Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

State of West Virginia
Solicitation Response

Proc Folder:	764540
Solicitation Description:	ADDENDUM #1
	63210009 AT&T FirstNet Compatible Cellular Wire
Proc Type:	Agency Purchase Order

Solicitation Closes	Solicitation Response	Version
2020-09-16 14:30	SR 0803 ESR09152000000001876	1

VENDOR

VS0000017494
WIRELESS INVESTORS LLC

Solicitation Number:	ARFQ 0803 DOT2100000006				
Total Bid:	12180	**Response Date:**	2020-09-15	**Response Time:**	13:13:15
Comments:					

FOR INFORMATION CONTACT THE BUYER
Tina L Lewis
304-414-6859
tina.l.lewis@wv.gov

Vendor
Signature X   **FEIN#**   **DATE**
All offers subject to all terms and conditions contained in this solicitation

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	AT&T FirstNet Compatible Cellular Wireless Router	12.00000	EA	768.000000	9216.00

Comm Code	Manufacturer	Specification	Model #
43222609			

Commodity Line Comments: Pricing includes RV55 router and AirLink Complete for new ALEOS devices with ALMS, technical support and hardware warranty up to 5 years

Extended Description:

AT&T FirstNet Compatible Cellular Wireless Router for Traffic Signal System

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
2	Associate Power Supply for AT&T FirstNet Compatible Router	12.00000	EA	16.000000	192.00

Comm Code	Manufacturer	Specification	Model #
39121004			

Commodity Line Comments: AC Adaptor,
12 VDC ES/GX/LS.MP/RV/LX

Extended Description:

Associate Power Supply for AT&T FirstNet Compatible Cellular Wireless Router for Traffic Signal Systems

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
3	Antenna for AT&T FirstNet Compatible Cellular Wireless Route	12.00000	EA	231.000000	2772.00

Comm Code	Manufacturer	Specification	Model #
43221727			

Commodity Line Comments: 2x LTE, GNSS, (1+1)WiFi, 2.4/5GHz, Bolt Mount, 5m, Black

Extended Description:

Antenna for AT&T FirstNet Compatible Cellular Wireless Router for Traffic Signal

AGENCY SOLICITATION NUMBER - ARFQ DOT2100000006
Addendum Number: 1

The Purpose of this addendum is to modify the solicitation identified as ("Agency Solicitation") to reflect the change(s) identified and described below.

Applicable Addendum Category:

[ ]   Modify bid opening date and time

[ ]   Modify specification of product or service being sought

[ ]   Attachment of pre-bid sign-in sheet

[X]   Attachment of vendor questions and responses

[ ]   Correction of error

[ ]   Other

Description of Modification to Solicitation:

To answer vendor questions

Additional Documentation: Documentation related to this Addendum (if any) has been included herewith as Attachment A and is specifically incorporated herein by reference.

Terms and Conditions:

1. All provision of the Agency Solicitation and other addenda not modified herein shall remain in full force and effect.

2. Vendor should acknowledge receipt of all addenda issued for this Agency Solicitation by completing an Addendum Acknowledgement, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.

ATTACHMENT A

FirstNet Modems (63210009)
Addendum #1   **ARFQ DOT2100000006**

Question #1
Should NetCloud Essentials be included in the Mobile Router solution and for how many years.

Answer #1:
Yes and for (5) five years.

ADDENDUM ACKNOWLEDGEMENT FORM

SOLICITATION NO.:

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification. Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:
(Check the box next to each addendum received)

[ ] Addendum No. 1	[ ] Addendum No. 6
[ ] Addendum No. 2	[ ] Addendum No. 7
[ ] Addendum No. 3	[ ] Addendum No. 8
[ ] Addendum No. 4	'[ ] Addendum No. 9
[ ] Addendum No. 5	'[ ] Addendum No. 10

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

_____

Company

_____

Authorized Signature

_____

Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.

PURCHASING AFFIDAVIT

CONSTRUCTION CONTRACTS: Under W. Va. Code § 5-22-1(i), the contracting public entity shall not award a construction contract to any bidder that is known to be in default on any monetary obligation owed to the state or a political subdivision of the state, including, but not limited to, obligations related to payroll taxes, property taxes, sales and use taxes, fire service fees, or other fines or fees.

ALL CONTRACTS: Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceed five percent of the total contract amount.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (*W. Va. Code* §61-5-3) that: (1) for construction contracts, the vendor is not in default on any monetary obligation owed to the state or a political subdivision of the state, and (2) for all other contracts, that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: Ensemble Solutions Group

Authorized Signature: _____ Date: 9/11/2020

State of Arizona

County of Maricopa , to-wit:

Taken, subscribed, and sworn to before me this 11 day of September , 20 20.

