

expensive and as yet untested technology by all three service providers. Consequently, equipment manufacturers will play a critical part in assuring timely achievement of the compatibility objectives.

Second, in the landline environment, the person making the 911 call generally is the person needing emergency assistance, or the call is made by someone at the same location where assistance is needed. In contrast, in the mobile environment, 911 calls commonly are made from vehicles passing the scene of an accident or fire, and accordingly, dozens of callers may report the same incident. This difference from the wired world has important ramifications with respect to the elements of compatibility.

Third, wireless calls may be made by roamers (that is, customers who are outside their home service area). Roaming complicates compatibility in several respects. For example, roaming may require a ubiquitous coordination of nationwide technology for compatibility, so that users from one market can be assured of passing ANI and ALI to PSAPs in a different market when travelling.²² In addition, roaming customers are

²² As explained in the JEM Report, "Wireless Support of 9-1-1 and Enhanced 9-1-1 Emergency Services," (hereinafter the "PCIA/JEM Report"), Appendix B, at 42 (Nov. 2, 1994):

Conceivably, incompatible location technologies may be deployed in markets with compatible air interfaces, by different license holders. This could result in degraded ability to provide location information for mobile stations that are designed for other licensees' systems. Standards should be required to provide default location information capability.

identified by a ten-digit number, whereas most PSAPs currently can receive and process only seven digits from the public switched telephone network.

Fourth, wired phones are powered from the local telephone company's central office, and if 911 service is available in a geographic area, that service may be reached from any point within that area by a wired telephone.²³ In contrast, signal coverage for mobile services varies with terrain. In addition, wireless phones are battery-powered. As a result, even if landline 911 service is available in an area, the mobile service provider may not be able to connect a customer to that service because, for example, the subscriber's battery is discharged, the mobile unit's antenna is not functioning properly, or the call is originated from a location where there is weak signal coverage.

Fifth, and perhaps most fundamental, location technology in the mobile context is at best immature and unproven. Indeed, as discussed in detail below, none of the ALI technologies listed in the Notice is sufficiently developed to assure that it can provide effective and efficient access to E911 within the time frames proposed by the Commission. Moreover, by definition, mobile phones may be in motion when a 911 call is made. Accordingly, location information may be accurate at the instant a call is made, but inaccurate a moment later. Any requirement

²³ As the Commission acknowledges, landline 911 service is not ubiquitously available. Notice at ¶ 3.

to pass ALI must consider the feasibility of tracking mobile sources.

In light of the considerable technical challenges inherent in achieving wireless/E911 compatibility, the most appropriate role for the Commission is to facilitate the development of standards and technology by wireless service providers, manufacturers, landline LECs, and public safety entities. Indeed, the two JEMs recently have provided input to standards bodies, which can now begin the critical task of developing common system interfaces. Setting arbitrary deadlines for compatibility could effectively mandate deployment of an inferior and untested technology and sacrifice a more desirable approach that might be achievable within an additional reasonable period. Against this background, the remainder of these Comments will seek to elucidate the challenges that the industry must overcome, assess the Commission's proposals in light of technical and economic realities, and suggest appropriate means of expediting compatibility.

B. Scope of the Wireless/E911 Rules

AT&T agrees with the Commission that mobile subscribers reasonably expect to have access to emergency services through 911,²⁴ and that the ultimate goal should be wireless user access that is generally equivalent to that provided to voice users of

²⁴ Notice at ¶ 37.

the wired telephone network.²⁵ Accordingly, AT&T concurs that all providers of real-time voice CMRS services (with the exception of air-to-ground service) should be required to provide access to 911,²⁶ and that this requirement should apply equally to new and existing services. Such a universal mandate will benefit the widest number of subscribers, assure that compliance costs are not unfairly borne by one set of competitive services, and satisfy user expectations of transparency across different mobile services.

AT&T also agrees that the 911 capabilities accessible by customers of wireless service providers should be equivalent to those accessible by customers of landline services.²⁷ As a long-term goal, access to E911 by wireless customers should be available anywhere such access is available to landline customers. The Commission should recognize, however, that some calls to 911 from mobile transmitters may not go through because of weak radio coverage, insufficient battery power, or other reasons unique to the wireless environment. The requirement of equivalent access must consequently be tempered by an

²⁵ The Commission must recognize the need for an adequate transition period, however -- which, as is explained in section II.C below, cannot currently be bounded because of the need for development, coordination, and implementation of technical standards and testing of equipment.

