

# ROUTER SOLUTIONS



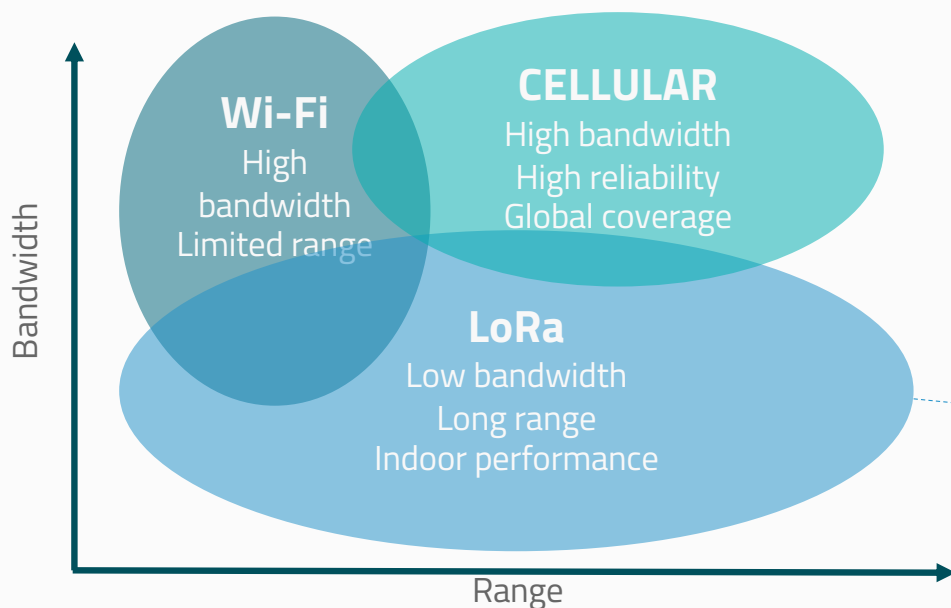
SEMTECH®



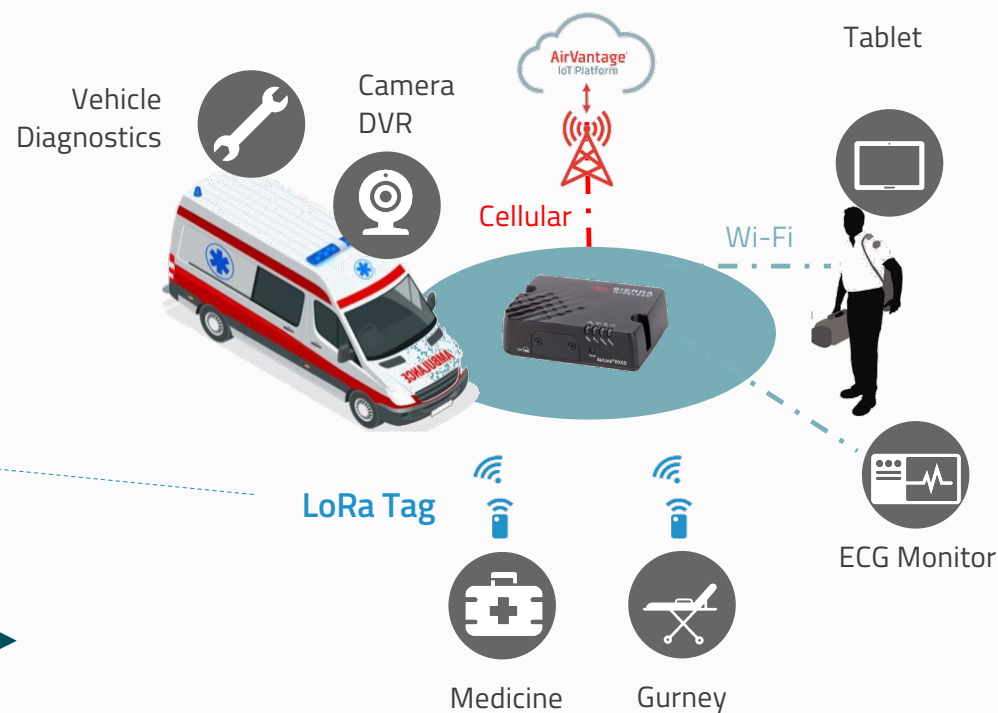
SIERRA  
WIRELESS®

# Recognizing Opportunities | LoRa + Cellular

Expanding our market



Extending our customer share



# PUBLIC SECTOR



POLICE



FIRE



EMS



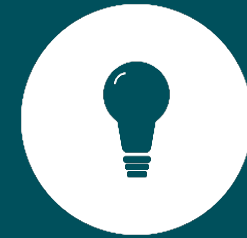
BUS



RAIL

## WHY WE WIN?

- Purpose-built solutions / Rugged design
- Multi-network connectivity with best-in-class link protection
- Module-to-Cloud Security and mobile-optimized VPN
- Field-proven performance
- Experience & Expertise



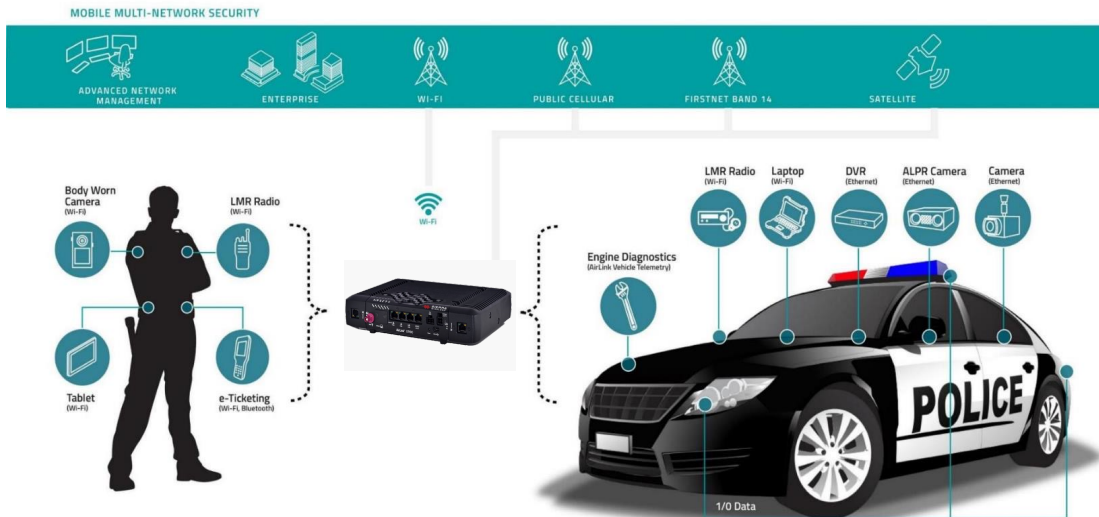
**> 50% of Top 100 U.S. police departments** rely on AirLink solutions in cruisers and incident response vehicles

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**>25% of Top 50 transit agency vehicles** depend on AirLink routers to improve passenger services & operations.

# Public Safety - Law Enforcement

Ensure secure and reliable communication between officers and their command center



- Maximize responsiveness, teamwork and collaboration
- Ensure accountability and transparency with live video feeds
- Increase efficiencies
- Increase safety for your officers and citizens



## BACKGROUND

Established over 75 years ago, the Mississippi Highway Safety Patrol is responsible for enforcing traffic laws on state and federal highways.

# Oklahoma Department of Public Safety



## Challenge

- Unreliable communications and coverage challenges using the phone's hotspot feature.
- Inefficient video offload (through local Wi-Fi): up to 1 hour of travel from patrol areas.
- Radio tower sites only had access to T1 connections which are bandwidth-constrained and unreliable old copper lines in the ground.

## Solution

- OKDPS selected the MP70 to improve the reliability and efficiency of their communications and to enable the implementation of a new situational awareness software (Motorola).
- They also equipped their radio towers with RV55s running FirstNet to serve as a backup for the fiber connection.

