

# IBM Internet of Things Services

Burak Kircali

Global SME, Electronics Industry



## TODAY'S AGENDA

What is  
Internet of  
things?

IBM's  
Point of  
View

Consumer  
Business  
Models

Corporate  
Business  
Models

IBM  
Solution  
Offerings

# Wake Up & Smell The Bacon — from the Oscar Mayer Institute For the Advancement of Bacon



## Consumers lead the Internet of things



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## Consumers lead the Internet of things



## Consumers lead the Internet of things



## Consumers lead the Internet of things



<http://www.koubachi.com/>



<https://www.myvessyl.com/>



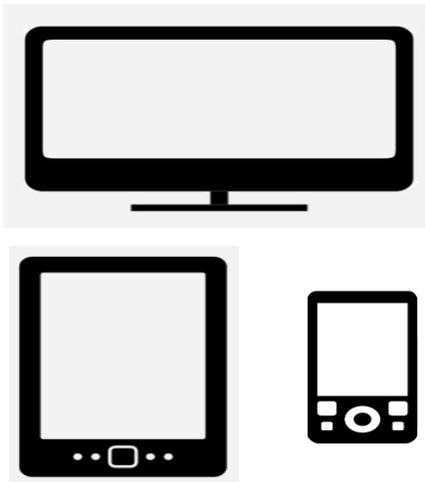
<https://hello.is/>

# IBM Internet of Things Vision

## Consumers lead the Internet of things

### Today

A few connected devices per person...



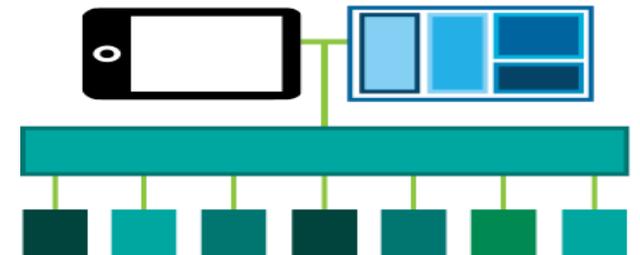
### Tomorrow

Almost every device that consumers own will be connected, and many new ones will be created to leverage the value created by consumer connections.

- Window Lock
- Toothbrush
- Door Lock
- Garage Door
- Dishwasher
- Garden Moisture
- Home Lights
- Washing Machine
- Coffee Maker

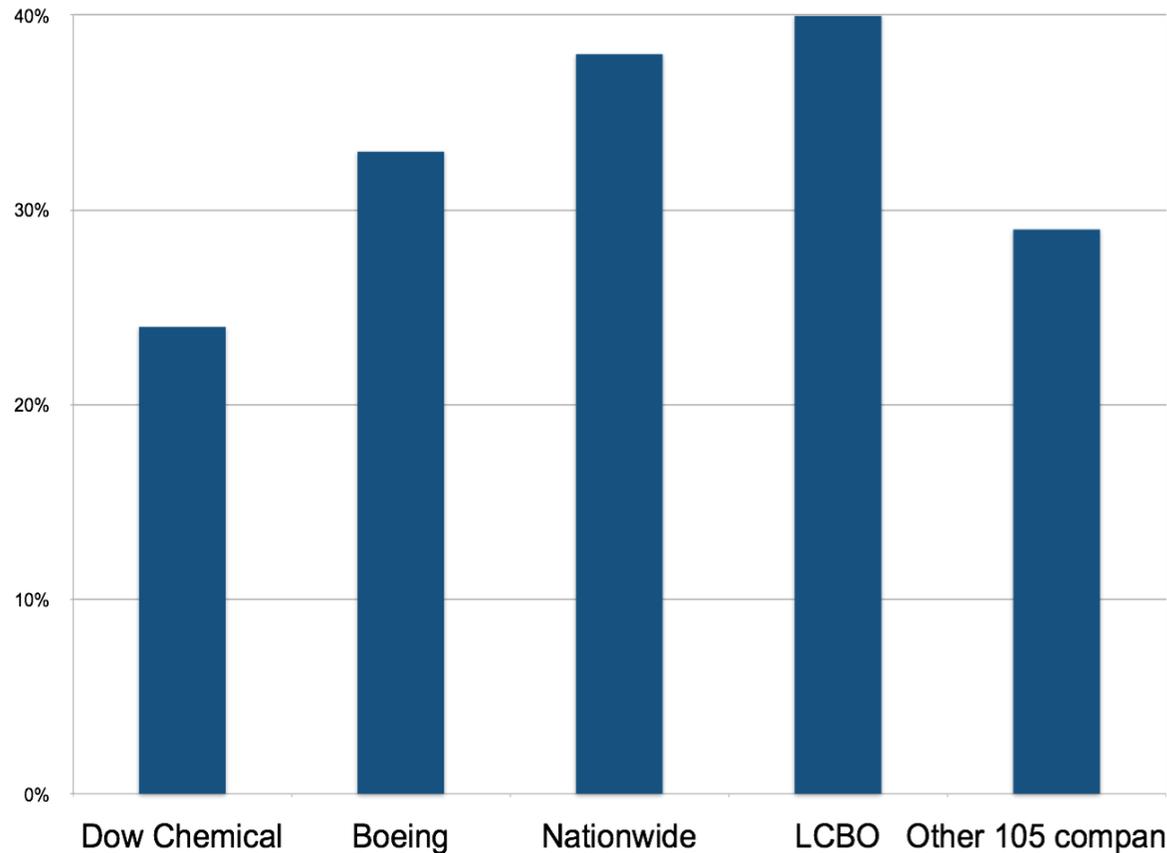
### Integration

Cross-platform integrators will connect devices and automate personal activity:



The most compelling reason to use Internet of Things will be to increase the return on assets

