PROJECT DESIGN PHASE-II

FUNCTIONAL REQUIREMENTS

- Project Name::IOT based safety gadget for child safety monitoring and notification
- Team ID:PNT2022TMID08341
- Date:08/11/2022

IOT PLATFORMS REQUIRE DIVERSE CONNECTIVITY PROBABLY THE MOST FAMILIAR FORM OF CONNECTIVITY FOR THE INTERNET, AND FOR IOT, IS ETHERNET. IN ADDITION TO ETHERNET, IOT DEVICES CAN CONNECT USING A WIDE VARIETY OF OTHER TECHNOLOGIES. THE CONNECTIVITY OBJECTIVE IS THAT AN IOT PLATFORM SUPPORT AS MANY MODES OF CONNECTION — WIRED AND WIRELESS — AS POSSIBLE. WIRELESS OPTIONS INCLUDE ANT+, BLUETOOTH, EDGE, GPRS, IRDA, LTE, NFC, RFID, WEIGHTLESS, WLAN, ZIGBEE, AND Z-WAVE.

IOT PLATFORMS LEVERAGE APPLICATIONS IOT SOFTWARE APPLICATIONS ARE EMERGING FOR BUSINESSES IN VIRTUALLY EVERY INDUSTRY AS WELL AS FOR HOME USERS. THESE APPLICATIONS PROVIDE MUCH OF THE AUTOMATION CAPABILITIES THAT MAKE IOT SOLUTIONS SO VALUABLE. THESE SOFTWARE AND MIDDLEWARE APPLICATIONS HELP BUSINESSES DRIVE DOWN COSTS, INCREASE EFFICIENCY, AND IMPROVE REGULATORY COMPLIANCE. TO ACHIEVE THESE GOALS, AN IOT PLATFORM SHOULD BE COMPATIBLE WITH APPLICATIONS SPECIFIC TO YOUR INDUSTRY.

- IoT Platforms and Scalability
- In light of the billions of devices and zettabytes of data discussed earlier, scalability is clearly a requirement in an IoT platform. The best practice for both businesses and consumers is to start small with IoT. However, many IoT solutions achieve their true potential only at scale. The ideal IoT platform is fully able to support a small, initial implementation, but also should be able to scale out as your business needs grow.

IOT PLATFORMS AND SECURITY

EVEN WITH THE RECENT ATTENTION GIVEN TO SECURITY FOR IOT DEVICES, IT CAN BE EASY TO OVERLOOK THE NEED FOR END-TO-END SECURITY FOR AN IOT PLATFORM. EVERY PART OF A PLATFORM SHOULD BE ANALYZED FOR SECURITY PROSPECTS. FROM INTERNET CONNECTIONS TO THE APPLICATIONS AND DEVICES TO THE TRANSMITTED AND STORED DATA, THERE IS A POTENTIAL FOR AN ATTACK VECTOR. WITHOUT QUESTION, THE SINGLE MOST IMPORTANT NON-FUNCTIONAL REQUIREMENT OF AN IOT PLATFORM IS THAT IT OFFERS ROBUST SECURITY.