



Spring Independent School District Tracks 16,000 Students, Using Innovative AirClic/RFID Solution

In Real Time, Administrators Monitor K-5 Students Riding On Hundreds of Buses

[The Organization] Spring Independent School District, a 29,000-student school district outside of Houston, covering 57 square miles.

[The Challenge] Carefully and accurately track the exact location of more than 16,000 K-5 students on more than 200 buses.

[The Solution] AirClic MP Reporter and AirClic MP Harvest—a low-cost, low-risk solution for wirelessly tracking and reporting information on students in transit.

[The Results] Spring ISD now uses a robust RFID card-reader, Nextel network, and AirClic's mobile data capture and reporting services to pinpoint the location of any in-transit K-5 student in real time.

With more than 25 different school facilities located across 57 square miles outside of Houston, Texas, the Spring Independent School District (ISD) faces a challenge that redefines the phrase “mission-critical.” Each day, the District’s 210 drivers must use hundreds of vehicles to safely transport more than 19,000 students—predominantly younger children—to and from school each day.

Spring ISD—a growing urban district 20 miles outside downtown Houston, in Harris County—has been fortunate. Despite the incredible logistical complexities of aligning students, vehicles, routes, and drivers, the District has never “misplaced” even one student. But for Transportation Director Brian Weisinger, there was no time to rest on laurels.

“We were receiving a couple of calls each week from anxious parents wondering where their child was—why he or she hadn’t been dropped off. So we’d use a two-way radio to speak to the assigned driver and get a status on the student.

“But our drivers don’t have manifests—they count on students knowing where and when to get off the bus. Sometimes the kids forget where they are or mistakenly get off at the wrong stop. Sometimes they go to visit a friend’s house unexpectedly or stay after school for sports or a club. A substitute driver may not know who or where the student is. Regardless of the situation, it causes a lot of anxious moments for us—and for the parents.”

Pilot Program Demonstrates Real-time Success

Applying AirClic MP, Spring ISD created a powerful, complete, wireless solution for capturing, tracking, and reporting the locations of all students. In its pilot program, Spring ISD used a combination of Java-enabled mobile phones, innovative AirClic MP Capture devices, and the AirClic MP solution.





Cost and risk were minimal, and the application also has a very high degree of privacy. “We have no personally identifiable information on our Web site,” Weisinger explained. “We show only ID numbers—never names.”

According to Weisinger, the three-month pilot program was a resounding success. “During the pilot phase, we really didn’t encounter any meaningful problems with our deployment. It worked very well—and we knew it was time to expand our footprint. We presented our test results to the District’s Executive Leadership Committee. They quickly agreed that this was an investment that we needed to make. The question wasn’t ‘Can we afford this?’, but, ‘Can we afford not to do this?’”

All aboard to broader deployment

With full support and sponsorship, the team decided to expand its system to cover all 16,500 students from kindergarten through fifth grade, attending 16 different elementary campuses. For the production deployment, there was one major change to the configuration. “We found that using bar-code scanners was impractical at some of our larger stops,” said Weisinger. “In our pilot phase, we had 68 kids all trying to get on the bus at one stop—and scanning barcodes was just not practical.

“Since the AirClic MP platform is flexible enough to capture transactions through RFID, we decided to purchase and deploy about 180 HID RFID card readers. Our students carry passive cards—no batteries, no RF emissions—and don’t have to do anything. Whenever a student walks on or off our bus, we know where that student is.

“The RFID reader recognizes the card of each individual student. In real time, we can pinpoint the location of any of 16,500 students in our transit system. We can create a report on a student’s transportation activities by the day, week, or month. AirClic can even tell us who else got on or off the bus with the student.



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A priceless ROI

“Do we still get anxious calls from parents? Sometimes—but a lot fewer than before. Those calls usually mean one of two things: the missing student didn’t bring his card (so we call the driver on a two-way radio as we did previously), Or we can tell the caller that their child got off at a different bus stop and who else accompanied him or her.

“There’s no formal way to do any type of ROI on this system, of course,” Weisinger concluded. “But, the value is priceless.”