

Transportation Solutions

Solutions for a Connected Transportation Industry

Wireless communications is enabling new trends in vehicle financing, leasing and insurance options, and infrastructure taxation. Fleet owners, road authorities, and leasing and insurance companies are deploying solutions that locate, monitor, and track mobile assets to enable new business models to reduce costs, increase vehicle security, and improve consumer choices.

Transportation Applications

Fleet Management

- Mobile Asset Tracking
- Fuel Management
- Dispatch Optimization
- Navigation and Route

Leasing and Insurance

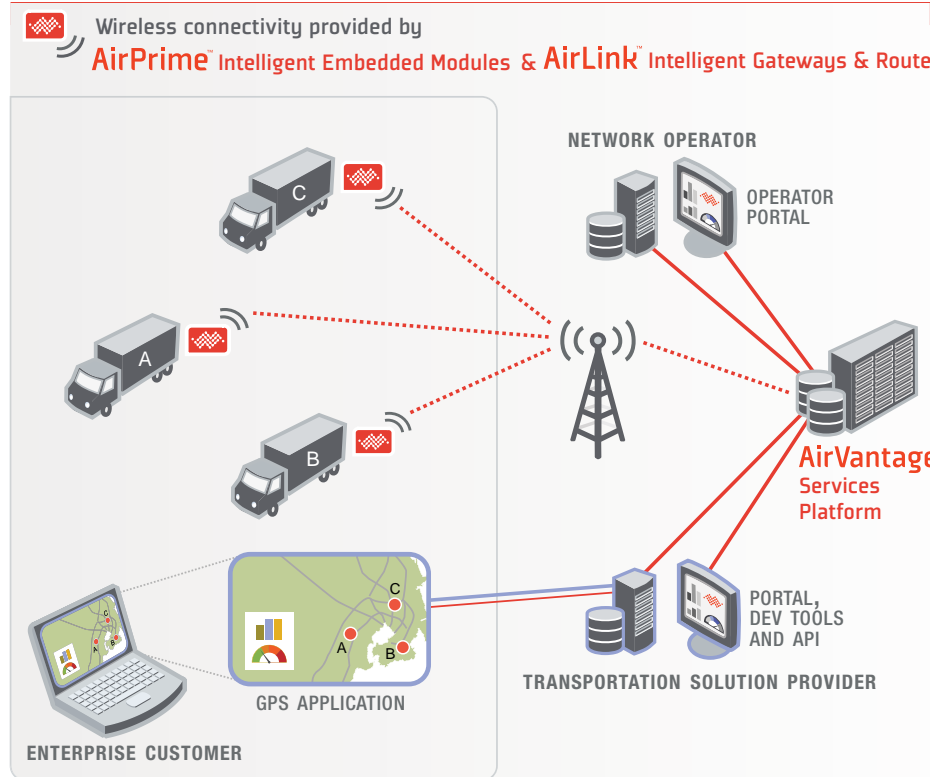
- Pay As You Drive
- Buy Here Pay Here
- Stolen Vehicle Recovery

Road/Infrastructure

- eToll
- eTax

Vehicle Aftermarket Applications

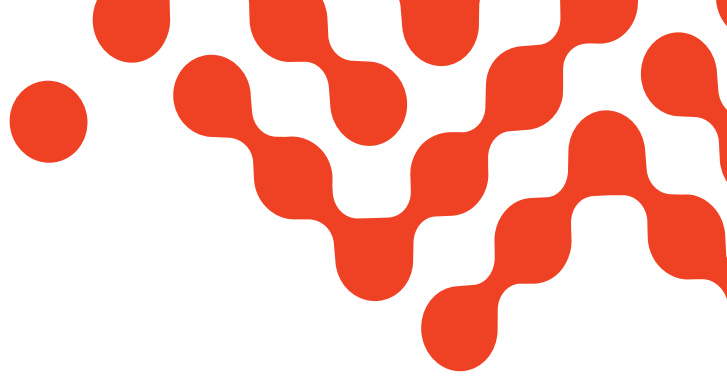
- Fleet Telematics
- GPS Tracking



For more than a decade, Sierra Wireless has been supplying the transportation industry with rugged, reliable, high performance wireless solutions. We offer a broad portfolio of components designed to exceed transportation industry requirements, with ruggedized units tested to military specifications and proven in the field by emergency services, field services, and local delivery fleets.

