

BEFORE THE  
FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON, DC 20554

In the Matter of	)	
Petition of the Cellular Telecommunications	)	CC Docket No. 01-72
And Internet Association for a Rulemaking to	)	
Establish Fair Location Information Practices	)	

REPLY COMMENTS OF SiRF TECHNOLOGY

SiRF Technology, Inc. is the leading producer of GPS chip technology and software for cellular telephones and other consumer devices. Over the past five years, SiRF – a private company with 150 employees - has made the investments necessary to ensure that phone manufacturers could produce location-enabled telephones to comply with the Commission’s E-911 mandate, upon receipt of an order from a carrier. Because SiRF collects and calculates location in the handset, the location information is under the control of the user and can be transmitted over any mobile network, without regard to bandwidth or multiplexing constraints.

Several principles appear to enjoy broad support in the comments:

- E-911 is the location service that consumers most value. It is the application most likely to cause existing consumers to purchase new phones or to attract new customers who have not previously adapted wireless service.

- To make E-911 succeed, carriers need to have flexibility to provide commercial location service free from regulation beyond that necessary to preserve consumers' confidence in their privacy.
- As AT&T observed, all carriers "must [address privacy concerns] if consumers are to accept these new services and technologies." AT&T Comments at 4. 6; see also WLIA Comments at 3.

Another factor that several commentators identified is that many consumers are willing to "sell" their right to privacy. People who find unsolicited advertisements annoying and offensive may want to have the option to receive them if it lowers their phone rates. The marketplace will set the value, provided that consumers have the appropriate information. Privacy rights are as important to consumers as price in the terms of mobile phone service. Indeed, allowing carriers to resell their private information may be part of the price that consumers pay for certain mobile service plans in the future. If a carrier chooses to make annoying privacy-intrusive features mandatory, it will have to provide very attractive rates or suffer the punishment of the marketplace.

Therefore, the touchstone of effective and cost-minimized regulation is the provision of comprehensible information to consumers as they choose among carriers. Information eliminates the need for prohibitions and many other absolute protections. If and only if consumers have complete, understandable information about their information services can the marketplace be relied upon to work.

I. ACCURACY MUST BE COMPLETELY DISCLOSED TO CONSUMERS.

While the CTIA petition purports to set forth "fair location service principles," it fails to deal with the most unfair practice of all – providing inaccurate location information in life-threatening situations. CTIA and all carriers should recognize that

accurate E911, in compliance with the Commission's mandate, is the location service that is most important to consumers and to the public interest. E-911 is also the catalyst that is driving the implementation of technologies that make other commercial services possible. SiRF is therefore puzzled that CTIA now wants to recharacterize its petition as "a location privacy rulemaking" that "should not be a forum for addressing E-911 implementation or related issues." CTIA Comments at 7. In our desire to resolve E-911 issues now (before the October 2001 deadline) and here (in this docket), we are joined by other commentators, including the Location Privacy Association (at 5), the Texas E-911 Agencies (at 4), SCC Communications (at 2). Sprint (at 14) wants to use this docket to pre-empt state regulation of E-911, and CTIA (at 5) supports dealing with this E-911 related issue. As the Texas E-911 authorities observe (at 4): "The rulemaking may promote wireless carriers deploying wireless E-911 Phase II service in a more expeditious manner and in compliance with the Commission's wireless E-911 rules."

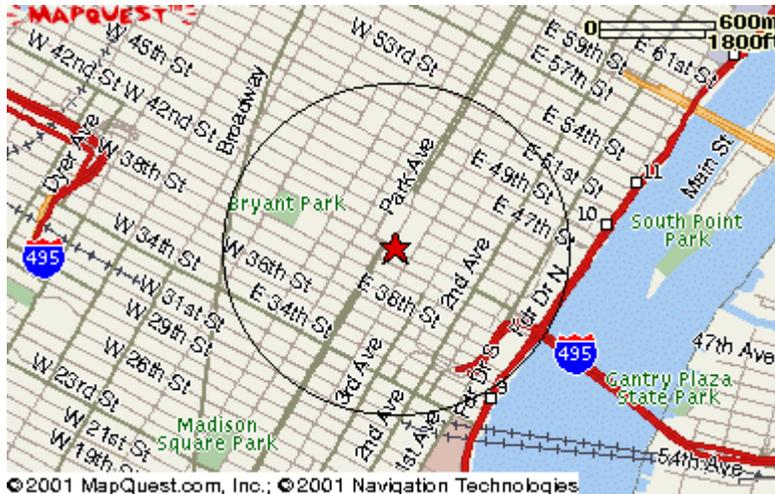
Accuracy and privacy are both essential components of "fairness" to consumers in E-911 implementation. In the event that any carrier is granted a waiver of the accuracy requirements set forth by this Commission in the E911 docket, that fact should be disclosed by a conspicuous warning sticker on new phone packaging and on the telephone itself. The disclosure should be repeated in a conspicuous place on every billing statement. A consumer should be relieved of any term commitment for service by any carrier who does not offer E911 mandate-compliant telephones in order to switch to a carrier that has complied.

