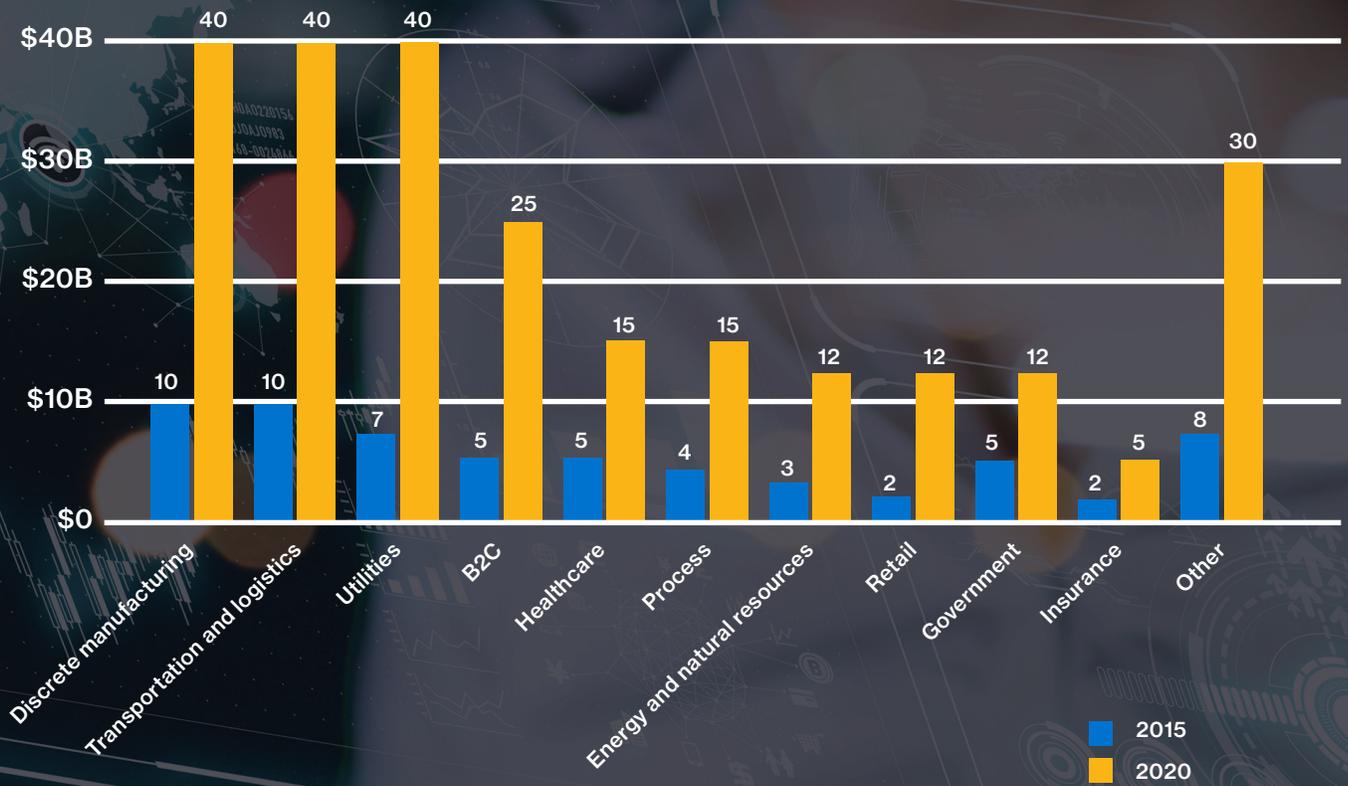


The Internet of Things (IoT) will change claims and risk forever.



Spending on Internet of Things worldwide by vertical in 2015 and 2020

(in billion U.S. dollars)



This statistic shows spending on Internet of Things (IoT) by vertical worldwide in 2015 and 2020. From 2015 to 2020, spending is predicted to increase by as much as 400-600%.

It's all about the data

When you consider how risk and claims work, you realize they are all about data. Data drives smarter decisions about risk. Data enables faster, more accurate resolution when damage occurs. Data can even lead to proactive mitigation of damage as it unfolds.

Because the availability and quality of data can have a significant impact on claims and risk, any technology that drives better and faster data capture and processing should, theoretically, lead to better risk management and claims resolution.

The insurance industry has been investing heavily into new technologies, and one particular technology has clearly demonstrated the potential to make a lasting impact at the core of insurance services. We're talking about the Internet of Things (IoT), a broad term encompassing virtually all physical devices that connect wirelessly to networks and possess the ability to transmit and receive the very thing insurance companies need – data.