My Commission expires June 30, , 20 22.

AFFIX SEAL HERE

TATE A WHEELER
Notary Public - Arizona
Maricopa County
Commission # 547502
My Commission Expires June 30, 2022

NOTARY PUBLIC _____

Purchasing Affidavit (Revised 01/19/2018)

Sierra Wireless AirLink® Antenna: 5-in-1 Dome

The 5-in-1 Dome is a custom single antenna solution for the RV55 Dual Wi-Fi, tested and certified for mobile application.

The antenna has a low-profile design that contains five isolated high performance antenna elements in a single housing for optimal coverage; two ultra-wideband elements spanning 617-6000MHz; a high performance GNSS antenna with an integrated 26dB gain LNA; and two dual band 2.4/5GHz omni-directional Wi-Fi elements.

		Specification	
PART NO.			
		6001275	
ELECTRICAL DATA			
Frequency Range	3G/4G Elements	617-960MHz / 1710-6000	
	Wi-Fi Elements	2.4/4.9-6GHz	
Peak gain: Isotropic*	3G/4G Elements	617-960MHz 1710-3800MHz 4900-6000MHz	4dBi 8dBi 9dBi
	Wi-Fi Elements	2.4 GHz 4.9-6.0GHz	9dBi 9dBi
Isolation*	3G/4G Elements	> 15dB	
	Wi-Fi Elements	> 18dB	
Typical Efficiency	3G/4G Elements	> 50%	
	Wi-Fi Elements	> 70%	
Correlation Co-efficient	3G/4G Elements	<0.2	
Pattern		Omni-directional	
Impedance		50Ω	

*Simulated off a groundplane and does not include cable attenuation

Sierra Wireless
AIRLINK® ANTENNA: 5-IN-1 DOME

		Specification
GPS/GNSS DATA		
Frequency Range		1562-1612MHz
VSWR		<2.1 ± 4MHz
Gain: LNA		26dB
Typical Noise Figure		-2.7dB
Operating Voltage		3-5V DC
Typical Current		15mA
MECHANICAL DATA		
Dimensions	Height	80mm (3.1")
	Diameter	180mm (7.1")
Operating Temp		-40°/ +80°C (-40° / +176°F)
Colour		Black
Ingress Protection		IP69K
MOUNTING DATA		
Mounting Type		Bolt Mount
Mounting Hole		19mm (3/4")
CABLE DATA		
Cell / LTE Cables	Type	C32
	Length	5m (16')
	Termination	SMA (m)
GPS Cable	Type	CS29
	Length	5m (16')
	Termination	SMA (m)
Wi-Fi Cables	Type	C32
	Length	5m (16')
	Termination	RP-SMA Plug

About Sierra Wireless
Sierra Wireless (NASDAQ: SWIR) (TSX: SW) is the leading IoT solutions provider that combines devices, network and software to unlock value in the connected economy. Companies globally are adopting IoT to improve operational efficiency, create better customer experiences, improve their business models and create new revenue streams. Whether it's a solution to help a business securely connect edge devices to the cloud, or a software/API solution to help manage processes associated with billions of connected assets, or a platform to extract real-time data to make the best business decisions, Sierra Wireless will work with you to create the right industry-specific solution for your next IoT endeavor. Sierra Wireless has more than 1,300 employees globally and operates R&D centers in North America, Europe and Asia.

For more information, visit www.sierrawireless.com.

EXHIBIT A

Item Number	Estimated Quantity	Unit of Measure	Description	UNSPC CODE	Unit Price	Extended Price
1	12	ea	AT&T FirstNet Compatible Cellular Wireless Router for Traffic Signal System	43222628	768.00	9216.00
2	12	ea	Associated Power Supply for AT&T FirstNet Compatible Cellular Wireless Router for Traffic Signal Systems	39121006	16.00	192.00
3	12	ea	Antenna for AT&T FirstNet Compatible Cellular Wireless Router for Traffic Signal Systems	43221723	231.00	2772.00
			GRAND TOTAL		→	12,180.00

FIRSTNET READY

AirLink® RV55 Rugged LTE-A Pro Router

- Centrally managed, secure LTE broadband connectivity for remote fixed or vehicle applications in harsh environments

- Public safety agencies can quickly connect to critical equipment such as body cameras

- Ultra-Low Power consumption, ideal for solar or battery powered installations.

