

Moving your Campus from Group Safety to Individual Safety: Closing the Gap



A white paper by Rave Mobile Safety



Rave
MOBILE SAFETY

Introduction:

Traditionally, efforts to address campus safety have primarily focused on threats to the collective well-being of an institution's community.

Less attention has been given to empowering the individual with tools to address their unique personal safety needs. This trend is in spite of the widely recognized fact that crimes targeted at an individual occur far more frequently than incidents directed at a broader group.

If this is the case, then why is campus safety investment skewed towards the monitoring of facilities and grounds, as opposed to solutions focused on the individual? Rave Mobile Safety believes this is related to three factors:

- Solution cost and gaps in technology have hindered the widespread adoption of Individual Safety Solutions.
- Active monitoring of every individual on campus is neither feasible (given the volumes of information which would need to be processed), nor desirable given the obvious privacy issues such a program would introduce.
- A series of high visibility group-impacting incidents have forced campus public safety to focus their efforts on reevaluating tools and strategies for addressing group safety.

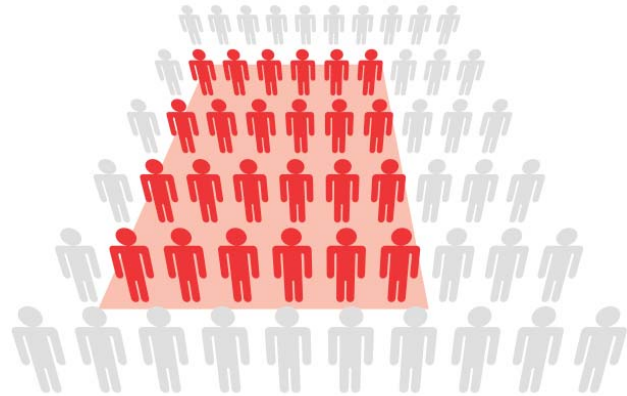
With those hurdles in mind, Rave Mobile Safety developed Rave Guardian. Rave Guardian is the first personal safety solution to work on any mobile phone and directly connect students, faculty and administrators in need to campus safety resources in a cost effective manner. Soon, this new class of Individual Safety Solutions will be an expected part of any comprehensive safety and security plan.

Through this paper, we explore the differing needs of Group Safety and Individual Safety Solutions, the requirements for a robust Individual Safety Solution, and how as the first and most widely deployed solution on the market. Rave Guardian uniquely addresses these requirements.

Group Safety:

Group Safety Solutions are represented by a mature set of technologies. Solutions most commonly thought of within this category tend to be fixed hardware investments primarily intended to protect (or are affixed to) a campus facilities. Common examples are:

- Access control and intrusion detection
- Fencing and barriers
- Fire detection & alarming
- Video surveillance
- Security lighting



While the benefit of these solutions can be tied back to the protection of individuals, key opportunities for improvement remain. However, the very nature of these technologies prevents them from addressing the requirements unique to a robust Individual Safety Solution.

Why can't Group Safety Solutions fully satisfy the needs of Individual safety?

While each of the example Group Safety Solutions provide invaluable safety and security benefits in their own right, they do not fully extend their reach down to the individual. When compared to the requirements for an optimal Individual Safety Solution, each of these platforms is limited in several or all of the following ways:

Anonymous: Group Safety Solutions are tied to an asset or location, as opposed to an individual. These solutions, when triggered, identify an abnormal condition as it relates to the asset being protected. For example, intrusion detection identifies when someone has unexpectedly accessed a facility; access control and barriers seek to prevent unauthorized individuals from gaining entry. However no information is provided to identify who is at risk from the detected event.

Centrally controlled: Group Safety Solutions are deployed, managed and maintained by an organization within the campus (typically a public safety or security office). Consequently, the campuses constituents have no control over where these safety measures are deployed, if they are enabled when they desire protection, or which events will result in a notification to public safety. While centralized *monitoring* of safety solutions is critical, there is both a real and perceived benefit of providing the individual with a solution they can use on their own terms.

Fixed: Group Safety Solutions tend to be fixed in place. They cannot move to follow an individual who has a specific need. It is not cost effective to remedy this by installing fixed blue-light phones, panic buttons, and intercoms such that they are always within arm's reach across an entire campus. Furthermore, is it rarely technically feasible (or in some cases legal) to deploy video surveillance such that 100% of campus facilities are covered. Finally, there are numerous cases where an individual must travel to locations not under the control of the campus. As such, these fixed solutions cannot be relied upon to provide this population with continuous care.

