Project Design Phase-I - Solution Fit

Project Title: Gas Leakage Monitoring and Alerting System **Team ID:** PNT2022TMID04616

TEAM MEMBERS:

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1. CUSTOMER SEGMENTS	6. CUSTOMER CONTRAINTS	5. AVAILABLE SOLUTIONS
➢ Large industries were heavy equipment 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 takenat least once in a month and this prevents the customers from taking actions in gas leakage problem.	➢ Usage of sensors to sense gasLeakage. ➢ Buzzer to indicate the leakage. ➢ GSM module helps us to getnotification when there is a gas leakage.

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 alertingsystem is needed
- The purpose of the system isto 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 characteristics and 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 can be easily accessed and fixed by people.
- Network strength must be boosted in the 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.