



CASE STUDY | TRANSPORTATION

JIDO Enables IOT on Multimodal Transportation in Container Tracking for Indian Rail Network

BACKGROUND

One of the largest wagon manufacturers in India was in the process of implementation of a multi-modal transportation project, where the wagons that run on the railway lines can also travel on road. These newly designed containers would be carried by road from the port to a depot and then would run as a railway wagon for around 2,200 km from the southern end of India to the depot in the north-western part of India. After reaching the depot these same containers would run on the road to their final destination to the door of the customer. The customers wanted granular tracking data of these newly designed containers from one end to the other end, without any black holes in between.

CHALLENGE

The wagon manufacturing company was looking for an end-to-end system to visualize the cargo being transported in this new system that could work seamlessly with both roadways and the railways. The railway environment requires ruggedized products and the biggest challenge was that there were no products available that could operate for more than 3 weeks on a single charge. The system had to be flexible and easy to attach and detach. Tracking data had to be error-free, without gaps, since the long route of more than 2,200 km covers many states and geographically remote areas. Real-time alerts and notifications of scheduled and unscheduled stops, route deviations, or excessive delays were a requirement for the customer, as they required granular tracking data of each container.

Most importantly, as the containers were carrying valuable items, the customers wanted to be alerted when a container is opened without authorization, as the route passes through unpopulated areas and is prone to theft.

CHALLENGE

RAILWAY WAGONS & CONTAINER TRACKING FOR SUPPLY CHAIN

REQUIREMENT

IOT IN MULTIMODAL TRANSPORTATION

NEED

SAFETY & SECURITY OF CONTAINERS DURING TRANSPORT

DEVICE

SMART LOCK GPS TRACKING

DISTANCE

TRACKING OF WAGONS ACROSS 2,200 KM OF RAILWAY NETWORK

COMMUNICATION

DUAL-SIM, MONTH LONG BATTERY

INTEGRATOR

STESALIT SYSTEMS LIMITED & VARA TECHNOLOGY

END-CUSTOMER

VARA TECHNOLOGY

REGION

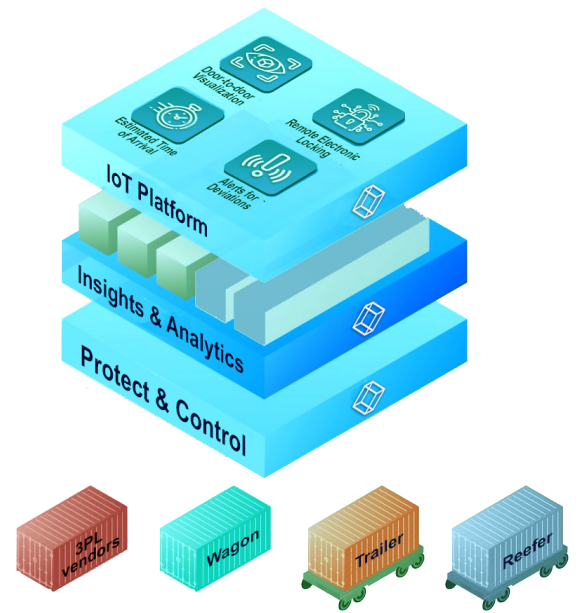
INDIA

INDUSTRY

TRANSPORTATION

SOLUTION

JIDO GPS CONTAINER TRACKER



SOLUTION

The wagon manufacturing company with its technology partner conducted a comprehensive study of the possible tracking and monitoring solutions for this mission-critical project. **JIDO Container Tracking Devices** was chosen as the most ideal solution that met all of their requirements and key criteria.

Each of the newly designed container had a JIDO container tracking device as an integral part of the system. JIDO's dual SIM card helped with seamless telecom connectivity with the tracking software hosted on cloud. JIDO provided end-to-end location tracking throughout the journey of the container, be it on the roadways or the railways, powered by its large battery that lasts for a month on a single charge.

With the attachment of JIDO with each of the container, for both road transport in trucks and rail transport in wagons, and real-time alerts were accurately generated from the geo-fenced areas created along the routes. In addition, JIDO's cloud-based analytics platform provided all the alerts for any delays, route deviations, zone ins and zone outs; resulting in accurately reporting the estimated time of arrival of the container at the door of the end customer.

JIDO has a smart lock system, which can only be opened by an authorized person who has its key. In the event of unauthorized opening of the container, opening of the container in a place not intended for loading or unloading cargo, or any attempt to tamper with the container or JIDO, an alert goes out immediately to control room with all the details, including the location and the container number.

RESULTS

After the initial pilot, the system was perfected, people were trained, and the project was put into operation with much fanfare and media attention. Once fully implemented this system will reduce road maintenance costs and minimize both noise and air pollution. For any multi-modal transportation scenario where containers, cargos or freight is carried by sea or land, road or rail, JIDO proved to be the ideal solution in India to have complete control and door-to-door visualization.