

IoT in India

The Next Big Wave

July 2016

Summary

- The Worldwide Internet of Things (IoT) market is poised to be a USD 328 billion market by 2020
- The IoT software capabilities and services market is poised to reach USD 262 billion, occupying the largest space in the IoT market
- The IoT market in India is poised to reach USD 15 billion by 2020 accounting for nearly 5 per cent of the total global market
- Over USD 1 billion investment commitment by the Indian Government on building 100 smart cities every year for next 5 years
- With nearly 120 firms offering solutions in the IoT segment, there are tremendous opportunities for further growth. ~70 per cent of IoT start-ups have emerged since 2010
- Healthcare and manufacturing are the leading verticals demanding IoT solutions. Next-gen commerce along with automotive and transportation/logistics are gaining adoption with connected vehicles and systems
- Investors are showing a keen interest in a number of startups offering innovative IoT solutions with cumulative investment of around >USD 60 million since 2014

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As a part of the NASSCOM Product Council initiative to highlight India’s ever growing role in the global products value chain, we have created the largest compendia of Indian product companies across industry segments (productsmade.in) and have also facilitated the creation of a framework to present an in-depth analysis of each of the six outlined product segments.

We are delighted to put together the sixth installment of the Landscape analysis research papers titled “**Indian IoT – The Next Big Wave**”. The objective of this study is to present a detailed overview of the IoT products landscape in India and discusses key business and technology trends, drivers, and enabling ecosystem for IoT and its sub segments. The report also highlights and profiles cutting edge IoT solutions and products developed by ~94 Indian firms.

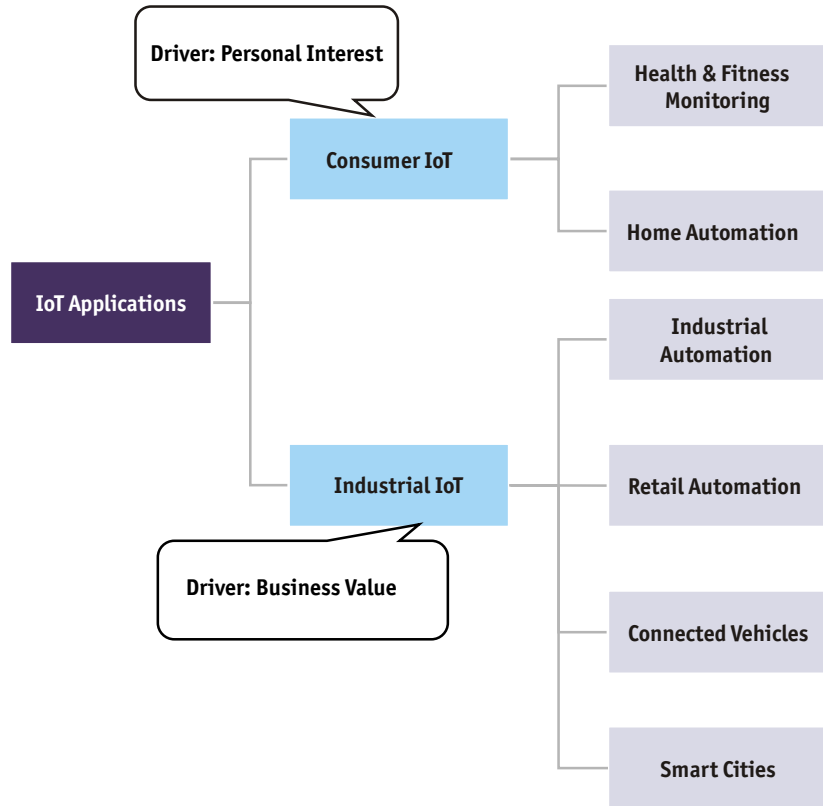
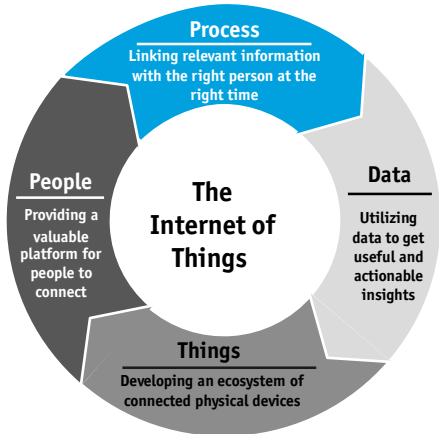
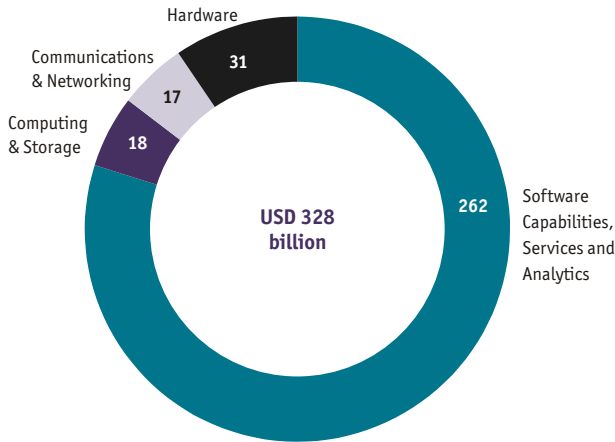
We hope you find this report useful, and welcome your feedback and comments at research@nasscom.in

India: A rapidly growing hub for IoT solutions

1		A growing landscape	~120 IoT firms
2		Addressable market opportunity	~USD 15 billion Total market size by 2020
3		Acceleration in funding	~USD 60 million funding received since 2014
4		Birth of new segments – Smart lifestyle, connected homes and buildings and embedded homes	~70 per cent total start-ups in the space since 2010
5		India to slowly hold a prominent position in the global IoT landscape	~5 per cent of the global market by 2020

Global IoT market- Exceeding USD 300 billion by 2020

IoT Opportunity for technology and service providers- 2020 in USD Billion



IoT provides a unique connectivity that enables businesses to turn data into actionable insights

Source: Deloitte Analysis, Gartner, Technavi, Arc Advisory Group

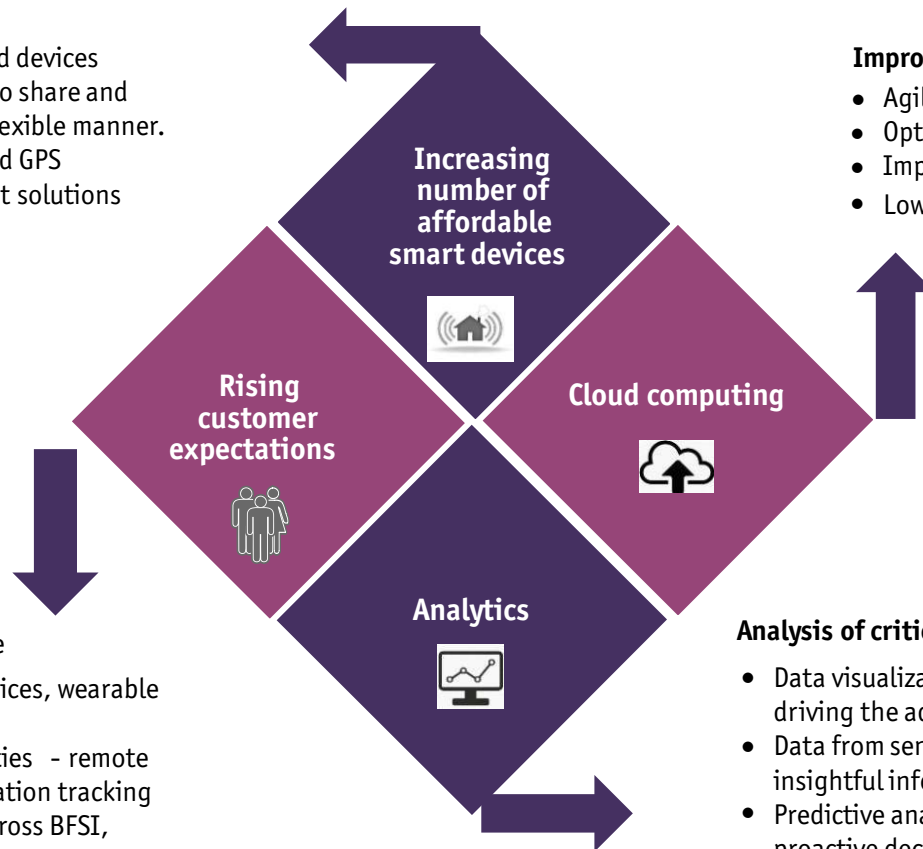
A number of market forces like analytics, cloud computing are driving growth in IoT adoption

Mobility

- More portable and connected devices
- With BYOD, people are able to share and collaborate data in a more flexible manner.
- Smart mobility-transport and GPS management, smart payment solutions

Improved decision making

- Agility in decision making
- Optimization of revenues
- Improved infrastructure
- Low cost benefits



Evolution of a smart lifestyle

- Evolution of a smart lifestyle
- Adoption of smart home devices, wearable technologies
- Improved healthcare facilities - remote monitoring, patient and location tracking
- Evolving business models across BFSI, retail, transport etc.

