



# Smart Home Insurance





## Table of Contents

<b>Preface .....</b>	<b>4</b>
<b>Chapter 1: Homeowner Insurance.....</b>	<b>5</b>
1.1 Current State of Homeowner Insurance .....	5
1.2 American Family .....	5
<b>Chapter 2: The Digital Revolution .....</b>	<b>7</b>
2.1 Evolution of Customer Expectations .....	7
2.2 American Family's Smart Home Journey .....	9
<b>Chapter 3: The Smart Home.....</b>	<b>12</b>
3.1 Smart Devices and Market Adoption .....	12
3.2 Homeowner Losses .....	12
3.3 Customer Engagement, Empowerment, and Risk Reduction .....	13
3.4 Smart Home Ecosystem .....	14
<b>Chapter 4: Smart Home Insurance .....</b>	<b>16</b>
4.1 Why Smart Home Insurance .....	16
4.2 Value Creation Levers .....	17
4.2.1 Services .....	18
4.2.2 Loss Control.....	18
4.2.3 Behavioral Change .....	18
4.2.4 Risk Selection .....	19
4.2.5 Risk-based Pricing .....	19
<b>Chapter 5: The 4Ps for the Smart Home Insurer.....</b>	<b>20</b>
5.1 People .....	20
5.2 Processes .....	20
5.3 Privacy .....	21
5.4 Partnerships .....	22
<b>Final Remarks .....</b>	<b>23</b>

## Preface

Rapid changes in technology are motivating leaders of the global property casualty insurance industry to reimagine how to serve, and even delight, customers. That's good news for consumers and for the insurers that are adapting quickly. However, insurance companies not keeping pace, face significant risks.<sup>1</sup>

Since 2014, teams at American Family Insurance Mutual Holding Company and its affiliates (American Family) have been experimenting actively with customer value propositions created by smart home technology. The teams have been conducting innovative pilot programs, forging symbiotic partnerships, and making strategic investments in early stage companies. What began as a very small group, now includes a significant effort staffed by experienced experts from multiple disciplines - legal, product development, marketing, consumer insights, human-centered design, data science, and venture capital.

Some commentators<sup>2</sup> believe consumers have been largely resistant to making their homes “smart.” The authors<sup>3</sup> disagree. Certain consumer value propositions are compelling right now.

In this paper, we outline the pitfalls and opportunities that American Family's work in the area of smart homes has uncovered. We also share insights into what we believe are consumer preferences for the U.S. market. We hope these findings of the IoT (Internet of Things) Insurance Observatory<sup>4</sup> resonate with consumers, insurers, software providers and hardware device manufacturers. Market participants are delivering compelling value to consumers. Insurers must not wait.

## Chapter 1: Homeowner Insurance

The basic function of property and casualty (P&C) insurance is the transfer of risk. P&C insurance aims to reduce financial uncertainty and make the cost of accidental loss manageable for customers. To achieve that, consumers pay a premium to an insurer in exchange for the insurer assuming the risk of a large loss and the promise to reimburse such losses.

The genesis of modern homeowner insurance was “The Great Fire of London,” which in 1666 destroyed more than 13,000 homes.<sup>5</sup> Insurance existed in various forms before that fire, but lacked the rigor and formality that we see in today's policies. In the 17th century for example, each policy covered just one peril (i.e., one thing that could go wrong). Insurers now spread the risk, distributing the losses of a few to a large number of premium payers. The larger the number of premium payers, the more accurately an insurer is able to estimate probable losses and calculate the amount of premium it needs to collect from each policy. This gets complicated, however. The number of losses experienced by policyholders changes over time due to changes in weather, human behavior, technology, and other factors. Thus, insurers constantly gather and analyze loss data in order to review how much to collect in premiums.

### 1.1 Current State of Homeowner Insurance

Today, the economic benefit of insurance is as relevant and valuable as it was in the 17<sup>th</sup> century. For example, if mortgage lenders were unwilling to assume the risk of loss of a home due to fire, 65 percent of Americans would be unable to obtain home loans.<sup>6</sup> In fact, few lenders or investors would be willing to provide funds without the guarantee insurance enables.

For the past several decades, the purchase experience has not changed significantly for the vast majority of the U.S. homeowner insurance buyers. Prospective customers typically find an agent or decide on an insurance company by getting personal recommendations from friends and family, responding to direct mail, or searching online. That leads to a conversation with an insurance expert and the purchase of coverage expected to meet one's needs. In the event of a loss, customers make a claim within one's policy limits and recover after an unfortunate event. Some industry observers believe the product and the experience from one carrier to the next is remarkably similar, and the customer is hard-pressed to distinguish between insurers.<sup>7</sup>

### 1.2 American Family

In 1927, Farmers Mutual Automobile Insurance Company was founded in Madison, Wisconsin by entrepreneur Herman Wittwer. American Family's predecessor company founder saw an opportunity to provide farmers with better service and a better insurance price than competitors. Wittwer knew farmers used

their trucks infrequently during the winter, reducing the insurance exposure. He underwrote policies accordingly, having an analog information advantage in the midwestern U.S. that certain east coast insurers did not have.

