Project Design Phase-I
Solution Architecture

Date	19 September 2022
Team ID	PNT2022TMID36465
Project Name	Traffic and capacity analytics for major ports
Maximum Marks	4 Marks

Solution Architecture:

Smart ports:

Smart ports are an effective solution to increase the network capacity and frequency of rail freight. Proper loading and deloading of freight goods with IOT aide can influence the rail freight with safe transportation. Hassle free, good transportation is ensured. Proper ports system builds trust with people which increases users of rail freight.

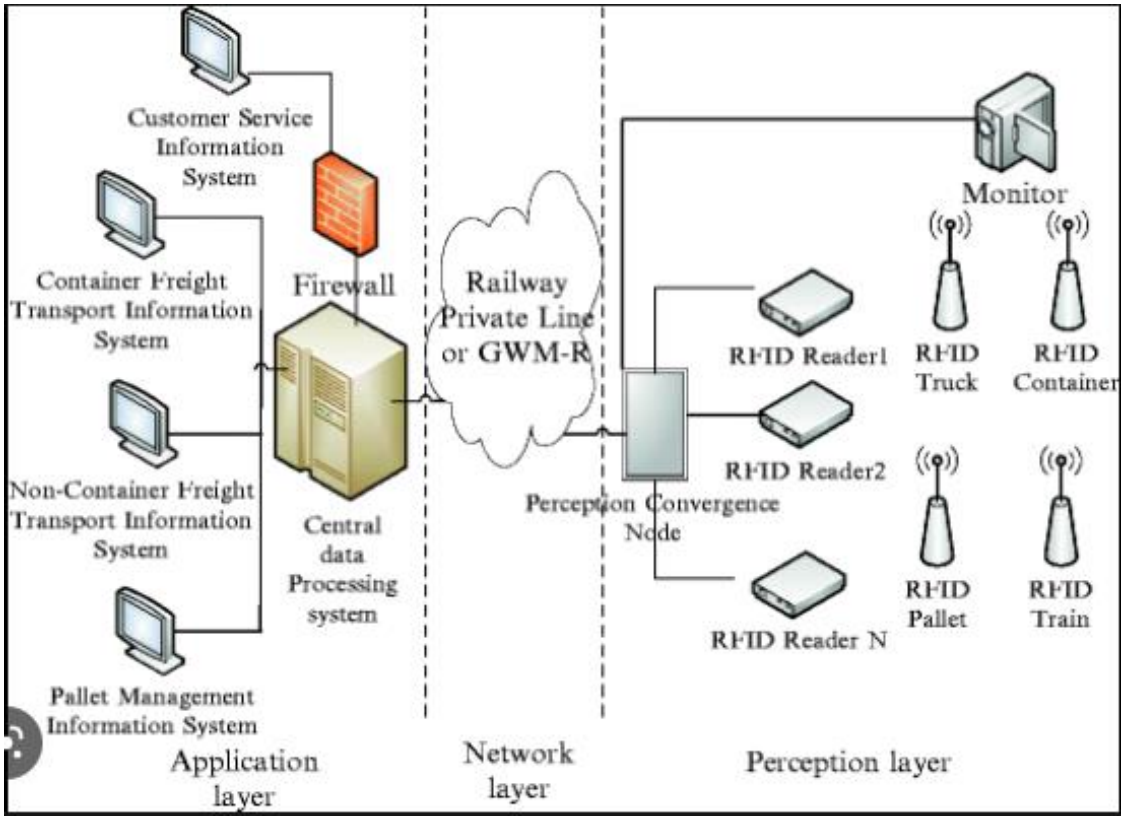
Royal HaskoningDHV described a 5 development stages framework on becoming a smart port.

Optimization of rail routes:

Major drawback of rail freight is non-optimized rail routes which affects the economy of rail freight. Most of the customers tend to know about the rail routes that is most efficient and cost friendly. Access to such route information also increases trust with customers and increases the rail freight usage.

Proper IOT Tracking of Rail Freight:

Major concern of small scale users of rail freight is the safety of goods. Large scale industry user often transport raw materials in large quantities. Improvised IOT influenced tracking of goods ensures safety of rail routes increasing customer satisfaction.



Proper auctioning system in Major Railway Warehouses:

Auctioning unattended goods is the best option yet a proper procedure should be followed. Senders of the good must be contacted in every way possible before auction which includes emails, letters through post and calls.

Once the sender is unreachable, every good must be checked of its Warehouse Expiry Dates (WED). Once a good has passed that date only then it must be sent for auction.