Analysis of critical data from connected sensors

- Data visualization and dashboards in analytics is driving the adoption of IoT
- Data from sensors is now being used to gain insightful information
- Predictive analytics is enabling enterprises in proactive decision-making

➔ **Impact**

Source: Deloitte Analysis, Forrester

The current IoT landscape is highly fragmented both in terms of industrial and consumer IoT

Global IoT Landscape

Industrial IoT IoT Platforms



Industries

Retail



Healthcare



Automotive



Smart Cities



Industrial Internet



Consumer IoT

Lifestyle



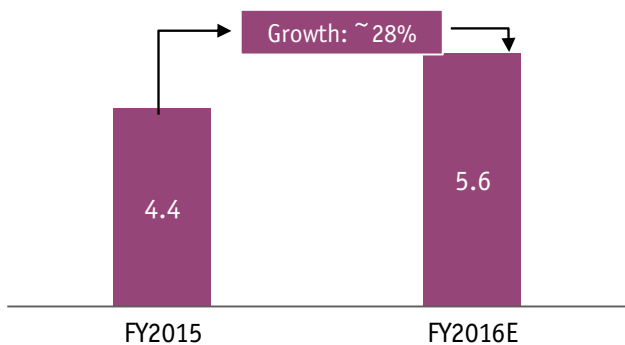
Connected Homes & Buildings



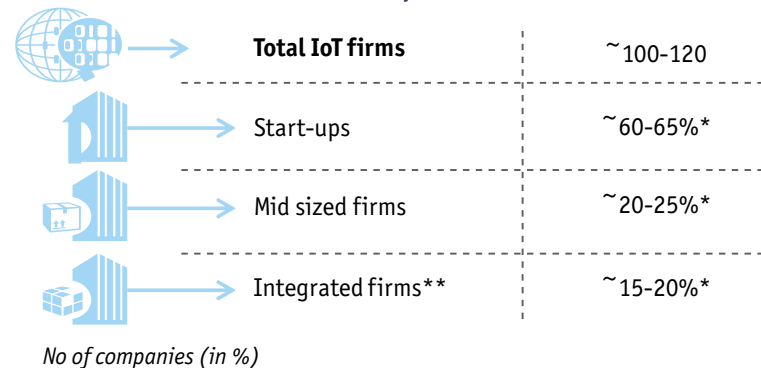
Source: Deloitte Analysis, Gartner, Technavio

Indian IoT market - poised to be a USD 15 billion opportunity by 2020

India: IoT market in USD billion



India: IoT landscape



Potential opportunities in next 5 years - Timeline to turn into opportunities

Verticals		1-2 years	2- 5 years	More than 5 years
Industrial	Buildings	●	●	●
	Public Services		●	●
	Transportation	●	●	●
	Healthcare		●	●
Energy & Utilities	Smart Grid		●	●
	Home Energy Management		●	●
Customer Oriented	Home Automation		●	●

● High potential ● Medium potential

*~74 unique companies providing IoT solutions are evaluated

** IT-BPM firms who offer IoT services and products

Source: Deloitte Analysis, Gartner, TechSciResearch, Department of Electronic and IT

Indian IoT landscape has seen rapid expansion

Not exhaustive

Roadmap of Indian IoT products



Source: Deloitte Analysis, NASSCOM

IoT solutions- driven by the need to ease lifestyle and enabled by cloud computing and analytics

IoT: A top priority for CXO's

Primary factors driving Indian firms to deploy IoT

- 1 Instant & real time decision making
- 2 Rise of big data analytics
- 3 Increasing smart phone and mobile internet penetration
- 4 Changing lifestyles of the consumer becoming more tech savvy
- 5 Need for maintaining a secure and safe working environment to avoid cyber threats
- 6 Cost effectiveness and high ROI

IoT- India demonstrating its growing role with various use cases

• Smart Energy Management



Client – Real Estate Company based out of Pune.

Business case – The firm was working with the Government to create smart cities and wanted to deploy a solution that could monitor power and water levels.

Solution – Implementing Altizon's connected meter resulted in reduced costs along with an automated system that achieved accuracy in energy consumption patterns. A smart water meter was also built that would measure water consumption levels and automatically send a notification or alert to the customer in case of any leakage or problems.

• Inventory and Supply Chain Optimization



Client – The client is a prominent Infrastructure Company.

Business case – To reduce and remotely monitor raw material consumption. They also wanted to automate and streamline processes in production.

Solution – The company started implementing Connect M's remote access management system which monitored and analyzed data in real time. This resulted in a positive ROI within weeks. The data generated was absolutely accurate and there was no time lost in manually entering and monitoring processes in the production.

"Economies of scale with consumer aids adoption in industrial, cloud, communications, sensors, application development tools & security." -Arc Advisory Group

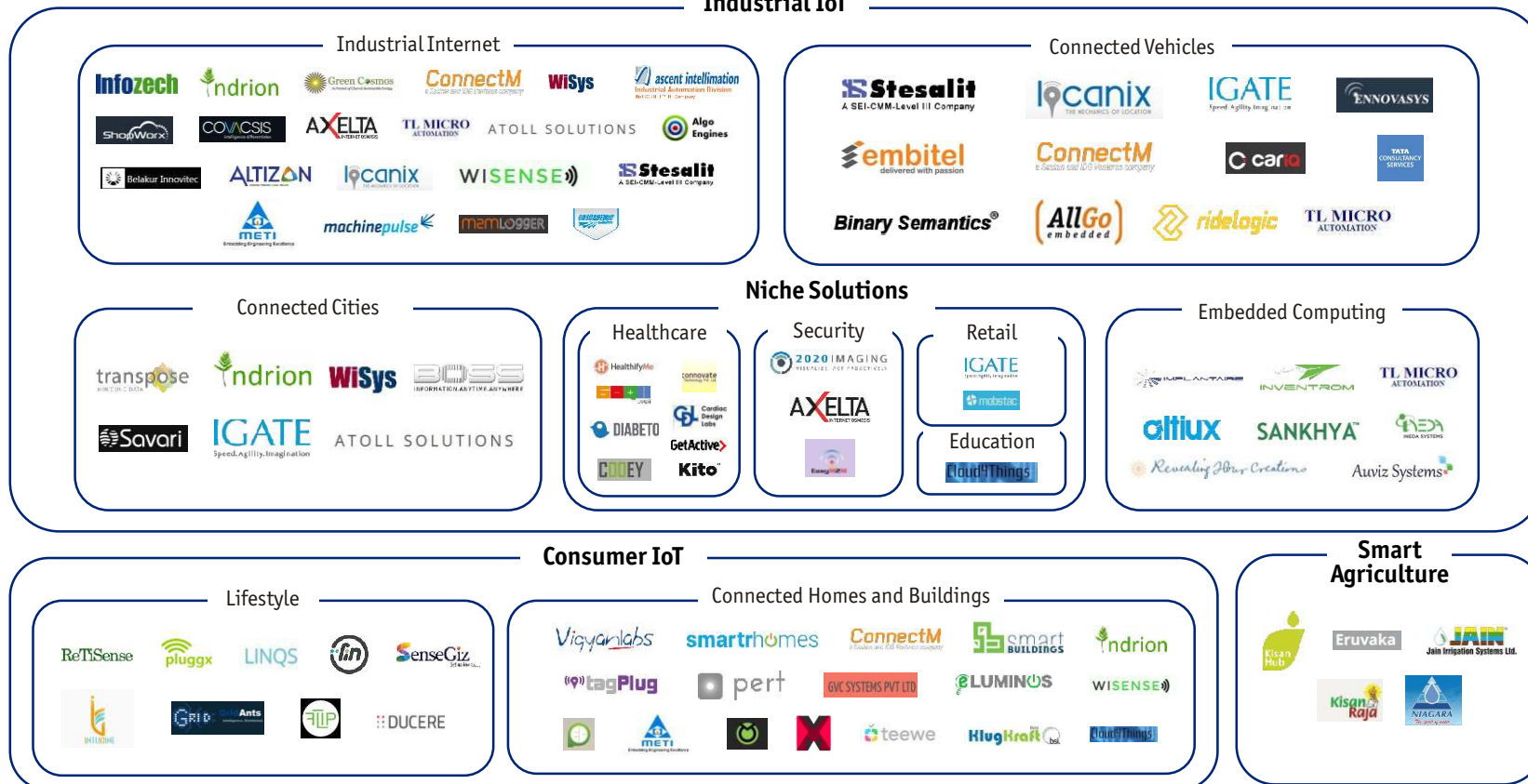
Source: Company websites, Arc Advisory Group, NASSCOM

India: A vibrant Internet of Things ecosystem

Not exhaustive




Internet of Things landscape

Industrial IoT





Source: Deloitte Analysis, NASSCOM

Industrial IoT focuses on high technology areas around sensors and monitoring...

Industrial IoT	Key players	Share (% of companies)*	Key sub-segments	Key/Emerging trends
Industrial Internet		23%	Equipment sensors, machine monitoring	<ul style="list-style-type: none"> Increasing focus on big data analytics that track and analyze the performance of machines, fuel consumption, temperature levels etc
Embedded Computing		9%	Wireless embedded computing	<ul style="list-style-type: none"> Emergence of wireless connectivity, bluetooth etc
			Embedded security	<ul style="list-style-type: none"> Development of embedded encryption, secured computing
Niche Solutions		18%	Healthcare Retail Security	<ul style="list-style-type: none"> Remote patient monitoring Focus on providing personalized customer experiences Focus on surveillance and visualization solutions

*~74 unique companies providing IoT solutions are evaluated
 Source: Deloitte Analysis, Analyst Reports, NASSCOM



with focus on emerging solutions in connected vehicles, cities & embedded computing

Industrial IoT	Key players	Share (% of companies)*	Key sub-segments	Key/Emerging trends
Connected Cities		8%	Smart lighting	<ul style="list-style-type: none"> Increasing importance on energy optimization solutions
			Traffic monitoring	<ul style="list-style-type: none"> Focus on reducing traffic congestion and accidents
Connected Vehicles		13%	Automotive infotainment	<ul style="list-style-type: none"> Demand for low cost cars and HMI systems (Human Machine Interface) Integration of OS of Apple and android in cars
			Telematics	<ul style="list-style-type: none"> Increasing smartphone and mobile internet penetration
			Vehicle Tracking	<ul style="list-style-type: none"> Focus on V2V communication ie sharing information and data across vehicles

Smart Cities is a popular segment in the Internet of Things market space. Traffic monitoring can stand out as the most prominent sector contributing to the concept of smart cities.

