



## Sierra Wireless AirLink<sup>®</sup> Portfolio



# XR Series 5G Routers

---

## AirLink XR90

The supercharged AirLink XR90 is purpose-built for public safety and transit with available dual-5G cellular radios and dual independent 4x4 MIMO Wi-Fi 6 antennas. It is the highest performing, most flexible router in the Sierra portfolio. It supports complete device-to-cloud security, reduces your total cost of ownership with ALMS Out-of-Band management, and with the cartridged-based design, enables long-term expandability and upgradability.



The AirLink XR90 is a fully-supported, out-of-the box solution complete with integrated device management, advanced mobility reporting and 24/7 technical support. AirLink Connection Manager delivers complete VPN security and our AirLink Professional Services maximizes your system performance and customer satisfaction.

# XR Series 5G Routers

---

## AirLink XR80

The supercharged AirLink XR80 is optimized for fixed and mobile applications. The available dual-5G cellular radio and 5X4 MIMO Wi-Fi 6 delivers flexibility for customized configurations. The AirLink XR80 supports complete device-to-cloud security, reduces your total cost of ownership with ALMS Out-of-Band management, and with the cartridge-based design, enables long-term expandability and upgradability.



The AirLink XR80 is a fully-supported, out-of-the box solution complete with integrated device management and 24/7 technical support. AirLink Connection Manager delivers complete VPN security and our AirLink Professional Services maximizes your system performance and customer satisfaction.

# XR Series 5G Routers



## AirLink® Management Service (ALMS)

### SUPERCHARGED

Performance and Edge Intelligence

The XR Series cast aluminum enclosure houses supercharged hardware, including 5G, Wi-Fi 6, quad-core CPU, vehicle telemetry, edge computing, and sub-second multi-network switching

### FLEXIBLE

IPv4/IPv6 Routing and Firewalling

Configurable for many different fixed and mobile use cases with dual radio options, full IPv4 and IPv6 support, and flexible firewall and routing capabilities

ALMS brings visibility and management to deployments. It enables out-of-band management, zero-touch configuration, reporting, and troubleshooting

AirLink OS brings new capabilities across the portfolio including edge computing, advanced routing, native IPv6 support, new monitoring items, and built-in diagnostic tools

### SECURE

Networking, Platform, and Management

The XR Series solution is secure from the router to the cloud employing secure boot, encrypted keys and WPA3

### RESPONSIVE

User Experience and Provisioning

These routers require zero-touch provisioning and have a dedicated LPWA connection for out of band management and remote maintenance via an intuitive user interface

