

The Internet of Things: Opportunity for Insurers

IoT will accelerate existing pressures and disrupt traditional insurance models—while opening new frontiers for growth. Can an old industry learn new tricks?



A.T. Kearney

For P&C insurers, it's not the rapidly changing environment that poses the biggest threat—it's acting on future challenges with strategies linked to the past. As near-term macroeconomic indicators trend toward the positive, long-term signs are pointing to accelerated change and new challenges for an industry already facing long-term growth and profitability issues.

In addition, changing consumer preferences and concurrent technological developments—including the Internet of Things (IoT), a web of connected devices, machines, people, and organizations that can interact with one another—are likely to further accelerate existing industry stresses and have a material impact on the relatively static industry landscape. By 2025, IoT will be pervasive, with connected “things” driving a data explosion with sensors embedded in cars, buildings, and wearable devices—so much so that a family of four could have more than 100 connected devices.

The Internet of Things, a web of connected devices, machines, people, and organizations, is just one technological advancement that **will have a material impact on the relatively static P&C insurance industry.**

IoT will fundamentally change what consumers know and how they interact, both among themselves and with insurers. The change will impact the core P&C business model and create new opportunities, including the shift from restitution to prevention. New realities will challenge the way insurers traditionally conduct business, as risk determination based on individual customers' characteristics and behaviors becomes more common, advice-led customer interactions become more frequent and real-time, the role of brand evolves in the context of privacy and data concerns, and the cycle of invention and customer adoption continues to accelerate. Insurers' growth prospects will be impacted by a shifting risk landscape, new competition from both within and outside the traditional insurance industry, and increasing risk of dis-intermediation.

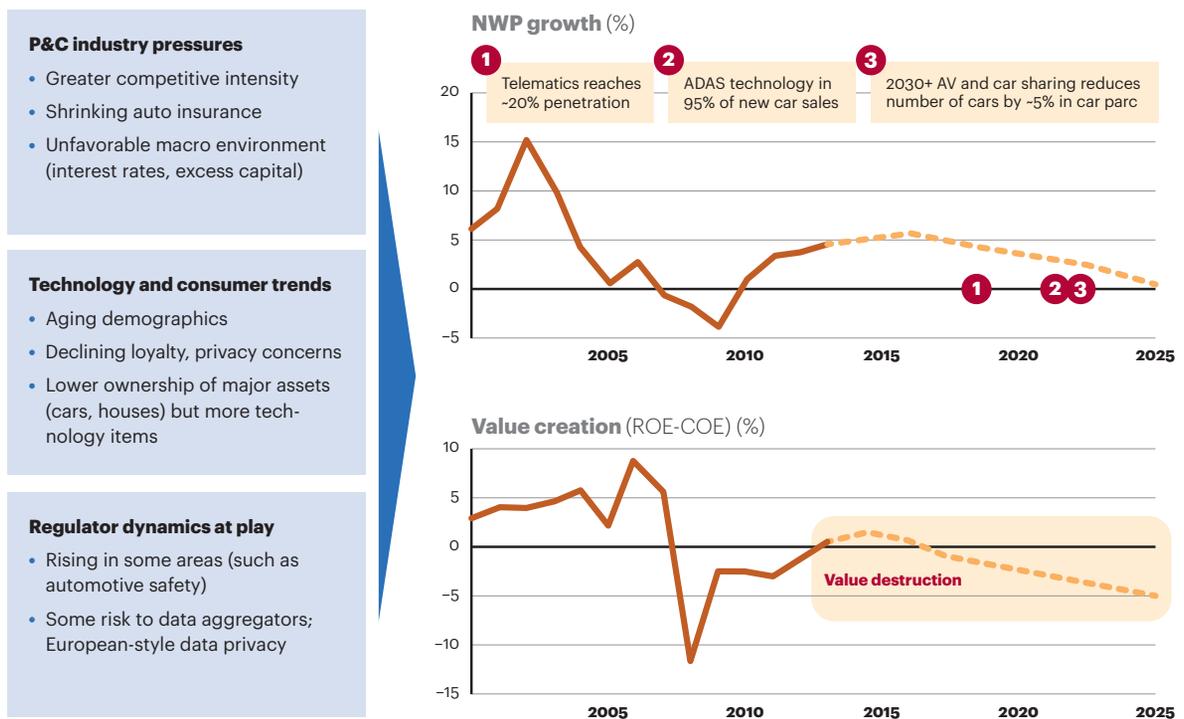
The following perspective highlights evolving trends in IoT and their implications for the P&C industry—as well as broader potential areas of opportunities for P&C insurers in traditional and emerging domains. It recommends strategic and tactical responses required to respond to and take advantage of IoT and provides perspectives on internal capabilities that Insurers should develop to successfully compete and sustain agility in a changing world.

