Asset tracking harnessing technology to improve trust

India's road network, which spans nearly 4.7 million kilometres, is the second largest in the world and supports 65% of its freight traffic. Poor road conditions, congestion, frequent checks, breakdowns and lack of security constrain the free, fast and reliable flow of traffic. Road safety and driver behaviour are prime concerns, given the high rate of accidents.

Consigners, consignees and providers of logistics services need immediate, cost effective solutions to get real time visibility of asset and fleet movement and control over driver behaviour.

Asset tracking services that use mobile networks to pinpoint the location of vehicles and goods offer visibility over entire fleets by providing real time information on where each vehicle is. It is an ideal safeguard given that valuable capital assets like high end machinery, ATM machines, vending machines, generators etc. are increasingly being transported by road.

How do asset tracking services work?

Asset tracking services use machine-to-machine (M2M) communications services which automatically geo-locate moving cargo. Simple transmitting devices which are linked to the mobile network are placed in every truck or container to track it from shipment to receipt. Data is collected from the device in real-time using the mobile network to ensure constant connectivity, which is then analysed to give an operator complete visibility of the journey.

Components of an Asset Tracking Solution

1. In-vehicle tracking unit

The tracking unit is a sturdy GPS enabled transmitting device that is secure and tamperproof. It needs zero maintenance and usually has a battery life of four days or more, sufficient to cover most road journeys in India. It simply needs to be placed inside a container or carton by the sender. Further manual handling is unnecessary as the unit need not be turned on or off. The tracker has a built-in SIM card that uses mobile networks to emit a constant stream of data on location, speed/acceleration, route and direction.

2. The cloud

A robust tracking solution is backed by servers with processing platforms that conduct big data analytics. The system has to work at high speeds to perform sophisticated analysis on the data transmitted by the asset tracking device. The live feed is compared against pre-set parameters for factors like speed limits, designated stops and routes. Results of the analysis are instantly relayed to the customer via a secure portal. Should the vehicle or shipment deviate from the route, speed or other set guidelines, the system will trigger alerts to the portal or designated phone, enabling immediate enquiries or counter measures.

3. Management and administrative portal

Accessible through standard web browsers, the management and administrative platform is the front end of the system. This is the component of the solution that users (fleet managers, recipients or senders) interact with, each with different levels of authorisation. Fleet operators can set journey parameters, have oversight of all the vehicles in their fleet, provision and manage access cards, decide whether to opt for
live CCTV recording and so on. Customers will be able to see the location of their shipments, identify delays and gauge arrival times.

The portal is highly customisable and self-administrative. Once pre-set, it runs itself, with changes easily configurable by users at the fleet operator, shipper and receiver level. No technical expertise is required.

Comprehensive asset tracking solutions including device, platform (the technology running the analytics and the access portal) and pan Indian connectivity are available from leading players like Tata Docomo Business Services. These solutions facilitate informed decision making, operate in real time and are supported by round the clock service.

For fleet owners looking to raise the bar on professionalism and benefit from the booming freight industry, asset tracking services are an effective choice.