*~74 unique companies providing IoT solutions are evaluated
Source: Deloitte Analysis, Analyst Reports, NASSCOM

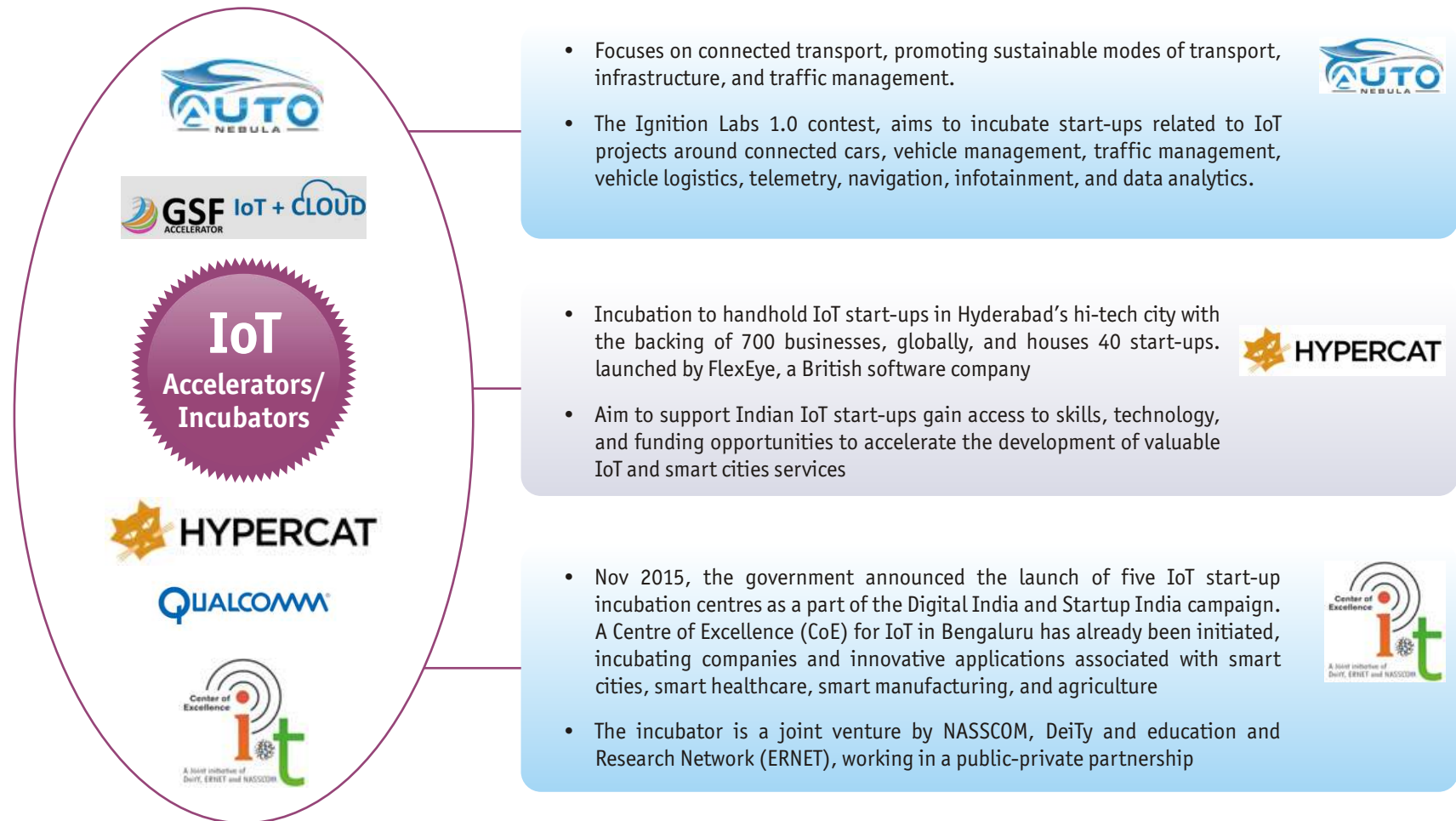
Consumer IoT is emerging with specific focus on connected homes & smart lifestyle

Industrial IoT	Key players	Share (% of companies) *	Key sub-segments	Key/Emerging trends
Connected Homes & Buildings		19%	Home automation	<ul style="list-style-type: none"> Adoption of wireless residential buildings
			Smart meter reading	<ul style="list-style-type: none"> Increasing adoption of renewable energy like solar power grids
Lifestyle		10%	Connected device control and wearables	<ul style="list-style-type: none"> Increasing focus on wireless residential homes and internet enabled devices that allow remote monitoring

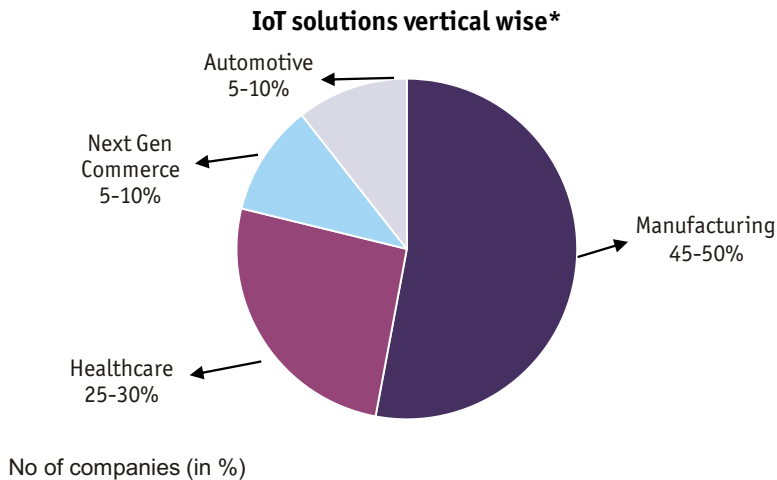
Under the connected home space, home automation, smart meters and other energy saving solutions will be of utmost priority going forward

*~74 unique companies providing IoT solutions are evaluated
Source: Deloitte Analysis, Analyst Reports, NASSCOM

Incubators and accelerators provide funding, mentorship and networking opportunities, along with business support



Manufacturing, Healthcare – prominent verticals in IoT adoption



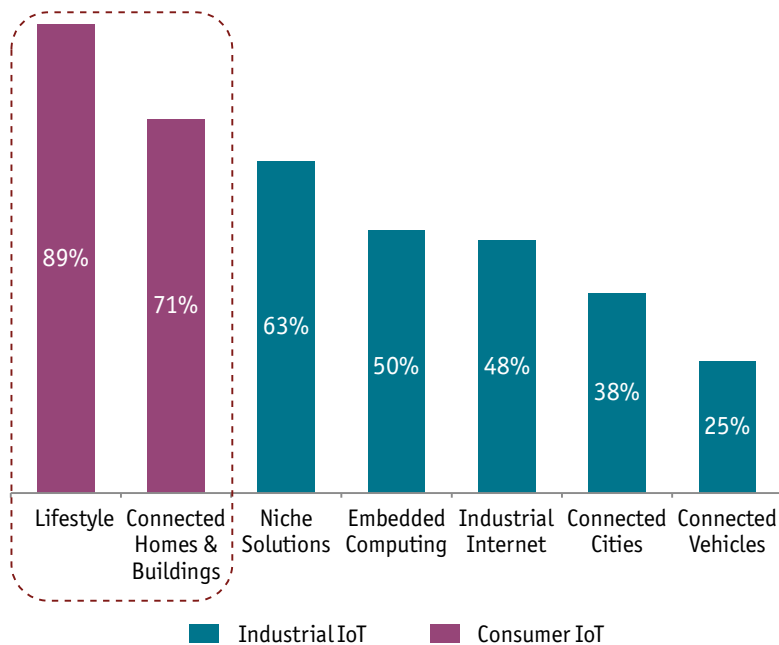
	Top verticals	Key players
Traditional	Manufacturing	
	Healthcare	
Emerging	Automotive	
	Nex Gen Commerce	

Top verticals served by each segment				
Segments	Rank	I st	II nd	III rd
Industrial Internet		Manufacturing	Utility services	Transport & logistics
Niche Solutions		Manufacturing	Healthcare	Next Gen commerce
Connected Homes & Buildings		Manufacturing	Consumer services	Across
Lifestyle		Manufacturing	Healthcare	Across

*-74 unique companies providing IoT solutions are evaluated
Source: Deloitte Analysis

Start-ups are focusing more on emerging innovations around consumers

Segment-wise split of Indian IoT start-ups incorporated 2012 onwards*



Note: A startup can operate in multiple segments, hence, the total doesn't round off to 100%
 *-74 unique companies providing IoT solutions are evaluated
 Source: Deloitte Analysis

Lifestyle is getting more advance and connected with adoption of IOT applications

- *Connect every application for better Lifestyle* - IoT applications enables one to control any smart devices by moving his/her thumb over other fingers. One can assign each activity of the connected devices such as smartphones and TV sets, music systems & A/C inside the car and control activities.
- *Wearable fitness tracking devices* - Connected wearables that helps one to monitor his/her fitness activity statistics.

GridAnts- Lifestyle



- Grid Ant Technologies is a technology innovations start-up focusing on distributed computing. Its flagship product Cubeit helps connect all of the devices you own and provides seamless access to your data and software globally
- *Raised USD 3 million in seed funding from Accel Partners and Helion Ventures in Sep 2014*

Smarthomes- Connected Homes & Buildings

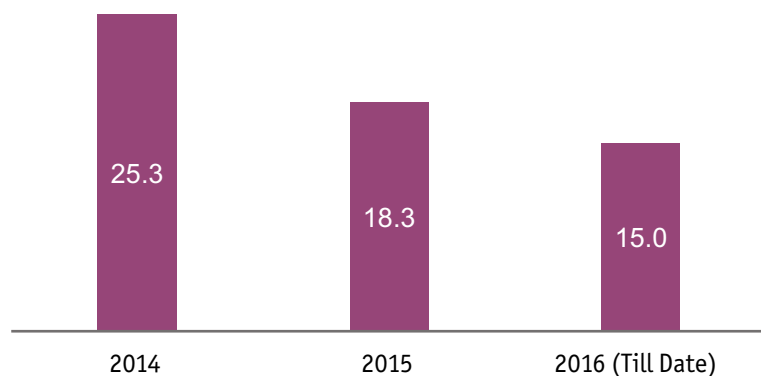


- Set up in 2014, Smarthomes provides solutions like real time measurement, monitoring and control of utility devices such as water, energy and gas meters.
- *The company is bootstrapped, and has a diverse set of clientele both in India and around the globe.*

Funding gains momentum as IoT firms receive ~ USD 60 million funding in the last 3 years

Not exhaustive

Total IoT funding (USD million)



Funding received in IoT in each category

Top 4 areas

- 1 Lifestyle/ wearables
- 2 Embedded computing
- 3 Industrial internet
- 4 Connected homes

Funding received to Internet of Things firms in India



















Company	Investor	Amount (USD million)	Year	Series/Round	Products offered
Altizon Systems	Wipro Ventures, Lumis Partners and current investors, The Hive and Infuse Ventures	4	2016	Series A	Industrial Internet
Smartron India	Sachin Tendulkar	Undisclosed	2016	Angel	Embedded Computing
Ineda Systems	Walden Riverwood Ventures, Samsung, Qualcomm Ventures, Amount (USD millions)	17	2014	Series B	Embedded Computing
Azoi	Undisclosed	3	2014	Round 1	Niche Solutions

*~74 unique companies providing IoT solutions are evaluated

Source: Deloitte Analysis

Enterprises are driving the use of IoT software to help tackle major business challenges

Following are the key use cases observed across various market segments:

	Key players	Key verticals	Key benefits
Enhancing Security and Surveillance and Visualization Solutions	  	<ul style="list-style-type: none"> • Across Sectors 	<ul style="list-style-type: none"> • Mitigation of cyber threats and unauthorized use of computer networks • Secure network to perform critical tasks
Continuous Vehicle Tracking	   	<ul style="list-style-type: none"> • Automotive • Transport & Logistics • Manufacturing 	<ul style="list-style-type: none"> • Real time location of products and order management • Traffic monitoring and reduced congestion
Smart Energy Management	   	<ul style="list-style-type: none"> • Manufacturing • Government & Defence • Across Sectors 	<ul style="list-style-type: none"> • Monitoring energy consumption through remote locations • Avoidance of breakdowns and load shedding
Machine Monitoring	   	<ul style="list-style-type: none"> • Manufacturing • Healthcare • Services 	<ul style="list-style-type: none"> • Measuring machine performance and KPI's • Real time alerts
Health/ Fitness Monitoring	  	<ul style="list-style-type: none"> • Healthcare • Manufacturing 	<ul style="list-style-type: none"> • Mitigate the risk of diseases • Effective customer engagement by remote monitoring

*~ 74 unique companies providing IoT solutions are evaluated
 Source: Deloitte Analysis

Concerns relating to technology obsolescence and security, are some of the key factors limiting IoT adoption

Security

- Security is essential not only to protect physical assets, but also to protect confidential personal and/or corporate information. Security weaknesses are raising concerns as interconnection of physical assets containing critical data on the internet is exposing and increasing the risk of theft.