### Savings From Shift To Managed Printing & Copying



Data: Photizo, IBM business partner in printing & copying

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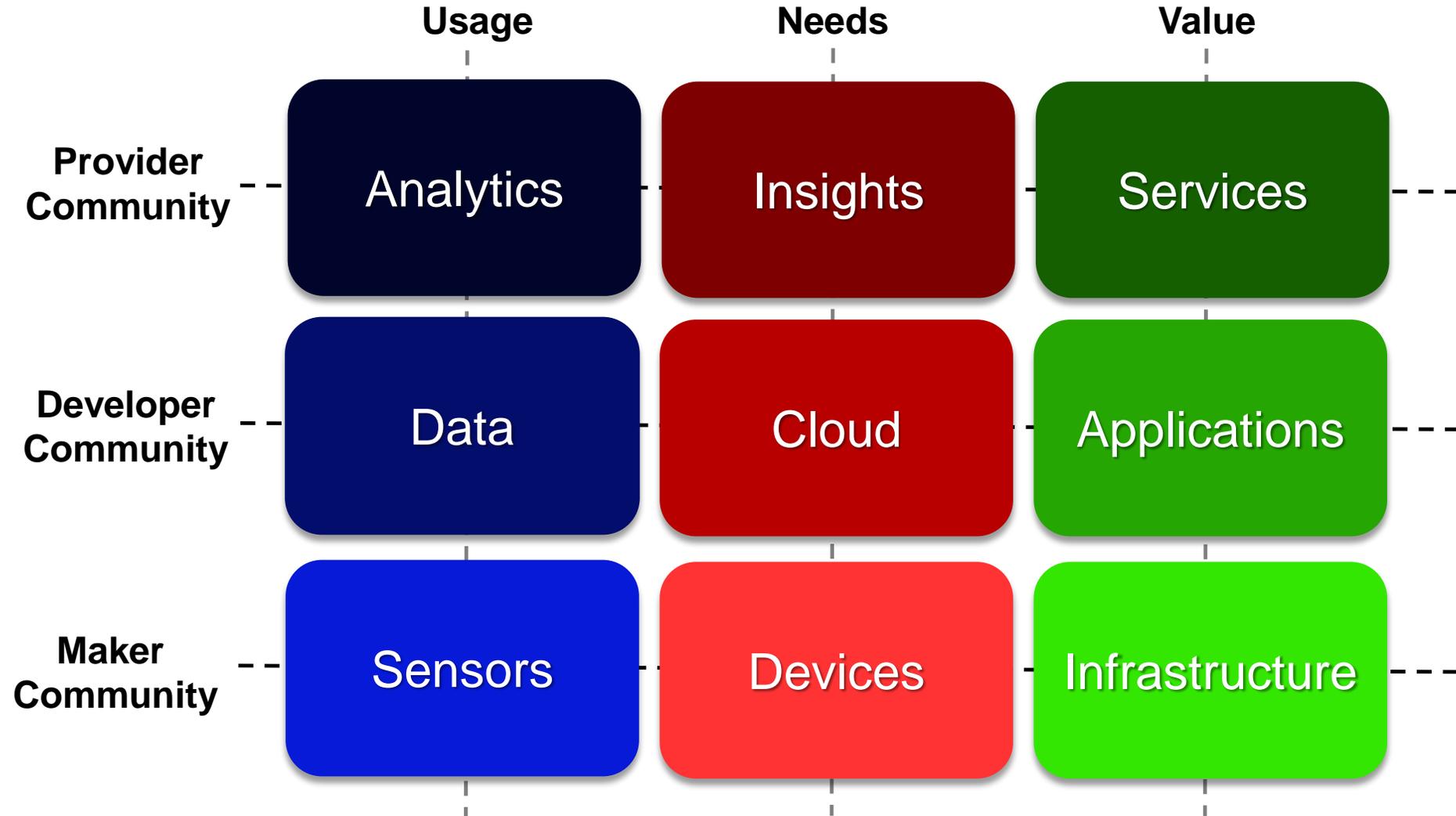
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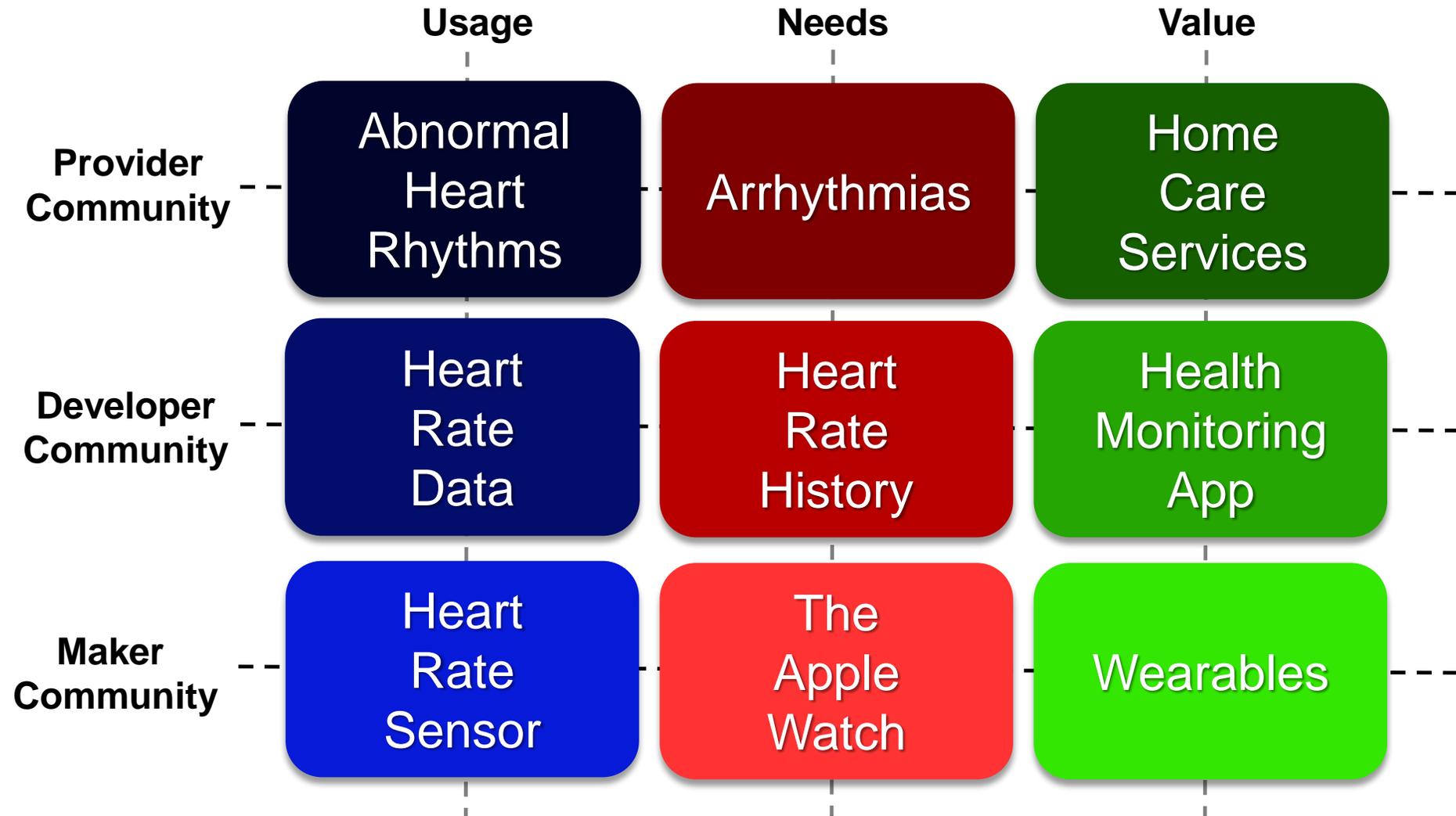
# IBM Internet of Things Vision