Sierra Wireless technologies and solution offerings are designed to help customers with every stage of bringing large, complex transportation solutions to market, from integration to testing and network certification. Take advantage of a professional services team experienced in both the transportation and wireless industries to ensure your designs meet network operator requirements, simplify integration, and accelerate time to market.

- Minimize risk and cost with proven wireless technologies that deliver the industry's lowest cost of ownership
- Integrate easily 3rd party GPS and Vehicle management applications with an open platform
- Simplify development with easy-to-use M2M software tools for web-based transportation applications
- Get to market faster with support for OBD II standards and guaranteed connectivity to major network operators
- Deploy and operate the solution on a hosted services platform scalable to millions of devices, with support for real-time over-the-air updates



Connecting the Transportation Industry

Trends	Challenges	Meeting the Challenges with Sierra Wireless
<p>Location based services for tracking, alerts, asset recovery, navigation</p>	<ul style="list-style-type: none"> • Data security and transmission reliability • Cost-effective real-time monitoring • Global wireless mobility • Accurate GPS data • Harsh environments resulting in device damage 	<ul style="list-style-type: none"> • Ensure accurate data with secure, reliable, mission-critical wireless connectivity • Embedded SIM eliminates SIM theft • Deliver real-time monitoring of multiple parameters with wireless devices that support broadband IP connectivity, secure layer protocol, and image/video transmission • Get wireless connectivity anywhere a mobile phone works, with interfaces that support all major cellular networks • Integrate applications with easy-to-use GPS modules, intelligent mobile gateways and software plug-ins • Devices designed and certified to meet Military specifications for ruggedness
<p>End-to-end solutions that include product, support and mobile network access</p>	<ul style="list-style-type: none"> • Cost and logistics of massive, high-volume deployment • Device components durable enough to last the lifetime of the vehicle • Global wireless mobility 	<ul style="list-style-type: none"> • Minimize product issues with modules built in and proven quality manufacturing processes • Minimize maintenance costs of managing large device populations with AirVantage™ Management Services for remote diagnosis and over-the-air software patches • Increase communications reliability while reducing the cost and complexities of installation, logistics, inventory management, secure storage, and activation with Embedded SIM • Use modules pre-certified with network operators, or leverage Sierra Wireless credibility and long-standing relationships with leading wireless network operators to facilitate network certification and connection • Leverage an ecosystem of experienced application partners and value added resellers to implement end-to-end solutions
<p>Increasing insurance savings by deploying telematics in conjunction with stolen vehicle tracking</p>	<ul style="list-style-type: none"> • Global wireless mobility 	<ul style="list-style-type: none"> • Increase communications reliability while reducing the cost and complexities of installation, logistics, inventory management, secure storage, and activation with Embedded SIM
<p>Fleet management solutions moving beyond commercial vehicles to leasing/rental of consumer vehicles</p>	<ul style="list-style-type: none"> • Global wireless mobility 	<ul style="list-style-type: none"> • Increase communications reliability while reducing the cost and complexities of installation, logistics, inventory management, secure storage, and activation with Embedded SIM
<p>Shift in road tax model from vehicle-based to mileage-based</p>	<ul style="list-style-type: none"> • Accurate GPS data for accurate tax reporting • Integration with 3rd party applications 	<ul style="list-style-type: none"> • High precision GPS chips report highly accurate location information • Intelligent platforms are easily integrated with 3rd party applications for accurate tax reporting



Transportation Industry Commitment

Sierra Wireless has been supplying wireless connectivity to the transportation industry for more than a decade. Sierra Wireless customers can compete more effectively by selecting from the broadest range of wireless products designed to meet transportation industry requirements.

End-to-End Transportation Solutions

Select from a full range of embedded modules, gateways and routers, management software, and development tools that recognize industry challenges.

- Simplify and maintain high volume deployments with management platform
- Simplify installation with integrated GSM and GPS modules and intelligent mobile gateways
- Ensure security with numerous embedded security protocols

Simplify integration and deployment

Get new services to markets faster with open and proven technologies that allow rapid design and easy integration. Deploy faster with support for on board diagnostics and guaranteed connectivity through modules and gateways pre-certified with major network operators. Reduce maintenance cost and complexity with AirVantage™ enterprise grade hosted remote services platform.

