

# ESA<sup>®</sup>

## RESEARCH



**ALERTS AND  
ALARMS:  
IMPROVING  
EMERGENCY  
DETECTION**

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# **Alerts and Alarms: Improving Emergency Detection**

The Report, Alerts and Alarms: Improving Emergency Detection, is a Parks Associates Research Report commissioned by ESA and sponsored by Bold Group to deliver the latest facts and trends to help you make informed decisions on capturing new customers through careful business strategy evolutions.

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# ALERTS AND ALARMS:

## Improving Emergency Detection

Smart home and security device adoption is rising in broadband households. While residential security system adoption held steady at 26-27% from 2014-2017, a 10% increase moved the needle to 36% adoption as of Q2 2021. Home security systems and the smart home have benefitted massively from improvements in monitoring and recording technology. Smart security devices have become increasingly aware of their surroundings and more effective at responding to events, as a result of sensors, artificial intelligence, and video verification. These technology advances help to reduce false alerts, improve the consumer experience, and give consumers more options when selecting a home security solution.

### **Innovations in Recording and Analytics**

Increased buying from consumers has pushed networked camera adoption to 12% and smart video doorbells to 13% in US broadband households. Innovation in event-based recording means devices can monitor and record after sensing an event taking place. These devices are now capable of capturing trigger-based events without consuming significant battery or using up much storage space. Devices that are integrated into larger systems can use Alexa or similar voice assistants to operate devices remotely and relay messages in certain instances, like with video doorbell intercoms. In a security context, more devices are able to monitor footage and events and get more context of the situation to determine what kind of action to take. In dangerous situations, this helps provide better communication to law enforcement and/or a professional monitoring service to improve response times and provide peace of mind. Police times in 2021 average 10 minutes, but vary by municipality and can be much longer depending on the nature of the emergency.

