5/9/22

IoT applications - Agriculture

Applications in different sectors

Internet of Things :-

1) Health & life style
2) Smart Cities
3) Industries
4) Logistics
5) Home Automation
6) Energy
7) Environment
8) Agriculture

Health - life style :

- Wearable Electronics
- Health & fitness monitoring

Smart Cities

- Smart Parking
- Smart Roads
- Energency Response

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Industries:-

- Machine Diagnosis
- Indoor Air Quality monitoring

Logistics:

- Shipment monitoring
- Remote vehicle Diagnostics
- fleet tracking

Home automation

- Smart lighting
- Smart Appliance
- Smart security systems

Energy

- Smart Grids
- Renewable Energy systems
- Prognostics

Environment:

- weather monitoring
- forest fire Detection
- Air pollution

Agriculture

- Smart Irrigation
- Green House

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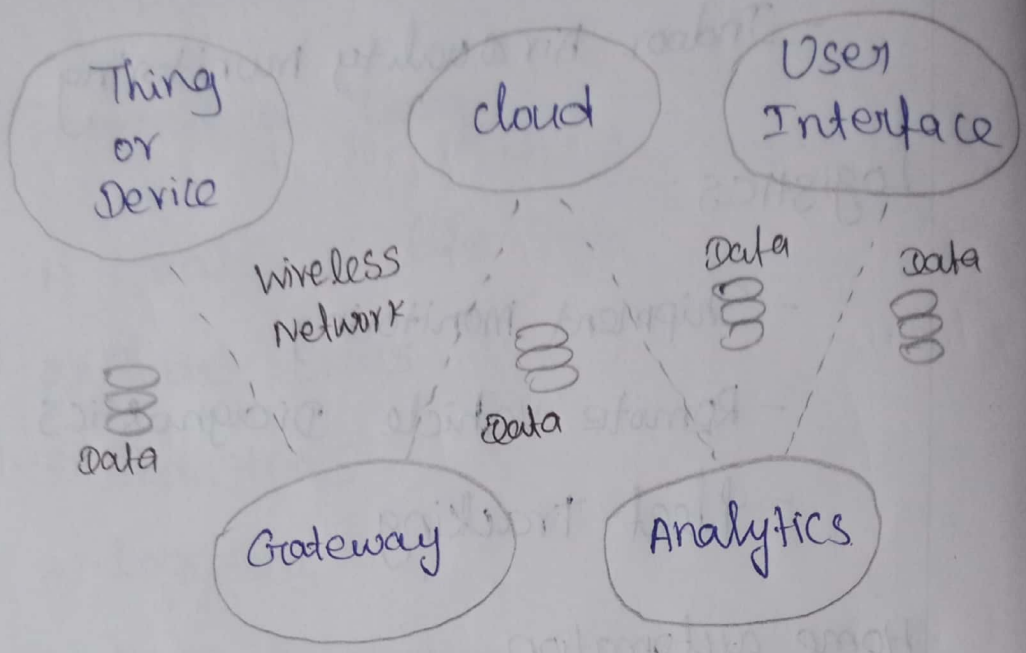
Building Blocks of IoT



IoT Architecture.

Things (End Devices / Nodes) :-

"Things" - devices and systems that are embedded with sensors, software and other technologies in order to communicate and exchange data with other things of

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Data Analytics:

The data analytics process has some components that can help a variety of initiatives will provide a clear picture of where are you where you have been and where you should go.

User Interface:-

The User Interface (UI) is the point at which human users interact with a computer or applications

Network Connectivity

- Ethernet
- WiFi
- RFID
- NFC
- Bluetooth
- ZigBee
- LORa

IOT Security:

IOT security is the technology segment focused on security linked devices and network in the IOT.