Lack of understanding

- Unpreparedness to adopt IoT solutions due to lack of awareness on the benefits that IoT can offer, high IT infrastructure investments and concerns on ROI. Lack of use case scenarios or case studies is adding to this problem.

Lack of uniform standards

- According to Gartner, “Standards in the IoT are generally lacking in many areas, such as security, data, integration and wireless protocols. As IoT systems target mainly environments with a heterogeneous mix of technologies, lack of standards will be a key deterrent for the IoT working in a cost effective manner .”

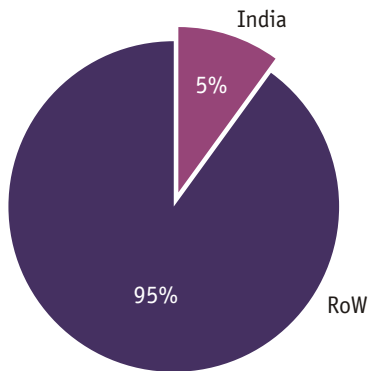
Low willingness to adopt

- Although there are no technological barriers related to IoT adoption, there are still concerns both with respect to the demand and supply side to adopt IoT. For OEMS, the business justification comes from closed-loop PLM (to improve equipment design and market share) and after market services (to increase revenue).
For end users, the business justification focuses on equipment related issues causing unplanned downtime and multi-million dollar revenue losses.

Source: Arc Advisory Group, Gartner

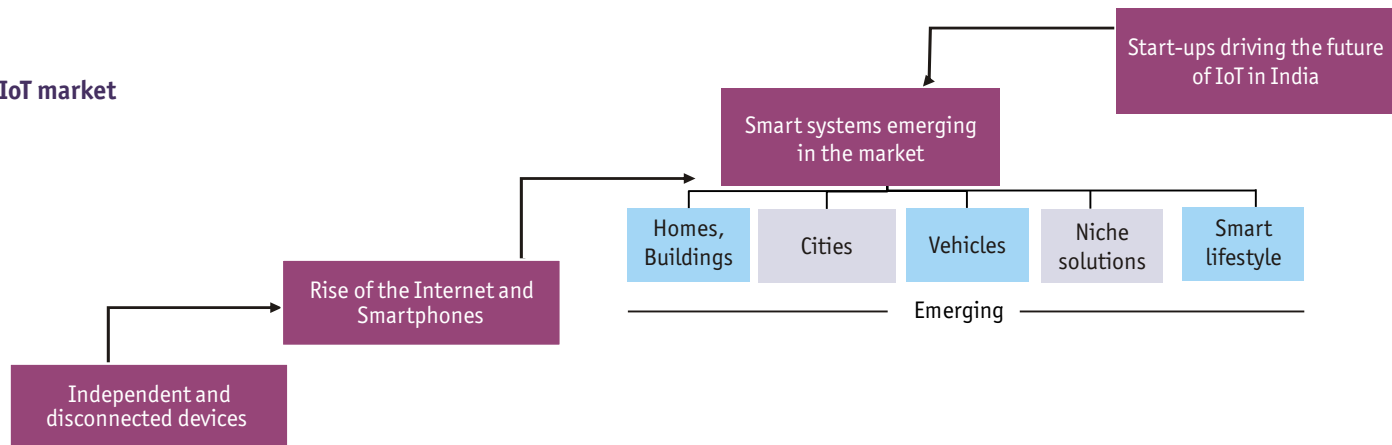
The IoT market in India is poised to become a USD 15 billion opportunity by 2020

Share of India in the Global IoT market - 2020



- 1 The Indian market is projected to become a USD 15 billion opportunity by 2020, accounting for nearly 5 per cent of the global market
- 2 Connected vehicles, smart cities and Industrial IoT to generate maximum demand
- 3 Start-ups to drive the market - With almost 60 per cent start-ups incorporated post 2010
- 4 Next Gen Commerce and Transport/Logistics would be the highest demand generating verticals by 2020

Expected evolution of IoT market



Source: Deloitte Analysis

A quick glimpse of Centre of Excellence - IoT



ENGINEER
NURTURE
ALIGN
BUILD
LEVERAGE
ENERGISE

- Joint initiative on PPP
- Cluster of COEs
- Open innovation
- Physical infrastructure lab
- Eco system development

Creators

NASSCOM®

ERNET
Indian Research & Education Network



A Joint initiative of
DeitY, ERNET and NASSCOM

ELECTRONICS INDIA
National Electronics Alliance



Founding Partners

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High performance. Delivered.

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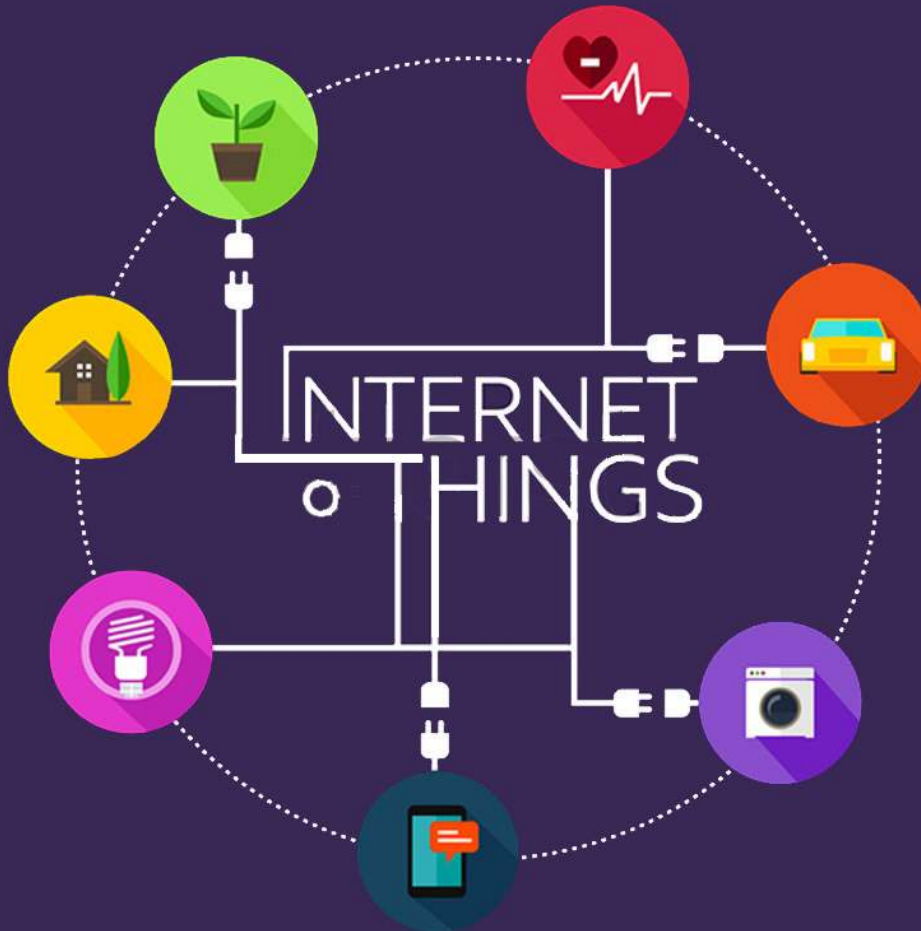


KPIT

Schneider
Electric

tyco




TEXAS
INSTRUMENTS







Indian IoT Products Profiling

July 2016






Product Profiling (1/24)

	Year of inception	Product Category	Key Products
Ennovasys 	2008	Connected Vehicles	<p>1. GPS - Vehicle Telematics and In-Transit Visibility:</p> <ul style="list-style-type: none"> ES200E and ES400E is a terminal with GPS and GSM connectivity, which is able to determine the objects coordinates and transfer them via the GSM network. HF RFID is using a combination of RFID and GPRS for Students/Assets which tracks the locations, vehicle conditions, the content inside the vehicle. UHF RFID is a global tracker which tracks the locations, vehicle conditions, the content inside the vehicle, condition of the content using a combination of RFID, GPRS and GPS. ES800E 2.4 is a global tracker which tracks the locations, vehicle conditions, the content inside the vehicle, condition of the content using an combination of RFID and GPS.
Altix 	2013	Embedded Computing	<ul style="list-style-type: none"> Mobility Framework: Enables accelerated development of native and cross platform apps. IOTEE Platform: Supports multiple connectivity protocols, device management capabilities including authorization and authentication, Data management and routing. BoxPwr connectivity middleware: connects constrained devices to IOT network; Intelligence Analytics Platform: Store, process and view data - real time and batch processing. Optimized for machine data. Reference hardware: Gateways and border routers.
Altizon 	2013	Industrial Internet	<ul style="list-style-type: none"> Datonis™ Platform - The Datonis platform is amongst a select set of products globally that provide a device cloud, a Big Data engine and an application development platform for the Internet Of Things. The platform helps securely manage devices, collect data and run analytics on it in real time. Available as PaaS and on-premise. Aliot Device SDK - The Device SDK is a component that can be embedded in your device and can be used to securely stream data in real-time to the Datonis platform. Available in Java, Python, C and ported for STM32 and PIC32. Aliot Appliance - The Aliot appliance is a ready to go appliance to connect to any kind of machine with analog and digital sensors. It also acts as the gateway to connect the machine to Datonis. Aliot Smart Grid Appliance - The Smart Grid Appliance is built to remotely monitor power availability and quality. The appliance is built to withstand power and network outages.




