Project Title: Smart Waste Management System For Metropolitan Cities Using IOT

Project Design Phase-I - Solution Fit Template

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Define CS, fit into CC

1. CUSTOMER SEGMENT(S)

CS

Main customer of our project is

- Municipality workers, working to remove the garbage from the municipality garbage bins in cities.

6. CUSTOMER CONSTRAINTS

C

Network connectivity would be the main constraint as we use Wi-Fi which has major limitations like in coverage, Scalability and Power consumption.

5. AVAILABLE SOLUTIONS

AS

For smart waste management system, Lots of IOT based solutions are there. But, one huge disadvantages of smart waste management system using IOT is that it requires an unlimited or continuous internet connection is required. So this smart waste management using IOT is used in metropolitan cities with public Wi-Fi network.

Explore AS, differentiate

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

2. JOBS-TO-BE-DONE / PROBLEMS

J&P

It is too difficult for municipality workers to check whether the garbage bins are full or not.

The man power and the time is wasted for checking garbage bins.

9. PROBLEM ROOT CAUSE

RC

Technologies keeps developing but still the workers were struggling to check the garbage level in garbage bins physically. So in order to avoid this and to help the workers, the smart waste management system application were created.

7. BEHAVIOUR

BE

IOT application helps municipality workers to collect the data regarding the location and status of the garbage bins. IOT application is equipped with number of ultrasonic sensor which collect the status of the garbage bin and send the information to municipal office.

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

3. TRIGGERS

Workers get triggered mainly because to know the status of the garbage bins whether the garbage bins are full or not.

4. EMOTIONS: BEFORE / AFTER

Before:

Loss of time, Frustrated, Other works got affected.

After:

Work is scheduled based on the work and time, Get a chance to spend the work time efficiently.

10. YOUR SOLUTION

To reduce the work energy of municipality workers, the application were developed. The application is synced with the IOT hardware component which is fixed or placed in garbage bins to detect the levels or the storage of the garbage bins and send the data to the municipal office once the garbage bin is full. The data includes level of the garbage bins and location of the garbage bins Even the workers can check the status of the garbage bins frequently with the help of the application remotely.

8. CHANNELS of BEHAVIOUR

CH

Offline:

The IOT based smart waste management system not only helps in modernizing the conventional methods, But also to know the status of the garbage level in the garbage bins.

Online:

The IOT based smart waste management system is beneficial in the form of municipality workers can know the status of the garbage level in garbage bins and where it is located remotely.

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