

GREEN PAPER



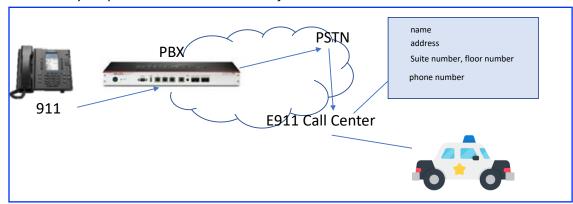
Reasons You Need to Update Your e911 Services Now More Than Ever Your Business Needs a More Effective Emergency Response System

For years, our national phone network, also known as the public switched telephone network, has been responsible for maintaining and distributing key information for emergency services. During the past twenty years or so, city governments and safety officials have come across some unfortunate limitations with the traditional e911 system. Those limitations included a lack of accurate location data, details of each emergency and a lack of information flow to all the emergency responders.

Before going any further, here's a quick look at how this service works.

As soon as 911 is dialed the call is routed directly to your emergency operator. The 911 operator may be at a private call center or stationed at a local, government-owned location known as a Public Safety Answering Point or PSAP. As soon as a 911 call is dialed, the operator will receive the caller ID information.

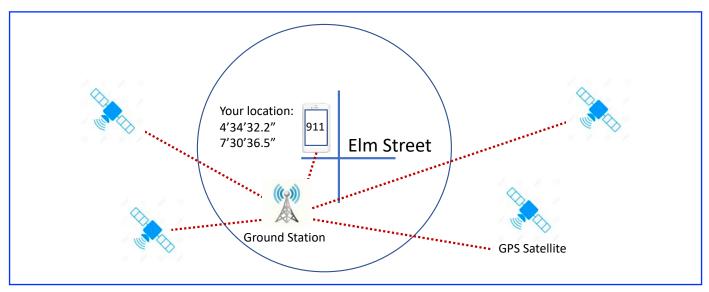
Here's a very simple illustration what this call flow looks like:



The phone system uses a special piece of 911 programming software that provides suite and floor number location to the 911 data stream. With these updates, the E911 center has better information to pass along to emergency responders. With the suite and geographic description, responders can find the caller more quickly. That's nice but is this system keeping pace with the times and the technology?

Reason 1. Use Mobile Phones for Tracking a Location Accurately & Quickly

People are more mobile than ever before. Almost every worker, client and manager is carrying a smartphone. Whereas less and less individuals are working at just one desk with a desk phone. This means the traditional phone system is used less and therefore less effective in emergency situations. So, why not take better advantage of the mobile phone? There are technologies available that are answering that question. GPS, or the Global Positioning System utilizes satellites to track physical locations on Earth. This isn't new. The Unites States Air Force first utilized GPS as far back as 1978. Here's a quick illustration of how GPS works.



GPS at Work: GPS or the Global Position System uses satellite-based radio to track specific devices on the planet. The satellites constantly send out signals between the ground station and your device. Your phone includes a GPS receiver which 'talks' with the satellites constantly recalculating your position. This is the same tech that allows you to find your favorite restaurant on your car's navigation map.

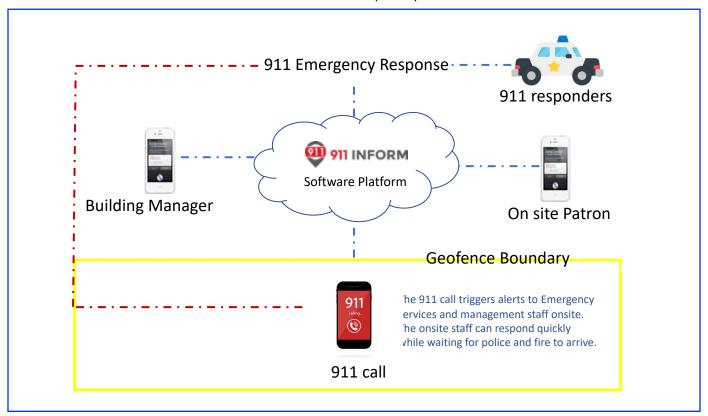
So, how can this be applied to an emergency situation? With GPS, 911 dispatch can pinpoint an emergency caller down to a 6 foot radius. Now, the dispatcher can tell emergency responders if the caller is in the westside school parking lot vs somewhere on the school campus. GPS technology just saved valuable minutes locating the whereabouts of the caller.

Reason 2. Inform All the People Who Can Help!

With GPS pinpoint accuracy, service providers, like 911 Inform, are creating virtual boundaries called geofencing. Geofencing uses the global positioning system (GPS) or radio frequency identification (RFID) to create a virtual geographic boundary or fence enabling software to *trigger a response* when a mobile device enters or leaves a particular area. That response can be used to identify a caller's position in realtime. Here's why this is useful for emergency response efforts. Let's presume a co-worker makes a 911 call from her mobile phone in the parking lot. The parking lot sits inside the geofence system for the school. The call triggers several events. Not only is the emergency call center notified, with special software, a team of pre-determined management staff are alerted to the same call. Now, instead of simply waiting for emergency services to arrive, onsite management can begin to respond collecting information and help stabilize the situation.

In the following example, we see how the initial 911 call sets off a chain of communications to multiple responders at once - not just the 911 dispatcher.

In this illustration, using 911Inform's software monitoring system, the call data can be transmitted to multiple responders at the same time.



Reason 3. Better Information Means Better Decision Making

Faster response is certainly a benefit. Notifying multiple parties is also helpful in an emergency situation. There's even more that can be done given today's available technology. If your management team (and emergency personnel) had access to video surveillance, text communication with eye witnesses and location data would you be able to make better decisions? The answer has to be 'yes'. With a geofence system, your organization can utilize: smart phones, security cameras and door sensors as an integrated emergency monitoring system. Consider these two examples: the traditional 911 call and a multimedia data system touching all relevant parties. Standard 911 is limited to a few lines of information in the hands of a single person. A multimedia solution (like 911 Inform) sends multiple sources of audio, video and text to multiple responders.

Standard 911 Information Stream



911 Inform's Multimedia Information Stream



Faster and More Accurate Responses Save Lives!

Finally, let's consider worst-case scenarios. Unfortunately, we're all faced with the potential of violent intruders in our schools, religious institutions and public spaces. In these horrible situations, your team can't be too prepared to make quick, informed decisions. Given the stress and potential chaos of an active shooter situation, how can a geofence security solution help save lives?

First, you can take back control of critical systems.

For example, if your campus or work environment has door sensors, first responders can use an emergency response app to determine an intruder's position and remotely lock the doors. Now the intruder's ability to do harm has been greatly reduced.

Second, you can pinpoint the intruder's position. Now you can make the most critical, life-saving decisions. You can inform other staff where to move and take cover out of harm's way. You're saving lives including your own.

Third, you can share this realtime data with police and other emergency responders. This information is also helping the police perform more effectively and further protect themselves in the process.

So, is a 911 upgrade an appropriate consideration for your organization? The call is yours.





Emergency response at your fingertips 911Inform's monitoring system provides critical information in the palm of your hand, including secure text communication and realtime location tracking.

Overall Benefits:

- locate emergency requests quickly anywhere in your environment
- utilize your onsite management for a faster emergency response
- utilize the tech you already have to provide more critical information
- use faster response and better data to lower response times
- save lives in medical and intruder emergencies
- a better emergency response system also provides a greater peace of mind

For more information, contact RAM Communications today. We have the experts and resources to help you learn and make an informed decision for your organization.



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