## Benefits

- The solution improves Trooper safety and efficiency by enabling the real-time transmission of situational information/evidence to "command and control" staff to make immediate decisions



# Public Safety – Fire Services

Enable best-in-class communication between firefighters in the field and their station



- Gain reliable and secure 5G and Wi-Fi connectivity
- Increase incident responsiveness through real-time critical data access
- Improve safety with new technologies such as augmented reality (AR) and fire-fighting robots

## BACKGROUND



The City of Charlotte is a local government that supports more than 800,000 Charlotte residents. Charlotte is the largest city in North Carolina, and the 16th largest city in the United States. Employing approximately 7,600 people, Forbes lists Charlotte as one of the top 20 cities for businesses and careers.



# Public Safety – Emergency Medical Services

Expedite communication between EMS personnel in the field, hospitals and telemedicine resources



- Faster arrival times
- Expedite expert patient care on site
- Gain immediate access to electronic patient care records (EPCR)
- Deliver real-time patient data en route to hospital

#### BACKGROUND

The Georgia Trauma Care Network Commission (GTCNC) was established in 2007 to address the insufficient number of trauma centers in Georgia and the lack of an organized and coordinated trauma system. The Georgia trauma system is under development and will be comprised of integrated regional systems and plans and a centralized state-wide Trauma Communications Center (TCC) as a core component.



# Metro Atlanta Rapid Transit Authority



## Challenge

- Very Large Regional Metro Transportation Authority for 8M People.
- Integrated ridership across 6 counties.
- Integrate fare payment and scheduling.
- Support for Crisis Situations, crashes, shooting and criminal activity
- Location Data & Public WiFi.

## Solution

- MG90 Routers w/ detailed scripts and Configurations.
- Integrated Fare Payments across region.
- Streaming live video to understand vehicle situations.
- All operations on a single SIM.

## Benefits

- Swipe once and go anywhere in the region.
- Detailed information on the vehicle status.
- Law Enforcement and Operations now have eye inside.
- Detailed information on demographics and movements





# Miami-Dade Police, Fire, EMS, Transit, Utilities & FPL

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# Industrial



ELECTRICAL GRID



RENEWABLES



FIELD VEHICLES



PRIVATE NETWORKS



MANUFACTURING

## WHY WE WIN?

- Purpose-built solutions for critical infrastructure/ Rugged design
- Strong partnerships with leading utilities influencing the roadmap
- Lowest power consumption
- Multi-network connectivity with best-in-class link protection
- Complete solutions (fixed & mobile)
- Experience & Expertise



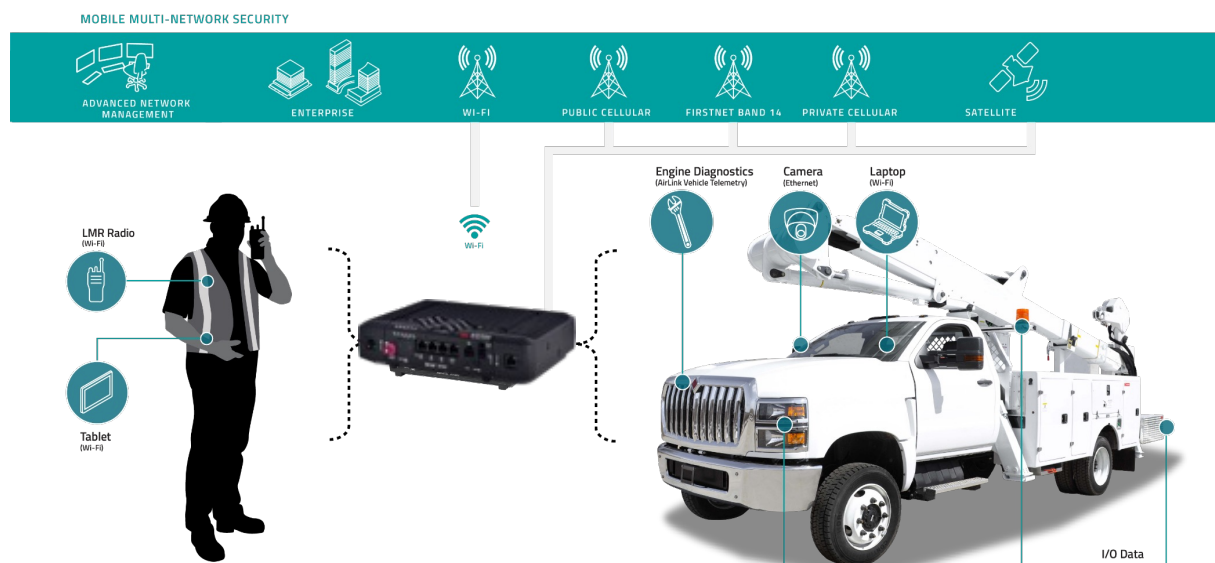
**4 out of 5 Top 20 utilities**  
use AirLink routers for  
smart grid deployments  
and vehicle fleets.