American Family has grown to be among the top 10 U.S. personal lines auto insurers, and is ranked seventh in the U.S. homeowner's insurance market, as of the third quarter of 2018.<sup>8</sup> American Family is Number 311 on the 2018 Fortune 500 list.<sup>9</sup> In addition to home and auto insurance, the company also offers renters, small business, farm and ranch, life insurance and many specialty insurance coverages.<sup>10</sup>

American Family's mission is "To Inspire, Protect, and Restore" its customers' dreams.<sup>11</sup> The company is no longer just about paying claims and reactive reimbursement. In today's connected world, American Family teams are actively experimenting with investments in proactive protection. The company seeks to prevent losses from happening in the first place, thus preventing customers from having to experience the inconvenience, disruption, and out-of-pocket costs of home repairs and restoration.

## Chapter 2: The Digital Revolution

Digital exhaust from cars, homes, phones and smart devices fills our world. A 2015 McKinsey report was very clear: “digitization could add some \$2.2 trillion to annual GDP by 2025.”<sup>12</sup> Digitization now touches most Americans.

### 2.1 Evolution of Customer Expectations

Few people imagined just ten years ago<sup>13</sup> summoning transportation with our phones, having the fastest route to our destination predicted in seconds, and reviewing transparent “experience ratings” about our driver. Nor would many have fathomed the dramatic shift in our shopping habits since the advent of Amazon’s e-commerce capabilities. The new normal is to order a physical product through a mobile app and receive the order on our doorstep within two days or sooner. Digital products, like movies, music and books, are delivered in minutes.

Thus, the authors believe insurance customer expectations are set outside the insurance industry. As with many other products and services, customers shopping for insurance are increasingly searching online. Consumers have elevated expectations about how simple and customized the experience should be. Legacy carriers have work to do to improve the digital and customer experience in order to remain competitive. This transformation is imperative for carriers who want to lead, or even remain, in this new landscape.

Ubiquitous smart phones, open source software and cloud computing have dramatically reduced the costs of experimentation and engagement with consumers.<sup>14</sup> Lower barriers to company creation have spawned InsurTechs, startup companies that rely on the latest technology to improve insurance customer experiences. The InsurTechs are emerging rapidly<sup>15</sup> to pounce on opportunities to disrupt in areas where incumbent carriers’ legacy systems make it difficult to easily satisfy customers. Several new homeowner insurance startups<sup>16</sup> are delivering new homeowner insurance offerings and significantly simplifying the purchasing experience.

The IoT Insurance Observatory conducted a consumer survey showing clear signs of an increased preference for digital interfaces.<sup>17</sup> The two diagrams that follow (Exhibit 1 for renters and 2 for homeowner insurance) identify channels consumers use to purchase insurance policies.

Exhibit 1:<sup>a</sup>

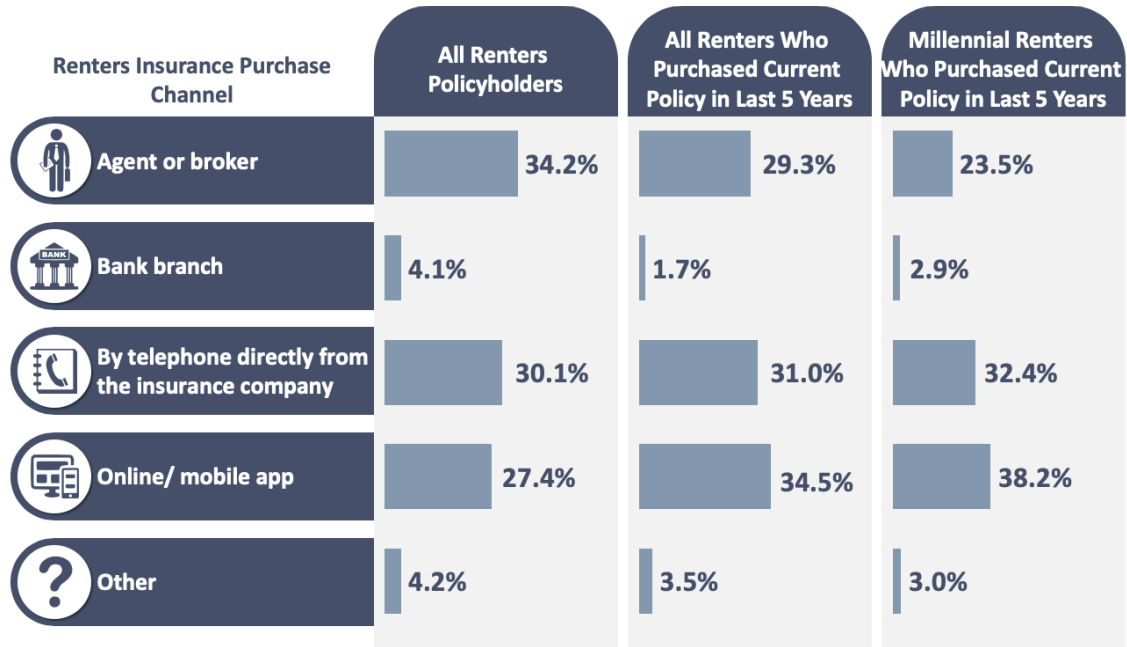
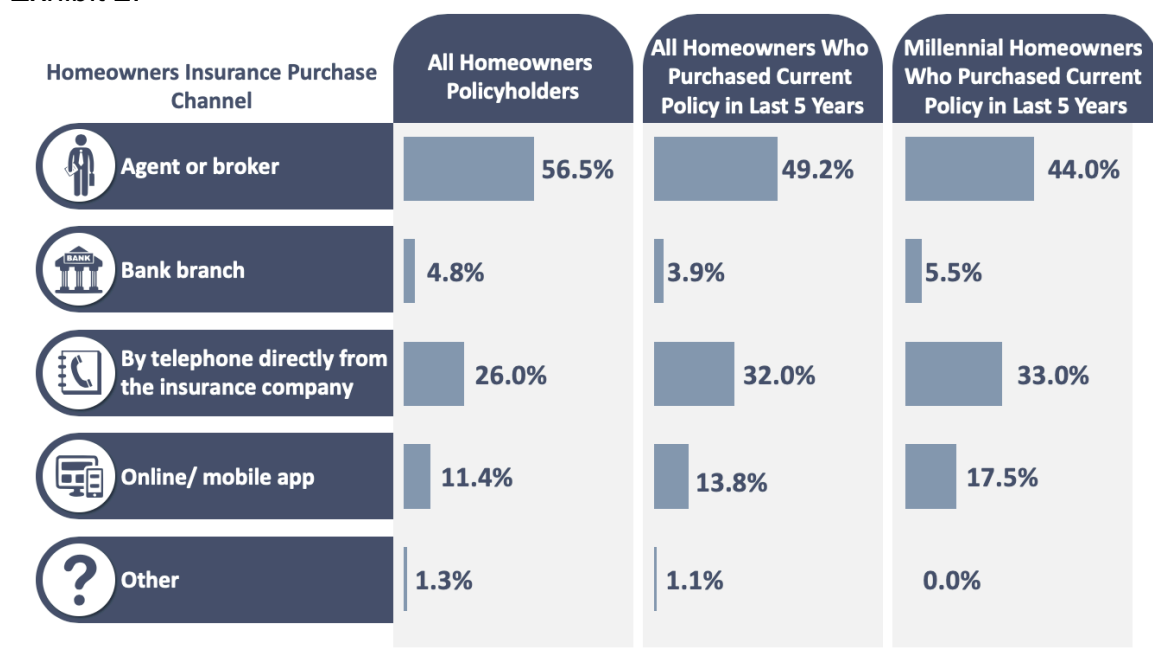


