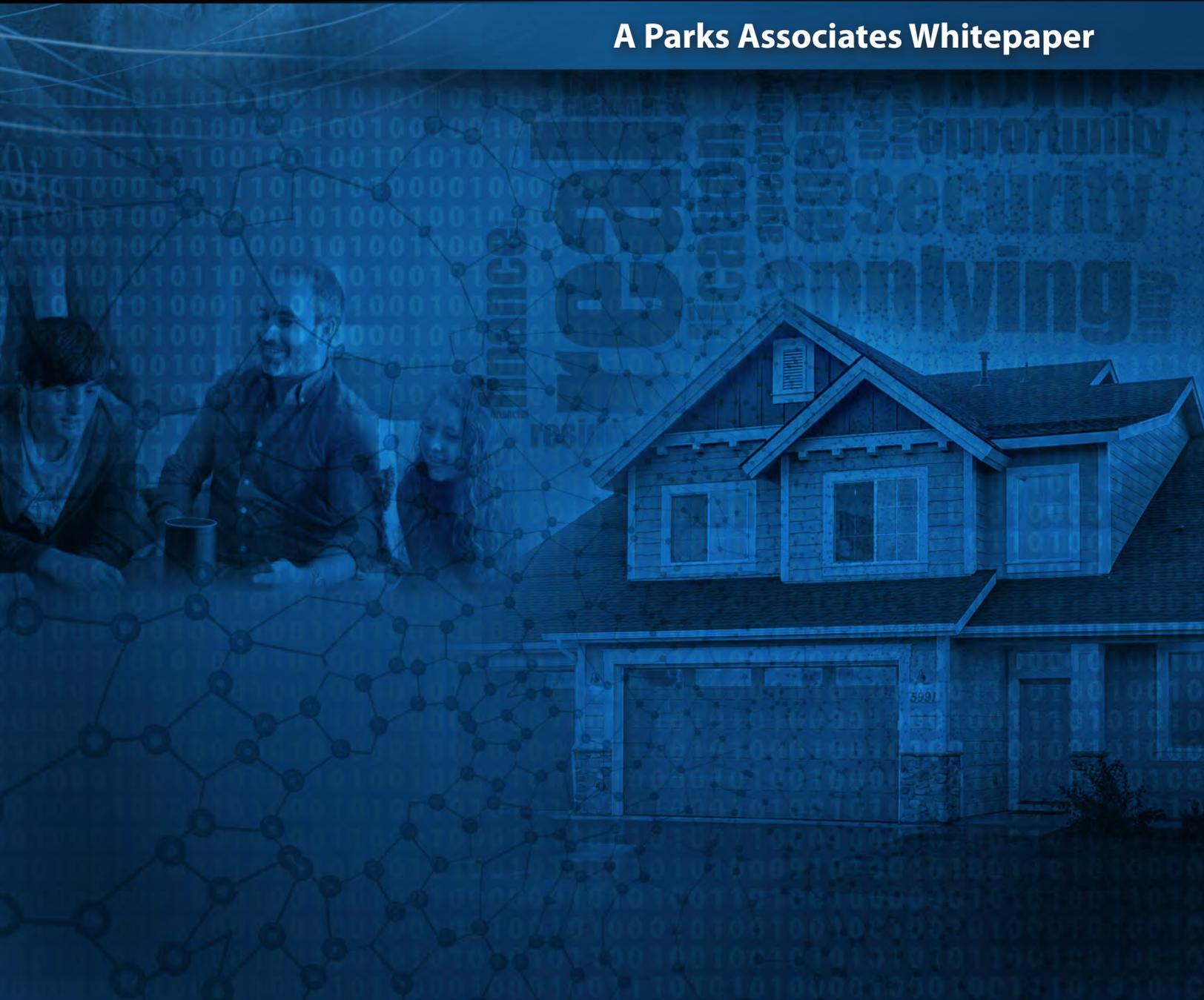


Leveraging Smart Home and IoT for New Insurance Business Models

A Parks Associates Whitepaper

The bottom half of the cover features a blue-tinted photograph of a family (a man, a woman, and two children) sitting around a table, looking at a laptop. To their right is a two-story house with a garage. The background is filled with a network of white nodes and lines, and binary code is scattered throughout. Faint, large text in the background includes "Insurance", "Security", "Applying", and "Opportunity".

