Transportation Case Study

Tippecanoe School Corporation

District fleet uses global positioning to boost local capabilities.

When the public gained access to GPS capabilities a few years ago, Phil Mugg saw an enormous opportunity. As the Director of the Tippecanoe School Corporation, he is the person ultimately responsible for the safe and efficient delivery of the community's most precious cargo—its children. In GPS, he saw a way to significantly improve safety, accountability and system efficiency throughout his district's school bus fleet.

Tippecanoe School District is home to 17 schools spanning 430 square miles in Indiana. A fleet of 134 buses is necessary to service the needs of the district, which has grown by 300 students a year over the past five years. Given its size and growth, the district faced a challenge: How could it cost-effectively transmit GPS data from its vast fleet to a central location where it could all be managed? That's where AT&T came in.

From GPS data to GPRS wireless delivery in seconds.

After thorough research, the district found that only AT&T could deliver the coverage and the data capabilities it was looking for—now and well into the future. What's more, AT&T was able to work with a team of hardware and software providers like Synovia Corporation to develop a customized data solution to fit the unique requirements of the district.

Once they received all the equipment, the district was able to complete the installation themselves in just 3–4 weeks. Every bus in the fleet is now equipped with a GPS unit with a built-in wide-area wireless modem that transmits data to the district over AT&T's GPRS wireless data network. The system is completely automated and gives managers real-time data such as bus speed and location. It also gives them important vehicle information, including engine on/off times. "It has enhanced our fleet-management capabilities tremendously," says Mr. Mugg.

No more guessing or estimating.
The district can now track the location of buses and accurately monitor pick-up and drop-off times. This has not only simplified day-to-day fleet management, it has also increased safety and improved efficiencies. As they prepare for coming school years, managers can utilize the system's centralized history of operations to help them develop more efficient routes and schedule stops more effectively. Even payroll procedures can be streamlined because driver time can be calculated according to the exact time the engine was turned on and off.

Service managers can eliminate guesswork, too. The system automatically records how many miles each bus in the fleet has traveled, giving managers an invaluable resource for preventing breakdowns and premature equipment failures. This has further enhanced the safety of operations.

Results:

• Gained real-time bus tracking capabilities
• Brought about faster response to emergencies
• Vastly improved route management
• Reduced labor costs
• Expanded communications coverage beyond private radio
• Simplified fleet-maintenance procedures
• Increased legal liability safeguards
**Unexpected benefits.**
Although the solution was originally chosen to provide better service to the community, real-time wireless data access has yielded several unexpected benefits, such as the ability to track service calls and protect against false accident claims. The biggest unforeseen benefit, however, has been how it’s helped deal with emergency situations. “The logistics before were kind of mind boggling. With GPS, I can just draw a geo-fence around an area, and it will instantly tell me what buses are in that vicinity at that point in time . . . It really enhances our ability to react to situations like breakdowns, accidents and criminal activity and immediately communicate information to whomever needs to know,” explains Phil Mugg.

**Impressive results.**
After just one school year serving the needs of Tippecanoe School District, AT&T capabilities have:

- **Improved community service.**
The district has been able to respond quickly and accurately to parent claims with detailed information about pick-up and drop-off times, as well as location of buses—even when they travel outside the district on field trips, for sports events, etc.

- **Simplified route management.**
Operations managers can use the backlog of data to more effectively plan routes, compare route delays from season to season, add stops and build schedules.

- **Increased safety.** District managers have substantially improved their ability to monitor buses and respond to emergencies. Plus, automation has improved maintenance procedures, reducing the potential for breakdowns and accidents.

- **Reduced labor costs.** Despite adding three routes over the year, the district estimates that actual payroll has been reduced by $80 a day. Moreover, the Tippecanoe School Corporation believes payroll efficiencies will help the district reduce the actual payout of hourly pay by 15–20 minutes a day, throughout the entire staff.

- **Improved legal safeguards.** Thanks to the backup data collected from GPS via the AT&T network, the district can maintain a factual record of bus speed, track whether safety stop arms were activated and add additional customized features as it feels necessary. Key data has already proven valuable in protecting against frivolous lawsuits, moving violations and accusations of negligence.

“*It really enhances our ability to react to situations like breakdowns, accidents and criminal activity and immediately communicate information to whomever needs to know.*”

*Phil Mugg*
Director
Tippecanoe School Corporation
Why wireless from AT&T?

**Network.**
AT&T’s ALLOVER™ network is the largest digital wireless voice and data network in America. The ALLOVER network covers over 273 million people and is growing. AT&T’s EDGE network is the fastest national wireless data network, with average download speeds of 70 to 135 Kbps.

**Expertise.**
Our people and our alliance providers know how to make wireless improve the way any business works. That’s why 95% of the Fortune 100® and more than 80% of the Fortune 500® companies choose AT&T for their wireless solutions.

**Applications.**
Our broad ecosystem of trusted market leaders, including enterprise software and middleware providers, system integrators, original equipment manufacturers and other solution providers, work as a team to provide you with applications specific to your industry.

**Service.**
AT&T provides superior account service with a dedicated team of wireless experts committed to facilitating an end-to-end solution.

“We chose them because their coverage was better than other providers we were looking at. Plus, I credit them for being aggressive and using the initiative to come up with a system that was affordable.”

Phil Mugg
Director
Tippecanoe School Corporation, speaking of AT&T

For more information or to learn more about AT&T solutions for your industry, visit att.com or call 866-9ATT-B2B (866-928-8222).

IMPORTANT INFORMATION:
Results may vary by company and with selected wireless data solution. Service subject to applicable business/government and/or individual service agreement, the corresponding wireless Plan brochure and coverage maps, and related promotional materials. Eligible wireless data plan on a compatible device required. Coverage is not available in all areas. Actual speeds may vary. Due to coverage and system limitations, service may not be accessible at all times. Availability, speed of delivery and timeliness of information is not guaranteed. When outside AT&T’s wireless network, access will be limited to information and applications previously downloaded to or resident on your device. Additional software, hardware, and/or subscription to a third-party service may also be required. AT&T does not sell, supply install or support such software, hardware, or services. By using service you agree to abide by the terms and conditions of applicable software licenses. Failure to comply with such terms and conditions may result in termination of service. Additional fees, charges, and restrictions apply. Please contact your AT&T account representative for further details. © 2007 AT&T Knowledge Ventures. All rights reserved. AT&T and the AT&T logo are trademarks of AT&T Knowledge Ventures.