Product Profiling (2/24)

	Year of inception	Product Category	Key Products
ConnectM 	2007	Connected Homes and Buildings, Industrial Internet & Connected Vehicles	<ul style="list-style-type: none"> ConnectM's M2M Solution Delivery platform provides a robust and scalable framework for organizations to develop customized solutions faster. The M2M SDP from ConnectM is available as Platform-as-a-Service (PaaS) with benefits of enabling the applications to be available on cloud with low risk and cost of maintaining the services. Connect SDM has been already been used in buildings for building energy management, energy and water metering, etc. Yantra Cloud, M2M Solution Delivery Platform is designed to help equipment manufacturers, system integrators, IT companies, Software service providers who look forward for delivering innovative M2M solutions across various industry verticals. The platform supports connectivity with any device deployed anywhere across globe.
CarIQ technologies 	2013	Connected Vehicles	<ul style="list-style-type: none"> CarIQ Device: collect data from various electronic systems on your car such as the engine, ABS, air bag system, amongst others. This data is collected along with location information and transmitted to the CarIQ platform. On the platform, data is crunched into meaningful and actionable data points. CarIQ Connected Car Platform: The Connected Car platform derives data from the car's microcomputer, and posts it to the servers hosted on the cloud. This data is analyzed and reports generated on the condition of the car, driver credibility, and much more.
RHLvision technologies 	2012	Lifestyle	<ul style="list-style-type: none"> Bluetooth-enabled device called Fin, which enables one to control any smart devices by moving his/her thumb over other fingers. One can assign each activity of the connected devices such as smartphones and TVs to each segment of his/her fingers which can then act as hot keys.
2mpower health management services 	2009	Niche Solutions	<ul style="list-style-type: none"> Wearable fitness tracking device called GetActive. It is a wrist-based device that helps one to monitor his/her fitness activity statistics. The device also enables one to synchronise data with his/her smartphone using bluetooth.




Product Profiling (3/24)

	Year of inception	Product Category	Key Products
Ducere Technologies 	2011	Lifestyle	<ul style="list-style-type: none"> GPS-enabled smart sports shoe called LeChal that vibrates to give the wearer directions. The red sneakers can also count the number of steps taken, distance travelled and calories burned.
Connovate Technology 	2012	Niche Solutions	<ul style="list-style-type: none"> Connovate WeighSmart CWS is an advanced digital health scale that comes along with a free smart phone app. CWS has in-built Bluetooth Low Energy (BLE) technology that records the weight every time you step on it. The recorded weight is transmitted instantly to your smart phone. Track the weight along with corresponding BMI (Body Mass Index) on your smart phone.
Ineda systems 	2010	Embedded Computing	<ul style="list-style-type: none"> Develops IP chips for wearables and IoT market segment. The firm develops low-power system on chip (SOC) for use in both consumer and enterprise applications. The Dhanush WPU is an industry-first wearable SOC that addresses all the needs of the wearable device market. It features hierarchical computing that allows applications and tasks to run at the right power optimized performance and memory footprint and has an always-on sensor hub optimized for wearable devices.
Pluggx Labs 	2012	Lifestyle	<ul style="list-style-type: none"> Pluggx allows users to control their home and also learns from their habits, lifestyle and schedule, to automatically suggest ways to save money.
Transpose India 	2013	Connected Cities	<ul style="list-style-type: none"> Transpose has devised an intelligent, portable product (sensors), which once positioned would get you pedestrian and vehicle counts; whenever, wherever. Apart from just that, there is room to understand the changes and patterns that take place there over a period of time.




Product Profiling (4/24)

	Year of inception	Product Category	Key Products
Azoi 	2011	Niche Solutions	<ul style="list-style-type: none"> Product Wello, a feat in engineering that conceals itself as a phone case and syncs to smartphone to test and track owner's health. Wello name has changed to Kito. Kito is a health tracker that's ever so simple and smart. And because it doubles as a phone cover, it's handy too. User simply holds it and hidden sensors begin testing their vitals. This information is then quickly passed to an app that's synced to phone. Not only do users get an instant idea about their health, over time they are able to see patterns that help them manage their life better.
Locanix 	2012	Connected Vehicles & Industrial Internet	<ul style="list-style-type: none"> Track-N-Trace: An affordable, reliable and plug-n-play GPS tracking solution, it provides with many quintessential features to help manage fleet, such as real-time tracking, animated vehicle trails, history tracking, trip and idle reports, over-speeding and fuel wastage alerts, tablets and smartphone support, etc. Smart-Fleet: A suite of advanced GPS Tracking solutions to help you optimize your fleet. It is hosted on very reliable servers to make sure it is always accessible at anytime anywhere and from any device. Fuel Monitoring: Digital Fuel Level Sensors designed for precision fuel level measurement in all kinds of vehicles tanks and tanks of fixed installations. Temperature Monitoring: Locanix temperature monitoring solutions ensure that top of the line sensors are mounted in the area where the temperature has to be maintained and that real time information is transmitted.
Intugine 	2013	Lifestyle	<ul style="list-style-type: none"> Nimble tip-This ring is designed for finger tip. It is less than 2 cm long and fits in most fingers. There are two such rings , one each for index finger and thumb. Software starts tracking the rings as soon as you wear them. These two rings alone can effectively replace mouse and keyboard. Nimble touch-Designed to fit in most of the fingers, it has a small and soft button at the top. Our software starts tracking the ring as you press the button. Sensor-Our sensor plugs into the USB port of your computer. This 3 inch long, powerful sensor converts 15 ft in its front, into your workspace. It finds your position with sub-millimeter accuracy and updates it many times faster than a human eye can observe.





Product Profiling (5/24)

	Year of inception	Product Category	Key Products
Linqs 	2014	Lifestyle	<ul style="list-style-type: none"> • 1Card: 1Card is a digital business card that enables quick transfer of your contact, social & location details from a beautiful online profile to a phone's address book within seconds. • Cloudbook: Cloudbook imparts a virtual memory to physical objects. Cloudbook is sticky tag that allows you to store notes & pictures about your things on your things. Just tap your smartphone on a Cloudbook stuck to an object to add & retrieve notes & pictures. • AmILost Tags: AmILost Tag is the easiest way to recover your lost assets. These tags attached to your valuables, when accessed by the finder of your valueable, reveal your contact details. • Linqup Tags: Linqup Tags let product manufacturers & marketers to be connected with their customers during the entire product lifecycle. Using LINQS Hub, they can remotely manage the content shown by these tags & also view insightful analytics about the customer interactions with the products.
Smarthomes 	2014	Connected Homes and Buildings	<ul style="list-style-type: none"> • Water0n - an intelligent combination of the world's most successful domestic water meter and cutting edge electronics offering more than just metering. Now you can measure, monitor and control - in real time.
Wisense 	2007	Connected Homes and Buildings, Industrial Internet	<ul style="list-style-type: none"> • Home Automation: Use humidity sensors to know when your plants need water. Bring in your clothes when it's about to rain. Locate easily your misplaced car keys. Receive an alert if your refrigerator door is left open. Receive alerts remotely if intruders are detected. Use a pressure sensor to figure out the level in your water tank. Use your mobile phone to monitor all of these and more. • Supermarket Dynamics: Motion sensors and proximity sensors are key to location-based data gathering. A wireless sensor network in a supermarket can give valuable information about visitor numbers and peak hours. • Smart Building: Optimize energy consumption across the building by switching off air-conditioning in empty rooms or turning on lights only when natural lighting is unavailable. • Industrial Automation: Track important assets at industrial sites. Gather relevant sensor data and log the same in a printing press factory floor.





Product Profiling (6/24)

	Year of inception	Product Category	Key Products
GVC Systems 	2004	Connected Homes and Buildings	<p>Design develop and manufacture smart electronics portion of devices such as elevators, security systems, home products, biometric attendance systems etc.</p> <ul style="list-style-type: none"> • I/O Modules: Their design modules for I/O devices means that they can control I/O (Input and output) devices such as elevator, traffic lights, water filters, home light, etc. using their product design. • Sensor modules: Most of the electronic products need some sensors to monitor some parameters before an action is taken. Simple examples are temperature sensors to switch on/off the air conditioners or speed sensors in vehicles to alert when it over speeds. • Interface Modules: Most of the electronics product need to interface with other electronic products and communicate some thing. A simple example if a remote controls TV Channel. Both are different electronic items and communicate with each other via infra red rays. Similarly two different mobiles interface with each other via GSM Network. GVC have good experience and lot of interface modules. Some of them are: numeric display, LCD, wifi, bluetooth, USB port, etc.
Smartswitch 	2014	Connected Homes and Buildings	<ul style="list-style-type: none"> • Control your home no matter where you are and free your mind from the routines of managing your home with smartswitch.
Sankhya technologies 	1996	Embedded Computing	<ul style="list-style-type: none"> • Sankhya Teraptor: The system modeling languages viz., SMDL, SSDL, CBDL (currently available to customers), VSL and Progressive C (not generally available) supported by SANKHYA Teraptor provide a unified framework for designing a variety of software / hardware systems from simple RISC and DSP to arbitrarily complex HPC architectures as well as large distributed systems. Teraptor is a platform approach to create, specify, model, integrate, optimize, virtualize and synthesize the next generation of high performance intelligent devices.






Product Profiling (7/24)

	Year of inception	Product Category	Key Products
Covacsis 	2009	Industrial Internet	<ul style="list-style-type: none"> IPF™ - Intelligent Plant Framework extracts data from disparate machines across the shop floor and provides cost, quality and productivity diagnosis in real time. eBMR - Electronic Batch Manufacturing Record provides pharmaceutical solution assuring paperless manufacturing through electronic workflow management by seamlessly collecting data from equipments and ensuring compliance to quality norms(CFR part 11).
Mobstac 	2009	Niche Solutions	<ul style="list-style-type: none"> CXMstac: A cloud platform that enables you to manage rules, messaging and analytics of your indoor, location-aware mobile apps built on top of Cisco™ CMX (Connected Mobile Experiences). Beaconstac: Beaconstac enables businesses to deliver superior customer experiences through the use of iBeacons for engagement, messaging, and analytics.
Savari 	2008	Connected Cities	<ul style="list-style-type: none"> Savari WAVE Stack-Savari provides a IEEE-WAVE compliant stack and software development tools that speed up the development and the validation of 1609.x DSRC based ITS applications, thus, reducing significantly the time to market. StreetWAVE™ Roadside Unit-Savari's StreetWAVE™ Roadside Unit is a fixed wireless gateway that can be mounted on a road side traffic pole. Designed as a flexible platform for deploying Intelligent Transportation Systems (ITS) applications, StreetWAVE™ makes e-payment applications easy and improves mobility and safety on the roadways. Smart Apps-As an industry leader and to showcase proof of concept, Savari has developed applications for Safety and Mobility. Our solutions showcase both V2V and V2I technologies.
Inventrom 	2012	Embedded Computing	<ul style="list-style-type: none"> NetPlug: Give the power of IoT to your appliance/device. Simply plug in NetPlug into your existing system and it can be controlled over network. Robotics and embedded systems R&D platform. Topping Pi: This board designed by Inventrom allows you to have seamless ADC conversion, connect 12V DC motors, control speed of the motor by hardware PWM, interface servo motors, 5V sensors to a Raspberry Pi. ZAZU WIRELESS PROGRAMMER: Program AVR based controllers wirelessly .