Insurance
Security
Applying
Opportunity

Leveraging Smart Home and IoT for New Insurance Business Models

The smart home market will have a major impact on the traditional insurance business.

In the age of the Internet of Things (IoT), a tsunami of new information is coming from connected devices. Insurers, intent on securing the deepest level of insight, will need a way to tap into the source. Traditional insurance practices for data acquisition through third parties may not work; IoT data will be a source of competitive advantage and, therefore, not readily shared. The companies deploying smart home solutions, not the insurer, will have control of the relationship and leverage the data collected to give their customers attractive new value-added services that make homes safer, more energy efficient, and easier to manage.

Recognition of the importance of data has driven huge investments in the smart home with the tech giants such as Amazon, Apple, and Google joining most major consumer channels to enter the market.

While the market is in the early stages of growth, the various participants are already working to add more value and bundling insurance products is an attractive option. This will challenge traditional insurance business models and disenfranchise carriers. However, insurers could offer smart home products and services with their core products and compete in this new market. It would create opportunities for new revenue growth and could create a paradigm shift with carriers moving from being reactive and simply insuring against loss, to becoming proactive and helping prevent it.

This whitepaper explains how home insurance carriers could leverage the IoT and smart home to secure new revenue growth and defend against emerging threats. It focuses on trends in the U.S. and EU and outlines the business case for insurers entering the smart home market before exploring strategies for success.

Adoption of Smart Home Products

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U.S. broadband households have an average of **10.5** connected devices, including smart home, entertainment, and health products.



25% of U.S. broadband households plan to buy a smart video doorbell in 2019.



16% of U.K. broadband households own a smart home device.



More than **40%** of U.S. broadband households find the smart home concept appealing for their home.

11% of U.S. broadband households plan to buy a smart speaker within the next 12 months.



12% of U.S. broadband households bought a new energy-efficient appliance or HVAC system in 2017.



63% of security system households own a smart home device.

50% of consumers 50 and older are very interested in an emergency panic button service or home emergency system.



32% of U.S. broadband households will not purchase a smart home device due to security and privacy concerns.

Nearly **60%** of U.K. broadband households prefer a hardware-as-a-service option to acquire a smart thermostat.



21% of households are very familiar with rebates or other purchase incentives for energy-efficient products.



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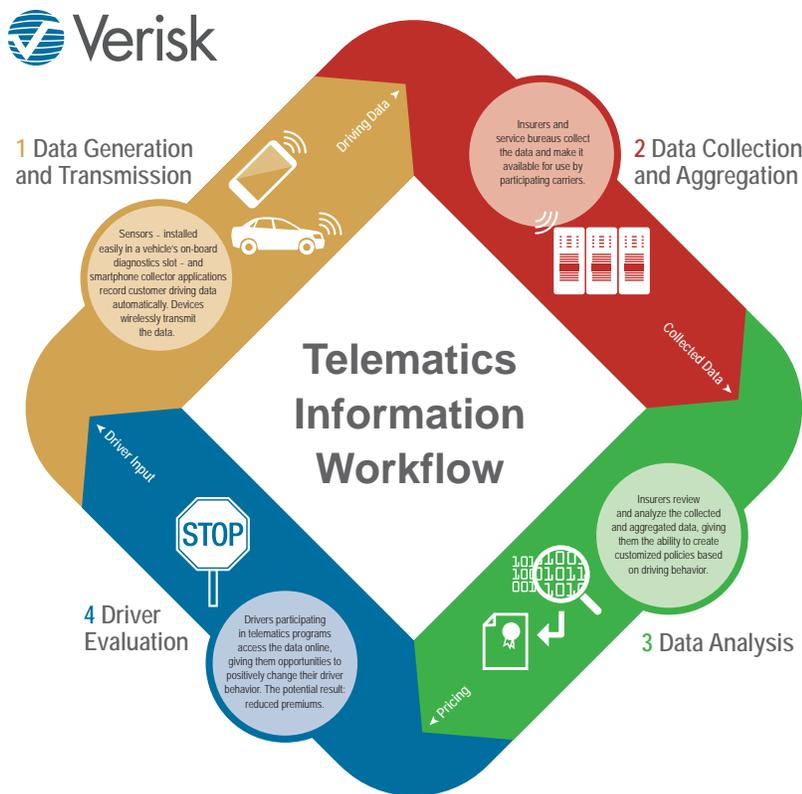
The Opportunity for Insurers

