



# IN-VEHICLE ROUTER BASED SOLUTIONS

**KEEPING YOU CONNECTED ON THE ROAD**



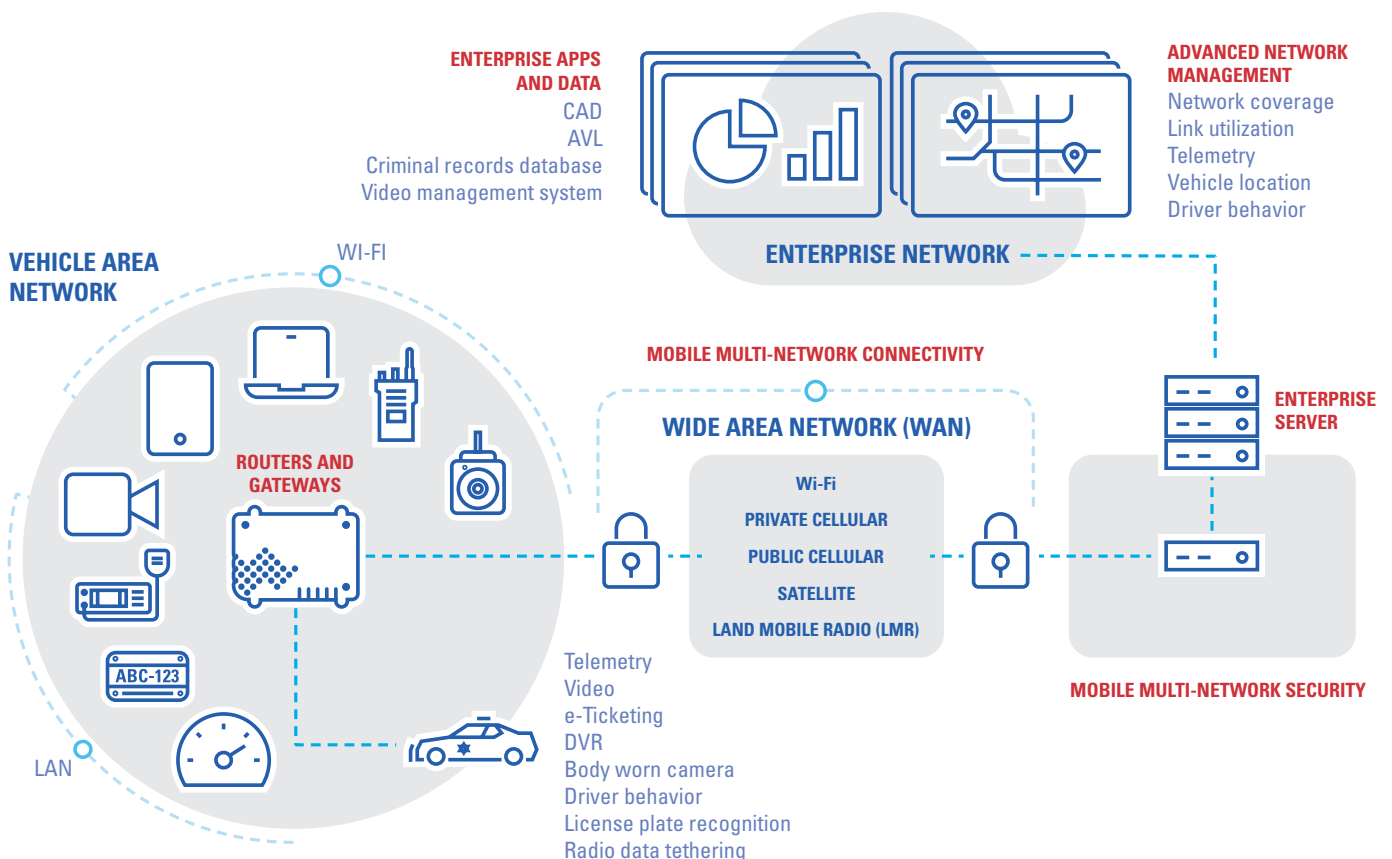
## WITH REMOTE WORKING A CRITICAL ELEMENT OF PUBLIC SAFETY, MOBILE CONNECTIVITY IS VITAL.