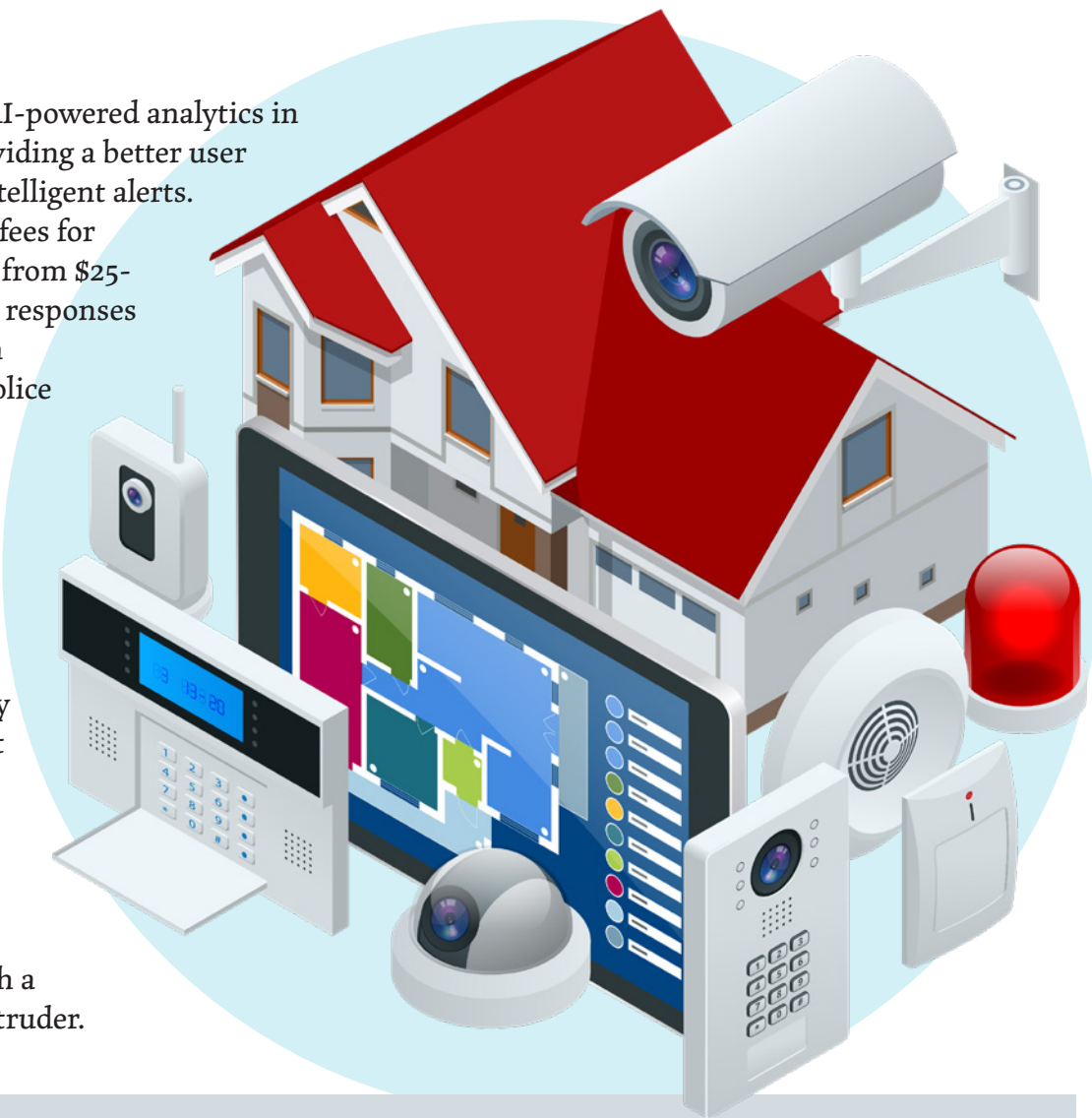


## Impact of False Alarms

A significant benefit of AI-powered analytics in the security space is providing a better user experience with more intelligent alerts.

False alerts can result in fees for security owners ranging from \$25-\$250 per incidence, and responses to false alarms have been estimated to cost local police departments billions.

There are a number of possible ways false alerts can occur. Though intended to notify users of guests or intruders, sensors and cameras may instead detect and report the movement of trees in the wind, neighbors passing by, and animals moving through the yard. Audio devices may mistake a fallen dish with a window broken by an intruder.



Another type of false alert occurs when a user mistakenly triggers the security system when they fail to disarm the system upon entering the home. At best, this creates a stressful moment as the user quickly takes action to disable the alarm. At worst, it creates an unnecessary interaction with first responders that can result in fines or confrontation with police.

Of further concern are state and municipality-led initiatives to fine security providers for false alarms versus home dwellers as has occurred in the past. Many of these laws require some form of prior verification of a real emergency before contacting emergency responders. The security industry has scored some recent wins against these local false-alarm fines: Georgia recently joined

California, Florida, New Jersey, Texas, Tennessee and Iowa in banning local municipalities from fining security providers for the false alarms caused by their customers. Still, the continued adoption of sensor-based and video verification approaches will help the industry reduce false alarms organically and obviate the need for such laws.

False alerts can frustrate users by generating large numbers of notifications due to harmless triggers, leading users to disable or ignore alerts. 48% of US security system owners with broadband Internet at home agree that their home security system triggers too many false alarms, and 39% strongly agree. On average, security system owners report experiencing more than three false alarms in a year. Common false alarm causes include pets triggering a motion sensor, a smoke detector activating, and low or dead batteries in the system or an attached device.

