

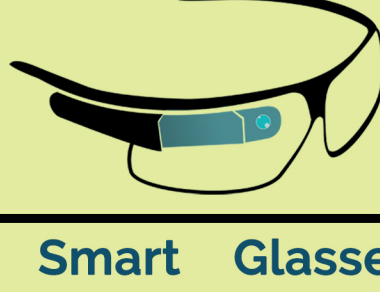
## A GUIDE to the IoT LANDSCAPE-I





# IoT Landscape

## Wearables



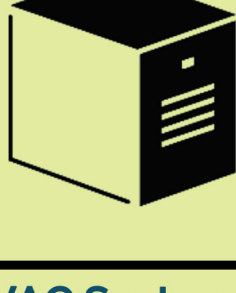
Fitness Bands | Smart Watches | Smart Glasses | Action Cameras

## Connected Cars



Safety | Vehicle Diagnostics | Fuel Consumption | Infotainment and Navigation

## Connected Homes



Smart Thermostats | Smart Appliances | HVAC Systems | Security (Alarm system monitoring, video surveillance)



Smart Lighting | Smart Locks | Entertainment Systems | Fire Intrusion | Solar Energy

## Connected Cities



Smart Meter Technology | Smart Traffic Lights | Smart Parking Meters | Electric Vehicle Charging Real Time Analysis

## Transportation



Fleet Management Services | Cargo Management | GPS Asset Tracking | Fuel Consumption

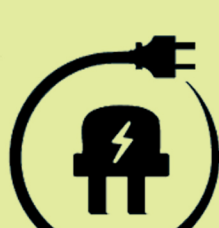
## Industrial IoT – Manufacturing, Oil & Gas

### Manufacturing :



Real Time Analytics | Factory Automation | Robotics | Supply Chain Efficiency | Customized Solutions for Asset Management | Smart Sensors | Data Collection

### Utilities :



Smart meters-energy | fuel consumption for home | smart grid

## Agriculture



Water Resource Management | Weather Information

## Healthcare



Remote Patient Monitoring with smartphone | smart body sensors

## Current Challenges/Limitations/Scenario

1. The data that are used today are mostly for **anomaly detection** and **control**, not **optimization** and **prediction**, which provide the greatest value.



Organizations that lead in analytics outperform those that are just beginning to **adopt analytics by 3times**.



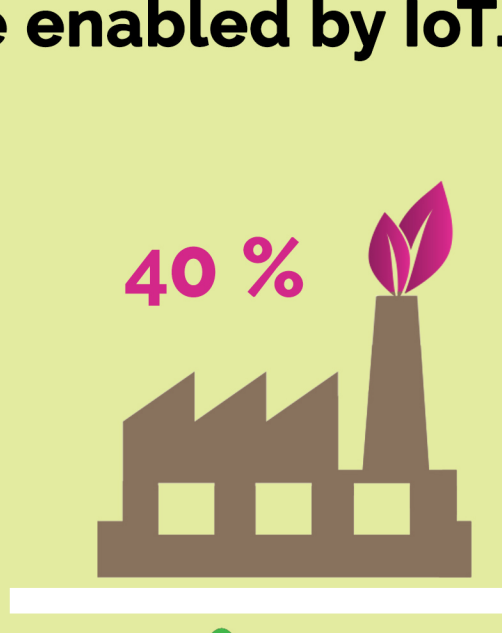
70 %

2. Though there is much hype around IoT applications for consumers such as self-driving cars, smart watches, smart fitness apps etc. **B2B applications** can create more significant value.

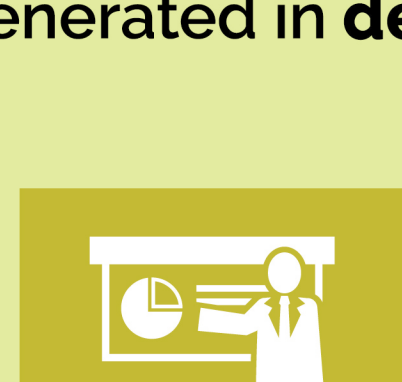


According to a recent study conducted by McKinsey; B2B uses can generate nearly **70 percent of potential value enabled by IoT**.