Connected devices will reshape the way consumers think about many traditional products and services as well as how they interact with devices within the home. In the future, the sale of a product will not be transactional and driven by physical attributes; sales will be driven by the features and services enabled by connectivity and, ultimately, the way it interoperates within the wider ecosystem. This change in consumer expectations and behavior will push many industries to make a fundamental shift from selling products for margin to selling services.

Connectivity has already opened the floodgates to a wave of new products, but it is the data from devices that will be a game changer for many industries.

Similar to telemetry systems in cars, smart home solutions will increase safety and reduce claims risk for insurers. Additionally, smart home solutions enable insurers to help their customers protect what matters most. Consequently, while there is the potential for reduced claims, the bigger gains could come from improved customer engagement, new insights, and the opportunity to drive new product and service revenue.

Data from the smart home can also have a fundamental impact on how insurers assess consumer risk. Mashing traditional data used to assess commercial risk, such as credit rating, with almost real-time data on consumer behavior from connected devices could help generate better risk profiles.



Source: Verisk

Insurers, seeking to access new risk-related information, typically derive greater value from data sources that have been able to capture the most significant market share. As demand for data from the vast connected home market grows, solutions that provide data from a broad range of devices and vendors could become a critical component of property insurers' future smart home strategies.

However, the significant business and technical complexity of managing multiple integrations among the large number of insurers and the highly fragmented smart home market can be costly and challenging.

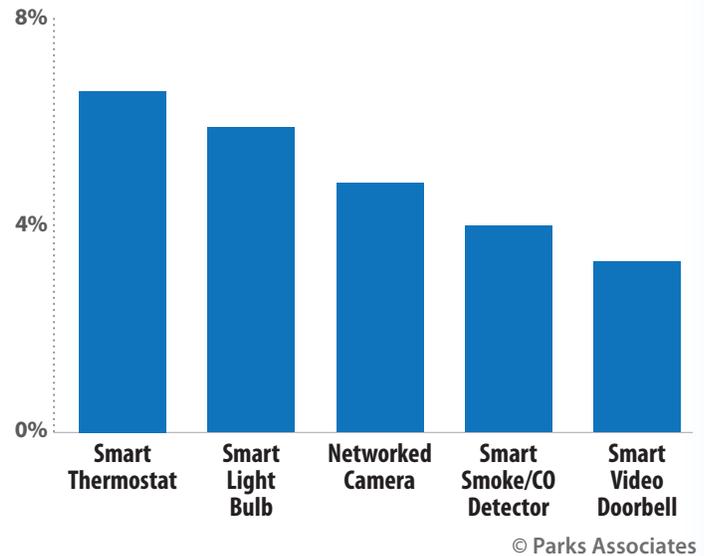
Market Trends

To date, the smart home market is mostly characterized by what are considered point-to-point (P2P) devices; these are single devices linked to a cloud platform and managed using a mobile app. Early examples that have driven the adoption outlined earlier were the Nest thermostat, August and Schlage door locks, Canary camera, and more recently, the Ring video doorbell.

Alongside P2P devices are smart systems best described as curated—a defined group of devices that work together in a managed environment. Large U.S. service providers such as AT&T and Comcast were the first to offer curated solutions, but their offerings used traditional monitored security business models with professional installers, which led to high operational costs and required monthly fees and long-term, fixed contracts. The model has had limited success in the U.S. and did not work well in Europe, where Deutsche Telekom attempted to launch the same model with QIVICON.

