



GPS & GPRS Based Real Time Vehicle Tracking Solutions

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About Us

Established in 1983, PCS is a celebrated Indian IT solutions provider, delivering cutting-edge and innovative solutions that are tailored for your business objectives. With a global presence in over 20 Offices, 30 Service Centers along with 200+ direct point of presence across India, we help you enhance business performance by leveraging proven processes and technology solutions.



Creating Business Value

PCS has decades of experience in delivering unparalleled customer delight through a distinctive business model. Our model functions on :

- **Unique Pro-Customer Approach**

Our client engagement transcends beyond business associations. We consider our clients as our partners, and offer flexible engagement models to create maximum value. Our teams work with you to understand your business goals and requirements, to help you cost-effectively streamline your operational efficiency and productivity, and achieve competitive edge.

At PCS, customer satisfaction is of utmost importance. Leveraging our culture of thought leadership and constructive ideation, we explore unique and novel solutions to ensure we exceed your expectations. A testimony to this is our wide clientele of prestigious Blue-chip and Fortune 500 companies.

- **Global Partnerships for NextGen Solutions**

We believe that two is better than one. This is why we establish long-lasting partnerships with the leaders in the field of technology to keep abreast of the evolving market dynamics and global trends.

Through symbiotic relationships, we ensure that our products and services are cutting-edge, aligned for the next generation market. We understand your challenges and work with you to deliver cost-effective and pragmatic solutions that meet not only your current requirements, but also your future objectives.

- **Quality Excellence**

We believe in achieving highest quality in all our operations and functions. To ensure superior quality in every parameter of our deliverables, we ensure that our business models surpass and create new global industry benchmarks.

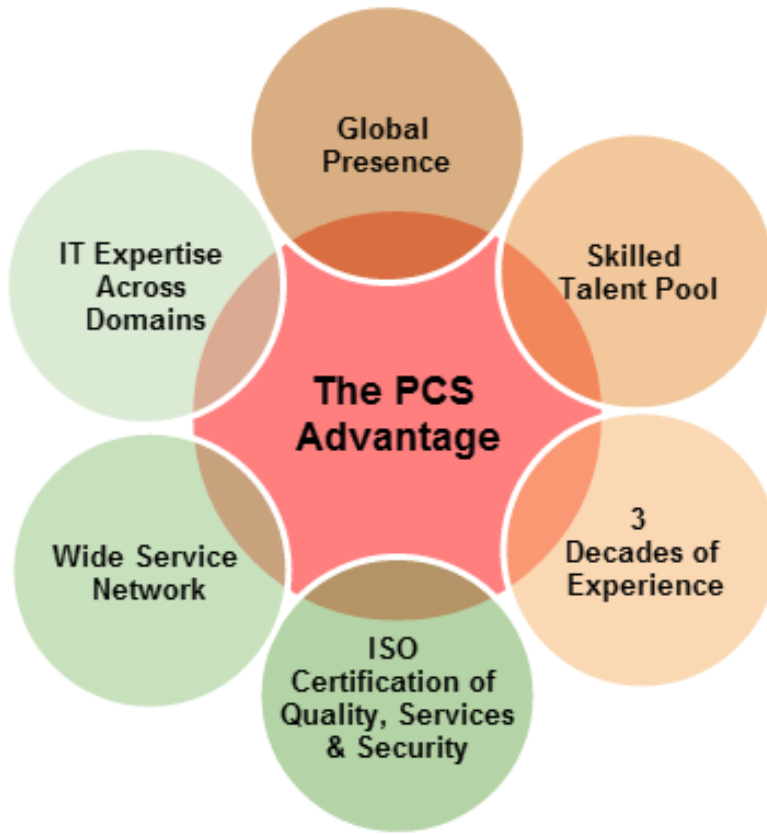
Our processes comply with international best practices such as ITIL (Information Technology Infrastructure Library). In addition, our operations have been ISO certified for excellence in quality, services and security:

- **ISO 20000-1** : IT Service Management
- **ISO 27001** : Information Security
- **ISO 9001:2008** : Quality Management Systems



- **Our Key Strengths**

- Global presence
- Over 3 decades of experience in delivering business-critical, customized, cost-effective solutions
- IT expertise across domains – BFSI, Manufacturing, Media, Retail, Healthcare, Energy, Transportation, etc.
- Wide spectrum of service areas
- Expert talent pool of professional and experienced engineers
- Unmatched Services - ISO 20000-1 Certified
- Robust Information Security – ISO 27001 Certified
- Excellence in Quality – ISO 9001:2008 Certified



GPS & GPRS Based Real Time Vehicle Tracking Solutions

Businesses face the constant need for a robust, reliable and efficient vehicle tracking solution is increasing to ensure a sustainable business advantage.

PCS offers comprehensive GPS and GPRS based Vehicle Tracking Solutions (VTS) to cater to the diverse requirements across multiple segments.



Unique Features of the VTS Unit

- Manufactured by PCS, not Imported unit
- Compact design – 8X5.5X3.2 CM
- IP 65 Standard Enclosure (Box) – Water Proof
- Inbuilt Antenna both GPS & GPRS
- SiRF VI Version (Latest)
- 48 Channel Satellite receiver
- Single Board Technology & Less components
- Built-in Memory 2000 location data
- Battery Back-up 8 hours
- Soghini Brand Mother board
- Box Tampering Alert provision
- OTA both Parameter setting & Software download
- Handshake Mechanism server & VTS Unit
- Watch Dog facility for Auto Reset of the unit

