

In the Matter of Wireless E911 Location Accuracy Requirements, PS Docket No. 18-64
Precision Broadband LLC and INdigital
Discussion Items July 16 and 17, 2018

Purpose:

We are here as commenters to propose a different, albeit complementary solution to Location-Based Routing of 911 calls (PS Docket No. 18-64). Precision Broadband LLC's (PBB) solution also provides highly accurate, real-time dispatchable location information for CMRS wireless 911 calls (PS Docket No. 07-114) as well as a new source of 911 funding.

Background:

Both proceedings (PS Docket Nos. 18-64 and 07-114) address the urgent need to more accurately and quickly ascertain location information for 911 calls from wireless phones. In the case of PS 18-64, the FCC acknowledges there are many 911 calls from wireless phones that are initially routed to a PSAP that does not serve the location of where the call originates. This is because 911 call routing is based on a location determined by the calling device's proximity to cell phone towers. For example, a 911 caller located at an address in Arlington, VA may have their call routed first to a PSAP in Alexandria, VA because their home is closest to a tower in Alexandria. Should the 911 call be routed first to the Alexandria PSAP, the 911 operator will learn that the address of the caller is in Arlington and would then transfer the call to the Arlington PSAP. Delays in such instances are life threatening. Furthermore, the carrier network-provided location of the originating call may only be accurate within 50-300 meters. The PSAP operator will only be able to determine which PSAP to transfer the call to after speaking with the caller. This causes more delay, and in some cases, the caller may not know or be able to communicate their location. The FCC issued PS 07-117 to require more accurate automatic location information for dispatch purposes.

Precision Broadband's Contribution to PS Docket Nos. 18-64 and 07-114:

PBB's system leverages the fixed broadband networks of facilities-based Internet Service Providers (ISPs) to provide the same real-time, accurate, dispatchable address location as is provided today with E911 landline telephone service. PBB's system provides a light-touch system requiring only interfaces with ISPs, mobile carriers, device OS' and PSAP systems. We have developed a working prototype of the proposed system in collaboration with INdigital, a leading 911 technology provider and New Paris Telephone, an ISP. We are prepared to demonstrate the system to the Commission.

Note, the system that PBB is proposing is not in lieu of the many (and fragmented) device-based location technologies offered by other commenters and market participants. It is complementary. Once fully developed from the prototype stage, PBB's system could be deployed quickly to address many call routing deficiencies identified before there are widely accepted device-based location implementations. The fixed broadband 911 system causes minimal operational impacts on ISPs and does not require changing existing ISP networks, PSAP systems, or consumer devices. Lastly, in addition to contributing routing and dispatchable location data, the fixed broadband 911 system provides an additional transport network for 911 voice, video, text and data communications thereby increasing the capacity of 911 access networks by 50%.

Economics:

To fund the fixed broadband-based location system, we are proposing that a 911 fee be assessed on broadband services as is done today with landline and mobile phone service. At similar rates to phone-based 911 fees, these new fees could amount to an additional \$1B per year in 911 funding. Such funding would finance the fixed-broadband 911 system and provide much needed resources to expedite the deployment of NG911. PBB's system provides the technological basis for assessing such fees. Fees assessed for 911 purposes on broadband are permitted under federal law (The Internet Tax Freedom Act - 2004 Amendment - Public Law No: 108-435). Furthermore, the FCC Task Force on Optimal PSAP Architecture (TFOPA) Report dated January 29, 2016 recommended that 911 fees on broadband service be considered.

Internet Service Provider Participation and Incentives:

It is now believed that broadband is a more critical service today than landline telephone service. 86% of households (108.7 million) have broadband service today. Landline telephone service is only in 43% of households, down from 92% in 2004.

PS Docket No. 18-64 asks for comments on the kinds of incentives that could be made available to expedite solutions that address the 911 call routing challenges. Our proposed broadband-based technology and 911 broadband fees create the impetus and resources for such incentives. Some of these resources could be used to reimburse the ISPs for their costs to support this system as they are today under the Communications Assistance for Law Enforcement Act (CALEA).

Requests of the Commission:

- We invite the Commission to see a live demonstration of PBB's fixed-broadband 911 location system.
- We ask that the Commission seriously consider using whatever authority it possesses to persuade all facilities-based broadband providers to utilize their networks to support 911 location and routing services as a matter of public safety. This would be consistent with these companies' public safety responsibilities as ISPs and telephone carriers under CALEA and as cable TV providers with respect to supporting the Emergency Alert System.
- We ask that the Commission include fixed broadband provided location services with respect to device and operating system provider recommendations along with other solutions offered by other market participants.
- We ask that the Commission give serious consideration to supporting a 911 fee assessed monthly on broadband services.