



Sierra Wireless® InMotion Solutions oMG Mobile Gateway

Rugged, Reliable Multi-Network Mobile Communications Gateway

FEATURES

- Creates mobile hotspot in and around vehicle
- Connects devices using Ethernet, Serial, USB, Wi-Fi and Bluetooth
- Automatically senses and selects best network and switches based on user-defined policies
- Supports multiple wireless broadband networks including 4G Cellular LTE, Public Safety Band 14 (FirstNet), and Wi-Fi
- Optimized remote monitoring, management and configuration
- Integrated security for all connections and devices
- Advanced integrated GPS with multi-cast and WAAS
- Module radio configuration

OPTIONAL APPLICATIONS

- GPS vehicle tracking
- Asset tracking of RFID Wi-Fi tags
- Vehicle diagnostic telemetry via OBDII
- Remote device trouble-shooting
- Turn by turn navigation via Garmin Fleet Management Interface

InMotion Solutions connect mission critical workforces. As the in-vehicle gateway in the InMotion portfolio, the oMG Mobile Gateway (oMG) is designed to deliver secure, wireless wide area networking for vehicles. It extends the enterprise network and management to the fleet, ensuring reliable, secure corporate network access for mobile users in the field.

VEHICLE AREA NETWORKING: CONSOLIDATE CONNECTIONS

The oMG includes a built-in 802.11 b/g/n Wi-Fi access point that creates a mobile hotspot in and around the vehicle allowing multiple devices to connect, reducing the proliferation of radio modems, antennas and wireless accounts otherwise needed. It allows devices to connect to wide area networks via Ethernet, Serial, USB, Wi-Fi and Bluetooth.

SECURITY: SECURE SWITCHING BETWEEN WI-FI AND CELLULAR NETWORKS

The oMG can be configured with multiple wireless modems that provide access to a combination of cellular data, 802.11 a/b/g/n Wi-Fi, Commercial 4G LTE, Public Safety 4G LTE (FirstNet) and other broadband network services. Multiple radio form factors are supported including USB, PCI Express Mini (PEM) and MiniPCI for maximum radio flexibility. The oMG's network policy engine enables intelligent switching between networks, based on a variety of operational factors. A patented cognitive wireless system automatically senses, assesses and selects the best available network. Wi-Fi links are protected using the latest security standards and an embedded mobile VPN capability with the oCM VPN Server (oCM) which can secure communications for all connected devices and applications across wide area connections. The oMG is available with optional FIPS 140-2 compliant IPsec client.

MANAGEABILITY: MANAGE, MONITOR & ADMINISTER YOUR FLEET REMOTELY

The oMG includes a built-in GPS receiver and microcomputer, enabling value-added applications such as vehicle tracking, RFID asset tracking, vehicle telemetry, and remote device access. Remote management of the oMG is provided by the oMM Management System (oMM), a powerful network management system that provides status monitoring, device management, and application interfaces. A dashboard provides an up-to-date view of the entire fleet, and a comprehensive reporting suite presents data on-demand, or via pre-scheduled reports.

BENEFITS

SINGLE GATEWAY FOR ALL COMMUNICATIONS

- Reduces operating and capital costs for infrastructure
- Simplifies management and maintenance of field IT equipment
- Reduces communications costs by consolidating traffic over single/preferred network connections
- Enables organizations to leverage Wi-Fi infrastructure
- Provides a core platform for upcoming applications and devices

CREATES A MOBILE HOTSPOT

- Connects all wired and wireless devices in and around the vehicle
- Enables quick and easy deployment of new applications

ENDURING

- Supports current and future wireless wide area networks, including Verizon XLTE and Public Safety 700 MHz Band 14 LTE (FirstNet)
- Modular radio design allows users to upgrade, add or switch to their choice of supported WAN and service provider

REDUNDANCY

- Supports multiple simultaneous WAN links, either load balanced or switched for persistent connectivity and lowest operational cost

SECURE, RELIABLE

- LAN-to-LAN VPN client to provide secure communications for all connected devices and applications through oCM
- Eliminates the need for VPN software clients for individual devices and applications
- Sends logs and other data to management system for monitoring and troubleshooting

REMOTE MANAGEMENT

- Remote mass configuration
- Over-the-air updates
- Remote troubleshooting
- Log data stored locally and transmitted to the oMM

RUGGED

- Military spec (MIL-STD-810) design - built for harsh vehicle environment

Specification

VEHICLE AREA NETWORK (VAN)

Support for all on-board devices - wired and wireless

IEEE 802.11 b/g/n 2.4GHz and 5GHz support with 2x2 MIMO (built-in vehicle AP)

Ethernet: RJ45 x 4 ports (10/100/1000BT)

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Serial: RS-232 DB-9 Port (supports PPP)

DHCP Server (RFC 2131)

USB: USB 2.0 x 2

Bluetooth: DUN (optional external adapter required)