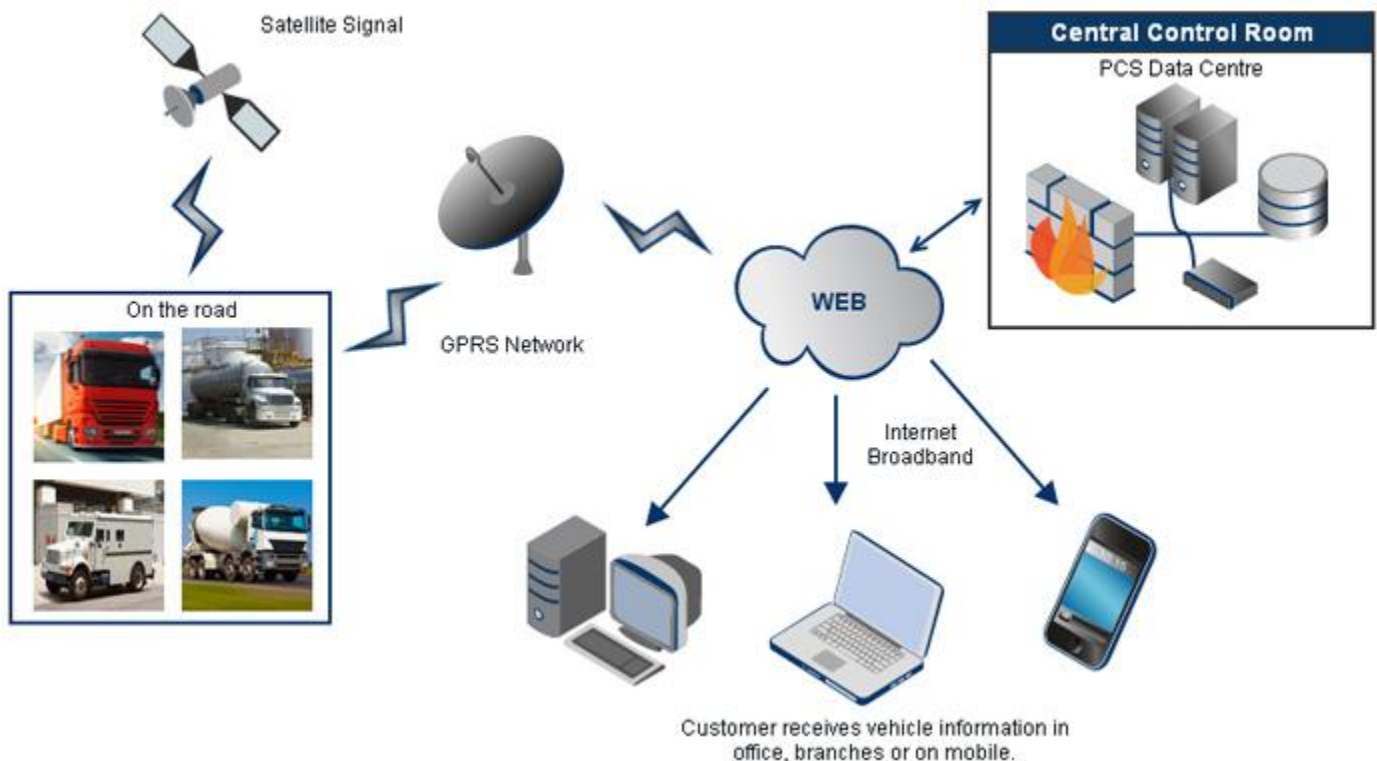


System Architecture

Real-time monitoring of vehicles' location is essential to logistics providers not only to ensure safe and timely delivery, but also to enhance productivity.