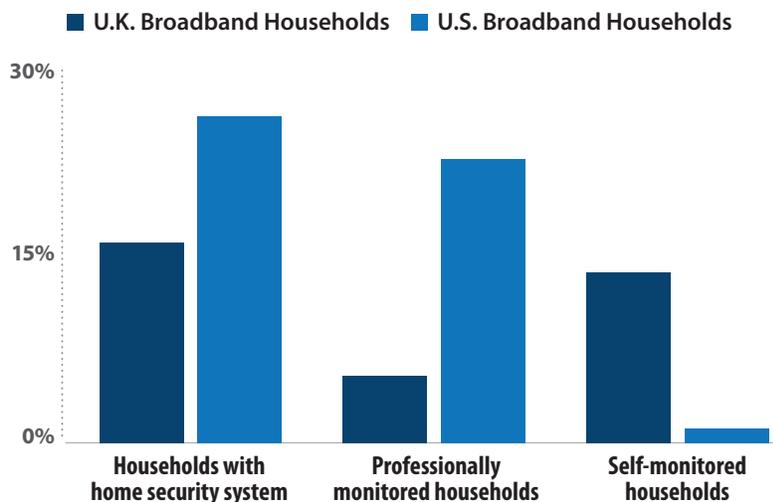
In the U.S., the residential security industry is the leading channel for smart home platforms, and 23% of households subscribe to professional monitoring services. However, in the U.K., only 5% of broadband households have professionally monitored security. More than twice as many homes (12%) instead opt for a self-monitored option. Meanwhile, high attrition is a challenge. More than one-third of professionally monitored households report they are very likely to switch service providers within the next 12 months, while nearly half (48%) are at least somewhat likely to switch providers.

Device Ownership: U.K. Broadband Households



Parks Associates research highlights why the U.S. model struggles in the EU—European customers do not see the need or value of professionally monitored security.

Overview of Residential Security Market by Country



Improvements in the technology, and greater standardization, are paving the way for simpler, low-cost, DIY smart home solutions for both P2P and curated offerings.

These are starting to make a significant contribution to market growth through a broad range of consumer channels, and new business models are emerging. Vodafone has partnered with Samsung SmartThings, one of the better-known DIY smart home platforms, to create V-Home for their customers across Europe, and many new start-ups are offering their B2C solutions through retail or online.

Consumer Drivers: Safety and Peace of Mind

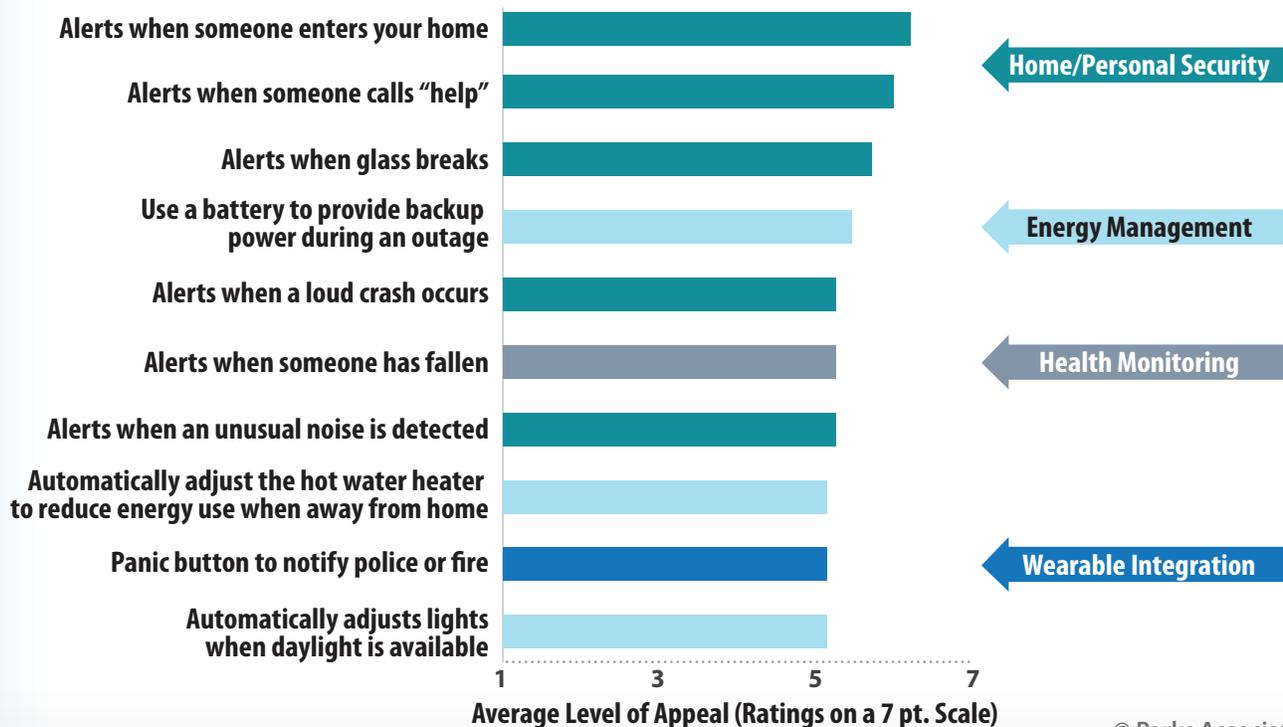
Security use cases are the primary drivers for consumer interest and adoption regarding smart home solutions, with energy efficiency and convenience as secondary considerations. Security is often thought of as protection against intruders, but deeper analysis shows consumers place a higher value on the wider benefits.