In recent years, the industry has witnessed that sensors, smart devices, and connected platforms can actually change its approach from simply being focused on recovery to being proactive in preventing and/or mitigating claims. Additionally, IoT devices can enable insurers to develop more complete and accurate risk profiles for each and every customer.

Because of this, the insurance industry is investing heavily in IoT. According to Statista, this investment will increase from \$2 billion in 2015 to \$5 billion in 2020.¹ With such a dramatic rise in spending, it is clear our industry sees great value in the potential for IoT to make a great impact on risk and claims.

Insurance industry is investing heavily in IoT

\$2B

Investments
in 2015

\$5B

Investments
in 2020¹

¹ <https://www.statista.com/statistics/666864/iot-spending-by-vertical-worldwide/>

IoT sensors will move us from reactive to proactive loss prevention

IoT will evolve the claims process and allow insurers to develop services for proactive loss prevention. Instead of being focused on claims after the fact, the model shifts to the prevention of claims using sensors and real-time monitoring. In addition, there are opportunities to improve incident management and claims service—such as automating and speeding up the provision of towing or loaner cars following accidents—rather than just repaying the costs.

Three areas positioned to make the most impact in this regard are water damage sensors, home exterior sensors, and connected cars.

Mitigating the impact of water damage

Claims for water damage are some of the most frequent incidents insurance companies encounter. According to the Insurance Information Institute, water damage was the second most frequently-reported claim, following wind and hail damage which holds the number one spot.²

Additionally, according to Insurance Business Magazine, homeowners file more than 14,000 water damage claims every day with an average cost of \$6,000 to \$15,000, which equates to approximately \$123 million per year, most of which could be preventable with new technology.³

That said, water damage is also one of the most preventable types of damage, making it a perfect candidate for mitigation through the Internet of Things.

According to Lance Malcolm, U.S. President, Contractor Connection[®] at Crawford & Company[®], the world's largest publicly listed independent provider of claims management solutions, the

average completed cost per square foot for water mitigation alone can be \$3 to \$7 (or more) per square foot of water affected area in a structure, depending on the type of water and building materials involved. Through IoT sensor technology, these costs can be significantly decreased or even eliminated.

This is how it works: IoT sensors are installed to detect water leaks. When these sensors detect a leak, they can communicate directly with an IoT shut off valve to immediately stop the flow of water. The less water that hits the floor, the less possible damage. Additionally, these devices can alert the affected property owner and even send out electronic requests for professional help to begin repairs.

What does all this mean for the claims process? First, the overall number of claims should go down as these technologies are adopted. But, this is just the initial benefit. What's really interesting in the claims space is the data. If insurance companies have sensors all over the country monitoring everything from residences to commercial enterprises, they will be swimming in data. This data offers real-time insight into how and why claims are occurring. The aggregation of this data will lead to better predictive models on water damage, which could revolutionize how risk is evaluated for water damage claims.

With this kind of information, adjudication will also be much quicker. There would still be the need for adjusters to look at damage, but everything about what happened – the amount of water, the location, the timeframe, and more – would be instantly available.

² <https://www.iii.org/fact-statistic/facts-statistics-homeowners-and-renters-insurance>

³ <https://www.insurancebusinessmag.com/us/news/technology/is-this-the-future-of-home-insurance-claims-prevention-88826.aspx>

Homeowners Losses Ranked By Claims Severity (Average Claim), 2012-2016⁽¹⁾

(Weighted average, 2012-2016)

Fire and lighting
\$50,312

Bodily injury and property damage
\$23,010

Water damage and freezing
\$9,633

Wind and hail
\$8,625

All other property damage⁽²⁾
\$5,052

Theft
\$4,146

Medical payments and other
\$2,864

Credit card and other⁽³⁾
\$441

⁽¹⁾ For homeowners multiple peril policies (HO-2, HO-3, HO-6 and HE-7 for North Carolina). Excludes tenants and condominium owners policies. Accident year incurred losses, excluding losses, excluding loss adjustment expenses, i.e., indemnity costs per accident year incurred claims. Excludes Alaska, Texas and Puerto Rico.

⁽²⁾ Includes vandalism and malicious mischief.

⁽³⁾ Includes coverage for unauthorized use of various cards, forgery, counterfeit money and losses not otherwise classified.

Source: ISO®, a Verisk Analytics® business

“Data doesn’t lie. Using the data provided by IoT may be a more objective way to assess the actual turn of events...”

Working with your claims partner will also be more efficient and easier. Claims will be paid faster, increasing policyholder satisfaction.

So what’s the hold up?