## AirLink® OS

# AirLink® Product Portfolio

## Performance Series

### RV55 Wi-Fi

Rugged Wi-Fi Router  
LTE-A Pro

### RV50X & RV55

Rugged Low Power Router  
LTE

### RV55 LPWA

Rugged Low Power Router  
CatM1/NB-IoT

### MP70

Rugged High  
Performance  
Router

### MG90

Multi Network  
Vehicle Router

### MG90 5G

Sub-6GHz 5G Vehicle Router  
4G LTE Cat-20  
Single 4x4 & Dual 2x2

5G

## Essential Series

### LX60

LTE Cat4/M1  
2x Ethernet  
Wi-Fi + GNSS option

### LX40

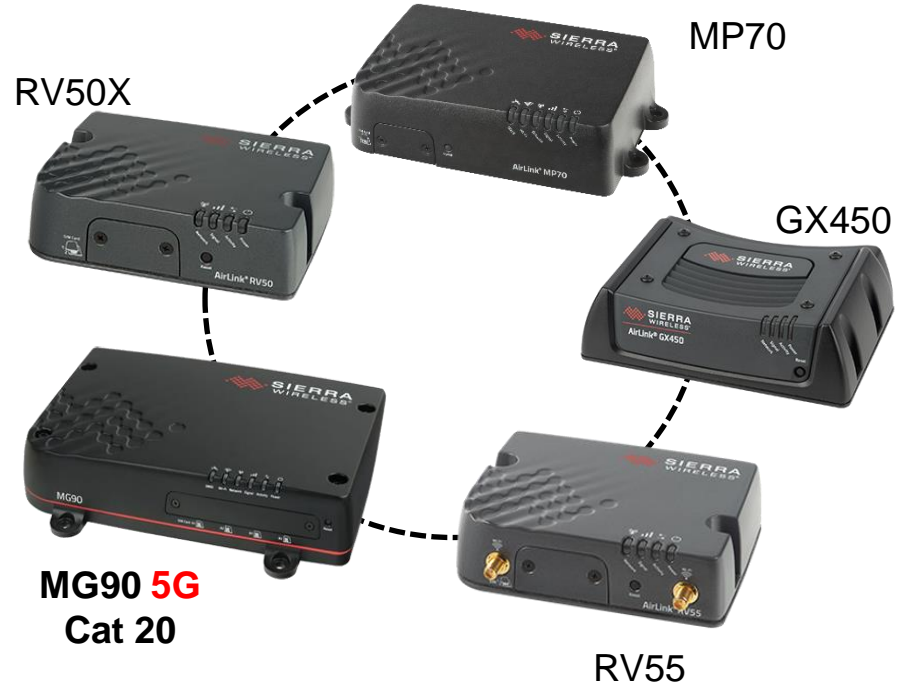
LTE Cat4/M1  
1x Ethernet

# AirLink® Product Portfolio

## Essential Series



## Performance Series



# AirLink® Essential Series

- Dual Ethernet LTE router for primary or backup connectivity
- LTE and LTE-M / NB-IoT (Up to 300 Kbps)
- Out-of-the-box connectivity
- Dual ethernet, RS232, RS485, and multiple I/O
- ALMS Cloud / AMM On-Premises Management



**LX60**

- Compact LTE router for IoT applications
- LTE and LTE-M / NB-IoT (up to 300 Kbps)
- Power over Ethernet for fixed low power applications
- Available with or without Wi-Fi
- Extended coverage to reach challenging locations (NB/IoT model)



**LX40**

- Designed for the distributed enterprise, POS devices & other business critical equipment
- Secure remote management
- Secure configuration for PCI compliant systems
- Up to five VPN tunnels
- ALMS Cloud / AMM On-Premises Management



**ES450**

**Example applications:** IoT/M2M, building automation, digital signage, ATMs, kiosks, POS, lottery, back-up connectivity

# AirLink® Performance series

## MG90 5G

- 5G Multi-network platform, vehicle grade router
- Up to 20Gbps Speeds. Latency < 1ms
- Capacity is 100 times more than LTE
- Single 4x4 5G Cellular + Dual 3x3 Wi-Fi
- Dual 2x2 5G Cellular + Dual 3x3 WiFi
- Purpose built for mission critical apps



## MP70

- High performance vehicle area network (VAN) router
- Vehicle grade, LTE-Advanced Pro
- High-power, long range Gigabit Wi-Fi, GNSS
- Secure, intelligent communications
- ALMS, AM, AMM



## RV50X

- Industrial grade, low power, rugged LTE gateway
- Ruggedised design for demanding environments
- Ultra low power consumption
- Instant integration – PLC's, RTU's, SNMP management, Modbus/DNP3 protocol support



## RV55X

- LTE-A Pro (CAT12) supporting 600Mbps/150Mbps (DL/UL) performance
- LTE-A Pro & LTE-M/NB-IoT variants for global deployments, & extended coverage
- Ethernet & Dual-Serial to connect legacy equipment
- Dual-Band Wi-Fi (optional) for Access Point and/or Wi-Fi WAN
- GNSS for precision location tracking
- Remote, secure network management in the cloud or in the enterprise



