



Billion M500
4G/LTE Industrial/In-Vehicle Multi-Carrier Router



Case Study

United Wireless and Billion team up to provide Connected School Buses to local school districts in Southwestern Kansas

Executive Summary

United Wireless, located in Dodge City, Kansas, was approached by a local school district with a need of continuing education aboard their school bus fleet. United Wireless provided the 4G LTE service, while Billion and their M500 provided the technology to not only make the extended classroom possible, but with enhanced safety and efficiency tools all in one product.

The Customer

United Wireless's parent company was shaped 1951 when Southwestern Bell decided it was not in their interest to extend coverage to those living in the rural areas outside of Dodge City, Kansas. Fast forward to 2016, United Wireless has more towers and better coverage than any other provider in Southwestern Kansas. Their foundation was founded on the ambition to bring the latest and greatest technology to its rural Kansas customers and they continue to work towards that goal today.

Challenges

Because of this reputation, United Wireless was approached by a local school district, with the hopes of continuing the digital classroom while transporting the students to and from the physical one. United Wireless has the 4G LTE to provide to the school district, but needed a partner to supply the connection solution to make this hope a reality. Billion Electric was the perfect solution to providing 4G LTE wireless gateways to offer solutions that provide secure, robust and reliable network connectivity for the school district's fleet of 56 school buses.

How Product Helped

The M500 multi carrier in-vehicle router features Multi-WAN radios for seamless failover between carriers that can support a high number of connected users for internet access, streaming videos and other applications. With captive portal and secure access, the M500 provides multiple authentication methods ensuring secure access to network assets for sanctioned devices and user accounts. Billion's M500 not only delivered the gateway for United Wireless to supply its 4G LTE to enhance learning opportunities for students, but provided them with a safe way for the students to connect to existing school-based filtering applications.

Results

Billion's M500 in-vehicle router provided more than an always on connection for the local school districts learning initiatives. GPS Tracking, Reporting and real-time video surveillance features make the M500 the most robust choice when providing a safe learning space for children. Embedded GPS functionality provides instant and accurate school bus tracking and location, giving parents and teachers the confidence of knowing the exact whereabouts of the school buses carrying their precious cargo.

The reporting feature empowers administration to manage the operational efficiency by monitoring the route, fuel consumption and driver behavior. The M500 can also seamlessly incorporate your surveillance system giving administration access to watch live, real-time video that can help monitor pupil behavior, enforce safety rules and provide assistance should an accident happen.



Conclusion

Many school districts have numerous technology initiatives to enhance the learning opportunities for students inside and outside of the classroom. The M500 provides a host of benefits for the students, parents, drivers and school administrators. One school district in Southwestern Kansas goal of integrating a mobile/cellular gateway, on-board Global Positioning System (GPS), Passenger Wi-Fi connectivity, Video cameras and other capabilities was realized with Billion and United Wireless.