

MOBILE HOTSPOTS™

Helping warfighters and first responders connect, protect and win.

The L3Harris Mobile Hotspots system delivers the benefits of “device plus infrastructure” low-SWaP mobility to provide real-time connectivity during urgent mobile operations. Our open modular architecture combines our family of LTE front-end options and mobile backhaul options including air, ground and space layouts. Customers can plug-and-play necessary mobile hotspot modules to scale-up to their unique CONOPS (concept of operations). Our solution supports aircraft pods, vehicles and man-portable systems, with 32 LTE users per spot and up to 1 Gbps backhaul.

PRODUCT DESCRIPTION

The L3Harris Mobile Hotspots™ system provides aerial and ground tier Gbps backbone services to on-the-move or halt 4G/LTE hotspot connectivity for aggregation/relay services to COTS smartphone devices. The result is a mobile, self-organizing, backhaul network with high capacity and significant range supporting field and remote operations with connectivity to fixed communications infrastructures.

- > Miniature Discovery radio uses proven protocols, ensuring seamless network formation and control
- > Commercial smartphone LTE connectivity anywhere using field-tested base station and common COTS user devices
- > Vehicle-proven, mast-ready, self-contained ground node backhauls through wideband Gbps aerial layer versus costly space infrastructure.
- > Simple, robust, reliable, low-cost, compact ground node provides a terminal for unattended or dismounted connectivity
- > Provides self-contained hot spot or interconnected wide-area service



Use of U.S. DoD visual information does not imply or constitute DoD endorsement.

Gigabit Gateway Pods Enabling Mobile Networks for Hundreds of Users

KEY FEATURES

- > Open modular and scaleable architecture
- > Up to 1 Gbps data rates at low airborne and ground SWaP
- > Frequency congestion/clearance relief by using E-band backhaul links
- > Aircraft two-pod configuration; Vehicular mast-mount; and man-packable compact node
- > Advanced ad-hoc networking with 32 simultaneous phones per cell (other models up to 600 phones), with data relay and reliable delivery
- > Airborne and ground LTE for data aggregation and dissemination to COTS devices up to 25 km (other models > 70 km)
- > Adaptable to customer-provided smartphones and bands
- > Interoperable with Android, IOS and CSfC

POD KEY FEATURES

- > Two-pod configuration supported by Group 3 UAS and light, manned aircraft
- > Self-contained with low SWaP (~8" dia, 28" long and 20 lb. per pod)
- > Up to 1 Gbps E-band backhaul links with auto-rate control (qty 2 per pod, qty 4 per aircraft)
- > Low SWaP flyable 4G/LTE base station ("tower") ranges up to 4 km (other models > 70 km)
- > Self-contained with high-accuracy navigation module for antenna pointing
- > Built-in Discovery capability with ad-hoc network management

GROUND/MOBILE KEY FEATURES

- > Vehicle ready (tower masts add-on kits available)
- > 1 Gbps E-band links (qty 2) with auto-rate control
- > Low SWaP 4G/LTE hotspot with ranges up to 4 km (other models > 70 km)
- > Built-in Discovery capability with ad-hoc network management

COMPACT GROUND KEY FEATURES

- > Vehicular or man-packable
- > Up to 10 Mbps E-band link
- > USB or RJ45 IO to connect any networking device
- > Operates on 5590 or similar batteries
- > Single-node transceiver and modem (no router)
- > Built-in Discovery capability with ad-hoc network management

SCALABLE OPTIONS

(System Components)



Airborne Pods (2)



Ground/Mobile Unit



Mobile Devices

(Provided by L3Harris or customer)



Compact Ground Node

SPECIFICATIONS

Pod

- > Two-pod system
- > SWaP
 - 8" diameter, 28" long
 - 20 lb. per pod
 - 600 watts
- > Up to 1 Gbps E-band links (qty 2 per pod, qty 4 per system)
- > Hot spots up to 4 km
- > Navigation module for antenna pointing < 1 degree accuracy