3. **Brownfield vs Greenfield** Innovation: Increased scope in developing economies vs developed economies due to large scale retrofit processes involved in developed economies.



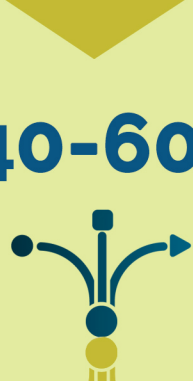
Nearly **40 percent of value** could be generated in **developing economies**.



40-60 %

4. **Interoperability** between IoT systems is critically important to capturing maximum value.

On average, Interoperability is required for **40 percent of potential value** across **IoT Applications** and by nearly 60 percent in some settings.





# Drivers of Global Adoption

Particularly, the cost of sensors, processing power, and bandwidth to connect devices has dropped low enough to spur widespread deployment

## Enablers of IoT

### Cheap Sensors

Sensor **prices** have dropped to an average **60 cents** from **\$1.30** in the past 10 years.



### Cheap Bandwidth



The **cost of bandwidth** has also declined precipitously, by a factor of **nearly 40X** over the past 10 years.

### Cheap Processing

**Low Processing Power:** The processing costs have declined by nearly **60X over the past 10 years**, enabling more devices to be not just connected, but smart enough to know what to do with all the new data they are generating or receiving.

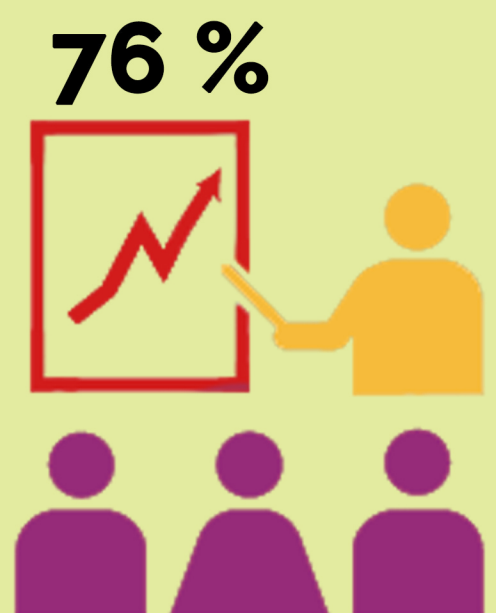


### Ubiquitous Wireless Coverage



### Big Data

Big Data Analytics as a **Key Enabler:** A 2014 research project by IDG estimated that the amount of data managed by organizations will increase **76% within the next 12-18 months**. For e.g. IoT ready enterprises will be able to collect and baseline more than **25 billion** performance metrics for real time analytics.



### IPv6

IPv6 will be **driving IoT development**, since with IPv6, it's possible to use a global network to develop one's own network of smart things and interconnect them with the rest of the world.



(Source : Goldman Sachs, Sep 2014, Global Investment Research)



# IoT Promise & Potential:

Who needs these services?

## Enterprise Side

### IoT Value Proposition

#### Revenue Streams

- (a) Enable **New Business Models** and **Alternative** Revenue Streams  
IoT will be a key driver for **incremental & alternative** revenue streams based on new products and services  
**Data:** Industrial IoT opportunity could amount to **\$2 trillion by 2020**.  
E.g. Remote Monitoring enables anything-as-a-service.



