

## Impact of IoT in Insurance

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**Received:** June 20, 2021

**Published:** July 19, 2021

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Internet of Things (IoT) has started to disrupt a lot of industries in the last decade.

And Insurance is not behind. This has resulted in disrupted insurance products, processes and business models, along with happier and healthier customers.

### The insurance ecosystem

One of the most popular applications of IoT has been in Life and Health Insurance. The customers are handed wearable devices that could track their well-being. They are also provided incentives to stay fit by means of redeemable reward points. The insurer thereby reduces the risk of receiving a claim. The number of life insurance plans sold online and through mobile technology is expanding as a result of rising usage of digital solutions. Faster life insurance policy approval, typically without the requirement for lab work or medical exams, enables online insurance sales. Advanced analytics and the utilisation of additional data sources, such as data from IoT devices, have enabled a triaged approach to underwriting, which allows for a faster underwriting decision while keeping the same level of risk assessment as the insurer requires. The ability to “pre-qualify” an application based on extra data sources expedites the underwriting process and meets consumer demand for a rapid transaction.

Another popular and amongst the first applications of IoT has been in Auto Insurance. Whereas underwriting was traditionally done using the age, gender and address of a driver, usage-based-insurance (UBI) telematics is now gaining momentum whereby an on-board diagnostics (OBD) dongle enabled with machine-learning capabilities is plugged into the vehicle. The insurer is able to price more correctly on an individual basis because of this, and safer drivers are rewarded with lower premiums. Cars-and their

drivers, assuming they have smartphones-are becoming increasingly equipped with sensors that not only monitor driving behaviour and vehicle use, but also collect other vehicle data, such as oil temperature and brake wear. This information is the foundation for a slew of new applications that improve customer experience as well as active and passive safety. The rise in such applications has spawned a whole new ecosystem centred on the connected car, one that includes more than simply automakers. Telecommunications companies, sensor and chip manufacturers, digital platform operators, research institutes, standardisation centres, and, of course, insurers are all part of this landscape.

**Figure 1**

Another sector that's gaining traction on IoT has been Commercial and Property Insurance. The adoption of IoT gadgets has seen an increase in recent years as smart home devices like sensors, cameras, thermostats, door locks and lights give homeowners more control of their home from their smartphone or with a voice

command to a smart assistant. While not only alerting property owners, IoT systems can also be created to mitigate the problem. For example, a water valve may be shut off as a result of a water leak. Greater damage and expense can be avoided by adopting these devices, making them a huge advantage to both insurance companies and property owners. Product innovation, distribution excellence, risk prevention, holistic service provision, supplier network management, and capital-to-risk matching are all ecosystem plays available to commercial lines insurers along the value chain. Cybersecurity is an example of product innovation because it is only possible to insure cyber risks with extra risk management and help services—hence the advent of new collaborations between insurers and IoT cybersecurity software and hardware vendors. In (fleet) motor insurance for garages and directors/officers liability insurance for lawyers, supplier network management has been used regularly. Capital-to-risk matching refers to an electronic platform that allows insurers to trade new types of insurance-linked securities, allowing them to transfer risk through the markets, as certain commercial lines insurers already do.

IoT has also been picking up steam in the field of Crop Insurance. Smart farming, which is based on IoT technologies, allows farmers to increase output by tracking everything from the amount of fertiliser used to the number of trips made by farm vehicles, as well as making optimal use of resources like water and power. IoT smart farming solutions are a system that uses sensors to monitor the cultivated area with the help of sensors (light, humidity, temperature, soil moisture, crop health, etc.) and automates the irrigation system. The farmers can monitor the field conditions remotely using a dashboard on a screen. This arrangement allows the insurers to set the policy conditions for risk control and select more compliant farmers, while having a better assessment of risks.

### Growth potential

The number of networked devices has already outnumbered the people on this planet. It is estimated that the number of networked devices will go up to 50 billion by 2025 from 12.5 billion in 2010.

IoT in Insurance has been primarily been used for simplifying underwriting and claims processing. But lately, new IoT-based business and service models have started to emerge that is appealing for the Insurers. In the context of these new business models, digital networking through the IoT could become a strategic com-

ponent for insurers. For those who have the foresight, courage, and the intent to shape the future of the insurance industry in the sphere of IoT, there are great opportunities for growth and value creation.

**Volume 3 Issue 8 August 2021**

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