



# Wavesight

**CONNECTING YOUR WORLD**  
Bridging the Digital Divide through Technology Solutions





Wavesight provides technology solutions which are cost-effective and reliable, allowing assets and people to operate in a connected world.

Through our extensive portfolio of reliable, scalable and secure communication solutions, Wavesight enables governmental agencies, oil, gas and enterprise, Internet service providers, and public safety operators to build powerful and seamless communications networks.

Wavesight is headquartered in Bedfordshire UK and with R&D and manufacturing centres in multiple locations across the world.

FOUNDED IN	COUNTRIES	PARTNERS	DEPLOYMENT
<b>2004</b>	<b>30</b>	<b>60</b>	<b>100,000</b>

## Quality Focus

At Wavesight, we build quality in through design, manufacturing, testing, partner selection, and support, to ensure our clients are delivered responsive, reliable, and dependable communications infrastructure. Customers choose Wavesight solutions over other systems because they work first time – and do not stop. Our quality, warranty and price are unbeatable. We understand and value the demands of mission critical communications and deliver solutions that safeguard your vital connectivity.

Wavesight operates a Quality Management System which complies with the requirements of ISO 9001:2015 for the provision of bespoke wireless networks, hybrid

energy and mobile access solutions and the procurement, supply and maintenance of associated products.

Wavesight has received Quality Assurance Notification (QAN) that we conform to a quality assurance of a product process ( Module B). This in particular pertains to equipment, protective systems and components intended for use in potentially explosive atmospheres

Further, Wavesight has also received EU Type Approval and Certification for ATEX Products (products or protective systems intended for use in potentially explosive atmospheres)





Wavesight's innovative technology solutions help bridge the digital divide

### INTEGRATION OF TECHNOLOGY

**We connect people, places and machines.  
The technology landscape is changing. And so are we.**

Technology Integration – sounds simple, right? But as we all know, technology devices are now being linked to everything from your supply chain to your global intranet and to your knowledge management database. This constant connectivity has increased the amount of information available, changed infrastructure requirements, and necessitated a strategy to use it all effectively. And that's not so simple.

Through our comprehensive range of products and ability to converge technologies, we help organisations solve business challenges through the integration of technology – as discrete services or comprehensive solutions.

### CONVERGENCE OF TECHNOLOGY

**Our range of products deliver powerful communication  
and connectivity capabilities**







## CONNECT YOUR WORLD

### Enterprise

Governments around the world have been designating LTE spectrum for industry, and Wavesight and partners have been pioneering small cell technology ideal for private industrial networks. That means you can deploy a private wireless network with 4.9G capabilities that is ready to meet your needs today, with a clear roadmap for a simple evolution to 5G tomorrow.

You can meet critical operational connectivity requirements with a dedicated LTE network built to handle the demands of industrial applications.



### AIRPORTS

Connect and control your digital airport with a dedicated, reliable, and secure network. A private wireless platform will become a strategic asset to the digital airport.



### MANUFACTURING

Create intelligent, agile factories with flexible, industrial grade connectivity. A private wireless network provides a dedicated, industrial grade mobile network built to deliver the flexibility to rapidly reconfigure and retool production lines to respond quickly to changing demands.



### MINING

Robust, high-performance connectivity for the digital mine. Private wireless networks give you a dedicated, industrial grade network that solves the unique connectivity challenges your mines face today - and the ones they will face tomorrow.



### PORTS

Connect everyone and everything throughout your terminal. A private wireless network gives you a dedicated, industrial grade network that solves the unique connectivity challenges your port faces now – and the ones it will face next.



## CONNECT YOUR WORLD

### Enterprise

#### Benefits of a Private Industrial Grade Private Wireless Solution

- Intrinsic security. No LTE network has ever been compromised
- Mission-critical reliability for near-continuous operations
- Deep, wide coverage to connect everyone and everything
- Predictable performance for industrial automation and real-time asset coordination
- High capacity to easily handle the rapid growth of devices, sensors and data
- Greater operational control and flexibility to enhance safety and respond quickly to changing business needs
- Effortless mobility built on trusted 3GPP mobile standard



#### UTILITIES

Control and optimize smart grids with ultra-reliable pervasive connectivity. Industrial grade private wireless networks provides efficient, reliable mission-critical connectivity for all grid equipment, applications, and personnel on a dedicated converged network.