AT&T writes (at 6) that "the success of location-based service should be based on the provision of superior service." This Commission has promised wireless users –

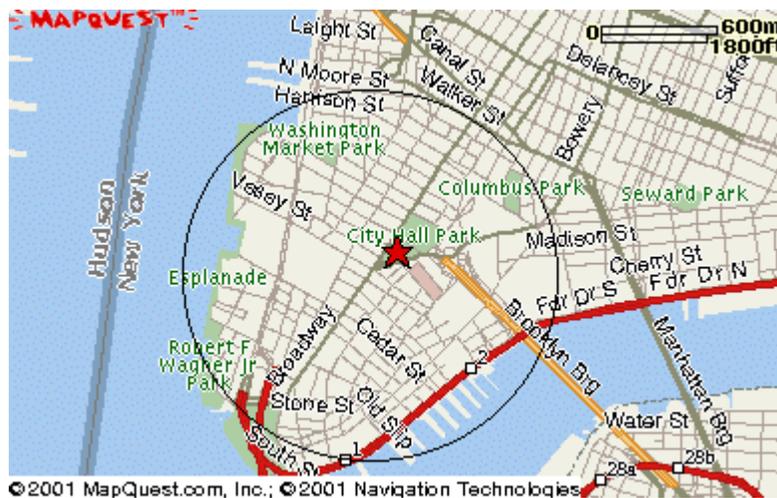
particularly consumers with health problems, disabilities, or who face other risks while they are in transit – that carriers would begin to provide location-enabled E911 by October 2001. If a carrier fails to meet the legally required compliance schedule, or obtains an accuracy waiver, they should clearly label the non-compliant phones. Otherwise, consumers will believe that carrier is complying with the Commission’s mandate and will not be able to choose “based on the provision of superior service.”

Because these terms of disclosure are strict, they should not be applied until one year after the October 1, 2001 deadline. But strict disclosure is necessary because failure to comply with the E911 mandate costs lives. Affected consumers need to be fully aware that they have non-compliant service incapable of providing an accurate location to emergency personnel. Consumers need to have the right immediately to switch to a compliant carrier without financial penalty, particularly if a health diagnosis or disability increases the risk that they may need accurate E911 service.

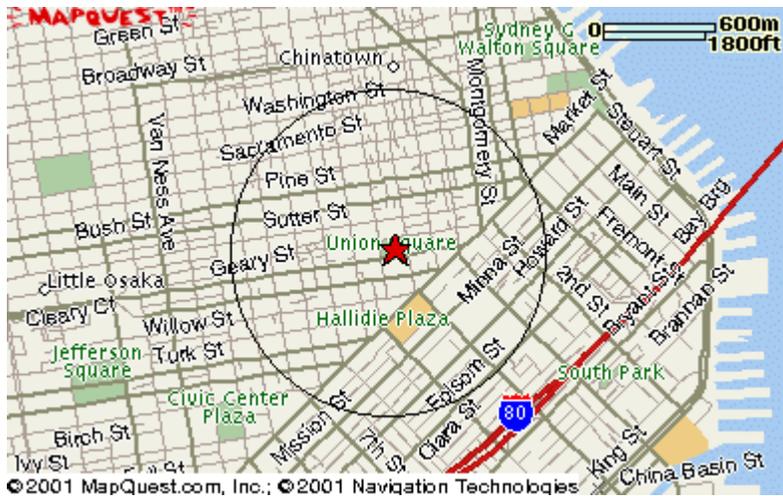
A circle with a radius of 750 meters includes more than 18 million square feet – the equivalent of about seven Disneylands. That is exactly 2500 times the area of a 15-meter that a GPS-equipped handset reliably reports from a car or pedestrian. Consider the consequences if the Commission granted a waiver of the accuracy standards of the mandate that allowed carriers to offer E911 locations within 750 meters:



If a consumer sought emergency assistance while changing trains at Grand Central Station New York City, E911 would have to search from 29th Street to 53rd Street and from the Midtown Tunnel to Broadway, including Times Square, Port Authority, Rockefeller Center, most of New York’s larger department stores, and approximately 35 miles of most heavily congested sidewalks in the nation.



