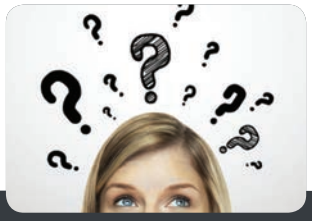
Parent Apps – Are You Ready?

Bringing Together Safety, Efficiency, Communications and Technology

School buses have been around for decades. But today's buses bring a new level of technology into your operation, which allows for opportunities to improve safety, efficiency and communications. A key result of this development is the increased demand for parent apps like Transfinder's Stopfinder that track school buses. But just like adopting any new technology, you need to know if you are truly ready to make this investment.

What needs to be in place for success? Will the benefits outweigh the costs?

Let's take a closer look. What is possible when you combine the elements of safety, efficiency and two-way communications to deliver a first-class parent app? Does your department already incorporate state-of-the-art technology allowing for higher standards of safety, efficiency and communications that would support a parent app?



Important elements to consider when looking at this technology:

- What problems are you trying to solve with a parent app? Is it for the safety of your students? Is it for the peace of mind for your parents? Is it to take pressure from overworked staff who spend much of their time answering questions from parents?

- Who is asking for this app? Is it coming from your department, district administration, the school board or parents in the community?

- Is the district prepared to invest in the costs of implementation? Beyond the financial costs, how much investment in time and resources will be needed to deploy and maintain an accurate school bus parent app?

- Has your district discussed the rollout plan for a parent app? Is there potential for negative publicity if the project has setbacks? What impact would a failed deployment have on the district's reputation and your department?

There are several key elements required to ensure that parent apps for transportation work correctly, including:

- Routing software with accurate bus routes and correct student stop assignments
- GPS hardware that tracks and broadcasts the vehicle locations in near real-time
- Staff practices and district transportation policies that support accurate bus routes throughout the school year

The good news is that many of the processes you need to put in place to successfully deploy a parent app are also good standards and practices you need to follow for student transportation as a whole, practices that make sense for normal daily operations and emergency management as well. You may already have many of these best practices in place or you may be well on your way toward adopting them as part of a long-term goal of improving your transportation department.

The goal of deploying a smooth running, informative parent app could be just the right initiative you need to bring the rest of your operations in line with the way you want your department to run.

Parent Apps Require Accurate, Safe and Reliable Information in the District's Routing Software

The results of a parent app will be determined by the accuracy of the bus routes in your student transportation management software. A parent app is a direct reflection of the safety and efficiency in your transportation department's operations. If you struggle to maintain accurate bus routes in your student transportation software, your parent app results will be inaccurate, providing misinformation to parents.

If the routing software locates students to approximate address ranges, there will likely be problems with a parent app. Students should be located by parcel or address point. Exact location is the expectation these days. *If the student locations in the routing software are approximate, but the stop locations from the GPS device are exact, this will cause problems with the parent app.*

In student transportation software, safety starts with how students get to their assigned bus stops. Some software may unintentionally assign students to a bus stop that the router may disagree with. If this happens and it gets missed, parents see the wrong information.

It takes experienced school staff with local knowledge to determine what is the safest stop for any given student. Mathematical algorithms alone cannot be expected to develop the best path for students to travel. An algorithm provides a solution that is not customized for safety of the individual student. **Ideally, routing software should mirror the router's local knowledge and only assign students to the stops that the routing staff know are safe.** If the district's software mistakenly puts a student at an unsafe or impractical stop, routing staff need to be aware and fix that before the bus leaves the lot. If the routing software assigns students by walk to stop distances there will likely be problems with a parent app.

The final aspects to consider in increasing transportation reliability are the path of the bus and projected stop times. Having an accurate map that allows for the easy creation of safe paths is critical to enhancing safety and providing good stop time projections. It is important that the bus be routed minimizing accident potentials. Routing software should create a suggested driving path and stop times, but also allow quick and easy adjustments by routers. Although a parent will see an ETA in the parent app, they are still relying on the planned stop time as the foundation of that ETA. Accurate paths and stop times in the routing software drive parent expectations.

GPS Hardware That Tracks and Broadcasts the Vehicle Locations in Near-Real Time

GPS devices on the school bus allow for tracking of the bus, and this location is what enables the app to give parents an estimated time of arrival. There are several GPS vendors that provide location data transmitted over reliable networks. GPS providers generally work on specific cell networks, and some networks work better in certain areas of the country. The district should be mindful of which networks work best in the district area when reviewing GPS hardware providers.

Routing software data (stops, times, student assignments) must be integrated with this GPS data to provide a complete solution. Integrating GPS data into routing software provides routers with accurate information about actual bus paths, stop times, and student riders. This will enable the routers to maintain bus routes in the software that match what is happening on the road. The more accurate the data available to the router, the more efficient the bus can become.

Do Staff Practices and District Transportation Policies Support Accurate Bus Routes Through the School Year?

Even when routes are accurate at the start of school, they can evolve over the course of the school year as students move and changes occur.

Some examples to think of...

- Does the district allow parents to send a note in with their students in the morning, and have that student ride a different bus in the afternoon?
- When there is a 'quick change' to a route, how does that change make it to the driver? Is it a handwritten note on the route sheet or is it entered into the routing software?
- Do drivers come to the transportation director with proposed changes to the route? Do those changes get made in the routing software?

Throughout the year if a parent or board member asks you a question about student transportation in your district, where do you look for the answer? Is the answer documented somewhere or is it stored in a staff member's mind? How long does it take to find the answer? Can you trust that the information you have is the right answer? If the questions

about your bus routes are not found in your routing software, a parent app will not work well.

Do your staff resources match with the amount of change you see in the bus routes? Some districts do not have the staff time available to maintain this information daily throughout the school year. If the operation allows for frequent last-minute changes with lots of day variant exceptions, that will mean more detailed work for the transportation staff.

Districts often joke about the 'big yellow taxi' in terms of flexible routing. While firm policies and consistent routes are not as popular, they do impact how much work is required for a parent app to be trusted.

Summary and Conclusion

In reviewing the key elements above, the district must carefully think about the rollout strategy for any parent-facing app. This kind of technology will create seamless, instantaneous communication, and a rushed rollout with inaccurate data may lead to parent complaints. In the world of social media, it only takes a few parent comments to feel like a district wide problem.

A careful implementation plan is critical. Some schools may start only with the high school routes, as they are more consistent in their district. Others might begin with a test case in one elementary school.

The sales pitch for a parent app is easy, but the reality of implementation is something that requires careful thought and detailed planning.

Want More Information?

For more information on parent apps, GPS, routing software or any other transportation solution challenges, please contact the experts at Transfinder. With over a combined century of knowledge and expertise in the industry, the team at Transfinder is committed to generating superior value by delivering user-friendly and economical solutions combined with "best in class" service. Transfinder's skilled professionals establish and maintain a long-term relationship with every client that is built upon respect, confidence, integrity, and mutual trust.

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