For example, consumers want alerts when people enter their home, but they value the positive information (messaging when kids get home from school) as much, if not more, than the negative (an alarm for intruders), largely because messages are regular and relevant interactions with the home and family members. These features are central to creating positive engagement.

What consumers really value is safety and peace of mind.

Top 10 Appealing Smart Home Device Expanded Use Cases

Smart Home Device Owners in U.S. Broadband Households



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Nearly 40% of U.S. broadband households report they would switch insurance providers in order to obtain smart home products.

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The Opportunity for Insurers

Consumer drivers for smart home adoption and usage are well aligned with the interests of an insurance company, and that is good news for an industry that has changed little in 300 years. Although technology has helped insurers to improve their business processes, success or failure in the insurance business still relies largely on robust pricing algorithms that use traditional datasets.

More significantly, the transactional nature of insurance has not changed over the years. Customers consider insurance a necessary purchase, and the relationship with their insurer usually involves an annual interaction that focuses on price and concludes with the purchase of a product both parties hope they never use. There is no real consumer engagement.

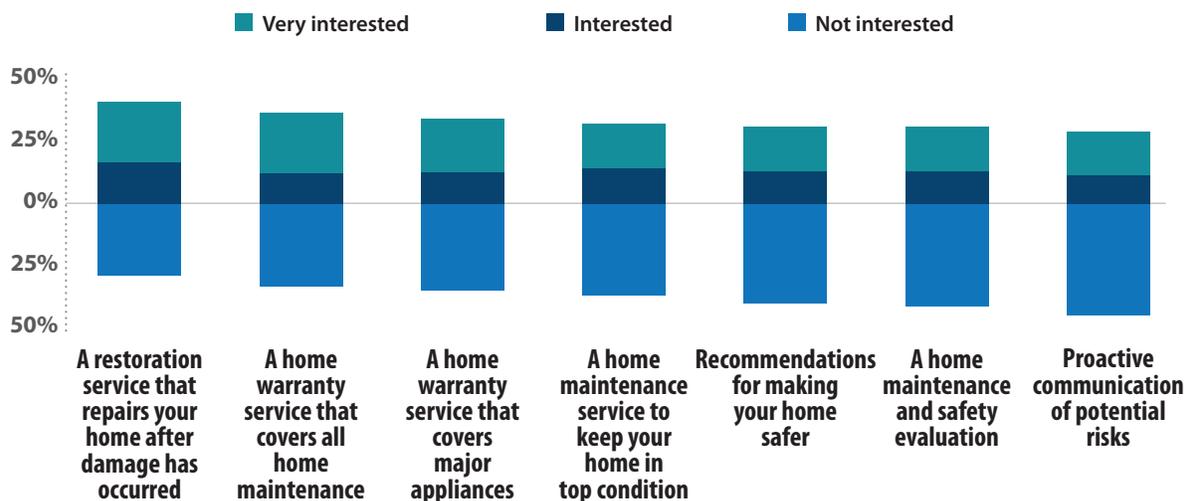
The smart home can change these dynamics by enabling consumers and insurers to partner to protect what matters most – the family and the home. It can also act as a springboard for a range of new services, which could catapult insurance companies into a position as home concierge that delivers a broad range of value-added services linked through a digital platform. For example, a smart home can automatically alert a plumber to help with a water leak or send out seasonal alerts to trigger maintenance activities.