²⁶ Notice at ¶ 38. Access to 911 is plainly inapplicable to air-to-ground service.

²⁷ Id. at ¶ 39.

acknowledgment of the operating characteristics of mobile services.

Finally, AT&T largely concurs that, within one year from the effective date of an Order in this proceeding, any mobile radio transmitter that is "service initialized"²⁸ on a radio network must be allowed to make a 911 call.²⁹ Cellular telephones already provide this capability, assuming, as discussed below, that the user follows normal dialing procedures by pressing the "SEND" key after dialing 9-1-1. AT&T disagrees, in part, however, with the proposal that user validation not be required.³⁰ A roamed-to system needs to register a mobile station, which includes validation that the mobile station is service-initialized, in order to protect the wireless service provider from serving owners of illegal "bootleg" or pirated phones or non-service initialized handsets that are retained for the sole purpose of emergency service. Such validation also is important to assure that accurate information is forwarded to

²⁸ The Notice defines "service initialized" to mean that "the user has purchased services from a wireless service provider." Id. at note 46.

²⁹ Id. at ¶ 41.

³⁰ The Notice uses the term "user validation," but AT&T believes "mobile station validation" is more accurate in the cellular environment. Cellular operators have no means of validating the user; the system looks at the telephone for identification, not at the calling party. On the other hand, new personal communications systems may well require user validation. Thus, "mobile station/user validation" would be suitable, broadly applicable terminology that would cover the range of possible wireless service implementations.

the PSAP and that the network is designed with sufficient capacity to support the expected 911 traffic load.

C. Technical Issues

The Commission properly recognizes that "[a]vailability of enhanced 911 service for wireless customers may require modifications to mobile radio handsets, mobile radio service provider networks, the public switched telephone networks, or public safety access systems."³¹ To maximize compatibility, significant technical developments will be needed in each network or service element. For example, the wireless service provider will need to deploy ALI technology, which, as discussed below, is mostly theoretical and has never been tested in any of the multitude of operational settings found in mobile service applications. The LEC will need to support interconnection arrangements and protocols for the transfer of information between telephone service providers and data bases. The PSAP provider will need to accept new signalling protocols for the transfer of location information.

To accommodate all the necessary changes in a rational and timely manner, CMRS providers, manufacturers, LECs, and PSAP providers will need to reach consensus on interfaces, transmission standards, and other technical matters. AT&T strongly agrees with the Commission that such standards should

³¹ Id. at ¶ 39.

be developed by industry bodies rather than the agency.³² Industry groups can draw on the expertise and resources of all affected parties in a flexible manner and, at the same time, remain accountable to the Commission through formal or informal reporting requirements and participation by agency staff.

With these considerations in mind, AT&T will address each of the relevant technical proposals raised in the Notice.

1. Accessing 911

The Commission proposes that mobile customers be able to reach 911 simply by dialing those digits.³³ AT&T agrees with this proposal, but urges clarification in two significant respects.

First, any call made from a mobile phone currently requires the user to press the "SEND" button after dialing the digits of the call. There is no justification for requiring a different dialing pattern for 911 calls, because the need to press SEND is universally known by cellular subscribers. If applied on a going-forward basis, requiring 911 calls to be transmitted from the handset without the SEND command would take many years and untold dollars for manufacturers to implement. Retro-fitting the 20 million existing cellular phones would be highly impractical, as well as extremely costly. Accordingly, the

³² Id. at ¶ 40.

³³ Id. at ¶ 41.

Commission should clarify that mobile customers may reach 911 by dialing 9-1-1 plus the SEND key.

Second, the Commission should clarify whether it intends to require that locked phones transmit 911 calls.³⁴ AT&T recognizes that PSAP providers have identified the ability to transmit 911 calls from a locked phone to be a desired requirement.³⁵ In general, locked phones can be used for 911 calls today. Nonetheless, regardless of whether the Commission imposes such a requirement prospectively, retro-fitting of any non-compliant existing handsets should not be required because of the burden on subscribers.