Innovation Is the “New Normal” for Insurers

The path to winning P&C insurance consumers will become more complex over the next decade as an industry already under pressure will face more challenges. Changes in consumer expectations and emerging technologies trends such as mobile connectivity, digital, big data, and IoT will shake the P&C industry in an unprecedented fashion.

The P&C industry faces long-term pressures in terms of both growth and profitability (see figure 1). Despite recent gains driven by the “hard” market, longer-term growth is expected to be flat. The low interest rate environment will continue to put pressure on insurers to generate underwriting results to deliver earnings; their ability to do that will be constrained as the market softens and excess capital and continued competitive pressures limit their ability to raise prices. That said, players with strong balance sheets have greater flexibility to invest in their business and make strategic bets.

Figure 1
P&C situation and trends



Notes: ROE is return on equity. COE is cost of equity.
 Source: A.T. Kearney analysis

We expect premium growth to slow in the next four to five years, shifting to a sustained decline beyond the next decade as risks fall and sustained shifts in ownership patterns emerge. This trend is already occurring: There has been a 10 percent decline in inflation-adjusted auto insurance premiums compared to a decade ago—\$18 billion total, or roughly the size of Geico.¹

Advances in safety technologies will impact accident frequency, reducing losses and, thus, premiums. In the longer term, the continued rise of autonomous vehicles and car sharing will change the nature of insured assets. These trends will lead to a meaningful shift in premium mix, increasing the strategic importance of the home in the future. Players with an advisory-focused value proposition may be well positioned to capitalize on this shift.

¹ Auto Insurance Report, National Conference 2014

The Always-Connected Consumer

Insurers are operating in an environment where consumer expectations and the technologies available to meet them are evolving rapidly. Advances in digital technology not only provide new methods to connect with consumers but also create new imperatives as always-connected consumers demand greater digital sophistication from the companies they do business with.

These technological changes continue to accelerate. Consumers already expect to research, shop, and transact seamlessly across channels. IoT will further shift consumer expectations by offering consumers a wealth of relevant, real-time information about themselves and their physical assets, requiring P&C insurers to engage customers in context relevant, just-in-time dialogs about their cars, homes, and the like. While in the past, the P&C industry has remained largely unaffected by such changes, current trends will shake the industry as they change the consumer dialogue about risk, and alter the very nature of the risk landscape.

Disrupting Existing Insurance Models— and Unlocking Growth

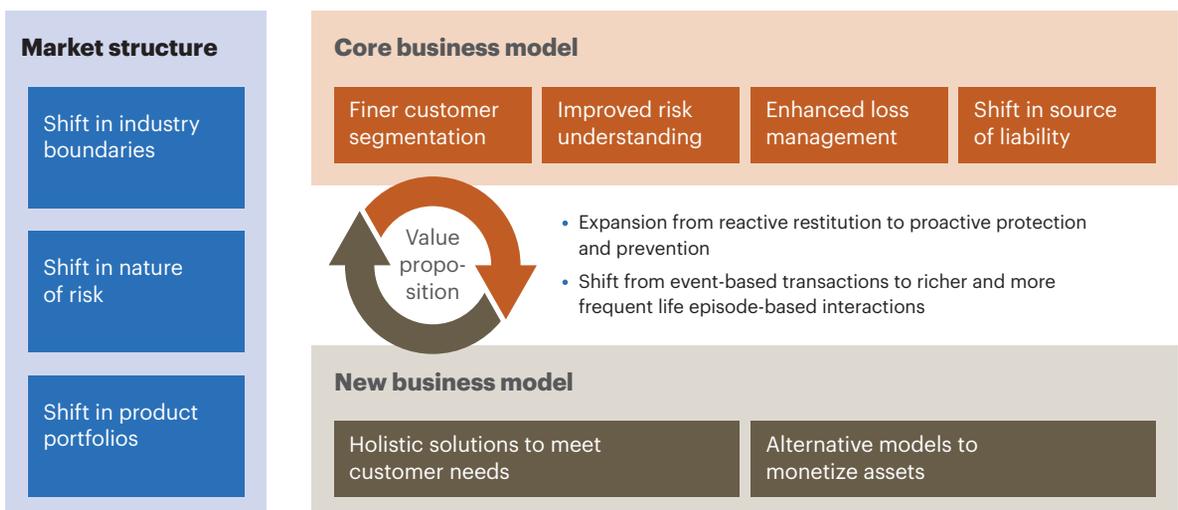
IoT has the potential to drive fundamental change in the P&C insurance industry (see figure 2).

