

# E - 9 1 1 AND THE W I R E L E S S E - 9 1 1 F U N D

Traditional wireline 9-1-1 service was first established in the 1960's as a means of assisting emergency responders at Public Safety Answering Points (PSAPs) in locating callers who were unable to provide their address or location. With advances in technology and the advent of wireless phones, the FCC ushered in a new era of emergency response with requirements for both wireline and wireless enhanced 9-1-1 services. In response to FCC orders, the Commonwealth established the Wireless E-911 Services Board and the Wireless E-911 Fund to assist localities and wireless service providers in bringing E-911 services to the Commonwealth.

## Enhanced 911 (E-911)

In the Commonwealth enhanced 911 (E-911) is defined as "a service consisting of telephone network features and PSAPs provided for users of telephone systems enabling such users to reach a PSAP by dialing the digits 9-1-1." In addition to providing a direct link to the closest PSAP, E-911 also provides the capability for PSAPs to automatically identify the caller's location based on their phone number. However, in response to growing use of 911 on wireless phones, which by their nature are not tied to a specific location, the Federal Communications Commission (FCC) developed wireless E-911 rules to improve emergency services response to 911 calls.

## Wireless E-911

FCC regulation of wireless carriers with regard to wireless E-911 can be divided into two categories: Phase I and Phase II. Phase I rules require wireless providers, within six months of a request by a PSAP, to provide the PSAP with the telephone number of the originator of a wireless 9-1-1 call and the location of the cell site or base station transmitting the call. Phase II rules require that by September 11, 2012 wireless providers, within six months of a valid request by a PSAP, provide to the PSAP the latitude and longitude of the caller using either built-in GPS features or cellular tower triangulation (and accurate to within 50 to 300 meters). Wireless

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service providers must report to the FCC annually on their progress in supplying this more accurate location information for PSAPs with Phase II E-911 capability. Although wireline E-911 has been in development for many years, the technology and capability of wireless phones and cellular towers has allowed wireless E-911 deployment to achieve rapid adoption among PSAPs and wireless providers.

### **E-911 Coverage in Virginia**

In the Commonwealth, E-911 (and wireless E-911) deployment is regulated by the Wireless E-911 Services Board (the Board), which was created by the General Assembly in 2000 to plan, promote and offer assistance in the statewide development, deployment, and maintenance of enhanced wireless emergency telecommunications services and technologies. The Board consists of 15 members representing various state and local agencies as well as wireless service providers. Although the original goal for wireline E-911 coverage in Virginia was to have all localities providing wireline E-911 service by July 1, 2003, there are still four localities working to deploy E-911. The Board estimates that these localities will be able to implement wireline E-911 by June 30, 2009. Phase I wireless E-911 is close to completion with only two rural localities lacking coverage. Phase II wireless E-911 coverage is also nearing completion and is available to more than 99% of wireless telephone subscribers in the Commonwealth.

### **The Wireless E-911 Fund**

In 2000 the General Assembly established the Wireless E-911 Fund to reimburse both wireless providers and localities for the cost of upgrading their systems to meet FCC E-911 requirements. The Fund is generated by a \$.75 monthly surcharge on all wireless customers whose primary place of use is Virginia, which in FY2008 alone, generated approximately \$49.5 million. Since 2000 the Board has distributed over \$155 million to localities and over \$43 million to wireless providers, which represents about a 70/30 split between localities and the wireless providers. Although the Commonwealth is closing in on 100% E-911 adoption among wireline and wireless systems, the Board has developed a state wide comprehensive plan to help meet new challenges in providing Next Generation E-911 services (VoIP, text, video, etc.) to citizens of the Commonwealth.

### **Resources**

Federal Communication Commission website: <http://www.fcc.gov/cgb/consumerfacts/wireless911srv.html>

Virginia Information Technologies Agency, Division of Public Safety and Communication. Commonwealth of Virginia Wireless E-911 Services Board FY 2008 Annual Report . October 1, 2008: [www.va911.org](http://www.va911.org).

Enhanced Public Safety Telephone Services Act (Va. Code § 56-484.13 et seq.)

Since FY 2000 the Board has distributed over \$155 million to localities and over \$43 million to wireless providers to assist in the deployment of E-911 services.