- Connect your field workers and devices with flexible dual Wi-Fi, and ethernet

- Reduces complexity in connecting legacy equipment with dual serial, ethernet, and multi-protocol support

- Powerful remote cloud-based or on-premises management solutions

- Proven reliability and over 3 million AirLink routers and gateways deployed

- Includes 1 year of AirLink Complete – network management, technical support, and extended warranty

Compact, Industrial Grade, Low Power LTE-Advanced Connectivity

The AirLink® RV55 is the industry's most rugged, compact, LTE-Advanced Pro router. Simple to install, and easy to manage, the RV55 router is designed to connect critical infrastructure, remote assets, and mobile fleets.
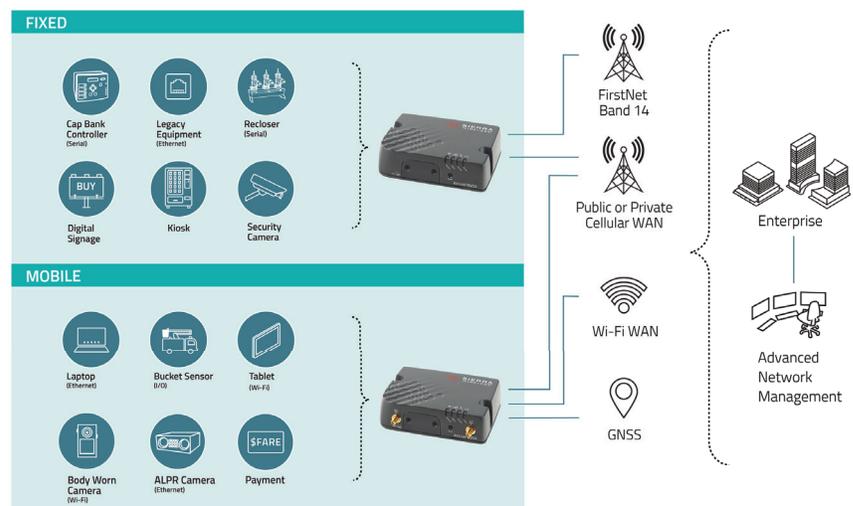
The RV55 is well suited for applications in public safety, energy, utilities, rail, ports, and smart cities.

Pick the One That Suits Your Needs

The high-performance LTE-Advanced Pro RV55 has dual Wi-Fi radios and supports GNSS, FirstNet, and CBRS. It is ideal for public safety vehicles, commercial fleets, and mobile workforces. You can securely connect critical peripherals such as cameras and tablets.

The LTE variant is ideal for industrial applications connecting via Ethernet or Serial, such as SCADA and distribution management.

The LTE-M/NB-IoT variant is well-suited for remote or hard-to-reach locations with enhanced coverage.

FIXED

| Cap Bank Controller (Serial) | Legacy Equipment (Ethernet) | Recloser (Serial) |

