

its

intelligent Transport Systems

The Future of Transportation and Mobility

Products and capabilities include:

- a) True Real-Time Engine – Advanced PREDICT engine
- b) Next generation ETC (Electronic Toll Collection) and ERP (Electronic Road Pricing) Systems
- c) SmartFleet™, iBLOX™ – new generation real-time fleet management, optimization and maximization solutions and in-vehicle devices
- d) SmartPark™ / Parkvasive™ – the future of intelligent car park technology
- e) SmarTranz™ – intelligent true real-time public transport travel information system powered by state-of-the-art prediction engine
- f) intelligent Border Crossing System (iBCS™) – Next Generation High Security Border Crossing System for Immigration and Customs Authorities
- g) Transport Planning and Consultancy

Competitive Advantage through Technology



For more information on how *intelligent* Vision (IV) can solve your problem, please refer to our web site at <http://www.StratechSystems.com> or email us at Stratech@StratechSystems.com

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Connected Reality

No Bounds, No Limits - The Future of Transportation

Technology knows no bounds nor limits. It's phenomenal advancement impacts every part of our lives. Work gets done at double-quick time, with immeasurably greater convenience, and best of all, simply at the touch of our fingertips. Time and space are not limiting factors. Neither is mobility where technology is concerned. The truth is, technology is shaping the future of transportation.....

Stratech is shaping the future of transportation.

Stratech believes technology will enable quantum leaps to meet man's rapidly evolving needs for mobility solutions.

An advanced technology company, Stratech develops and applies leading edge know-how in the realm of transportation to proficiently execute critical events and tasks in intelligent transportation systems (ITS). We are recognised for our domain knowledge and in-depth expertise, and our team of professionals take their skills to assist governments in the strategic development of their transportation systems. Our clients span governments, banks, developers, universities, and corporations in the automobile and aerospace industries. Our achievements in ITS include the development of several pioneering systems that count as the world's firsts.

Meeting Transportation Challenges Worldwide.....

Stratech strengthened its regional presence in 2000 when we were commissioned to deliver a White Paper to map the development of the transportation system in Shanghai city up to the year 2020. Since then we have assisted other Chinese cities in the area of ITS, especially for public transport. We advocate that attractive and reliable public transit systems form the backbone of urbanised cities such as these. Detailed planning is vital to put in place interdependent systems for multi-modal transit, fare payment, fleet management and information availability. Access to information such as alternative public transport services and predicted arrival times makes commuting less stressful and allows travellers to make informed decisions. To meet this need, we developed **SmartTranz™**, a system that employs advanced technologies to provide true real-time passenger information. Residing in the system is Stratech's advanced PREDICT Engine that applies Artificial Intelligence, giving it an intrinsic learning capability to produce consistently accurate real-time predictions of traffic conditions and travel speeds based on real-time analysis of traffic patterns and traffic data mining.

We constantly pursue innovative solutions to aid transport authorities to achieve their objectives in effective traffic management. In Singapore where land is scarce, regulating vehicle growth rate is among the land transport policies in place. A fixed quota of vehicle ownership licenses is issued monthly in the form of Certificate of Entitlements (COEs). One has to successfully bid for a COE prior to purchasing a vehicle. Stratech's **Online COE Open Bidding System** breathes life into the government's efforts to achieve a world-class transportation system. The largest known dynamic pricing engine in the world, the system provides transparency and critical real-time information for millions of users to make informed bid decisions in an open but highly secured environment.

Regulating vehicle usage by pricing roads is another increasingly accepted measure to influence demand for road space. At Stratech, we introduce technology that makes pricing roads a fairer approach. With our **GANTRYLESS** solution, we have successfully redefined the limitations that existing **Electronic Toll Collection** and **Electronic Road Pricing** systems are confined to. Our system employs satellite positioning, mobile communications, and an onboard unit, enabling cities to implement flexible charging schemes with "virtual" toll boundaries along their highways and urban streets. Powered by an onboard intelligent blackbox, **iBLOX™** in the vehicle, a platform is formed for added applications to be built upon it such as driver assistance capabilities, parking, telematics, location-based information and other mobility services.



Our range of ITS capabilities extends to applications that impact road safety and enhance the authorities' efforts to reduce road casualties. Stratech's **Speed Violation Enforcement System** utilises advanced vision-based technology coupled with well-proven radar speed detection technique to detect speeding vehicles. Exceptionally high quality images are achieved under all weather and illumination conditions, and a sophisticated neural network based Optical Character Recognition (OCR) algorithm is applied to identify the vehicles. One distinctive advantage is its flexibility to allow immediate processing of violations in patrol vehicles, or at the checkpoint or tollgate further down the speed enforcement road segment. Infringement notices can then be generated, served and settled immediately. Our pursuit to answer real needs have led us to further encompass solutions for the automatic monitoring of illegal U-turns, illegal left or right turns, bus lane violation, unlawful parking, and access control.

We are committed to provide breakthrough solutions to support **Border Access Control**. In today's context, the challenge remains - enable efficient clearance of high volumes of vehicles and passengers, but make no compromise on security. Our border access control development has evolved into a sophisticated, high-tech and automated real-time solution that utilises advanced vision technology, biometrics, and smartcard technology to provide efficient vehicle and passenger checks and verification in the clearance process.

In the area of parking, Stratech has taken a commanding lead in the industry with the launch of **SmartPark™** in 1999. A unique and intelligent parking system, **SmartPark™** revolutionised the industry by introducing a ticketless, tokenless and cashless approach, enabling quick and seamless entry into and exit from car parks. With a forward-thinking mindset and unwavering efforts to reach new frontiers, **Parkvasive™** was launched in 2003, bringing a new dimension to smart parking with dynamic parking guidance and information using advanced vision technology. Vehicle recognition technology allows drivers to effortlessly locate their parked vehicles when lost in large or unfamiliar car parks. The breakthrough vision-based solution also provides surveillance and automatic event alerts, complementing car parks' security systems. Going forward, **Parkvasive™** is geared to lead Stratech's brand of Pervasive Computing in the global market with its state-of-the-art outdoor street parking solution.

Meeting the Connected Reality Challenge

Cities are increasingly deploying ITS to solve various transportation woes. However, these systems are commonly implemented in a disparate manner so that they are not interfaced nor can they communicate with each other. Hence, though they incur heavy investment, they are not optimally utilised. At Stratech, we believe that the future of transportation is in **Connected Reality**, where individual transport systems operate in an integrated manner, and be **CONNECTED**. The derivation of transport applications must be built upon a common transport platform with an open architecture to exploit the benefits of being truly integrated. Our vision of a Connected Reality will enable smart real-time processing and networking, resulting in optimised resources, faster true real-time responses, and strategic competitive advantage for our clients.

