Consumers are drawn to smart-home technology. They like the convenience of being able to remotely monitor and control climate, lighting and entertainment devices. As this technology becomes more effective and more common – and leads to fewer and smaller insurance claims – homeowners may soon be asking for discounted insurance premiums.

While much of the new smart-home technology focuses on convenience, some types of technologies will prevent or mitigate the leading perils that cause losses under homeowner’s policies such as water damage, burglary or fire. Let’s look at the latest smart-home technology and how it can help insurers.

What’s a “smart home”?
Smart homes have electrical, security, multi-media and climate-controlled systems that can be monitored or operated remotely by a computer or on a smartphone. The features of smart systems vary significantly depending on the amount the homeowner wants to spend or build into their home. The use of technology to connect the home to the homeowner is likely to grow, and insurers can benefit if they fully understand this technology.

Water damage: the most frequent cause of loss
According to the Insurance Information Institute, in 2014, water damage claims were the most frequent type of homeowner claim. In fact, one out of three homeowner claims filed was a water damage claim.1 Water damage claims are more frequent than fire, wind, hail, theft or any other type of peril covered under a homeowner’s policy.

Automatic and remotely operated thermostats have been popular features for a few years. People have embraced the comfort of coming home to a warm home and the cost savings of running the heat and air only when needed. This technology is also very useful in preventing frozen pipes and resulting water damage losses.

Newer, more sophisticated technology is now being installed in smart homes, specifically designed to mitigate or prevent water damage claims. These systems monitor moisture levels or water usage and allow the homeowner — or the home itself — to intervene when the system detects a problem. The new technology is a more effective tool against a broader range of water claims. Generally, there are two types of systems designed to detect water leaks: sensor and flow systems.

With sensor technology, water sensors are placed where a leak is likely to form – near water heaters, washing machines, dishwashers or even attic spaces under leaky roofs. Depending on the complexity of the system, the sensors can put out an alarm, send a message to a computer or smartphone or even automatically shut off a water valve when the system detects water. The problem with these sensors is coverage. The sensors usually require some contact with actual moisture, not just...
humidity, to activate an alert, and they must be placed in the right spot. The good news: these sensors can cost as little as $10 per sensor and some can be installed by anyone.

Flow technology is quite a bit more sophisticated. The system constantly measures the flow of water through the pipes and sounds an alarm or shuts off the water supply when the system detects abnormal flow or pressure. The homeowner receives a message by phone warning them of a possible leak. Flow systems usually require professional installation and can be very costly. A drawback to these systems is that they don’t detect water intrusion from an outside source, such as a leak in the roof.

While a water leak system won’t prevent all water damage claims, it can detect a leak quickly and the system or the homeowner can take immediate action. If a water leak is noticed immediately and dried out quickly, there will be less damage to the home than if a “gusher” of a leak goes undetected for hours or days. Sometimes even more costly than the gushers are small, slow, hidden water leaks that can lead to mold. These claims create difficult coverage issues and require special care from the claims handler. Smart-home technology can have a big impact on the frequency and severity of these losses.

**Security**

Burglary or vandalism are other common perils that smart homes can help eliminate or mitigate. Because of the low cost, simple installation and ease of use, home security systems are one of the most accessible and popular smart-home technologies. Homeowners are installing remotely operated locks, security cameras and automatic lighting with increasing frequency. While many homes have an alarm system monitored by a central alarm company, smart homes may go beyond the central alarm system. Some have locks that open electronically through smartphones and can provide a record of who entered a home. Other systems now trigger photographs or video footage sent directly to the homeowner’s smartphone. In either case, not only does the technology deter the break-in, it provides a record for the claims handler of how the loss happened, who caused the loss and even photographic evidence of what items were taken or damaged.

**Smoke and fire**

While water losses might be the most frequent type of homeowner loss, the most severe are fire losses, averaging around $39,000 per claim. Smoke and fire alarms have been around for decades. Improved smart technology offers benefits not previously available. It’s much easier to monitor these alarms remotely. If a homeowner isn’t home, or in an area where they may not hear the alarm, the system can send an alert to their phone, allowing for an earlier response. New alarms have better technology to detect smoke and flames and distinguish a real fire from steam or burnt food. To prevent these false alarms, alarms were usually installed in bedrooms and hallways. Homeowners are installing this improved technology in locations where a fire is most likely to start or even in the appliances. When an alarm senses an issue in an appliance, the system can immediately shut down the electrical supply to that appliance, or at the very least, send an earlier alarm message, providing an opportunity to suppress the fire sooner.

Disabled alarms are a frequent factor leading to large fire losses. The classic “low-battery beep” often led to homeowner’s disabling their systems. With the improved technology, smart-home alarm systems are less likely to be disarmed, again, improving the likelihood of early detection and response.

**A new tool in claims handling**

One of the most overlooked benefits of smart-home technology for insurers is how the data provided can also assist in the adjustment of claims. The data from a smart system can provide valuable evidence of the cause and origin of a loss. As noted above, technology now exists to put sensors and alarms on or near major appliances. The data from those sensors can eliminate or implicate an appliance as the cause of loss. This information can be instrumental for determining coverage and pursuing subrogation.

If a smart home is equipped with video cameras, the claims handler can quickly inventory the home’s contents before and after a loss. This should lead to more accurate and timely claim settlements.

Finally, insureds can link their smart-home technology to their insurer so that a smart system automates the first notice of loss. Insurers know that claims handled quickly and efficiently are likely to be less costly. The smart-home technology can give the claims handler a head start in resolving these losses.

**Concerns over smart technology**

As with any new technology, there are still questions and concerns to address. For example, if the smart system itself is damaged, the cost to replace it will likely raise the cost of repairing a home that suffers a loss. It’s also true that hacking is a risk of smart technology, creating a new type of loss. A vandal could damage a smart home by hacking into the smart system and turning off the heat, causing pipes to freeze and burst. These concerns are real, but homeowners and the carriers must weigh the relative risks and benefits.

Is it possible to quantify the benefits of smart-home technology and offer discounts to these homeowners? There’s still much variability and lack of standardization in what constitutes a smart home. Claims managers and staff should talk to underwriters about instances when they see that a smart system mitigated or prevented a loss, or when a smart system helped the claims handler resolve a claim.

**The impact of smart homes**

Smart homes aren’t going to eliminate insurance claims, but they’ll mitigate or eliminate some types of losses caused by specific perils. This technology can also provide valuable data that helps a claims handler adjust a loss. As this technology advances homeowners and insurers will need to continue to assess the risks and benefits which may alter traditional loss frequency and severity.

For more information on smart homes, please contact your Swiss Re representative.

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2. Ibid