Exhibit 1 shows consumers' interest in digital distribution. The U.S. renter insurance market seems to be following the direction of the U.K. insurance market, where a large portion of policies is sold through digital channels.

Homeowner insurance is different. As shown in Exhibit 2, agents and brokers continue to represent the most relevant channel. The agent and broker channels are, however, becoming more balanced with the digital channels.

<sup>a</sup> U.S. renters survey; n= 73 participants

Exhibit 2:<sup>b</sup>



## 2.2 American Family's Smart Home Journey

In June 2014, American Family and Microsoft announced the launch of a startup accelerator.<sup>18</sup> Together, the two companies decided to focus on assisting startups that were working on the next wave of home automation products and services. Over the following months, American Family and Microsoft met with more than 400 applicants to the accelerator. The goal was to find the most commercially promising startups that were tackling the most challenging problems in home automation. Ten startups were selected by judges from both Microsoft Ventures and American Family.

To help these startups grow, Microsoft provided many resources including workspace on the Redmond, Washington campus, access to dedicated mentors and connections to certain valuable Microsoft customers. In turn, American Family offered insurance and analytics expertise and an optional \$25,000 equity investment in each startup accepted into the program. These investments in early stage emerging technology companies strengthened American Family's commitment to proactively protect policyholders.

A series of investments occurred over subsequent years which established American Family as one of the insurance leaders in early stage investing for the smart home.<sup>19</sup> Such investments include, but are not limited to:

- Revolv, a smart home hub to control smart devices;

<sup>b</sup> U.S. homeowner survey; n = 377

- Red Balloon Security, a leader in the protection against security vulnerabilities in smart devices;<sup>20</sup> and
- Ring, a video enabled doorbell.

To further improve understanding of the smart home customer value proposition, American Family's innovation unit converted a small demonstration home in a warehouse into a smart home showcase (Exhibit 3). The warehouse was previously used solely for adjuster training.<sup>21</sup> This space was designed to test product experiences from American Family Ventures' portfolio companies and other technology companies. Hundreds of employees, partners, and others have toured the facility to see some of the latest smart home devices.

Exhibit 3:



Since 2014, American Family has offered employees technology products in very small-scale pilots as a means to learn how effectively these devices meet customer expectations, mitigate risks, and enhance homeowners' lives.

American Family has tested, in its lab and in homes, dozens of smart devices including:

- light bulbs
- security cameras
- smoke and carbon monoxide detectors
- thermostats
- video enabled doorbells
- water flow meters

- water leak detection sensors
- water shutoff valves

In 2015 American Family launched a pilot program where customers were provided with certain smart home products. In exchange and subject to a clear data privacy policy, customers who opted into the program agreed to share limited data about whether the smart home products were on, working properly, and communicating through Wi-Fi. The American Family legal team crafted a clear data privacy policy.

American Family team members sent program participants replacement batteries when the smoke alarm showed a low battery alert. This service eliminated a chore for customers. With smoke detectors functioning properly, families and homes are proactively protected.

Through the program, American Family discovered that customers expect technology to work “right out of the box.” American Family team members learned that many customers seeking technical support came to American Family, not the device manufacturer. For many customers, troubleshooting temporarily inoperable equipment is an unacceptable inconvenience.

