School-Bus Transport Management System

GSchool™ is a traveler information service, geared towards forward-looking school bus operators, that integrates a school bus management system, GPS-based fleet tracking and RFID personnel tracking. It facilitates high value-added services for school authorities, parents and students.

Possibly the world's first intelligent transport management system specifically designed for private bus transit organizations, GSchool™ encompasses state-of-the-art technologies such as GPS (Global Positioning System), RFID (Radio Frequency Identity), GIS (Geographical Information System), FMS (Fleet Management System), Web Services and sophisticated wireless carriers such as GPRS (General Packet Radio Service) and GSM/SMS.

GSchool™ was co-developed with and deployed by a seasoned bus operator who manages 400 buses, services six large international schools in Singapore and China, and transports 10,000 students every day.

Key Benefits

GSchool™ keeps parents informed of their children's whereabouts at any given time; it allows them to know that their kids have reached their school without any delays or incidents and tells them when to expect their loved ones home.

At another level, school authorities can pinpoint the bus location and status in case of delays. This real-time information is priceless during emergency and recovery situations because the school can immediately ascertain which student is traveling on which bus.
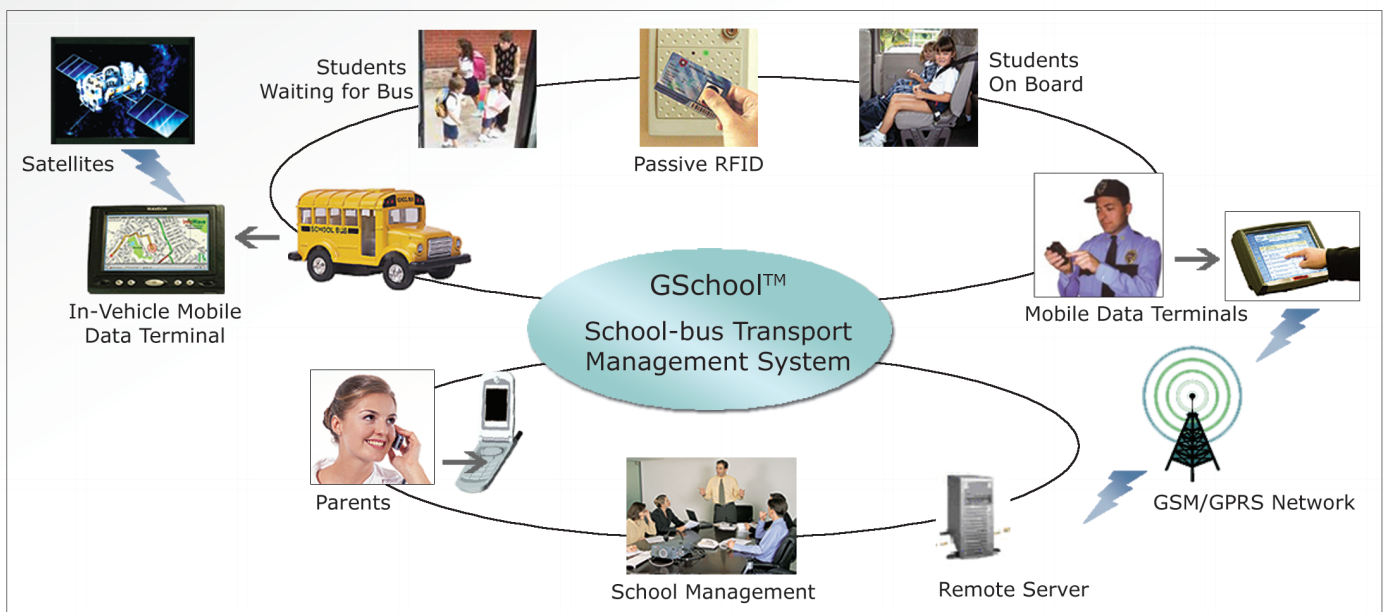
GSchool™ brings bus operators' service standards for schools and parents to unparalleled levels. Equally important, it can be used to plan, monitor and optimize student transport and customer service. Statistics and trip history data mined from the system can be used for retrospective reference, analysis and fine-tuning to reduce costs and improve profitability.

Essentially, GSchool™ brings win-win-win scenario for all the parties involved in school transportation:

Parents are given peace of mind through being kept informed.
Schools benefit from higher productivity and improved safety and efficiency.
Operators enjoy enhanced safety, satisfied customers, lower costs and higher profits.

GSchool™: Intelligent School Bus Transport Management System

GSchool™

School-Bus Transport Management System

Features	Benefits
Global Positioning System (GPS)	Provides comprehensive fleet control by pinpointing the location, speed and heading of all vehicles for live monitoring.
General Packet Radio Services (GPRS)	This cost-effective, high-speed wireless carrier provides instant location updates and data/voice communication between buses and the fleet control centre.
RFID Student Tags	Students are checked in and out when boarding and alighting through simple RFID card tapping for authentication, providing accurate ID information for the bus driver.
On-Board Mobile Data Terminals (MDT)	MDTs give bus drivers a user-friendly graphical interface to communicate and to view student photo IDs and trip updates. They allow configurable canned messages to be sent to the control centre with one-touch, alerting the centre of any situation.
Geographical Information System (GIS)	GIS allows dispatchers to easily identify current and target locations on digital maps.
Web Services	Remote monitoring and tracking of school buses by parents, schools and branch operators alike is accomplished using a standard web browser.
Fleet Management System	Includes: * Student Transport Route Planning * Route and Schedule Adherence * Route Optimization * Vehicle Operation Management
Bus Fare Billing System	A seamless financial process to automatically handle billing operations.
Geo Fencing	The system generates alerts when vehicles enter restricted zones or leaves designated zones, giving managers real-time control instead of retrospective handling.
MIS Reports	Reports are available for Student Attendance, Missed Pick-Ups and the like, improving operation efficiency.
Fleet Operation Reports	Reports detailing incidents such as Speeding, Idling and Zone Violations improve the company's productivity.
GSM/SMS	Arrival/Departure notifications can be sent to parents via SMS.
Upcoming Features	
RFID tag can be used as part of the N-factor authentication for in-school system access and personnel tracking*	The user achieves superior access control for sensitive IT infrastructures using more than simple user-ID and password combinations.
Video snap shots via in-vehicle camera.	Cameras provide added security and deter external threats. Their presence also discourages student misbehavior.
Student information interface with legacy School Management System*	The interface reduces data redundancy and the IT work load.

Components require software customization to interface with local systems

GSchool MDT Screenshot

GT&T Engineering Pte Ltd

2 Ang Mo Kio Street 64, #04-02 Econ Building, Singapore 569084
Tel: (65) 6556 4112   Fax: (65) 6556 4321   Email: info@gtteng.com

www.gtteng.com