#### Transform Business Processes



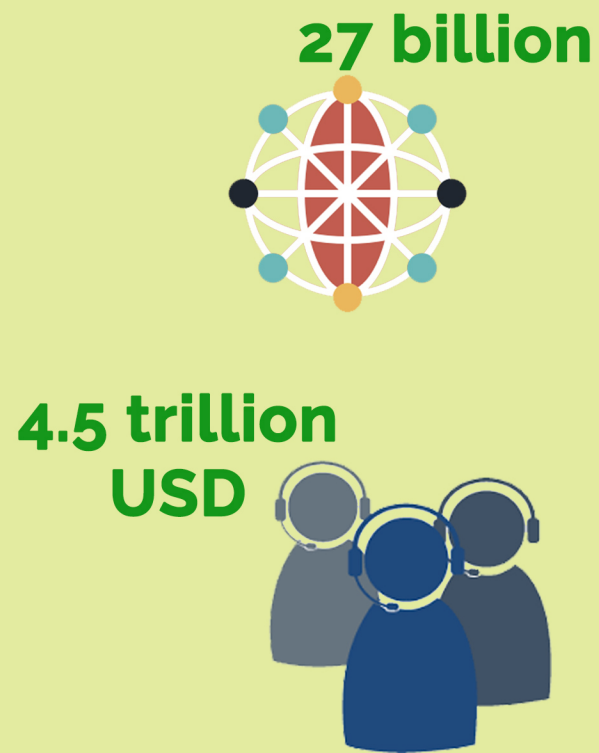
- (b) Higher Productivity, Predictive Maintenance and Better Asset Utilization  
**Smart Lightings** : According to The Climate Group, a non-profit organization dedicated to reducing carbon use, combining LED lamps in streetlights with **smart controls** can reduce CO2 emissions by **50%-70%**.

(Source: HBR Article, Oct 2014 –

The Sectors Where The Internet Of Things Really Matters)

#### Higher Customer Satisfaction and Increase Cost savings

- (c) **Data** : Analysts forecast that there will be in excess of **27 billion connected devices** globally by 2020, with the potential to create value from cost reduction and expenditure on new services to the tune of **4.5 trillion USD**



(Source : GSMA, 2014 Report - Understanding the Internet of Things (IoT))

## Consumer Side

### IoT Value Proposition

#### B2B2C Services

- (a) New Business to Business to Consumer (**B2B2C**) services  
The IoT opens up many vendors to the consumer market, providing Business to Business to Consumer (B2B2C) services to connect and run homes and automobiles — as such all the electronic devices will have a **networking capability making products/services smart and connected**.



Reduce  
40%



**Smart Home** : IoT can help reduce home energy consumption by over 40% in various applications: Lightning Control, Ventilation Control, Room Heating Control, Shutter Control and Heating Automation.

(Source: Goldman Sachs Global Investment Research)

#### Consumer Model

- (b) Transforming the Product Offerings through **Servitization** – IoT will drive the gradual shift from transactional relationships (between the enterprises and customers) to **servitization** (defined as a business model shift in which products evolve to integrated “bundles” of products and services). Thus IoT will force the private and public sectors to provide **flexible Consumer Model** aligned with **User Experience**.



PUBLIC SECTOR

Case in point is an example of **Rolls-Royce's TotalCare service plant** that guarantees product performance by taking responsibility for it. Rolls-Royce doesn't simply sell an airplane engine instead they sell the hours they keep the engine up and running. This not only increases **customer intimacy** and **service revenues** – it has identified **new market opportunities**. In turn, services such as **TotalCare** have supported the creation of **new low-cost airlines**."





# ABOUT ALTIZON

Recognized as **Gartner 2015 Cool Vendor** , Altizon is the **world's first Industrial Internet Platform** company focussed on making Enterprises Internet of Things(IoT) ready.

Our flagship product - the **Datonis IoT Platform**, helps you build your IoT product in weeks by providing device connectivity kits, a device management layer, a highly-scalable, real-time, big-data analytics engine and alerting and monitoring services.

Datonis easily integrates with your existing IT systems to provide a seamless transition between your IoT devices and your IT infrastructure management tools. Datonis is available both in a SaaS as well as in a Hosted model.

We help you build your smart connected devices with the

- **Most Comprehensive Support for Industry 4.0**
- **Industry leading Stream Analytics and Event Rule Engines**
- **Best DIY Enterprise Dashboards**
- **Go Mobile, Go Cloud solutions**
- **Enterprise grade Scalability and Security**

## CONNECT EVERYTHING



Connect Seamlessly  
Collect & Transfer Data Securely  
Manage Devices

## OWN YOUR DATA



Create visualizations  
Build applications using API'S  
LOB Integration

## PROCESS EVERYTHING



Define structure  
Get insights  
Generate alerts & notifications  
Store data securely

## DEPLOY ANYWHERE



SaaS model  
Cloud hosting & support  
Private cloud/On-premise

# CONTACT US

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