## 3 x 3 Building Blocks



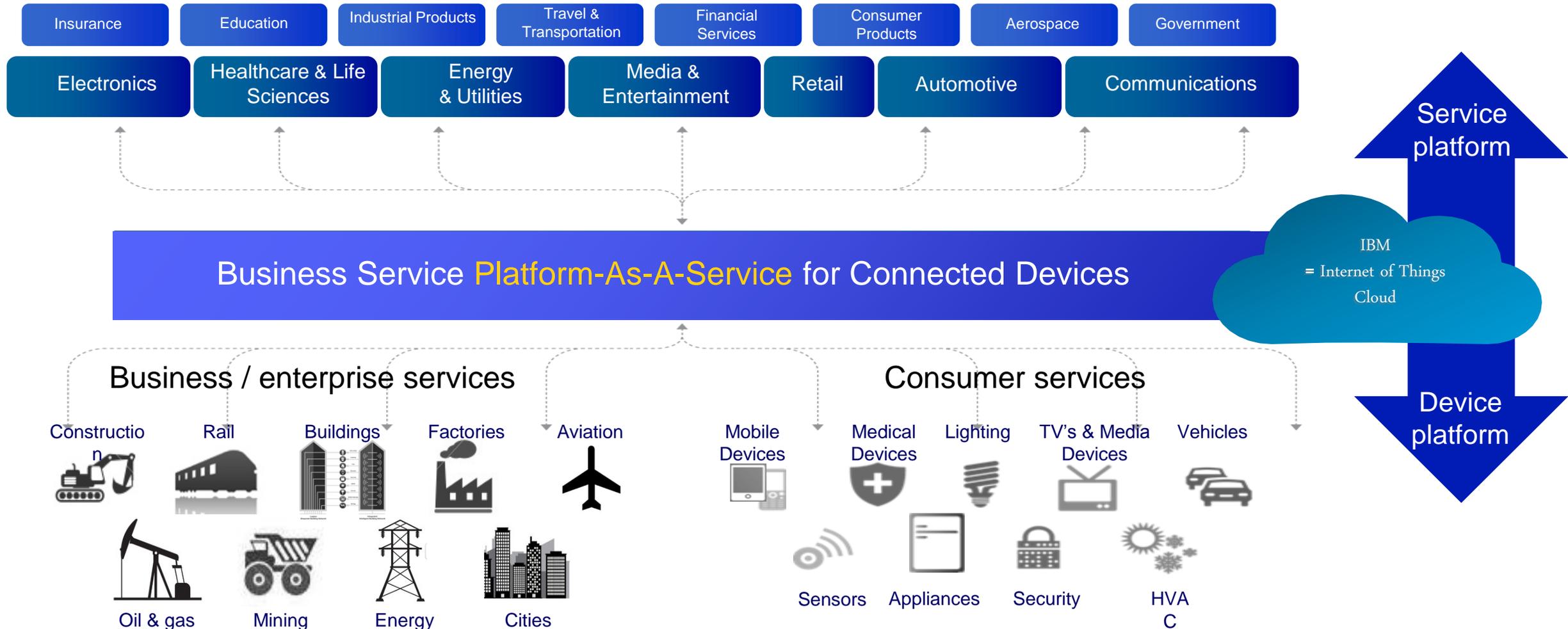
# IBM Internet of Things Vision

## 3 x 3 Building Blocks – Healthcare Sample



# IBM Internet of Things Vision

Individual Industries have Enterprise and/or Consumer Requirements



# IBM Internet of Things Vision

## Driving Industry Conversations

	Banking	Healthcare	Automotive	Retail	Transport	E&U
 <p><b>Monetize</b></p>	<p>Cash replacement solutions</p> <p>Mobile Banking</p>	<p>Paid home care family services</p>	<p>Pay-per-drive car rental</p>	<p>Cash replacement</p> <p>Sensor enabled Loyalty cards</p>	<p>Paid Alerts to travellers</p> <p>Congestion charging</p>	<p>Pay-per-use energy</p>
 <p><b>Optimize</b></p>	<p>Optimized Cash management</p>	<p>ER Bed Resource Mgmt</p>	<p>Component predictive replacement</p> <p>Fleet mgmt</p>	<p>Delivery and stock replenishment optimization</p> <p>Store layout optimization</p>	<p>Smart Cities Traffic mgmt</p> <p>Airport Management</p>	<p>Delay non-essential supply during peak loads</p>
 <p><b>Extend</b></p>	<p>Banking the un-banked</p> <p>Biometrics</p> <p>Smarter Subsidies</p>	<p>Life style monitoring</p>	<p>In-car Movies, Music, Games</p> <p>Highly Automated Driving</p>	<p>Smart Vending Machines</p> <p>Delivery Lockers</p>	<p>Mobility Services</p>	<p>Smart home services</p>
 <p><b>Control</b></p>	<p>Remote ATM Management</p> <p>Dynamic Authorization</p>	<p>Remote Hospital environment Mgmt</p>	<p>Remote Drive-train optimization</p>	<p>Store energy mgmt</p> <p>Store parking mgmt</p> <p>Dynamic price labels</p>	<p>Crowd mgmt</p> <p>Timetable mgmt</p> <p>Asset mgmt</p>	<p>Remotely control consumer devices</p>

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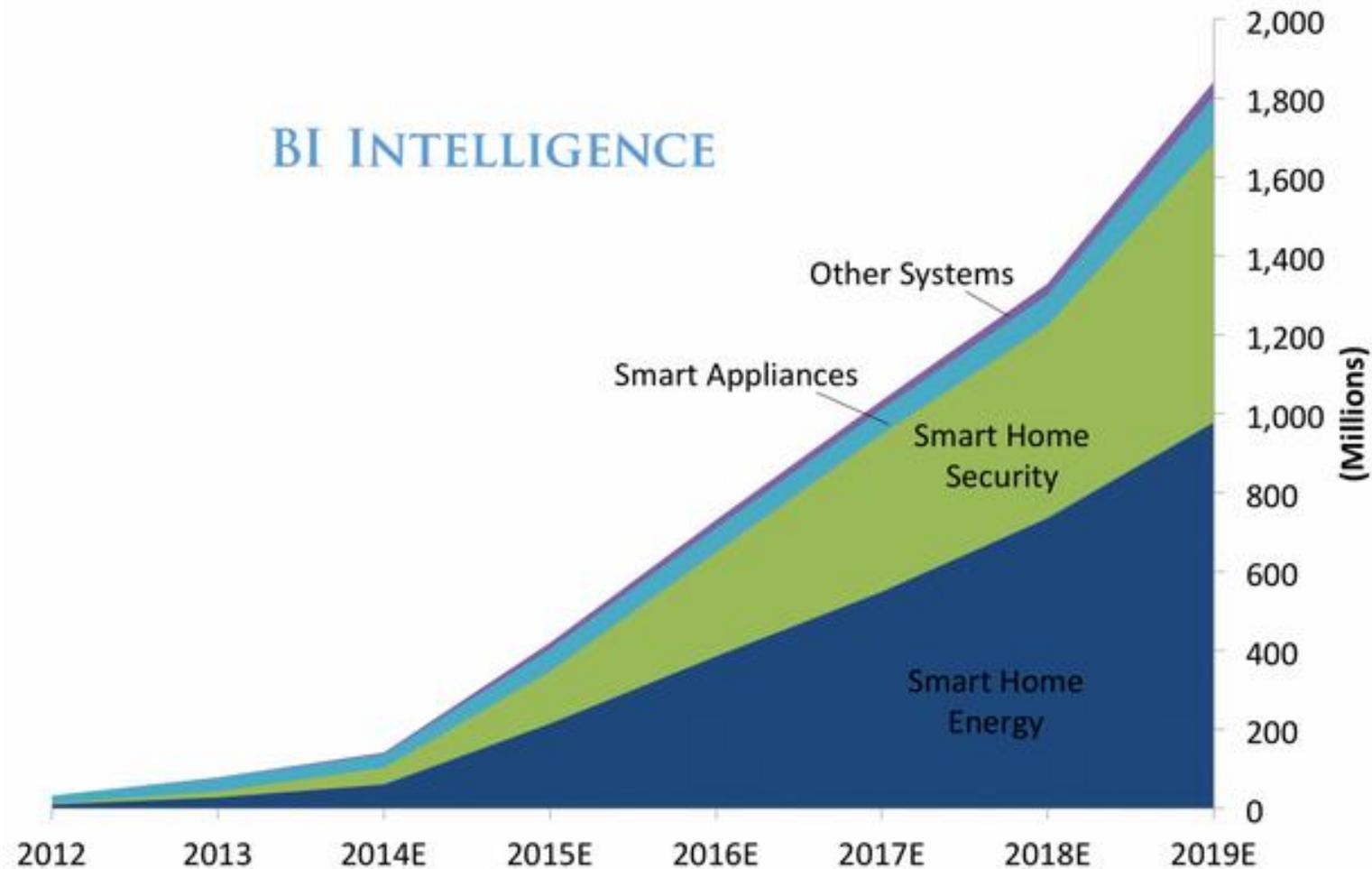
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Connected-home device shipments will grow at a compound annual rate of 67% over the next five years

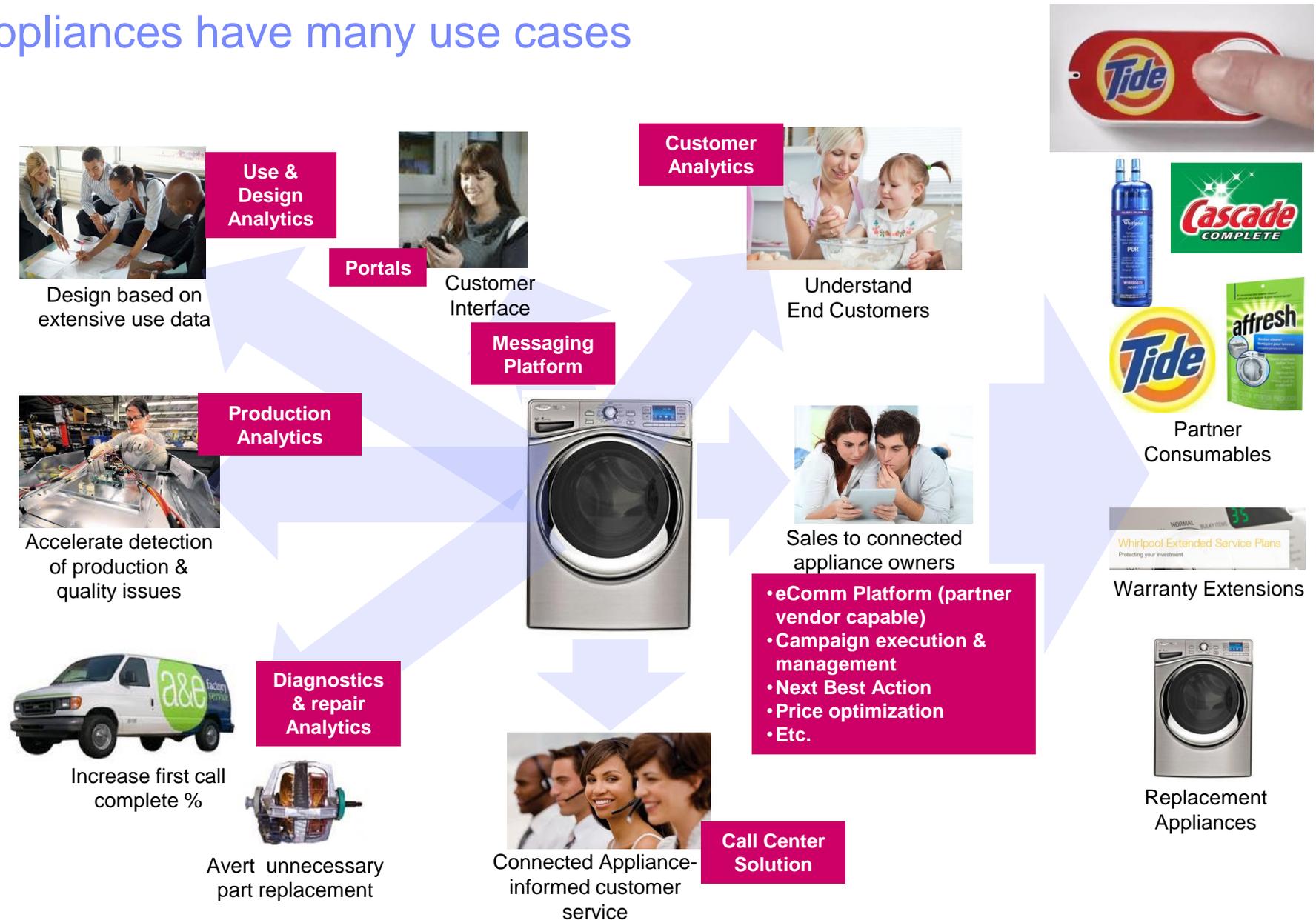
## Global Connected-Home Device Shipments

