

AWARDS

- CIO Awards 2009 – Integrated Taxi Management System (cetrac® iCab)
- Land Transport Authority's Land Transport Excellence Awards 2008 – Most Innovative Partner (Technology) – i-Transport System
- Institution of Engineers, Singapore (IES) Prestigious Engineering Achievement Award 2007 - CityNet II (Next Generation Taxi Booking and Despatch System)
- Singapore National Infocomm Awards 2006 (Merit) "Most Innovative Use of Infocomm Technology (Private Sector)" category - CityNet II - Next Generation Taxi Booking and Despatch System
- Singapore National Infocomm Awards 2006 (Merit) - 'Most Innovative Infocomm Product/Service' category - i-Transport System
- 7th ASEAN Outstanding Engineering Award 2000 - cetrac® Traffic Monitoring and Automatic Incident Detection System
- Institution of Engineers Singapore (IES) Prestigious Engineering Achievement Award 2000 - Traffic Monitoring and Incident Detection System; i-Transport System

PATENTS

- Automated Taxi/Vehicle Booking and Despatching System
- Automatic Freeway Incident Detection System and Method Using Artificial Neural Network and Genetic Algorithms;
- Image Processing Techniques for a Video-based Traffic Monitoring System and Methods
- Method and System for Intelligent Traffic Incident Management
- System and Method for Detecting Road Traffic Violations
- Traffic Violation Method and System

PROVEN TRACK RECORDS

Over 30,000 vehicles and vessels worldwide are equipped with cetrac® FMS and telematics solutions. Some of these references include

- **Sharjah Public Transport Corporation (United Arab Emirates):** Taxi Despatch and Management System
- **ComfortDelGro (Singapore):** cetrac® iCab Bureau Taxi Booking and Despatch System
- **Taiwan Taxi Company:** cetrac® iCab Bureau Taxi Booking and Despatch System
- **Shanghai Municipality (China):** Fleet Management System
- **Hangzhou Municipality (China):** Fleet Management System
- **Municipal Corporation of Greater Mumbai (India):** GPS-based Solid Waste Disposal Management System
- **Ministry of Defence (Singapore):** Integrated Transport Management System
- **Singapore 2006 Convention:** Fleet Tracking System for delegates and VIPs
- **Automobile Association of Singapore (AAS):** Automated Emergency Recovery Vehicle Despatch System
- **Land Transport Authority (Singapore):** Emergency Recovery Vehicle Tracking and Despatch System
- **Maritime Port Authority (Singapore):** Vessels Tracking System

ABOUT ST ELECTRONICS (INFO-COMM SYSTEMS)

ST Electronics (Info-Comm Systems) is a wholly-owned subsidiary of Singapore Technologies Electronics Limited. It is a leading solutions provider in the Asia Pacific region for infocommunications, advanced electronics and intelligent transportation businesses. From design and development to production, system integration, maintenance and enhancement, it has become a one-stop solutions provider and a strong partner for its commercial, government, defence and homeland security customers worldwide. Its core business areas include emergency response and integrated security & surveillance systems, e-Government infocommunication and enterprise solutions, intelligent traffic and advanced fleet management systems, infocommunication security products and solutions, and managed operations services.

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MOBILE ASSET TRACKING & MANAGEMENT

ST Electronics (Info-Comm Systems) suite of cetrac® advanced Fleet Management System (FMS) and Telematics solutions provide complete mobile asset tracking and management solutions suitable for multiple industries. These solutions offer measurable improvements in asset utilisation and labour productivity, while reducing operational costs, risk of theft and cost of recovery. It brings valuable benefits to owners of public safety vehicles and commercial fleets such as taxis, buses, trucks, freight forwarders, emergency and recovery vehicles.

INNOVATIONS IN ACTION

Using GPS tracking, advanced navigation and in-vehicle units, ST Electronics (Info-Comm Systems) provides end-to-end solutions by integrating intelligent software and mobile communication technologies to enable fleet operators, public safety agencies and commercial organisations to manage their operations effectively and efficiently.

Real-time messages can be despatched through the latest in-vehicle terminals - anytime and anywhere - using GPRS/GSM, mobile data, conventional radios or trunked radio networks. Our fleet tracking and management solutions increase the despatch efficiency of fleets as jobs are assigned quickly and reliably to appropriate vehicles, meeting users' needs for prompt, effective response. As a result, operating costs are reduced and customer service is enhanced. Our cetrac® range of FMS solutions include iTrack, iDespatch, iCab and a range of in-vehicle devices to suit different operational requirements.

oTTo-Go TELEMATICS SERVICE HUB

To meet the requirements from dynamic lifestyle changes and service expectations of commuters, ST Electronics has adopted a customer-centric approach in developing its telematics solutions. Its oTTo-Go Telematics Service Hub was conceptualised and developed in-house to enhance the overall driving experiences of motorists.

oTTo-Go provides a unified and interactive telematics service platform that disseminates real-time customer-centric information and services to motorists and commuters. It adopts open platform standards to allow service providers to develop value-added services and content uniquely targeted at drivers and other road users. These value-added services include traffic-related information (navigation, traffic alert and road routing, etc.), location-based services, multimodal transit services, infotainment services, etc.

