



# Smart911

Critical caller data for 911 responders

## Assessing the Risks of Having Smart911 Information for PSAPs and First Responders

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Before a fire fighter runs into a burning building, before a police officer intervenes in a violent dispute, and before a paramedic runs a red light in hopes of saving a person's life, he or she must assess the risk. While the untrained professional may be paralyzed with fear if confronted with these same situations, a professional first responder has developed a seemingly intuitive capacity to analyze the risks of action or inaction and to respond appropriately with confidence.

When confronted with any risk, an emergency professional will likely ask the following risk assessment questions:

- 1. What is the nature of the risk?**
- 2. What are the consequences, magnitude, and probability of each component of the risk and how is each component of the risk best assessed?**
- 3. What are the consequences of taking action or not taking action?**

Smart911 is a new service that uses modern information technology and the power of the Internet to make critical care information available to PSAPs and first responders in a fraction of the time that it would take a 911 call taker to elicit the same information from someone who has called 911 during the stress and chaos of an emergency.



Because it can make critical information available to PSAPs and first responders in a single instant whenever a Smart911 subscriber calls 911, Smart911 service has great potential for improving emergency services and saving lives. However, because of its potential, Smart911 also may lead to increased expectations from the public for successful or even extraordinary interventions in emergencies. It may not always be possible for PSAPs or first responders to meet unrealistic expectations. The risk of overly high expectations – and the criticism that may accompany them if they are not fulfilled – is one of the risks that PSAPs and first responders must deal with every day. It is also a risk that may accompany a PSAP's decision to use Smart911.

This white paper explores that risk. Smart911 invites industry professionals to comment on the risk assessment in this paper.

## 1. What is the nature of the risk?

At the outset of a 911 call, typically the only information that a 911 call taker has is the caller's phone number and address. All other information pertaining to the incident or victim must be provided by the caller. The caller provides what this paper refers to as "self-reported information." Sometimes the self-reported information pertains to the caller and often it pertains to a third party. Sometimes the caller has no relationship with the person being called about. The 911 call taker must sort through the information to decide if it makes sense, if it is pertinent to the emergency, and if it should be passed on to first responders in the field. Sometimes part of the information is passed on and sometimes it is not. If the information is passed on to first responders, they may use or not use the information to help inform their on-site assessment before taking action.

Smart911 delivers to 911 call takers and first responders another source of self-reported information. Instead of the information being delivered via the spoken word, it is delivered electronically in an organized, easy-to-use format that covers critical details a first responder would likely want to know in responding to an emergency. As with spoken information, if the 911 call taker finds the electronic information valuable and relevant to the emergency at hand, it may be passed on to first responders. And again, first responders may use or not use the information to help inform their on-site assessment before taking action.

There are many similarities between traditional verbal self-reported information and electronic self-reported information made available through Smart911. In each case:

1. The information received is self-reported information that may or may not be relevant for a specific emergency situation.
2. Self-reported information must be assessed for its veracity, validity, and accuracy.
3. At least for land line medical calls from a home, it is likely, though not guaranteed, that the provider of the information has some familiarity with the victim.
4. The 911 call taker must decide if the information is worth passing on to first responders.
5. First responders must make an on-site assessment of the situation. They need to use or not use the information provided by a 911 call taker based on their professional judgment.
6. Valuable information will potentially lead to a better result.
7. Information that has no bearing on the situation can and likely will be ignored.

There are several important differences between self-reported information provided by a caller and self-reported information provided by a subscriber through Smart911:

1. Verbal information from a caller arrives over the course of the conversation, and only as quickly as the caller can speak or make him- or herself understood in the midst of an emergency; in contrast, Smart911 information arrives or is available to the 911 call taker at the moment as the call is answered.
2. Information provided by a caller is provided verbally, often in a highly disjointed manner; in contrast, Smart911 delivers information electronically in a clear, simple, organized format that quickly allows a 911 call taker to focus on the exact kinds of critical information required for the particular emergency.
3. During an emergency the caller is likely to be under stress and facing personal danger, which may affect the caller's ability to provide important critical care information to the 911 call taker; in contrast, Smart911 subscribers prepare and store their critical care information in advance on a highly organized, easy-to-follow database, so that they are likely to convey the critical care details that they believe are most important and valuable for a 911 call taker to know.
4. Caller information is current; in contrast, while Smart911 self-reported information may not always be as current, Smart911 provides the 911 call taker with the date when the subscriber's information was last updated on Smart911's database.

