IoT: Data-Driven Opportunities and the Many-to-Many Problem

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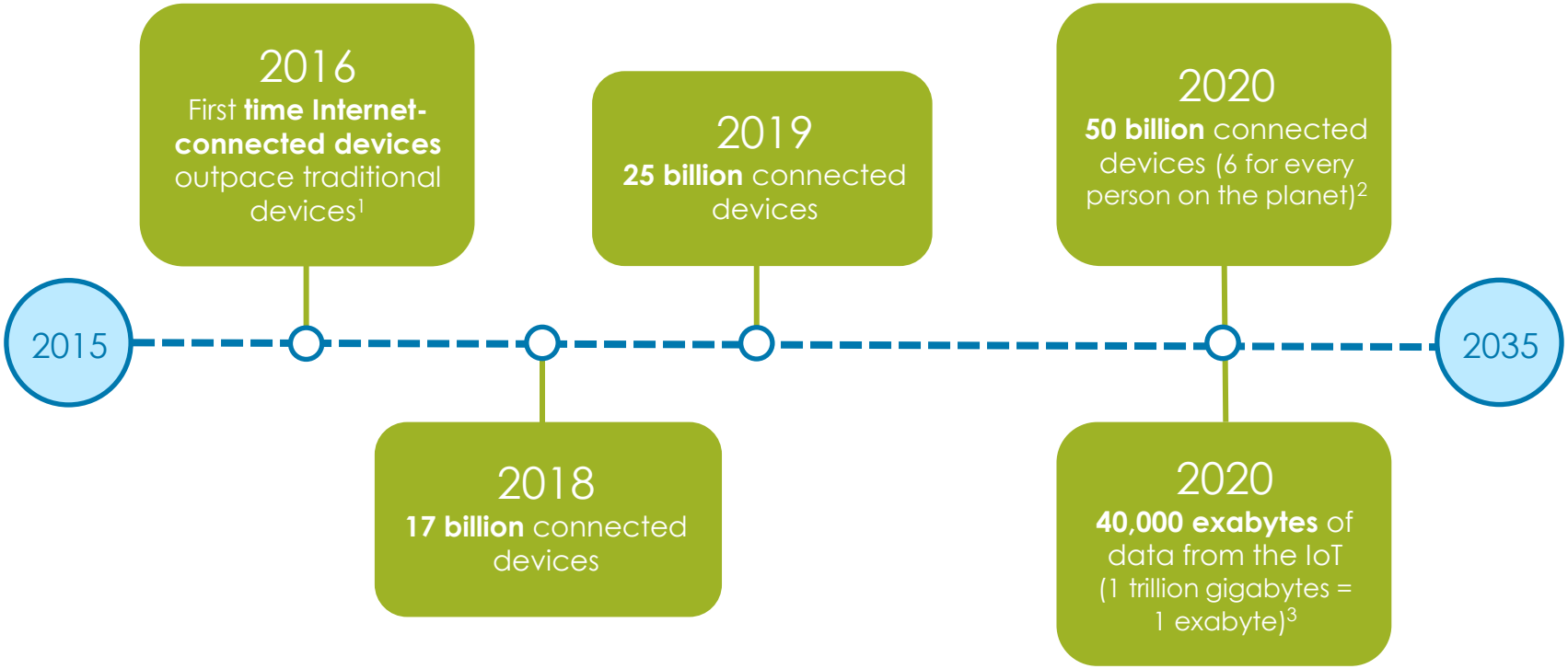
Agenda

- A matrix of data-driven opportunities for insurers
- The many-to-many problem of collecting IoT data at scale
- Forces that shape customer adoption of IoT technology and their willingness to share data

The Internet of Things: Expected to outpace traditional devices



IoT expected to add $10 – 15 trillion to global GDP over the next 20 years[4]

1 Gartner, IDC, Strategy Analytics, Machina Research, company filings, BI Intelligence estimates
2 Cisco Seize New IoT Opportunities with the Cisco IoT System
3 IDC The Digital Universe, BI Intelligence estimates
4 GE Analyze This: The Industrial Internet by the Numbers & Outcomes