Agencies need to ensure their teams have access to the same real-time data and applications on the move, as they do back at base. Accessing this information in vehicles is especially important as it allows first responders to remain connected and productive throughout a shift, while providing full visibility of assets so they can effectively coordinate operations.

## IT'S ALL ABOUT INFORMATION FLOW

Vehicle routers keep first responders connected in vehicles so they can access real-time intelligence on the road. They provide a bubble of connectivity around the vehicle that allows a variety of equipment from laptops and tablets to in-vehicle and body-worn cameras to access the Internet. We call this bubble a vehicle area network (VAN) and the connectivity between the VAN and the enterprise network is what makes the crucial flow of information between the field and base possible. For public safety, this information flow can be a lifeline.

Mobile connectivity allows frontline teams to transmit and receive data securely in real time – for example video feeds, maps and criminal record databases. When needed they can also coordinate their response with other emergency services. Command can monitor the location and status of assets, access telemetry and see fleet information such as data on driver behavior. This two-way flow of information helps keep responders safe and effective.





# CREATING THE VEHICLE AREA NETWORK

WITH MOBILE CONNECTIVITY, THE VEHICLE BECOMES A FULLY OPERATIONAL OFFICE AND COMMAND CENTER. TO HELP YOU MAKE THAT TRANSITION, WE OFFER A COMPLETE AND SECURE END-TO-END SOLUTION – INCLUDING ROUTERS, DEVICE AND FLEET MANAGEMENT, TELEMATICS AND TRACKING, AND SUPPORT SERVICES.

## ROUTERS

Routers are the gateways that connect devices securely to the VAN via bluetooth, Wi-Fi and or ethernet, and the VAN securely to the Enterprise Network. We leverage Sierra Wireless AirLink® technology with a portfolio of LTE-Advanced Pro vehicle routers built to provide secure, always-on connectivity for mission critical applications in public safety.

## MOBILE MULTI-NETWORK SECURITY

Mobile Multi-Network Security is a mobile-optimized VPN solution that keeps data safe in transit. It enables secure communications over the network from the vehicle to the enterprise network, and back again.

## ADVANCED NETWORK MANAGEMENT

Advanced Network Management makes it easy to deploy and upgrade your routers remotely, provides network information, and enables remote monitoring and management of your network connected devices to ensure optimum performance.

## TELEMATICS AND TRACKING GATEWAYS

Telematics and tracking gateways are connectors providing solutions for vehicle tracking, telematics and many other location-aware applications and services.

## SUPPORT SERVICES

Provides you with technical support to troubleshoot problems and hardware repair to keep you and your in-vehicle routers and devices connected and performing at the highest level.



