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Technology to Reduce the Strain on Alarm Responders

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As the United States remains in a period of economic hardship, security is becoming an escalating facet of concern. Factors such as steady unemployment, the growth of the poverty line, the mounting debt crisis, and sheer uncertainty are leading more and more Americans to the temptations of crime. According to the FBI, in 2010 violent crimes occurred every 25.3 seconds. Specifically under violent crimes one murder occurred every 35.6 minutes while a robbery occurred every 1.4 minutes. Even more frequent in 2010 were property crimes taking place every 3.5 seconds. Every 14.6 seconds there was a burglary and every 5.1 seconds one larceny-theft happened. With crime so prevalent today it is disheartening that law enforcement and other municipalities are being stretched to their limits due to extensive budget cuts. For most people safety and security are becoming more than a priority and developing into a necessity.

The problem is that this necessity of safety and security is more difficult to obtain when the public's municipalities face heavy budget cuts. Sacramento held a 50 million dollar budget deficit in February of 2009 and elected for Police and Fire department salaries to be prime targets of budget cuts reports News10.net. More recently on June 9, 2011 Suzanne Hurt of Sacramento Press explains Sacramento City Council voted to cut \$12.2 million out of the police department's budget and to lay off 81 sworn officers and 68 civilian police employees. All these cuts, especially to societies much needed law enforcement and firefighters, is a major problem for the security industry as a whole.

Specifically in regard to alarm response, emergency response will be significantly delayed or possibly eliminated if public municipalities continue to face budget constraints. In addition, the high rate of false alarms is even more of a deterrent to the shrinking municipalities. Sacramento County Sheriff's website states that 98 percent of all alarms are false alarms. This is a major consumption of police resources. Sacramento County Sheriff also states that the total amount of

false alarms in 1997 cost taxpayers over a million dollars and police 12,000 patrol hours. Yet the introduction of a few technological innovations will offer a variety of solutions. Technology such as: enhancing security systems compatibility with smart phones and the establishment of a database for the security industry could all reduce the strain on municipalities and make today's alarm systems more efficient.

First, further integration of the smart phone's compatibility with security systems in the security industry would extensively reduce strain on local municipalities to respond to alarms. User error is one of the most significant causes of false alarms explains Rana Sampson in the article "False Burglar Alarms." Integration with a user-friendly device would be a great way to cut down user error. Virtually everybody has a smart phone and according to The New York Times smart phones will be 90 percent of the cell phone market by 2015 (readwriteweb.com). The possibilities of these hand held computers can provide numerous solutions toward reducing false alarms since people carry these devices with them at all times. The point of having hand held devices with the ability to control and use an alarm system is that it allows a quick way to access information and complete tasks all in one device. Some companies have created working applications and software to utilize the smart phone with an alarm system. However not all of these programs are totally user friendly. It would be more desirable to have a more uniform application for smart phones that can easily arm and disarm a system, display notifications such as if certain points are open or if the system requires maintenance, and most importantly be able to easily look or listen through cameras to see and evaluate what is going on at a house or business. Giving a user this capability could significantly alleviate false alarms because they can better assess the situation in event of an alarm. Also a sort of social networking technology could be interacted through this as well. Development of this sophisticated application could notify a user when a person arms and disarms a system, such as when the kids get home from school. Smart phones could also eliminate use of key fobs and would be much better since they touch screen interface is simple to use, does not wear out with time, and also locks so buttons are

not accidentally pressed while in a person's pocket. This has potential to be great for elderly customers because small devices easily double as an emergency panic if they fall and cannot get up. Not only would it alert the authorities but could also automatically put an elderly customer on the line with paramedics. Introducing these technologies would immensely enhance the power of a security system. It would be extremely beneficial to integrate these technologies into the security industry on a larger scale, because current technology is not uniform and it would give users the power to make better judgment on whether there is an emergency situation.

A user friendly way for an individual to examine their property during the event of an alarm would significantly reduce the amount of false alarms. The problem with current applications some companies have provided is that they are not user friendly, and many installing companies have problems because there are still so many different versions and updates occurring with the software that by the time they sell the current version to one customer a new update comes out. Updating applications on a smart phone tends to be a simple process for the owner of a smart phone. Except, it is a two way street with updating smart phone apps because control panels also need updates. This is when a qualified technician is necessary. Through Apples App Store or the Android Market a user can install an update at the touch of a button however the problem is that many alarm control panels also need the updates and usually require a firmware update or even installation of new hardware so that the system can perform the updates. When technicians service customers like this opportunity costs increase for both the customer and the alarm company. This cost for both parties time and money.

Some may say this is not good allowing so much control through one device because a person can easily lose their phone and whoever finds it basically acquires a key to the house. Yet this can be easily avoided by creating passwords so not just anybody has access to the device. Also, if lost an individual can call up their phone service provider and cancel their phone. Overall the benefits of allowing users to

always be connected to their security system through a mobile device would be a great way to reduce the amount of false alarms.

A second beneficial technology would be the creation a database that keeps track of companies and their installers. This has the potential to greatly improve accountability in the security industry. One of the problems is the quality of installations today. Rana Sampson explains that installer error also ranks highly among the causes of false alarms. Ranging from incorrect placement of motion detectors to faulty programming, the quality of installations is extremely poor within the industry today. This is mainly due to a few large national corporations within the security industry. Such companies have the market power to advertise free alarm systems. While these systems may appear free to customers they do come with their share of costs. Typically these oligopolistic firms' goal is capturing monitoring for the reoccurring revenue. In doing so they need to have as many installers and technicians as possible in order to capture accounts, but many times this results in inexperienced or unqualified technicians installing systems. A lot of smaller companies cannot compete with the free alarm model, and in order to stay competitive their quality of installations has declined as well since they cannot put in the time for a quality install.

Technology could change this by implementing a database that keeps track of companies and installers ACO, ACQ, or ACE certifications. After a technician obtains his or her ACO certification they would receive an identification number that would be compiled in the security industry's database. This ID number could then be inputted into a control panels programming and the alarm control panel, connected to the database, would report the installer's information to the database. If a system is not connected to the database with an authorized installers ID then the database could make it so that local municipalities do not respond to any sort of alarms from them. This is a great way to insure all companies are using certified technicians and can drastically stop installer related false alarm problems. The implementation of a

database like this has the possibility to also show specific technicians' statistics. For example if a company has a certain customer or many customers with reoccurring false alarms the company could use the database to check which employee installed the system and if the same employee appears it could possibly show the technician has not been properly installing systems. Holding every company in the industry to a higher standard of quality through a database identification system is a great way to unify the industry as well as limit installer related false alarms.

In conclusion the security industry needs to implement new technology to help decrease the rate of false alarms. This is important because public municipalities are running out of funding and facing harsh layoffs and therefore cannot afford the immense toll false alarm response takes on their current resources. One possible technological solution for this would be further developing smart phone compatibility with alarm systems to allow better user verification and control. A second solution is the implementation of a security industry wide database that helps hold companies and technicians accountable. The security is already full of tons of ever changing technology. If anything is certain it is that technology is the future. Technology is societies answer to the problems we face.

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