If a consumer sought help outside City Hall, New York City, E911 would have to search Wall Street and all of downtown Manhattan, the World Trade Center, Chinatown, South Street Seaport, most of the Brooklyn Bridge, and parts of the Hudson and East Rivers.



If a consumer had a medical crisis while shopping in Union Square San Francisco, E911 would have to search from Folsom Street to Jackson Street and from Montgomery to Larkin including the Transamerica Pyramid, Chinatown, all of Nob Hill, the Tenderloin and the new Public Library.



If a Commissioner sought help while leaving the FCC building, the E911 authority would have to search the Washington Monument, the Jefferson Memorial, the Tidal Basin, the Smithsonian, almost the entire National Mall, parts of the 14th Street Bridge and the House of Representatives Annex Office Building.

It is also important that consumers know the accuracy with which they are reporting their location to E911 authorities. Many E911 calls come from “Good Samaritans” who report accidents or other emergencies as they drive by. A major problem today is that these drive-by callers can be vague in reporting their location. As a result, there are multiple dispatches to what turns out to be a single incident. This problem is significantly reduced when a GPS phone automatically transmits a roadside location with a 15 meters radius. It would be enormously increased by calls coming from a handset that reported a 750-meter radius, which would include a mile-long stretch of the freeway.

Compliance with the E-911 mandate will make mobile service very attractive to older Americans, who may not now use cellular phones, and to Americans with disabilities that impair their ability to determine or communicate their location to E911. These new customers have the right to clear disclosures about accuracy waivers so that they can decide whether to choose carriers such as Sprint and Nextel that use GPS technology.

Although safety is the primary reason consumers must know about the accuracy of location-enabled phone service, privacy concerns are also at stake. Consumer may want limits placed on the ability of law enforcement officials and divorce lawyers routinely to check on information about their true whereabouts. They certainly do not want to be wrongly placed at the scene of a crime or to receive solicitations from a store that is not nearby.

II. THE STATUS OF PRIVACY INFORMATION MUST BE PERIODICALLY DISCLOSED AND UPDATED.

Federal regulations require credit card companies with automatic payment arrangements periodically to confirm many consumers' bank account numbers by mail. This requirement protects both the consumers and the card companies from bounced checks that may routinely occur because the banking information is simply out-of-date. Using automated payment services is a great convenience for consumers and an economy for payees, but the very automated nature of the service simply makes it hard for consumers to keep track.

It is similarly important to protect consumers from information that is outdated and authorizations that have been forgotten about. This is particularly important to the extent that long-term authorizations may be granted by the click of a button on a phone without any permanent record immediately available to the consumer. Old location information is less valuable to advertisers and commercial users and potentially more threatening to consumers. Location information should not be stored longer than necessary to bill (and resolve any disputes) unless it is part of a customization service about which the customer is periodically reminded in writing.

As the Center for Democracy and Technology observes (at 5 & n.9), "The privacy risks increase when information is collected over protracted periods of time." CTIA (Petition at 10) assumed that location detail would be "ephemeral" and not stored. CDT recalls the furor that recently arose when Caltrans admitted that it had never bothered to purge its FasTrak bridge-crossing records since the automated system first began four

years ago. Retention of such dated information identifying individual cars cannot possibly benefit CalTrans, the user or anyone wishing to provide services to him. As long as the records continue to exist, however, they could be subpoenaed and used to contradict sworn testimony that may represent the user's best recollection of his whereabouts in the relatively distant past.

A mobile phone is more intimately attached to the individual than a landline or an automobile. Pen registers are usually not conclusive proof that the individual, as opposed to a visitor to his home or office, made a particular phone call. The CalTrans records only establish that someone in the individual's car crossed a bridge and was therefore in the San Francisco metropolitan area. By contrast, a location-enabled phone could identify the specific location from which an individual sought information. For example, it could identify the apartment that the user was in when activating a service to find out about nearby entertainment in the middle of the night. Unless the individual can show that the phone was loaned or stolen, the phone owner is almost irrefutably placed at the scene. Over time, the surprise and unfairness of being confronted with embarrassing or incriminating information in such detail increases. A single incident in which a lawyer used 5-year old service records to contradict the sincere testimony of a court witness could trigger a consumer backlash so severe that it could even threaten consumer acceptance of all location services, even E911.

There ought to be time limits for how long location detail is kept. Unless the user affirmatively requests that information be stored to create an automatic profile to customize services, the location details should be destroyed within a few billing cycles. By this time, the consumer has had a chance to deny that he made the service and the bill,

unless challenged, can be deemed accurate without the detail of the location from which the service was sought. Even if the user requests the use of the information to customize services, he should be affirmatively reminded of this authorization at least annually. Even if the customer continues the authorization, he should also be told how long data is retained before being purged as no longer relevant. WLIA raises a similar concern (at 6) when it suggests that the consumer have a right to correct or delete location information.