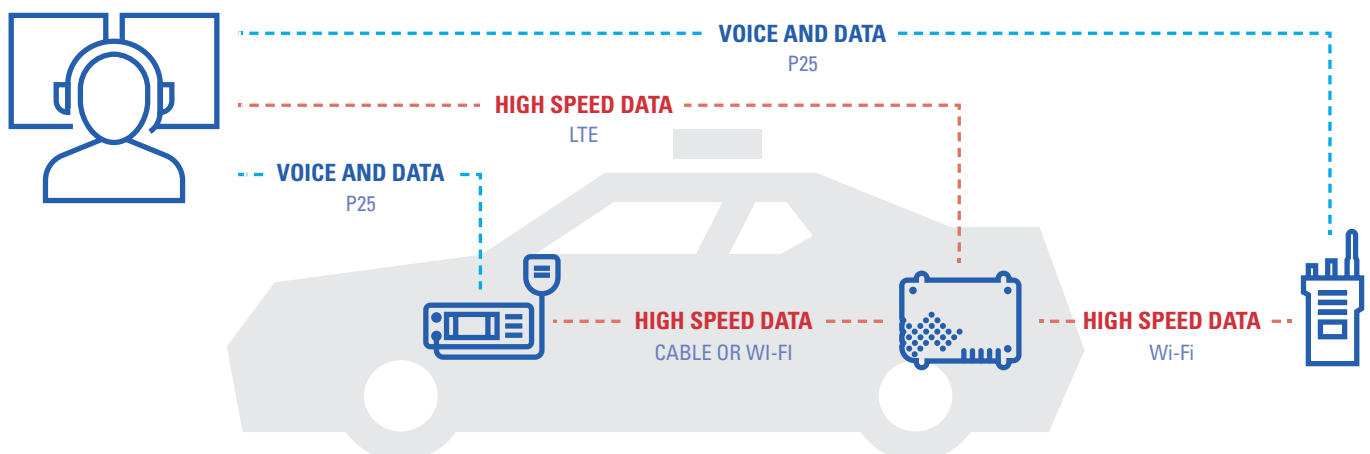
## ROUTERS: THE GATEWAY

Purpose built for vehicles, Sierra Wireless AirLink routers have been designed to resist extreme temperatures, spray and dust with an IP64 sealed design and a MIL-STD-810G rating, making them ideal for police, fire, emergency medical services and other public safety agencies.

Once connected using flexible mounting options and a highly sensitive roof-mounted antenna system, they provide a high capacity VAN with LTE-Advanced connectivity, paired with Gigabit Wi-Fi and Gigabit Ethernet in the vehicle. This enables access to multiple wireless networks, via the router, including public LTE, Public Safety broadband and 802.11ac Gigabit Wi-Fi. The routers simultaneously connect multiple devices in and around the vehicle, including laptops, tablets and video recorders. This drives a number of mission-critical applications, including

video upload and live streaming, and access to remote databases such as record management systems.

Another important feature is Data Modem Tethering, enabling selected APX radios to offload non-critical data to a cellular or public safety broadband network via the router. The P25 system is designed to always prioritize voice calls and mission-critical data (such as GPS). That means ordinary data transmissions such as text messaging, radio updates or rekeying are not prioritized. When updates need to be pushed to your radios you may have to wait, especially if the network is busy. With Data Modem Tethering you can speed up those data transmissions by routing non-critical data over a mobile broadband network.



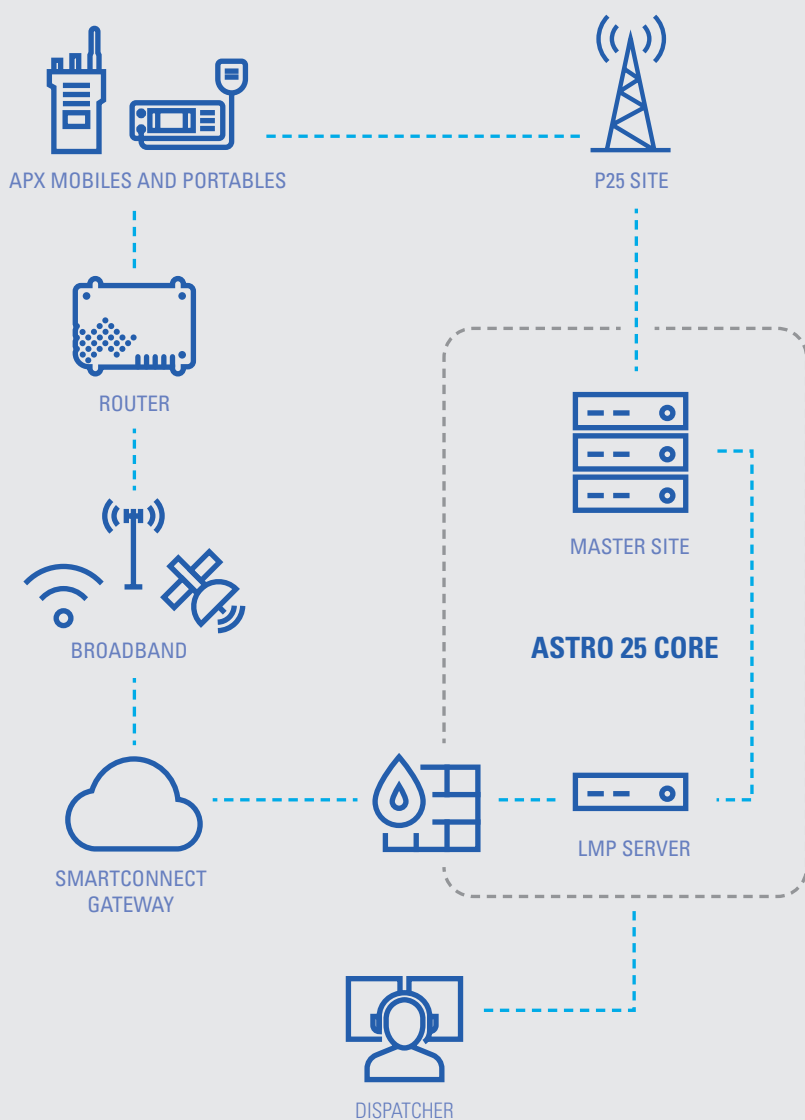
## EXPANDED COVERAGE VIA SMARTCONNECT

Your P25 radio system is designed for excellent coverage, but there are times when you need to go beyond the boundaries of the network, without losing your vital connection.