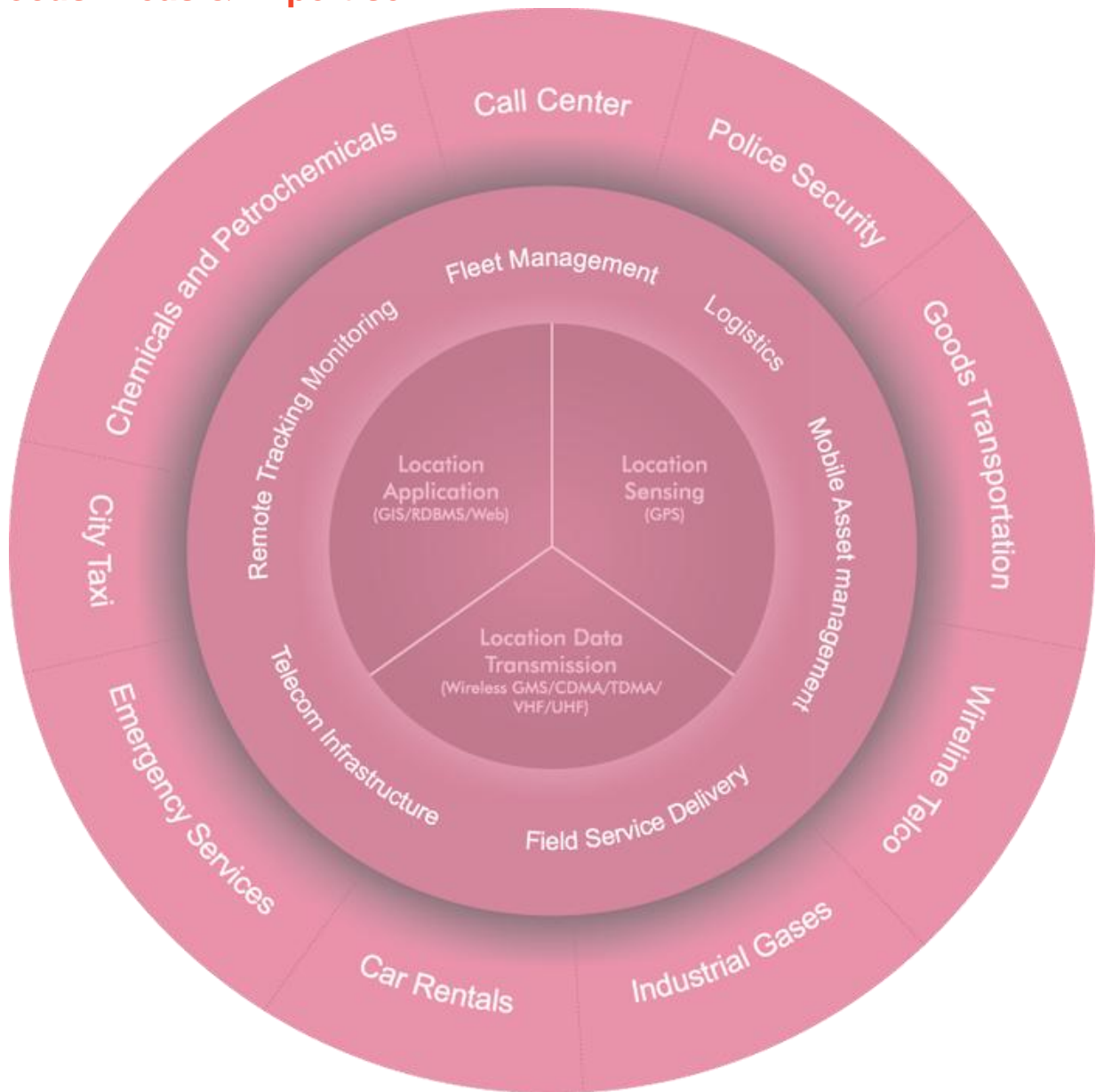
PCS has developed cutting-edge Vehicle Tracking Solutions (VTS) that ensure streamlined efficiency and enhanced safety to various vehicle owners and operators across India.

