



DigiFleet

Internet of Things



Business leaders across the board are developing strategies to enhance customer experience and drive efficiencies by transforming their operations in areas such as fleet and freight movement. Among newer technologies, the adoption of Internet of Things (IoT) is growing at a rapid pace across industries, end consumers, as well as safety and regulatory authorities. According to IDC, "In transportation, over half of IoT spending will go toward freight monitoring, followed by fleet management". This will help businesses achieve their targets by provisioning and evaluating data from the fleets in real time, enabling faster decision making.

TCS DigiFleet™ is an IoT-enabled suite, which provides real-time actionable insights to decision makers and enables a unified view of movements across multi-modal transportation handled by business owned fleet, third logistics provider fleets or a combination of both. With its artificial intelligence and machine learning based predictive recommendations, DigiFleet helps increase operational efficiency, reducing costs and improving customer experience across the industry value chains.

Overview

Enterprises across industries today are pursuing opportunities to optimize their fleet and freight movements by investing in digital technologies as they address changing customer demands. With proliferation of telematics and sensors, there is an abundance of data collected. However, getting real-time actionable insights from data continues to be a challenge for companies. This has led to gaps in operations planning, higher cost of services (especially in the last mile), and unrealized value from technology investments. There is also an increasing mandate from governments and regulators to improve operating conditions, safety, and data privacy.

TCS' DigiFleet suite assimilates telematics and environmental data to provide impactful business insights into assets and goods on the move. It is an end-to-end 'smart logistics' and 'smart mobility' solution offered as a solution as a service (SaaS) along with supporting devices, communication network, and cloud hosting. Built on a secure microservice based architecture, it supports multi-tenancy and is agile, flexible, and scalable.

TCS DigiFleet enhances visibility into fleet operations, handling alerts on exceptions and violations, enabling informed decision-making in real-time. Furthermore, it optimizes the operations through AI and ML-based route and schedule optimization, load optimization, crew utilization, and asset utilization.

Our Solution

TCS DigiFleet suite capabilities include:

- **Software as a service:** cloud-based fleet management delivered on a subscription basis
- **Microservices-based architecture:** enables modularity, scalability, flexibility, and easy configurability
- **Predictive AI and ML engine:** delivers recommendations for dynamic ETAs, route and load optimization, and vehicle health monitoring
- **Seamless integration with existing applications:** plug-in adapters and APIs for enterprise applications, ERP, TMS suite

This suite consists of a wide range of industry-specific, out-of-the-box offerings, which are shown in Figure 1.