*By Device Category*



Source: ABI Research, TechNavio, Pike Research, BI Intelligence Estimates

# Smart appliances have many use cases



## Retail and Utility companies are leading this business model innovation

Retail companies are moving into service provider business model



Telecom companies are providing digital lifestyle services



## Retail and Utility companies are leading this business model innovation



# There are currently 4 business models around smart home

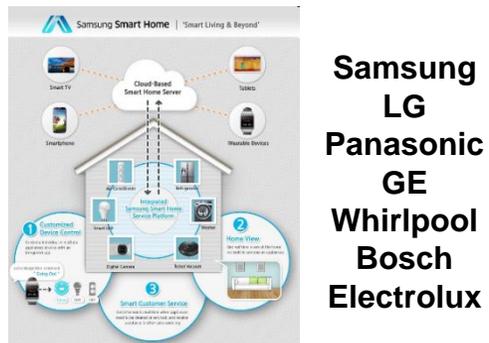
## Retail Product Sales



## Digital Lifestyle Services



## Vendor Smart Solutions



## Traditional Home Automation



# AT&T Digital Life is the leading smart home services



**Best Consumer Mobile Service**

**AT&T for AT&T Digital Life**

Home – More than 80 markets in US  
 Connected Car – 10 Million 2017  
 Healthcare – Digital Life Care  
 Platform Licensing – Telefonica

AT&T Digital Life Services	One Time Equipment Fee (USD)	Monthly Service Fee (USD)	Services and Equipments
Simple Security	149,99	29,99	24/7 Monitoring, 24H Battery Backup, Smart Phone Access, Keypad, Keychain Remote, Indoor Siren, Contact Sensor
Smart Security	149,99	39,99	Simple Security, Smoke Sensor, Glass Break Sensor, Carbon Monoxide Sensor, Motion Sensor
Camera Package	99,99	9,99	1 Camera
Door Package	99,99	4,99	1 Door Lock, 1 Garage Door Sensor
Energy Package	199,99	4,99	Light Control, Thermostat, Smart Plug
Water Detection	49,99	4,99	3 Temperature and Water Sensors
Water Control	249,99	9,99	3 Temperature and Water Sensors + 1 Water Shutoff
<b>TOTAL</b>	<b>799,95</b>	<b>69,95</b>	<b>All Services with no additional equipment</b>

# Lowé's, the home improvement retailer, sees IoT as a Future Growth Catalyst

## CES: Lowé's Sees Iris as a Future Growth Catalyst

By [Dan Moskowitz](#) | [More Articles](#) | [Save For Later](#)  
 January 11, 2014 | [Comments \(0\)](#)

Lowé's believes that in the future, every electrical device it sells will be Internet-ready and controlled by an app. Thanks to significantly reduced costs, industry analysts now believe that the home-automation market will grow 47% annually over the next four years. If this proves to be true, then it will benefit Lowé's

Safe & Secure Kit	Comfort & Control Kit	Smart Kit
Iris Hub	Iris Hub	Iris Hub
Contact Sensors	Smart Plug	Contact Sensors
Motion Sensor	Smart Thermostat	Motion Sensor
Keypad	<b>\$179</b>	Keypad
Window Decal		Smart Plug
<b>\$179</b>		Smart Thermostat
		Range Extender
		Window Decal
		<b>\$299</b>

### BASIC SERVICE - FREE

- Basic control of your Iris devices
- Email, text or voice call alerts to the account holder if your alarm is triggered

### PREMIUM SERVICE - FREE for 2 months Then \$9.99 a month

- Advanced control of your Iris devices
- Email, text or voice call alerts to up to 20 contacts if your alarm is triggered
- Extended video camera live streaming, recording and storage
- Iris Magic for configuring rules across multiple Iris devices
- Home Modes settings across all of your devices
- Voice Control through the Iris mobile app

# Staples, the office superstore, thinks IoT as a next generation sales platform

One app. One hub.  
Connected home made easy.

One app controls all the best brands.

Staples Connect is the first and only connected offering to bring together all the top brands of smart electronics. With our app and hub, you can control these devices individually, or they can collaborate with each other to carry out synchronized activities.



Staples Connect lets you control lights, thermostat and more from all the brands of connected home products you trust.

Staples Connect Hub

**ONLY \$99**

The low cost of connecting.

With Staples Connect, there's no monthly fee and the app is free to download. All you pay is a one-time price of \$99 for the Universal Wireless Hub, plus the cost of compatible devices. It's the best and most cost-effective connected solution available.

[SHOP NOW](#) [FIND A STAPLES CONNECT STORE](#)

**Safety & Monitoring**

All the smart Safety and Monitoring products you could need. These are just the beginning.

**Lighting**

An extensive assortment of Lighting Control products. Check out some of our favorites.

**Environmental Control**

A wide selection of smart Environmental Control products. Here are just a few.

## Staples Connect Customized Activities

They're easy to set up, and let you activate multiple devices with a single touch of the app button. With Customized Activities, there's no end to the number of activities you can create.

POOL PARTY      SMALL BUSINESS      MOM & KIDS

**Everybody in the pool!**

Create a "Pool Party Activity" to get the fun started with a single touch of the screen.

Automatically unlock the pool gate, turn on the stereo and custom lighting, and heat up your hot tub.

## 3 Companies and 3 Business Models



### **AT&T Digital Life:** Business Model Innovation

**Objective:** To become a digital lifestyle service provider

- We're simplifying people's lives. We call it Living Mobile: When the home, the car, the office, the wallet are all connected to the network and to each other and you don't even have to think about it. They want to reinvent the security and home automation experience by controlling all aspects of the service



### **Lowe's Iris:** Services Innovation

**Objective:** To use data in the cloud to develop new home services

- Lowe's Iris Home Management System allows homeowners to monitor and control their various devices through a cloud-based remote interface which is available through a Web browser or a smartphone application. It has partnered with Verizon Wireless and Iris is now being sold in Verizon Wireless stores



### **Staples Connect:** Product Sales Improvement Platform

**Objective:** To generate more sales of all the stuff in its stores

- For Staples the immediate objective of its smart home platform called Staples Connect is to generate more sales of all the stuff in its stores. Staples is also looking to generate sales of new products through their ability to be controlled via the smart home platform

## Why AT&T's Digital Life Services Should Terrify Insurers

Real-time  
Usage  
Data

More accurate picture  
of the exposures,  
hazards and risks

Better Risk Scoring,  
Product Pricing and  
Reduced Loss Costs

The Internet of Things will change every part of the insurance value chain, including product design, pricing, underwriting, service and claims

## Xiaomi Launches A Money Market Fund, Pushing Further Into Online Financing



# BNP Paribas Cardif offers Habitat, an innovative insurance package that uses technology to secure your home

**Connected home  
Welcome to the future!**

**Home automation: what is it?**  
Here are a few concrete examples of a tech trend that is set to revolutionize your everyday life and the way you interact with your home!