2. Call Priority/Queuing

The Commission proposes that, one year after the effective date of an Order in this proceeding, originating 911 calls must be assigned priority over non-emergency calls (without interruption of calls in progress). It further proposes that priority be assigned at the handset, and that 911 calls be placed at the beginning of the queue for entry into the mobile network.³⁶ AT&T understands the reasons underlying the Commission's proposal, but has serious concerns regarding its practical consequences.

³⁴ To prevent unauthorized use of a cellular phone, most equipment can be locked by the subscriber, who can then unlock the phone by inputting a three or four-digit code. Most phones will transmit 911 calls even when locked, while some will not.

³⁵ See PCIA/JEM Report at 6, item 5.1.1.

³⁶ Id. at ¶ 44.

As an initial matter, AT&T does not believe that priority access should begin at the handset. Such a requirement would require massive retro-fitting of existing phones, which do not provide this capability. In addition, it may be inappropriate in the mobile context to assume that every mobile-originated 911 call should enjoy priority over each non-911 call. As noted in Section II.A above, mobile 911 calls often come in clusters, as numerous people report the same event. Giving all of these calls priority may aggravate congestion not only in the mobile network, but also in the landline network and at the PSAP.³⁷ Such congestion may well prevent high-priority calls made to numbers other than 911 from accessing the network. For this reason, priority access would raise significant liability issues for mobile carriers, particularly if non-911 emergency calls (such as calls to suicide hot lines or poison centers) are placed lower in the queue to free up capacity for 911 calls that turn out to be less important.³⁸ Finally, and in any event, there is virtually no prospect that call prioritization could be

³⁷ The industry is addressing means of giving priority to emergency service personnel through standards development for Priority Access Channel Assignment (PACA) and Alternate PACA procedures. These procedures, when implemented in wireless switching equipments, will maximize the chance that calls from such personnel get through even when the network is congested. The National Communication System (NCS) will shortly release a report addressing PACA procedures for emergency service workers. Any Commission rules regarding priority should be consistent with NCS recommendations.

³⁸ As is discussed in Section II.D below, the Commission should address potential liability issues by affording wireless service providers the same immunity from liability that is extended to wireline carriers involved in providing access to 911.

deployed within one year after release of an Order in this proceeding.

Given these concerns, AT&T believes the most prudent course is for the Commission to direct the industry to examine the issues raised by call prioritization and to report back by a date certain whether implementation of such a scheme produces net benefits. AT&T's preliminary assessment is that the devotion of resources needed to achieve call prioritization with respect to 911 calls dialed by mobile subscribers may delay more important aspects of compatibility, such as the development of ALI technology.

3. Re-ring/Call-back³⁹

The Commission proposes that, within three years after the effective date of an Order in this proceeding, wireless systems provide PSAP attendants with the capability to call back the 911 caller after the call has been disconnected.⁴⁰ AT&T believes that the provision of call-back information represents the most logical and achievable interim approach to compatibility,

³⁹ The reference to "re-ring" in the Notice is inappropriate. Re-ring is the capability for the PSAP operator to do a switch hook operation to call back the caller. This capability is limited to landline, basic 911 where the PSAP operator does not receive the originating telephone number. AT&T also notes that neither JEM report identified re-ring as a PSAP service requirement. During discussions on this issue, JEM participants from the public safety community indicated that re-ring is not a requirement and that use of this feature is being phased out. Consequently, AT&T recommends against establishment of a re-ring requirement.

⁴⁰ Notice at ¶ 52.

pending development of accurate ALI technology. Nonetheless, the Commission should recognize that certain technical hurdles must be overcome before call-back can be ubiquitously implemented.

As an initial matter, wireless carriers currently can deliver ANI or pseudo-ANI to the LEC for transmission to the PSAP, but technical challenges complicate the delivery of this information to the PSAP because the required signalling format is not supported throughout the emergency services network. The current format supports transmission of only seven digits plus an information digit. The emergency services network must be able to accommodate at least ten digits in order to identify subscribers who are roaming. In addition, the mobile system would need to be able to override subscriber instructions to block incoming calls or direct such calls to voice mail. This would require significant feature development by manufacturers of wireless service network equipment. Finally, under present technology, cellular companies can send either seven digits of the mobile identification number (MIN) plus an information digit or the cell site location, but not both.⁴¹ At this time, the MIN has more value because it allows for call-back and can identify the owner of the telephone.⁴²

⁴¹ Accommodations can be made for home system subscribers by using the information digit to identify the local area code in locations with multiple area codes. The information digit cannot, however, identify the area code of a roaming caller.