#### MOTORWAYS/HIGHWAYS

Smart dynamic networks will become the foundation for the digital transformation of society, including our highways. Our objective is to provide an intelligent, communications and cloud-based platform to support the individual systems, process and activities associated with tomorrow's highways.



#### CONSTRUCTION SITES

Industrial grade wireless infrastructure for complete control of manned and remote operations throughout a construction site. Improve site safety and security. Minimize downtime by empowering project teams to make smarter and quicker decisions.





## CONNECT YOUR WORLD

### Smart Cities

During the building of smart cities, systems integrators face many challenges with respect to bandwidth, network coverage and speed. Besides physical infrastructure, communication network is often regarded as another important infrastructure in the smart city plan overseas. With the emergence of new 5G technology, many countries are actively upgrading their networks, hoping to drive smart city initiatives via commercial 5G deployment.

A successful smart city must incorporate a shared, secure and scalable infrastructure that enables a smarter, safer and more sustainable city development. To achieve this vision, Wavesight invents and delivers smart broadband networks and platforms that connect sensors, machines, city administrations and citizens to cloud-based IoT applications

Cities are seeing unprecedented growth, bringing major challenges as they seek to remain sustainable, healthy,

and safe places for people to live and work. The Internet of Things (IoT) offers new opportunities for cities to use data to manage traffic, cut pollution, make better use of infrastructure, and keep citizens safe.

To help cities make the most of the digital opportunities, Wavesight has launched a fully integrated modular and scalable framework to efficiently deliver and manage smart city services. This enables operators and master systems integrators (MSI's) to take advantage of unified smart city management, while unlocking new revenue streams by rapidly launching new smart city services addressing city council needs. The 'fully integrated' approach fulfils the vital requirement of a connected landscape that is shared, secure and scalable – where every 'thing' can talk to each other to make tomorrow's cities smart, safe, and sustainable.





## CONNECT YOUR WORLD

### Unlock the Future of Enterprise Connectivity with Hawk 5G's Solution

Hawk5G's Solution addresses critical enterprise communication needs with a scalable, secure, high-performance network that minimizes downtime. It offers exclusive network control for data protection, supports real-time processing with dedicated bandwidth and low latency, and simplifies operations with robust, centralized management.

### What sets us apart?

#### Our Patented Cellular Mesh Technology

Utilizing patented interference cancellation, Hawk5G's technology provides cellular wireless backhaul and access, making it ideal for areas where cabling is challenging or cost prohibitive, ensuring robust and complete on-site coverage.



#### Cloud Stream 5G Edge with 5G Standalone Core

##### Independent Operation

Enhances control and reliability while reducing latency, with no external network dependencies.

##### Enhanced Security & Performance

Guarantees data integrity and real-time processing for seamless operations.

##### Backward Compatibility

Smoothly integrates and operates with both LTE and 5G Access Points across various network technologies.

#### Innovative 5G Access Points (APs)

##### New O-RAN based APs

Hawk5G's APs leverage ORAN technology for enhanced flexibility & performance.

##### Fronthaul Multiplexer

Combines 5G signals into a large, high-performing network, reducing costs and complexity.

##### Optimized Frequency Management

Innovative frequency & bandwidth management for maximum performance using limited resources.

#### Centralized Network Management System (NMS)

##### Unified NMS View

All network functions available from a single GUI. Simplifies monitoring and management, as easy to manage as enterprise WiFi.

##### Faster Troubleshooting

Minimizes downtime and enhances operational efficiency.

##### Streamlined Management

Enables network administrators to effectively manage and optimize performance, crucial for cost-efficient enterprise operations.



# The Role of 5G in Modern Enterprises



Empower your enterprise with 5G private cellular networks that cut through system fragmentation and reduce total ownership costs. These networks boost speed, latency, and capacity while integrating seamlessly with Wi-Fi in a hybrid environment.

Optimize your use of 5G, harness network synergies, and capitalize on consolidation opportunities to streamline operations and lower costs.

