How Bytecurve 360 is Helping Poway Unified School District Save Money and Improve Efficiency

Improved absent driver management and route optimization drive significant fleet improvements
In late December 2019, a situation presented itself in which Tim Purvis thought he may have to put another school bus on the road, which would have cost him about $80,000 per year, a serious investment for the California-based student transportation director.
But first, like a sports general manager or business leader focused on the bottom line, he turned to the data.

His earlier investment in Bytecurve360, the comprehensive school bus operations platform, presented a novel solution: the data revealed that there was a driver who consistently finished his route early.
He asked the Bytecurve team for help converting this nugget of hope into a plan for big savings.
The team responded by reworking Poway School District routes so that an extra bus was not needed.
"In just that one example, Bytecurve paid for itself about three times over," "Bytecurve listened to every word we had to say," Purvis said.*"They're just really, really good partners."*

While this example may not apply to every fleet that adopts Bytecurve360, dozens of public and private student transportation fleets have adopted the school bus operating platform to improve their performance and save money on payroll.

As the only platform available that combines the real-time data from routing and GPS fleet tracking, Bytecurve360 delivers a powerful command and control dashboard coupled with payroll and a driver messaging app that delivers the following:

- Better Driver communications so that employees can check in/out remotely, view their schedules and receive messages on their smartphones.
- Easier payroll management so that fleet managers no longer have to manually calculate employee guarantees/contracts and overtime.
- Easier Management of daily operations, including assigning/reassigning drivers and vehicles, using real-time integration with GPS and routing systems, allowing all stops to be easily rerouted when a bus breaks down or a driver can't come in.

When Routing and GPS don't solve all your challenges

Poway Unified School District (USD) is a large school district in San Diego County, California. Its 4,000 students require about 152 school buses to transport them to and from school and manage their various sports, field trips, and extracurricular activities.

Prior to investing in Bytecurve360, the district's transportation department used a variety of different software systems to manage its operations. Like so many school districts, they started with routing software to help them organize how their fleet would make runs.And then they turned to GPS fleet tracking software to keep an eye on vehicle locations in real time, save money by reducing idling, and improve safety by limiting speeding, harsh braking, and other potentially unsafe driving behaviors. But gaps still existed on the path to comprehensive fleet visibility.
It was still far too challenging to manage the daily absent drivers, downed buses or route disruptions that threaten on-time arrivals.Not to mention improving payroll and driver communications.These gaps presented challenges in tracking the most imprtant (and difficult to track) data and identifying areas where the district could save money and improve efficiency.

In 2017, the district decided to implement Bytecurve 360, a school bus operating platform that integrates routing, GPS data, and time clock (payroll) systems.The platform has helped the district save money and improve efficiency in a number of ways, including spend less time managing drivers as the DriveOn messaging app allows drives to clock in/out remotely AND accept route/assignment changes in real time.
Fewer complaints from parents as the fleet managers are alerted immediately when drivers are late or buses have failed to leave the yard on time. Less payroll mistakes as the integration with routing and GPS can verify automatically costly anomalies.

Poway was one of the first public school districts to see the value in merging their fleet data into a more holistic view, blazing a trail for dozens of public and private student transportation fleets to follow.

Today, fleets in more than 20 states serving 45,000 buses leverage the Bytecode platform to increase the value of their other technology investments and uncover new opportunities to improve performance and safety.

Founder and CEO GP Singh developed the platform alongside a team of former student transportation veterans who spent years working at one of the nation's largest and most dynamic private school bus fleets.He recognized the challenges from first-hand experience as a dispatcher and realized the problem could be solved by merging the data from routing and GPS into a new command and control system."We know absent and late drivers are a chronic challenge for fleets across the country, even more so in the past few years as the labor market heated up," Singh said.
"But there was no ability in either routing or GPS to track driver whereabouts in real-time, let alone re-assign on a substitute driver or change a route on the fly. That's why we built Bytecurve360 and why our customers swear by it."

"Bytecurve 360 is the only single platform that integrates data between routing systems and on-bus technologies like GPS to allow transportation providers to improve their operations (on-time performance), asset utilization, and payroll management. Its dashboard is designed to provide real-time alerts on routes running late,"
Every member of the leadership team at Bytecurve brings years of experience in the transit or student transportation industries.

Jason McIntosh, the company's vice president of commercial development, made numerous trips to the Poway USD offices and used his prior expertise with routing to help build the system they use today.
"We recognize the difficulties clients face and are personally invested to help them solve the pressing challenges that can dramatically improve their operations," McIntosh said. "Helping them achieve a higher level of performance and safety is what we're all about."

Up to the minute accuracy

"We've saved so much time from our old system of having to double check odd payroll issues," said

Tina Puljan, Dispatcher
Federal Way Public Schools

"Now the issues are presented to us and we can message the driver to solve it quickly. And the dollars saved in payroll are significant, too"

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Saying Goodbye to Printed Routes

Purvis relies on Transfinder for the routing and Zonar for the GPS fleet tracking to support his operations. In the past, schedulers would create "very elaborate and wasteful route books filled with the printed routes," he explained."We were wasting a tremendous amount of paper with 131 daily routes."
Plus, the routes weren't integrated with real-time bus tracking."Unless you're going in and integrating your routing in real-time, you don't really know if you've done it [well]," Purvis pointed out.