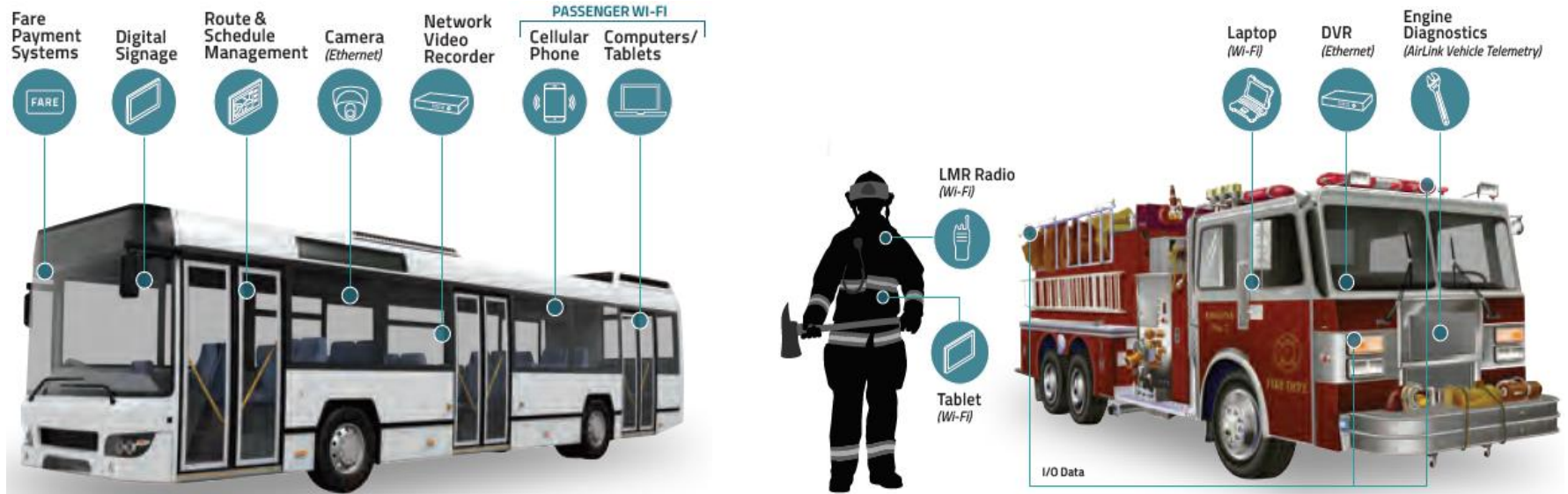
**Example applications:** Industrial IoT, asset monitoring, public transit, first responders, oil and gas, water, smart grid, video, transportation