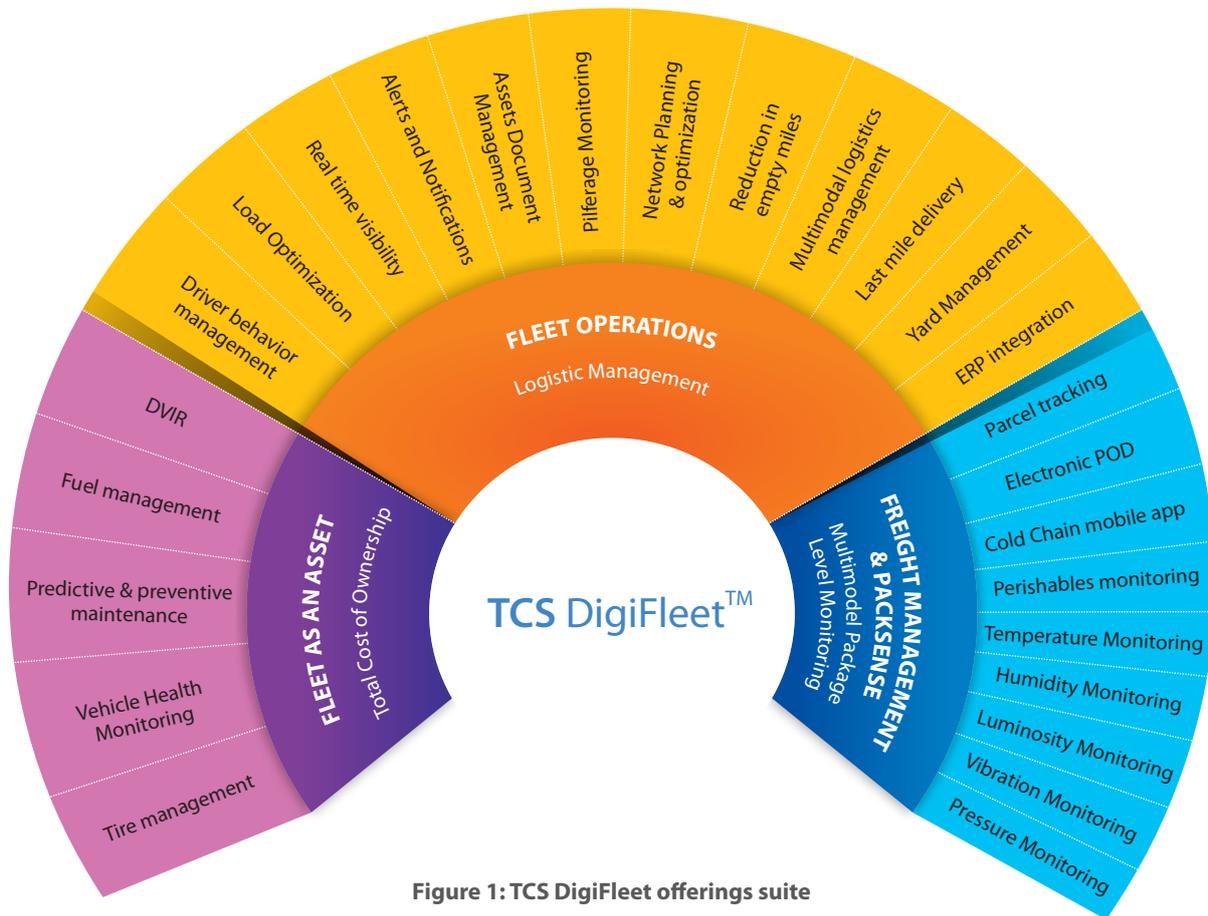


Figure 1: TCS DigiFleet offerings suite

Benefits

Enterprises can achieve the following outcomes:

- **Improved asset health and performance** – leverage predictive maintenance and real-time monitoring of critical parameters, mitigating breakdown risk and reducing maintenance cost by 5%
- **24x7 visibility into fleets operations** – enable informed decision making, better planning, and exception management enhanced by real-time view of assets and cargo movement
- **Effective utilization of resources** – ensure intelligent resource allocation, dynamic routing, and faster turn-around to optimize utilization of vehicles (up to 11%) and crew (up to 8%)
- **On-time delivery and services** – prevent disruption to client’s business by ensuring on-time delivery and high levels of service quality
- **Monitoring driver performance** – access driver risk profile, performance score cards, and real-time alerts to improve driver attentiveness, route adherence, and overall behavior
- **Compliance and safety** – comply with regulatory requirements of ELD, HoS, AIS-140 and eCall that help in improving safety and operating conditions
- **Maintaining in-transit conditions for critical goods** – monitor and control critical parameters in real-time to manage the risk of temperature breaches, shocks, orientation change, leakage and pilferage

The TCS Advantage

By partnering with TCS, enterprises can leverage:

- **Global telematics services** – delivered by experts who have 25+ years' experience in developing and implementing solutions, and our partners who enable seamless services and worldwide coverage
- **Technology and platform agnostic** – our solutions are agnostic to technologies across sensors, devices, communication networks and cloud. We enable accelerated integration and leverage existing investments
- **Contextual knowledge across domains** – we have developed a deep understanding of our customers' business, which helps us in providing solutions to industry specific problems
- **Proprietary algorithms** – we provide you an intellectual edge with our AI and ML engine, which is core to our solutions delivering accurate results and automation capabilities across industries
- **Leadership in IoT platform and solutions** – TCS is recognized by customers and renowned analysts such as IDC, Gartner and Everest group as a leader in IoT platform and solution implementations

Awards & Recognition



To know more

Visit the [Internet of Things](#) page on [tcs.com](#)

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