Water damage sensors aren’t standard in the industry and they require an investment, either from the insurance carrier or the policyholder. To truly move this solution forward, equipment must be standardized and both insurers and policyholders must be educated on the benefits to be gained from the investment in IoT.

Improving accuracy for weather-related events

A second key application for IoT devices involves placing sensors on the exteriors of homes and businesses. These sensors would detect data related to weather events such as hurricanes, tornadoes, and other storms. The data collected would provide rich information about the conditions present when damage occurred such as wind speed or lightning strikes. Sensors would help determine the cause of damage more accurately and dramatically change how claims are reported at First Notice of Loss (FNOL). Ideally, a policyholder wouldn’t even have to call or use an app to submit a claim as the data from these environmental sensors would be used to automate claim submissions.

Plus, as with water damage sensors, the aggregated data collected from environmental sensors can enable insurers to derive more precise models of risk for specific geographical areas in relation to weather events.

This IoT application will be highly beneficial to policyholders and insurers, but there are some

hurdles to overcome. First, manufacturers must determine how to adhere sensors like this to homes and businesses and ensure they can withstand the forces of weather-related events. A robust, 24/7 monitoring system must also be in place for these sensors to be valuable. Third, the sensors will need to be designed specifically to detect damaging winds. Finally, complex algorithms must be developed to analyze wind speed and other factors and discern exactly what happened during each storm.

Driving efficiencies through connected cars

The addition of simple sensors powered by a new 5G network are forever changing the auto insurance industry. These sensors collect data that can inform on safe driving habits, including each individual’s tendency to obey speed limits, stop at stoplights and signs, brake smoothly rather than abruptly, and more. Drivers are literally being graded on how safely they drive. This impacts premiums as insurers and underwriters use data to more accurately judge risk on an individual basis.

Beyond regularly monitoring drivers, connected cars can also provide benefits when accidents occur. Emergency services and insurers can be alerted automatically, changing the way these parties deal with collisions.

The IoT-enabled car can also log what transpires in these situations, looking at speed, deceleration, braking, direction of impact, and more. This data paints a picture for an adjuster or investigator and can confirm or discredit a driver’s account of events. Data doesn’t lie. Using the data provided by IoT may be a more objective way to assess the actual turn of events rather than relying solely on witness statements.



The way forward

The world of IoT has much to offer the insurance industry. More than just a collection of sensors and devices, IoT will bolster the industry's ability to gather and analyze its most valued commodity – data. This capability will revolutionize claims handling and forever change the way insurers look at risk and claims.

The potential benefits are enormous, but many challenges related to privacy and data lie ahead. Insurers must entice policyholders to adopt new devices and processes while ensuring the privacy and security of enormous amounts of data. They must embrace the advantages that IoT data presents with a commitment to driving benefits for all parties.

The challenge may seem daunting but, fortunately, insurers do not have to face this challenge alone.

By partnering with a claims handling firm that also embraces IoT, insurers can reap the benefits of IoT without shouldering all of the up-front investment.

At Crawford & Company, we're not just embracing IoT innovation, we're leading it. We're making a deliberate investment into this space as we work with our clients to fully-embrace the Internet of Things and the dramatic impact this new technology will have on our business. By partnering with us, insurers can join in the IoT journey with a trusted partner as their guide.

Contact us to learn more about how we can work together to develop or enhance your IoT processes.



Hilton Sturisky

Global Chief Information Officer
Crawford & Company

As global chief information officer of Crawford & Company®, Hilton Sturisky is responsible for the company's technology, including its strategic global systems roadmap, business intelligence and analytics, cyber security and worldwide innovation programs.

During his 18-plus years in the Information Technology field, Sturisky has been a strong technology leader with a proven track record of leading change, implementing business process transformation and building high-performance teams in a complex, global environment.

He is former CIO of both Spirit Airlines and BCD Travel and additionally worked for Coca-Cola, Pfizer and Harland Clarke. Sturisky serves on the Board of Advisors of CloudeAssurance and is a member of the governing body of the Global CIO Executive Summit.

Sturisky has a master's degree in business administration from Emory University, a master's degree in industrial and systems engineering from the Georgia Institute of Technology and a bachelor's degree in mechanical engineering from the University of Witwatersrand, Johannesburg.

About Crawford & Company®

For over 75 years, Crawford has solved the world's claims handling challenges and helped businesses keep their focus where it belongs – on people.



Loss
Adjusting



Third Party
Administration



Managed
Repair



Medical
Management



On-Demand
Services



Catastrophe
Response

9,000 employees | **50,000** field resources | **70** countries | **\$14B** annual claims payments

Crawford®

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