



India**Technology**Week
@Home 2020

How India is going to make itself Self-Reliant wrt growing IoT demand?

18 June, 2020 | Arpit Chhabra

Outline

IoT Building Blocks

IoT Market in India

Semiconductors & Components

Cloud Infrastructure

Connectivity Modules

Summary

IoT Building Blocks

Case Example - Appliances & Consumer Durables



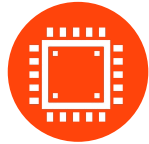
Scaleable & Reliable

IoT Cloud Infrastructure



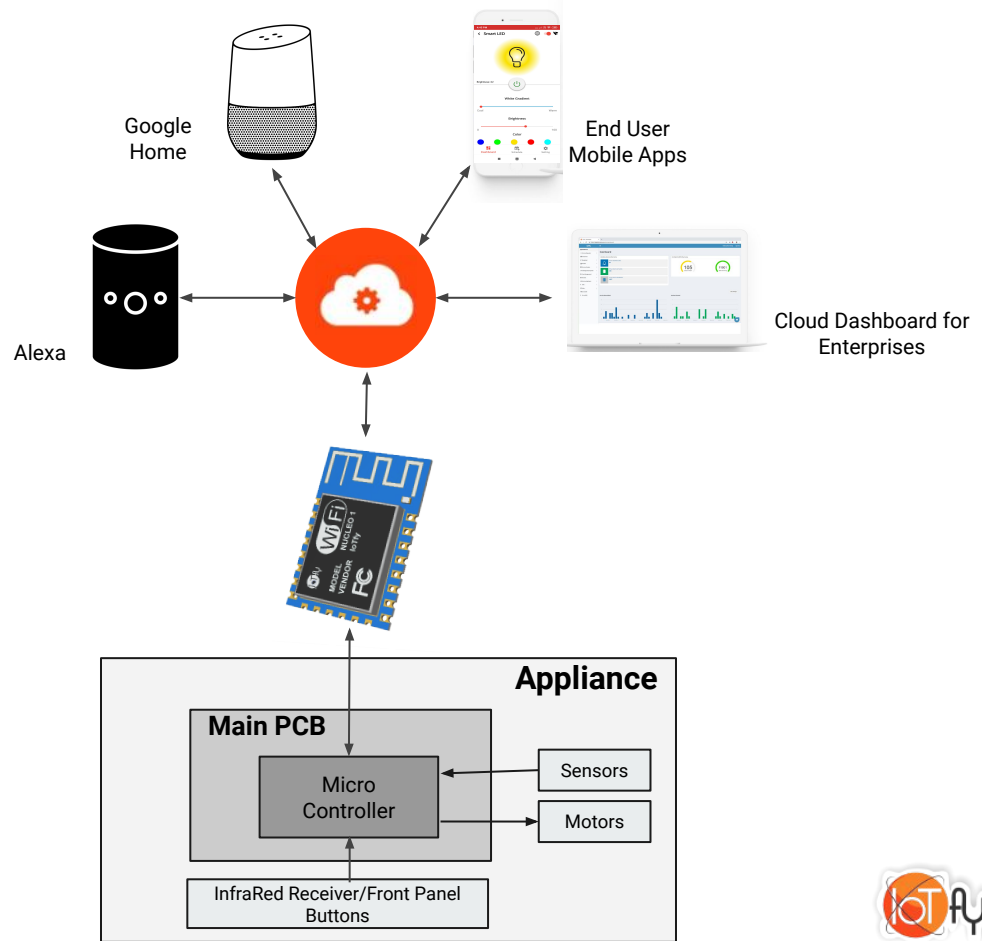
WiFi, BLE, LoRa

Connectivity Modules



As much as possible, organisations to commit to

Semiconductor & Electronics



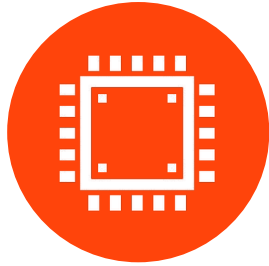
IoT Market in India

Massive Opportunity

- IoT in India now is not a thing of the future, it is growing and thriving right in front of our eyes.
- From Smart appliances to Smart Energy metering, from Industry 4.0 to Smart vehicles, IoT powered products are touching our lives on a daily basis.
- Estimated market size of IoT is set to reach **USD 20 Billion** by 2024.

Semiconductors and Electronics components

Present Day Landscape & Road to Self Reliance



- Industry that has more or less accepted the status quo, regarding their reliance on imports from countries such as China, Taiwan, Korea, etc
- The dependence is so massive that our entire supply chain crippled and disrupted during the COVID-19 lockdowns
- Challenge that India faces is that there are no domestic alternatives to manufacturing semiconductors and such electronics components
- In the last decade, two failed attempts to set up semiconductor fabrication units (HSMC & Jaiprakash Associates backed)

Right Policy Framework from Govt

Encourage Capital Investment & create



Collaboration for Tech Transfer

Singapore Semiconductor Industry Association MoU



More funds for existing schemes

Scheme for Promotion of Manufacturing of Electronic Components and Semiconductors (SPECS)

Cloud Infrastructure

Present Day Landscape & Road to Self Reliance



- India's cloud infrastructure market is highly fragmented
- Global players like Amazon, Google, Microsoft and IBM left a very limited space for domestic players
- Most Indian IoT companies are relying upon Amazon Web Services, Google Cloud Platform or Microsoft Azure for the cloud infrastructure part.
- Moreover, with the duopoly of Amazon Alexa and Google Home in the Voice Assistant market, the IoT developers anyways develop an inclination towards their parent companies.

Policy for Domestic Cloud Players

Can take certain cues from China, and create a level playing field policy



Focus on Data Localization

Cloud Infra and Data Localization paradigms need to be seen together



Support Local Cloud Players

SLAs by local cloud providers need to match Global standards. Businesses should support Local

Connectivity Modules

Present Day Landscape & Road to Self Reliance



- Connectivity modules for WiFi, BLE, LoRa, UWB, GSM, etc are essential for IoT solution - Majorly imported
- Challenge is that the factories of the world have already achieved economies of scale
- Dometic alternative from India may succumb to the cost-competitiveness offered by the foreign manufacturers. Support for Local is required.
- IoTfy is an example. We developed first #MadeInIndia WiFi Modules

Rationalization of Custom Duty

Govt needs to make necessary changes to Duty structure to create level playing field



Assurance to Buy Local

Economies of Scale can only be achieved if companies commit to buy LOCAL



Focus on RF Test Facilities

RF Testing and Certification facilities needs to be developed

Summary

Making IoT industry in India “AtmaNirbhar” is a huge opportunity and challenge at the same time and we should start treading the path today.



Right Policy Framework & Incentives
Government Support



Major Focus On Building & Nurturing
Local Ecosystem



As much as possible, organisations to commit to
Domestic Purchases

FUTURE
READY



Thank You

Arpit Chhabra
arpit@iotfy.com