

Case Study: Navman  
**Improving Safety and Efficiencies in  
Transporting Special Needs Children**

### The Challenge

Optimizing routing and management while enhancing the welfare and safety of 178 school buses transporting over 1,500 special needs children to more than 200 different schools every day throughout New Hampshire.

### The Solution

Navman Wireless' GPS tracking and messaging technology combined with the KORE network for superior coverage and connectivity.

### The Results

By deploying this cellular-based GPS solution, The Provider, Inc. achieved faster dispatch times, real-time tracking of bus locations, and closer monitoring of driver behavior, resulting in:

- \$400,000 annual savings reported by reducing driver overtime
- 50% less time in routing the right bus to the appropriate location
- Improved on-time performance through more efficient routing
- Increased child safety achieved by monitoring driver speeds and rapid response to bus breakdowns



## Background

The Provider Enterprises, Inc. contracts with over 50 school districts in the state of New Hampshire to transport more than 1,500 special needs students to and from school on a daily basis. Dispatching the company's 178 buses was tedious and cumbersome, requiring the use of a radio and constant manual checks to ensure buses with wheelchair lifts were dispatched when necessary. A more efficient routing and dispatch strategy was needed as well as a means of tracking buses and driver behavior to ensure optimal, safe and cost-effective performance across the board.



**“They’ve harnessed the power of our analytic reporting to identify areas of inefficiency or unsafe practices and turned bad habits into good ones resulting in safer drivers, improved customer service and a monthly savings of \$33,000 across 178 vehicles.”**

**– Renaat Ver Eecke  
Vice President, General Manager,  
North America, Navman Wireless**

## Solution Overview

The Provider deployed a cellular GPS-based IoT system to reduce fuel usage and other operating costs, improve fleet productivity and enhance customer service.

Components of this IoT solution include:

- Navman Wireless' OnlineAVL2 desktop-based, real-time vehicle tracking and reporting platform
- Qube vehicle-mounted satellite tracking device
- Customer's choice of Mobile Data Terminal (dispatch and messaging) or M-Nav (dispatch, messaging and navigation) units for in-vehicle use

The solution utilizes KORE's Telematics' GSM/CDMA network to provide reliable connectivity as well as network airtime cost economies without the typical minimum use levels.

Each bus is equipped with a Qube device as well as a Mobile Data Terminal (MDT-860) to enable two-way messaging between dispatch and drivers. The OnlineAVL2 software is deployed in the dispatch center.



\$400,000 annual savings reported by reducing driver overtime.



## Key Results

By adopting this IoT solution, The Provider reduced radio dispatch, augmenting it with a GPS-based, real-time vehicle tracking system for dispatch and routing purposes. The Provider has achieved substantial benefits through the additional functionality and comprehensive reporting of the tracking software including:

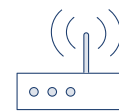
- 50% reduction in the time required to route the right bus to the location through use of Navman Wireless' GPS vehicle tracking, integrated software, and ability to send dispatch instructions to the driver's Mobile Data Terminal with a simple click.
- Related time savings achieved by messaging drivers on the Mobile Data Terminal located on the dashboard if a student does not need to be picked up on a given day, eliminating wasteful driving and manual exception handling.
- \$400,000 annual savings reported by reducing driver overtime – and virtually ending disputes on billable hours – in part through use of virtual perimeters set up around drivers' homes and automatic logging of drivers in and out as they turn their vehicle ignition on and off.
- Improved on-time performance through more efficient routing.
- Rapid response to bus breakdowns – Critical for special needs children – Via real-time vehicle tracking capabilities.
- Increased child safety achieved by monitoring driver speeds and messaging drivers to address speeding problems.
- Proof of student transportation is required to satisfy the Individual Education Plan (IEP) created for special needs students, using "Activity Reports and Replay a Day" features to show bus routes and stops.



100% True Global Coverage



IoT Expertise and Strong Service Delivery Track Record



Multiple, Redundant Connections



Automatic Failover and Self-Healing Capabilities






## About KORE


KORE provides the people, expertise and technology to support the many visions of the IoT, from the Inspiration of Things to the Innovation of Things to the Internet of Things. Founded in 2003, KORE quickly rose to become the world's largest managed network services provider specializing in Internet of Things (IoT) and Machine to Machine (M2M) communications. Today, KORE is a global leader in software service and platforms that power the IoT, with millions of active on-network units. KORE is the brand powering other leading brands, including some of the world's largest enterprise customers. KORE's singular customer-centric focus is to identify and develop solutions that help clients realize IoT innovations and accelerate time-to-market schedules. KORE has over 350 people who serve customers in 110 countries, empowering new business models and opportunities to monetize the IoT. KORE: The People Powering IoT.

## About Navman Wireless

Navman Wireless is a market leader in providing fleet tracking solutions. We've helped 8,500 customers track more than 110,000 vehicles globally to improve productivity and reduce costs. Using GPS technology as the backbone, Navman Wireless provides products and services enabling companies to track, monitor, measure and communicate with their equipment assets.

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