Our mounted GPS/GPRS unit sends the vehicle's location information to the control room. The data is then collated and processed on digital maps to generate critical information like location, monitoring of alarm systems, and emergency assistance.



PCS VTS System Architecture & Unique Features

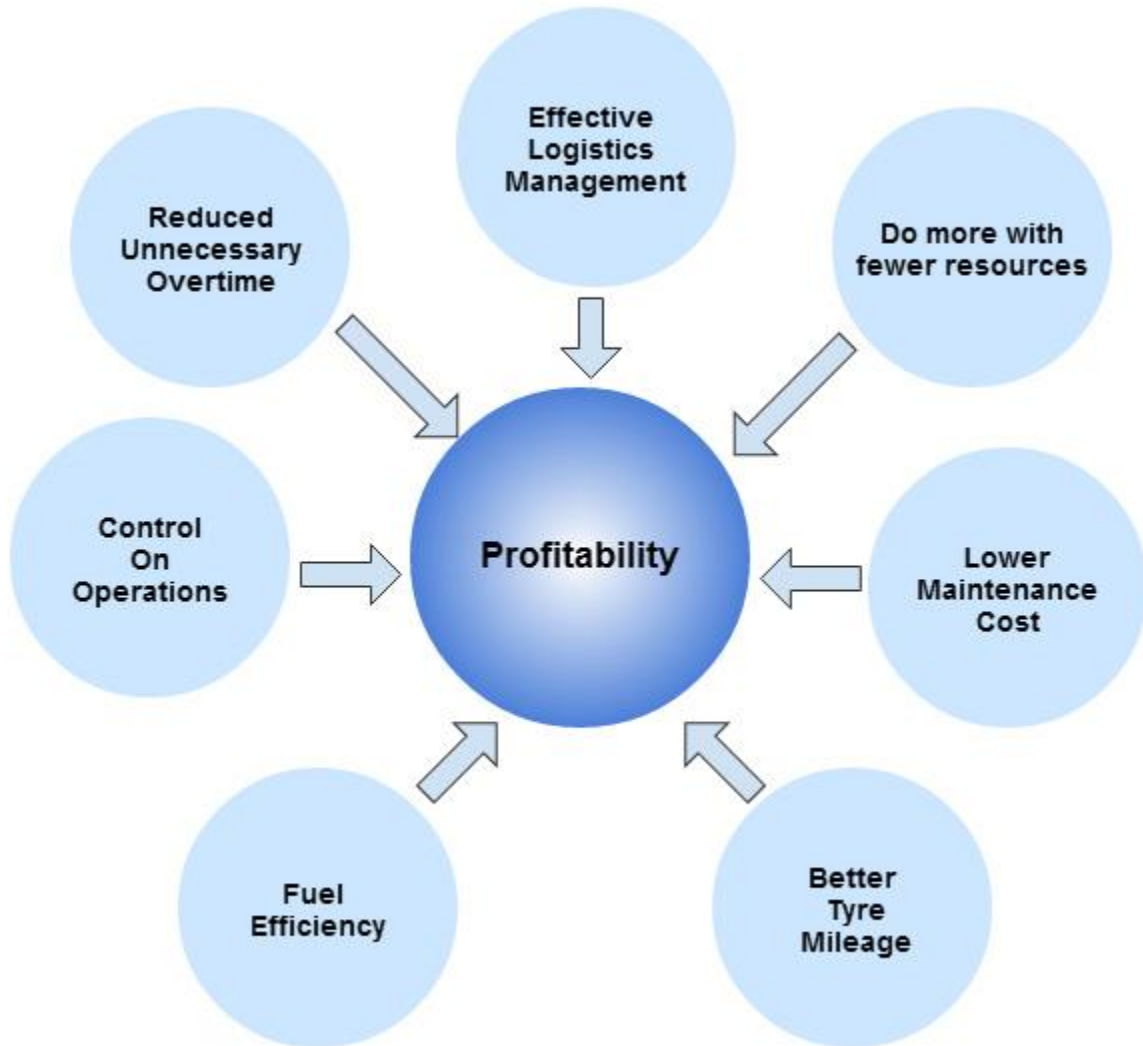
Our Focus Areas & Expertise



The PCS Advantage

- Teletracker – All-Round, Cost-Effective, Customized & Robust Monitoring Solution
- Highly Skilled In-House Team for Application Software & Integration
- Strong In-House R&D Team for Implementation of Innovative Solutions Across Verticals
- Effective Tracking with Exhaustive Reports
- Hassle-Free Integration with other Relevant Services
- Pan-India Support Network

Benefits of the VTS



Fleet Owners & Transporter Solutions

Fleet owners and transporters face constant challenges in maintaining the safety and profitability of operations. Amidst rising fuel costs and stringent safety compliance constraints, businesses have to ensure on-time deliveries.

PCS offers Teletracker – an all-round logistics solution that enables real-time monitoring of fleet trucks from a remote location – to facilitate streamlined delivery and reduced TATs.

Solution Feature Snapshot

- Real-Time Location Monitoring & Route Tracking
- Alerts on Speed Violation, Unauthorized & Prolonged Stoppage
- Travelled Distance Monitor
- Record Detention Time



Refrigerated Container & Truck Solutions

Monitoring the status of temperature-sensitive goods in transit is crucial to preserve freshness and ensure minimum damage to goods. PCS Teletracker enables end-to-end temperature monitoring of refrigerated/insulated vehicles in real time, aiding optimal delivery.

Solution Feature Snapshot

- Remote Temperature Monitoring
- Graphical Representation of Temperature Fluctuations
- Cut-Off Temperatures Determination
- Violation Alerts



Hazardous Goods Carriers Solutions

Transportation of hazardous goods requires vigilant monitoring, since negligent driving may cause adverse impacts to life and property, in addition to incurring huge monetary losses.

PCS Teletracker offers real-time monitoring to ensure safety of hazardous goods carriers, round the clock.

Features of the solution:

- Specially Designed Hardware with Easy Plug & Play
- Comprehensive Speed & Route Tracking, with Alerts on Violation/Deviation
- Harsh Braking & Sudden Acceleration Monitor
- Reports on Late Night Driving (12 am to 5 am)



Retailers, FMCG, White Goods Solutions

Retail and FMCG goods are highly vulnerable to pilferage during transit, which might cause heavy losses and impact customer satisfaction.

Our all-round solution, PCS Teletracker, features advanced proximity sensor technology to enable smart pilferage monitoring in real time.

