



The Coming Transformation in Home and Property Insurance



Introduction: Industry Disruption is Imminent

The Internet of Things (IoT) is driving a new era of digital disruption in the home and property insurance markets. We've already seen this in the automotive and healthcare insurance sectors – for example, Progressive's usage-based driving insurance, or John Hancock using data from fitness trackers to reward life policyholders for healthier living. Now it's the turn of the smart home.

Internet-connected smart home devices:

- Create entirely new capabilities for developing services that protect homes and property from damage and loss
- Provide insurers with new data, which enables far more granular insights into the risks associated with individual property owners and renters
- Enable fundamental changes in the pricing and nature of home and property insurance services

Moreover, it's clear that the insurance industry itself will quickly become a central factor in driving the adoption of smart home devices and services. Through incentives and partnerships with manufacturers, insurers offering innovative smart home based services will aggressively build profitable market share.

This white paper explores the dynamics of the disruption, and the new competitive battleground that will emerge.

You know the way that advertising turned out to be the native business model for the Internet? I think that insurance is going to be the native business model for the Internet of Things. •,•

Tim O'Reilly, Founder & CEO, O'Reilly Media, 2015

The Coming Transformation in Home and Property Insurance



Understanding the Smart Home

The "smart home" is the catch-all phrase for the increasing range of products and services that enable consumers to remotely monitor and manage activities in their homes. In general, smart home products and services are connected to the Internet, and:

- Provide home owners and renters with real-time information on their residences
- Communicate valuable information (like a burst pipe or security threat alert)
- Enable consumers to remotely adjust activities in their homes (like arming the alarm system)
- Automate them (like a digital door lock that lowers the blinds and turns down the thermostat when you leave the house)

The market for smart home devices is projected to grow quickly over the next several years, particularly in areas where consumers perceive real value, such as energy usage (cost-savings through efficient management), loss prevention (water, smoke and thermostat monitoring) and safety (intruder cameras, and security services).

The rapidly growing global smart home market is expected to approach \$60bn by 2020¹, and Gartner estimates that by 2022 the typical home will contain over 500 smart objects².

New Kinds of Services

The disruptive force unleashed by smart home devices will impact the insurance business in two distinct ways:

1. Insurers will succeed by creating new services based on proactive loss mitigation

Historically, insurance providers have focused on risk assessment, with products priced according to the level of risk they represent. Smart home devices will effectively turn this dynamic on its head, and the central focus of competition will shift to the development of loss prevention services.

[1] Markets and Markets, Smart Homes Markets by Product – Trend and Forecast to 2020 (2014) [2] Gartner Inc., The Future Smart Home: 500 Smart Objects Will Enable New Business Opportunities (September 2014)

The Coming Transformation in Home and Property Insurance



In some cases, smart home and custom-designed sensor services will create value by empowering consumers to prevent losses entirely. For example, smart thermostats that warn homeowners of cold weather heating failures, enabling them to remotely raise home temperatures and prevent pipes from bursting. In other cases, these services will allow insurers to reduce costs by taking remedial action to prevent larger losses. For example, sensors that detect micro movements in the foundations of a building, moisture damage or other structural risks, enabling preventive action years before major losses would otherwise occur.

${\bf 2.} \, {\bf Personalized} \, {\bf services} \, {\bf will} \, {\bf become} \, {\bf a} \, {\bf driving} \, {\bf force} \, {\bf in} \, {\bf policy} \, {\bf development} \, \\ {\bf and} \, {\bf pricing} \,$

With real-time data on specific homeowner risks, unprecedented levels of customization become possible. In effect, new technologies and competition will drive the industry toward the creation of services, with dynamic pricing models based on the risk profile of each home owner or renter: a "Segment of One". According to Accenture, 80 percent of consumers would switch insurers for more personalized services and 41 percent are willing to pay more for those services".

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SECURITY	PROTECTION	ENTERTAINMENT	EFFICIENCY	AUTOMATION	HEALTH
Locks	Sensor Network:	TV	Thermostat	Garage door	Scales
Motion	Smoke	Set-top-Box	HYAC	Lighting	Sleep
Camera	Water	Music	Smart plug	Locks	Excercise
Contact sensors	Gas	Lights	Lights	Smart plug	
Lights	Humidity		Water heater	Irrigation	
	Termites			Appliances:	
	Structure			Fridge	
	Rodents			Microwave	
	Contact			Oven, etc.	

Figure.1 As the smart home evolves insurance policies can be targetted to devices and the information they generate

[3] Are You Ready to be an Insurer of Things? (2015)

The Coming Transformation in Home and Property Insurance



New Competitive Dynamics

Insurers will become central drivers of smart home adoption

A long-standing assumption in the insurance industry has been that participants will, for the most part, respond to the consumer adoption of smart home devices.