# Duke Energy Case Study

## Vehicle Area Network & Smart Grid Applications



*Vehicle Area Network:* Secure, reliable two-way communication between utility workers in the field and their corporate network & dispatch centers. The XR90 is mounted in their vehicles:



- Duke Energy uses over 70,000 Sierra gateways to run their Smart Grid
- They are rolling out 5,000+ Dual-Carrier XR90 gateways for their fleet of vehicles
- Duke is helping Sierra build our "Hybrid Cloud" device management system
- Duke is an early adopter of our new "edge computing" gateways like RX55



### BACKGROUND

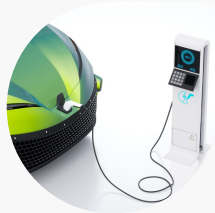
Duke Energy, a Fortune 150 company headquartered in Charlotte, N.C., is one of America's largest energy holding companies. Duke's electric utilities serve 8.2 million customers in North Carolina, South Carolina, Florida, Indiana, Ohio and Kentucky, and collectively own 50,000 megawatts of energy capacity. Duke employs more than 28,000 people.

# OTHER

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SIGNAGE



EV CHARGING



VIDEO SURVEILLANCE



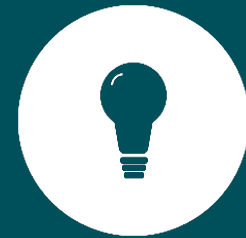
IoT MACHINES



AGRICULTURE

## WHY WE WIN?

- Rugged design (for outdoor use cases)
- End-to-end integrated solutions : router + connectivity
- Global products and certifications



AirLink Routers are also leveraged in our **Managed Network Services** offerings, which have strong success in retail.



# Products



# The XR Series Solution



XR90



XR80

With speeds of

**1.2 Gbps**

downlink speed  
observed on a  
live network!

*\*Peak rate > User experienced downlink data rate in dense urban environment 95% of the time is 100 Mbit/s (IMT-2020)*

# XR90 Preview

Introduces

## 5G Supercharged & Modular

- Ideal for Mobility Applications
- 5G Sub-6 GHz + LTE Cat-20
- Leverages AirLink OS & ALMS ARA
- Ultimate in Longevity & Performance



### Specifically-Targeted Applications

- Fieldwork force: Utility fleet, Public Safety
- Transit: Passenger Wi-Fi, Fare Payment
- Video: In-Car Video, Body Cameras

### Multi-Network Routing

- Single 4x4 5G Cellular + Dual 4x4 Wi-Fi 6
- Dual 4x4 5G Cellular + Dual 4x4 Wi-Fi 6



# XR80 Preview

Introduces

## 5G Supercharged & Versatile

- Ideal for Industrial, Enterprise & Mobility Applications
- 5G Sub-6 GHz + LTE Cat-20
- Leverages AirLink OS & ALMS ARA
- Delivers 5G for Everyone, Highly Versatile

### Specifically-Targeted Applications

- Industrial: Edge Compute, Low Latency, High Speed
- Enterprise: Rapid Site Connectivity, Wi-Fi AP
- Mobility: Field Workforce, Mobile Wi-Fi AP

### Multi-Network Routing

- Single 4x4 5G Cellular + Dual Concurrent 5x4 Wi-Fi 6
- Optional expansion to 4x4 5G Cellular



# AirLink XR Series Antennas

Designed to optimize 5G and Wi-Fi 6 performance

- AirLink XR antennas maximize 5G router performance
- Single antenna solution reduces footprint
- New 10-in-1 dome antenna supports the XR80
- Serviced and supported by Sierra Wireless