Lack Intelligence: Group Safety Solutions are typically not capable of making the judgments necessary to distinguish between normal and abnormal activity. These systems cannot evaluate the intent of an individual, or determine if an individual is engaged in an activity which increases their chances of being harmed by another person or by an act of nature. While it is not reasonable to expect a public safety organization to use Group Safety Solutions to scan a population for such behaviors, leveraging a good Individual Safety Solution allows a public safety organization to leverage the eyes, ears, and intelligence of the community.

Reactive: Several of the cited Group Safety Solutions require a monitored event to occur before public safety is notified of the anomaly. Unauthorized access, a fire breaking out, or the recording of illegal behavior via video surveillance are examples of reactive “triggers”. While the mere presence and deployment of Group Safety Solutions provide a deterrent, these example solutions typically cannot respond to the absence of an event, such as the inability of a person to interact with the system when expected.

Stand-alone: Most of the named solutions cannot take advantage of information stored in other systems, such as Student Information Systems (SIS) or Enterprise Resource Planning (ERP) systems. Nor can these solutions be updated by the community to provide public safety with the user-specific information necessary to address an individual’s needs in an efficient and informed manner.

Individual Safety:

While Group Safety Solutions are mandatory and valuable tools, and indeed their mere presence and use deter crimes against individuals, several opportunities for improvement remain. These opportunities can be better understood by focusing on the attributes unique to Individual Safety Solutions.



Rave Mobile Safety defines Individual Safety Solutions as tools, technologies, or processes which are deployed to individuals, are personally identifiable, and are used on the end-user's terms. Common examples of solutions and services which meet this definition are:

- Situational awareness
- Self defense training
- Group travel
- Safe Walks / Safe Rides
- Whistles / panic sirens
- Fixed panic (call) buttons / Blue-light phones / intercoms
- Rave Guardian enabled mobile phones

What makes an effective Individual Safety Solution?

A robust Individual Safety Solution must address the following key requirements:

Personally identifiable: When activated, a Individual Safety Solution must convey information about the person activating the solution, such that intervention activities are streamlined, and assistance can be provided when the individual is no longer responsive to requests for information. The information provided through the solution should leverage as many information sources as possible to speed response by providing a complete profile for the end user.

Always available: personal safety impacting incidents choose their time and place. If a solution is not readily available when needed (such as a long wait associated with a safe-walk or safe-ride programs), or requires advance planning and forethought to keep it about one's person (as with single-purpose safety devices), it is far less likely to be available in a time of need.

Self-managed: the solution must be able to leverage the end-user's unique perspective of a given situation. Self-managed safety solutions take advantage of the end-user's judgment, allowing for more accurate assessments of situations which may appear ambiguous or non-threatening to automated solutions. For example, access control and video surveillance may view a student entering a dormitory as a normal event. However, a student being stalked is able to more accurately interpret the intent of the individual, and activate a solution such as Rave Guardian to summon assistance.

Proactive: the solution should provide options to act on behalf of the user and/or in advance of a personally impacting event. A robust Individual Safety solution should not rely solely on an individual's ability to activate the solution at the moment of critical need.

Discrete: the ability for a user to operate a personal safety device in a discrete manner affects both the adoption and the effectiveness of the solution. If using the device or service calls unwanted attention to its activation, its use could escalate an already dangerous situation. Furthermore, using a conspicuous passive solution (such as a safe-walk program) could impact adoption, where the end-user wishes to project an image of self-reliance.

Engages those qualified to help: when activated, the solution must notify a person or organization that is in a unique position to help the end user. A solution which does not notify those who are trained and available to respond (as with social “friend-finder” applications), or which relies on others being nearby the user (as with whistles or personal sirens), may not be able to provide the level of assistance they expect or require.

Easy to use: the solution should not require extensive initial or remedial training or practice, nor should it rely on the physical strength of the end user. Furthermore, the solution should not increase the workload of the public safety organization charged with monitoring the service.

Easily deployed: Individual Safety Solutions should be easy to deploy to the targeted community. This means the procurement, inventory management, distribution, repair and maintenance of the equipment should be kept to a minimum. Solutions which require proprietary hardware and supporting networks place a tremendous load on the staff supporting the program.

Inexpensive: Students will not tolerate expensive solutions. Similarly, public safety organizations have numerous needs contending for diminishing resources (both budget and workforce). An individual safety solution must deliver high value at an acceptable cost to both the end users and the organizations supporting the solution.

How do the Individual Safety Solutions stack up?

The following chart provides a qualitative comparison of how each example Individual Safety Solution scores against the requirements for the Individual Safety Solution segment.