Features of the solution:

- Industrial Duty Door Proximity Sensors
- Detection & Authorization of Door Opening
- In Time & Out Time of Delivery Alerts
- Scheduled vs. Actual Delivery Reports



School Bus & College Bus Solution

Ensuring student safety in school/college transport is a major concern for parents and management alike. Added to this are challenges like efficient vehicle management, regulatory compliance and timeliness.

PCS Teletracker employs user-friendly GPS and RFID tracking to provide up-to-the-minute data, including:

- 24x7 Real-Time Location Status
- Student Movement History
- Vehicle Movement History (Stoppages, Idling, Location, Speed, etc.)
- Preventive Maintenance Information to Recognize Potential Risks



Solution Feature Snapshot

- Vehicle Location Information to Parents via SMS
- Harsh Braking & Sudden Acceleration Monitor
- RFID Tag for Student Tracking
- Student Pick-Up and Drop Time Record
- CCTV Recording for SD Card, Local DVR, Mobile DVR, Wi-Fi, and Online
- Vehicle & Driver Fitness Alert for Conformance to Safety Norms

BPO, KPO, Tour & Travel Agents, Hotel Solution

Organizations in BPO, KPO, Hotel and Tour & Travel sector, have employees working late-night and early-morning shifts. Ensuring a safe travel for such employees is of prime concern to these organizations.

PCS Teletracker offers a compact and effective security and tracking solution for cabs; the unit can be hidden anywhere in the vehicle, and can be accessed easily during emergency.



Features of the solution

- Staff Transportation Module
- Easily Accessible SOS /Panic Button near the Rear Seat
- Hidden Unit Allowing Efficient Tracking During Hijack/Theft
- LOC Violation Alert
- RFID Tag for Employee Tracking (possible with existing RFID)

Cash Currency Management Solutions

Cash management companies face critical security risks while transporting cash from banks to ATMs.

Through PCS Teletracker, we offer a robust and advanced security solution that allows for hassle-free management and delivery of cash.

Features of the solution:

- Specialized Built-In Cash Movement Monitoring Software
- Tracking of ATMs, Bank & Godowns on Google Maps
- Electronic Door Monitoring System
- Remote Vehicle Immobilization
- Route Deviation Alert
- Extended SOS/Panic Button



Trailers, Heavy Goods Transporter, Market Vehicle Solutions

Monitoring trailers has become a necessity for logistics service providers, owing to the increasing risks of theft and road accidents, and stringent compliance standards. However, trailers are never customer or project-specific, adding to the monitoring constraints.

PCS Teletracker offers just the right solution, as it is portable and can be detached after delivery of the goods.

Features of the solution:

- Specially Designed Portable Unit
- Unit comes with Battery & Charger
- Up to 25 Days Battery Life
- Comes with Lock & Key



Asset Monitoring Solutions

Heavy assets like Excavators, Earth Movers, JCB Machineries, Boomer, Scissor Lift, etc., need periodic monitoring to ensure proper functioning and utility.

PCS Teletracker offers innovative control units that generate relevant utility information and monitor asset productivity in real time.

Solution Feature Snapshot

- Asset Monitoring LED Indicator on Dash Board
- Event-Wise MIS on Asset Utility
- Asset Utility Summary



RMC Vehicle Solutions

Ready-mix Concrete (RMC), extensively used in construction sites, has a shelf life of only 2 hours. It therefore becomes critical to monitor the RMC vehicle to ensure timely delivery of the concrete to prevent losses.

PCS Teletracker comes with a user-friendly interface loaded with customized RMC software to efficiently monitor the truck and RMC drum usage in real-time, ensuring minimal damage to the concrete.

Features of the solution:

- Rear Engine Monitoring (Drum Rotation)
- Online Batch Reports
- Track the Number of Trips for Each Site



Call Taxi / Radio Cabs Management Solution

In the face of rising competition and increasing demand for seamless customer experience in call taxi management, streamlining efficiencies and operations is the need of the hour.