# RV55





# RV55 Cat 7 Preview

## Introduces

## RV55 Evolution

- Ideal for Private Networking & Industrial Applications
- FirstNet, CBRS, C-SPIRE B25 and T-Mobile B71
- EMEA Private Networking Bands
- Leverages AirLink OS & ALMS

## Specifically-Targeted Applications

- Utility & Industrial Applications
- Municipal & Smart City Private Networking
- Uplink Centric Applications

## Product Variants

- RV55 NAM, EMEA, APAC – Base & Dual Wi-Fi 5
- LTE-A Cat7: 300 Mbps DL/150 Mbps UL



# AirLink RX55 Variants Comparison

RX55 Base	50MB RAM, 200MB Flash*
RX55 Wi-Fi	50MB RAM, 200MB Flash*
RX55 Wi-Fi Plus	200MB RAM, 2.8GB Flash*

\*Available to containers (not device total)  
depends on other enabled features

Memory +



+ Temperature Operating Range

RX55 Base	-40°C to +70°C   -40°F to +158°F
RX55 Wi-Fi	-30°C to +70°C   -22°F to +158°F
RX55 Wi-Fi Plus	-30°C to +70°C   -22°F to +158°F

RX55 Base	2x RS-232   Dual Serial with acc cable
RX55 Wi-Fi	1x RS-232   CANbus with acc cable
RX55 Wi-Fi Plus	1x RS-232   CANbus with acc cable

RS-232 (DB-9) +



+ Wi-Fi

RX55 Base	No Wi-Fi
RX55 Wi-Fi	Dual 1x1 Wi-Fi 5
RX55 Wi-Fi Plus	Dual 1x1 Wi-Fi 5

# MP70



# AirLink® MG90 Multi-Network Vehicle Router

## LTE-Advanced High Performance Vehicle Router

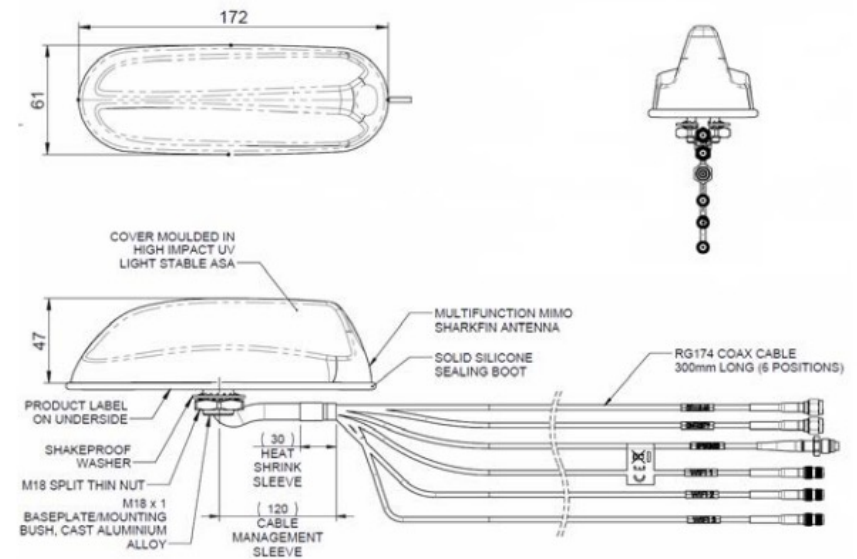
- ✓ Extensible, multi-network connectivity
- ✓ Built-in policy engine provides sub-second network switching & seamless network handover
- ✓ Cognitive wireless system automatically selects best network
- ✓ Uninterrupted operation in harsh vehicle environments
- ✓ Remote network management, insight and control offers:
  - simplified, remote and real-time mass configuration, control and troubleshooting
  - precision reports for detailed analysis and diagnostics
  - Real-time vehicle location and mobile asset tracking



## Specs at a Glance

- ✓ Up to 1.3 Gbps over 3x3 MIMO 802.11ac Wi-Fi
  - ✓ Gigabit Wi-Fi WAN and Gigabit Ethernet
  - ✓ Up to 10 concurrent VPN tunnels
- ✓ Vehicle Ready, Built-In I/O and Bluetooth
- ✓ Precision Geo-Location with 48 Channel Global GNSS

# Sierra Wireless 6in1 Shark Fin MP70/RV55





# GetWireless – Value Added Distri for Sierra and Motorola



## Largest Sierra Inventory in the US

- Routers
- Antennas
- Accessories (Power, Telemetry, Brackets, etc.)