### Video Verification in High Demand

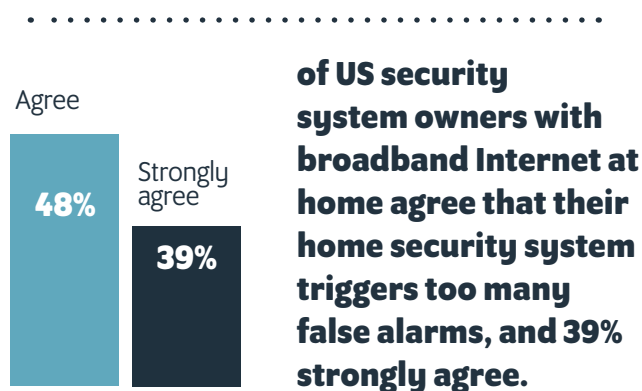
Video verification is one method to improve system reliability, enhance the user experience, and reduce the risk of fines from false alarms. Security services with video verification offer many features that traditional plans don't, including live feeds, which can be transmitted between monitoring services and law enforcement, as well as two-way audio, which allows users to communicate with monitoring service while an event is taking place.

Security providers incorporate video verification in various ways. Some providers use video verification with analytics to control costs incurred while others review alerts. Other providers use facial recognition for owners and guests to bypass the alarm and/or to alert homeowners to an unrecognized individual entering the passcode.. In these implementations, video analytics is an additional method for verification before first responders are ever contacted.

Recent data provided by Parks Associates demonstrates that there is a growing interest among home security service subscribers. 25% of home security system owners or purchase intenders in US broadband households ranked

video verification to reduce false alerts and expedite dispatch of first responders among their top 3 desired security system features. This is a slight increase from the 23% in 2020.

Security dealers also rate video verification as a highly coveted feature. *Video monitoring and verification to reduce false alerts is the #3 desired offering from a central monitoring service – ranking only behind service reliability and price – among security dealers who contract with third parties for monitoring services.*



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## Emergency Response: Alerts when it Matters

Of course, not all alarms are false. How do security systems, monitoring services, and new technologies perform when it matters?

23% of US broadband householders report having experienced an emergency event—such as home intrusion, package theft, or fire—while owning a security system. Of them, 71% feel their system alerted them to the issue appropriately, while 15% felt their system missed the mark.

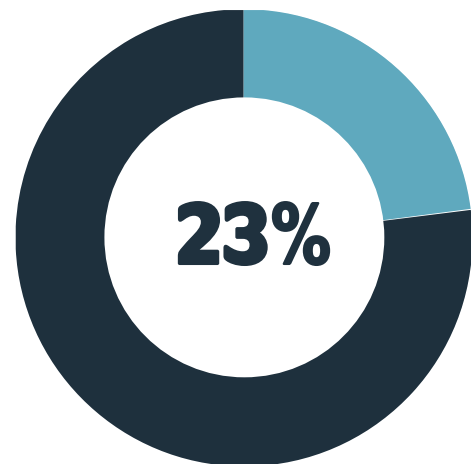
Overall, the majority of security users were pleased with the performance of their monitoring station. 4 out of 5 consumers who experienced an event while using a professional monitoring service rate the station as helpful, professional, and clear. 82% agreed their monitoring station contacted them quickly.

Even with positive experiences with professional monitoring, consumers strongly desire to receive alerts themselves. Parks Associates research reveals that intrusion and fire detection alerts are the top must-have alerts. There is also strong interest in alerts that relate to the system's core value proposition of security and life safety. The majority of system owners rate detection of theft or damage to vehicles, vandalism or trespassing on the property, package theft, and gas leaks as must-have alerts. Notably, about half are also interested in alerts that can identify the presence of unknown (as opposed to known) persons and package delivery (not just theft).

Such alerts are certainly complementary to professional monitoring services. Parks Associates data continues to find that self-monitoring uptake represents no more than 6% of all security system households. That said, such alerts give consumers the option of self-

monitoring with capabilities that reach considerably beyond simple local alarms. The added flexibility appeals to prospective owners who may not have the budget for or interest in a full professionally monitored system.

