Project Title: Smart Farmer – IoT Enabled Smart Farming Application

Project Design Phase-I - Solution Fit Template

Team ID: PNT2022TMID15139

Define CS, fit into CC

1. CUSTOMER SEGMENT(S)

CS

The targeted audience for our user end product would be the agricultural practioners and other farmers. To enhance the Productivity of the cultivated crops.

6. CUSTOMER CONSTRAINTS

CC

The internet connectivity for the operational use of our devices and nodes may not be fruitful over the remote and rural areas. The cost of scaling the products towards the user end may not be feasible and affordable by all the classes of society.

5. AVAILABLE SOLUTIONS

AS

An spectrum of frequency is alloted for internet connectivity between the nodes. The data storage to the nearest transfer through the low range Bluetooth frequency is done when there is poor connection of internet and later to user application.

Explore AS, differen

Focus on J&P, tap into BE, understand RC

2. JOBS-TO-BE-DONE / PROBLEMS

J&P

The environmental factors at the crop production farms must be monitored such as the growing temperature of the crops, soil moisture and humidity of the surroundings. These physically varying parameters are sensed by different sensors and actuators and the data has been provided towards the user end.

9. PROBLEM ROOT CAUSE

RC

The devices which are used to measure the physical parameters may not be accurate at every operating situations. Due to which it may lead to inappropriate data towards the user end

7. BEHAVIOUR

BE

The overall response of the system tends to be feasible and operating at variable scale of situations.

Focus on J&P, tap into BE, understand RC

Explore AS, differentiate

3. TRIGGERS

TR

By showing on the better productivity scales of management in cultivation by saving most of the water and other irrigation resources. Optimizing the available resources, providence with the sufficient throughput and obtaining the maximum yield could promote our product.

10. YOUR SOLUTION

SL

IoT industrial solutions can be deployed in other industrial environments to solve even more problems. But the bottom line is that IoT industrial solutions enable businesses to produce more, at a lower cost, and with less risk to employees.

8. CHANNELS of BEHAVIOUR

CH

8.1 ONLINE

Separate band connection for internet connectivity among the nodes have been established Over a short span of distance

8.2 OFFLINE

The data's are stored in the cloud storage and transfered to the user end application at the time of fruitful connectivity between nodes and base station.

Identify strong TR & EM

4. EMOTIONS: BEFORE / AFTER

EM

Before the installation of our product, the varies physical parameters such as temperature, moisture, humidity and various other factors are not predetermined which leads to maximum usage of irrigation resources which requires the maximum throughput. But after these installations the parameters have been measured and computed to provide the optimal throughput which enables the conservation of water resouces.