**ENERGY**  
Track and control your household's energy use.  
1. Forget to turn something off before stepping out? Get alerts and turn off lights or turn down brightness from the office or supermarket.

**SECURITY**  
Protect your security settings and set up an alarm.  
1. Stop worrying about home-to-while away by installing a video security system.  
2. Enhance your understanding with real-time feedback and instantly speed the time of recovery.

**HVAC**  
Maximize your control with heating and air conditioning tailored to you.  
1. Detect abnormal rises in temperature (hot spots).

**DOMESTIC INCIDENTS**  
1. Get alerts if your home sensors detect a fire.  
2. Prevent any damage if you forget to close a window.

**FOOD AND HEALTH**  
Ensure the freshness of your food or air ions and get alerts that remind you of what is expiring soon.  
1. Receive healthy and personalized recipes based on your specific diet and the items available in your fridge.

**APPLIANCES**  
1. Notify your household cleaner by remotely turning on your vacuum or washing machine.  
2. Remotely turn off your water supply if a leak is detected.

**Potential applications for tomorrow's insurance associated services**

**BNP PARIBAS CARDIF** | The insurer for a changing world.

BNP Paribas Cardif developed an offer with Follow Analytics, a startup specializing in mobile marketing.

Built on the SAMIO cloud platform by Samsung, the solution helps boost personal safety and limit domestic risk by aggregating and analyzing various data collected by sensors and connected objects.

# IBM creates Industry Journey Maps – Smart Home

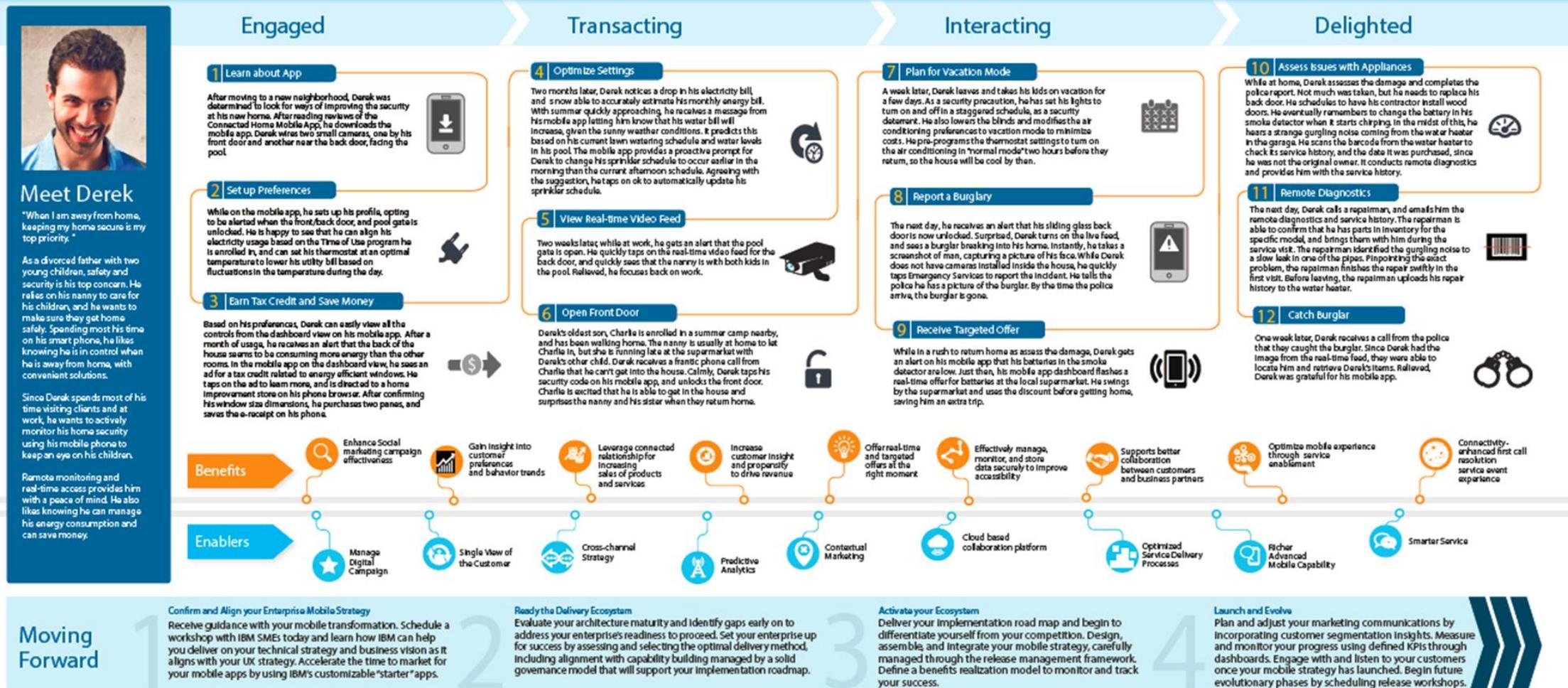


## Connected Home Ready App Journey Map

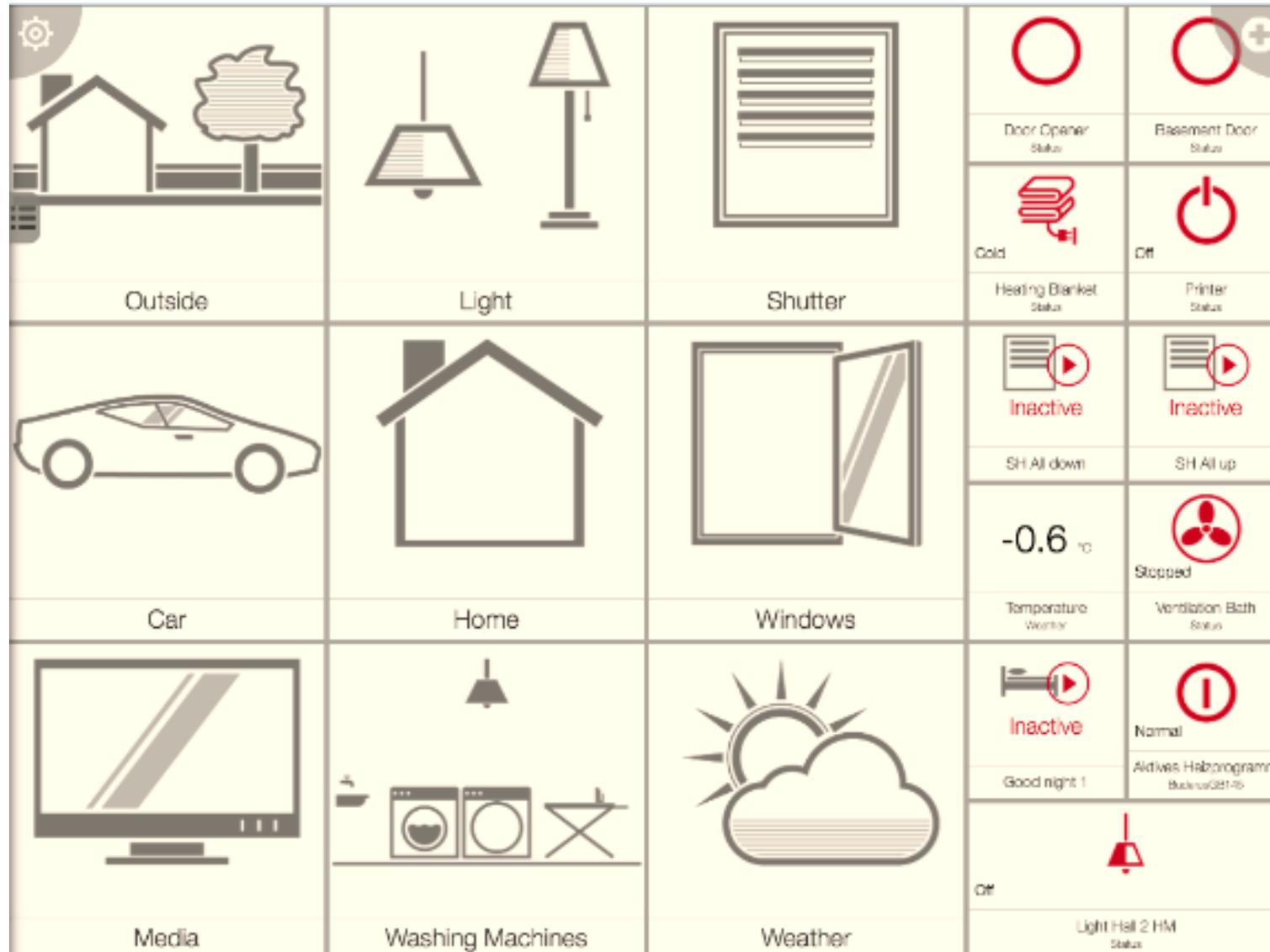
To meet the expectations of today's digitally connected customer, companies must exploit new service models to engage with customers through the use of digital experiences to manage control and convenience.