SmartConnect will keep you in touch with your team. It automatically and transparently switches your APX radio's voice and data to an available broadband network when not in P25 coverage, and back again when you return to P25 coverage. This effectively extends the usable service area of your radio.

APX radios can use SmartConnect when connected through your in-vehicle modem connected to LTE, Wi-Fi or Satellite. With no user intervention needed, the switchover is fast and seamless with audio even remaining on the same talkgroup.

SmartConnect reroutes both P25 voice and P25 data packets, complete with end-to-end encryption and control signals between the radio and gateway are encrypted using TLS. Emergencies, caller ID, talkgroup IDs, status signaling, and even P25 text messages all function seamlessly.



## DATA MODEM TETHERING USE CASES

### RADIO UPDATES

The APX Radio Management process is greatly enhanced when you have a broadband connection to your radio fleet. Where once you had to wait for radios to be within range of static Wi-Fi hotspots, you can now use Data Modem Tethering to connect every radio that's close to any of your vehicles.

### TEXT MESSAGING

When you are sharing sensitive or detailed information or there is a need for silent communication between individuals or entire teams, a text message is a useful tool. However when your system is busy, voice is prioritized and texts can be delayed. Data Modem Tethering allows you to bypass the busy P25 system, so your messages are passed quickly and efficiently.

### OVER THE AIR REKEYING

Security is important to you, so you change your encryption keys regularly. Data Modem Tethering allows you to quickly and securely update your keys over LTE and Wi-Fi rather than having to bring your fleet of radios back to base.

### DISASTER RESPONSE

All of these scenarios may be useful in everyday situations – but in a crisis they can become essential. Whether you're in the middle of a natural disaster such as a hurricane or flood, or responding to a multijurisdictional terrorist threat in your community, your P25 system needs to prioritize voice call traffic. The time you most need a data link to your personnel is inevitably the time your data bandwidth is the lowest.

Data Modem Tethering allows you to use a second network: taking advantage of LTE bandwidth without compromising those life-saving, mission-critical P25 voice calls.



## AIRLINK RV55

### ENTRY LEVEL IN-VEHICLE ROUTER

The RV55 is a rugged and compact router that offers Gigabit WiFi and single port Gigabit Ethernet with up to 600 Mbps downlink and 150 Mbps uplink over LTE-Advanced Pro.

- Rugged, LTE advanced pro, industrial and vehicle router
- Dual Wi-Fi radios
- Compact for situations where space is tight



## AIRLINK MP70

### HIGH PERFORMANCE LTE-ADVANCED VEHICLE ROUTER

The MP70 offers 4 port Gigabit Wi-Fi and Gigabit Ethernet with up to 600 Mbps downlink and 150 Mbps uplink over LTE-Advanced Pro. It unites the fleet with the enterprise network and enables multiple devices and their applications to work simultaneously. The MP70 is a certified device.

- Offers high performance vehicle area network (VAN)
- Provides built-in connected vehicle awareness (telematics)
- Purpose built for vehicles
- Provides secure intelligent communications
- Network management in the cloud or in the enterprise data center





# AIRLINK MG90

## HIGH PERFORMANCE DUAL-LTE-ADVANCED VEHICLE NETWORKING PLATFORM

The MG90 is a high performance LTE-Advanced Pro vehicle multi-networking platform that offers dual LTE-Advanced Pro, Dual Concurrent Gigabit Wi-Fi and 5 port Gigabit Ethernet with extensions to Land Mobile Radio (LMR) and satellite systems.

