FCC proposes new rules for network and handheld providers

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On July 12, 2011, the Federal Communications Commission (**FCC**) established new rules to enable public safety answering points (PSAPs) to obtain more accurate information regarding the location of someone who calls an enhanced 911-capable PSAP. The new requirements were established in the FCC's **Notice of Proposed Rulemaking, Third Report and Order, and Second Further Notice of Proposed Rulemaking**.

At present, there are two ways for an enhanced or next generation 911-enabled PSAP to determine the location of a caller. One is through the network; the other is through the handset itself. A "network-based" locating system means the network provider (T-mobile, Verizon, etc.) determines the location by triangulating the call, determining what three cell towers are close to the phone, and seeing where those areas overlap. In handset location, a global positioning system chip or other component embedded in the cell phone alerts the PSAP to the caller's location. At a July 12 meeting, the FCC directed a new set of initiatives requiring mobile phone producers and network providers to decrease the location range provided to the PSAPs over the next eight years. The given location must be within 50–150 meters for handhelds, and between 100-300 meters for networks. The FCC also established a long-term goal of eliminating the less precise, network-based locating altogether, though no specific deadline was established.

The second topic looked at by the commission dealt with the increased use of Voice over Internet Protocol (VoIP) services to make emergency phone calls. A request for comment was released for several issues regarding VoIP, most notably about whether 911 rules should apply only to "outbound-only" VoIP services or to those that allowed calls to be received as well. The greatest problem with people using VoIP services to dial 911 is that the ability for 911 dispatchers to obtain the location of the call is entirely determined by whether or not the person using the system registered their location accurately, if at all. Even if a provider has registered their VoIP device with their specific location, the increasing mobility means that the location may not always be accurate, like when someone uses Skype or another VoIP network on their device at a coffee shop. Therefore, much of the discussion revolved around whether or not the FCC should mandate all VoIP providers supply automatic location information (ALI) for calls and provide a framework for doing so.

Analyst's Take:

These new, more stringent requirements offer significant opportunities for vendors working to develop locating technologies that will help both cell phone providers and manufacturers utilize handheld locating technology. Vendors should focus on increasing the precision of these devices, since there will likely be an increased intolerance of obfuscation over the specific location of an emergency when lives are in danger. In the long term, cell phone manufacturers will have an increased burden as all handhelds will be required to provide information on the phone's location. This will likely require the development of locating technologies, which is an expensive endeavor unlikely to yield significant profit. Likewise, this will decrease the burden on network providers who will no longer be required to triangulate the signal to determine the location of phones, which will allow the providers to focus on other things such as providing better coverage or increased bandwidth.