American Family team members learned to empathize and iterate quickly from experiment participant feedback. For example, one device manufacturer introduced a service triggered when its water sensor detected moisture. Despite evidence of false alerts, the manufacturer continued to inundate experiment participants with phone calls urging use of its on-demand plumber service. Needless to say, this offering was never scaled to customers.

Several pilots and subsequent testing by American Family, and participation in the IoT Insurance Observatory since May 2017, have identified several paths to large-scale adoption.

## Chapter 3: The Smart Home

### 3.1 Smart Devices and Market Adoption

Put simply, a smart home is one where the appliances and devices in a house are connected and controlled remotely by phone or internet. However, connectivity and remote operation of the devices are not sufficient for a home to be truly smart. The “smart” in smart home comes when rules or artificial intelligence (AI) are applied to the devices to initiate specific actions without the need for human intervention.

A homeowner needs a reason to spend hard-earned savings on a smart device. Historically, technology frustrations such as limited interoperability, persistent outages, confusing interfaces, and allegations of hacking and data loss, have slowed the mass adoption of smart devices. However, new generations of technology are much improved.

Sales of devices with voice AI assistants like Amazon’s Alexa, Apple’s Siri and Google’s Assistant are surging. Amazon announced that millions of its Alexa devices were sold during the Black Friday - Cyber Monday retail phenomenon of November 2017.<sup>22</sup> With thousands of voice AI assisted devices, the promise of the smart home is accelerating.

Despite dozens of new devices introduced to the market every month, leaders have emerged. With scale comes lower prices. For example, Alphabet (Google) subsidiary, Nest, released a Nest Thermostat E in 2017 with a \$169 price tag.<sup>23</sup> That thermostat is 30 percent less than the original Nest Learning Thermostat (\$249).<sup>24</sup> Further, Ring’s original Video Doorbell retailed for \$199 in 2016 and the price was reduced to \$99 in 2018.<sup>25 26</sup>

### 3.2 Homeowner Losses

Smart devices show real potential for mitigating losses in the home. The authors believe with the arrival of do-it-yourself (DIY) installation and considerably lower-priced entry points into the smart home, many consumers may be adopting the technology. Research shows adoption of smart home devices often starts with a security and safety concern.<sup>27</sup> A 2016 Parks Associates study showed a DIY package of smart home devices appeal to the 78 percent of American broadband households currently unwilling to commit to the relatively high costs of home-security hardware and subscriptions.<sup>28</sup>

Therefore, home safety and security is the most obvious and relevant category for P&C insurers. By using smart home devices, an insurance carrier has an opportunity to make homes and families safer. American Family, like other insurers, has focused mostly on water, fire, and theft when piloting smart home

technology. Exhibit 4 shows the frequency and severity of loss across causes of property damage.

Exhibit 4:<sup>c</sup> and 29

### Property Losses by Frequency and Severity (Average Homeowner Losses, 2013-2017)

Cause of Property Loss	Claim Frequency (% of all losses)	Claim Severity (Avg claim amt)
<b>Wind/Hail</b>	<b>2.10%</b>	\$10,182
<b>Water Damage/Freezing</b>	2.05%	\$10,234
<b>Theft</b>	0.31%	\$4,264
<b>Fire/Lightning</b>	0.28%	<b>\$68,322</b>
<i>All other</i>	<i>0.66%</i>	<i>\$5,823</i>

Wind and hail damage occur more frequently, but the authors believe there are no devices that can effectively monitor and protect against such damage at this time. Devices that detect and alert homeowners to unexpected water activity in the home offer promise for insurers to reduce claim frequency.

For customers who have not experienced water loss, water damage prevention is not top of mind. However, customers are highly receptive to avoiding such loss after a recent incident.

### 3.3 Customer Engagement, Empowerment, and Risk Reduction

American Family team members quickly discerned consumers largely acquire devices that solve real customer “pain points.” Furthermore, customers engage more frequently with the smart home mobile apps which deliver real value.

American Family has learned that customers appreciate tools that help them:

- understand the risks they are exposed to;
- monitor the progression of those risks; and

<sup>c</sup> (1) For homeowners multiple peril policies (HO-2, HO-3, HO-5 and HE-7 for North Carolina). Excludes tenants and condominium policies. Excludes Alaska, Texas and Puerto Rico.

(2) Claims per 100 house years (policies).

(3) Average amount paid per claim; based on accident year incurred losses, excluding loss adjustment expenses, i.e., indemnity costs per accident year incurred claims.

(4) Weighted average, 2013-2017.

- receive insight to mitigate damages.

Insurers have promoted safer behaviors for years, but these new technologies are enabling greater awareness, whether the residence is occupied or vacant.