The stakeholders that benefit from this system include consumers (eg. drivers and commuters), government agencies (eg. transport authorities, public safety and law enforcement agencies) and commercial organisations (eg. telcos, banks, fleet/logistics operators and vehicle manufacturers).

Info-Comm Systems

Our Fleet Management
And Telematics Solutions
Provide Complete Mobile Asset
Tracking And Management
Systems For Multiple Industries



cetrac® iTrack FLEET MANAGEMENT SYSTEM

cetrac® iTrack enables real-time monitoring and management of vehicles essential to fleet operators who are keen to optimise their resources, enhance their operating efficiency and customer service levels. It is ideal for companies involved in logistics, transportation, delivery/courier services, security/safety operations and the management of multiple vehicles.

This system applies leading innovations and seamless integration of intelligent software and vehicle devices, GPS, Geographic Information System (GIS) and mobile communication technologies. The benefits of this system include:

- Real-time overview of vehicles status for optimised deployment of resources
- Electronic fences for automatic detection/alert of route/zone deviations, unauthorised stoppage of vehicles, etc.
- Supports two-way messaging (voice and text) between driver and control centre on job assignment, job status changes, etc.
- Panic alarm to ensure safety of driver and security of cargoes
- Trend analysis and detailed reports (eg. travel time, speed) for system planning and improvement
- Complete audit trail of vehicles movement (eg. positions, speeds and time stamps)
- Event logging with time stamps
- Customisable icons for easy vehicle identification
- Management of multiple fleets
- User-friendly maps for efficient vehicle tracking
- Easy appraisal of drivers' performances based on generated reports

cetrac® iDespatch FLEET MANAGEMENT SYSTEM

In addition to the full benefits provided by cetrac® iTrack, cetrac® iDespatch also enables fleet owners to optimally assign jobs to the most suitable vehicle on the road.

cetrac® iCab AUTOMATED TAXI BOOKING & DESPATCH SYSTEM

cetrac® iCab optimises taxi operators' business potential by automating their taxi booking and despatch operations. iCab increases operational efficiency, enhances customer service level and ultimately improves profits for taxi fleet operators.

The versatile iCab supports bureau service operations by allowing different taxi fleet companies to share a common system while retaining their business independence and identity. The system can be configured separately to match the specific operational requirements of each taxi fleet. With this unique feature, each taxi fleet is able to access the same set of functions just like any independent standalone fleet.



Designed based on open platform standards, iCab is scalable and can be customised to suit fleets of different sizes and operational requirements. Its benefits include

- Increases job despatch efficiency via user-friendly interfaces
- Efficient monitoring via automatic display of customers' past job data, job queues, job status and emergency alerts
- Easy tracking of taxis via user-friendly maps
- Reduces taxi operating costs as jobs are assigned to the most suitable taxis, avoiding unnecessary travel mileage
- Enhances driver/passenger safety as taxis are quickly located when in distress
- Improves driver discipline and accountability through the tracking of taxi routes
- Reduces taxi response time with job confirmation call-back to customer
- Provides advanced job reminder and arrival callout
- Generates reports for system planning
- Improves management of multiple vehicle fleets

cetrac® MOBILE DISPLAY TERMINAL

The compact and easy-to-install cetrac® Mobile Display Terminal is an advanced mobile display terminal that is ergonomically designed for in-vehicle environment, making it ideal for mobile applications. Key features include

- Large software-configurable function keys to meet operational requirements
- Backlit screen that supports graphics and displays user-defined icons and multi-language characters
- Provides audio alert to drivers on incoming messages or when function keys are activated
- Quick data and voice communications with built-in GSM/GPRS transceiver
- Optional: Serial ports for easy interface with other peripherals

cetrac® MOBILE CONTROL UNIT

The compact cetrac® Mobile Control Unit provides the core interface to peripherals in a vehicle. It is deployed for fleet tracking and management. It is suitable for interface to various types of peripherals in wireless two-way messaging applications. These applications include job despatching and position/status reporting. The cetrac® Mobile Control Unit comes with an integrated GPS and GPRS to ensure no additional equipment or cables are required to provide real-time information on vehicle positions.