

## Project Design Phase-I - Solution Fit

Project Title: Smart Waste Management System For Metropolitan Cities

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Define CS, fit into CC	<b>1. CUSTOMER SEGMENT(S)</b> <span>CS</span> Every Citizens and Municipalities	<b>6. CUSTOMER CONSTRAINTS</b> <span>CC</span> Technology regarding Sensors, budget, no cash, network connection, available devices.	<b>5. AVAILABLE SOLUTIONS</b> <span>AS</span> Calling Municipality officers everytime to clean the bins Though the solution had sensors the GPS is not embedded	Explore AS, differentiate
	<b>2. JOBS-TO-BE-DONE / PROBLEMS</b> <span>J&amp;P</span> We resolving the problems on frequently filling bins. On integrating the GPS module the truck driver can easily find the exact location. On deploying the dynamic web page everyone can have access to it regarding the bin status	<b>9. PROBLEM ROOT CAUSE</b> <span>RC</span> Frequent overflow of dustbin which causes disease to environment. Periodic checking for unfilled bins leads to increased manpower ,fuel usage and cost.	<b>7. BEHAVIOUR</b> <span>BE</span> customers spend free time on volunteering work (i.e calling municipality)	

	<div>3. TRIGGERS</div> <div>TR</div> <div>Achieving smart city</div> <div>Making the environment clean and disease free.</div>	<div>10. YOUR SOLUTION</div> <div>SL</div> <div>On creating the Smart waste Management System For Metropolitan Cities,we achieving the SWACHH Bharat system by embedding ultrasonic sensor and load sensor for detecting the level of the bin and GPS module is used for detecting the exact location of the dustbin and these data were collected and sent to IBM cloud for analysis and the result were displayed in the web application regarding the bin status and the message will be sent to respective admin when the bin level reaches threshold value.It makes the frontline worker job easy and fast cleaning.</div>	<div>8. CHANNELS of BEHAVIOUR</div> <div>CH</div> <div>8.1 ONLINE</div> <div>Municipality officer can easily access through online(i.e web application) regarding the level of the bin.</div> <div>8.2 OFFLINE</div> <div>Doesn't create much impact on offline mode.</div>	
	<div>4. EMOTIONS: BEFORE / AFTER</div> <div>EM</div> <div>BEFORE:</div> <div>Endeavor</div> <div>Venture</div> <div>AFTER:</div> <div>Feeling Delightful</div> <div>Accessible</div> <div>Effortless</div>			