



## Case Study

# Mobility solutions help Cobb County Schools safely transport thousands of students every day



### About Cobb County School District

The Cobb County School District (CCSD) is responsible for educating more than 109,000 students in a diverse, constantly changing environment. Part of the Atlanta metropolitan area, suburban Cobb County operates the second largest school system in Georgia and is among the 25 largest in the nation. CCSD is the second largest employer in Cobb County, with over 13,000 employees working to create and support pathways for student success.

### Situation

Safety is a top priority for Cobb County School District. Its bus drivers log 65,000 miles each day transporting thousands of students to and from school. For years dispatchers communicated with drivers via two-way radios, which the district later augmented with a wireless Push-to-Talk (PTT) solution. When its wireless provider eliminated the 2G network that supported PTT, Cobb County sought a solution that would help keep students and drivers safe now and into the future. At the same time, officials looked to add a mobile resource management platform (MRM) that could track buses in near real time and give bus drivers the convenience of clocking in and out through mobile devices.

### Solution

Cobb County demonstrated its technology leadership by choosing AT&T Enhanced Push-to-Talk (EPTT), an IP-based communications platform that gives drivers one-button access to dispatchers and operates seamlessly with schools' existing mobility applications. With expansive coverage on the nation's most reliable 4G LTE network\*, Enhanced Push-to-Talk is a long term solution for the county. In addition, CCSD added Actsoft® from AT&T to better manage its mobile resources. The solution utilizes the latest advances in GPS, mobile and web technologies, and gives drivers the convenience of clocking in on their mobile devices while improving timesheet accuracy and workforce productivity.

### The Key to Success

Cobb County School District provides an environment that empowers students' dreams and encourages them to aspire to the highest level of excellence. Cobb students met or exceeded state education standards in every content area and grade level last year,

and district SAT scores were well above state and national averages. More than three-quarters of Cobb students continue their education after high school.

School officials demonstrate a leadership view of technology by investing in solutions that support educational excellence. "The ultimate goal of technology in education is to be able to provide teachers with the resources that they need to be able to reach, engage and teach students," said Chris Ragsdale, Deputy Superintendent of Operational Support and CCSD's Interim Superintendent.

Technology supports many innovations that Cobb County teachers use to enrich students' education, such as a two gigabit pipe that connects all district schools with a data center and fiber optic cable that stretches from one main data center in each school to every classroom. "A big push today is video streaming across the net," Ragsdale said. "If you don't have the proper infrastructure in place, you're not going to be able to stream."

## Cobb County School District Facts

### Business Needs

Swift, reliable way to communicate with bus drivers and track their locations in real time

### Networking Solution

Enhanced Push-to-Talk instantly connects drivers with dispatchers; GPS tracking solution provides bus locations and automates timesheet activities

### Business Value

Faster, easier communication with drivers; enhanced insight for parents and staff; improved driver productivity and safety

### Industry Focus

Public Education

### Size

114 schools

Ragsdale, who joined the district as Chief Technology Officer, is also responsible for the school system's public safety, maintenance, transportation, construction and special-purpose local-option sales tax, a funding vehicle for important projects like the school district's technology infrastructure. "As far as technology is concerned, you won't find too many school districts with the level of technological infrastructure that's present in Cobb County," he said. "Having the proper equipment and the employees to be able to manage it is key to the success each and every day for our departments."

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*"Trying to communicate in some situations becomes very difficult to do on a two-way radio system. It's imperative that we have the proper communication channels."*

– Chris Ragsdale, Deputy Superintendent of Operational Support and Interim Superintendent, Cobb County School District

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### Helping to Protect Students

The district also deploys technology that helps to enhance safety on the 1,168 school buses that transport students to and from school every day. A stop-arm camera system captures the license numbers of cars that pass or attempt to pass a bus as students board or exit, and a two-way radio system keeps bus drivers and dispatchers in constant communication. Several years ago the district augmented its radios with a wireless push to talk (PTT) solution.

"It's very important that bus drivers can reach us if they have a medical situation," Ragsdale said. The district also needs to be able to reach drivers in case a student doesn't return home at the expected time. "We have to communicate effectively to manage the situations so fear and panic don't set in," he said. "But at the same time, we're able to determine very quickly when a situation needs to be escalated, so having the proper communication equipment is very important."

Cobb County recently had to find an alternative for its PTT when the carrier eliminated the 2G network that supported it. "Trying to communicate in some situations becomes very difficult to do on a two-way radio system," Ragsdale said. "It's imperative that we have the proper communication channels."

Mindful that the district is funded by taxpayers, officials are careful about the money they spend. "We have to be very concentrated, very deliberate in our efforts to maintain a certain level of technology within the district," he said. "But I think we're at the top tier as far as technology integration when compared to other districts."