When customers share data with insurance companies, new opportunities emerge to encourage safer behaviors through education and positive reinforcement. Insurers are using customer data to provide rewards for safe behaviors.<sup>30</sup> This is demonstrated and proved to be a market fit outside home insurance.<sup>31</sup>

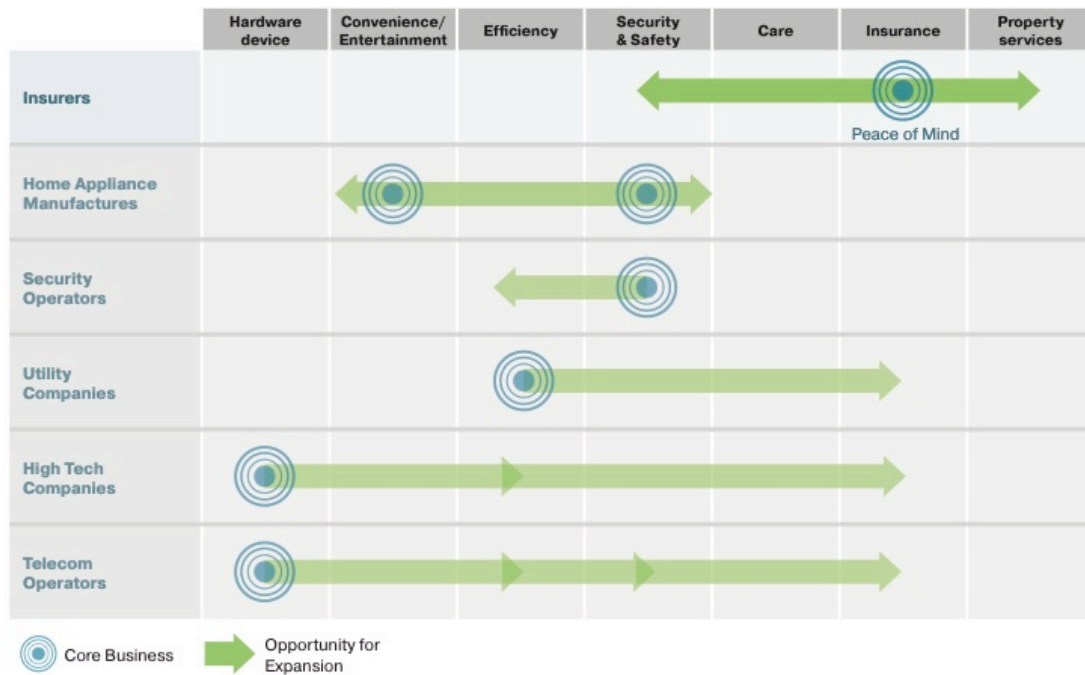
The authors believe security and safety services built on information coming from smart devices can lead to the prevention or mitigation of certain losses. To make this possible, it will be necessary to have:

- secure, trusted relationships;
- broad distribution of secure and reliable smart devices in houses;
- large quantities of data streaming from the devices;
- algorithms that derive insights from these data; and
- capabilities to deliver effective actions in the field.

### 3.4 Smart Home Ecosystem

While ecosystems like Google Home or Amazon Alexa aggregate device information, there are device manufacturers and service providers that may provide a compelling customer value proposition (Exhibit 5). Delivering a credible value proposition to customers is key to driving adoption of smart home solutions. Exhibit 5 shows multiple providers expanding from their core capability to serve adjacent needs and to become the orchestrators of an ecosystem that adds value for home owners. Some ecosystems have started to build networks of independent service providers by leveraging temporary workers (gig economy).

Exhibit 5:



The ecosystems involving digital platforms that deliver an interconnected set of services to the customer in one integrated experience has been identified as a major topic for the insurance sector by many large global consulting firms, including Bain<sup>32</sup>, McKinsey<sup>33</sup> and Deloitte<sup>34</sup>. An insurer that is capable of distributing smart home insurance propositions to its customer base will strengthen the customer relationship, have access to richer customer insights, and be well positioned to orchestrate its own ecosystem of partners. This insurer will compete as a platform sponsor that is capable of defining the platform strategy and the degree of openness that fits best with its corporate goals.<sup>35</sup>

## Chapter 4: Smart Home Insurance

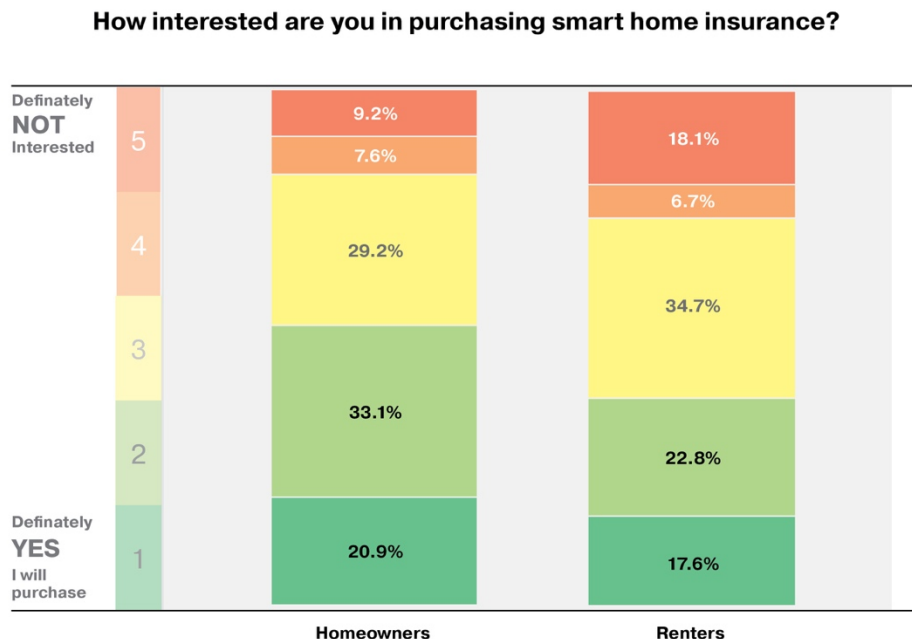
### 4.1 Why Smart Home Insurance

The insurer's position in the policyholders' mental map is characterized by high relevancy, but low frequency of interactions. The most common interactions a customer has with one's insurer is to pay one's insurance premium or file a claim.