## Key Factors for Choosing 5G

Low Latency	Enhanced Capacity	Faster Speeds	Higher Density

## How does our solution work?

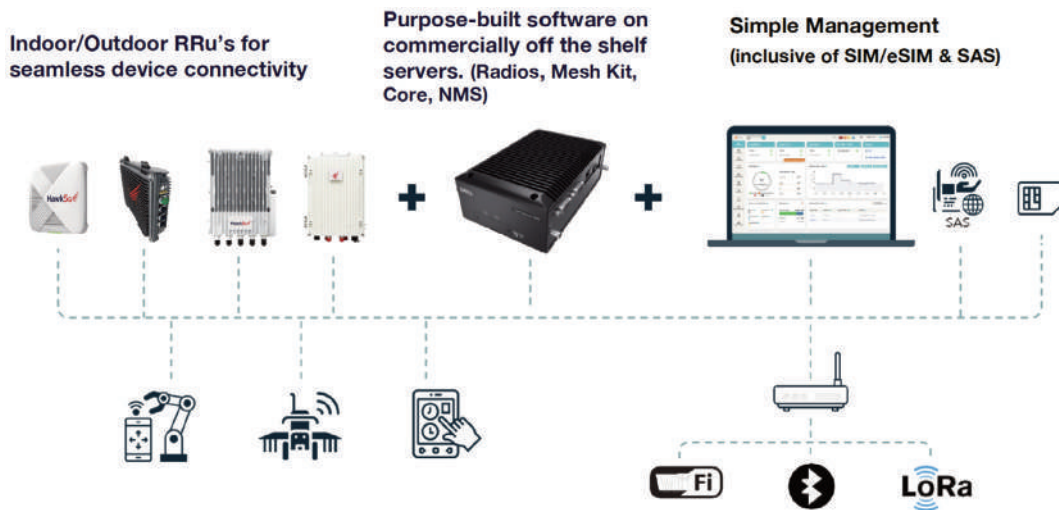
Empower your enterprise with 5G private cellular networks that cuts through system fragmentation and helps reduce total ownership costs. Our networks boost speed, reduces latency, and increases capacity while integrating seamlessly with Wi-Fi in a hybrid environment.

Operating in band n41,n48, n77 and n78 , Hawk5G, harness network synergies, and capitalize on consolidation opportunities to streamline operations and lower costs.

## Integrated and comprehensive solution

Empower your enterprise with 5G private cellular networks that cuts through system fragmentation and helps reduce total ownership costs. Our networks boost speed, reduces latency, and increases capacity while integrating seamlessly with Wi-Fi in a hybrid environment.

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## Partnering with GXC. Based in Austin. Texas.

Transforming enterprise and connectivity with their RAN and CORE software. Which along with their network management software helps deliver innovative communication solutions .

The technology landscape is changing. And so are we.







## CONNECT YOUR WORLD

### Unleashing the potential of Wi-Fi. Discover a new era of Wi-Fi networking

Wi-Fi 6 is about to transform connectivity. The next generation Wi-Fi connectivity technology – along with the emerging 5G cellular generation – will shake up the way we connect with each other. The ability of Wi-Fi 6, or 802.11ax, to instantly route traffic – even to devices on the far reaches of very crowded networks – will also change the way we interact with our smart devices. It will even rework the way smart devices communicate with each other.

But from what we have seen thus far, Wi-Fi 6 is emerging on the scene in much the same manner as previous generations of wireless technology: integrated inside the latest smartphones and laptops. And in new routers and access points that promise faster, more reliable connectivity for more devices.

To be sure, Wi-Fi 6 is providing faster, more reliable connections. Its ability to handle much more traffic at once comes at a critical time, as more laptops, smartphones, cameras, smart speakers, displays, personal and other IoT devices crowd networks with massive new data flows. And for the next couple of years, that is much of what you will come to see out of the next generation Wi-Fi: better, faster, and more reliable Wi-Fi connectivity. Decidedly evolutionary, with important improvements.

Wavesight has tied up with a leading Wi-Fi networking company in Europe, Galgus. Born 7 years ago with a mission to unleash the full potential out of Wi-Fi networks. Galgus develop fast, reliable, robust, secure Wi-Fi Technology. Currently handling 1 Million users over 48 Projects worldwide

Under the name Dragon Fly, Wi-Fi APs (access points) with the most advanced features at affordable prices are available, allowing System Integrators and ISPs to increase their revenues by saving CAPEX and OPEX by 60%. Wavesight offers a variety of APs that can be deployed in any vertical such as aviation, rail, bus, industry 4.0, enterprise, retail, hospitality, among others.