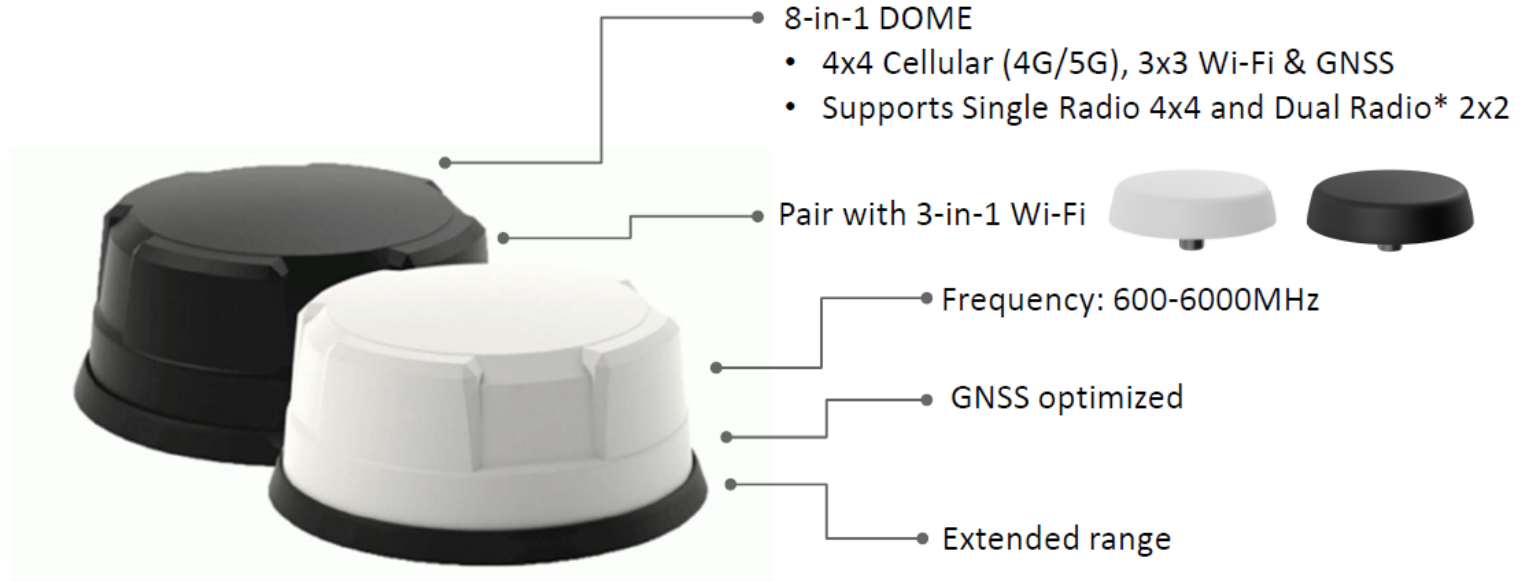
# MG90 5G In-Vehicle Application



The best-in-class AirLink® MG90 is purpose built for transit, rail and first responders with dual-LTE radios and dual Gigabit Wi-Fi delivering always-on connectivity with extensions to Land Mobile Radio (LMR) and satellite systems.



## New DOME Antennas Optimized for MG90 5G



New antennas are required for 4x4 MIMO support or for use with new frequencies e.g. B71 600 MHz T-Mobile