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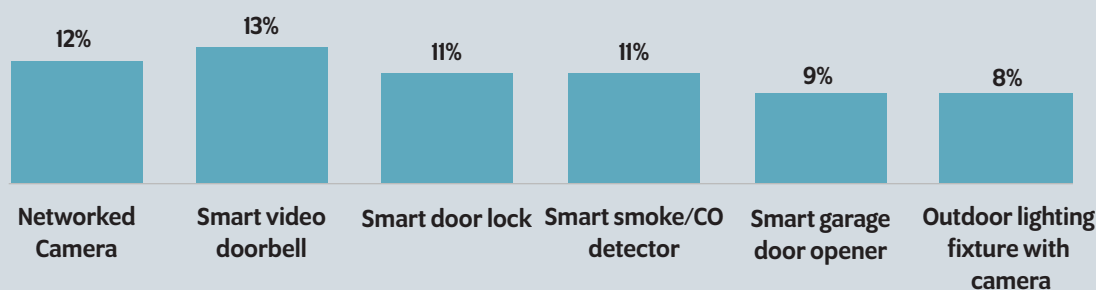
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## Emergency Response: Alerts when it Matters

The uncertainty caused by COVID-19 has heightened consumer anxiety about the safety and security of their families and homes, and expanded the volume and type of consumers searching for safety-related home solutions. More households than ever have security systems in their home – most with interactive services and some level of professional monitoring. Advances in sensing and video verification improve the user experience by reducing false alarms, speeding emergency response, and informing first responders of critical elements of an emergency situation. They also expand customer choice for intelligent self-monitoring, which may never match the capabilities of a professional monitoring center, but open the door to safe and secure living for a new segment of customers. ■

## Smart Safety & Security Device Ownership



Source: Parks Associates Forecast | © 2021 Parks Associates

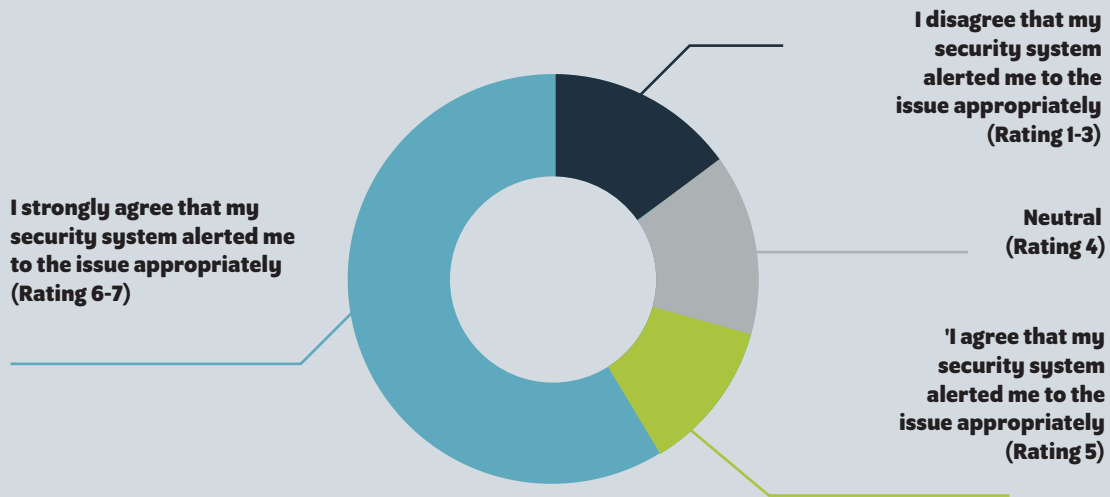
## Experiences Regarding Security Systems Alarms



Among Security System Owners, n=1,810, ±2.3% | "Q5015. On a scale of 1-7, please select your level of agreement with the following statement: My home security system triggers too many false alarms." | Source: American Broadband Households and Their Technologies Q2 2021 | © 2021 Parks Associates