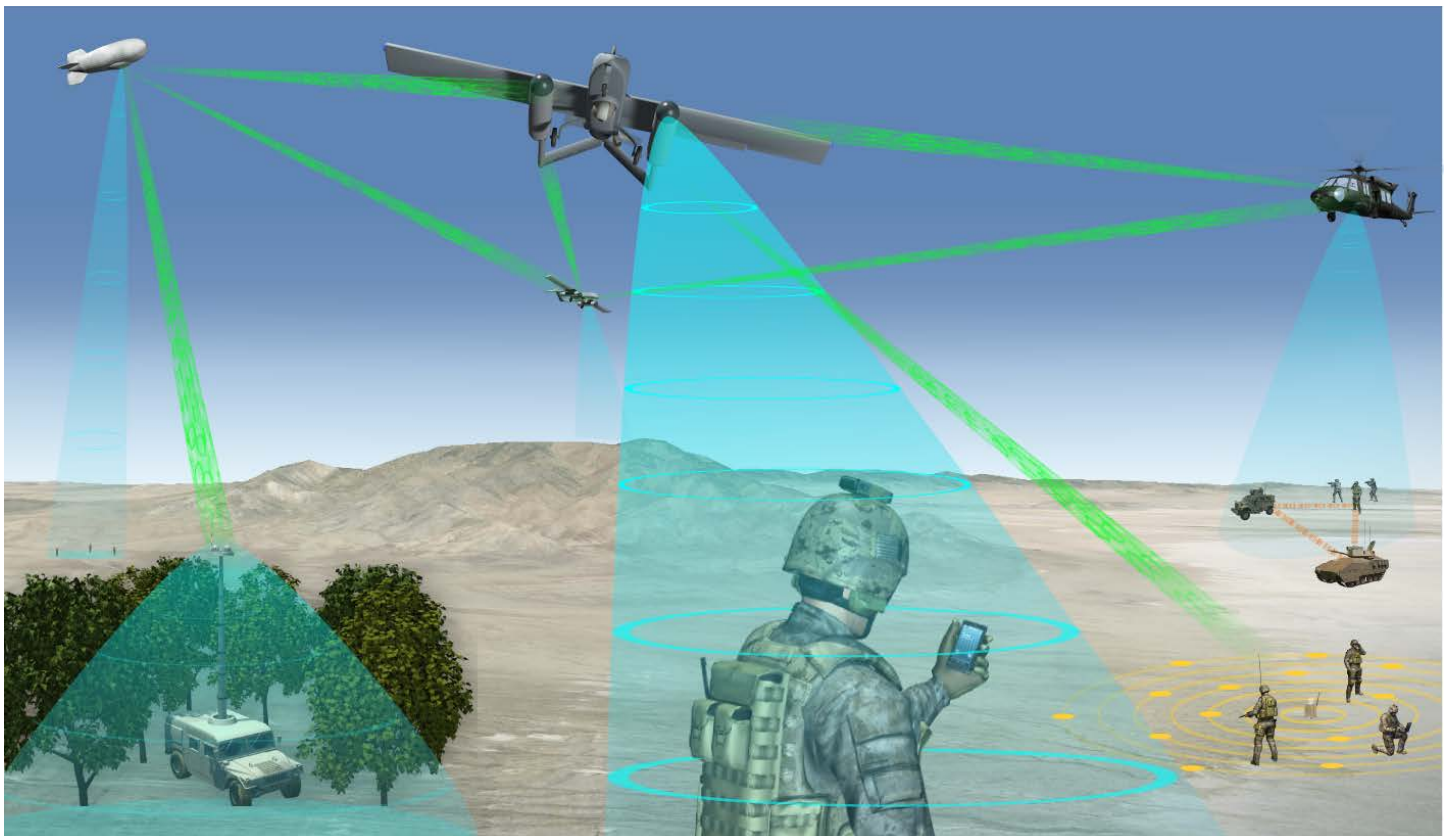
Ground/Mobile Unit

- > Vehicle-ready (tower masts add-on kits available)
- > SWaP
 - 34" diameter horizontal, 14" tall
 - 65 lb.
 - 400 watts
- > 1 Gbps E-band links (qty 2)
- > 4G/LTE hotspot with ranges up to 4 km

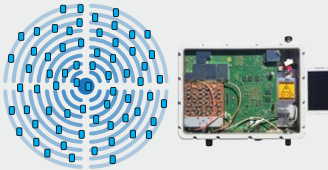


Compact Ground Unit

- > Vehicular or man-packable capable
- > Up to 10 Mbps E-band link
- > SWaP
 - 6" (w) x 6" (d) x 6" (h)
 - 10 lb. (12 lb. with AC power supply)
 - 30 watts
 - 5590 battery
- > USB or RJ45 IO to connect any networking device





