IBUS™

School Bus Rider Authentication System

IBUS™ was developed in response to the desires of schools to help protect the youth of America before, during and after school.

Know Where They Are

By positively identifying and tracking students through intelligent identification technologies, a GPS tracking system, and an interactive web site, administrators know where students are from the time they step on the bus, through school, to the time they return home.

Comprehensive Reporting

The information, automatically generated from the location aware system can be used for detailed fiscal reimbursement and comprehensive reporting, efficient bus routing, time and attendance, and more. Some of the uses IBUS generated reports can be put to are Medicaid Reimbursements; Route and Student Mileage Reports; Pay-Per-Ride Invoicing; Driver Logs and Precise Transportation Reports.

System Overview

The system comprises of and 802.11x bus unit, card reader (or other ID logging device such as a key pad) and a standard 802.11x network access points located at suitable points.

As the student enters the school bus they simply swipe their ID card on the card reader (if it is an ID card based system) and the date, time and location they board the bus are all automatically logged onto the system. As more pupils board the bus the manifest is automatically updated and stored with the new information. When the bus arrives at the school the

children simply swipe themselves off the bus and this data is automatically downloaded into to iVerify database through the 802.11x network, for subsequent processing and report generation. The outbound journey operates in exactly the same way, with the children logging themselves on and off. When the bus returns to the depot in the evening the data is again automatically down loaded and exception reports of who did not log themselves out or who only made one way journeys can be created and the driver notified that there may be a passenger left on the bus.

As all data transmission operates in the schools 802.11x network there are no monthly charges associated with operating this product and as such operational costs are minimal.
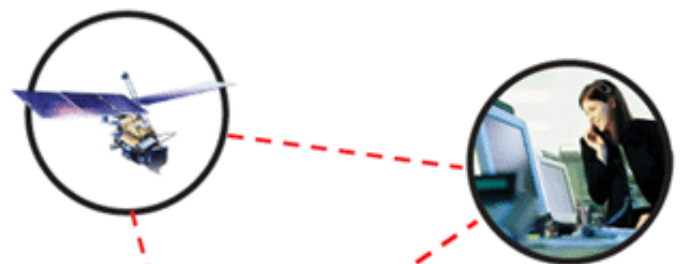
Here's How it Works

* Bus card reader records where & when students board & disembark bus
* Data is transmitted to the school database via standard 802.11x WiFi Access Points
* School database is populated with information on who has boarded or disembarked from the bus and where the bus was located

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Specifications

Bus Units

802.11x Wi-Fi enabled mobile unit comprising:

- Microprocessor capable of storing 5000 student events per trip
- Associated power regulation circuitry
- Trimble SQ GPS module accurate to +/- 25 feet
- 802.11x Wi-Fi communications module
- Contained in a 3″ x 4″ shock mounted aluminum casing

Student ID Reader: Proximity card reader with LED and Buzzer notification

Keypad or barcode wand option

Antenna: GPS and 2.4 GHz antenna

Depot Unit

Standard 802.11. Wi-Fi access point with network connection

Power input

Vehicle supplied 7 - 18V DC

Regulated to 5V DC through internal switching power supply.

8 - 30V DC, *optional*

Safety & Mounting

Designed for mounting on any school bus

Screw-mounted main bus unit & card reader unit

Designed to meet all current bus standards

Application Tools

iVerify™ student ID software