Designed and manufactured for rugged performance

Deliver mission-critical mobile performance with modules and gateways that feature battery optimization, internal antennas, high precision GPS, and advanced audio capabilities. Expect reliable communication and location deployments that can last the life of your vehicle, due to highly ruggedized designs that meet military standards.

Credibility with wireless network operators worldwide

Leverage Sierra Wireless credibility and relationships with leading wireless network operators to facilitate network certification and network management. Use pre-certified modules for fast time to market, or let our professional services team help with network certification expertise.

Partner for success with Sierra Wireless

When you need to deliver transportation solutions that are reliable, cost-effective and easy to maintain, contact Sierra Wireless. Reduce risk and development costs with proven wireless technologies designed for easy integration, fast deployment and scalability.

Sierra Wireless transportation solution customers include:

- Bracke Systems
- DriveCam
- DTC Enterprises
- Icomera
- Malin Integrated Handling Solutions
- MiX Telematics
- Reinauer Maritime Group
- Rooms To Go
- Routeware
- Vodacom
- Center for Severe Weather Research

Sierra Wireless is certified with network operators worldwide including:

- AT&T (USA)
- Bell Mobility (Canada)
- O2 (UK and Ireland)
- Soft Bank (Japan)
- Sprint (USA)
- Telecom New Zealand
- Telefonica (Spain)
- Telstra (Australia)
- Telus (Canada)
- Verizon Wireless (USA)
- Vodafone



Transportation Solutions

Sierra Wireless Product Advantages

Transportation solution requirement	Sierra Wireless AirLink™ Gateways and Routers	Sierra Wireless AirPrime™ Embedded Modules
<ul style="list-style-type: none"> • Easy integration of wireless and GPS 	<ul style="list-style-type: none"> • Programmable in-vehicle platforms powered by ALEOS™ intelligence support: <ul style="list-style-type: none"> • Multiple GPS engines and GPS types (NMEA, TAIP, Garmin FMI) • Application Programming Interface (API) for deep integration with 3rd party GPS applications 	<ul style="list-style-type: none"> • Simple-to-deploy, programmable, portable modem connectivity for 2G up to the latest 3G/4G air interface support. • XM0110 GPS module and Location Plug-In for Open AT offer the easiest and most optimized GPS feature integration
<ul style="list-style-type: none"> • Secure, reliable data transmission 	<ul style="list-style-type: none"> • Mission-critical reliability with cellular session persistence, robust remote management, control and configuration • Support for secure communications including: SSL, IPsec, WPA Enterprise, firewall, MAC address filtering 	<ul style="list-style-type: none"> • Mission-critical reliability with persistent network connections that reconnect automatically • Open AT® Operating System provides advanced security features such as encryption, SSL, IPsec, WPA Enterprise, firewall, MAC address filtering, and jamming detection • Embedded SIM reduces installation costs, SIM theft and simplifies logistics
<ul style="list-style-type: none"> • Cost-effective, high-volume components 	<ul style="list-style-type: none"> • Embedded intelligence and remote configuration provide the lowest total cost of ownership 	<ul style="list-style-type: none"> • Lean wireless modules that support only essential functions reduce product costs • Designed for streamlined product development and easy upgrading, with form factors that enable fully automated surface-mount manufacturing for high-volume production requirements
<ul style="list-style-type: none"> • Rugged, high-quality, long life components 	<ul style="list-style-type: none"> • Housed in durable enclosures designed and tested to meet the needs of enterprise and industrial applications; MIL-STD 810-F certified for use in extreme environments 	<ul style="list-style-type: none"> • Ruggedized designs comply with environmental requirements of the transportation market (vibration, extreme temperature of -40C to +85C) • Module qualification process includes Highly Accelerated Life Test (HALT) stress testing
<ul style="list-style-type: none"> • Flexibility to enter new markets 	<ul style="list-style-type: none"> • Highly extendable with support for all cellular protocols 	<ul style="list-style-type: none"> • Advanced low power mode; burst IT mode control optimizes battery usage

AirVantage™ Services Platform

- The AirVantage™ Platform provides a comprehensive, scalable and secure services platform with a web portal and powerful tools that allow remote deployment, configuration, and maintenance of transportation solutions and services.
- The Sierra Wireless professional services team understands the transportation industry as well as wireless technologies. We can help with product design and deployment plans, prepare your solution for certification, and help you through network verification.

For further company and product information, please visit www.sierrawireless.com



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