Dragon Fly Wi-Fi APs are equipped with dozens of advanced features that until now were forbidden to affordable Wi-Fi networks, such as automatic network optimization, remote management from the cloud, location, and monitoring of users, detection of hackers, heat mapping, advanced security, analytics, and more.

Our technology, with the help of our partner, is based on artificial intelligence and is protected by 5 international patents (USA and Europe). In addition, our partner has one of the largest Wi-Fi labs in Europe (+500 real devices) to test and verify the product.

### Features Overview

NETWORK OPTIMISATION	ENHANCED MANAGEMENT	IN-DEPTH ANALYSIS	ADVANCED SECURITY
<ul style="list-style-type: none"> <li>• No central controller (no bottlenecks/point of failure)</li> <li>• Distributed intelligence without central controller</li> <li>• Smart roaming (seamless handoff)</li> <li>• Automatic Channel Assignment</li> <li>• Load Balancing (real-time resource allocation)</li> <li>• Prebalancing (association control)</li> <li>• Traffic Control (bandwidth limits for users and radios)</li> <li>• Automatic Power Control</li> <li>• Smart Multicast (multicast to unicast conversion)</li> <li>• Airtime Fairness</li> <li>• Dynamic probe management for ultra-high density</li> <li>• Predictive Roaming</li> </ul>	<ul style="list-style-type: none"> <li>• Cloud Manager</li> <li>• REST API</li> <li>• Integration with third-party dashboards</li> <li>• Mesh with self-healing and dynamic re-routing</li> <li>• Self configuration</li> <li>• Remote configuration</li> <li>• Remote SSH access to the APs</li> <li>• Zero Touch Provisioning (ZTP)</li> <li>• Local web interface</li> <li>• Intuitive CLI (command line interface)</li> <li>• Modular licenses and auto-download</li> </ul>	<ul style="list-style-type: none"> <li>• Location and tracking of associated devices</li> <li>• Location and tracking of unassociated devices</li> <li>• Location and tracking of devices with random MAC</li> <li>• Real-time signal strength heatmap</li> <li>• Real-time modulation and coding (MCS) heatmap</li> <li>• Real-time device capabilities heatmap</li> <li>• Coverage estimation</li> <li>• Unweaving of fake MAC address</li> <li>• Discovery of IEEE amendments supported by devices</li> <li>• Device fingerprinting</li> <li>• Spectral analysis</li> </ul>	<ul style="list-style-type: none"> <li>• Secured communication between APs (Elliptic curve)</li> <li>• Wireless Intrusion Detection</li> <li>• Wireless Intrusion Prevention</li> <li>• Wireless Intrusion Location</li> <li>• WPA1/WPA2 Personal and Enterprise</li> <li>• WPA3 Personal &amp; Enterprise</li> <li>• Alerts and Events</li> <li>• Integration with captive portals</li> <li>• Integration with social login</li> <li>• Firewall</li> <li>• Dynamic VLANs</li> <li>• Radius support</li> <li>• GDPR-compliant</li> </ul>



## CONNECT YOUR WORLD

### Point to Point and Multi Point Transmission Solutions

Our Wireless heritage goes back more than twenty years. Our humble beginnings were focused on building radios to get CCTV signals from the street back to control rooms using radio WAVE technology to give police operators SIGHT of the street - WAVESIGHT. Today we continue to supply tens of thousands of our products to many Police and Defence clients each year.

**BACKHAUL**– Our unlicensed backhaul products offer Incredible performance at long distance for demanding consumer, business and public safety applications.

**ACCESS**– Our scalable, unlicensed multipoint solution for deploying ultra high data capacity services in virtually any rural, suburban or urban environment.

#### Key Features

- ✓ Data rates up to 2Gbps-
- ✓ High quality video
- ✓ Extremely low latency
- ✓ Cost effective alternative to cable or leased line fibre
- ✓ Encrypted data communications
- ✓ Rapid deployment and easy installation
- ✓ Up to IP 67 Environmental Features
- ✓ 2 years Warranty as standard



Firefly is our high value enterprise and campus range. It marries features, performance and build quality unmatched at this price point.

