or with only business customer relationships with LECs, compliance with portability requirements will not be possible without significant and costly upgrades to their systems.

- Few SMR systems have the technical sophistication necessary to perform database queries; most operate without any form of in-network switch. Certainly, there would be not question of their having the resources necessary to develop their own number databases. Therefore, to meet the Commission's requirements, AMTA believes most covered SMR systems would be forced to enter into an arrangement with a carrier, such as a LEC. Such an arrangement may be cost-prohibitive given the limited amount of interconnected traffic on the system and the even smaller volume of traffic to ported numbers. Should the FCC not revise its covered SMR definition, AMTA submits that there should be a cap on the fee

charged by LECs for database queries to allow call routing to competitive LECs.

We look forward to discussing these matters with you at your earliest convenience.

American Mobile Telecommunications Association, Inc.

By: Alan R. Shark
President & CEO

Enclosure

cc: Dan Phythyon, Chief
Rosalind Allen, Deputy Chief
John Cimko, Policy Division Chief
Jeff Steinberg, Esq.
William F. Caton, Acting Secretary

SMR Equipment Capabilities -- 911 Phase I

Manufacturer/ Equipment	Capable of Interconnected call	Can Transmit 911 Call	Code Identified (MIN equivalent)	MIN/IMSI Equipped	Set Uniqely Identifiable/ Callback capability	TTY
E.F. Johnson (LTR)	yes	yes	no	no	no	no
Ericsson (G-mark)	yes	yes	no	no	no	no
Ericsson (EDACS)	yes	yes	yes, depending on interconnection	yes (same)	yes, with translation	no
Geotek	yes	yes	yes	yes	yes/no	no
Kenwood	yes	yes	no	no	no	no
Motorola (Privacy Plus /Smart Zone)	yes	yes	no	no	no	no
Motorola (iDEN)	yes	yes	yes, in interconnect mode (IMSI)	yes (same)	yes (same)	no
Standard	yes	yes	no	no	no	no
Uniden (ESAS) (for LTR, see Johnson info)	yes	yes	yes	yes	yes/no	no