Antenna Connectors: SMA (1), RP-SMA (up to 10) to support MIMO/diversity capable radios

General Purpose Inputs: 4 Digital inputs

Compatibility:

- Operates with Wi-Fi certified client devices
- Supports all major client operating systems

WIDE AREA NETWORK (WAN)

Multiple simultaneous radio operation for redundancy and throughput

Wireless Networking

North American Models (Sierra Wireless MC7354)

- Carrier Approvals: Verizon, AT&T, Sprint
- Industry Approvals: FCC, IC, PTCRB

Supported Frequency Bands

- LTE: 1900(B2), AWS(B4), 850(B5), 700(B13), 700(B17), 1900(B25)
- WCDMA: 2100(B1), 1900 (B2), AWS(B4), 850(B5), 900(B8)
- EV-DO/CDMA: 800(BC0), 1900(BC1), 1700(BC10)
- GSM/GPRS/EDGE: Quad-band

Optional Support for:

- LTE: 700 (B14) (FirstNet Public Safety Band 14)

Modular radio design allows users to upgrade, add or switch to their choice of supported WAN and service provider

IEEE 802.11 b/g/n 2.4GHz and 5GHz support with 2x2 MIMO for extended range

Satellite (via Ethernet)

Supports selected grade, carrier certified USB modems

SECURITY

Secures all data transmitted to and from vehicle without the need for VPN client software on every device

WLAN Security and Authentication

- WEP, WPA, WPA2
- Key management WPA-PSK and WPA-EAP

Firewall

- Port forwarding
- Port blocking

Encryption: IPsec including LAN-to-LAN (FIPS 140-2 compliant modules available as an option)

Authentication and Accounting: 802.1x/RADIUS authentication

Network Selection: WAN connection policy managed by network priority, availability, signal strength, GPS location, time-of-day

Protocols Supported

- Transparent support for HTTP, HTTPS, SMTP, POP, IMAP, FTP
- PPP (RFC 2516)

GPS

Track vehicle locations on maps, provides location awareness and mapping to reporting suite

Embedded 12 channel GPS receiver with active antenna support

WAAS and Double Precision LLA

NMEA and TAIP messaging

Local and remote forwarding via TCP or UDP

Available to all IP devices on LAN

Specification

POWER	Specification
<p>Runs on standard vehicle power or shore power</p>	<p>Power Supply</p> <ul style="list-style-type: none"> • Compatible with 12/24 VDC systems; support for under and over-voltage conditions • Internal DC-to-DC converter with reverse polarity • Locking power connector • AC adapter (option) <p>Power Management System</p> <ul style="list-style-type: none"> • Auto power-up on ignition sense including programmable start timer and shut-down delay • Input voltage monitoring with auto-shutdown at low voltage • Out-of-range temperature detection and shutdown protection
MANAGEMENT	
<p>Manage mobile network, vehicle and network health</p>	<p>oMM Management System</p> <ul style="list-style-type: none"> • Available as hosted/cloud-based service or as enterprise appliance installed on customer premises • Operational support services for fault, configuration, accounting, performance and security • Network coverage reporting • Location-based reporting • Historical logging • Remote software updates • Secure VNC reach-through • Email alerts for configurable thresholds
ENVIRONMENTAL	
<p>Purpose-built for mobile environment</p>	<p>Temperature/Humidity</p> <p>Operating Temperature: -20°C to +60°C</p> <ul style="list-style-type: none"> • Optional: -30°C to +60°C • Storage Temperature: -40°C to +80°C • Operating Humidity: 5-95% relative humidity; non-condensing • Storage Humidity: 5-95% relative humidity; non-condensing <p>Platform</p> <ul style="list-style-type: none"> • AMD Geode LX processor • Linux operating system • 1 GB onboard solid state storage <p>Ingress Protection</p> <ul style="list-style-type: none"> • IP54 <p>Vibration/Shock</p> <ul style="list-style-type: none"> • SAEJ1455 and MIL-STD-810F conformance to mechanical shock and vibration <p>EMI/EMC</p> <ul style="list-style-type: none"> • FCC Part 15, Class B
PHYSICAL	
<p>Compact, purpose built for mobile applications</p>	<p>Weight: 6.5 lb/2.9 kg</p> <p>Length: 10.8 in/27.4 cm</p> <p>Width: 8.8 in/22.3 cm</p> <p>Height: 2.4 in/6.0 cm</p>

About Sierra Wireless

Sierra Wireless is building the Internet of Things with intelligent wireless solutions that empower organizations to innovate in the connected world. We offer the industry's most comprehensive portfolio of 2G, 3G, and 4G embedded modules and gateways, seamlessly integrated with our secure cloud and connectivity services. OEMs and enterprises worldwide trust our innovative solutions to get their connected products and services to market faster.

For more information, visit www.sierrawireless.com.

