

IoT (Internet of Things): Why Do I Care?

**WELLS
FARGO**

INSURANCE



Overview

- What exactly is the Internet of Things (IoT)?
- A look into the future: What are industry experts predicting? Predictions for the future based on facts today.
- What are the key risks associated with the IoT?
- What is the impact? Using a standard risk management framework to identify and manage risk from the IoT.
- How can the property-casualty industry leverage the IoT? Differentiating products and services, maximizing efficiencies, and transforming customer relationships.

What Exactly Is the Internet of Things? (IoT)

What Exactly Is the Internet of Things?

The IoT is a connected system of interrelated computing devices, mechanical and digital machines, objects, animals, or people that are provided with unique identifiers and the ability to communicate, sense or interact with their internal states or the external environment without human-to-human or human-to-computer interaction.

What Exactly Is the Internet of Things?

Connected

Devices

Communicate



- Anything and everything connected
- Using the Internet, Bluetooth®, radio-frequency identification (RFID), and cellular and Wi-Fi networks
- Sense, communicate, gather, analyze and send data

The Internet of Everything!



What Exactly Is the Internet of Things?

Poll—How many connected “things” or end points are there as of 2015?

- 2.1 billion
- 4.9 billion
- 100 million
- 7.5 billion

What Exactly Is the Internet of Things?