Aviva has taken a controlling interest in Neos, a U.K. startup that bundles insurance as part of a wider smart home package for a single, monthly fee. Neos sells direct to consumers and through partnerships, with reinsurance carriers underwriting the risk. This relationship will give Aviva new insights from a broad range of consumers and, through the partnership, the ability to test new business models.



Interest in Other Services from Current Insurance Provider

U.S. Broadband Households with Home or Renters Insurance



© Parks Associates

Insurers could realistically stake a strong claim in this emerging market. There is no obvious consumer channel for smart home products and retailers, security dealers, ISPs, utility companies, and others are working to position themselves. In the U.S. and EU, large service providers and security companies have led the charge as a distribution channel, but in the U.K., it is a utility, British Gas, that leads the market with Hive.



Market Entry

The nature of the IoT and the potential threats to the traditional insurance business mean that there is a strategic imperative for insurers to become versed and active in the smart home space. Insurers have a range of choices when deciding the best market entry strategy, and the following options are at different ends of what is a very broad spectrum:

Promoting Products

Insurers could simply promote approved IoT products they consider complementary to their services (e.g., connected water leak sensors, water and gas shut-off valves, fire detection products, security systems) and offer premium discounts and other incentives to drive adoption and usage. Many insurance companies have tested this option because it is easy to execute. This strategy helps drive adoption, but the upside for insurers is limited with restrictions on access to data and discounts eroding premiums. It can work in markets such as the U.S., where the average policy costs over \$1,000 per year, but not in Europe, where premiums are significantly lower. For example, the average home policy for Portugal's leading insurer, Fidelidade, is less than 200 Euros per year; consequently, companies have no room to offer meaningful discounts.

Affinity Partnering

Insurers could work with partners in what could be considered a middle ground and actively promote specific P2P or curated solutions with data sharing agreements. Again, these are easy to execute, but the benefits vary. Where the device or system has a strong consumer brand, the association can have positive benefits in driving adoption. However, few affinity deals are likely to provide full access to consumer data, and even when they do, the partners tend to impose limitations on use. Like product promotions, this strategy offers more benefits for the vendor by driving their sales and introducing the products to new customers. For the insurer, these agreements may have an impact on claims but do little to help the insurer improve consumer engagement or generate revenue.

Offering Branded Smart Home Services

At the other end of the spectrum, insurers could compete in the smart home by offering their own branded P2P and curated products and services. Insurers could develop their own bundles or reduce cost by using partners that offer a white-label solution. Insurers are a logical channel for the smart home and the key consumer drivers are well aligned. Parks Associates research shows that both homeowners and renters trust their carrier to handle data generated from smart home solutions, so the brand could be stretched beyond the traditional insurance products. We anticipate similar sentiments in Europe. Moreover, offering an insurance-branded smart home solution has the potential to deliver meaningful revenue growth and is the only certain way for insurers to secure access to quality data in the age of the IoT.

60% of households that are likely to purchase a smart home product would want some insurance-related features with that product.



20-30% of these households would be willing to spend between £150 and £300 for solutions if given a 5% discount on insurance premiums.

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A Twin-Track Approach

It is tempting to suggest insurers should be aggressive and rush to deploy their own white-labelled smart home products and services, but the smart home is still an early market. A more cautious twin-track approach is advisable.

Given the current state of the market and the number of devices already in play, insurers need to continue to consider affinity deals for smart home devices, but they should only do this when there are data sharing agreements in place with the partner.

If the IoT and smart home proves truly disruptive, the best way to leverage the opportunities for revenue growth and defend against threats is to become a primary channel for smart home solutions.

