Project Design Phase-I - Solution Fit

Project Title: Gas Leakage Monitoring and Alerting System **Team ID:** PNT2022TMID20329

TEAM MEMBERS :

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1.CUSTOMER SEGMENTS	6. CUSTOMER CONTRAINTS	5. AVAILABLE SOLUTIONS
• Large industries were heavy equipments are used in which gas leakage is possible these industries admins are our major customer • Sometimes it is hard to identify the area where the leakage occurs	• Proper maintenance should be taken at least once in a month and this prevents the customers from taking actions in gas leakage problem.	• Usage of sensors to sense gas Leakage. • Buzzer to indicate the leakage. • GSM module helps us to get notification when there is a gasleakage.

2. JOBS-TO-BE-DONE / PROBLEMS

- Most of GAS explosions are caused by undetected gas leakage in the pre detection condition
- So that the gas leakage monitoring and alerting system is needed
- The purpose of the system is to detect the gas leakage neutralize it and prevent explosion

9. PROBLEM ROOT CAUSE

- Some of the faults in the machines, leakage by the machines, people carelessness in workplace and life security

7. BEHAVIOUR

- Network issue is very common as most of the industries are located at the country side. Here contact both the developers and the service providers.
- To determine the gas characteristicsand solve the issue, they will locate the leak and identify the warning.

3.TRIGGERS

- The trigger varies from the incorrect installation to the use of defective gas cylinders. Employee and organization safety triggers this installation

4.EMOTIONS:Before/After

- Before the action is taken the user feels deceived and cheated.
- After the problem is resolved user feels the sincerity of the developer

10. YOUR SOLUTION

- Low cost IOT based device that canbe easily accessed and fixed by people.
- Network strength must be boosted inthe device.
- Device can be manufactured in multiple standards based on the environment.

8. CHANNELS OF BEHAVIOUR

ONLINE

- Sending messages via gsm

OFFLINE

- Prevent physical damage to sensor.
- Provide proper network and power supply to sensors.
- Complaint letters.
- Alarm generates high noise which provides warning