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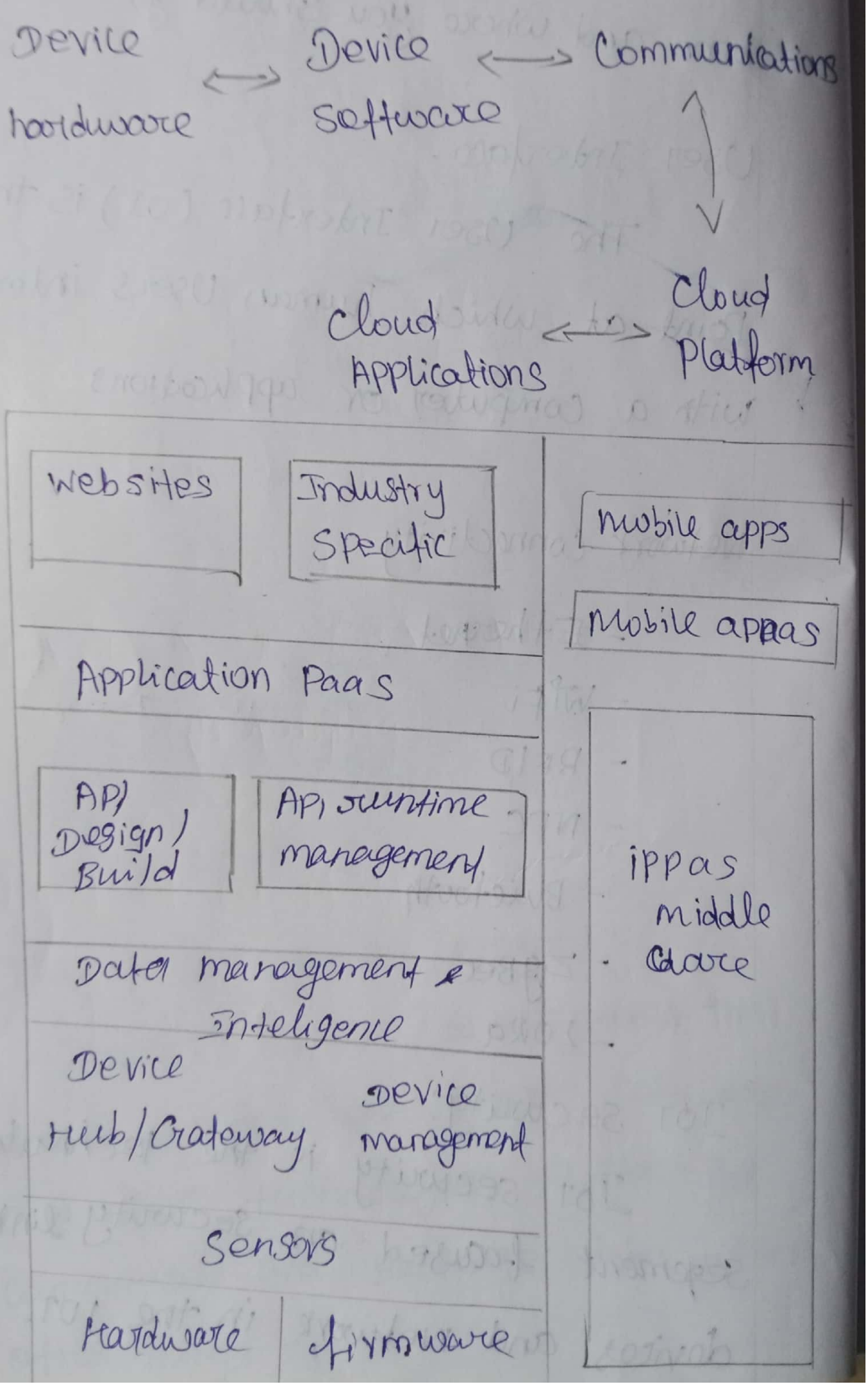
In other words, IOT security refers to the techniques of protection used to the devices

IOT Technology Stack



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IoT Technology Stack

- NVIDIA
- ARM AVR
- Intel
- http://
- IBM watson
- Learn
- Tensorflow
- NORDIC
- django etc.

Top 10 IoT Application areas 2020.

22% - manufacturing / Industrial.
15% - Transportation / mobility.
14% - Energy.
12% - Retail
12% - Cities
9% - Health Care
7% - supply chain
4% - Agriculture
3% - Buildings
3% - Others

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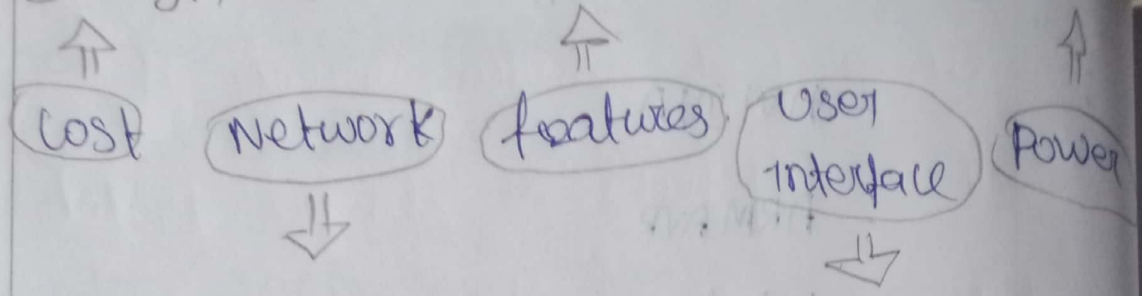
Design considerations



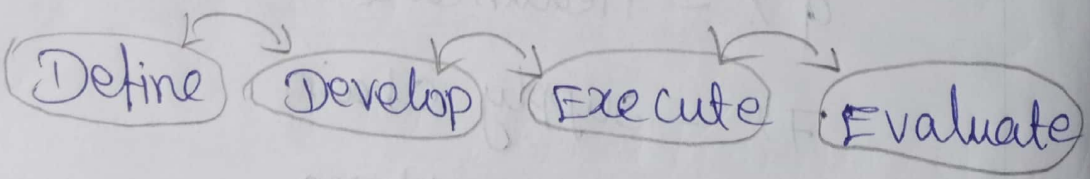
Other Design considerations

- Applicability
- Software updates
- Support
- Data management
- Data collection
- Analytics
- Market Trends.

Other Design considerations

- applicability
- Sal

Proof of concept (POC)



How to build a successful POC?

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1. Brainstorming

- Project analysis, improvements Hw/Sw requirements, Communications

2. Development & config:

- Build Solid base on IoT platform by customizing and configuring the Device

3. Launch your prototype.

- Demonstration, implementation and creation: - all with our support team.

4. Result evaluation

Generate the reports and data which allow us to make a comparative analysis of results

Hardware selection

Sensor = Transducer / detector

Actuator = mover