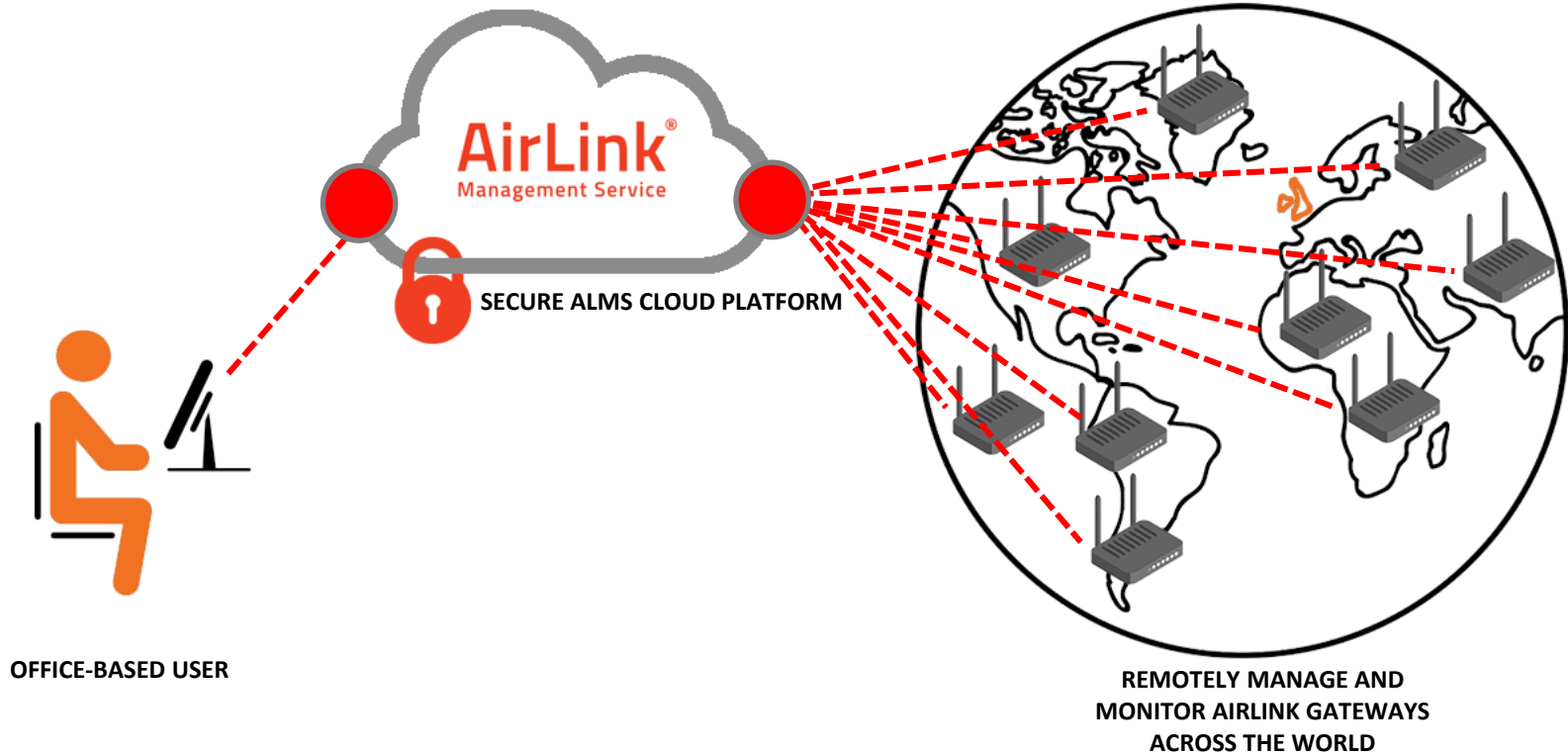
# AirLink® Embedded Operating System - ALEOS

- Operating system for all AirLink gateways except MG90
- Core routing + rich functionality (e.g. automated event generation)
- Fully maintained against security vulnerabilities
- Updateable locally or over the air
- Local AceManager web server for full device configuration
- Template process for rapid volume configuration

The screenshot displays the AceManager web interface for an AirLink gateway. The interface features a top navigation bar with the Sierra Wireless logo, the AirLink brand name, and the AceManager title. Below the navigation bar, there are several tabs for configuration: Status, WAN/Cellular, LAN, VPN, Security, Services, GPS, Events Reporting, Serial, Applications, I/O, and Admin. The main content area shows a configuration page for the WAN/Cellular section, with a table of parameters and their values. The table includes fields for Phone Number, Active WAN IP Address, Network State, Cell Info, Current Network Operator, Radio Technology, Network Service Type, Signal Strength (RSSI), LTE Signal Strength (RSRP), LTE Signal Quality (RSRQ), LTE Signal Interference (SIRI), Channel, WAN/Cellular Bytes Sent, WAN/Cellular Bytes Rcvd, Persisted WAN/Cellular Bytes Sent, Persisted WAN/Cellular Bytes Rcvd, ALEOS Software Version, Customer Device Name, and Network Operator Switching.