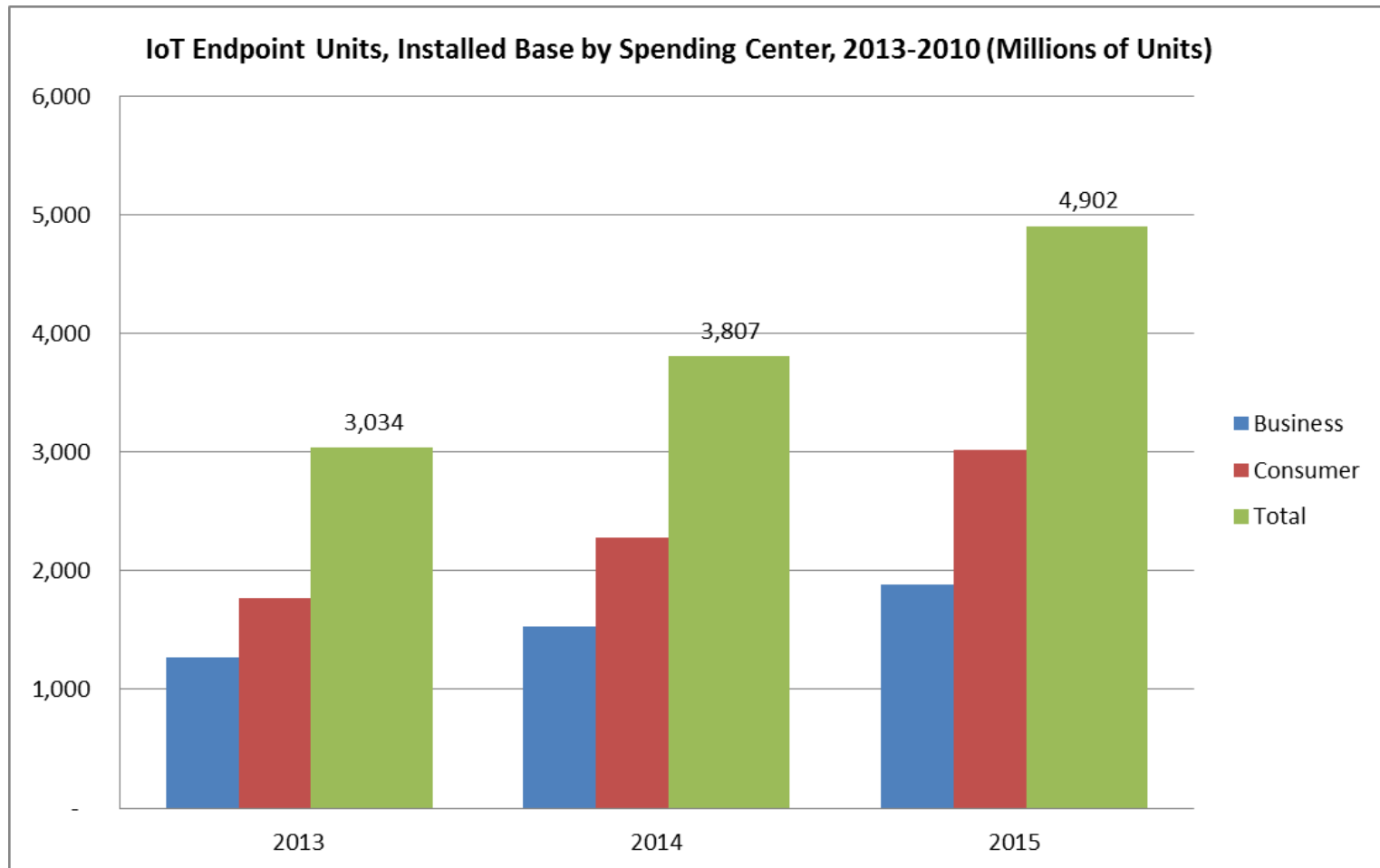


Figure 1. – Chart created by Wells Fargo based on Gartner research: *Forecast Analysis: Internet of Things – Endpoints, Worldwide, 2015 Update* Middleton, Koslowski & Gupta – December 2015.

“The most profound technologies are those that disappear. They weave themselves into the fabric of everyday life until they are indistinguishable from it.”

– Mark Weiser, *The Computer for the 21st Century*. (1991)

A Look Into the Future: What Are Industry Experts Predicting? Predictions for the Future Based on Facts Today

Predictions for the Future Based on Facts Today

Poll—How many connected things will there be in 2020?