IBM MobileFirst  
ibm.com/mobilefirst  
#ibmmobile



# IBM develops Template Mobile Apps for Smart Home Service Providers



# IBM provides 'insight as a service' IoT solutions for different industries



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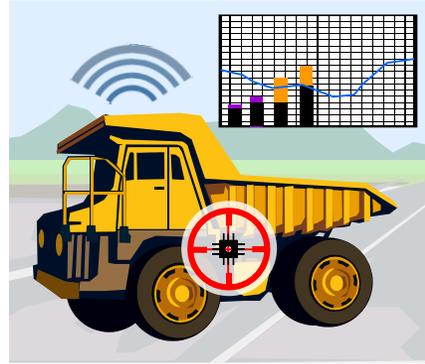
IBM  
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# Predictive Asset Optimization is one of the most important corporate use cases of Internet of Things

Truck publishes data from hundred of on-board sensors



Data indicates fault developing in critical component



Predictive analysis reveals component failure is imminent



Warns driver and instructs him to make a stop at services



Identify and dispatch best skilled repairer with right components



Truck is rapidly and completely repaired on site



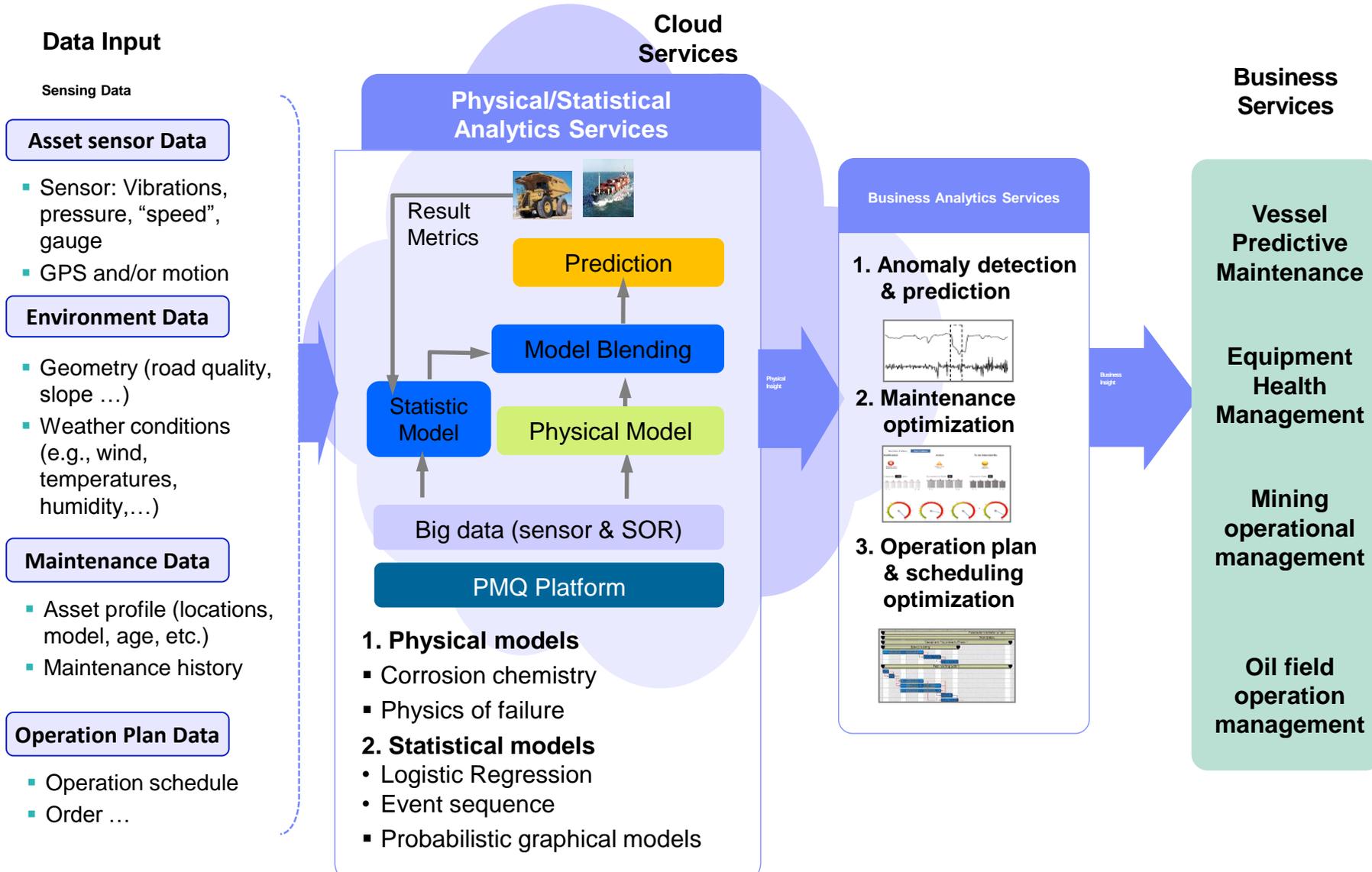
Truck is back en route to client site in full working order