PCS Teletracker offers end-to-end management assistance – from scheduling and dispatch to billing and MIS. It enables effective monitoring of the vehicles' location and stoppages. It can also be integrated with digital fare meter to monitor revenue generation.

Features of the solution:

- Taxi Dispatch Module
- Call Receiver Module & Related MIS
- Digital Fare Meter Integration
- Running Meter & Empty Meter Tracking
- MIS on Revenue Generation



Optional : Add-On Features

PCS Teletracker is a unique and cost-effective vehicle tracking solution with comprehensive features, catering to diverse requirements. Following are more value-added features:

Optional add-on features include:

- Fuel Level Monitoring
- Integration with Transport Management Software (TMS) & Third Party Applications
- Fleet Management
- Auto Email Alerts
- Auto SMS Alerts
- SMS Query & Auto SMS Response

Clients



Case Studies

Vehicle Tracking Solutions Case Study - Company Owned (Mahindra Scorpio) Theft in Delhi later Recovered in Meerut

Jindal Steels & Power Ltd (JSPL), New Delhi is one of the leading private Steel Producing Company in India with over turnover of more than Rs 5000 Cr, having producing facilities in Haryana, Orissa, Chhattisgarh, Maharashtra, Karnataka..etc is also one of our valuable customer for past many years for providing solution for on-line/real time Vehicle Tracking for their company owned luxury vehicles to facilitate their Senior Executives and Guests.

PCS Technology Ltd, a company pioneered in the field of Computer Manufacturing, Software Development, Telecom Infrastructure & Solutions, Video Conferencing, Enterprise Solution, Managed IT Services, Hospital Information Software, Vehicle Tracking Solution & GIS Services

The Mahindra Scorpio (DL-4C-NB-2704), was allotted to JSPL Sr. Vice - President, for official use. On weekend eve (Friday) he parked the vehicle (as usual) in front of his home in one of the posh residential colony in south Delhi and he was out of Delhi for weekend , on arriving back to Delhi, Monday morning he found the vehicle missing from the place, immediately he informed theft vehicle at his office, the Transport & Administration department (JSPL) immediately informed to PCS Technology Delhi office, to locate the vehicle (vehicle equipped with GPS Tracking System).

Immediately PCS office (Delhi & Mumbai) understand the problem and started finding the vehicle's current location and helping the customer minute by minute details at their Delhi office.

Meanwhile PCS & JSPL jointly started activity to inform local District Police (Muzaffar Nagar & Meerut) for the incidence. The local police soon started its activity & divided into 2-groups to chase the vehicle while on-line information/reports were continuously provided to Police by PCS Delhi. The vehicle was running at the speed of 93 Km/hrs in Muzaffar Nagar Distt (UP) around 1300 Hrs, and crossing off-roads (fields & villages) heading towards Meerut. Meerut is famous market of second hand Auto Genuine Parts, the thieves were in hurry to reach Meerut to sell and dismantle vehicle for handsome money.

Meanwhile Dy. Inspector General (Shri Praveen Kumar) Meerut range, District Superintendent of Police (Shri Lal) and Inchauli Police Station were also informed for the incidence. PCS Technology is focusing on its own digital MAP to get the every (online & offline vehicle movement) details with villages information's and all the routes were followed by vehicle (short cut's etc) to reach Meerut. The culprits were scared of police and started following off route and entered in Nawab Mango Orchard in Mussoori Chopla village to hide the vehicles & themselves for Lunch in afternoon . PCS & JSPL immediately informed to Police Inspector about the halted location of the vehicle. After having their Lunch for 40 minutes they (thieves) again started vehicle for heading to Meerut through village routes (off road), but its too late for them to move any distance, as police had every minute information provided by PCS Technology, in next movement they were immediately nabbed by police with Vehicle around 3.40 PM.

Vehicle Tracking Solutions Case Study On Implementation Of Gps/Gprs Based Vehicle Tracking & Pilferage Monitoring System For Bharti Wal-Mart

Over View:

Bharti Enterprises is one of India's leading business groups with operations in over 21 countries across the globe and interests in telecom, financial services, retail, fresh and processed foods, and real estate.

