Automating passenger logistics & online booking through an intuitive app to make the process easier and quicker

**Case Study**

**Industry:** Transport & Logistics

**Deliverables:**
- Mobile app
- Web App
- Pad/Tablet app
- The tracking system

**Technology:** Asp.NET MVC, MS SQL, iOS, Android

**Country:** India

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**Project Goal:**
Automation of the internal manual operations and requirement of a fleet management system to manage 3000+ fleet, create a brand presence for their new “Passenger Luxury Bus Segment” as well as provide their drivers with an application to track the booking on the go. To provide customer with an online ticket booking system and with a vision oriented solution to update them about the fleet’s current location.

**Challenges:**
- It was difficult for the client to manage the fleet of more than 3000 buses without an automated system.
- Tracking the bus current location was difficult without any robust solution
- Lack of platform that provides a central administration and integrates it with branch operations for fleet management and its routes
- The client wanted to transit from manual process of booking tickets to an online ticket booking solution while still retaining the control over the process
- The client wanted to augment its brand presence for the new “Passenger Luxury Segment”
- Reduce customer churn, enhance customer experience & improve customer acquisition
- Daily manual operations, tracking of all the activities and repairs related to the vehicles was cumbersome and time-consuming
- There was the high risk of human errors and cheating in terms of fuel, replacement of machine parts and it’s servicing
- Lack of engagement between the administration and the driver

Robust online bus ticket booking system that uses an affiliate network to allow users to book bus tickets in the Gujarat State only. The solution also has an iPad/Tablet application helping drivers to track the bookings on the go. The ultimate web portal is to make fleet management seamless and maximize productivity as well as reduce the costs.
Case Study

Solution:

Web and Mobile Application for Online Ticket Booking
The web and mobile application had all the features including bus online ticket book combined with other features like Search ticket, book ticket, printing booked ticket, ticket cancellation, Change travel date, change passenger details, split PNR, Email ticket and Track ticket status.

The system allowed end-users to:
- The user can get all the information regarding buses, the number of buses, and availability of seats
- The user was able to select his/her preferred through the dynamic seat layout in the system
- Book their tickets at counters and also by getting the help of operators to make an online payment
- Online payment gateway was integrated for end-users to make direct easy payments.

Features:

End-user App Features:
- A dynamic seating layout and defining bus routes in the mobile as well as web interface
- Booking Feature – Trip booking, Cancel/ Reschedule booking, Seat Selection and Search feature
- Bus tracking feature – Track and find bus quickly on PC, tablet or smartphone
- Passenger Check-in, Online payment, Payment receipt, print out of e-tickets

Admin/ Driver App Features:
- Track of online ticket booking, Cancel/ Reschedule booking details
- GPS Tracking feature to track the current location & location history of the buses
- Admin login to manage trips, ticket rates, coach seating, discounts, generate trip sheet with passenger details.
- Track of details incurred on the sale of food & beverages
- Dashboard to manage internal operations, Passenger check-in, Fleet maintenance details, employee & driver details, account information, call center support, route information & schedule transit

iPad/ Tablet Application for Drivers
The tablet app was given to the drivers so that they can manage bookings on the go from anywhere. iPad and Android Tablet apps catered to the operations and reporting management of vehicle and were operated by the driver.

The foremost objective of the tablet application was:
- The foremost objective of the apps was to make passenger check-in digitally using an inbuilt barcode reader. This otherwise is done manually by most of the travel companies.
- Add the food and beverage sales from inside the bus immediately after sales.
- Record mandatory routine supervisions of the bus condition before embarking on the journey with images to support the checks.
- Report for vehicle transfer request, vehicle inspection, vehicle transits, vehicle location via GPS, vehicle maintenance, and repairs etc.
Bus tracking system
We also implemented GPS vehicle tracking which helped the client experience significant benefits both in terms of improved job efficiency and a reduction in fuel costs. The bus tracking system offered the right tools to give them the accurate and up-to-date information about the drivers and their location. This way they can reduce the idling time, increase job productivity. All these updates they can get on their fingertips and run the business a lot more smoothly and efficiently.

Fleet operations management system
In the admin module, the administrator was able to perform the following tasks:
- Manage trip details including Bus schedule, bus type, a listing of bus destinations, rates, etc. cancel the tickets and approve the cancellation requests
- Get a detailed report of the daily number of trips, a total number of passengers traveling, total bookings, manage booking revenue etc.
- Through a single dashboard he was able to manage all his inward/outward fleets and transit operations like search trips, fleets in transit, manage bookings, manage inquiry etc.
- He could distribute vehicles to drivers, manage driver details, and check its routes, its location, it’s servicing, its fuel consumption and its payment, Vehicle Transfer Request, Vehicle Inspection, Vehicle Transit, Vehicle location via GPS.

Result:
Our solution proved flexible and vital for the client in maximizing productivity, reducing cost, streamlining the maintenance of 3000+ fleets, shifting from manual to an automated system and enhancing customer experience through an online booking solution. With our solution accuracy was increased by around 40%.

The data was stored centrally, making it easily accessible by the branch operator, central admin and drivers as well as customer support. Customer support was made speedy with faster responsiveness. The bus driver through iPad/Tablet app was easily able to keep a track of all the passengers boarding the bus, cancel or issue tickets on the go, supply food/beverages on the go and more. Thus, automation introduced in each process, operations of the fleet helped the client stay connected while increasing transparency and accountability.