

Project Design Phase-I - Solution Fit

Project Title: SmartFarmer – IoT Enabled System Smart Farming Application

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Define CS, fit into CC

1. CUSTOMER SEGMENT(S)

The customer for this product is a farmer who grows crops. Our goal is to help them, monitor field parameters remotely. It helps the customer to save lots of time. By boosting the client experience overall, Our application can assist in enhancing customer connections.

6. CUSTOMER CONSTRAINTS

Each connected device should have enough wireless range to communicate with the other sensors devices and send data to the central server and reporting dashboard. The connection between IoT facilities should be reliable enough to withstand bad weather conditions and to ensure non-disruptive operations.

5. AVAILABLE SOLUTIONS

An IoT system is proposed to monitor crop-field using sensors for soil moisture, humidity and temperature. By monitoring all these parameters the irrigation can be done automatically. But the main disadvantage is the mobility of information. Mobility is a key component of smart farming – you need to be able to access the information you need from anywhere, at any time.

Explore AS, differentiate

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

2. JOBS-TO-BE-DONE / PROBLEMS

At the core of every smart agriculture solution are powerful data analytics capabilities. It's one thing to collect data, but the data collected will be of little help if you're not able to make sense of it. You need a software solution that can help you obtain actionable insights using the data collected.

9. PROBLEM ROOT CAUSE

Frequent changes and unpredictable weather and climate made it difficult for farmers to engage in agriculture. These factors play an important role in deciding whether to water your plants. Fields are difficult to monitor when the farmer is not at the field, leading to crop damage.

7. BEHAVIOUR

We can use devices such as weather stations that combine data from various smart farming sensors. These sensors collect data about the environment and send it to the cloud, helping farmers to tailor their responses according to climate conditions.

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3. TRIGGERS

Farmers have a hard time predicting the weather. Farmers struggle to provide adequate irrigation. Inadequate water supply reduces yields and affects farmer's profit levels.

4. EMOTIONS: BEFORE / AFTER

Before, farmers cannot be able to monitor the field every time and cannot predict the with accuracy. Now they will be able to monitor the field at any time and can predict weather with accuracy.

10. YOUR SOLUTION

IoT technologies can help farmers monitor livestock health and location. Livestock tracking devices collect data on stock location, and livestock temperature monitoring devices can help farmers identify sick animals. Crop management devices can be placed in the field to collect data specific to crop farming, including temperature, precipitation and overall crop health. Having this knowledge accessible at any time, from anywhere allows the farmer to monitor crop growth efficiently and take steps to prevent any unwanted outcomes.

8. CHANNELS of BEHAVIOUR

In online, Real-time data taken from a smart agriculture solution can optimise crop yields by using data such as moisture levels, soil quality and weather conditions to suggest a practical plan for harvesting. Optimising the productivity of individual plants through smart precision farming. In offline, customer choice of hardware will depend on the types of information you want to collect and your overall smart farming goals. It's important that any sensors or other hardware collect data accurately and reliably.