In fact, through financial incentives, partnerships with device manufacturers, and significant marketing investments, insurers will quickly become central players in growing consumer adoption of smart home devices. Such investments will be more than warranted by the high value created by these new services, the opportunity to increase market share at the expense of less nimble competitors, and the opportunity to sell more sophisticated, higher value services to this customer base.

New Services for the Insurance Industry

Opportunities for insurers to differentiate in the market, by offering creative policies and services are now imminent.



Contents Inventory

Smart cameras offering optical recognition of contents can ensure property is appropriately valued and inventoried while proactively increasing your premiums if expensive items are detected.



Product Services

Monitoring and tracking of connected or tagged appliances in the home, with performance and usage data sent to insurer-operated remote service centers.



Digital Services

Tracking of current realtime value of individual products based on usage, or digital vault services to preserve precious items, photos or memories in case of fire or theft.

Figure 2 New Services for the Insurance Industry

Participation in the transformation of the insurance industry is not optional

As insurers develop means of assessing the risks of policy holders at an ever more personalized level, and create proactive risk mitigation options, competitive pressures will dictate that insurers offer coverage at rates that match these revised assessments. Profitable policies will be developed at prices significantly below current rates, and industry participants will move quickly to market these new, lower-priced offerings.

The Coming Transformation in Home and Property Insurance



Moreover, as smart home growth accelerates, and consumer awareness of potential insurance cost savings and enhanced services grows, a dramatic number of policy holders will be actively searching for these superior rates and services. If their existing insurance carriers cannot meet these demands, such consumers will inevitably go elsewhere.

The smart home revolution will herald a new era of competition in the home and property insurance markets, which insurers ignore at the peril of long-term success.

Delay is Not an Option

Many leading insurers have already begun to adapt to the risk reduction aspects of smart home products. American Family Insurance, Liberty Mutual and State Farm have all begun to experiment with providing discounts or other benefits to policyholders who install smart home products associated with preventing losses through remote security, smoke or temperature monitoring

These initiatives represent valuable first steps. But in this era of accelerating change and new competitive dynamics, the insurers who will achieve the greatest sustainable advantage will move quickly to deliver personalized ("Segment of One"), proactive products and services through smarter IoT product and data management.

These fast adaptors will be in a position to continuously evolve their products and services ahead of the competition. They will also gain an underwriting advantage as they learn to take full advantage of the consumer data generated by smart home devices.

Challenges to Overcome

The successful shift to "Segment of One" insurance services depends on access to consumer data generated by smart home devices; and the ability to format, manage, analyze and (as appropriate) share this data to trigger actions. As a consequence, insurers will face potential hurdles associated with (1) data management for useful insights (including data access and analysis), (2) privacy and (3) an interoperable ecosystem.

The Coming Transformation in Home and Property Insurance



Big Data access and management are critical to success

As the number of smart home devices proliferate, insurers will confront an additional, critical success factor: how to access large amounts of real-time data generated by multiple devices and sensors in a policyholder's home, use it to drive services for the consumer, and inform business models and pricing.

The inability to access smart home device data from diverse third-party manufacturers presents a significant challenge to insurers. Without easy, reliable access to such data, insurers seeking to develop new policies and services cannot rapidly adapt to smart home opportunities and threats. In short, they will hit a brick wall.

The best means of addressing privacy concerns is for insurers to create trust and transparency with customers

In some cases, lower-cost policies may only be possible where insurers must collect information that potentially raises privacy concerns among customers. Here, successful insurers will offer transparency and build trust by explaining why such information is needed, how it will be used, and how it will be safeguarded. Indeed, in the emerging "Segment of One" era, the ability to create customer trust regarding data management may prove to be a source of long-term, sustainable competitive advantage.

Building an ecosystem of service providers

To offer a new services-based value proposition, insurers will need to create an ecosystem of partners that includes smart device and sensor manufacturers and service providers. They will need to find a way for the multitude of systems and technologies to work together seamlessly, managed centrally by the insurer at the top of the value chain.

The Coming Transformation in Home and Property Insurance



It's Time To Embrace the Insurance of Things

The digital revolution has transformed entire industries and sectors of our economy. From transportation, telecommunications and travel, to media, healthcare and retail, incumbents have seen their markets disrupted faster and more completely than anyone expected. Now home and property insurance is having its 'Uber moment'.

For companies that move quickly, the smart home represents a sizeable opportunity: to develop profitable new services; to broaden the customer base; and to develop an infrastructure for marketing increasingly sophisticated, high value and profitable offerings.

On the flip side, insurers who opt to wait and see will watch as their market share is rapidly eroded by more agile and connected competitors – both faster-moving traditional players and digital platform giants. The strategic imperative for insurers to act now and take a leadership position in the smart home is clear. Staying on the sidelines is not an option; the risk is too great.