| Digital Signage | Kiosk | Security Camera |

MOBILE

| Laptop (Ethernet) | Bucket Sensor (I/O) | Tablet (Wi-Fi) |

| Body Worn Camera (Wi-Fi) | ALPR Camera (Ethernet) | Payment |

FirstNet Band 14

Public or Private Cellular WAN

Wi-Fi WAN

GNSS

Enterprise

Advanced Network Management

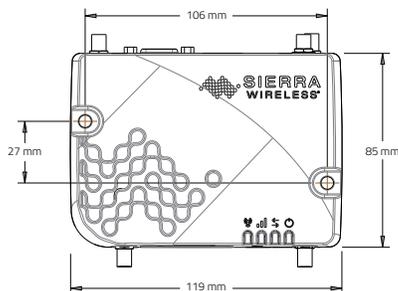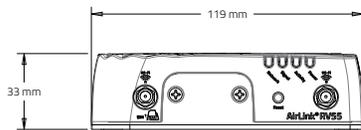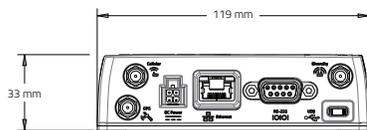|	RV55				
	North America	EMEA	North America	Global	Global
	LTE		LTE-A Pro		LTE-M/ NB-IoT
LTE CATEGORY **Peak D/L**	Cat 4 (WP7610|WP7607) Up to 150 Mbps		Cat 12 (EM7511|EM7565) Up to 600 Mbps		Cat M1/NB1 (WP7702) Cat-M1: 300kbps Cat-NB1: 27kbps
Peak U/L	Up to 50 Mbps		Up to 150 Mbps		Cat-M1: 375kbps Cat-NB1: 65kbps
4G LTE **Frequency Bands**	1900(B2), AWS(B4), 850(B5), 700(B12), 700(B13), 700(B17), 1700(B66)	2100(B1), 1800(B3), 2600(B7), 900(B8), 800(B20), 700(B28)	2100(B1), 1900(B2),1800(B3), AWS(B4), 850(B5), 2600(B7), 900(B8), 1800(B9), 700(B12), 700(B13), 700(B14), 850(B18), 850(B19), 800(B20), 850(B26), 700(B29), 2300(B30), 1500(B32), TDD B41, TDD B42, TDD B43, TDD B46, CBRS B48,1700(B66)	2100(B1), 1900(B2), 1800(B3), AWS(B4), 850(B5), 2600(B7), 900(B8), 1800(B9), 700(B12), 700(B13), 850(B18), 850(B19), 800(B20), 850(B26), 700(B28), 700(B29), 2300(B30), 1500(B32), TDD B41, TDD B42, TDD B43, TDD B46, CBRS B48, 1700(B66)	2100(B1), 1900(B2), 1800(B3), AWS(B4), 850(B5), 900(B8), 700(B12), 700(B13), 700(B17), 850 (B18), 850(B19), 800(B20), 850(B26), 700(B28)
3G HSPA/HSPA+ **Frequency Bands***	1900(B2), AWS(B4), 850(B5)	2100(B1), 900(B8)	2100(B1), 1900(B2), AWS(B4), 850(B5), 800(B6), 900(B8), 1700(B9), 850(B19)	2100(B1), 1900(B2), AWS(B4), 850(B5), 800(B6), 900(B8), 1700(B9), 850(B19)	
2G EDGE/GSM/GPRS **Frequency Bands**		900, 1800			850, 900, 1800, 1900
APPROVALS **Regulatory**	FCC, IC, PTCRB	GCF, CE	FCC, IC, PTCRB	FCC, IC, PTCRB, GCF, CE, RCM, IFT, Anatel	FCC, IC, PTCRB, GCF, CE, RCM
Carrier	Verizon, AT&T		Verizon, AT&T/FirstNet, US Cellular, Sprint, Telus FIRSTNET READY	Verizon, AT&T, Telstra(Planned)	Verizon(Cat-M), AT&T(Cat-M)
PART NUMBER	1104335	1104337	1104303, 1104302 (Wi-Fi)	1104332, 1104331 (Wi-Fi)	1104333

For carrier-specific band support please refer to the hardware user guide.

	Specification
HOST INTERFACES	10/100/1000 Ethernet (RJ45)
	RS-232 serial port (DB-9)
	USB 2.0 Micro-B Connector
	3 SMA antenna (cellular, diversity, GNSS)
	2 RP-SMA antenna (1x1 Wi-Fi, Optional)
	LTE-M/NB-IoT: 1 SMA (cellular) only, no GNSS or Wi-Fi
	Active GPS antenna support
WI-FI (Optional)	Dual Band 2.4/5GHz Wi-Fi
	Dual Radio, 802.11 b/g/n/ac (Wave2 Client Mode)
	Support for 10 clients, WPA2 Enterprise per radio
	Output power 16dBm
	Configurable as Dual Band Access Point (AP) or AP+Client Mode
	Single SSID Support per radio
	Captive Portal
INPUT/OUTPUT	Configurable I/O pin on power connector
	• Digital Input ON Voltage: 2.7 to 36 VDC
	• Configurable Pull-up for dry contact input
	• Digital Open Collector Output > sinking 500 mA
	• Analog Input: 0.5-36 VDC
LAN (ETHERNET/USB)	DHCP Server
	IP Passthrough
	VLAN
	Host Interface Watchdog
	PPPoE

	Specification
SATELLITE NAVIGATION (GNSS)	LTE-A Pro Variant: 30 Channel GPS and GLONASS Receiver (Tracking Sensitivity: -160dBm)
	LTE Variant: 48 Channel Dedicated GNSS Receiver (Tracking Sensitivity: -162 dBm)
	Accuracy: <2 m (50%), <5 m (90%), <0.2 m/s
	Acquisition Time: 1s Hot Start
	Reports: NMEA 0183 V3.0, TAIP, RAP, XORA
	Multiple Redundant Servers
	Reliable Store and Forward
SECURITY	Remote Authentication (LDAP, RADIUS, TACACS+, DMZ)
	Inbound and Outbound Port filtering
	Inbound and Outbound Trusted IP
	MAC Address Filtering
	PCI compatible
	Secure Firmware Update
NETWORK MANAGEMENT	Secure mobile network & asset management application available in the cloud or licensed platform in the enterprise data center
	Fleet wide firmware upgrade delivery
	Router configuration and template management
	Router staging over the air and local Ethernet connection
	Over-the-air software and radio module firmware updates
	Device Configuration Templates
	Configurable monitoring and alerting
	Remote provisioning and airtime activation (where applicable)