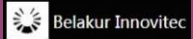




Product Profiling (8/24)

	Year of inception	Product Category	Key Products
Tagplug 	2014	Connected Homes and Buildings	<ul style="list-style-type: none"> Platform for home automation that features-: Presence detection, auto disconnect charger, remotely turn off AC, energy monitoring, alarm etc.
Infozech 	1999	Industrial Internet	<ul style="list-style-type: none"> Energy Tracking Service (ETS): A service that helps passive infrastructure providers and energy management companies track and monitor energy consumption at tower sites. Infozech Best Value Recommender (iBVR): An automated solution for improved user segmentation and closer identification of promotional schemes. Mobile Applications: Targeted towards network providers who face time and distance constraints in efficiently managing their tower sites. iROC manages tower operations and reports critical issues that drives immediate actions. IETS (Infozech's Energy Tracking Service) iAnalytics - Energy (Infozech's Energy Analytics Platform) iBill - Energy (Infozech's Energy Billing)
Atoll Solutions 	2014	Industrial Internet, Connected Cities	<ul style="list-style-type: none"> Remote Monitoring and Control (RMC) Platform: Atoll's Cellular(GSM/GPRS/3G) monitor and Control (RMC) platform enables customers to monitor and control various assets. This can be used for monitoring and control of equipment's like street light, motors, generators, compressors etc. Its small, rugged, lightweight aluminum design makes it easy to install and use in multitude of applications. Numerous I/O's in this platform allows customers to monitor and control a range of external hardware like: RFID, meters, sensors, solenoid, relay etc. Vehicle Tracker (VT) Platform: Atoll's Vehicle Tracker (VT) platforms are versatile yet affordable. These platforms are designed to support all important interfaces needed for modern day vehicle trackers.
Axelta 	2013	Niche Solutions	<ul style="list-style-type: none"> SecureSafe: make any safe into a smart safe by attaching Osmosis device. Enable theft prevention, breakage etc.





Product Profiling (9/24)

	Year of inception	Product Category	Key Products
Auviz Systems 	2013	Embedded Computing	<ul style="list-style-type: none"> AuvizCV is OpenCV for Xilinx FPGAs. Available in different performance levels, the Middleware IP is scalable to fit your application. The APIs for AuvizCV functions are consistent with OpenCV to enable a perfectly easy fit into your use model. Moreover, the IP can be used on Internet of Things applications using Zynq FPGAs to the data center applications using Virtex-7. AuvizLA is a collection of Basic Linear Algebra (BLAS) IP. The IP is highly optimized for Xilinx Series 7 FPGAs and will be available shortly.
GridAnts 	2012	Lifestyle	<ul style="list-style-type: none"> Cubeit is built to work with the Internet of Things and helps connect all of the devices you own, or dream of owning. Cubeit provides seamless access to data and software globally across all your devices.
2020imaging 	2009	Connected Vehicles, Industrial Internet	<ul style="list-style-type: none"> 2020 Touch Platform-: Incident management, video content analysis, bidirectional integration of diverse systems. 2020TouchControl-: 2020TouchControl is one of the manifestations of the 2020Touch Platform that you can use as an intelligent Command and Control centre or adapt and use as a Video Management (VMS) or Physical Security Information Management (PSIM) application.
Stesalit Systems Limited 	1981	Connected Vehicles, Industrial Internet	<ul style="list-style-type: none"> SXnavo: vehicle tracking system-The product range of SXnavo is complete with solutions and products for all the sectors, and can be used for tracking very large fleet of vehicles in tough terrains to the autorickshaws plying near your home. SXagro: SXagro is a IoT model agro-informatics platform for real time agri-data and analytics. It uses remote sensing based satellite data and ground survey to build actionable intelligence for Agri-community.
Flip Technologies 	2014	Lifestyle	<ul style="list-style-type: none"> Device, Block - The Smart Riser (Skateboard tracker) is designed for skateboarders to enhance their ability to perform and analyse tricks whether he is an amateur or professional.






Product Profiling (10/24)

	Year of inception	Product Category	Key Products
Belakur Innovatec Solutions 	2011	Industrial Internet	<ul style="list-style-type: none"> • Environment Monitor-Generic monitoring and notification platform. It can interface with various sensing devices communicating across multiple protocols and has configurable workflow and notification engine. • Automated Access Control-RFID based automated access control with object profiling and in-premise movement tracking. System can be interfaced with various access control hardware solutions. • One Touch Service Call-One Touch Service call system is a dedicated hardware touch panel with back end task allocation and notification services (GPRS + Push Notification to mobile apps).
Algo Engines 	2012	Industrial Internet	<ul style="list-style-type: none"> • Algo Engines provides operational intelligence for wind turbines, met masts, solar plants and other Internet of Things (IoTs). SCADA systems, sensors, and smart meters generate massive volumes of machine data that is complex, but contain a gold mine of information. Algo Engines helps transform this mountain of data into actionable insights.
eLuminos 	2013	Connected Homes and Buildings	<ul style="list-style-type: none"> • Commercial Buildings: eLuminos has built building energy system modeling applications to benchmark your consumption across loads, find opportunities to reduce energy bill, and simplify the process of coordination across stake holders and project execution. • Smart Metering M2M Communication: eLuminos has built a high performance data collector, and scalable storage and analyzing service that will handle the demand management, fraud management, auditing, and other complex applications.
Cardiac design labs 	2011	Niche Solutions	<ul style="list-style-type: none"> • Mobile Intelligent Remote Cardiac Monitor (MIRCaM™): It is a patent pending, cardiac care product with proprietary Intelligent Cardiac Clinical Analytics Engine built in.
Wisys Tech 	2013	Connected Cities	<ul style="list-style-type: none"> • EZLux: Smart Street Light. Key features are remote on/off, schedule based dimming, fault/theft detection, lamp EoL, performance analysis, easy installation. • Smart Office Solutions: Wireless sensor network (Zigbee), smart solution for sensor data logger, wireless node, gateway, web based software.





Product Profiling (11/24)

	Year of inception	Product Category	Key Products
TechGreen Cosmos 	2010	Industrial Internet	<ul style="list-style-type: none"> RealNatics 1.0: Tracks, analyzes and optimizes energy use for multi-site businesses, manufacturing industries, hospitals, institutions. Based on their energy consumption and location Green Cosmos help them optimize their PV rooftop solar panel installations.
Retisense 	2014	Lifestyle	<ul style="list-style-type: none"> Stridalyzer: Specially for runners, it is a pair of sensor-fitted insoles that a runner can insert into any regular running shoe, coupled with a smartphone app and cloud-based intelligence (Wearables).
Implantaire 	2005	Embedded Computing	<ul style="list-style-type: none"> Embedded Computing Modules (ECM): <ul style="list-style-type: none"> ECM-ARM9100 - ECMINA Series Embedded Computing Module are ideal for jumpstarting any Industrial Design. With core features on Board, there is an unlimited expansion capability. ECM-iMX25SODIMM - Embedded Computing Module based on iMX25 Series of Microcontrollers give a jumpstart to solution developers.
IGate Global Solutions 	1996	Niche Solutions, Connected Vehicles, Connected Cities	<ul style="list-style-type: none"> Intelligent Retail OmniChannel Solution - IGATE has incorporated Indoor Positioning Solution into IROCS, which uses a combination of M2M communication, Bluetooth Low Energy [BLE] proximity sensor technology (Beacons) in the store and a smart-phone application to deliver a "total experience" to the shoppers. ISmartShelf" for tracking on shelf availability in retail stores-ISmartShelf solution, built using sensors, load cells, RFID wave technology, etc helps retailers /CPG company managers to monitor the status of products in-transit and in a retail store. Drive Monitor-Drive Monitor helps to analyze the driving patterns of driver using the sensors present on the drivers smartphone. Genie 4 Wheels- A mobile application allows drivers to monitor automobile data in real time. Smart Gateway solution using Raspberry PI/Beagle Bone- It facilitates communication between field devices and cloud-based M2M platforms. Crash Monitor- Automotive telematics applications that automatically send an emergency message in case of a vehicle accident. Smart Parking-Smart Parking solution helps smart cities reduce congestion, cut vehicle emission totals and save citizens' time by allowing them to find a spot in a parking lot.





Product Profiling (12/24)

	Year of inception	Product Category	Key Products
Entrib Technologies 	2011	Industrial Internet	<ul style="list-style-type: none"> ShopWorx: Shop floor performance management providing visibility, analytics and alarm generation. It monitors performance of all plants from any location from users tablet, laptop or smartphone. Mob5apps: Management console for enterprises to 'mobile-enable' and track their workforce.
GOQii 	2014	Niche Solutions	<ul style="list-style-type: none"> GOQii: A wearable fitness band which collects users' activity and sleep data. A personal coach assigned to the user reviews this data and connects with the user via mobile app to guide them towards their health and fitness goals.
HealthifyMe 	2012	Niche solutions	<ul style="list-style-type: none"> Healthifyme: A mobile app which provides diet tracking service powered by a database which contains nutritional values of Indian foods. Rist: A GPS tracker wearable band that can be used to monitor your run, walk or biking trips in real time.
Smart Buildings 	2012	Connected Homes & Buildings	<ul style="list-style-type: none"> SmartBuildings solution consist of three core areas: <ul style="list-style-type: none"> Monitoring - alert based monitoring solution keeps an eye on various parameters related to the current condition of the building: temperature, humidity, light level and occupancy. Control - solution for HVAC (heating, ventilating and air conditioning) and lighting control using decision logic. Analytics - extracts data from monitoring and control solutions and provides analysis to quickly make sense of a variety of parameters like energy usage, diesel usage, temperature variations, lighting variations, and building occupancy levels.
AllGo Embedded Systems Pvt Ltd 	2005	Connected Vehicles	<ul style="list-style-type: none"> Race Multimedia Engine - Our Robust Automotive Connectivity and Entertainment (RACE) IVI software suite has been developed for the connected car of the future. Race CE Device Manager - A complete media and connectivity solution for the connected car of the future. Race Smartphone Connectivity - Enables automotive head units to connect to and control applications running on smartphones and tablets.