		Individual Safety Solution Criteria								
		Self-managed	Personally identifiable	Always available	Proactive	Discrete	Notifies qualified personnel	Easy to use	Easily deployed	Low cost
	Situational awareness	4	0	2	4	4	0	2	2	3
	Self defense training	4	0	2	1	4	0	0	0	3
	Informal group travel	2	3	1	4	2	1	3	4	4
	Organized safe-walk / safe-ride programs	1	3	1	4	1	3	2	0	1
	Whistles / panic sirens	4	0	2	0	0	1	4	2	2
	Networked key-fobs	4	4	3	0	3	4	4	0	0
	Fixed panic button / blue-light phone / intercom	2	0	1	0	0	4	2	0	0
	Rave Guardian enabled mobile phones	4	4	3	3	4	4	4	4	3

Legend				
0	1	2	3	4
Not addressed		Partially addressed		Addressed

The Rave Guardian Platform:

Of the Individual Safety options identified, Rave Guardian is the only solution which satisfies all of the criteria for this product category. The key components and technologies comprised within the Rave Guardian platform allow this service to properly address the Individual Safety Solution requirements.

Mobile Phones: Over the past several years, it has become commonplace to carry a mobile device. Within higher education institutions, over 97% of students carry mobile phones. People have come to rely on the mobile phone, such that it is carried by most everyone whenever they leave their home, and in many cases, they are replacing landline phones. Finally, the mobile phone is paid for by the end-user community, and supported by the mobile operators managing the cellular network. These factors make the mobile phone a natural candidate for deploying an Individual Safety Solution. Leveraging the mobile phone provides a solution which is *always available, easily deployed, discrete, and personally identifiable*.

Hosted, Software-as-a-Service platform (SaaS): SaaS allows people and institutions to gain access to functionality without installing and managing software on their own. The obvious benefit of Software-as-a-Service is reduced operating cost, and the ability to access new features as soon as they come available. A less obvious benefit of a SaaS delivered solution is that organizations can take advantage of privileged, complex, expensive or otherwise inaccessible functionality. Rave Guardian's IVR infrastructure, SMS messaging capabilities, and ability to retrieve mobile phone location information from mobile carrier networks are examples of such privileged and costly functionality. Finally, SaaS remotely locates all functionality – allowing the solution to remain functional when disaster strikes. Deploying Rave Guardian using the SaaS model delivers a platform which is very *easy to deploy, always available*, and can be installed and run at *low cost*.

Web Based Dispatch Console: Rave Guardian's dispatch console was developed with the input of law-enforcement professionals. This ensures the monitoring of Rave Guardian fits seamlessly within existing dispatch processes. Furthermore, the simplicity of the Rave Guardian dispatch console minimizes initial training, and requires negligible remedial training. By presenting Rave Guardian cases within our centralized dispatch console, Rave delivers a solution which *notifies qualified personnel* when a case is activated. This web-based technology allows Rave to deliver an *easy to use* and *low costs* solution.

Available to All Users Regardless of Phone Types or Plans: No special carrier, mobile phone, software, or data-plan is required to use the basic features of Rave Guardian. Users can access via the mobile web if they have a data access plan, or via an Interactive Voice Response (IVR) Interface – simply dial into the Guardian phone number and activate the system. Furthermore, the simple interface options allow users to activate the Rave Guardian solution without calling attention to themselves, and provides the user with an opportunity to either speak directly with public safety, or leave a voice note for future reference. Finally, Rave Guardians timer functionality provides the users with a means to have a Rave Guardian case initiated on the user's behalf. Rave Guardian provides an Individual Safety Solution which is *self managed, proactive, discrete, available to all users regardless of socio-economic status, and easy to use*.

Conclusion:

With high-profile incidents, and increasing attention from administrators, students and parents on campus safety from, schools are looking for ways to “close the gap” in their campus safety strategy. While anonymous Group Safety Solution will remain the foundation of safety technology, institutions will need to implement more personal Individual Safety Solutions to provide a robust and properly balanced infrastructure

Fortunately, changes in technology and the pervasive use of mobile phones is finally allowing for the introduction of technically feasible, universally available, and low cost Individual Safety Solutions. Rave Mobile Safety, with its Rave Guardian product has defined this emerging safety and security category across Higher Education.

Our experience has shown that the needs of this segment are unique. We are pleased to share our observations about this emerging field, and we look forward to further supporting the needs of our higher-education public safety partners through Rave Guardian.

About Rave Mobile Safety

Rave Mobile Safety is the leading provider of software safety solutions. Rave designs, sells and supports an award-winning suite of safety applications including Rave Alert, a multimodal emergency notification system; Rave Guardian, a GPS-enabled personal safety tool; and Smart911, a 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. For further information, please visit www.ravemobilesafety.com.

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