## Technical Pre-Sales Assistance

- Help building BOMs for both new and existing customers/deployments



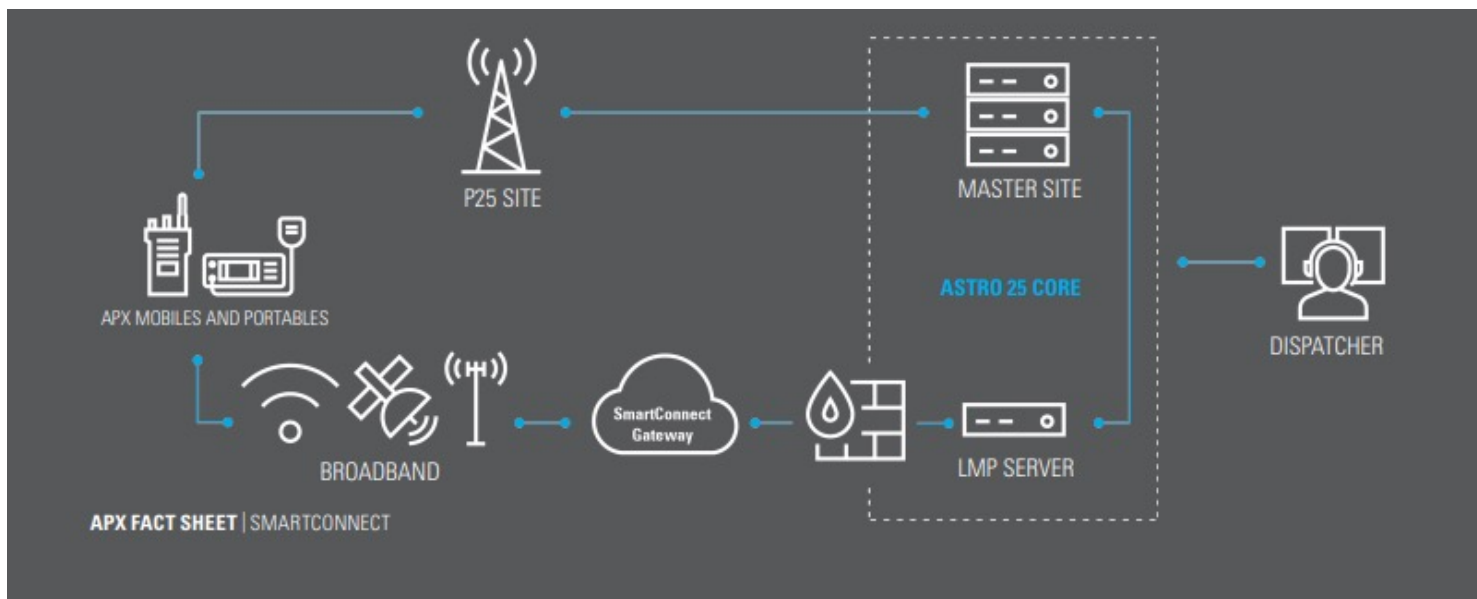
## Professional Services for Easier Deployments

- Product updates prior to deployment
- Device registration for Sierra Cloud Management Services
- Customized product deployment preparation in conjunction with Motorola PMs

APX™ FEATURE DESCRIPTION:

# SMARTCONNECT

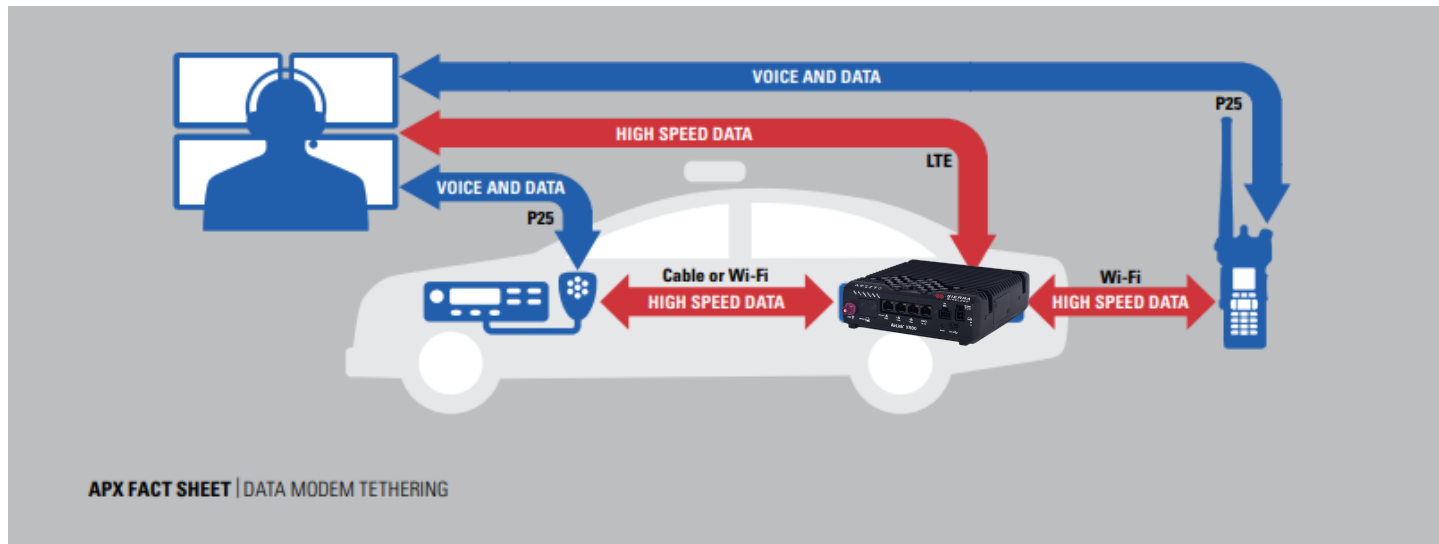
- Extend P25 coverage over cellular
- One cellular connection/cost for vehicle



APX™ FEATURE DESCRIPTION:

## DATA MODEM TETHERING

- Firmware Updates over cellular
- Code Plug Updates over cellular
- Reserve P25 Network for PTT/Voice