U.S. insurers can use smart home insurance to provide more value in the lives of homeowners and renters. To achieve this, insurers must become both customer-obsessed and behave like InsurTechs, meaning insurers must deploy technologies to improve customers' experiences. Using smart home technology to develop ways to help and interact with customers is a proven approach for an insurer to earn loyalty and differentiate from competitors.<sup>36</sup> An insurer can use the data to deliver interconnected services, as discussed with ecosystems.

In order to understand consumers' willingness to purchase smart home insurance, the IoT Insurance Observatory conducted a survey. The survey results provide insights into how consumers perceive smart home insurance and how much they like the concept (Exhibit 6). The results show that 54 percent of the U.S. homeowners and 40 percent of the renters surveyed would buy an insurance contract with services based on smart devices, and would pay for these services if they received some incentives. This reinforces the idea that U.S. consumers have a positive attitude towards smart home insurance.

Exhibit 6:<sup>d</sup>

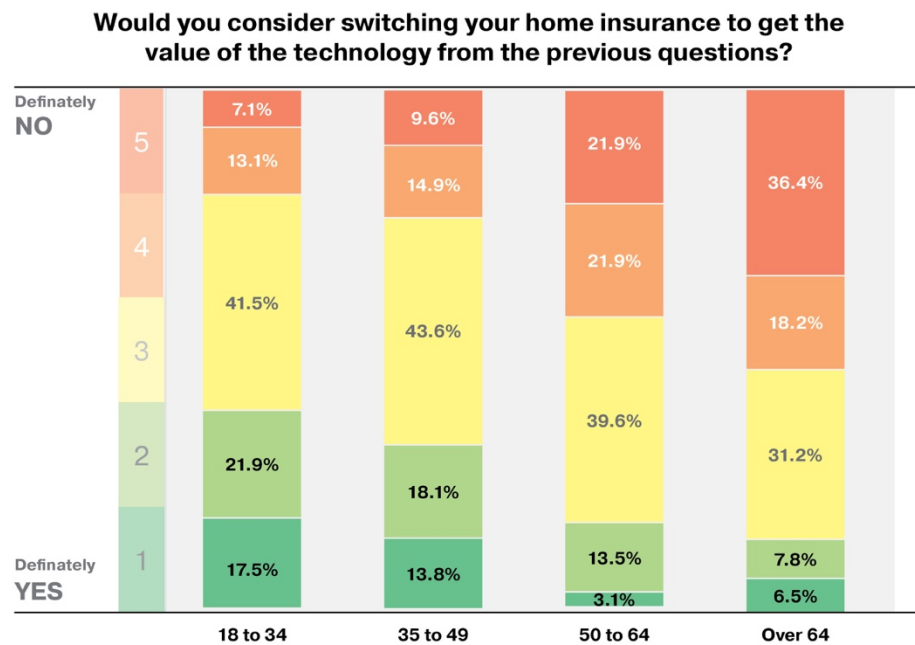


<sup>d</sup> U.S. homeowners; n = 377 and U.S. renters; n = 73 participants

As might be expected, salary, school level, and age of the surveyed participants influence consumer decisions about whether they would choose to buy smart home insurance. The interest in smart home insurance increases among the younger customer base, those with higher salaries, and higher education levels.

Exhibit 7 suggests that a smart home insurance value proposition could be a compelling reason for policyholders under 50 years old to switch insurers. This represents an opportunity to attract new customers for insurers who are able to set up and manage this kind of value proposition.

Exhibit 7:<sup>e</sup>



## 4.2 Value Creation Levers

Smart home data can enable the insurer to assess and manage certain risks in the home. The result, of course, is a superior value proposition.

There are many ways to benefit from the value of smart home data. Five “value-creation lever” categories are highlighted below:<sup>37</sup>

1. Services
2. Loss control
3. Risk selection
4. Behavioral change
5. Risk-based pricing

The following is a more in-depth discussion of each of these categories.

<sup>e</sup> U.S.; n = 450

#### 4.2.1 Services

Services within the smart home insurance proposition are fundamental. Insurers have an opportunity to solve customer problems by delivering comprehensive value propositions for customers' homes. Smart home technology makes the following services possible:

- Emergency solutions to prevent and mitigate insured risks and provide peace of mind.
- Tracking and optimization tools to contain expenditures of resources like energy and water.
- A home management platform that includes certified service providers, such as a plumbers, metal workers, carpenters, construction workers and electricians.
- Remote monitoring and assistance to households.

#### 4.2.2 Loss Control

The prevention and mitigation potential of smart home technology could aid in anticipating home insurance claims and improve reimbursement valuation. If carefully selected, smart home data can allow for material economic benefits to claims management based on real-time, data-driven processes. The use of smart home data can:

- anticipate the first notification of loss (almost in real-time);
- reduce the timeline to address customer needs or settle claims;
- enforce objectivity and automation of the claims management process; and
- improve fraudulent claims detection.

