

# Improving Distribution Process & Cost Efficiency through GPS-based Vehicle Tracking Solution for a FMCG Major



## SITUATION

The customer and its Wholesale Distributors (WD's) lacked the support infrastructure needed to monitor the movement of vehicles used for distribution of goods to the retail outlets. This made them susceptible to under-utilization and for non-official purposes, thereby hindering productive market coverage

## IMPACT

Lack of clarity in time taken for transportation, actual distance covered by vehicles, and whether the vehicles adhered to the planned route, was making the management of distribution network challenging. Lapses in critical process activities were causing needless expenditure to the customer

## RESOLUTION

ITC Infotech implemented a GPS-based vehicle tracking solution, which improved goods distribution through efficient and productive time utilization, thus yielding significant cost savings for WD's. The solution also improved efficiency of the distribution network with better traceability of the goods. The GPS derived odometer units were considered as the realistic distance travelled for payment purposes.

## The Customer

The customer is the Trade Marketing and Distribution Division of one of India's largest FMCG companies, with presence in cigarettes and cigars, foods, lifestyle retailing, personal care, education and stationary, incense sticks and safety matches.

## The Need

The customer has a highly efficient distribution network across the length and breadth of the country. Wholesale Distributors (WD) has been a crucial part of this network and is responsible in timely delivery of FMCG products in the intended markets. Due to heavy competition and margin driven nature of the FMCG business, delays and lapses in delivery may lead to loss of business advantage for the organization. The WD's have been using their vehicles to transport the goods to retail outlets. Our customer has been paying the drivers of these vehicles on a per-kilometer basis, in addition to the monthly wages.

However, since there has been no system in place that could track the movement of the vehicle, the customer had concerns about the accuracy of the fuel reimbursement bills presented by the WD's. Whether the WD's have actually utilized the time and the distance claimed for covering the designated market and retail outlets or the vehicles have been diverted for other non-official purposes, etc. remained a matter of concern. In order to clear these doubts, and to ensure that ultimately the goods reach the designated outlets within designated time, so that market opportunity is not lost to the competition, the customer needed clarity on issues such as, actual distance covered by the van, number of outlets covered in the designated time and route for which reimbursement has been claimed inclusive of idle time, etc.

The customer wanted to explore options of modern-day satellite-driven vehicle tracking systems to resolve these issues. After exploring for the right IT partner with skill set and experience, the customer chose ITC Infotech's Business Innovation Center of Business Consulting Group for an effective real time solution.

## The Solution

The team of consultants at the Business Innovation Center interacted with the customer to understand the requirements at the operational level (at the WD level). The detailed list of requirements included real time visibility of the vehicle in transit, real time reporting in case of deviation from planned route, live information on time spent at a specific location, actual running time of the vehicle, and documentation of vehicle data.

After analyzing the business requirements, the BCG - BIC consulting team proposed the deployment of the Global Positioning System (GPS) - based VTS application to track the vehicle movement. The solution has three primary components, GPS device, VTS application, and satellite communication capability.

The GPS device installed on each WD's van interacts with the VTS application through the GSM/GPRS communication. At any given time, the business user can track the vehicles through Google Maps business edition application (part of the solution). Further, the business user can completely replay and view the routes and markets that the vehicle has travelled in a given day.



### Key Highlights:

- Ability to view status of all fleet on dashboard
- Provide intelligent decision-making support
- Customized access to online application
- Real-time tracking alerts
- Monitoring of vehicle movement and reporting in both map and text format
- Ability to view the historical data associated with the vehicle

The application also allows better utilization of field force with monitoring of vehicles remotely in the field. To test the cost transparency of the solution, the team of experts also carried out a pilot implementation with two WDs located in Konkan region, Western India.

The pilot implementation at the two WD points yielded promising results as discrepancy in data reported and data calculated by the solution was greater than 30 percent. This allowed re-calculation of per km cost, leading to cost savings that encouraged the customer to deploy solution in all the 49 vehicles of its Konkan branch.

**Table 1 (Pilot Implementation: Results)**

	Total Distance Travelled	Total Distance Claimed	Difference
	2860	4766	1906
Per Km Cost	@Rs6.5	@Rs 4.5	
Total	18590	21447	2857

Following the successful pilot implementation of the solution, a larger distribution area was chosen and the customer agreed to deploy Phase I of the solution for the entire Western Region deploying the GPS based solution on 180 vehicles. ITC Infotech procured hardware from approved partners, and was also the first point of contact for query resolution. ITC Infotech's team of experts also conducted training on usage/benefit of the software solution for the customer's field staff and WD team in phase 1.

As part of Phase II implementation, ITC Infotech extended the scope of the solution to extracting market insights, like identifying top markets on each vehicle route. This helped uncover details like time spent in each market by the vehicle (a measure of the quality of coverage) and any occurrence of route deviation from the planned route.

The VTS Solution helped the customer and its WD's to track several business critical metrics on real-time basis. The tracking metrics covered by the solution included, start and end time of the van, distance travelled, vehicle movement history, and live track to check the actual position at any given time. With improved van utilization rates, and significant cost savings, the customer has decided to roll out the solution for Pan-India network.

## Business Benefits

- Improvement in vehicle Utilization Rate (Actual working days versus Ideal working days) from 72.6% to 82.8% during the nine month observation period post rollout
- Better discipline among vehicle operators, resulting in improved vehicle start time. Average start time improved from 10:55 AM to 9.55 AM



### **ITC Infotech's Business Consulting Practice**

The Business Consulting Group (BCG) at ITC Infotech is a converging point for business & IT Solutions. We aim to transform business performance, bringing a strategic perspective on process improvement and IT enablement. Our team blends domain experts and consultants, bringing unique capabilities to discover and resolve business concerns of the day.

Our expertise spans Consumer Goods, Retail, Process Industry, Logistics & Transportation, across key business functions such as product development, production, supply chain management, sales and Marketing management, field force management, and customer relationship management.

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