Building Silent Activation and Improved Location Accuracy Into the Current 911 System

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The 911 system that we know today is reliable and suitable for most emergencies. However, it may not be usable in situations where it is not safe to talk to authorities on the phone. These situations include kidnappings, domestic violence, and human trafficking. The project proposes a system allowing for silent requests for assistance through an app on a phone. The app provides the exact location to a dispatcher using GPS on the phone. A prototype app and Computer-Aided Dispatch (CAD) console were developed and tested. The different components of the project make use of SQL database technology and Internet Protocol (IP) to facilitate the transfer and storage of emergency information. The app was developed for one commonly used mobile operating system but can easily be ported to other operating systems due to the design of the backend. The prototype proved to be accurate and reliable during testing. Geolocation in the suburban environment was accurate within a few meters, which is superior to cell tower triangulation. If a system like this was adopted on a national or worldwide scale, it has the potential to save many lives.

Awards Won:
Oracle Academy: Award of $5,000 for outstanding project in the systems software category.