Product Profiling (13/24)

	Year of inception	Product Category	Key Products
Indrion Technologies India Pvt. Limited 	2007	Connected Homes and Buildings, Connected Cities, Industrial Internet	<ul style="list-style-type: none"> Vidyut - Embedded, distributed smart metering, with granularized operations. This enables smart grid enabling the last mile, utilization of alternate energies. Sattva - Residential ecosystems that deliver comfort & convenience to residents, certifications/ratings/meeting regulatory norms to project owners. Kanthi - Intelligent lighting solutions - incorporates usage of cleantech, including solar lighting. Deliver lighting efficiencies, energy conservation. Sama - Wireless temperature monitoring - measurement, control solutions that bring over the cloud, granular capabilities opening up new ways of doing things to infrastructure managers. Jalam - Realizes smart water grid - consumption measurement, quality, leakage monitoring, accurate billing. Apt for urban environments and also to the farming ecosystems - commercial, semi culture farming.
Ascent Informatics India Pvt. Limited 	2000	Industrial Internet	<ul style="list-style-type: none"> PlantConnect – Remote Monitoring and Control of Equipment - PlantConnect® is a web-based platform for remote monitoring and control of factories and plants. It is scalable, flexible and can be easily adapted to different deployment scenarios. PlantConnect® can be used to monitor equipment like boilers, chillers, PLC based machines, assembly lines, test beds, pumps and many more equipments.
Blue Ocean Solutions & Services Pvt Ltd 	2011	Connected Cities	<ul style="list-style-type: none"> B-Visible - B-VISIBLE includes vehicle tracking and monitoring remotely, vehicle maintenance, vehicle diagnostics, speed management, fuel management, route optimization, driver management and safety management. Fleet management solution allows our clients to minimize the risks associated with vehicle investment, improving efficiency, productivity and reducing their overall transportation costs.
Vigyanlabs Innovations Pvt. Limited 	2008	Connected Homes & Buildings	<ul style="list-style-type: none"> Intelligent Power Management - Intelligent Power Management platform from Vigyanlabs enables enterprises to optimize power consumption of their IT infrastructure and go green. IPMPlus is based patented application sensors which enable up to 50 per cent power savings while providing the best end user experience. IPMPlus provides an integrated dashboard to enable different stake holders in an Enterprise to view the energy consumption, savings, location wise & department wise levels.




Product Profiling (14/24)

	Year of inception	Product Category	Key Products
Embitel 	2006	Connected Vehicles	<ul style="list-style-type: none"> Android based IVI system: The android IVI system is based on Freescale i.MX6 application processor platform, it presents a secondary vehicle dashboard with OBD information along with entertainment features. It also provides with touch screen enabled home screen panel to launch different IVI applications. Reusable J1939 stack: Embitel has developed a reusable software stack and boot loader, which is in compliance with SAE J1939 standard. This stack is implemented in ANSI-C and is independent of the CAN controller, CPU and operating system. It can be readily adapted for any automotive control unit and tooling applications.
TCS 	1995	Connected Vehicles	<ul style="list-style-type: none"> GENIVI Architecture based Open In-Vehicle Infotainment (IVI) Platform: GENIVI 2.0 based platform which deploys robust and reliable set of frameworks to enable rapid development of telematics, multimedia and connected applications. The platform includes key solution accelerators such as Telematics Framework, Internet connectivity framework and HMI framework.
Binary Semantics - Fleet Robo 	1986	Connected Vehicles	<ul style="list-style-type: none"> Fleet Robo – VTS (Vehicle Tracking System) is a compact solution for remote vehicle tracking. It offers you an easy to use web and mobile application platform with intuitive interface and detailed & readymade MIS reports. Fleet Robo – VTS (Vehicle Tracking System) gives you a hawk-eye to track vehicles that are beyond your line of sight. Fleet Robo - In-Car Infotainment Solution converges vehicle data, sensor information, telematics, multimedia, cloud/backend servers, informational and entertainment intelligence into a single platform to enable the Next ERA of Connected Cars.
Cascademic Solutions 	2013	Industrial Internet	<ul style="list-style-type: none"> M2M: Industrial Control & Plant Monitoring A GPRS / Wireless / Wired based remote control unit especially suitable for monitoring, control and remote access. It can be used to monitor and control the various machines or systems in the plant, performing various tasks. Wireless Smart Flow Meter - CASCADEMIC Wireless Smart Flow Meter is used to measure the amount of fluid that has flown through the pipe. It is an automated meter reading (AMR) based flow meter. The Wireless Smart Flow Meter has inbuilt processing, sensing, storage and RF transmission unit.






Product Profiling (15/24)

	Year of inception	Product Category	Key Products
Cloud4Things 	2013	Connected Homes and Buildings, Niche solutions	<ul style="list-style-type: none"> CONNECT2HOME: An application backed by cloud4things platform provide the connected home to automate and secured the home appliances. User can monitor, control, analysis, optimized usage and socialize the home appliances securely on mobile. CONNECT2DG: This is application to bring the DG on cloud and provide real time analytics like fuel consumption, fuel loss, running history, power consumption, service management etc. and accessible on mobile and web. CONNECT2PARENT: A platform backed by Cloud4Things to provide technologies to connect with parents. It delivers various services using cloud4things platform i.e. provides pick and drop, event streaming, live video/audio chat etc. on mobile application.
Cooley Technologies 	2015	Niche solutions	<ul style="list-style-type: none"> Devices: a) Blood Pressure Monitor-Heartbeat and blood pressure monitoring, mobile sync via bluetooth; b) Smart Body Analyzer-Weight and percentage of body fat, muscle, water, bone, mobile sync via bluetooth; c) Smart Glucometer. Smart Assist: Personalized tips and recommendations based on recommendation engine. M-Assist: Mobile based personal health management application. Diabetes and hypertension app.
Diabeto 	2012	Niche solutions	<ul style="list-style-type: none"> Diabeto device: A hardware device that plugs into Glucometer and wirelessly transmits sugar reading to any diabetes mobile application for easy tracking of diabetes. Diabeto API: The Diabeto Enterprise API for iOS enables third party application developers to build mobile applications that can fetch readings from various glucometers. Diabeto app: Mobile app to analyze the data from glucometer. <p>The entire Diabeto system is cloud based.</p>
Eruvaka 	2012	Smart Agriculture	<ul style="list-style-type: none"> PondGuard: Cloud based aquaculture pond management solution. Real-time monitoring of ponds with intelligent control of aerators and feeders. PondMother: Automatic feeder: Precise automatic feeder with Smart controls. Enabling you to monitor the feed for your fish with all of the latest technology. PondLogs: Cloud based pond management software, so that your pond's data is always available on any device for analysis and management.





Product Profiling (16/24)

	Year of inception	Product Category	Key Products
<p>M2MLogger</p> 	2013	Industrial Internet	<ul style="list-style-type: none"> WebFRONT: An advanced, highly scalable and enterprise wide IoT cloud platform – that offers ease of data analytics, visualization and remote management of devices. It allows users to monitor, control and configure devices remotely – easing out the maintenance overheads. LogPRO.m1 & LogPRO.m4: A multi-purpose device that acts as a data-logger and also as the gateway to connected world. This plug-n-play device can be retrofitted with any MODBUS installation.
<p>MaxMyTV LLC</p> 	2012	Connected Homes and Buildings	<p>MaxMyTV gives the power to control home sensors and access detailed analytics right from TV. User can access and control the smart hub with the AirMouse qwerty remote control or enjoy access to home automation devices right from Smartphone.</p> <p>Products include: MaxMyTV Smart Hub, air mouse remote control, power outlet with power meter, super sensor (fusion of presence, door and temperature sensor), beeper with accelerometer, IP camera.</p> <p>Features include:</p> <ul style="list-style-type: none"> IoT- connect and control anything at home. Home automation- Allows full control over devices. Power Metering-Simply view/compare/cut-down the power usage just by viewing the statistics on TV.
<p>Mysore Embedded Technology</p> 	2012	Industrial Internet, Connected Homes and Buildings	<ul style="list-style-type: none"> METI - Impertio-METI: An industry standard Modbus to GPRS Remote Terminal Unit (RTU) that can be interfaced with PLC and any industrial device with Modbus RTU interface. The collected data from Impertio is sent to cloud through a secured protocol using GPRS technology. The user can view sensor-wise analytics and graphs. METI – Cerebro: An intelligent GPRS Remote Terminal Unit (RTU) that monitors analog inputs like temperature, pressure, humidity, speed, motion, distance, proximity, vibration, level, liquid flow etc. from various sensors and digital inputs like ON/OFF, Door Open/Close etc. METI - Energia: Designed to monitor Energy parameters in Industries, Hospitals, Shopping complex, Residential establishments etc. <p>The user can view sensor-wise analytics and graphs with desktop, laptop, tablet, mobile phones etc.</p>






Product Profiling (17/24)

	Year of inception	Product Category	Key Products
Revealing Hour Creations 	2012	Embedded Computing	<ul style="list-style-type: none"> TAH-Control anything with your smartphone. A bluetooth enabled, arduino-compatible board that can be used as a beacon, a micro-controller and an HID device.
SenseGiz 	2015	Lifestyle	<ul style="list-style-type: none"> The STAR: A wearable smart tech product which can be clipped to clothing or worn as a band. It can trigger automatic alarms on loved ones phones if the user has a crash/fall/emergency, has a panic button, can track fitness and sleep quality, can use simple gestures to control phone functions and can display phone related notifications on its screen.
Mango Man Consumer electronics 	2013	Connected Homes and Buildings	<ul style="list-style-type: none"> Teewe: A flagship product. It is an HDMI Dongle, which allows you to stream media wirelessly via a smartphone application to your television.
TL Micro Automation 	2010	Embedded Computing, Connected Vehicles, Industrial Internet	<ul style="list-style-type: none"> RF Modules: RF modules can implement custom protocols for point to point communication between devices, machines and other equipment. Wireless modules implementing standard protocols-Wireless Modules have been developed which are capable of communication using common standard wireless protocols. Infotainment Systems: The systems are capable of video, audio playback as well as function as augmentative displays for automobiles. HMI/ Displays: TL Micro has designed products used as Human Machine Interface or augmentative displays for industrial, commercial as well as automotive applications.
Niagara Automation 	2005	Smart Agriculture	<ul style="list-style-type: none"> Automatic Water Pump Controller: Advanced Micro Controller Based Automatic water pump controller with LCD display and with more than 30 models suitable for all types of pumps. Mobile Automatic Water Pump Controller: GSM based Mobile Controller with Interactive Voice Response System.