⁴² However, the seven- or eight-digit translation limits call-back information to home system subscribers only.

These challenges can be overcome by joint industry and PSAP provider efforts. Rather than establishing an immovable compliance deadline, however, the Commission should set a three year target and direct the industry to report periodically on progress toward achieving this aspect of compatibility. This approach would minimize the risk of adopting inferior technical standards simply to meet an arbitrary cut-off date.

4. Provision of Automatic Location Identification

The provision of ALI is perhaps the most critical, and certainly the least readily achievable, aspect of assuring compatibility between mobile services and E911 systems. The Notice proposes a three-stage process for providing user information to the PSAP. In the first stage, beginning one year after release of an Order in this proceeding, wireless carriers would have to relay the location of the base station or cell site receiving a 911 call to the PSAP closest to the mobile unit.⁴³ In the second stage, commencing three years after release of an Order, the base station or cell site would have to relay more precise information, including an estimate of approximate location and distance of the mobile unit, calculated from received signal strength or through other means.⁴⁴ In the third stage, after five years from the release of an Order, the wireless system would have to pass sufficient longitude,

⁴³ Notice at ¶ 49.

⁴⁴ Id. at ¶ 50.

latitude, and elevation information for the PSAP to determine location within a radius of 125 meters.⁴⁵ AT&T disagrees with this three-step approach for the reasons discussed below, and submits that a far preferable strategy would be to provide call-back number as an interim solution until reasonably precise location technology is available.

Stage 1. The Stage 1 proposal should not be adopted because base station identification provides grossly overbroad and inaccurate information. As an initial matter, the geographic area covered by a cell site is not discretely defined. Mobile users can originate calls on "non-server" cell sites -- that is, cell sites other than the one closest to the caller -- due to RF phenomena that place a non-server control channel at a level higher than the usual control channel for that area. For example, a mobile unit on a hilltop may see several control channels, and within a fading environment, the 911 call could be established through a cell site that the PSAP does not recognize as covering that area. Similarly, in a "directed retry" condition, the cellular telephone is instructed to originate on another sector due to traffic overloading on the primary cell site. Either scenario could deliver erroneous location information to the PSAP. This problem is magnified in

⁴⁵ Id. at ¶ 51.

rural areas, where cell sites employ omnidirectional antennae covering several square miles.⁴⁶

A second reason to forego adoption of the Stage 1 proposal is that, under current technology, the provision of base station identification precludes transmission of the MIN, which is far more valuable to PSAP providers. Indeed, as part of Project 31, a survey of NENA and APCO members showed that 68 percent of the respondents preferred a call-back number over approximate location, if -- as with short-term technology -- they had to choose one over the other.⁴⁷

Stage 2. The Stage 2 proposal should not be adopted because it would compel wireless service providers, LECs, and PSAP providers to invest in extremely expensive but highly inaccurate technology that will have no utility once Stage 3 technology is available. Forcing these industry segments to expend scarce resources for an interim solution with severe shortcomings could seriously delay the development of more accurate means of determining and relaying location information. Industry efforts would better be focused on expediting development of a permanent solution.

⁴⁶ Nor do sectorization and directionality of antennae produce sufficiently reliable information to justify adoption of an interim requirement that would prevent provision of a call-back number. Such approximations may only narrow the location of the caller to an area of a few square miles and be of minimal use to emergency service personnel, particularly in urban areas.

⁴⁷ See Contribution 10 to TR45.2 JEM. Most respondents (370 out of 597) defined "exact location" to be a mean figure equal to the caller being located within 2.36 minutes (of time).