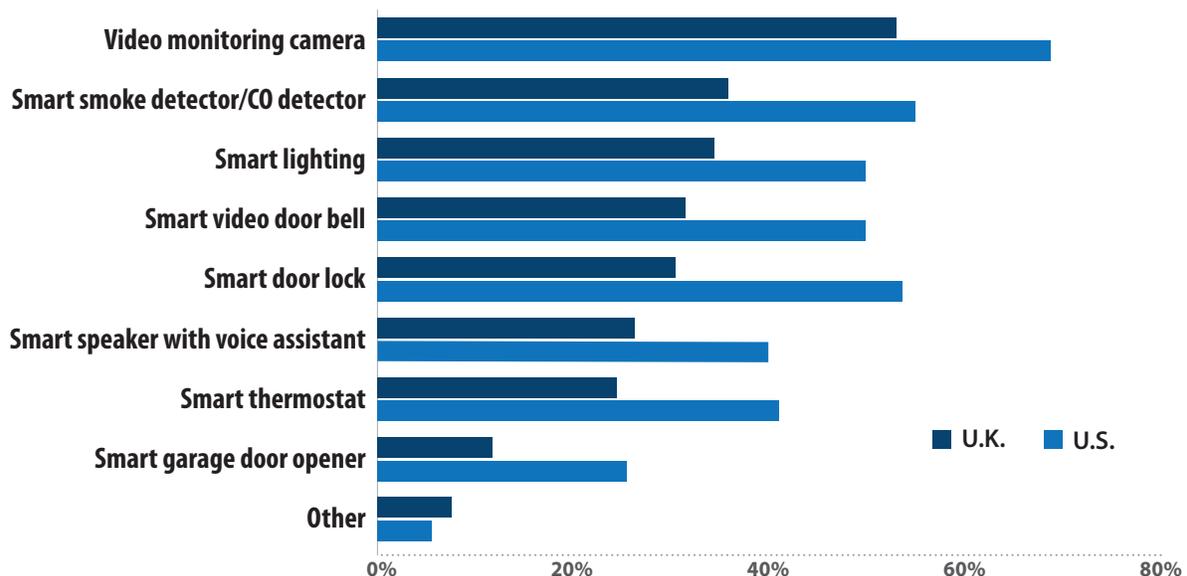
At a minimum, offering a curated smart home solution under the carrier brand guarantees access to quality data from a large enough sample of their own customers to underpin their risk and pricing models. If successful, it could become a substantial new line of business that underpins a broad range of profitable product and service offerings that help improve consumer engagement and make insurers more relevant in a digital age.

When deploying solutions, insurers must avoid the temptation to focus on a narrow set of devices that focus on their needs. For example, it may seem simpler and easier to target the big risk areas with connected flood and fire sensors but these limited offerings would not generate enough consumer interest to make the insurer a credible player in the smart home market. The U.K.'s largest utility, British Gas, learned that focusing purely on home energy management would not deliver success for Hive, its smart home offering. Consumers wanted more complete solutions, so the utility expanded the product set to cover home security and senior care.

There are some early movers testing new models in the insurance industry.

- Allianz has launched Smart Home Protect—a full set of affinity partners and a range of home services that mimic the company's car roadside assistance models.
- Zurich RE and SmartThings are partnering to offer turnkey solutions to carriers.

Devices to be Included as Part of Security System Broadband Households Intending to Purchase a Security System



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Partner to Succeed

Many insurance companies have experience promoting products and services with affinity partners, so the risks and rewards are understood. Deploying their own smart home platform and services is a very different challenge; partnerships offer a simple, low risk approach to market entry.

Several companies offer turnkey solutions for the smart home, thus making them good options for insurance carriers. Resideo (Honeywell), Alarm.com, Bosch, and others offer comprehensive white-label solutions based on more traditional security propositions, while companies like Samsung's SmartThings offer DIY-branded variants. There are a wide range of partner options available. Even Amazon could be considered an option as it offers a comprehensive sales and logistics platform.

The choice of partners will depend on the preferred strategy, business plan, market, and appetite for risk, but most can deliver all the key devices that Parks Associates research identifies as attractive additions to the core security offering in the smart home.

Future Tech Innovation and Insurance Offerings

Many of the new initiatives moving forward in the IoT could have a big impact on insurance carriers and drive a new wave of innovations in the future:

Safety Scoring

ROC-Connect, a U.S. smart home platform, has demonstrated how IoT data could be leveraged to redefine traditional insurance costing models with safety scoring. This involves taking the data insurers traditionally use to assess the customer (credit risk, history of claims, etc.), the property (type, size, cost of rebuild, etc.), and the location (weather, local hazards, etc.) and combining it with IoT inputs showing the type of devices in the home that can track activity in the home and condition of devices. Ultimately, like a credit rating, safety scoring could dictate premiums.

