

Beyond 911

This IPRO report examines legislation that expands the capabilities of the 911 emergency number service for cell phones, looking specifically at the Enhanced and Next Generation 911 initiatives.

Definitions¹

Basic 911

Basic 911 is the traditional operation method of 911. When the three-digit number is dialed, the caller is connected to a dispatcher in a 911 call center, called a public safety answering point (PSAP). The caller's location and the nature of the emergency are communicated by voice from the caller to the dispatcher. If the call is placed from a landline phone, the telephone number and the address at which the phone is connected are automatically communicated to the PSAP.

Enhanced 911 (E911)

E911 is a technological enhancement to basic 911 that tracks the caller's phone number and location at the time the 911 call is placed. The call is routed to the proper PSAP, and the dispatcher views the caller's telephone number and location. The service works using a GPS chip and can be used on any cell phone with such a chip installed, whether it is prepaid or on a contract plan.

Next Generation 911 (NG911)

NG911 augments basic 911 by processing multimedia messages, such as picture and video messages, in addition to voice calls. This service allows the communication of an emergency to 911 in a situation where an individual is unable to reveal contact with 911 because of the nature of the emergency (e.g. a hostage situation).

Enhanced 911

Federal Action²

The Federal Communications Commission (FCC) adopted a set of rules for wireless service providers to phase in E911 over a five-year period, ending on September 11, 2012. By this date, wireless providers must provide precise location information, in the form of an intersection or exact address, to a PSAP. Wireless providers are required to report annually to the FCC on their progress toward these requirements. The FCC has devised two phases through which wireless companies can express their progress, but the completion of neither phase is required as long as the final requirement is met. In Phase I, wireless providers provide a PSAP with the telephone number of the wireless caller and

¹ Boerner, Bob. "Telecommunications: A Glossary of 911 Terms." Communications, Financial Services, & Interstate Commerce Committee: News from the States. 2009. National Conference of State Legislatures. 3 Oct. 2009 <<http://www.ncsl.org/default.aspx?tabid=17822#911>>.

² "Enhanced 911 Wireless Services." Public Safety and Homeland Security Bureau. 2009. Federal Communications Commission. 3 Oct. 2009 <<http://www.fcc.gov/pshs/services/911-services/enhanced911/Welcome.html>>.

the location of the caller's cell site or the base station transmitting the call. In Phase II, wireless providers provide the caller's latitude and longitude coordinates to a PSAP.

State Legislation

As of 2008, 17 states³ had passed legislation regarding E911, and four states⁴ had proposed, but not passed, such legislation. The majority of the enacted legislation serves to reinforce the federal legislation, making only administrative changes or adding privacy and/or liability restrictions. The changes these laws make to the federal requirements include: stipulations on the collection of surcharges by wireless companies for the E911 service; the establishment of a state 911 board or committee, or changes to such a body; the prohibition of the release of a wireless telephone number to non-emergency services personnel; and the requirement that an alternative method of providing location information exists when a 911 call is placed from a multi-line telephone system.⁵

Next Generation 911

NG911 is still in the research and development phase.⁶ In the summer of 2008, the Department of Transportation tested the viability of NG911 in a proof-of-concept study. Tests by voice, video, text, and instant message were administered to PSAPs around the country.⁷ For NG911 to be implemented nationwide, existing E911 networks will need to be updated. The National Emergency Number Association is developing a set of technical standards necessary for the nationwide operation of NG911, which are to be released by 2010.⁸

In August 2009, Black Hawk County, Iowa became the first PSAP in the country to accept text messages sent to 911. The service is only available to those who use iWireless, a local wireless provider, within the limits of Black Hawk County, but officials are working to expand the service to customers of other providers.⁹

³ Alaska, Arkansas, Colorado, Connecticut, Florida, Illinois, Kentucky, Louisiana, Maine, Massachusetts, Minnesota, Mississippi, Tennessee, Texas, Vermont, Virginia and Washington

⁴ Michigan, Nebraska, Ohio and Pennsylvania

⁵ "2008 911 and Enhanced 911 State Legislation (Enacted)." Issues and Research: Telecommunications and Information Technology. Sept. 2008. National Conference of State Legislatures. 3 Oct. 2009 <<http://www.ncsl.org/default.aspx?tabid=13412>>.

⁶ "Next Generation 911 Initiative." Public Safety and Homeland Security Bureau. 2009. Federal Communications Commission. 3 Oct. 2009 <<http://www.fcc.gov/pshs/services/911-services/nextgen.html>>.

⁷ Mannion, Annemarie. "The next generation of 911." American City & County. 2009. Penton Media, Inc. 3 Oct. 2009 <<http://americancityandcounty.com/pubsafe/communications/next-generation-911-200909>>.

⁸ *Ibid.*

⁹ *Ibid.*