Stage 3. AT&T certainly shares the Commission's goal of hastening deployment of reliable ALI capabilities. The Commission must recognize, however, that the technology to provide latitude, longitude, and elevation information is in the very earliest stages of development, that none of systems referenced in the Notice has been commercially deployed and none of the vendor claims has been field-tested, and -- perhaps most fundamentally -- that there is no consensus national standard for any of the proposed technologies.⁴⁸

As an initial matter, the proposal that the location information provided to the PSAP include elevation is extremely troubling. AT&T commends the Commission for recognizing that elevation may be unnecessary in many rural settings, and may potentially be of use only where multi-story buildings are prevalent.⁴⁹ The Notice does not acknowledge, however, that there is currently no prospect of delivering accurate elevation data in the near term. The most optimistic existing expectations are for ALI systems to provide accuracy of only 125 meters -- or approximately the height of a thirty-story building -- and even long-term goals are for accuracy within 40 feet, or

⁴⁸ As the PCIA/JEM Report points out, "[n]ot all the technologies address the multiple RF air interfaces, system architectures, and operating environments which exist (e.g., 800 MHz PCS) or are proposed (e.g., 1800 MHz PCS)," and "performance analysis of the location technologies for various architectures and operating environments will require additional development and testing." PCIA/JEM Report, Appendix B, at 40.

⁴⁹ Notice at ¶ 51.

three stories.⁵⁰ In addition, the potential accuracy of elevation location technologies will vary considerably with the architecture of the wireless system; what may be achievable with micro- or pico-cell systems would be unattainable in a macro-cell architecture such as existing cellular service. AT&T consequently does not believe that a mandatory, universal elevation requirement can be justified.

Moreover, each of the technologies referenced in the Notice suffers from serious shortcomings:

- Global Positioning System (GPS). Use of GPS as a location technology would require the retro-fitting of cellular phones with GPS receivers. It also would require development of an air-link protocol to transmit calculated GPS location coordinates to the cellular system. This protocol would have to be standardized by industry groups to allow for universal use independent of service provider. Drawbacks to this method include significantly increased costs for cellular telephones and poor performance in urban areas where limited sky view greatly diminishes accuracy.

- Time Difference of Arrival (TDOA). TDOA does not require modification to the cellular handset, but it would necessitate installation of expensive location equipment at cell sites, including receivers and GPS systems. Accuracy problems

⁵⁰ JEM Report at 8.

would exist in dense urban environments due to multipath interference and shadowing.⁵¹

- Angle of Arrival (AOA). AOA works like TDOA, but would also require the addition of direction finding arrays to cell sites. In addition, for both TDOA and AOA, the Commission would need to consider whether to require location or tracking information. Location provides a one-time calculation at the origination point of the 911 call. If the user moves, the PSAP will not be informed. Tracking, in contrast, would continuously calculate the user's location while the call is in progress. The location vs. tracking decision will determine the type of equipment needed, because tracking would require a dedicated receiver for each 911 call at each cell site, and thereby impose a massive cost burden.

- Received Signal Strength. An ALI system based on received signal strength would require a modified telephone with a separate scanning receiver. Its use would engender retrofitting, cost, and standardization challenges similar to GPS. In addition, received signal strength is the least accurate of the methodologies that rely on a hand-held unit for tracking.

- CDMA Time Synchronization. AT&T and many other major cellular carriers do not support CDMA systems. Indeed, at this time, TDMA is far more broadly deployed than CDMA, which remains

⁵¹ Multipath interference occurs when a receiver receives multiple signals from a single source due to reflection off objects (for example, a signal is received both directly and after reflection off a building). Shadowing is normal fading due to obstructions such as trees or houses.

largely in a developmental testing stage. Whatever the ultimate merits of CDMA may be, TDMA is likely to remain the dominant system for at least several years. Accordingly, this method would not satisfy the critical requirement of nationwide ubiquity.

- KSI's Direction Finding Localization System. This system essentially relies on angle-of-arrival technology, and consequently suffers from the drawback of that approach. In addition, it utilizes an omnidirectional finding array. Most urban cell sites, in contrast, are sectorized and have antennae placed on building sides where the array would not have a 360-degree field of view. AT&T is not aware that KSI has developed a sectorized direction finding array, such as would be required for urban cell sites.

* * *

For these reasons, AT&T urges the Commission not to adopt the stages and time deadlines proposed in the Notice, and not to impose cut-off dates for the manufacture, importation, and marketing of equipment that does not allow for compatibility.⁵² There is simply no basis for finding that the specific elements of compatibility that the Commission has identified will be available within the relevant time frames.⁵³ Accordingly,

⁵² See Notice at ¶ 55.