III. THE PRINCIPLE OF TECHNOLOGICAL NEUTRALITY SHOULD DISCOURAGE THE COMMISSION FROM GRANTING WAIVERS OR ALLOWING CARRIERS TO DELEGATE E-911 RESPONSIBILITIES.

CTIA and most other commentators – including AT&T (at 6) endorse the principle of technological neutrality. Objective requirements should apply to all technologies, even if all technologies are not equally able to meet the requirements. This implies that a carrier should not get a waiver of a mandate requirement, such as the accuracy standard, simply because it has chosen a non-compliant technology when a compliant technology is available.

The privacy protections afforded to consumers should be neutral both as to technology and the carrier's business structure. SiRF has explained that the calculation of a GPS-based location upon user activation in the handset precludes passive tracking. Handset-based calculation and affirmative activation provide two mechanisms to guarantee user privacy. Although TruePosition uses a network-based technology, it explains (at 2 and 7) how it “has designed a system that ensures that location-based information is used only with subscriber consent,” including user deactivation of passive location services. The privacy standards, whatever they are, should be the same for all

technologies. Although some commentators have suggested a “safe harbor” for companies who make “a good-faith effort to implement and abide by . . . privacy principles” (WLIA at 6), no exceptions can excuse the use of a technology that is inherently incapable of meeting neutral standards of accuracy or privacy. Providers should not be excused from respecting user privacy simply by claiming that their particular technology makes the protections difficult or impossible to implement.

SiRF is also concerned that customers could lose their privacy protections – or their enforceability – if the carrier delegates E-911 responsibilities to an agent, contractor, joint venturer, or other third-party. Several commentators suggested that CPNI protections do not apply to entities that perform E-911 functions on behalf of carriers. If, in order to fulfill the E-911 mandate, the carrier enables a third party to use its network to obtain location information about individual users, it must retain full responsibility for the security of the information. The Commission should prohibit carriers from entering any contract that prevents them from ensuring that CPNI is safeguarded as effectively as if all E-911 functions were performed internally. Otherwise, an enormous loophole would emerge. Contractors tasked with E-911 responsibilities could track individual subscribers as resell CPNI without limitation or effective threat of enforcement. A similar loophole would exist if a carrier deemed a value-added reseller as the “subscriber of record” and obtained its consent to reselling personal information without notice to the actual end users.

Several commentators have raised complex legal issues about the scope of the Commission’s authority over non-carriers. These need careful examination in the

rulemaking, but the Commission should not allow delegations to defeat its enforcement power or its ability to protect the actual consumer.

IV. LOCATION INFORMATION COLLECTED BY VIRTUE OF WIRELESS USE SHOULD BELONG TO THE SUBSCRIBER.

SiRF endorses the view of the Location Privacy Association (at 4), which “strongly believes that the wireless subscriber is the sole owner of his or her location data.” They may share this data in order to customize useful services or to lower their phone rates. They may even be required to submit to location tracking in order to obtain service (or as a condition of employment). But, as LPA observes (*id.*), “personal control was the foundation” of 47 U.S.C. §.222, which protects CPNI. Consumers should know who has access to tracking information so that they can make informed choices, including changing their carrier, if needed to protect their privacy.

CTIA suggests (at 13 & n.53) that this position implies that “a reasonable expectation of privacy attaches to [information in the possession of a carrier about the location of an individual by virtue of his use or carriage of a wireless telephone].” It is certainly the case that customers today have precisely this expectation. The Commission should ensure that wireless phones do not become surreptitious tracking devices, providing detailed information available to carriers, solicitors, and officials without the full understanding of the user.

V. THERE CAN BE NO PRE-EMPTION WITHOUT A RULEMAKING.

At least one commentator suggests that the Commission should preempt all state regulation of privacy and take no further action but to adopt the CTIA principles as

“guidelines or . . . a policy statement.” (Sprint at 5) Even if this were legally possible, it would not be in the public interest. The Commission should not pre-empt any aspect of state privacy regulation without adopting binding rules or making an affirmative determination that no rules (state or federal) are appropriate.

## CONCLUSION

Fairness to consumers in the provision of location services requires that the carrier disclose – in complete and clear language -- the accuracy of location services (especially E-911) and the extent to which their expectation of privacy will be secure. A rulemaking is appropriate to establish the most effective and economical procedures to secure this essential objective. This rulemaking must facilitate, and in no way delay, timely compliance with the E-911 mandate.

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SiRF Technology, Inc.  
148 East Brokaw Road  
San Jose CA 94022  
(408)-392-8453

By Scott Rafferty  
Senior Director  
Business Development