- 80,000 PPS
- 500 Mbps
- Up to IP67
- HTML 5 GUI



Time Division Multiple Access (TDMA) protocol based. Scorpion is our “Time Division Multiple Access (TDMA)” Flagship product range. It features advanced carrier grade features, unmatched spectral efficiency, coupled with one of the highest PPS in the industry at a truly affordable price.

- 2000 Mbps
- 1ms Latency
- IP67
- Automatic Interference Switching



Listen Before Transmit (LBT) protocol based. WASP is our “Listen Before Transmit” (LBT) Flagship product range. It features advanced carrier grade features, unmatched spectral efficiency, coupled with one of the highest PPS in the industry at a truly affordable price.

- 500 Mbps
- 1ms Latency
- IP67
- Automatic Interference Switching







## CONNECT YOUR WORLD

### Point to Point and Point to Multi Point Transmission Solutions for Zone 1 and 2 Hazardous Areas

#### Stay Safe and Connected

The oil and gas industry which fuels our global economy necessitates the highest level of engineering, productivity and safety. Every aspect of exploration, extraction and refinement must be carefully orchestrated to operate continuously and maximize profits. Achieving this high level of operational excellence is not possible without advanced data, voice and video communications. Wireless Ethernet is fast becoming the preferred communication delivery system due to its excellent reliability, adaptability and affordability. However, your communication systems should be ATEX and HAZLOC certified to assure safe operations in your potentially hazardous environments.

#### ATEX Certified Housing and Antenna Connectors

Our range of GUB explosion proof enclosures and antenna connectors / isolators are intended for use in areas made potentially hazardous by the presence of flammable liquids, gases , vapours and dust ( Zone 1 ,2 , 21 and 22 ).

#### Flexibility and Product Support

The Scorpion Ex houses a suitable radio system for deployment in multi-mode scenarios using a variety of approved antennas. The NMS network management application provides full element and provisioning management and software upgrades.





## CONNECT YOUR WORLD

**Trusted by Emergency Services. Enables situational awareness.  
Mil 810 Standard Ruggedized Tablets. Windows and Android.**

Any Environment, any Weather, you're always connected.

Our ruggedized Tablet PC's are used in industry and mission critical application for Industry, law enforcement and Military. They allow command and control on the move. This technology has revolutionised policing. It allows officers access to entire police station database information while on the move.

This technology allows officers to access everything from command and control and all normal desktop applications. It allows officers to be mobile in the community and enables real time delivery of exacting information that delivers capabilities never before possible.

### Key Features

- ✓ IP65, MIL-STD-810G, 6 feet drop resistance
- ✓ Sunlight readable function
- ✓ Seamless communication, 5G
- ✓ Up to 12 hours of battery life
- ✓ HD cameras with auto focus and LED flash
- ✓ A number of 2-in-1 modules for data capture
- ✓ Wide coverage accessories
- ✓ Compact vehicle dock
- ✓ Wide range voltage power