⁵³ Based on the current state of technology, AT&T anticipates that latitude and longitude may be capable of being provided within approximately seven years, assuming that LECs can transmit and PSAPs can accept and process such information. In addition, the industry may be able to determine within five years

imposition of an arbitrary deadline would do far more harm than good. Instead, the Commission should promote provision of call-back information as an interim step toward compatibility and direct all affected industry segments to develop the necessary technology and standards as expeditiously as possible.⁵⁴

5. Common Channel Signalling

The Commission seeks comment on the feasibility of requiring wireless providers to furnish to the PSAP the call-back number and mobile subscriber's name, location of call origination, class of service, base station provider's name and telephone number, priority of the caller (e.g., hospital/school), routing information to direct the call to the proper PSAP, and numbers to allow transfer of calls to police, fire, and ambulance services. It proposes that common channel signalling capabilities be implemented within three years to permit passage of this information, and asks whether the

whether a relatively precise means of measuring elevation can be developed in the foreseeable future. Those time frames must be considered flexible goals rather than firm deadlines, however. It will be essential to field-test any technology under the variety of network architectures and transmission protocols used in the mobile environment before adopting an approved methodology. Finally, once a technology and standards are agreed upon, the Commission should allow flexibility in implementation, so that systems are required to provide the information necessary to allow rapid response, but are not compelled to provide superfluous data. For example, rural systems should not be required to provide elevation information if doing so is not necessary to assure rapid response by emergency service personnel.

⁵⁴ To assure continued progress, the Commission can require periodic reports and can assign staff members to monitor industry meetings.

reliability of 911 services will be hampered if those services are transferred to SS7.⁵⁵ AT&T has several comments regarding this proposal.

First, the Commission should avoid confusing "common channel signalling," which is an architecture, and "Signalling System 7," which is a protocol. AT&T's wireless networks use a common channel signalling architecture, but most often employ the IS-41 protocol. Accordingly, the Commission should leave it to standards groups to determine the optimum way for the transfer of information to take place.

Second, send and receive protocols to support the passage of information between wireless providers, LEC networks, PSAP operators, and other components of the emergency services network will need to be defined and developed. AT&T does not know whether the necessary upgrades to PSAPs and standards development can be accomplished within the three-year time frame proposed by the Commission.

Third, industry groups, rather than the Commission, should determine what information should be provided. The process of identifying necessary information already is underway, and the Commission's proposals in this regard are in several respects imprudent. For example, some of the information categories enumerated by the Commission (such as priority and routing

⁵⁵ Notice at ¶ 53. AT&T does not herein address the reliability issue because standards groups will need to develop the necessary protocols before reliability can be assessed.

instructions) are inconsistent with industry recommendations.⁵⁶ Moreover, some of the requested information, such as location of call origination, will not be available within three years for the reasons discussed above. AT&T also notes that some of the information, such as transfer numbers and secondary PSAP numbers, simply will not be supplied by the wireless service provider. Rather, this information will be obtained by the PSAP operator from a data base.

Finally, transmission of some of this information raises legal and policy concerns. Provision of the subscriber's name and telephone number could conceivably trigger privacy issues, and accordingly, wireless service providers will need to be insulated from liability for disclosing such information to the PSAP provider (and from disclosing inaccurate or no information).⁵⁷ Similarly, information sufficient to allow the PSAP provider to determine priority should be transmitted if required, but wireless carriers themselves should not be tasked

⁵⁶ AT&T notes that the TIA/JEM deleted priority from the list of desired information. In addition, the value of a feature that provides "determination of the type of emergency service" is debatable. PSAP providers prefer that this function be performed by a human. AT&T also urges the Commission to consider whether class of service (residence/business) provides useful information. It is not apparent, for example, that the PSAP provider is assisted by knowing that a call came from a car phone subscribed to a corporate account rather than a residential account.

⁵⁷ AT&T shares the concerns of many 911 providers regarding public access to telephone numbers and tape conversations. Maximum privacy protection should be extended to wireless callers who contact 911.

with deciding which institutions or users will be given priority over which other types of callers.

