Many districts throughout the country are combining resources to minimize transportation costs. This shared services model for transportation is one answer to rising costs and reduced funding. One such example is in eastern Ohio, where in 2014, the Ohio Shared Services Collaborative (OSSC) was awarded a $1.76m Straight A Fund grant to reduce transportation costs. The collaborative consists of 20 school districts, one Board of Developmental Disabilities, four Educational Service Centers, and two Information Technology Centers which serves 35,000 students and covers 2,825 square miles of rural terrain. Muskingum Valley Educational Services Center (MVESC) has led the consortium toward results.

“Our problem,” said Brad Hollingsworth, Assistant Director for Muskingum Valley ESC, Center for Innovation and Data Services, “was that transportation costs were rising, while enrollment was declining. We needed data analyzed to reach our goals of saving the 20 districts $4 million over five years, reducing the consortium fleet by 5 percent, and reducing operating costs by 2 percent.”

“Our real focus in cutting costs in transportation was to use those funds in the classroom. To do that, we needed to analyze ridership during the school year to optimize the transportation department and drive those resources back into classroom learning.”

The consortium is realizing savings with Zonar’s smart fleet solutions: Zonar GPS and Zonar RFID coupled with Esri’s ArcGIS. More than 1,000 lines of code were developed by OSSC to allow for cross-platform analysis. By analyzing how many seats were filled, where students actually got on and off the bus, and route data, OSSC realized opportunities to reduce transportation costs.

Data from a shared fleet feasibility study showed that there were over 100 buses in the 20 districts that sat unused each day. When that data was compared with service records, it was found that many buses were unused even though they weren’t in for maintenance. The consortium has the potential to eliminate spare buses and utilize strategic bus sharing, saving an additional $62,700 to $77,270 in annual costs as districts are able to share excess inventory with each other. Also, the costs of maintaining and insuring spare buses contributes to expenses, with the average annual cost per bus ranging from $3,300 to $4,067 in Ohio.

Zonar’s Radio Frequency Identification Cards (RFID), with Zonar Z Pass captured 2.5 million data points allowing for route analysis in 75% of the consortium’s districts, which has led to 19 routes being eliminated to date. Designing more efficient routes potentially saves $1,195,944 annually, with the potential five-year forecast savings being approximately $5,979,720.

Another benefit of Zonar’s technology was using the GPS to monitor idling times. By identifying which buses were idling unnecessarily, and educating drivers, idle times were reduced by 20%, which resulted in a $50,831 annual savings.

“With the data that Zonar brings to us, we are also able to monitor and analyze how long the students are on the bus. We can keep parents happy, increase efficiency, and plan and design routes to keep the student’s ride time to a minimum,” says Hollingsworth. “We continually analyze data throughout the school year to improve routes.”

Amy Luby, Project Manager for MVESC, says, “Not only are we well on our way to achieving our goals, the Z Pass+ is also an important feature for parents. We’ve had over 700 people sign up for the service. It was very satisfying to see that.”

Here is what one of the parents had to say, “Our family found the Z Pass card and Z Pass+ alerts to be so beneficial. Our child had different drop-off locations depending on our work schedules. It was so comforting to know exactly where he was and when he got there at the end of the school day! I found the sign-up process for Z Pass+ to be so easy. I’m thankful that our district participates in this program.”

For more information about Zonar solutions, visit: http://www.zonarsystems.com
For more information about Ohio Shared Services Collaborative, visit: http://www.ohiossc.org

SOLUTION AND RESULTS

By using Zonar smart fleet technology including Zonar V3, and Ground Traffic Control Z Pass and Z Pass+ solution coupled with Esri’s ArcGIS, the Ohio Shared Services Collaborative is realizing approximately $5,979,720 in projected savings over the next five years by:

- **Streamlining Operations:** By designing more efficient routes, OSSC has reduced its fleet by 5% and reduced operating costs by 2%, potentially saving $1,195,944 annually
- **Optimizing Routes:** Zonar’s Z Pass solution led to more efficient route design, allowing 19 routes to be eliminated and bus inventory to be reduced
- **Ongoing Route Analysis:** Using Zonar’s data, OSSC continually monitors and analyzes routes, increasing efficiency as routes change throughout the school year, and keeping student ride time to a minimum
- **Decreasing Idling Time:** Using GPS data to monitor idling times, OSSC educated drivers and reduced idling by 20%, resulting in $50,831 annually in savings
- **Offering Z Pass+ for Parents:** Knowing where and when a student is dropped off gives parents peace of mind, especially when different drop-off locations exist

**ZONAR:**
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