### More Organized, Controlled Communication

To replace its outdated solution, Cobb County schools turned to AT&T Enhanced Push-to-Talk for superior functionality that makes it easier for drivers to reach dispatch. The solution enables the district to communicate with large groups or individual drivers, providing privacy for sensitive conversations and greatly reducing unnecessary noise on the network.

"We have over one thousand buses on the roads, so trying to have a conversation with a particular driver while the other drivers out there need to communicate as well can be chaotic," he said. "With push-to-talk, it just becomes a more organized, controlled environment for communication." Enhanced Push-to-Talk allows hands-free operation of the device and enables the driver to continue to work safely while communicating with dispatch.

AT&T EPTT enables district personnel to use their existing smartphones to communicate with bus drivers. "One of the things that I like about this solution is that principals and other officials will be able to use an AT&T EPTT application to communicate directly with bus drivers even if they don't have push-to-talk phones," he said.

### Increased Efficiency and Productivity

The district also added Actsoft® from AT&T for vehicle location and time tracking capabilities. This provides valuable insight into the location and speed of each bus and supports the transportation of more than 60,000 students a day. The solution utilizes the latest advances in GPS, mobile and web technologies to improve workforce productivity, better manage assets, control operating costs and mitigate risk.

To start, Actsoft helps the district determine the best overall bus routes and locations for its 25,000 designated bus stops. "The solution shows us traffic patterns so we can determine the best overall route for a specific area to get students to and from school," he said. "It helps us plan routes that give us the most efficient utilization of our fuel."

Actsoft also assists with payroll tasks. Every work day drivers use the smartphones installed in each bus to log in when they start work and log out when they've completed their duties. "This solution has improved the accuracy and the automation of payroll because it integrates directly into our financial system," Ragsdale said. He likes the fact that drivers can access Wi-Fi connectivity when waiting at one of the 114 schools. They can download software updates quickly and connect with payroll and other district systems.

Lastly, Actsoft from AT&T provides a record of events. For example, the district occasionally gets a call about a speeding bus. "Now we're able to look and see that the bus was actually going well below the posted speed limit," he said. "It allows us to protect our drivers in what previously would have been a he-said, she-said situation."

The biggest benefits of EPTT and Actsoft are improved communication and safety, he said. "If a bus is running late the dispatcher can see exactly where it is and can tell a worried parent that it has not arrived at their stop yet."

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### Weathering the Storm of the Century

The mobile capabilities became especially beneficial this year when an ice storm paralyzed Georgia, a state that rarely has to deal with harsh winter weather. CCSD made the decision to dismiss schools at 9:30 a.m. – well before any precipitation fell – but roads quickly became ice-covered and impassable. "Thousands of cars lined the streets – not just the interstates, but side streets as well. People just couldn't get home," Ragsdale said.

The Actsoft solution gave the district the exact location of each of its buses and EPTT facilitated one-on-one conversations with drivers to determine where help was needed, making it easy to request assistance from police and National Guard units.

Some Cobb County students and their teachers spent the night in school, and others arrived home hours later than usual, but EPTT enabled district officials to manage the situation with calm efficiency. "We were able to communicate with drivers so we knew exactly what the situation was," he said, "in order to concentrate our resources and use the most efficient means possible to get our students home safely."

It was a tense situation, Ragsdale recalled, as parents tried to get to their children. "Frustration was very high at times," he said. "After the fact, I think that most people realized that we did everything we could possibly do and Cobb County had some tools that maybe other districts did not."

### Future-Proof Solutions

Ragsdale has seen sweeping changes in technology during his 23 years in education, especially in terms of mobility. He started at a time before cell phones existed, and now works in a district that permits students to connect their own devices to the Wi-Fi networks in school and on the bus. Beyond the educational advantages, he said, "being able to utilize their devices is a benefit as far as maintaining discipline and order."

However, the district hasn't fallen into the trap of introducing technology for its own sake "Our priority is making sure that we have

a robust system that the students, teachers and administrators can rely on and that we're providing the proper tools that the teachers need so that they engage the students each and every day," he said.

AT&T has helped deliver the technology that CCSD teachers and students require. "We had a pretty short window to get all of this done. I was impressed with the thorough and timely implementation that helped ensure we started the school year successfully," he said.

AT&T gives Cobb County the latest generation of wireless network technology, helping to pave the way for continued enhancements that benefit students and district staff. "We want to have the fastest connectivity speeds and the most bandwidth available in the schools for whatever communication device we're using," Ragsdale said. "It was important for us to be able to scale to the new technologies that are coming out."

Cobb County is considering other solutions, such as systems that detect when an emergency door opens or other events occur on a bus, and officials are confident that the district network can handle the applications. "The devices you use are going to change all the time, so it's important to build a foundation layer that will support what you're planning to do in the future," he said. "The highway that those devices are going to use is not easily changed, so you have to make sure you get it right the first time and plan for future expansion and scalability."

**For more information contact an AT&T Representative or visit [att.com/edu](http://att.com/edu).**

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