6. Access by Text Telephone Devices

The FCC proposes that, within one year of the effective date of an Order in this proceeding, radio services must be capable of permitting access by individuals with speech or hearing disabilities through means other than mobile radio handsets, such as through the use of a TTY device.⁵⁸ AT&T believes this requirement can be met from the standpoint of the wireless service provider. Most cellular phones already can be hooked to a TTY device through a data connection with the cellular phone. The implementation issue rests with the LEC and the PSAP; specifically, whether they can accept the data transmitted by the TTY.

D. Policy Issues

1. Labelling of Handsets

The Commission asks for comment on whether, within 30 days after the effective date of an Order in this proceeding, it should require that equipment not meeting the proposed compatibility requirements bear a warning label. The label would state that the person answering a mobile call to 911 may not know where the caller is or how to call the caller back.⁵⁹

⁵⁸ Notice at ¶ 54.

⁵⁹ Id. at ¶ 55.

AT&T strongly opposes such a mandatory labelling requirement. Labels often are confusing and poorly understood, and may actually undermine the purpose of 911 by deterring subscribers from using their mobile handsets to contact emergency service personnel. In addition, location technology may well be placed in the network rather than the handset, rendering a label on the telephone unit both inaccurate and incapable of being updated as compatibility technology is deployed.

Customer education regarding access to 911 services can better be accomplished through instruction manuals, service contracts, and bill inserts. These methods will allow the service provider to keep subscribers informed of progress toward compatibility. In addition, in contrast to warning labels on the handset, there is relatively little risk that these customer education measures will inadvertently dissuade people from dialing 911 in an emergency.

2. Immunity from Liability

In the landline context, local exchange carriers enjoy broad immunity from liability for their role in delivering 911 calls. The Commission should extend the same immunity to wireless carriers.

As AT&T has explained elsewhere in these Comments, the nature of wireless technology is such that, notwithstanding a commitment to provide the best possible service, there will occasionally be coverage gaps, calls handled by distant cell

sites, topographical interference, discharged batteries, and other problems that may interfere with rapid delivery of and response to emergency calls. In addition, wireless service providers should not face liability for violating privacy interests when transmitting a customer's name, telephone number, or other identifying information.⁶⁰ Nor should liability attach if the Commission requires 911 calls to be given priority and injury results to parties whose important non-911 calls were assigned a lower priority. Accordingly, parity of immunity with landline carriers is essential.

3. Preemption

AT&T supports the Commission's tentative conclusion that state regulation of wireless compatibility with E911 systems should be preempted.⁶¹ AT&T already has explained that nationwide deployment of consistent technology is essential for true compatibility between wireless services and emergency response systems. If the industry is to develop an efficient, timely, nationwide approach to compatibility, it cannot be sidetracked by disparate requirements and standards imposed by

⁶⁰ AT&T notes that the recently enacted Digital Telephone Bill, H.R.4922, prohibits cellular carriers from disclosing caller name, number, and location information to law enforcement officials without a specific subpoena or court order. These statutory, privacy-based limitations on the dissemination of caller location information might be viewed as inconsistent with the requirement to report caller and location information, including cell site data, to the PSAP. The Commission should clarify how its rules relate to the requirements imposed by H.R.4922.

⁶¹ Notice at ¶ 59.

individual states, counties, and municipalities. Moreover, the Commission should preempt state or local zoning restrictions that would interfere with the deployment of location technologies at cell sites. Rapid and effective deployment of a wireless 911 access system will require cell site deployment. Accordingly, the Commission should exercise its broad preemption authority by prohibiting any non-federal requirement that specific compatibility technologies be deployed or particular deadlines be met, and preempting state or local zoning restrictions that would affect the deployment of all-related technologies at cell sites.⁶²

4. Funding and Cost Recovery Mechanisms

Achieving compatibility between wireless services and E911 systems will require wireless service providers, PSAP providers, and landline LECs each to incur significant costs for the development and deployment of new technology. It is imperative that wireless service providers not be required to indemnify LECs and PSAP providers for their costs of assuring compatibility with wireless services. In addition, wireless service providers should not bear the costs of implementing 911 service in areas where it is not currently available to landline customers.

⁶² At the same time, however, the Commission should encourage voluntary agreements between service providers and PSAP providers to test out particular technologies. Such voluntary field testing is an important step toward developing consensus compatibility technologies.