Product Profiling (18/24)

	Year of inception	Product Category	Key Products
Photo ElectricChefs 	2015	Connected Homes and Buildings	<ul style="list-style-type: none"> Fibaro Home Automation System: Control all the switches in house with smartphone or tablet over the internet. Set appliances to Turn On and Off at a specified time. An energy efficient, smart lighting system controls the common areas of the apartment. Smart Motion Sensors: PIR motion sensor turns the light on whenever it detects a movement of a person. Day-light sensor turns the light on whenever it detects low light in the environment (evening/night).
Kisan Hub 	2012	Smart Agriculture	<ul style="list-style-type: none"> Kisan Hub App: Crop recording; hyper-local weather (Hourly field-level updates & five-day forecasts on rainfall, temperature, humidity, wind speed, cloud cover and dew point); Soil/water balance model-Easy to run tools align irrigation, maturation and depletion; Commodity & news aggregation : All the latest sector news, commodity and market data.
EasyM2M Technologies 	2014	Niche solutions	<ul style="list-style-type: none"> iwristPhoneTM: Automatically sends signals to surface control room on location, man fall down, dangerous tunnel traversal by miners so that safety and rescue team can call back. Mobile Healthcare: Live video feed of location and patient to doctor, Location tracking for paramedics away from Ambulance. 3Thirdeye App: Wearable smartphone on the wrist allows GPS tracking, WiFi tracking, SoS, man fall down alert, skype like video calling, heartbeat rate etc. Management Software: People/Vehicle/Asset/Inventory monitoring and tracking software.
Reckone Inventions 	2014	Connected Vehicles	<p>Product is Ridelogic - a smartphone gear to enhance the motorcycle riding experience.</p> <p>Features includes: Onboard diagnostics, engine health check, crash alert, locate your vehicles and socialize with fellow riders, record and analyze ride and ridding habits.</p>





Product Profiling (19/24)

	Year of inception	Product Category	Key Products
KlugKraft 	2012	Connected Homes and Buildings	<p>Company uses ZigBee technology to develop IoT products. ZIGBEE innovative standards are designed to let product manufacturers help their customers create their own Internet of Things and M2M wireless sensor networks. The following products are made using ZigBee technology:</p> <ul style="list-style-type: none"> • Wireless IP camera • Gas sense leaker • Wireless smart lock
Machine Pulse 	2013	Industrial Internet	<ul style="list-style-type: none"> • Erixis: The platform from MachinePulse for operational intelligence, device management, analytics, machine learning from connected sensors, devices and machines leveraging big data and cloud computing.
Metagan Technologies 	2015	Connected Homes and Buildings	<p>Their brand MERA offers a wide variety of products</p> <ul style="list-style-type: none"> • Mera HAWK Accel: Ultimate personalized security systems. Detects door swing & slides, detects door intrusion mobile notification, ultimate personalized security systems, detects door swing & slides, detects door intrusion, mobile notification. • Mera HAWK Lock: Ultimate personalized security systems-detect door brute force, keyless access, customized access permissions. • Mera Zwitch: Smart control safer control, smart energy management, utility and bill management.
Kisan Raja 	2010	Smart Agriculture	<ul style="list-style-type: none"> • Kisan Raja is a GSM based controller, which allows the farmer to control the agricultural motor using his mobile or landline from the comforts of his home. Kisan Raja is an easy to use and economical communication device, which enables a farmer to operate his motor pump set from anywhere through his mobile or landline.
Jain Irrigation Systems Ltd 	1989	Smart Agriculture	<ul style="list-style-type: none"> • Integrated automation system: Time based system, volume based system and sensor based system.




Product Profiling (20/24)

	Year of inception	Product Category	Key Products
iBot 	2011	Embedded Computing	<p>iBot builds meta-products called connected processors using a combination of electronics, telecommunications, firmware and cloud capabilities to help makers create connected experiences for themselves and their customers/consumers.</p> <ul style="list-style-type: none"> iBot's product offering, called "The iBot System" is made up of 3 core components, namely, the iBot iQu Connected Processor, iBot Store and iBot Cloud.
Uncanny Vision 	NA	Embedded Computing	<p>Develops optimized computer vision solutions for the embedded market. Offers the following products:</p> <ul style="list-style-type: none"> UncannyDL: An on-device deep learning library for mobile and embedded applications UncannyCV: A computer vision/image processing library optimized for Cortex-A series ARM processors
Flutura 	2012	Industrial Internet	<p>Flutura Decision Sciences and Analytics is an IOT intelligence company powering new monetizable business models using machine signals in the engineering and energy industry. The company offers the following machine intelligence platform:</p> <ul style="list-style-type: none"> Cerebra: It allows OEM to scale value added offerings across varied equipment classes. Several industrial assets like boilers, chillers, turbines, batteries, transformers, circuit breakers, valves, generators, sensors, meters and other electrical and mechanical assets are connected to the platform. It supports advanced high streaming technology to support high velocity machine data streams, advanced visualization, unique pattern discovery algorithms, and supports an industry first unique methodology called nano apps to launch new offerings every 60 days.
FluxGen 	2011	Smart Agriculture, Connected Homes and Buildings	<p>The company develops engineering technologies for energy systems. Some of the projects that the company is involved in are smart renewable energy microgrid, solar & wind hybrid system, automatic irrigation with solar pumping, internet enabled renewable energy monitoring, amongst many others.</p>





Product Profiling (21/24)

	Year of inception	Product Category	Key Products
Lensbricks 	2014	Lifestyle, Connected Homes and Buildings	<p>LensBricks develops smart sensing technology for people and their homes. Using a combination of hardware and software solutions in the home market, the company plans to improve consumer life.</p> <ul style="list-style-type: none"> The company is developing a consumer imaging technology. Its first product, Vidalife, is a smart home camera, that allows users to capture authentic, spontaneous moments; combines an array of sensors with advanced audio and visual recognition software to effortlessly identify the moments.
Linkeddots 	2015	Industrial Internet, Niche Solutions	<p>Linkeddots offers smart tags, smart readers, smart tracking systems and smart monitoring and alert systems that can be easily customized for small & medium enterprises. Key products are:</p> <ul style="list-style-type: none"> Linked people tracking solutions Linked asset tracking solution
Nimblewireless 	2006	Industrial Internet, Niche Solutions	<p>The company offers M2M and connected wireless products and design services encompassing Cellular, GPS, WiFi, RFID and Zigbee technologies. Some key offerings:</p> <ul style="list-style-type: none"> Package tracking Equipment tracking Temperature monitoring Energy monitoring
Sensworx 	2015	Connected Cities, Connected Homes and Buildings	<p>The company offers solutions for water management systems.</p> <ul style="list-style-type: none"> NetWater platform from Sensworx uses IOT technology to bring antiquated water management systems across the world to reduce water bills; contributes to eco-sustainability by helping you conserve water.


Product Profiling (22/24)

	Year of inception	Product Category	Key Products
SrishtiESDM 	2013	Niche Solutions	The company offers digital identification solutions. The company creates AADHAAR-based anytime, anywhere digital identification solutions. The products are specialized in biometrics authentication and management services.
Wireless Controls	NA	Lifestyle, Connected Homes and Buildings	The company's product is ready as a fully functional prototype. It is a portable camera and I/O controller (relay controls), that streams live video captured by its camera, at high resolution (5 Mega pixel). The video is seen by the user on a web-browser on his phone/tab/laptop. The device also supports I/O control, whereby the user can control field equipment (switch on/off) using its relays. All controls and displays are via the web interface.
Xrevol 	2014	Lifestyle, Connected Homes and Buildings	APSO is a smart lock with multiple features such as remote access, real-time updates, alerts etc.
TartanSense 	2014	Smart Agriculture	TartanSense leverages its image analytics, computer vision and GIS technology to deliver actionable intelligence using aerial imagery. TartanSense works in collaboration with agronomists and farm owners to analyze NDVI imagery to assess the health of the plants. By analyzing the various infrared bands, a digital map is created to illustrate areas affected by disease, water stress, and poor chlorophyll levels.

Product Profiling (23/24)

	Year of inception	Product Category	Key Products
CatalanLabs 	2015	Lifestyle	<ul style="list-style-type: none"> Portuspine, a posture-based wearable fitness device which analyses the daily activities and sleep patterns, to make personalized recommendations and provide posture coaching.
Minio Technologies 	2012	Lifestyle	<ul style="list-style-type: none"> Social Toys Network® is a platform for connected toys, where children play with family and friends. The company is launching with a starter kit of 'real toys' that connect over the internet on a (patent pending) social platform.
AutoTranz 	2013	Connected Vehicles	<ul style="list-style-type: none"> Animus: Makes the car talk, offers roads/weather updates, parental watch, trip sharing, car health, theft and towing alert, amongst many others. Secure II: Connects users to cars, provides parking security, helps them control their cars by warding off theft and intrusions. It has remote tamper-proof antenna, remote engine shut down, device wire cut alert etc. Secure I: Provides security both while moving and when parked. STrack: STrack allows fleet management, vehicle history, live tracking etc. It is smart, catches signals from remotest areas and small in size. This makes it easy to hide and keep an eye on vehicle from miles away, without creating undesired frictions between drivers and managers.
Maven Systems 	2009	Industrial Internet, Connected Homes and Buildings, Smart Cities	<ul style="list-style-type: none"> Offers smart metering (electricity, water, gas); energy monitoring (township monitoring, street-light monitoring); heavy equipment monitoring; GPS monitoring; sales force tracking; asset monitoring.

Product Profiling (24/24)

	Year of inception	Product Category	Key Products
Stellapps Technologies 	2011	Industrial Internet	<ul style="list-style-type: none"> Stellapps is an end-to-end dairy technology solution. The company offers innovative applications and state-of-the-art mechanization tools leveraging IoT, big data, cloud, mobility, and data analytics to improve agri- dairy supply chain parameters, including milk production, milk procurement, cold chain, animal insurance and farmer payments. SmartFarms™ is a cloud based farm and herd management system for animal recording, productivity and peak-yield management, breeding, preventive health care, fodder management and veterinary care, powered by a powerful proactive analytics module. smartAMCU™ is an automatic milk collection unit (AMCU) that optimizes and simplifies milk procurement for dairy farmers, milk collection centres, and societies in general. ConTrak™ optimizes cold chain management through an advanced, web-based, real-time monitoring and reporting system. AgRupay™ allows farmers to make real-time payments at the point-of-purchase of crops. MooKare™ is a cattle insurance application.

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