Category	Parameter	Value
Home	Phone Number	NA
WAN/Cellular	Active WAN IP Address	172.21.36.249
	Network State	Network Ready
LAN	Cell Info	CellInfo: TCH: 1392 RSSI: -62 LAC: 2189 CellID: 2793473
VPN	Current Network Operator	STREAM
	Radio Technology	LTE
Security	Network Service Type	4G
Services	Signal Strength (RSSI)	-62
	LTE Signal Strength (RSRP)	-91
GPS	LTE Signal Quality (RSRQ)	-11
	LTE Signal Interference (SIRI)	17.2
Serial	Channel	1392
Applications	WAN/Cellular Bytes Sent	1434
About	WAN/Cellular Bytes Rcvd	810
	Persisted WAN/Cellular Bytes Sent	0
	Persisted WAN/Cellular Bytes Rcvd	0
	ALEOS Software Version	4.5.0
	Customer Device Name	LT54270089011025
	Network Operator Switching	OK

# ALMS: simple, scalable, secure



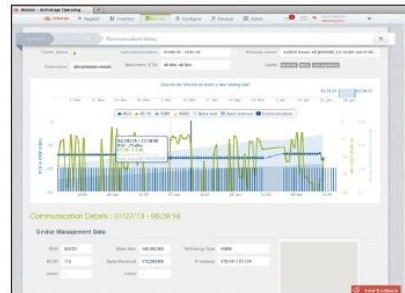
# AirLink® Management Service (ALMS)

- Configure, deploy and monitor gateways remotely
- Upgrade, ALEOS OS and radio firmware over the air across field population
- Remotely deploy templates across the device estate to ensure consistency
- Configurable, widget based dashboard facilitates customised reporting interfaces
- Cloud based – utilises AWS globally distributed data centres
- Device initiated communications – simple, secure methods on public APNs + VPN options available to bridge from private networks
- Configurable update rate (15 mins → weekly?) + real time alerting
- 3-month data retention
- API access for system to system communication

DASHBOARD VIEW



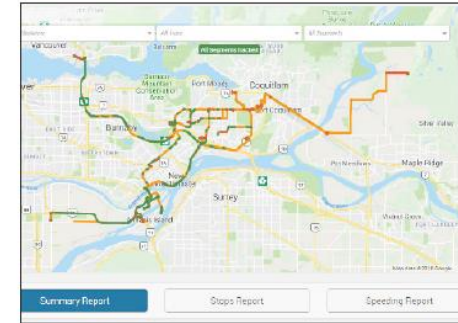
HISTORICAL DEVICE VIEW



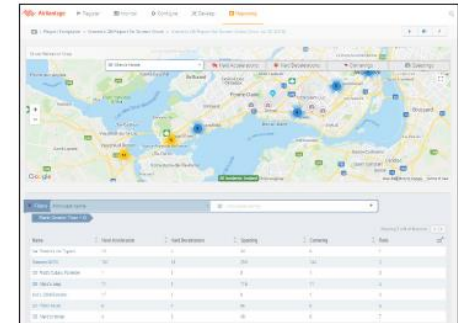
# ALMS Advanced Reporting and Analytics (ALMS ARA)

- Add reporting of telemetry to ALMS
- Use pre-defined reports
- Leverages AVTA (AirLink Vehicle Telemetry Application) + vehicle diagnostic port connection
- Geofencing capabilities for reporting zones
- Increased reporting rates to near real time
- Export to PDF, Excel or KML formats
- Data retention up from 3 months to 12 months
- API access for system to system integration
- Unlimited no of users

HISTORICAL TRIP REPORT (SPEED)



HISTORICAL TRIP REPORT  
(NETWORK STATUS)