***Importantly, Smart911 information is meant to supplement information provided by a 911 caller, not replace it. It is an aide to communication, and not intended to be the sole means for communication between 911 callers and 911 call takers.***

Smart911's Subscriber Agreement also advises subscribers to provide their critical care information verbally during a 911 call. Thus, Smart911 and spoken caller information can interact in the following ways:

1. The caller provides clear, coherent, and relevant information and Smart911 is not needed. (This call can happen today.)
2. Smart911 information is used to help the 911 call taker focus the 911 call and questions to the caller in order to get better information. (This can only happen with Smart911 information.)
3. The caller either does not know, or cannot or may not remember, to communicate important critical care information. In this situation, Smart911 information may be the only source for that information. (This can only happen with Smart911 information.)
4. There is no relevant information from either Smart911 or the caller. (This can happen today.)
5. There is a conflict between more than one source of information. (This can happen today.)
6. The only information provided is erroneous. (This can happen today.)

The availability of Smart911 information improves emergency outcomes just as good 911 caller information normally improves outcomes. Smart911 also see the following issues that could lead to negative consequences resulting from the use of any self-reported information:

1. The self-reported information is incomplete or inaccurate. (This could happen with any self reported information)
2. The self-reported information is not passed on to first responders. (This, too, could happen with any self-reported information, but is probably less likely with Smart911 since Smart911 information can be accessed directly by first responders.)
3. The self-reported information is not used by first responders. (This too could happen with any self-reported information.)
4. The self-reported information is misapplied by first responders. (Again, this could happen with any self-reported information.)

Clearly, while Smart911 information is not meant to be used in a vacuum, the risk inherent in this information is not more than in other caller provided information and in fact, can provide significant benefit above what the caller themselves can provide in real-time.

## **Subscriber Agreement**

Smart911 has written the Smart911 Subscriber Agreement to eliminate legal and financial risks that may be perceived by PSAPs and first responders. A Smart911 Subscriber must agree to the terms of service in the Subscriber Agreement as a condition of receiving Smart911 service. The terms of service include a comprehensive and binding waiver of all rights and claims, if any, that Subscribers might have against Smart911, PSAPs and first responders. The Subscriber Agreement specifically provides for the following:

1. Subscribers are solely responsible for the accuracy and quality of their own information. They choose what information to include and not include in their records on the Smart911 database. Subscribers specifically agree that they will not hold any other party (specifically including Smart911, PSAPs and first responders) responsible for Subscribers' own errors or omissions in posting information on the Smart911 database.
2. During an emergency Smart911 cannot guarantee delivery of information to PSAPs or first responders. Subscribers specifically agree not to hold Smart911, PSAPs or first responders responsible for receipt or non-receipt of Smart911 information by PSAPs or first responders.
3. Smart911 cannot guarantee that PSAPs or first responders will use the information provided by subscribers. Moreover, PSAPs and first responders may elect to use or not use Smart911 subscriber information as they see fit. Subscribers specifically agree not to hold Smart911,

PSAPs or emergency responders responsible for use or non-use of Smart911 information by PSAPs and first responders.

4. Smart911 subscribers also specifically agree that they will relay critical care information verbally over the phone to 911 call takers if it is possible for them to do so.
5. Smart911 subscribers agree that if they do not regularly login and validate their critical care information, the information may be “aged” out of the system and will not be displayed to 911 call takers.

Finally, Smart911 strives to manage subscriber expectations in its marketing material and to be clear about the limits of its service due to the very nature of emergencies – namely, by definition, they are unpredictable, fast-moving and highly stressful.

### **Information Availability and Security**

Smart911 information is collected in the Smart911 Central Database and distributed to Smart911 PSAP Servers located at each PSAP once every 24 hours. This redundant copy of Smart911 information on site at each PSAP increases the probability that Smart911 information will be available to the PSAP in the event of a major emergency. The Smart911 PSAP Server is located on the PSAP side of the PSAP’s firewall. No change to the PSAP firewall is required. The Smart911 PSAP Server will only exchange information if it has initiated the communication and will only initiate outside communication with the Smart911 Central Database. All information exchange is encrypted.

## 2. What are the consequences, magnitude and probability of each component of the risk and how is it best assessed?

Most public safety agencies do a great job of providing the citizens in their communities with excellent emergency services. Poor outcomes that result from failures of 911 services or poor decisions by first responders may occur, but they are few and far between. This means that the vast majority of 911 events will have relatively positive outcomes from the perspective of both the public safety agency and the public. Smart911 believes that, when PSAPs and first responders have additional information from Smart911, it will likely increase the percentage of positive outcomes and yield the following positive consequences:

1. Quicker arrival times for difficult-to-find locations.
2. More efficient rescue operations for fires, natural disasters, and terror incidents by having more information readily available in an organized and easy-to-use format.
3. Better outcomes for people with critical medical issues.
4. Quicker delivery of photos to patrol cars for lost children, resulting in faster and more effective search efforts.
5. Positive public relations for the agency from using citizens' own information to enhance the public safety response.