Internet of Things and Insurance

Data-driven strategies by stages across the insurance value chain

	Marketing/ Customer Engagement	Underwriting	Pricing	Claims
Connected Properties	• Target prospects that model proactive mitigation • Home maintenance and connectivity incentives • Automated repair dispatch services • Applications that make piece of mind, top of mind	• Behavior and occupancy monitoring • Home maintenance monitoring • Home connectivity verification	• Home-usage rating plans and scoring models • Sensor-enabled loss prevention and mitigation • Data-defined risk segments	• Sensor-initiated claim reporting/ and triaging • Contents validation • Video-verified claim loss facts • Increased subrogation opportunities
Connected Vehicles	• Automated repair dispatch services • Real-time driving behavior feedback and alerts (weather, traffic, teen/senior driving)	• Vehicle performance monitoring • Driving location verification • Fleet management	• Driving-usage rating plans and scoring models	• Sensor-initiated claim reporting/ and triaging • Stolen vehicle tracking • Video-verified claim loss facts
Connected Industries	• Real-time weather alerting for re-routing cargo • Equipment warranty tracking • Sensor-enabled loss prevention and mitigation	• Behavior and occupancy monitoring • Equipment condition and business process monitoring • Shipping container tracking	• Sensor-enabled rating based upon energy usage	• Sensor-initiated claim reporting • Contents validation • Video-verified claim facts
Connected Consumers	• Healthy living incentives and rewards • Aging-in-home assurance monitoring • Health risk monitoring	• Automated biometric health screening	• Activity-based rating plans and scoring models	• Sensor-initiated claim reporting (workers comp, disability, pip/med pay)
Connected Cities	• New product offering to municipalities that offers insurance for new risks (e.g., emergency management)	• Health inspection predictive models • Performance monitoring (building management, more efficient traffic flow)	• Catastrophic risk modeling • Public-safety resiliency scoring (beyond fire protection)	• Sensor-initiated claim reporting • Video-verified claim loss facts

Making sense of the data

Predicting market leaders

Venture capital is available for this market, and

start-ups pop up daily.

Big data

Depending on the volume, variety, and velocity of data,

insurers could expect over 10MB of data per household per day.

A complex connected ecosystem

Identifying sources of data can be difficult when multiple players are involved: hardware manufacturers, platform owners, etc.

Unwieldy and unstructured

Understanding data from multiple sensors and how it correlates to future loss is

a moving target that requires expertise.

Variety of devices

Technology is changing the way we live our lives. Analysts estimate

50 billion devices

will be connected to the Internet by 2020.

Source: Cisco

Actionable insights: A common challenge

How can insurers capitalize on the growth of the Internet of Things?

Start by collecting data.

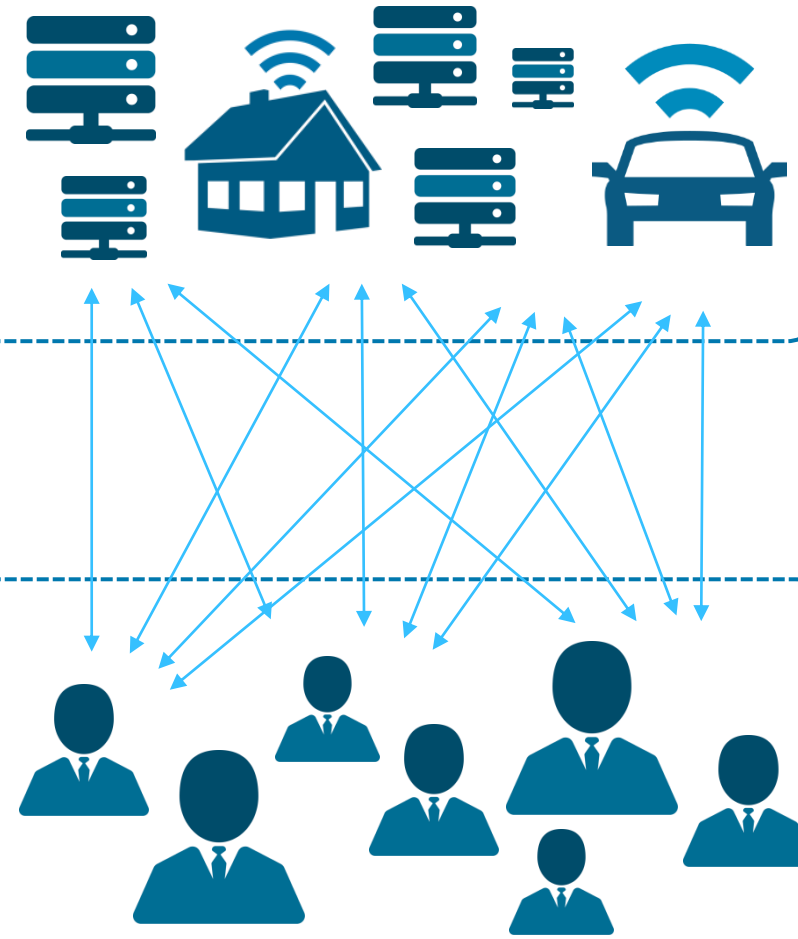
Challenge:

Individual partnerships are likely to result in **insufficient data** to generate actionable insights.