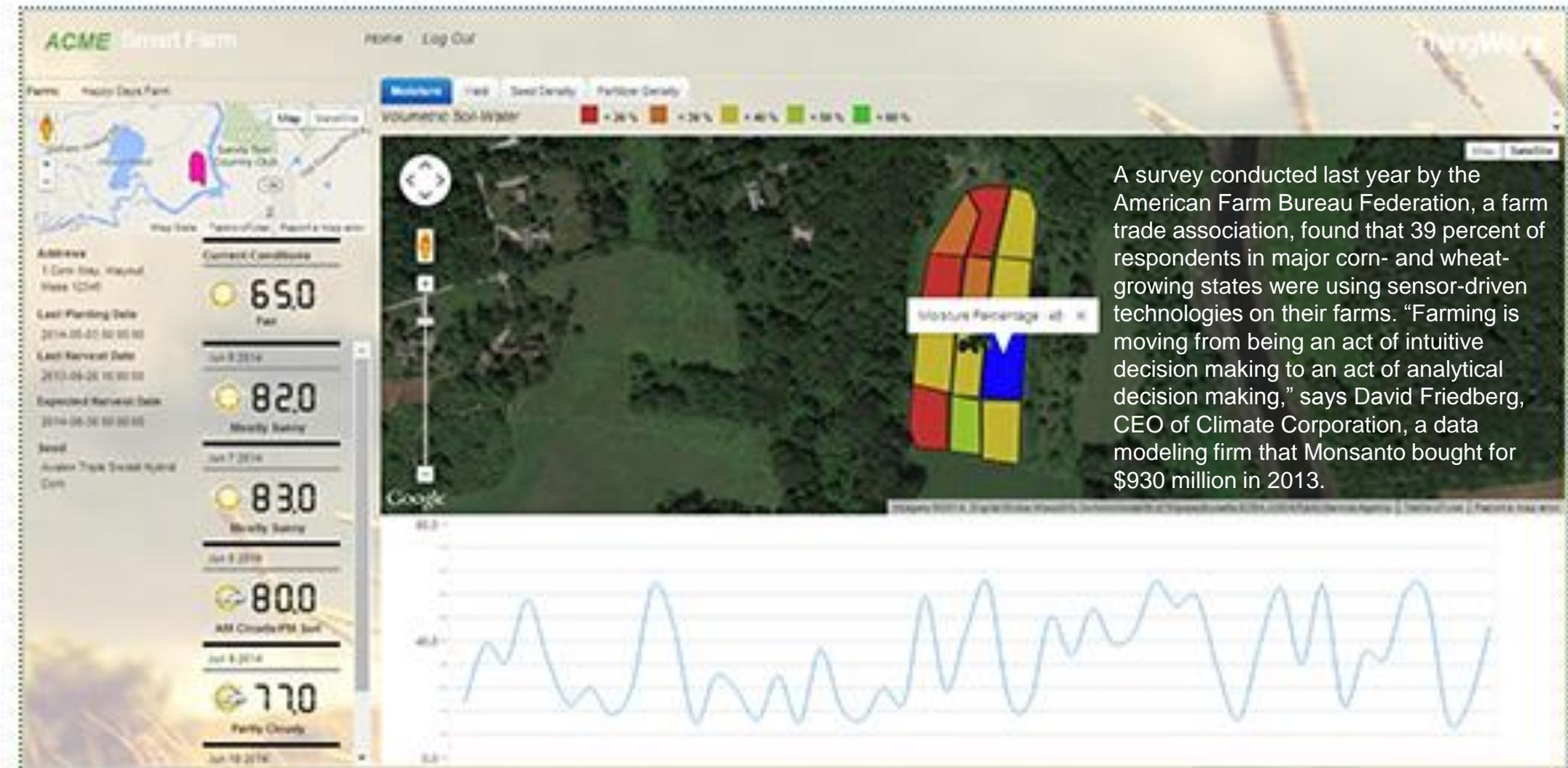
Manufacturers sent aggregated component performance analysis



1% improvements in healthcare, aviation, rail, power and oil and gas industries could bring \$276 billion in efficiency savings to the global economy in 15 years.



# Internet of Farm Things: Companies are competing to turn data into advice on how to farm better, and attracting investments from the likes of Google and Monsanto.



A survey conducted last year by the American Farm Bureau Federation, a farm trade association, found that 39 percent of respondents in major corn- and wheat-growing states were using sensor-driven technologies on their farms. “Farming is moving from being an act of intuitive decision making to an act of analytical decision making,” says David Friedberg, CEO of Climate Corporation, a data modeling firm that Monsanto bought for \$930 million in 2013.

# IBM creates Industry Journey Maps – FarmSight



## Bill Thompson

**Owner:** Thompson Farming  
**Location:** Nebraska  
**Age:** 48

Bill is a 3rd generation farmer who grew up on his family's farm and now runs the 15k acre operation. He is married and has two daughters and a son.

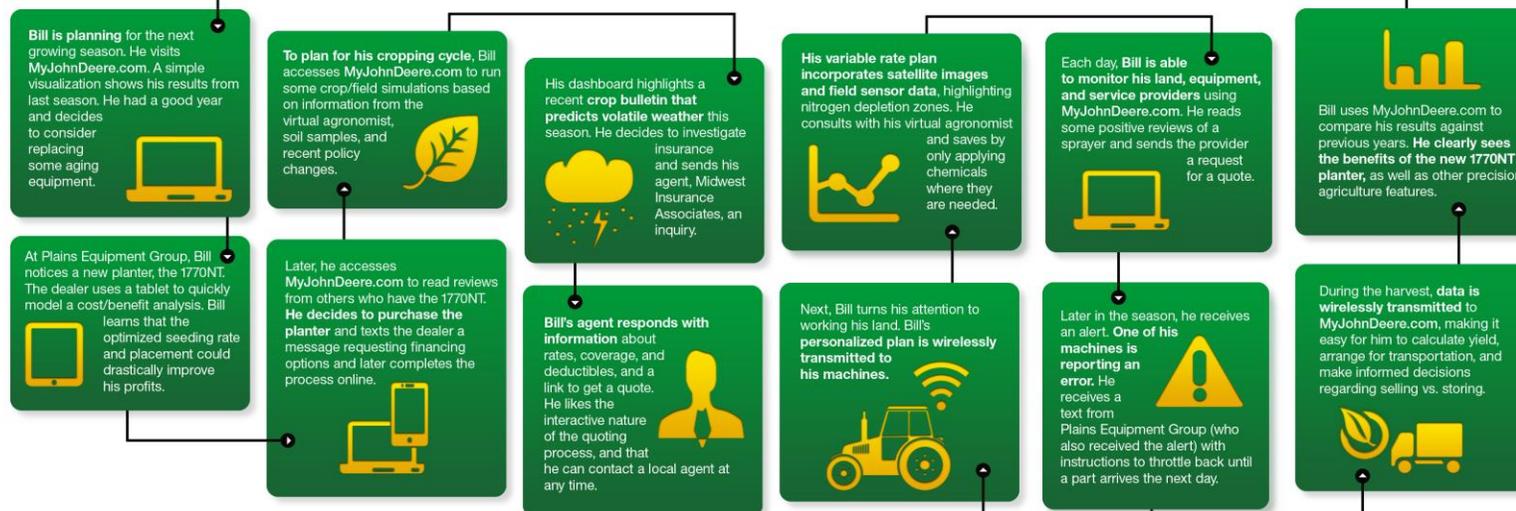
His oldest daughter recently completed her Bachelors of Science in Agricultural and Food Business Management from the University of Nebraska and has been working closely with him on the farm.

Bill, and especially his daughter, are business and tech savvy. Both use tablets and smartphones, and his daughter is very active in social media.

Bill's farm grows corn and soybeans, and with the exception of a few bad years, his crops have performed well. He is interested in ways to reduce cost and increase his yield.

Bill has access to a lot of data – weather, soil moisture, agronomy reports, government policies, etc. – but it is not centrally located and not easy for him to use.

## Empowering the Customer Keeping it Simple.



### Moving Forward with Velocity

- 1. Size the Prize**
  - Business Value Assessments and Technology proofs of concept
  - Utilizing rapid prototyping techniques, an envisioned customer experience drives a range of innovations or "big ideas". These are analyzed and the underpinning capabilities drawn out
  - Capabilities are turned into a to-be architecture and a road map prioritization completed to plan a series of transformational programs
  - The entire process is iterative; at each time testing hypotheses with the environment of real customers
- 2. Prove the Value**
  - Rapid prototyping, industry solutions & assets, and market experiments
  - A focused, yet flexible offering that is intended to help you understand how to most effectively integrate the unique capabilities offered by MobileFirst devices into business
  - Delivers a strategy and plan for achieving the business benefits associated with MobileFirst technology
  - Identifies proven MobileFirst architecture, design, development, security and management practices
- 3. Scale to Win**
  - Global, regional & local development centers
  - Global research labs
  - Global client centers

# IBM creates Industry Journey Maps – FarmSight



## Keeping it Simple.



### Bill Thompson

Owner: Thompson Farming

Location: Nebraska

Age: 48

Bill is a 3rd generation farmer who

Plan

Prep

Seed

Care

Gecmis rekolte performansini online analiz eder ve yeni sezon ihtiyaclarini belirler

Yeni sezon ihtiyaçlari için en uygun makine ve araç önerileri sunulur

Toprak örnekleri, teşvikler, hava tahminleri sanal tarım uzmanı ile simule edilir

En iyi verim için önerilen teknoloji yatırıma yönelik bankaya başvurur

Mobil tarım uygulaması degisken hava kosullarının tarlasına olumsuz etkilerini bildirir

Sigorta sirketi ile tarlasına akıllı sensorler yerlestirir

Tarlasına özel akıllı mobil tarım uzmanından gelen uyarılar ile gubre ve kimyasal kullanımını yeniden duzenler

Sensorlerden gelen anlık bilgi ile tarlasını daha bilimsel yönetir ve verim artisti saglar

## IBM and The Weather Company Partner to Bring Advanced Weather Insights to Business

- Deeper Understanding of Connections between Weather and Business Outcomes Could Save Industry Billions
- The Weather Company Migrates Data Services Platform to IBM Cloud
- Builds on IBM's Open Platform to Advance Internet of Things Solutions