Artificial Intelligence and Machine Learning

As the market matures, devices will start using artificial intelligence and machine learning to become more intuitive. These advances will help make sense of the mass of data generated from devices and, as shown with safety scoring, drive innovation. An example is FireAngel, one of Europe's largest smoke alarm manufacturers. The company has created a patented technology, FireAngel Predict, which utilizes smoke alarms connected to a cloud platform with an algorithm designed to analyze data from the sensors and identify properties at elevated risk of fire.

5G Mobile

The advent of 5G and dedicated IoT bands on mobile networks will accelerate the growth of the IoT and smart home. New pricing models from cellular operators for IoT data make it more attractive than broadband for some applications, and the technology will simplify the deployment of many devices. It will be possible to remotely monitor and control almost anything (outbuildings, caravans, boats, etc.) from anywhere at affordable prices.

Parks Associates research finds that customers do not really understand the factors affecting their insurance costs, so safety scoring could become a new engagement tool.

A Shift in Traditional Insurance Models

The IoT and smart home are major disruptors, and as data is the lifeblood of the insurance business, it is essential that carriers have access. Traditional third-party providers will not be able to help carriers because, unlike data from companies like Equifax for credit rating, IoT data will be a source of competitive advantage that will not be openly shared.

To succeed in the era of the IoT, insurers need to broaden their perspective and move outside their comfort zone if they are to remain relevant in the minds of consumers.

This means shifting their focus beyond improving business efficiency and reducing claims, towards finding new areas for revenue growth; the smart home and IoT presents a compelling opportunity.

To enter the market, insurers should consider adopting a twin-track strategy for the smart home. Insurers should continue with affinity programs with device partners such as Nest, but only where the carrier has access to the data. In parallel, developing and deploying branded smart home systems and services will leverage the power of their brand and the relationship with consumers to drive sales. This mix will give carriers access to the data needed to help protect their market position and remodel their traditional risk profiles to offer more granular pricing.

Insurers could stake a strong claim in this emerging market.

Parks Associates research shows that consumers trust their carriers and the key consumer driver for smart home adoption—safety—aligns with the goals of the insurer. To achieve maximum benefits, insurers need to focus on using the smart home and IoT to improve customer engagement, reduce customer churn, and create new revenue streams. Reduced claims will come as a by-product of this more expansive approach to the market. It will also create a paradigm shift in consumer engagement by moving carriers from insuring against losses to partnering with consumers to help prevent them.





Parks Associates is an internationally recognized market research and consulting company specializing in emerging consumer technology products and services.

Founded in 1986, Parks Associates creates research capital for companies ranging from Fortune 500 to small start-ups through market reports, primary studies, consumer research, custom research, workshops, executive conferences, and annual service subscriptions.

The company's expertise includes the Internet of Things (IoT), digital media and platforms, entertainment and gaming, home networks, Internet and television services, digital health, mobile applications and services, support services, consumer apps, advanced advertising, consumer electronics, energy management, and home control systems and security.

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Kevin is an Advisor for Parks Associates and also the MD of EAS Consulting, a boutique consultancy focused on the IoT and Smart home markets.

Meagher was formerly the SVP BD at ROC Connect and VP & GM of Lowe's Smart Home initiative, Iris. At Lowe's, one of the world's largest home improvement retailers, he led the deployment of their smart home products and services through all their retail stores in the US. Kevin was also founder and CEO of Intamac Systems, a UK company offering a Cloud

platform deploying smart home solutions to the mass consumer market.

Meagher has been recognized as a global pioneer and thought leader in the smart home and IoT. He has deployed smart home solutions with major service providers, utilities, retailers, and security companies around the world. He has lectured on business management and published papers at national and international conferences. Additionally, he is the recipient of numerous awards including Ruban d'Honneur as European Entrepreneur of the Year, and his company won the European Best Business Innovation Award. He has 3 patents. He has also served as a Group Captain in the Royal Air Force.

Meagher is a Chartered Engineer in Aeronautics and holds an MBA. Kevin is currently supporting Parks Associates as an Advisor for custom research advisory services.

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RESEARCH & ANALYSIS

for Emerging Consumer Technologies

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Smart Home Devices
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Home Networks

Digital Health

Support Services

Entertainment and
Video Services

Consumer Electronics

Energy Management

Home Control Systems

Home Security