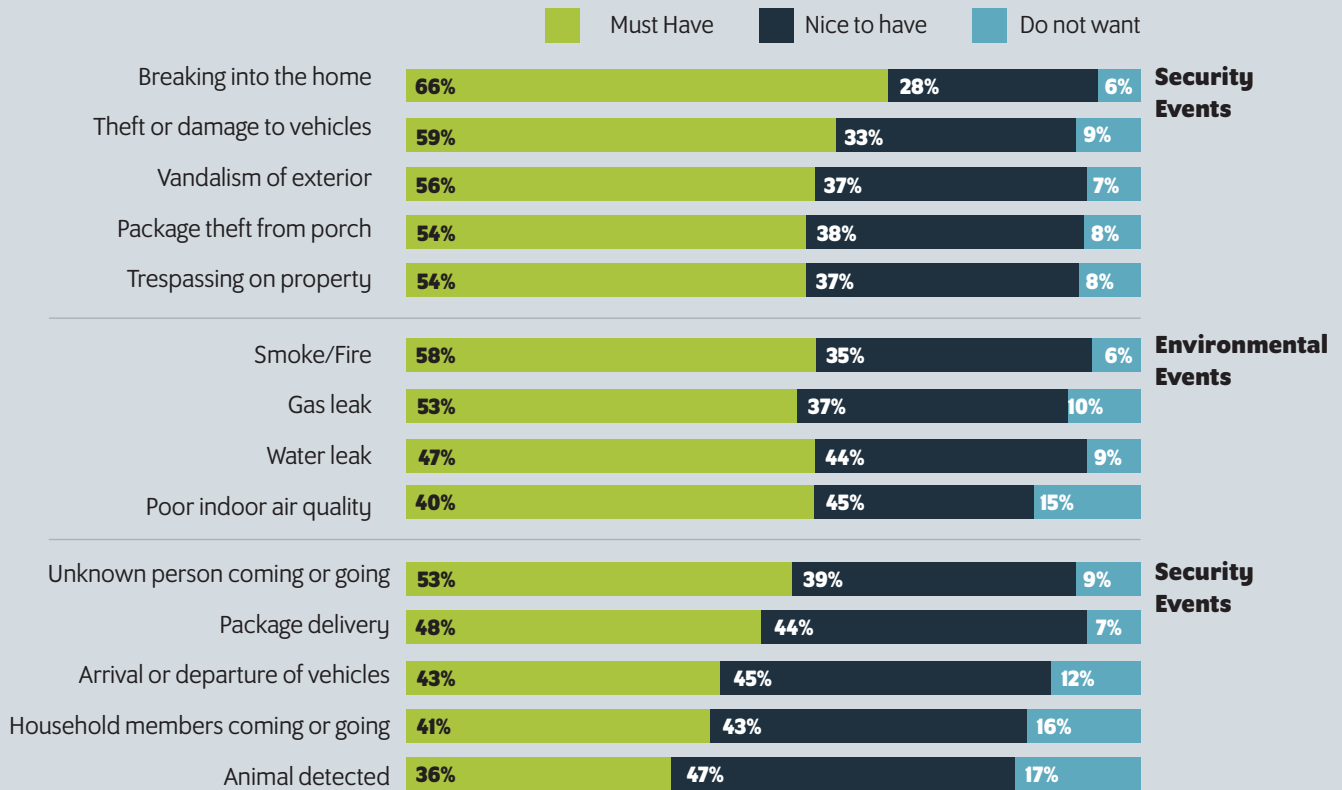


## Personal Attitudes Regarding Security System Alert Effectiveness



Among US BB HHs That Owning a Security System At The Time Issues Occurred, n=1,141, ±2.9% | "Q5002.On a scale of 1-7, please select your level of agreement with the following statement: My security system alerted me to the issue appropriately." | Source: American Broadband Households and Their Technologies Q2 2021 | © 2021 Parks Associates

## Interest in Events Alerts



Among Security System Owners, n=1,810, ±2.3% | "Q5010.Security solutions can alert you to a variety of notable events. Please indicate your interest in each of the following alerts." | Source: American Broadband Households and Their Technologies Q2 2021 | © 2021 Parks Associates



# Alarm Monitoring and Business Management Software for the Security Industry



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