Innovations will shift market boundaries. The new IoT ecosystem of sensors, applications—and the behaviors they provoke—will entice players from disparate markets such as automotive OEMs, home security companies, cable and mobile providers, and insurers to compete across traditional industry boundaries.

IoT will lead to new value propositions that unlock new sources of revenue. Insurers can use IoT-enriched relationships to connect more holistically to customers and influence their behaviors. IoT data will have value beyond insurance for market segmentation, offering

Figure 2

Implications for insurance industry



Source: A.T. Kearney analysis

customer services related to emergency conditions, lifestyle, or other factors. Always-connected lifestyles will also generate new types of risks, such as for information security. The better insurers understand these opportunities and risks, including which ones to cover and how to price them, the more successful they will be in the transformed marketplaces.

IoT can improve the economics of core business models. Economics will improve in several ways, particularly from the use of data analytics to identify and understand risks. Less risky behavior such as safer driving or better roof maintenance will lower preventable losses. For example, speed and miles driven, derived from telematics device, can serve as underwriting factors that improve the loss experience and core business operations, including claims management, servicing, and acquisition. Better, more timely information can make claim payments speedy and efficient, while data analytics can make detection of potential fraud both easier and more successful.

The connected ecosystem creates new opportunities for insurers, and more relevant engagement for consumers with their cars, homes, and selves.

IoT will shrink the traditional insurance market and change the nature of the risk landscape. IoT will provide new ways to avoid preventable losses—some of which will be carved off by new competitors from outside the industry. As insurers begin to provide prevention solutions, the fundamental economics of the industry will shift, and they will incur greater up-front costs to lower loss payouts in the future. The nature of insurable risk will shift to low-frequency, high-severity events that are harder to predict and price. These effects are already playing out in selected segments, such as high-net-worth customers.

The Impact of IoT: Where Should Insurers Focus?

By 2025, IoT will have a significant impact in three areas highly relevant to P&C insurers: the connected car, the connected home, and (to a somewhat lesser extent) the connected self. This connected ecosystem creates new opportunities for insurers, and more frequent, more relevant engagement for consumers with their cars, homes, and selves. The hype will eventually give way to commercially viable and sustainable business models. Google's pod-shaped autonomous car prototypes provide a glimpse into this future. In a project run by University of Michigan, some 3,000 drivers have fitted wireless Internet connections on their cars to interact with both road infrastructure (such as traffic lights) and other cars on the road, in order to inform them about potential collisions.²

The connected car. The usage-based insurance (UBI) market for connected cars is currently nearing the end of its experimentation phase on the growth curve, with nine of the top 10 insurers offering UBI commercially or in various stages of pilot. Today, growth in telematics insurance is driven by pricing offers, but by 2025 a broader, modular set of value-added services

² *The Economist*, Technology Quarterly, 2014.

that integrate seamlessly into the lives of customers will draw more customers. By 2025, telematics will grow to 30 percent of the market, and features such as ADAS (advanced driver assisted systems), semi-autonomous or autonomous vehicles, and recovery of stolen vehicles will be in use for nearly half of the cars on the road (see figure 3).