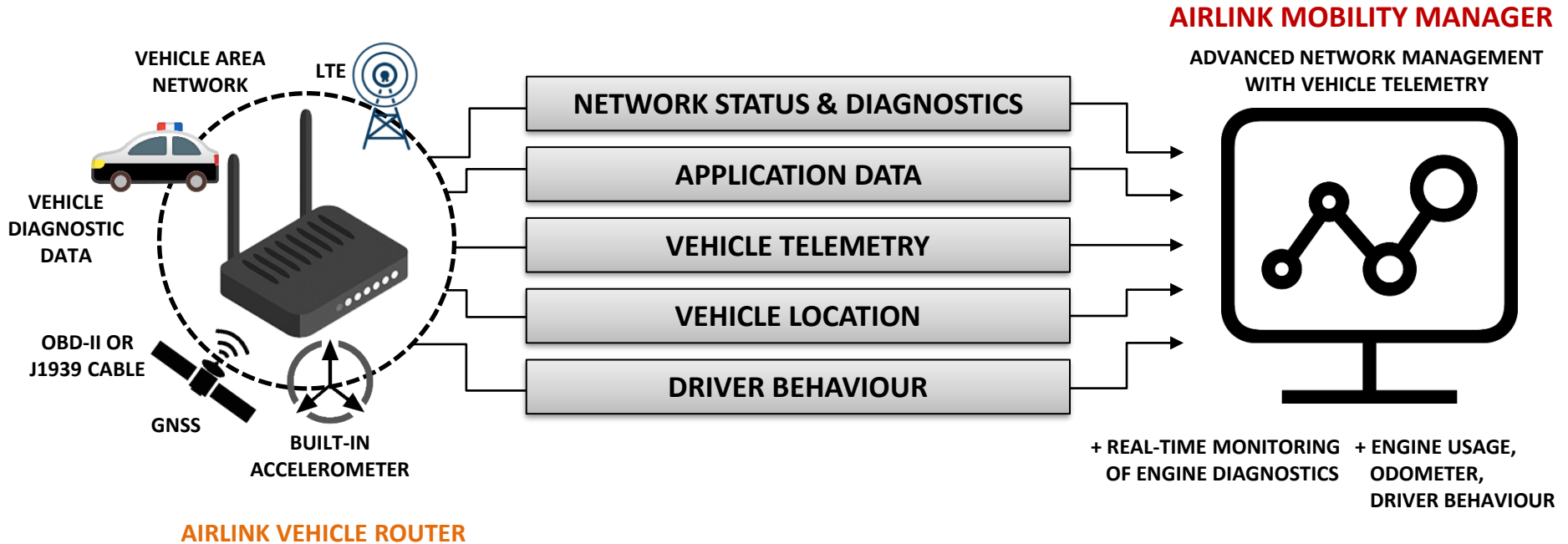
# AirLink® Manager (AM)

---

- Focused on fixed asset deployments
- Ideal for applications where cloud-based management is not an option
- On Premises management of gateways
- Configuration, deployment, troubleshooting
- Colour coded dashboard indicating device health with drill down capabilities
- Geographic view of gateway location