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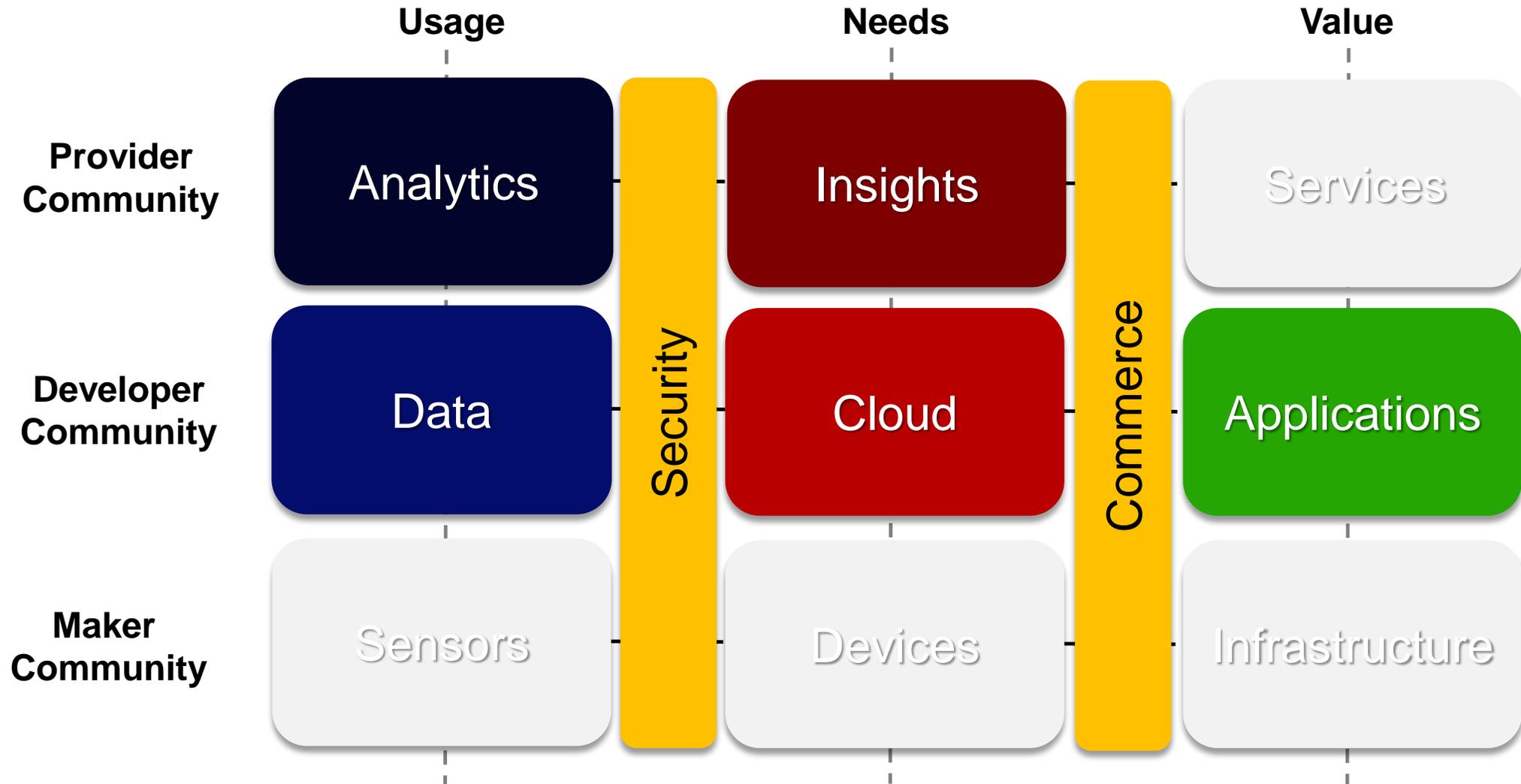
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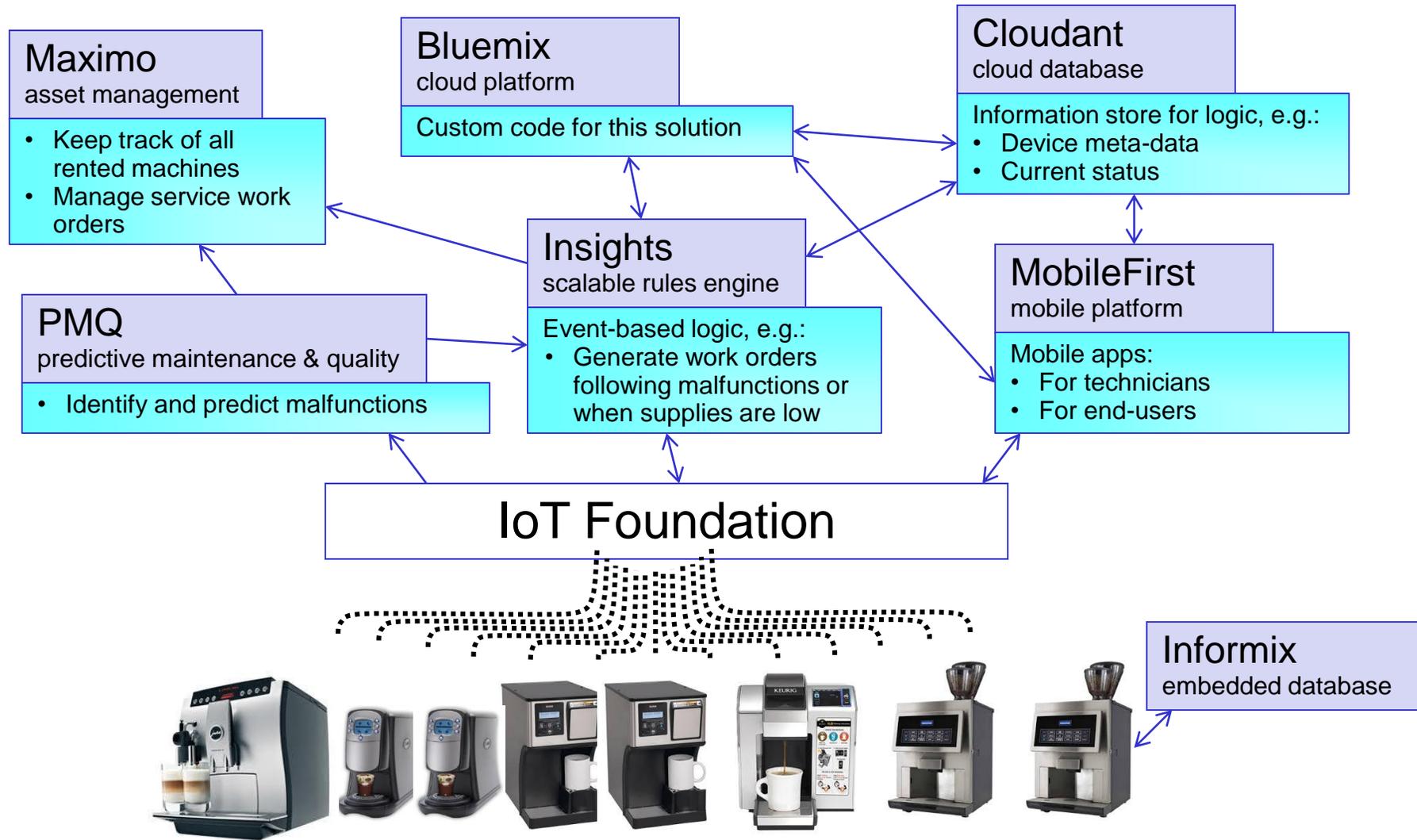
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# IBM Internet of Things Vision

## 3 x 3 Building Blocks



# Hypothetical example: Coffee machine service provider



## Internet of Things (Nesnelerin Interneti) Bankacılık Uygulamaları



Akıllı Şube  
Operasyonel Verimlilik



Yeni Bir Kanal  
Ve Ödeme Sistemi



Risk Yönetimi  
Bireysel/Kurumsal

# Welcome to The Internet of Things



Thank you

IBM Internet of Things