Today, screens set up around the Poway USD transportation office allow staff to see planned routes, as well as maps with real-time bus locations marked. It's this sort of real-time visibility that shifts operations from reactive to proactive.

A Wisconsin private school bus fleet manager dubbed Bytecruve360 their team's "central command and control" and credited it with helping them take the stress out of the morning dispatching.
Singh said their dashboard is designed for this sort of operational visibility. "Our experience as school bus fleet dispatchers and managers of drivers informed the way we built the Bytecruve360 platform, and today we leverage feedback from current customer to continue to improve the product," Singh said.
"When you combine that with our customer support's team commitment to deliver a solution tailored to the customer's requirements, we believe we're delivering a uniquely valuable experience."
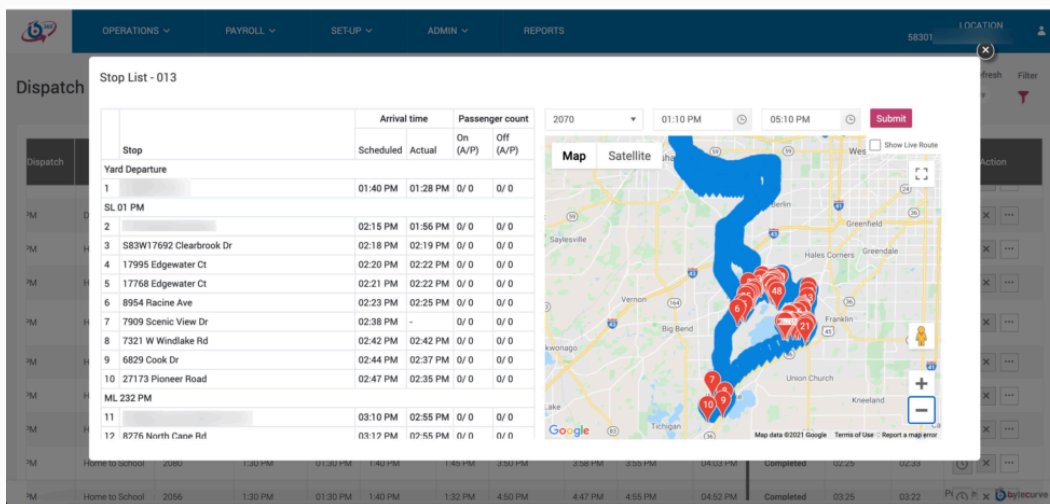
From Organized Chaos to Planned Response

The district used to track driver schedules on paper, making it hard to keep track of last-minute changes or substitutions for payroll purposes. "It was problematic and not clean," said Purvis. They needed help validating time and attendance. The Bytecurve 360 program provides accountability by tracking how long a bus is on the road.

Drivers are allowed to clock in only five minutes ahead of schedule (which is configurable),while bus assignments are reflected on-screen for staff to refer to in case of any questions.

The system allows for easier substitutions, and the payroll department can now track and verify everything in seconds instead of poring through reams of payroll data in search of costly inconsistencies. Adjustments may also be made to abide by union requirements.

Another feature that both Purvis and his drivers appreciate is internal messaging. For instance, a drug testing notice can be displayed when a driver clocks in, which saves time in locating and relaying messages to drivers.

Bytecurve 360 provides the district with real-time data on bus locations and on-time performance. The platform has also made it easier for the district to communicate with drivers and parents.

Bytecurve 360 allows the district to send text messages to drivers and parents with updates on bus locations and delays.

"It helps our operations supervisors—they're now cleaning up routes," Purvis shared.

"There's the savings, and it's big dollars." Bytecurve360 facilitated that, something that the district superintendent was impressed with. "They're ahead of the plan. It's not running them. *It's no longer organized chaos; it's a planned response,"* he shared.

About Bytecurve

Founded in 2018 by GP Singh after many years on the frontline of student transportation operations with one of the country's largest private student transportation providers, Bytecruve is designed as the 360 view of operations.

By blending routing and GPS fleet tracking data, and adding a payroll capability as well as mobile app for two-ways communications between dispatch and drivers, Bytecurve 360 has created a new category for student transportation excellence: the dispatch command center.

"We believe many school bus operators still don't appreciate all the potential improvments they can deliver by taking two powerful yet independent systems and merging them into a new layer of visibility and action," Singh said. "We're integrated with all the major providers of routing systems and GPS fleet tracking so virtually any school district with both systems can take advantage of our transformative technology."

Trusted by dozens of districts across North America, more than 40,000 school bus rely on Bytecurve technology to improve their efficiency and safety.

"I know from first hand experience what school bus fleet leaders need to perform at their best, and we work tirelessly on our product and with our customers to deliver this experience so they can know they are investing in the safest and most efficient fleet."