SIERRA WIRELESS®

	Specification
SERIAL	TCP/UDP PAD Mode
	Modbus (ASCII, RTU, Variable)
	PPP
	DNP3 Interoperability
	Dual Serial option (with an accessory)
NETWORK AND ROUTING	Network Address Translation (NAT) · Reliable Static Route
	Port Forwarding · Dynamic DNS
	Policy Routing · Verizon PNTM
	NEMO/DMNR · IPV6 Gateway
	VRRP
VPN	IPsec, GRE, and OpenVPN Client
	Up to 5 concurrent tunnels
	Split Tunnel
	Dead Peer Detection (DPD)
	FIPS 140-2 compatible
APPLICATION FRAMEWORK	ALEOS Application Framework (AAF)
	LUA Scripting Language
POWER	Input Voltage: 7 to 36 VDC
	LTE Idle Power: 900mW (75 mA @ 12VDC)
	Standby Mode Power: 53 mW (4.4 mA @ 12 VDC) triggered on low voltage, I/O or periodic timer
	Low voltage disconnect to prevent battery drain
	Built-in protection against voltage transients including 5 VDC engine cranking and +200 VDC load dump
	Ignition Sense with time delay shutdown
	Configurable features and ports to optimize power consumption
DIMENSIONS	119 mm x 33 mm x 85 mm (102 mm including wi-fi connectors)
	4.69 in x 1.34 in x 3.35 in (3.70 in including connectors)
	Weight: 320 g

	Specification
ROUTER MANAGEMENT	ALMS
	Local web user interface
	AT Command Line Interface (Telnet/SSH/Serial)
	SMS Commands
	SNMP
EVENTS ENGINE	Custom event triggers and reports
	Configurable interface, no programming
	Event Types: Digital Input, Network Parameters, Data Usage, Timer, Power, Device Temperature and Voltage
	Report Types: RAP, SMS, Email, SNMP Trap, TCP (Binary, XML, CSV)
	Event Actions: Drive Relay Output
ENVIRONMENTAL	Operating Temperature: -40°C to +70°C / -40°F to +158°F
	Operating Temperature (Wi-Fi variant): -30°C to +70°C / -22°F to +158°F
	Storage Temperature: -40°C to +85°C / -40°F to +185°F
	Humidity: 95% RH @ 60°C
	Military Spec MIL-STD-810G conformance to shock, vibration, thermal shock, and humidity
	IP64 rated ingress protection
INDUSTRY CERTIFICATIONS	Safety: IECEE Certification Bodies Scheme (CB Scheme), UL 60950**
	Vehicle Usage: E-Mark (UN ECE Regulation 10.04), Rail Usage: EN50155
	ISO7637-2, SAE J1455 (Shock & Vibration)
	Hazardous Environments: Class 1 Div 2– Ambient temperatures of -30°C to +60°C
	Environmental: RoHS, REACH, WEEE
SUPPORT AND WARRANTY	Includes 1st Year AirLink Complete:
	• AirLink Management Service (ALMS)
	• Direct 24/7 Technical Support
	• 3-year standard warranty; optional 2-year warranty extension
	1-day Accelerated Hardware Replacement available through participating resellers
ACCESSORIES	In the Box: DC Power Cable, and Quick Start Guide
	Other Accessories (sold separately):
	2000579 AC Adapter, 12VDC
	6000659 DIN Rail Bracket
	For Antenna options visit: sierrawireless.com/antennas

*** Ambient temperatures of -30C to +60C*

AirLink Networking Solution - Related Products

AIRLINK NETWORK MANAGEMENT SOLUTIONS

AIRLINK MANAGEMENT SERVICE (ALMS)

- Secure, Cloud-based network and asset management
- Remotely deploy, configure, monitor and manage AirLink devices
- Carrier-grade, high availability, secure, global infrastructure

AIRLINK MANAGER / MOBILITY MANAGER (AM/AMM)

- Deployable in the enterprise data center (on-premises) or in the cloud
- Advanced, end-to-end network and asset management for both fixed and mobile networks.
- Remote, real-time configuration, control and troubleshooting of AirLink devices

AIRLINK VPN APPLIANCE

AIRLINK CONNECTION MANAGER

- VPN appliance built from the ground up for Airlink routers & gateways
- Simplify deployment and management of your VPN solution, extending the enterprise to the network edge for fixed and mobile endpoints
- Carrier agnostic – ACM doesn't require fixed and/or public IP
- Compatible with FIPS 140-2, and always-on VPN capability