Project Title : Traffic And Capacity Analytics For Major Ports **Project Design Phase-I - Solution Fit Template**

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Define CS, fit into CC

1. CUSTOMER SEGMENT(S) CS

The Central Government, which manages Indian Railways, will benefit most.

The organization that routinely transports its goods

6. CUSTOMER CONSTRAINTS CC

The Indian railway system is a pillar of our economy. It's crucial to analyse those because it's challenging to manage traffic in those major ports.

5. AVAILABLE SOLUTIONS AS

Several interlocking device types were introduced.
Interlocking manually: Relay, Telematics, Mechanical, and Human Electronic, free-wired relay automatic interlocking.
Failure of the interlocking system can result in a collision.
There are two types of ERTMS, the common signalling and communication system.(ATP)
GSM-R ETCS (European Train Control System)
(Global System for Mobile Communications - Railway)
None of these options were effective enough.

Explore AS, differentiate

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

2. JOBS-TO-BE-DONE / PROBLEMS J&P

Data analytics can help in reducing rail corridor congestion and enhance the port connectivity

Effective analysis must be done of all the port traffic data.

A critical part of port development is port-rail connectivity, both from an economic and competitive perspective and to minimize the adverse externalities on people and the environment.

9. PROBLEM ROOT CAUSE RC

1.Delay in transporting goods

2. Loss for Industries

7. BEHAVIOUR BE

The customer is the one who sends their goods by train; they need to know if they will arrive safely. They also require the reputation of Indian Railways, which promotes growth for both parties.

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

Identify strong TR & EM	**3. TRIGGERS** TR Due to increased traffic, it was necessary to assess the capacity and traffic in key ports.	**10. YOUR SOLUTION** SL Our Idea is to ask the details of their product and start destination with their given	**8.CHANNELS OF BEHAVIOUR** CH 8.1ONLINE Customer can track their goods in their place 8.2 OFFLINE After the product is reached their required destination Customer will be informed through a normal message which does ’t required any network	
	4. EMOTIONS: BEFORE / AFTER EM **BEFORE:** They were unhappy about their products. **AFTER:** They were at ease and felt safe. Transportation			