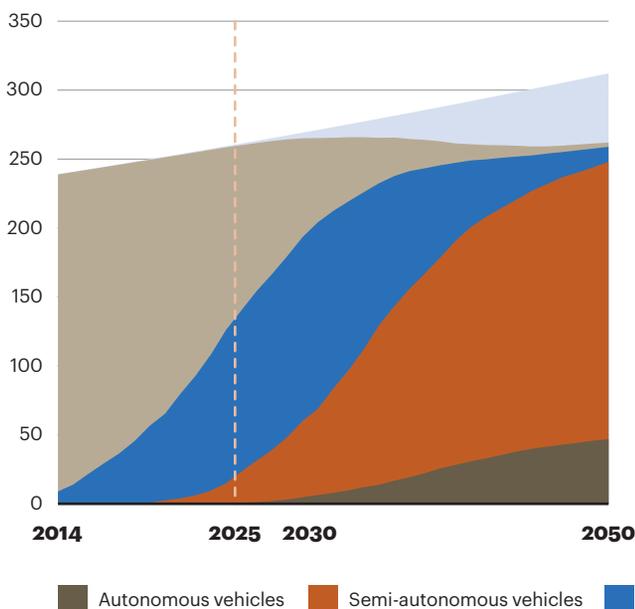
The future of the connected car can play out in several plausible scenarios: OEMs as branded integrators; large tech companies such as Apple’s CarPlay dominating with popular closed platforms; or open platforms and consortia emerging, such as MirrorLink. The connected car is critical to P&C insurers. They must prepare for multiple potential futures, and develop strategic partnerships with these emerging gatekeepers while reinforcing their value proposition to the consumer to sustain customer pull.

The connected home. By contrast, the connected home market is something of a Wild West. An increasing range of potential business models and value propositions are emerging, and by 2025, half of U.S. households will be connected, thanks to IoT-enabled, integrated monitoring and control solutions, many of which will include simple DIY installation.

The market has some time before it fully matures, but within the next decade we do expect key players to move from individual product offerings to service platforms or integrated hubs. Just as consumers demanded universal remote controls to replace their collection of remotes, it seems likely that they will want a single hub for their connected home. For example, Quirky’s Wink hub is enjoying support from major players such as GE, Honeywell, and Philips as it strives to unite diverse gadgets into a single ecosystem. Meanwhile, the startup SmartThings and Lowe’s Iris are seeking to serve as central platforms or hubs for DIY solutions and value-added services. Google also cannot be counted out, as its acquisition of Nest illustrates.

Figure 3
Advanced safety penetration through 2050

U.S. auto parc



Implications

- By 2025, half of cars on the road will have ADAS.
- Autonomous vehicles are first expected by 2020, and will reach roughly 20% saturation. Key players will include Tesla, Google, and traditional OEMs.
- Car parc growth slows to 0.6% CAGR compared to the 0.8% to 1% historic rate, due to demographic shifts, car sharing, and continuous penetration of AVs.

Source: A.T. Kearney analysis

Over the next decade, the connected home will continue to gain significance as a revenue generator and as an entry point for other products and services. For insurers, the key is getting the trust and value components of future offerings correct, by initiating pilots and working alongside customers.

The connected self. This is a smaller, more nascent market that may be the catalyst for convergence across connected homes and cars. For that reason alone, it should remain a focus area of P&C insurers. For example, future wearable devices could report on the physical or emotional environment of the wearer, potentially leading to independent living solutions for the elderly or physically challenged. New business models could emerge, perhaps with employers buying wearables for their insured employees or companies monetizing the health data by providing relevant referrals. Actively monitoring and identifying targeted opportunities is a prudent step for P&C insurers.

Can Insurers Turn Change into a Sustainable Opportunity?

IoT has only started to affect P&C insurance, but the situation is rapidly changing. Key insurance players already recognize the potential of IoT. Most national auto players already offer UBI for their general populations. State Farm has already progressed to consumer rollout of an early connected home product and is providing discounts based on DIY installations.

To remain relevant and to benefit from IoT, insurers must prepare and act now.

OEMs, large telcos, and tech companies are already moving in and could be a threat, potentially relegating insurers to white-label providers or disintermediating them from the customer entirely. SmartThings was recently acquired by Samsung, and BMW is making significant investments in the connected car space, focused on the driving experience.

To remain relevant and benefit from IoT, insurers will have to prepare and act now. IoT offers many accessible, significant opportunities, both to support and refine the existing P&C business model and to provide new offerings for consumers.