Over the past few years, the group has diversified into emerging business areas in the fast expanding Indian economy. With a vision to build India's finest conglomerate by 2020 the group has forayed into the retail sector by opening retail stores in multiple formats – small and medium - as well establishing large scale cash & carry stores to serve institutional customers and other retailers.

Bharti Walmart is a B2B joint venture between Bharti Enterprises and Walmart for wholesale cash & carry and back-end supply chain management operations in India to serve small retailers, manufacturers, institutions and farmers. The Company operates Cash & Carry stores under the Best Price Modern Wholesale brand. A typical cash-and-carry store stands between 50,000 and 100,000 square feet and sells a wide range of fresh, frozen and chilled foods, fruits and vegetables, dry groceries, personal and home care, hotel and restaurant supplies, clothing, office supplies and other general merchandise items.

Current Operation:

Bharti Wal-Mart currently operates from its Bannur Distribution Centre(DC), which is in the close proximity of Chandhigarh, Punjab.

This DC operates by 24x7 and distributes the retail products to as many as 70 Outlets which spread across Chandhigarh, Delhi, Noida, Gurgaon, Jaipur etc. Bharti Walm-Mart is partner with R.K.Foodland, one of the leading company in providing in Logistics Solution for the requirement of its Supply Chain solution.

Challenges:

Bharti Wal-Mart enlisted R.K.Foodland to provide the service that deployed around 60 vehicles for its distribution from DC to various stores. As a transporter following are the major challenges faced by the transporter;

1. Dispatches delayed due to non-availability of Vehicles on time.
2. Absence of information on the expected time of arrival of the vehicles leads to anxiety and improper planning.
3. Exact information on the current location of the vehicle and status of delivers were not known as the information provided by the transporters was often unreliable.
4. In-transit idle time of the vehicle not known due to which deliveries are delayed
5. In Time & Out Time of the vehicle at the outlets were always had the discrepancy.
6. In-transit Pilferage

It is imperative for them to maintain an upto-the-minute tracking of vehicle and the goods as the chances for pilferage was very high since its dealing with retails goods and also meet the stock at the outlets on time.

In order to ensure the continuous supply of goods and facilitate efficient routing of vehicles and continues monitoring of Pilferages, it was very much essential for Bharti Wal-Mart to implement GPS/GPRS based real time vehicle tracking system with Pilferage Monitoring System which would enable to over come the above mentioned challenges.

Solution:

In pursuit of this objective, after analyzing the performance of various companies solution, Bharti-Walmart has enlisted PCS Technology Limited, Mumbai, one of the leading company in providing Location based Intelligence Solution and Real Time Pilferage Monitoring system in India had undertaken a detailed study of the business process and system study for the distribution operations to developed a customized application for Bharti Wal-Mart.

Benefits:

Bharti Wal-Mart has derived immense benefits by employing Vehicle Tracking & Pilferage Monitoring Solution in their trucks which has enabled them to address major supply chain related issues. Bharti Wal-Mart has been actively involved in providing required inputs about the nature of the operation which has helped PCS in developing customized solution with much more advanced features.

Following are the major benefits accrued out of PCS Solution;

- Real-time information on the precise location of the Trucks for estimating the arrival and dispatch planning.
- Idle time reduction through continuous monitoring of vehicles
- Improved productivity by reduction in turnaround time
- Reduction in In-transit Pilferage
- Reduced anxiety levels in managing supplies

The valuable information in daily/weekly/monthly s from PCS are being incorporated in MIS reports and helps Bharti Wal-Mart to measure many of the critical performance parameters of the supply chain department.

R.K.Foodlan, the service provider to Bharti Wal-Mart has unequivocally expressed their satisfaction in the services offered by PCS and has decoded to extend the system for their entire fleet. The success in supporting R.K.Foodland endeavor to transform the supply chain function keeps PCS on a strong footing to extend similar and customized solution to other Indian corporate.