

## Project Design Phase-I - Solution Fit Template

**Project Title:** Gas Leakage Monitoring & Alerting System For Industries

**Team ID:** PNT2022TMID39853

Define CS, Fit into CC	<b>1. CUSTOMER SEGMENT(S)</b> The technology of the Internet of Things has resulted in the development of innovative solutions for multiple industry verticals. Whether these gases are used for manufacturing or are byproducts of any process in a facility, it becomes very important to monitor and control them Our customers are most industry verticals where IoT powered gas monitoring and detection systems are a must. like Semiconductor Manufacturing Industries, Wastewater Treatment Plants, Chemical Industry and also it's can be used in House, School and Hospitals.	<b>6. CUSTOMER CONSTRAINTS</b> Customer constraints are something that limits or controls our customers before buying the project some of the customer constraints are <ul style="list-style-type: none"><li>Budget</li><li>Quality</li><li>Availability</li><li>Satisfaction</li><li>Risks</li></ul>	<b>5. AVAILABLE SOLUTIONS</b> As a solution for the problem, a monitoring system of gas detector by wireless system needs to be developed in order to solve the problem. By monitoring system wirelessly, user can remotely view the condition of the home without them being there themselves.	Explore AS, differentiate

## Phase II - System Fit & Refinement

Focus on J&P, tap into BE, understand RC	<b>2. JOBS-TO-BE-DONE / PROBLEMS</b> Environmental commitments and most importantly the basic function being prevented by accidents and protect life and property from disasters. Thus it takes nearly 60 min to detect when 1% of gas leak occurs.	<b>9. PROBLEM ROOT CAUSE</b> However, sometimes problems can appear out of the blue causing unforeseen costs and problems like <ul style="list-style-type: none"><li>Sensor Placement</li><li>Sensor drift</li><li>Sensor Failure</li><li>Communications failure</li></ul>	<b>7. BEHAVIOUR</b> Customer can address their problems and get the job done in below steps <ul style="list-style-type: none"><li>Social Media</li><li>Feedback</li><li>Mail Survey</li><li>Official website</li></ul>	Focus on J&P, tap into BE, understand RC

<p><b>3. TRIGGERS</b> <span>TR</span></p> <p>Liquid petroleum gas (LPG) is highly inflammable and can burn even at some distance from the source of leakage. Most fire accidents are caused because of a poor-quality rubber tube or the regulator is not turned off when not in use. Therefore, developing the gas leakage alert system is very essential. This reason triggers the people to install gas leakage monitoring system</p>	<p><b>10. YOUR SOLUTION</b> <span>SL</span></p> <p>Our system helps customers to upgrade their safety and protect life and property from reputed accidents. The system is much more efficient and also the sensor used in the system for constant detection of any change in the environment. Immediate action is taken if there is an accidental leakage insuring 100% safety. The proposed system helps the LPG gas customers to lead a pleasant life.</p>	<p><b>CHANNELS of BEHAVIOUR</b> <span>CH</span></p> <p><b>Online:</b></p> <ul style="list-style-type: none"> <li>• E-mail</li> <li>• Social Media</li> <li>• Online groups</li> </ul> <p><b>Offline:</b></p> <ul style="list-style-type: none"> <li>• feedback letters</li> <li>• Visit near by branch</li> <li>• Home services</li> </ul>
<p><b>4. EMOTIONS: BEFORE / AFTER</b></p> <p><b>Before:</b></p> <ul style="list-style-type: none"> <li>• Insecure</li> <li>• hopeless</li> <li>• helpless</li> </ul> <p><b>After:</b></p> <ul style="list-style-type: none"> <li>• feel safety</li> <li>• confidence</li> <li>• relax</li> </ul>		