Improving existing business. As sensors and devices proliferate inside the car and, even more so, at home, they will generate a wealth of data, leading to better decision making across many industries, including insurance. In the connected car, telematics is creating UBI offerings, which will influence driving behavior and smooth the processes of accident repair, roadside assistance, and car maintenance. Meanwhile vehicle safety and security will improve with systems that can detect imminent collisions and take evasive action, or even interact with road infrastructure and brake for red lights. At home a combination of mobile and sensors across major home systems will provide home monitoring and control solutions that can mitigate preventable losses (such as water hazards) and provide ability to control the home environment (such as lighting and HVAC). In addition, these sensors will provide better information on the condition of the home, improving the timeliness and impact of home maintenance and repairs, and hopefully educating consumers in the process.

Expanding customer value propositions. Sensor data is rapidly coming online. With the right analytics, this data will provide more complete behavioral- and needs-based pictures of consumers and distinct segments than exists today. Insurers will have the opportunity to develop more holistic value propositions beyond risk management—and indeed may need to do so in order to maintain control of the customer. In both the car and the home, other incumbents are broadening their value propositions. Insurers can do the same, using their data to help consumers make wise purchase decisions and maintain the value of their assets afterwards. A first car or home purchase is a significant customer event, and insurers can build out their value propositions to own the right to advise and serve customers from that point forward.

Overall success for insurers will come by the ability to differentiate in an increasingly commoditized market. **IoT is one way insurers can achieve that differentiation.**

New approaches, such as gamification (for example, Fitbit) are engaging younger consumers to change behaviors and, subsequently, their risk profiles. Insurers can similarly work with consumers to change their driving and maintenance behaviors through UBI and then extend that influence to OEMs. In the home, insurers can shape a similar dialogue, integrating a wealth of data to educate homeowners on timely maintenance, access to quality material, and recommended contractors.

Success Heading into the Future

How to capitalize on each opportunity depends on its time to maturity. For each of major domain, some opportunity areas will mature within the next five years, requiring immediate action toward the market; others may take more than 10 years and will benefit from experiment-based development. Together, these opportunities will bring about the fundamental industry shift.

Overall success for insurers is the ability to differentiate in an increasingly commoditized market. IoT is one way to achieve that differentiation. Leading insurers will be able to position their brand as innovative and responsive to customer needs, which leads to more valuable customer trust. Insurers have an opportunity to learn and adapt while the market is still evolving and take a unique position in strengthening the value of their offerings for new and existing customers. This will drive future growth in a compressed landscape.

Succeeding in IoT will require a different way of doing business, requiring shifts in structure, capabilities, and culture. The new, fast-changing, less predictable business environment will favor players that can execute strategies faster and more flexibly. Adopting a mindset of continuous renewal will create a supportive culture that motivates the behaviors required for success. Incorporating this mindset into the strategic planning process is crucial for making the most of IoT opportunities. The right governance model and leadership commitments will allow insurers to manage the risks and trade-offs while moving with the necessary urgency to capture the opportunities presented by an IoT-enabled future.

Overall, we see several actions for getting in position to capitalize on IoT:

- **Emphasize a mind set that acknowledges that good innovation means taking risks.** Create a culture that allows for risk taking. Define smart risk so that people know acceptable boundaries within which to fail and move forward, through a gated innovation process.
- **Establish a “living” business planning approach.** Maintain flexibility to address changing business conditions but maintain structure and stick to your overall vision. The environment will change, and the innovation journey will take years.
- **Maintain a flexible partnership approach.** Have some flexibility in managing multiple partners within the ecosystem, without knowing which partner or partnership will be successful. Understand that some partnerships may be “test and learn.”
- **Build around a deep understanding of customers and their needs.** Effective innovation management requires the ability to clearly articulate the desired outcome in customer terms. Not all IoT applications will be relevant.
- **Set expectations with customers.** Rapid innovation will put pressure on the customer experience. Understand and manage key customer episodes—and how IoT will change them. Maintain transparency by sharing key learnings and benefits with existing customers.
- **Change customer behaviors.** Ultimately, IoT’s true value depends on customers adjusting their behaviors and risk profiles based on feedback from their “things.” Understand and identify those customer episodes where new, more informed habits form.

Capitalizing on Uncertainty

A significant degree of uncertainty exists about how much of IoT’s potential is hype and how much is truly likely to materialize. But the need to innovate more rapidly and effectively is undeniable. It is crucial that insurers develop strategic plans to address technological disruptors such as IoT and their related risks and opportunities.

The winning plans will define an overall path for each asset (car, home, and self), allowing for differentiated approaches, the ability to be informed and adjust direction, and flexible investment and resource planning to navigate a new and evolving landscape.

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