# Sales Team

# Router Sales Contact Map

OUR REGIONAL SALES EXPERTS ARE ALSO AVAILABLE TO SUPPORT






# Sierra Wireless Enterprise Team – N.A. Public Sector




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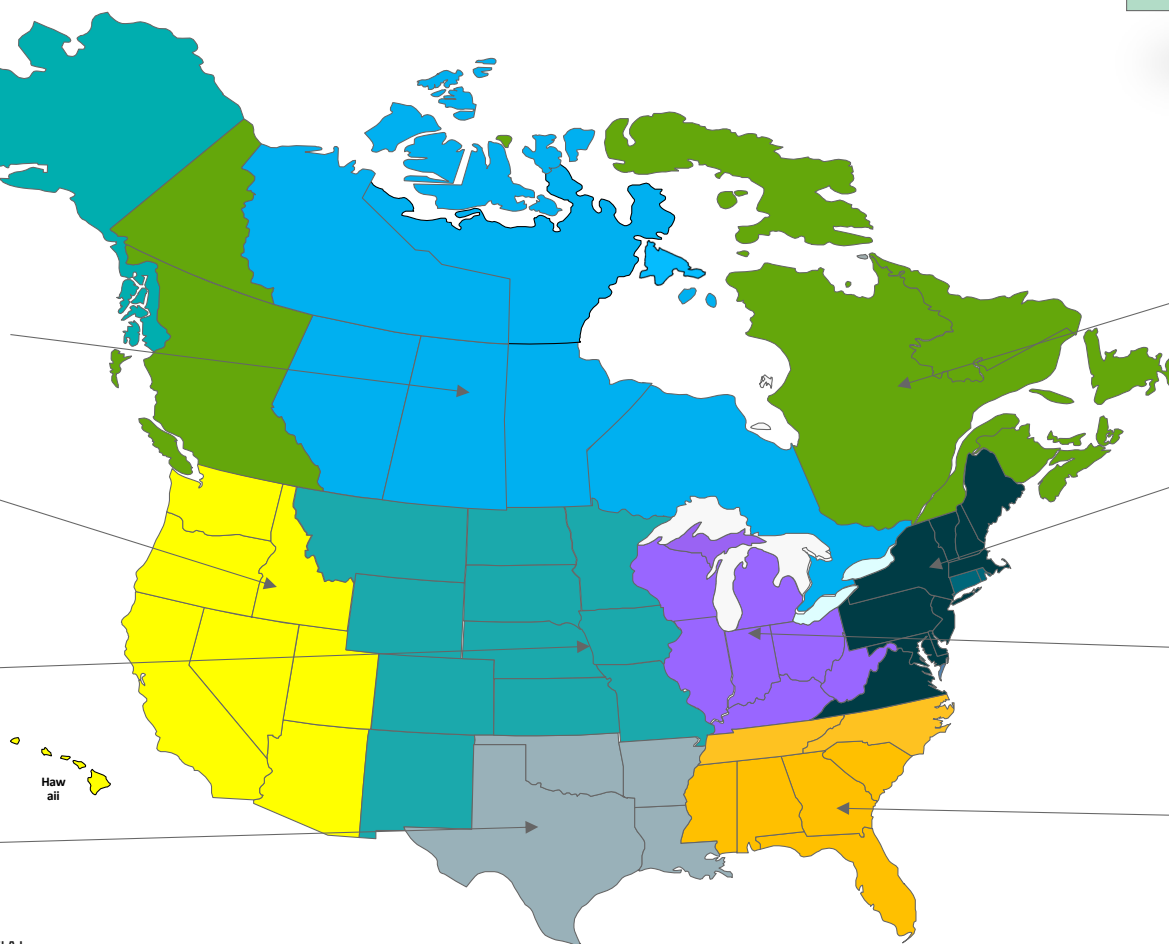
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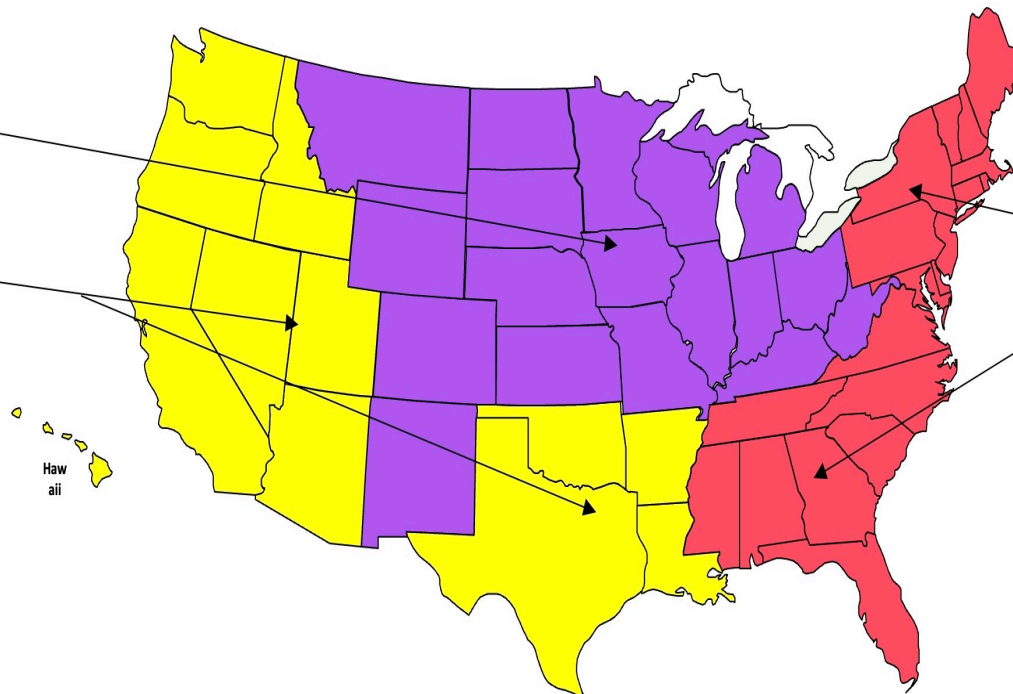
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# Questions