Therefore, such improvements from smart home technology can improve reserving accuracy and loss adjustment expenses.

#### 4.2.3 Behavioral Change

The more an insurer links customer behaviors and losses, the greater the opportunity to understand and promote safer behaviors while discouraging riskier ones. When an insurer adds rewards for safer behaviors to this equation, there's an additional economic benefit of enhanced loyalty from the safer customer. Insurers can provide rewards financed by partners who are keen to be introduced to the insurer's customer base. This approach requires a successful orchestration of an ecosystem, where different partners provide tangible value to customers. Reward mechanisms, permitted by law, also represent additional ways to give back to customers in ways that resonate most with them.

#### 4.2.4 Risk Selection

Smart home solutions can be used directly or indirectly to select risks during the underwriting stage, thereby enhancing the effectiveness of underwriting activity. Certain data collection can also improve the overall quality of the underwriting process.

An insurer must gather a sufficient amount of smart home data and study the correlation between newly-discovered risk factors and loss events. This is a “trial and error” process that adds new risk factors to current risk models and leads to continuous improvements and increasing sophistication of the risk models. We expect new data to help identify the relevance of real-time property conditions such as:

- completed home maintenance;
- external weather conditions;
- heating, ventilation, and air conditioning status;
- plumbing conditions;
- mechanical vibration;
- mold presence;
- roofing conditions; and
- temperature of the house (pipes, roof, and walls).

#### 4.2.5 Risk-based Pricing

New risk models associated with the smart home allow for innovation in rating approaches to home insurance. These models open the door for insurers to incorporate information registered in the smart home into premium calculations. For example, an insurance product that “provides persistent monitoring of risk exposure during the coverage period could potentially enable insurers to price each risk at the most adequate rate.”<sup>38</sup> Until smart home data is incorporated into premium calculations, American Family offers a smart home technology discount to encourage the use of smart home devices to help prevent tragedies and losses before they happen. As with risk selection, pricing processes must be approved by the relevant regulatory authorities.

## Chapter 5: The 4Ps for the Smart Home Insurer

An insurer must leverage the four Ps: People, Processes, Privacy, and Partnerships to deliver the promise of a smart home value proposition.

### 5.1 People

Insurers compete for talent attracted to startups or technology companies. The agent workforce must embrace technology to support the diverse group of homeowners. The insurer employee group must embrace the value AI, robotic process automation, and machine learning provides the customer.

Insurers must prioritize recruiting a workforce that takes into account the future of America's demographics. A workforce that is diverse across education and experience, personalities, cultural needs and preferences, and inclusive of those differences will generate new learning and ideas for better business results. Talent is more mobile than ever and the millennials and Generation-Z expect to work in corporate cultures that provide ample opportunities to move geographically and collaboratively for projects that inspire and challenge.

### 5.2 Processes

The processes of future smart home insurers will be data-driven and real-time.

IoT is about data and not about things. These data are the foundation of a smart home. All discussions about the way to insure a smart home revolve around data and data-driven processes. For insurers, it is essential to have adequate processes and tools in place in order to collect, secure, manage, and analyze these data to take strategic actions. This requires a structured approach to measuring the value created, systematically monitoring those measurements, and having a sharing mechanism. Essentially, the smart home insurance product will require a constant process of monitoring and fine-tuning.

The workforce of the home insurer of the future will be able to sense, understand, and act in real-time on value creation mechanisms. The ability to act on real-time data will allow for preventing damages and mitigating risk in the home.

Home insurance is the coverage of a physical asset, while smart sensors provide relevance, convenience, and further a sense of security for homeowners. This is why processes must be connected to an ecosystem of services. There are three key moments in this process:

- installation, connection and management of the devices;
- actions to mitigate damages; and
- service partner delivery.

Insurers' desire to proactively prevent or mitigate losses based on IoT data requires the certainty of timely and accurate data that is defined in the design of use cases. The higher the ambition of value creation, the higher the necessity of a guaranteed and reliable flow of data. This requires certainty of the correct installation of devices, proper connection, and proper operation during the insured period.

The more an insurer promises its customers, the more robust its processes have to be to ensure those promises are kept. Prevention and mitigation require concrete actions to show alerts or messages on a digital front end. This requires great processes and people in the field who can act in a timely way and partner effectively.

American Family is developing a robust ecosystem that is shaping its smart home insurance platform.<sup>39</sup> Understanding detailed customer needs, providing complimentary or otherwise discounted smart devices, and integrated brick & mortar services for homeowners are only the beginning of the adjacent value provided thus far.

### 5.3 Privacy

By 2022, 70 percent of privacy breaches will be directly attributed to a lack of privacy engineering, according to a June 2018 report on privacy published by Gartner.<sup>40</sup> To protect personal information transmitted through smart devices, smart home technology manufacturers and insurers must use top-notch security practices that ensure the data is encrypted. The National Association of Insurance Commissioners stated the following:<sup>41</sup>

*“The increasing use of smart devices does present a number of risks and challenges for insurers. As smart applications are becoming more ubiquitous, more opportunities for cyber criminals and fraudsters open up. With data transferred back and forth from system to system, the risk of interception increases. New smart products may also lead to new types of applications and claims fraud. As a result, IoT may require an expansion in data security and fraud protection. Additionally, data privacy is a key concern. The European Union’s recent General Data Privacy Regulation (“GDPR”) may impose enhanced data protection obligations on insurers who process or store data.”*

American Family recognizes the importance of earning and keeping customers' trust. Keeping customers' personal information confidential is a top priority for all American Family employees, agents and staff. At a minimum, because data security is just as important as data transparency, the collection, use, and disclosure of data collected must comply at all times with all applicable laws and

regulations governing privacy, data security and the protection of personal information.