Many-to-many problem

IoT Solution Providers:

- Unproven value of insurance industry vertical
- Limited bandwidth to span relationships with multiple insurers
- Only engaged with a fraction of insurance industry, leaving much of the market "untapped"
- Cost-prohibitive to create integration with numerous individual insurers
- Lacks insurance analytics expertise



Insurers:

- Fragmented market — technology winners TBD
- Data is unfamiliar, unstructured, and inconsistent, making insight creation difficult, lengthy, and costly
- Inability to systematically validate existence of technology and audit discount eligibility

An IoT data exchange for insurers

IoT Solution Providers:

- Provides forum for mass adoption and monetization of data across entire insurance industry
- Provides opportunity for cost-effective integration to insurance industry
- Increases ease of insurance discount application, resulting in increased consumer adoption of tech

Third-Party Intermediary:

- Independent party, experienced with insurance data analytics facilitating exchange
- Builds/manages the integration between the many IoT solution providers and insurers
- Standardizes/normalizes data for input into insurer workflows
- Experienced with state-by-state insurance regulations

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Insurers:

- Access to more data from more companies
- Data is provided in normalized, consumable format for accelerated analysis
- Minimizes IT costs associated with building several independent integrations with IoT solution providers
- Focus more time on generating insights and less time on brokering new relationships
- Identify and capture new customer segments

Forces impacting consumer adoption and willingness to share data

Final considerations

What should I keep in mind?

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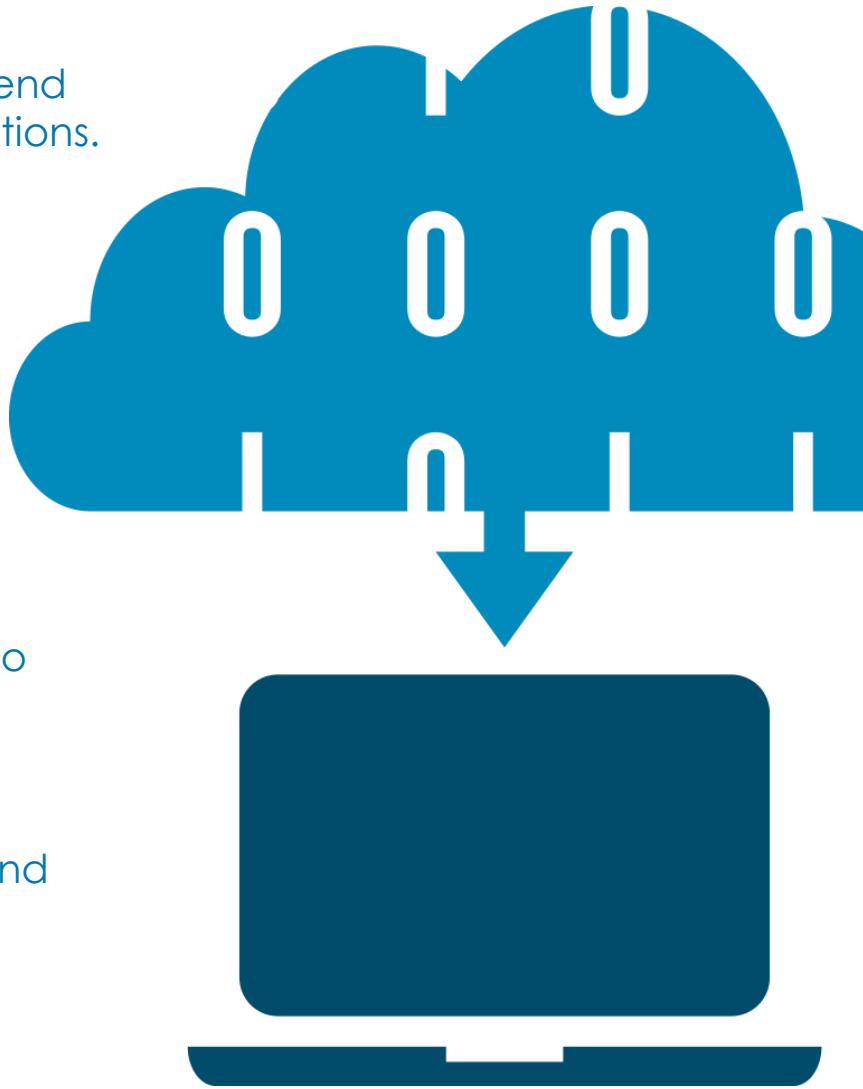
Key takeaways

1. The IoT creates consumer benefits that extend beyond insurance, so seek out the intersections.
2. Because of the complexities and threat of adverse selection, get involved early.
3. The market is evolving faster than insurers are entering this space, and many will have difficulty catching up.
4. Seek partnerships that will provide access to the greatest variety and volume of data.
5. Start with simple uses of IoT data and expand as the market grows.



Thank you.
Questions?

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