Smart911 also realizes there is a potential for negative consequences. In general, the consequences of any failure in an emergency can be the destruction of property, suffering, and death. Specifically, the consequences for a responding agency for any failure or perceived failure are as follows:

1. Complaints from citizens.
2. Negative public relations.
3. Lawsuits.
4. Lawsuits resulting in financial obligations.

From a service reliability standpoint, Smart911, a service provided by Rave Mobile Safety, has a long track record of providing extremely reliable safety software solutions. However, the success of any solution ultimately depends on effective training and processes implemented by call takers, dispatchers and first responders. Smart911 has been designed to seamlessly integrate into existing process work flows to ease the training and process integration.

In Smart911's view, the most troubling of the concerns associated with provision of 911 services are related to lawsuits. We live in a litigious society and would expect that each agency will have its own attorney(s) examine legal issues related to PSAPs and first responders having Smart911 information. Furthermore, Smart911 will not presume an answer to the liability questions for the agency. However,

Smart911 assumes that any meaningful legal analysis will at least include reading the Subscriber Agreement and having a knowledge of case law related to PSAP and first responder liability. Additionally, based on consulting legal experts on 911 liability issues, Smart911 posits some questions that a public safety agency would likely want their professional legal analysis to address.

1. How does the law view the difference between self-reported information received electronically versus self-reported information received over the phone with respect to the potential liability of a public safety agency? Which court decisions, if any, address the differences or similarities between verbal and electronic self-reported information?
2. How does the law treat PSAP or first responder use or non-use of information communicated by 911 callers today? Specifically, which court decisions, if any, find a public safety agency liable for non-use of 911 caller information, short of no dispatch?
3. How does the law treat errors made by PSAPs or first responders due to errors in self-reported information? Which court decisions, if any, show PSAPs or first responders being held liable for errors associated with incomplete or erroneous information communicated by 911 callers?
4. Does a PSAP incur more liability for choosing not to implement a solution which could have provided first responders with additional information in the event of an emergency, or by making best efforts to use the latest in technology but through either a technical or personnel issue fail to properly utilize that solution in the event of an emergency?
5. How does the law treat other electronic data errors by public safety agencies? What are the grounds, if any, under which a public safety agency may be found liable for electronic data errors? Does the source of the information make a difference for purposes of determining potential agency liability?

The magnitude and probability of each potential risk (including the risk of adverse public relations) specifically associated with receipt or non-receipt, or use or non-use, of Smart911 information must be assessed by each agency. An assessment of risk may need to include the following questions:

1. What are the priorities of the agency?
2. To what extent will having additional information readily available for use in an emergency support the priorities of the agency?
3. To what extent will having additional information readily available for use in an emergency threaten the priorities of the agency?
4. What risks associated with receipt or non-receipt, or use or non-use of Smart911 information are actually inherent in the provision of emergency services by public safety agencies? To what extent do such risks exist with or without Smart911 information being available for use in an emergency?

5. When comparing both the probability and magnitude of both potentially positive and negative consequences, will the potential benefits outweigh the potential risk?
6. Will the actions taken by Smart911 to mitigate legal, financial and public relations risks, including provisions in the Smart911 Subscriber Agreement and communications to Smart911 subscribers, offset the risks, if any, for PSAPs and first responders in having Smart911 information available for use in emergencies?
7. What other actions could be taken by Smart911 to reduce the likelihood or magnitude of such risks?

### **3. What are the consequences of not taking action?**

We depend on the fire fighter to make the right decision about whether to enter the smoking building to save the baby. There is a risk associated with taking and not taking action. Experienced professionals can weigh the potential consequences of action versus inaction. Smart911 offers both a tremendous opportunity to improve public safety through better information and presents questions about the potential for increased expectations associated with that information. A professional assessment of Smart911 will likely include both the risk of using the service and the risk of not using the service.

People often perceive flying to be much riskier than driving but statistically flying is much safer. Rigorous analysis, not fear, is required to assess the magnitude and probability of perceived risk as compared to actual risk. Smart911 seeks a dialogue with public safety agencies to evaluate the potential risk of having Smart911 information versus the risk of not having that information. Smart911 welcomes questions, comments and suggestions about the risks, whether real or perceived, associated with Smart911 service.

## **About Smart911**

Smart911 is a service of Rave Mobile Safety that provides 9-1-1 responders with critical supplemental data that callers have opted to provide emergency responders in the event of a 9-1-1 call. Smart911 is easily deployed and works seamlessly in NextGen (IP-based) or legacy environments, providing emergency responders with valuable information which can improve responses and even save lives.

## **About Rave Mobile Safety**

Rave Mobile Safety (<http://ravemobilesafety.com>) is the leading provider of software solutions for individual, group and public safety. Rave designs, sells and supports an award-winning suite of safety applications including Rave Alert multimodal emergency notification system, Rave Guardian GPS-enabled personal safety tool, and Smart911 software solution for more effective 9-1-1 responses. Hundreds of organizations and millions of individuals nationwide rely on Rave Mobile Safety technologies for improved safety in communities, at schools, in the home, and at work. Rave Mobile Safety is headquartered in Framingham, Massachusetts. Investors include Bain Capital Ventures, Sigma Partners, and RRE Ventures.