- 5.2 billion
- 9 billion
- 20.8 billion
- 40 billion

Predictions for the Future Based on Facts Today

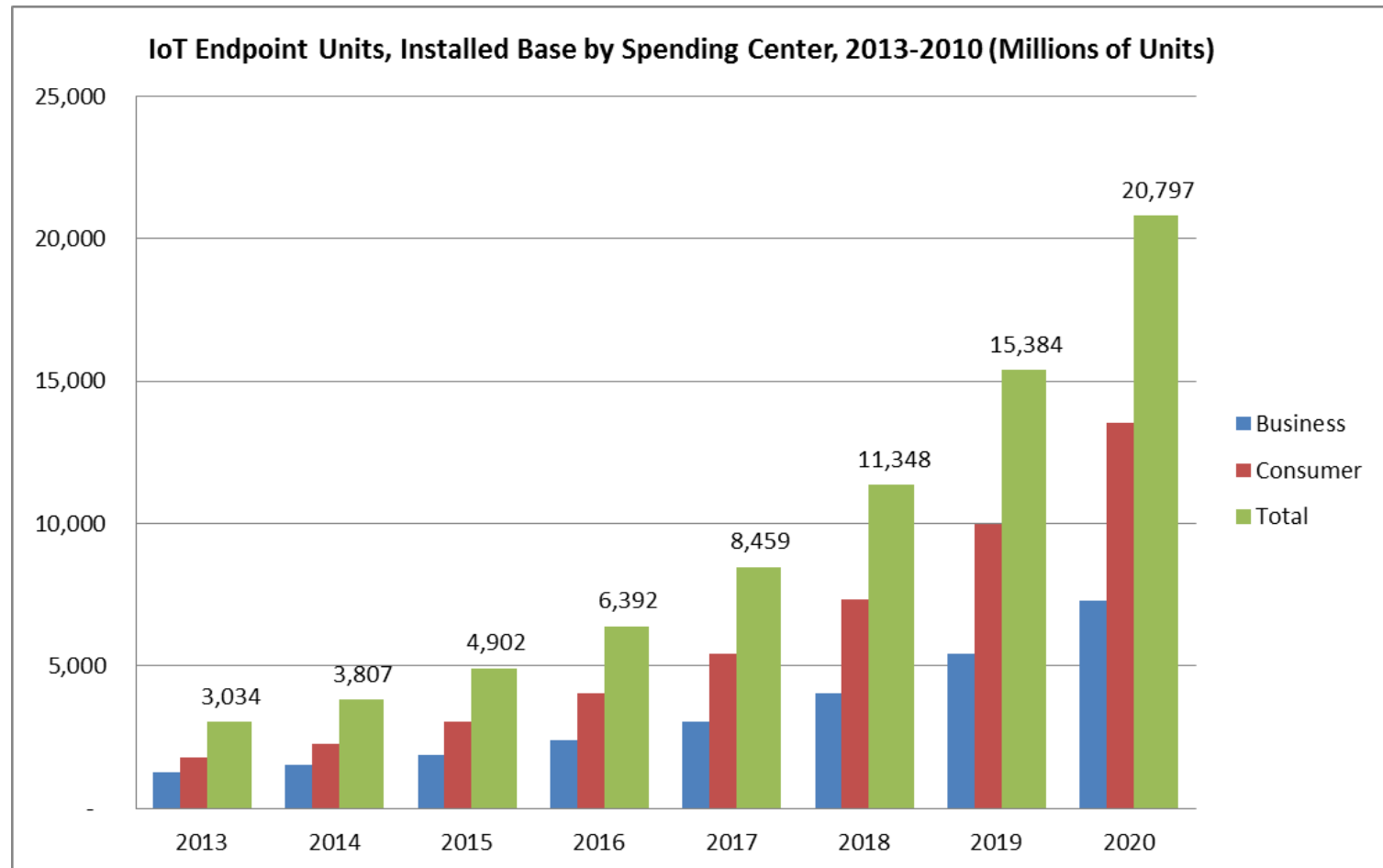


Figure 2 – Chart created by Wells Fargo based on Gartner research: *Forecast Analysis: Internet of Things – Endpoints, Worldwide, 2015 Update* Middleton, Koslowski & Gupta- – December 2015

