

CASE STUDY

RFID/ QR based Gate Automation at Mormugao Port (GOA) V. O. Chidambaranar Port Trust & Chennai Port Trust



Mormugao, VOC & CHPT wanted a state of Art Port Access Control System based on RFID and or QR. The main objective was to usher in a trouble free, IPA compliant pedestrian & vehicle management system which not only streamlines the Access to and From Port but also manages the overall toll collections while ushering in a cash less environment.

THE REQUIREMENTS

An Online system that issues port entry permits which is integrated with bank payment gateways, wallets , gate security systems, weighbridge and internal financial system.

The built system should adhere to IPCA guidelines wherein the system shall keep accurate track of the users both Man & Machine inside the port at any given time.

Seal all the loop-holes in revenue collection from the Port users.

Provide a simple, hassle-free and completely transparent system for the port users.

The system should provide verifiable inputs to CISF for monitoring all users and vehicles with genuine authenticity.

Build a safe escalation matrix for handling any unforeseen incident.

The system should efficiently handle all types of Port Users. Let it be single day pass users or Long duration Pass users or Permanent users.

The system should liaise with the current Customs portal for smooth movement of vehicles & materials.

The system should be Integrated with the weigh bridge so that manual feed is not required anymore.

Also it should be integrated with financial systems like SAP for smooth financial & administrative operations.



THE SOLUTION

Protel Labs, developed and implemented the entire solution in a time bound manner and the same is maintained for more the 4 plus years successfully through our partners. The software solution developed allowed users to book slots as & when required through an online portal. All bookings were routed to the designated port officials / Traffic Manager to authorize the genuine requests. Following which the data would smoothly flow into our very own Gate access hardware. All the gates of the port were equipped with our Physical Barriers connected to our readers and in turn to our central system. The users would be granted access by the barrier, only at the desired date & time approved by the officials. Incase there is a delay in the exit of the user, the system will collect penalty from the user's wallet. The flow of data was seamless between the hardware and software Protel Labs was instrumental in providing both the hardware as well as software for the solution. The system was equipped with algorithms to allow only permitted vehicles & Manpower after considering the capacity of the area. Also once a user is granted an access to the port, the system will monitor the movement and notify the control room incase of any deviations. In-Addition, the system had provisions for CISF to access the stored data of the users for performing manual validations whenever required. It is also to be noted that, our system was able to perform handshakes with pre-existing SAP systems without any hiccups and had provisions of pre-loaded electronic wallet for ease of use. All IPCA guidelines are adhered in the solution.



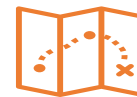
THE CHALLENGE



Multiple pre-existing legacy systems



24/7 hardware operation on rugged coastal area



A facility that is spread across several Kms.

THE BENEFITS



Sealed all pilferages and collected a revenue of 5+ crores post implementation of our solution

Single Dashboard for monitoring Pass issuance, Collection in Bank & Cash, Vehicle traffic, Emergency Head count.



Vehicle and Driver photo verification on flash of the pass to assist CSIF to do physical verifications.

Compliance to IPCA standards