- Selects the best available network based on user-defined policies
- Seamless network handover and sub-second network switching
- Consolidated security with the AirLink Connection Manager (ACM)
- Remote, real-time network insight and control with the AirLink Mobility Manager (AMM)





# MOBILE MULTI-NETWORK SECURITY

## PROTECTING CRITICAL DATA

AirLink routers provide device to enterprise data security for mission-critical applications and mobile assets in the VAN. With up to 10 concurrent VPN sessions, communications to multiple back-end systems are secure, keeping data safe in transit. In addition, remote authentication management allows enterprise-grade systems to control access to devices in the field.

For multi-network environments, the AirLink Connection Manager (ACM) delivers a complete end-to-end solution to securely connect people and mission-critical applications. The ACM securely extends the enterprise network to the vehicle. Designed to work with all AirLink routers, it consolidates security onto a single platform for all connected devices and applications in the VAN.

### **BENEFITS:**

- Always on VPN tunnels - No downtime or loss of communications, even when roaming between networks (cellular and/or Wi-Fi)
- Simplified deployments
- Enhanced management control over network access and mobile assets, and lower security costs
- Securely connects all in-field applications and mobile assets in and around the vehicle to the enterprise with FIPS 140-2 / AES 256 encryption



# ADVANCED NETWORK MANAGEMENT

## OPTIMIZING PERFORMANCE

Remote monitoring and management of your network connected devices is critical to ensuring optimal performance. We provide a choice of network management solutions. The AirLink Management Service is a cloud-based solution for the RV55 and MP70 that makes it easy to deploy, monitor and upgrade your routers remotely. The AirLink Mobility Manager is for RV55, the MP70 and MG90 and can be deployed in the cloud or on-premise.

### AIRLINK MANAGEMENT SERVICE

The AirLink Management Service is a cloud-based network and asset management solution for the RV55 and MP70. It allows remote monitoring and management of the devices on your network, as well as variables such as signal strength, network technology and location to ensure optimum connectivity. Dashboards display up-to-date views of the entire deployment, and custom alerts can be set-up to monitor and report critical events, helping to increase efficiency and prevent downtime.

### AIRLINK MOBILITY MANAGER

This solution enables simplified, remote and real-time mass configuration, control and troubleshooting of all in-vehicle AirLink routers, connected mobile assets and mission critical applications. Available in the cloud or on-premise (where cloud-based management is not an option), it includes a virtual dashboard with an up-to-date view of all routers, and delivers a continuous stream of real-time network data so you can monitor and analyse the behavior of devices and device parameters as they occur.



# TELEMATICS AND TRACKING

## TRACKING YOUR VEHICLES: GENX TELEMATICS AND TRACKING

Keeping track of the location and status of your mobile resources in real-time helps ensure fast, efficient responses and efficient operations. We provide wireless location-enabled equipment so you can track vehicles and take advantage of telematics for monitoring and management of your fleet. The GenX solutions are highly configurable and designed for a wide variety of requirements, location-aware applications and services.





# ESSENTIAL SERVICES FOR IN-VEHICLE ROUTERS

## SUPPORT WHEN YOU NEED IT

Essential Services includes hardware repair and provides you with technical support for troubleshooting problems. The service packages also have renewal options for extending coverage and support to give you peace of mind that the in-vehicle router solution will always be up to date and performing at the highest level.

### RELY ON EXPERT REPAIR

State-of-the-art diagnostics equipment, repair tools and replacement parts helps ensure your vehicle routers are back in operation quickly. All vehicle routers are returned to factory specifications and updated with the latest firmware.

### ACCESS TECHNICAL SUPPORT

Experienced technologists are available to help isolate and resolve any issues you may have with your in-vehicle based router solution.

### SOFTWARE UPDATES AND EXTENDED WARRANTY

Ensure continuous security, performance and enhanced functionality of your in-vehicle router solution by getting access to the latest software releases and updates.

MP70, RV55, AND MG90 ESSENTIAL SERVICES	
Coverage Period	3 or 5 Years
Hardware Repair	Included
Software Updates	Included
Remote Technical Support	8 x 5 (local time) - Tech Support
Device Management (Cloud-Based)	Included
Essential Renewal	2 Year Extension (Only for 3 Year Essential Service)



For more information please visit:  
[www.motorolasolutions.com/vehiclerouters](http://www.motorolasolutions.com/vehiclerouters)

Motorola Solutions Ltd. Nova South, 160 Victoria Street, London, SW1E 5LB, United Kingdom.

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