## 5.4 Partnerships

In order for an insurer to realize the potential value of the smart home, the authors believe an insurer must establish partnerships.

As insurers integrate smart home technology into core offerings, forging partnerships opens up many possible benefits. Not only will these devices provide homeowners with greater awareness about their homes, insurers will find opportunities to mitigate potential losses and develop new services. The ecosystem for these services, combined with AI, will add value to the data being generated. That means maintaining this ecosystem is critical. Robust partnerships with hardware original equipment manufacturers and platform providers who are committed to continual improvement are essential.

Some insurers are already providing some of the capabilities discussed above to customers. Many potential partners for insurers have designed business models to allow for experimentation and piloting. This allows an insurance carrier to plug into a program, design its own offering using the appropriate amount of resources and planning, and scale quickly.

Coordinating partnerships that are best-in-class to deliver an engaging insurance offering to the market has many benefits. Such partnerships can move quickly (as opposed to building capabilities from scratch) and allow opportunities to test and learn to evolve the program. The key to successfully manage all of these new partnerships is to hold partners to the standards of the insurance carrier's brand and have internal resources that are accountable for delivering these standards to customers.

The combination of all four elements - people, processes, privacy, and partnerships - provides new opportunities for insurers and ecosystem players.

## Final Remarks

Let's jump to the future where an insurer provides better policyholder experiences through a smart home insurance policy.

*As you're sitting on the train heading to the airport and catching up on current events, you receive a mobile alert that your water-heater is acting up. You select an option that allows your insurer to intervene. A notification from your insurance concierge quickly appears. After the representative reviews the data log, you learn that your smart water-heater has a water supply pipe issue. This issue could cause a massive leak in your basement if not handled immediately. With your upcoming business trip, you don't have time to deal this issue, so you allow your concierge to work with a home service professional to fix the problem.*

*Because of your insurer's built-in network of partnerships, a home service professional is available immediately. Your home's smart security system allows guests to enter into your home while you're away with time-based access codes. You give the insurance concierge a short-term access code that allows the front door to open when the home service professional arrives in 15 minutes. When the home service professional arrives at your house, your video-enabled doorbell confirms the vendor with an alert to your phone; your smart lighting system illuminates a pathway to the smart water heater's location. For peace of mind, the insurance concierge monitors your home's motion sensor activity, verifying the home services professional found the smart water-heater.*

*The job takes only 30 minutes to complete and the home service professional notifies the insurance concierge that everything is fixed. The home service professional leaves and the insurance concierge makes sure the house is properly locked and secured. As you're about to board your flight, you receive an alert from the insurance concierge that everything is fixed inside the home. You receive a message from the insurance concierge wishing you pleasant travels.*

The combination of smart home technology and "24/7" assistance offer new ways to proactively protect and delight customers. Insurance companies that fail to acknowledge and act on these opportunities risk falling behind as customer expectations continue to increase. The authors believe now is the most opportune time to engage with ecosystem partners in the smart home market to create compelling value for customers.

## About the Authors

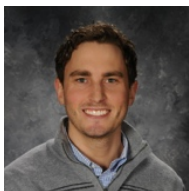


**Matteo Carbone** is Founder and Director of the IoT Insurance Observatory, Non-Executive Director and Chairman of the Innovation Advisory Board at Net Insurance, Global InsurTech Thought Leader, and Investor.

He is internationally recognized as an insurance industry strategist with a specialization on innovation. Matteo is an author and world-renowned authority on InsurTech - ranked among top international InsurTech Influencers - and he has spoken to audiences in twenty different countries. He published the first bestseller dedicated to InsurTech: "All the insurance players will be insurtech".

Matteo has advised more than 100 different players in almost fifteen insurance markets around the world and has wide insurance experience which includes set up of industrial and commercial plans, growth strategy definition and support in the startup of new initiatives, digital strategy development, insurance products innovation, channel strategy and commercial model definition, startups mentorship and advice M&A deals. He has worked directly with players which account for more than 80% of the international IoT insurance volumes (number of policies on auto telematics, smart home, and connected health/life).

Before creating the IoT Insurance Observatory and co-founding Archimede, he spent eleven years in Bain & Company's Financial Service practice. Matteo received his degree in Business Administration from Bocconi University.



**Eric Orthey** joined American Family Insurance in November 2012. Eric has deep experience in insurance strategy and business development with time spent in Allstate's leadership development program. Eric was a founding member of the Innovation Team at American Family and now works across M&A, Ventures, Partnerships and Innovation. In 2017, Eric earned his MBA from the University of Wisconsin-Madison.



**Shaun Wilson** joined American Family Insurance in 2016. He has over 18 years of experience starting and growing businesses across a number of industries, including finance, real estate, healthcare, and technology. While at American Family, he has been exploring the smart home and its potential to transform property insurance. In 2013, Shaun earned his MBA from the University of Wisconsin-Madison.

## Endnotes:

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