



Intelligent Transport System for City Transport System

Customer Requirements:

The client wanted to implement an integrated transport system to instil intelligence into the system of city and inter-city buses.

Problems:

- PROBLEM 1: Bus Bunching
- PROBLEM 2: Passenger information unavailability
- PROBLEM 3: Erratic flow of buses
- PROBLEM 4: Maintenance hazards and breakdowns
- PROBLEM 5: Rash driving
- PROBLEM 6: Excess fuel usage
- PROBLEM 7: Security issues

Intelligent Transport System

Integrated Intelligent Transport System has the following components:

- Integrated Electronic Ticketing and Online Reservations
 - Online Electronic Ticket Issuing Machine
 - Online Reservation System (ORS) at booking windows and through Internet
 - ORS through secure payment gateway & mobile application
- Management Information System (MIS)
 - The MIS solution provides real time data needed to manage the transport operations efficiently and effectively
- Vehicle Tracking Solution (VTS)
 - VTS is a real-time, GPS-based tracking system that shows vehicle movement on an electronic map with vehicle information and related data.
- Passenger Announcement Systems (PAS)
 - Vehicle's location (GPS readings) information is passed to the depot level. This information can be used to update the passengers in real-time.
- Passenger information System (PIS)
 - Passengers can get information about bus stoppages, route details through display boards and speaker systems, installed within the vehicle.
- **Benefits of Integrated Electronic Ticketing and Online Reservation:**
 - Centralized administration and revenue assurance
 - Secure payment reconciliation and settlement
 - Effective cash management and customer convenience
 - Low total cost of ownership

- **Benefits of Management Information System (MIS):**

- Protection and management of fleet in real time, anytime, anywhere
- Reduction In fleet operating cost
- Improved productivity & revenue
- Hassle-free fleet management
- Advanced safety & convenience



- **Benefits of Vehicle Tracking Solution (VTS):**

- Convenient access to transportation
- Smart, paperless transactions
- Inter-operability
- Passenger tracking
- Fleet optimization and business re-engineering



- **Benefits of Passenger Announcement Systems (PAS):**

- Depot-wise analysis report
- Depot-wise, trip-wise earnings with EPKM, LF and No. of passengers
- Account head-wise report
- Concession-wise revenue report



- **Benefits of Passenger information System (PIS):**

- Streamlined business process and provision for business visibility
- Automation of manual process Identified RoI
- Reduction in overstocking of spares and consumables, losses due to pilferage and other costs



Command Control Center

Command Control Center is the core of the whole system, the control centre team can easily monitor at any instant of time:

- where the bus is located,
- how many trips it has done,
- how much fuel the vehicle is carrying or has there been any pilferage
- engine parameters over a period of time for preventive maintenance



- rash driving parameters for driver rating and screening
- security camera video feed

One-Click View and Control Dashboard

1. Graphical Rich Map View
2. Panic Alert Notification
3. View Active Routes
4. View all bus queue shelters
5. One click vehicle details
6. Send Text Broadcast to all Bus
7. Map Legends and Symbology
8. Send Voice Broadcast to all Bus
9. Present & Upcoming Trips
10. Crew on Board details
11. Graphical Vehicle Dashboard
12. Vehicle Crew Details
13. Vehicle Technical Details

Benefits of ITS

Convenience of travel

Schedule Information
Mobile Apps
Estimated Time of Arrival

Security On-board

CCTV Surveillance
Real Time Tracking
Alarm on Panic
Driver Behaviour Scorecard

Reliability on transport

Streamlines Operation
Well Behaved Crew
Good Vehicle Health