Verifying audio alarm notifications: why secondary source verification is vital

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Across the country, law enforcement officers are finding it increasingly difficult to respond to the near overwhelming number of calls coming from security alarms. Police departments commonly define a false alarm as a call, which upon investigation, shows no evidence of criminal activity, such as broken windows, forced doors, items missing, or people injured.

While false alarms bog down police, they can also negatively impact customers and integrators. End users can expect hefty fines for false alarm responses, and when these customers receive large bills from the city, many turn to installers, dealers, and even manufacturers expecting them to accept the responsibility and pay the bill.

What first brought the issue of alarm verification to your attention?

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I've been aware of the problem of false alarms for about 5 years. I believed audio capture, through microphone deployment, could be an active part of the solution when used as a second source for indicating 'out of the norm' activity and as an equal component with the video surveillance technology.

In 2015, I found similarly minded security professionals when introduced to the Partnership for Priority Verified Alarm Response. After reading PPVAR's paper on 'Audio Verified Alarms Best Practices; [April 2015],' I knew that the Partnership was on to something important. In our lives, two of the five senses we count on day-in and day-out are sight and sound. It is crucial to both see a situation and concurrently listen to any corresponding sounds to gain full insight.

What is the false alarm rate?

In 2016, the International Association of Chiefs of Police reported that over 98 percent of all alarm calls in the United States were false. This number is obviously staggering, and something we need to work towards correcting.

Why did this issue resonate so strongly with you?

When I first investigated this issue, I was sure that the security industry would have already recognised this and was acting to ensure improved alarm verification, preferably through a combination of audio and video technologies. However, I quickly saw that this was not the case, or even close to the norm. I have questioned the rationale behind the lack of adoption and found the

deployment of audio is often hindered by the concern of privacy.

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As CEO of Louroe Electronics, I've spearheaded many initiatives to explain the monitoring policies surrounding audio. I've had to reassure many security personnel and customers how the law supports the use of audio in public places as long as there is no expectation of privacy. By dispelling fears with facts around deploying and implementing audio sensors, customers can confidently include audio in their surveillance systems and gain a more effective security solution.

Who is affected by this?

Truth be told, everyone from the end user to the manufacturer is affected by this issue. Not to mention the strain this puts on law enforcement who are tired of 'wasting time' and effort out in the field on these nuisance alerts.

When an end user receives a bill for their false alarm, many of them will immediately blame the integrator and or the monitoring center for a faulty set up and management and expect the integrator to remedy the situation, including carry the burden of paying the fines. The integrator, on the other hand, will turn to the manufacturer, assuming faulty equipment and installation instructions; therefore, looking for reimbursement for the cost.

What is the average false alarm fee?

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According to the Urban Institute, fees generally range from $25-$100 for the first offense, rising as high as a few thousand dollars per false alarm if a location has a large number in a single year.

What's worse, in extreme cases, alarm systems may even be blacklisted by the police dispatch center if they have raised too many false alarms in the past.

Why do you believe audio is the ideal technology for secondary source verification?

Video surveillance has been the main option for security monitoring and alarm validation for decades, however industry professionals are realising that video alone is not enough. Video only tells half of the story, by adding audio capture, the responsible party gains a turnkey solution with the ability to gather additional evidence to verify alerts and expand overall awareness.

In reality, audio's range is greater than the field of view for a camera. Sound pickup is 360 degrees, capturing voices, gunshots, breaking glass, sirens, or other important details that a fixed camera many not see.

How would a secondary source verification system work with audio?

Using a video monitoring solution equipped with audio, the microphone will pick up the sounds at the time a visual alert or alarm is triggered. If embedded with classification analytics, the microphone will send alerts for specific detected sounds. The captured audio, and any notifications are immediately sent to the monitoring station, where trained personnel can listen to the sound clip, along with live audio and video from their station.

> When law enforcement receives a validated alarm, they can better prioritise the response

From here, an informed decision can then be made about the validity of the alarm, along with what the current threat is at the location. If the alarm is in fact valid, the information is then passed along to the law enforcement within minutes. When law enforcement receives a validated alarm, they can better prioritise the response. It also provides more information in a forensic evaluation.

Are there any additional resources you would suggest looking into?

Yes, we would suggest looking into the following to see a few different perspectives on the matter:

- NSA Support For 2018 Model Ordinance For Alarm Management and False Alarm Reduction
- Partnership for Priority Verified Alarm Response
- Support for the Term “Verified Alarm” and Prioritising Verified Alarm Responses
- Urban Institute Opportunities for Police Cost Savings without Sacrificing Service Quality: Reducing False Alarms

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