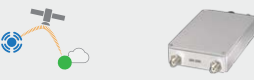
SUPPORTABLE PLATFORMS



LTE FRONT-END OPTIONS

CELLULAR/LTE FRON-END FAMILY		
<p>> Macrocell: Our high-capacity (600 simultaneous users) deployable macro cell, up to 70 km range in a 5U form factor ready for ground on-the-move installations, or aerial installations in manned or unmanned aircraft or dirigibles (pod form factor also available).</p>	 <p>Up to 70 km and 600 Phones</p>	<ul style="list-style-type: none"> > High-capacity: 600 simultaneous users > Large coverage foot print: 48 miles at 1,000 ft > 2 x 2 MIMO radio: 150 Mbps shared data per sector > Carrier-grade: Reliable and dependable > Embedded edge centrix LTE network core > Voice over LTE, LTE SMS, multi-cast (IGMP), LTE relay and meshing options > Optimized for satellite backhaul > Upgradeable to LTE advanced > 300 Mbps shared data per sector > Built-in interference management
<p>> Microcell: A low SWaP deployable microcell (100 simultaneous users) up to 9 km range in both a ruggedized portable case, or aerial installation form</p>	 <p>Up to 9 km and 128 Phones</p>	<ul style="list-style-type: none"> > High-capacity: Up to 128 simultaneous users > Small size: Rugged packaging > Nokia FlexiZone MIMO, 2 x 5 w power output > Carrier-grade: Reliable and dependable > Embedded edge centrix LTE network core > Voice over LTE, LTE SMS, multi-cast (IGMP), LTE relay and meshing options > Built-in interference management > Automatic neighbor cell configuration
<p>> Packacell: A man-packable or vehicle-based LTE network for up to 32 users, four (4) RF bands, with an embedded ECX network core and built-in backhaul/meshing – extremely low SWaP</p>	 <p>Up to 1 km and 32 Phones</p>	<ul style="list-style-type: none"> > Supports four (4) LTE bands: EU version (Band 3, 7, 40 and 42) and US version (Band 4, 5, 14, 17) > Small Size: 10" x 8" x 5" > Low Power Consumption: (18 w) > 2 x 2 MIMO Radio: 2 x 500 mW power output > Embedded EdgeCentrix LTE Network Core > Embedded backhaul: Inband LTE modems or MANET mesh network > Voice over LTE, LTE SMS, MultiCast (IGMP), LTE relay and meshing options > Optimized for satellite backhaul > Built-in SON capabilities

BACKHAUL OPTIONS

BACKHAUL FAMILY		
<p>> MeshCONNECT: Multi-point-to-multi-point mesh networking backhaul for continuous morphing network needs</p>		<ul style="list-style-type: none"> > Ideal for extreme mobile ground-ground backhaul with continuous cell formation > Handles rates > 40 Mbps
<p>> HubCONNECT: Point-to-multi-point networking to efficiently connect multiple cells</p>		<ul style="list-style-type: none"> > Ideal for efficient air-ground backhaul to multiple adjacent ground-based cells > Handles rates > 45 Mbps
<p>> DirectCONNECT: Point-to-point links with highly-effective data transfer</p>		<ul style="list-style-type: none"> > Ideal for high-rate air-ground backhaul with users requiring high bandwidth > Handles rates > 200 Mbps
<p>> GigCONNECT: Multi-directional points with up to 1 Gbps data rates at much lower SWaP</p>		<ul style="list-style-type: none"> > Ideal for wideband air-ground backhaul to many cells and many users requiring high bandwidth > Handles rates up to 1 Gbps
<p>> SpaceCONNECT: Various terminals with multiple constellations and bands</p>		<ul style="list-style-type: none"> > Ideal for wideband space-ground or space-air backhaul to users requiring high bandwidth > Handles rates up to 10s Mbps

Mobile Hotspots

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L3Harris Technologies is an agile global aerospace and defense technology innovator, delivering end-to-end solutions that meet customers' mission-critical needs. The company provides advanced defense and commercial technologies across air, land, sea, space and cyber domains.

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