



# GI Glimpse

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Actuaries Institute • Sydney  
Tuesday 1 August 2017





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# Is your home smarter than a fifth grader?

## How might IoT impact short-tail insurance lines?

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*This presentation has been prepared for the Actuaries Institute 2017 GI Glimpse Seminar.  
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# Agenda

- Background – What is the “Internet of Things”?
- What devices might be part of the “smart home”?
- What are the possible implications for insurance?

## What is the “Internet of Things”?

- The Internet of things (IoT) is the inter-networking of **physical devices**, vehicles (also referred to as "connected devices" and "smart devices"), buildings, and other items embedded with electronics, software, **sensors**, actuators, and **network connectivity** which enable these objects to **collect and exchange data**. Source: [Wikipedia](#)
- Basically: devices sharing sensor data via internet



## Connected Devices – Concept Videos

- [Life Simplified with Connected Devices \(2014\)](#)
- [AT&T Smart Cities \(2016\)](#)
- [Samsung – In Sync with Life \(2015\)](#)
- [Lenovo Tech World – Internet of Things \(2015\)](#)
- Corning – A Day Made of Glass
  - [Pt 1 \(2011\)](#), [Pt 2 \(2012\)](#)

# Connected Devices - Examples

- Phones/Tablets/Fitbit
- Household appliances
- [Cars](#)
- [Cup](#) and [Fork](#)
- [BBQ](#)
- [Egg Tray](#)
- [Baby Onesie](#)
- [Baseball Bat](#)
  - ... and many more!
- [Gartner](#): 8.4bn connected “things” in 2017, 20.4bn in 2020



# Connected Devices in the "Smart Home"

- Water: [Water Meter](#)
- Theft: [Security Cameras](#), [Doorbell](#) and [Locks](#)
- Fire: [Smoke Alarm](#), [Lighting](#), [Thermostat](#), [Sprinklers](#)



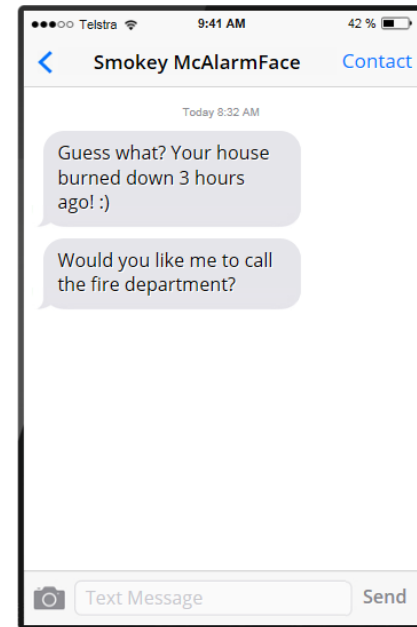


## Evolving nature of insurance

- Interaction with Customers
  - Preventing loss instead of rebuilding/replacing
    - Predictive services (maintenance, alerts)
  - Speed up of claim lodgement
- Third Party integration
  - Potential partnerships to get devices into homes

## Data, data everywhere!

- Devices in homes / sensors → lots more data!
  - Sizeable, streaming data source
- Insights both to and about customers
  - Some insights need to be “real time”



# How secure are these devices?

Disturbing

Someone made a smart [REDACTED], so of course it got hacked

Wednesday 10 August 2016 17:00 AEST

**How IoT hackers turned a university's network against itself**

A university found its own network turned against it - as refrigerators and lights overwhelmed it with searches for seafood. February 10, 2017

Disruptive

**An Army of Million Hacked IoT Devices Almost Broke the Internet**

**Today** 📅 Friday, October 21, 2018

Dangerous

FDA confirms that St. Jude's cardiac devices can be hacked

January 9, 2017: 3:53 PM ET

**HACKERS REMOTELY KILL A JEEP ON THE HIGHWAY—WITH ME IN IT**

07.21.16 06:00 AM

## Conclusion

- “Smart” devices in homes may require insurers to adapt the home insurance proposition, but also create opportunities to create value for customers
- Sensitive data means security is critical!
- Thanks for listening!
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