# AirLink<sup>®</sup> Mobility Manager (AMM): Network Management for Vehicle Deployments

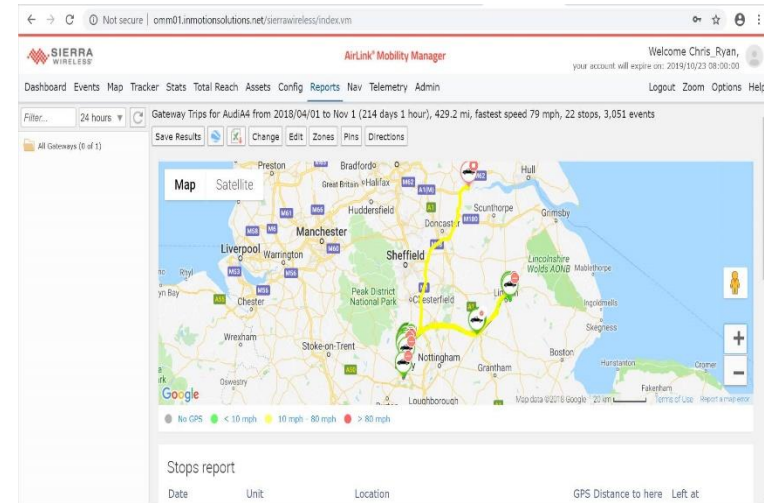




# AirLink® Mobility Manager (AMM)

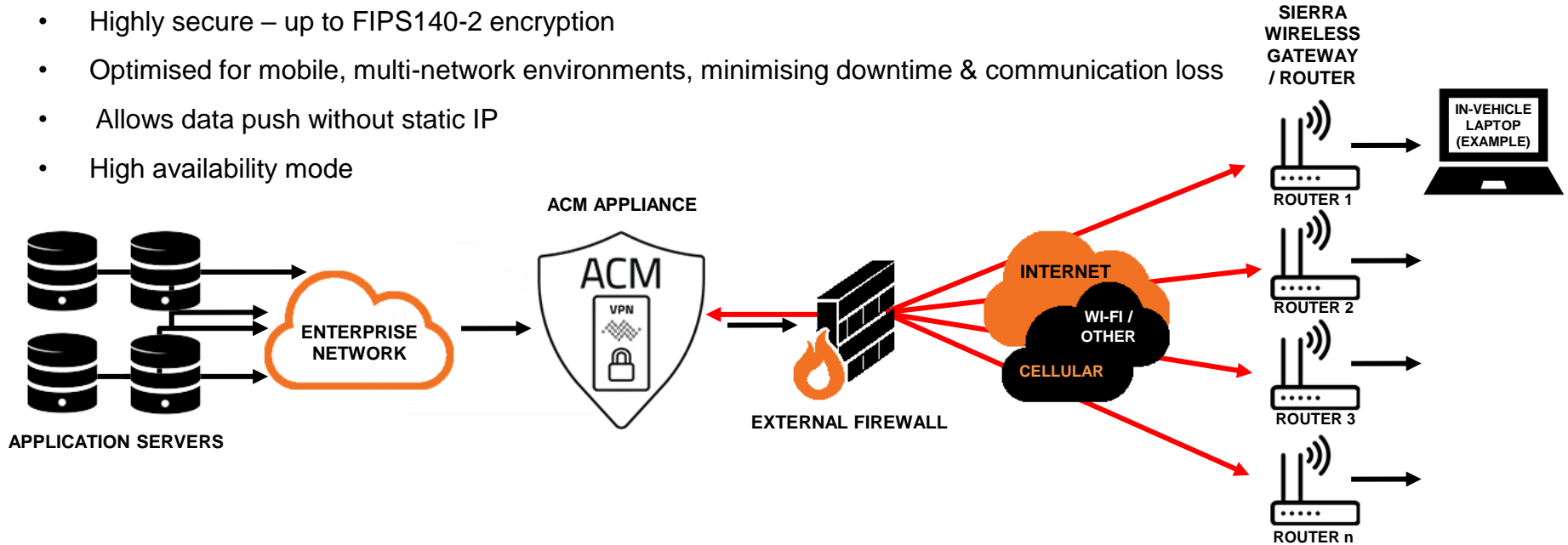
For dispatch operators, fleet managers, IT support staff & vehicle maintenance staff.

- Available as cloud service (MG) or locally hosted (all AirLink devices)
- Deploy, configure and remotely manage any AirLink device
- Highly configurable dashboard with user defined thresholds & colour coded parameter display
- Custom event triggers and alerts
- On demand or scheduled reports of gateway status + telematics
- Gateway reconfiguration and firmware update
- Polygonal geo-fences for reporting purposes



# AirLink® Connection Manager (ACM)

- VPN appliance for AirLink gateways extending enterprise network to mobile workforce – true end to end connectivity
- Available as a physical appliance or VM
- Maintains VPNs with up to 2000 devices
- Highly secure – up to FIPS140-2 encryption
- Optimised for mobile, multi-network environments, minimising downtime & communication loss
- Allows data push without static IP
- High availability mode





[www.linkwave.co.uk](http://www.linkwave.co.uk)

01522 884750

[chris.ryan@linkwave.co.uk](mailto:chris.ryan@linkwave.co.uk)

07399 174 724

Linkwave Technologies Ltd, Unit 18, Witham Point, Wavell Drive, Lincoln, LN3 4PL, UK.