Smarter Homes and EVRYTHNG

Insurers may find it helpful to understand how EVRYTHNG's IoT Smart Products Platform has been specifically architected to solve these product and ecosystem interoperability challenges in the smart home The benefits of the EVRYTHNG platform, for the emerging Segment of One insurance era, are detailed on the following page.

The Coming Transformation in Home and Property Insurance



The EVRYTHNG IoT Platform for Insurers

EVRYTHNG's IoT Smart Products Platform enables insurers to build and operate their own ecosystem of smart devices and sensors in the home for smarter insurance services. Real-time data from connected products is collected and used to drive applications, such as proactive monitoring, risk management or data modeling.

Built on open Web standards, EVRYTHNG is designed for interoperability with all third party clouds, applications or enterprise systems like CRM and Analytics. This means that insurers can create a network of commercial and technical partnerships around their smart home propositions, using the EVRYTHNG cloud platform to manage how data is securely shared between them.

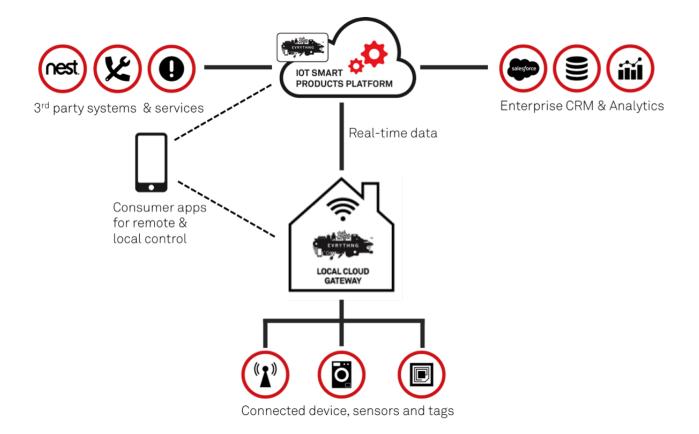


Figure 4 The EVRYTHING platform: providing smarter home control and monitoring to any number of diverse devices

The Coming Transformation in Home and Property Insurance



The EVRYTHNG Smart Home solution for insurers includes several elements:

Devices

Smart products from any manufacturer are supported. These could be custom-designed devices with sensors to detect environmental conditions such as motion, moisture, air quality or termites and relay that back to the EVRYTHNG cloud in real time; or consumer electronics and home appliances that provide usage and performance data for analytics or preventative maintenance.

Local cloud gateway

Our software provides advanced local control and real-time data management for service providers, governing the communication between smart home devices and the cloud. It also acts as a bridge between smart home ecosystems like Apple Homekit and Google Weave, making sure services are available in as many homes as possible.

Data-driven services

All smart home data is sent to the cloud to be processed by the EVRYTHNG rules engine. Creating custom scripts lets insurers provide preventative services to homeowners by sending alerts or triggering action if certain events take place within the home. For example, data from subsidence or moisture sensors can trigger an engineer to be dispatched, or an SMS notification to be sent to the homeowner.

Analytics and insight

Diverse and massive quantities of data can be structured with our semantic data model, and shared in real time with different insurance or partner systems for maximum commercial gain.

Data security

Insurers can segment and apply any of the data generated in carefully controlled ways, defining how such data is shared and used, and by whom. This means partners can be dynamically granted access permissions for just the data they need to provide the right services, and insurers can demonstrate to customers that they have responsible and transparent data management policies.

The Coming Transformation in Home and Property Insurance



TECHNICAL REQUIREMENTS	EVRYTHNG IOT SMART PRODUCTS PLATFORM CAPABILITIES		
Ecosystem Integrations	B2B cloud platform based on web standards with connectors for easy integration into the wider digital ecosystem.		
Connect to CRM & Analytics	✓		
Connect to Smart Home clouds	✓		
Connect to Service Provider systems	✓		
Open APIs	✓		
Real-Time data intelligence	Programmable rules engine allows insurers to take all data generated by devices and sensors and trigger rules and drive applications. This data is owned and controlled by the insurer.		
Use data to drive applications	✓		
Real-time alerts & notifications	✓		
Customized insurance workflows	✓		
Real-time Analytics	✓		
Connected Devices	Multi-protocol support in Cloud and Local Cloud Gateway, with prebuilt software toolkits for wide range of device types.		
Any device, sensor or product	✓		
RFID, NFC and other smart tags	✓		
Security & Privacy	Fine-grained permissions and controls for users, apps and partners.		
Secure token-based access			
End to End data encryption	\checkmark		

Figure 3 Top 12 IoT Requirements for Insurers

To find out more about how EVRYTHNG's IoT Smart Products Platform enable insurers to deliver smarter insurance solutions in the home, please email smarter@everythng.com or visit www.evrythng.com/insurance.