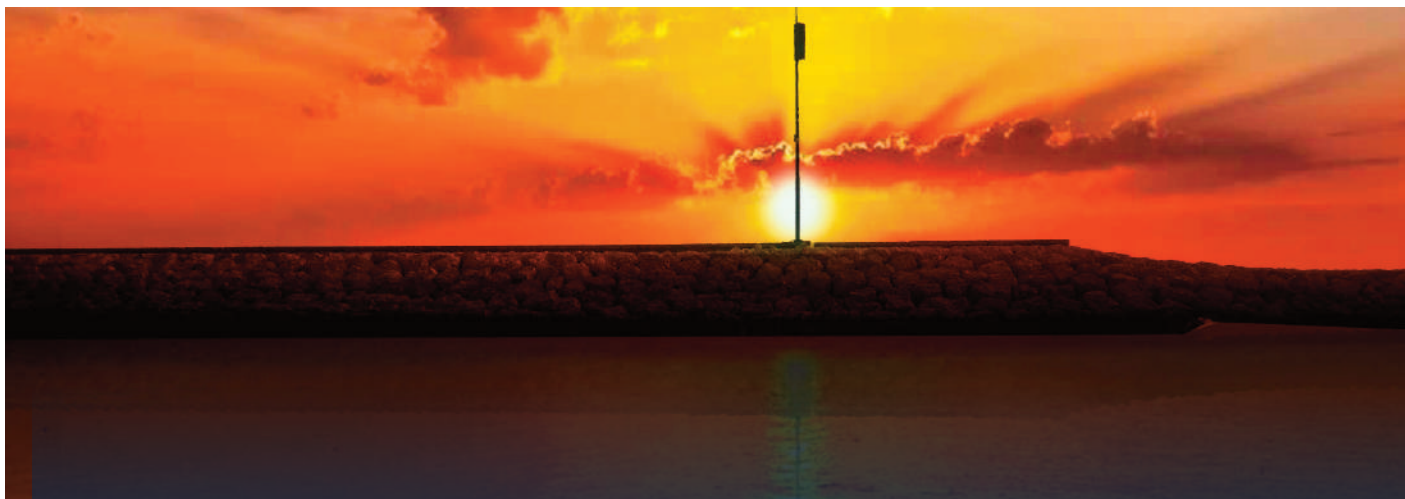
## CONNECT YOUR WORLD

**Integrated with Body Worn Camera, are the Push to Talk and 5G live streaming services in one integrated Evidence Management Solution.**

Wavesight's body worn camera offers far more than just video recording. It has a range of functions to assist anyone operating in a remote and mobile environment, and increase situational awareness. The device offers the user the ability to live stream the footage via a secure network, with a SIM slot for additional reliability. The user has a backup to continue the live stream that can be accessed by authorised personnel via Wavesight's HawkEye Video Application. The footage captured is also stored so that it can be accessed in the future to carry out incident

assessments and training. Any footage or information streamed through HawkEye is fully encrypted to provide the highest level of protection for our customers.

Wavesight's lightweight and compact HawkEye body worn camera is trusted by emergency responders and police forces around the world enabling greater communication between those wearing and operating the device and those accessing the live stream.



## CONNECT YOUR WORLD

### Solar Powered Communication Solutions where power is unstable or non-existent.

Our Solar division was founded on the demand of our clients need for the delivery of managed power to meet their need for reliable deployment of their communication and mission critical security systems.

Our vertical solar hybrid system was built with a focus on the need for a secure energy solution that could be quickly and easily deployed on a typical pole and deliver reliable and dependable power. Our Solar solutions a cloud application and management service, delivering remote control, management, and proactive monitoring. It ensures unmatched reliability and long-lasting system performance, while reducing installation and on going maintenance costs.

#### Tower and BTS Infrastructure

Underlying the growth of these subscribers is the country's Telecom Tower and Base Transceiver System (BTS) infrastructure. India has more than 250,000 telecom towers, a population growing rapidly to keep up subscriber's growth and rural expansion.

The BTS and tower infrastructure has gone through a transition – from operator-owned to spun off, independent

companies using tower-sharing models (with both passive and active tower sharing) in an effort to reduce costs in this highly competitive market.

#### The Power Problem

A quick analysis of telecom network operating costs indicates power and fuel are the primary operating costs, comprising over 30% of total operating cost. This dynamic exists because grid power (Electricity Board or EB power) is highly unreliable and, in a lot of cases, not available in rural areas. BTS sites require constant and uninterrupted power for the safe operation of the network. As a result, BTS sites have utilized onsite diesel generators to either provide backup or primary power in the absence of EB power. Uninterrupted operation is achieved through a battery bank.

India, with its excellent irradiance, has the opportunity to exploit Photovoltaic (PV) solar power to meet this challenge of onsite power generation. Coupled with a battery backup, PV systems are a viable and exciting alternative to reduce the correlation between power cost and total operating expenditure (OPEX), thereby providing a sustainable and reliable strategic solution to the fuel problem.

# FTP-300

FTP-300 is a durable solar charged power solution with PoE in a small form factor ideal for Wi-Fi hotspots, surveillance cameras, microwave CPE's, cellular gateways and more.







# Wavesight

## CONNECTING YOUR WORLD

Bridging the Digital Divide through Technology Solutions

Wavesight operates internationally in 30 countries and with 60 partners. Experience with over 100,000 Deployments.

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