Predictions for the Future Based on Facts Today

2022

Predictions for the Future Based on Facts Today

Impact on individuals and consumers



- Profound
- Pervasive
- Transforming

Predictions for the Future Based on Facts Today

Impact on governments and businesses



- Profound
- Pervasive
- Transforming

Predictions for the Future Based on Facts Today

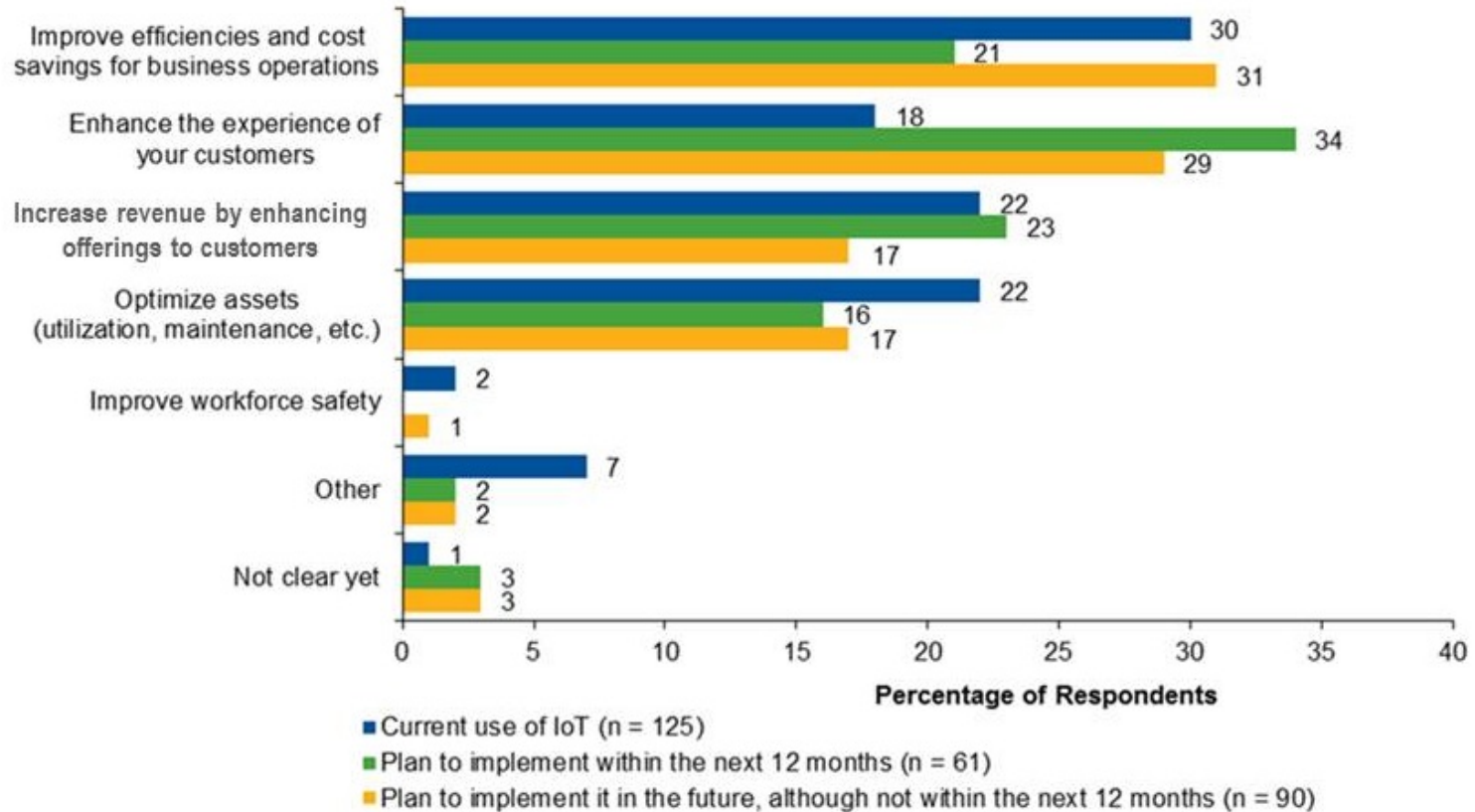


Figure 3 - Value Expected From IoT Initiatives Source: Gartner - Solution Path for Executing an Internet of Things Initiative – Paul DeBeasi - (June 2016)

Predictions for the Future Based on Facts Today

Actual adoption of any specific IoT initiative depends on many factors, including:

- Consumer acceptance
- New technology
- Technology standards (or lack thereof)
- Business and technology practices
- Regulations
- Properly managing risks associated with IoT

What are the Key Risks Associated
With the Internet of Things?

Key Risks Associated With the IoT

- Security
 - Failure to understand complexity of vulnerabilities and manage appropriately
 - Downstream impact of distributed denial-of-service attacks (DDOS)
 - System compromise that results in malfunction
- Data-privacy concerns
 - Ubiquitous data collection
 - Potential for unexpected uses of data
 - Heightened security around protection of data
- Product failure
 - Malfunction

Key Risks Associated With the IoT



© marketoonist.com

Using a Standard Risk Management Framework to Identify and Manage Risk from the IoT

Managing Risk From the IoT



- Identify



- Assess



- Mitigate

Managing Risk From the IoT

Consumers

- Stay informed
- Understand what information you are sharing and with whom
- What is your tolerance for risk?
- Does the benefit of using the IoT product outweigh the risks?
- Is there a way to minimize, control or transfer the risk?

Managing Risk From the IoT

Governments and businesses

- Cyber risk management is not just for tech companies. Every business (public and private) is potentially a technology business when using new and emerging technologies.
- An integrated risk philosophy is no longer optional.
- Cyber risk management and innovation must be tightly connected.

Managing Risk From the IoT

According to a Gartner survey of chief executive officers about digital risk management, what percentage feel that digital business is bringing in new types and levels of risk?

- 77%
- 15%
- 25%
- 99%

Managing Risk From the IoT

The Need for Speed vs. Increasing Risk



Source: Gartner Webinar Presentation— *10 Critical Elements for Successful Risk Management Programs* – John A. Wheeler – May 2016

Leveraging the IoT: Differentiating Products and Services, Maximizing Efficiencies, and Transforming Customer Relationships

Leveraging the IoT

AIG Invests in Sensor-Based Construction Vests



- Reducing workplace injuries
- Providing insightful data about safety and efficiency
- Mitigating and managing risk

Leveraging the IoT

Insurers Using IoT to Monitor Driver Habits



- Telematics connects you to your vehicle, your vehicle to the world.
- Improving safety and potentially reducing the cost of insurance.
- Transforming relationships with fleet-management clients.

Leveraging the IoT

Premium Discounts for Smart Home Technology



- Monitor your home from your smart phone or another device
- On-demand access to home systems
- Safety and convenience

Leveraging the IoT

Using Drones to Facilitate the Claims Process



- Detailed photographs of the loss
- Reduced risk of injury to adjusters
- Covering large areas faster

“The most profound technologies are those that disappear. They weave themselves into the fabric of everyday life until they are indistinguishable from it.”

– Mark Weiser, *The Computer for the 21st Century*. (1991)

Thank You!

Sharon Drawdy, CPCU

Business Initiatives Consultant

Sharon.Drawdy@WellsFargo.com

(912) 856-3531

Wells Fargo Insurance Services USA, Inc. does not provide insurance products and services outside of the United States. Insurance products and services may be provided outside of the United States by foreign brokers licensed within their home venue.

Foreign brokers are not employed by any Wells Fargo legal entity. Foreign brokers are individual insurance brokers responsible for compliance with all regulatory requirements of their home venue.

In the United States, products and services are offered through Wells Fargo Insurance Services USA, Inc. and Safehold Special Risk, Inc., dba Safehold Special Risk & Insurance Services, Inc. in California, non-bank insurance agency affiliates of Wells Fargo & Company.

Products and services are underwritten by unaffiliated insurance companies. Some services require additional fees and may be offered directly through third-party providers. Banking and insurance decisions are made independently and do not influence each other.

©2016 Wells Fargo Insurance Services USA, Inc. All rights reserved.