

Mobile industrial applications

Wireless communication solutions
WiFi - Cellular



ACKSYS
COMMUNICATIONS & SYSTEMS

Mobile industrial applications

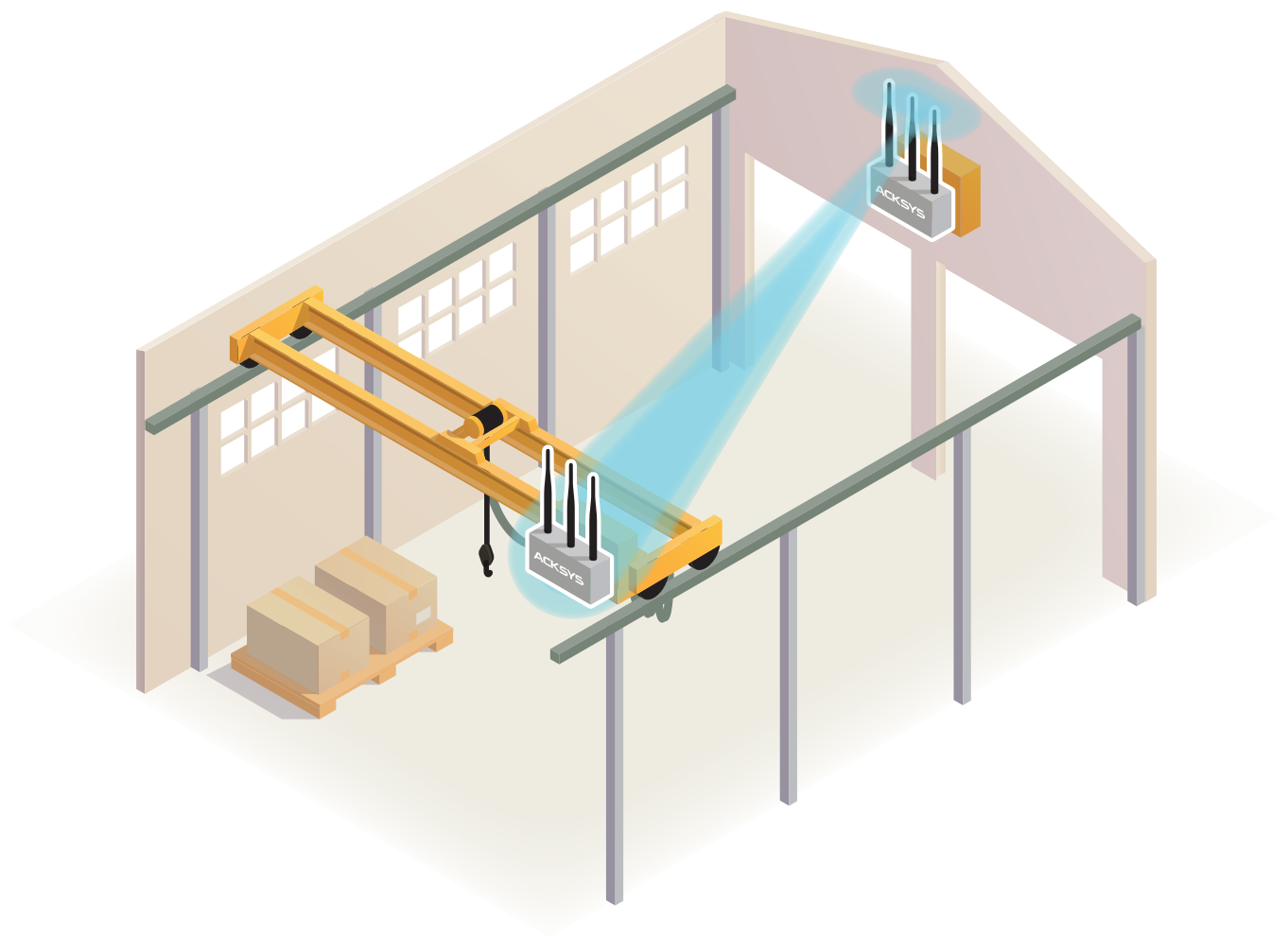
- OVERHEAD CRANES, CRANES - *Automation of lifting equipment*

The automation of lifting equipment has become essential for manufacturers: it allows them to increase their efficiencies and to provide more safety to their staff.

ACKSYS WiFi solutions guarantee secure, seamless and high-speed communication between the various fixed and mobile elements.

Based on the latest WiFi technologies, ACKSYS routers provide excellent wave propagation in industrial environments (indoor & outdoor), as well as increased reliability of the radio link.

They allow real-time transmission of all the data over a single WiFi link (supervision, IIoT, video, remote I/O...).



> INTEGRATION FLEXIBILITY

- Point-to-point, mesh or infrastructure modes
- Transmission power adjustable according to distances

> A SINGLE WIFI LINK FOR ALL DATA

- Streams mutualization & isolation (control/command, video, supervision, IIoT)
- Supports PROFI-safe, SafeEthernet...

> SEAMLESS WIFI COMMUNICATION

- PER < 0.1% thanks to dual radio roaming
- Redundancy (VRRP, RSTP)
- Increased reliability of the radio link (MIMO technology)

> HIGH AVAILABILITY

- Dual power supply input
- Configuration stored on a removable key
- MTBF : 780 000 hours

> RESILIENCE TO HARSH ENVIRONMENTS

- IP66, shocks and vibrations proof (EN 61373)
- Operation between -40°C & +70°C (EN 60068-2)
- M12 rugged connectors

> CYBERSECURITY

- WPA/WPA2 encryption, 802.1X authentication (Radius)...
- Firewall, VPN, DoS...

- AGVs -

Logistics and handling

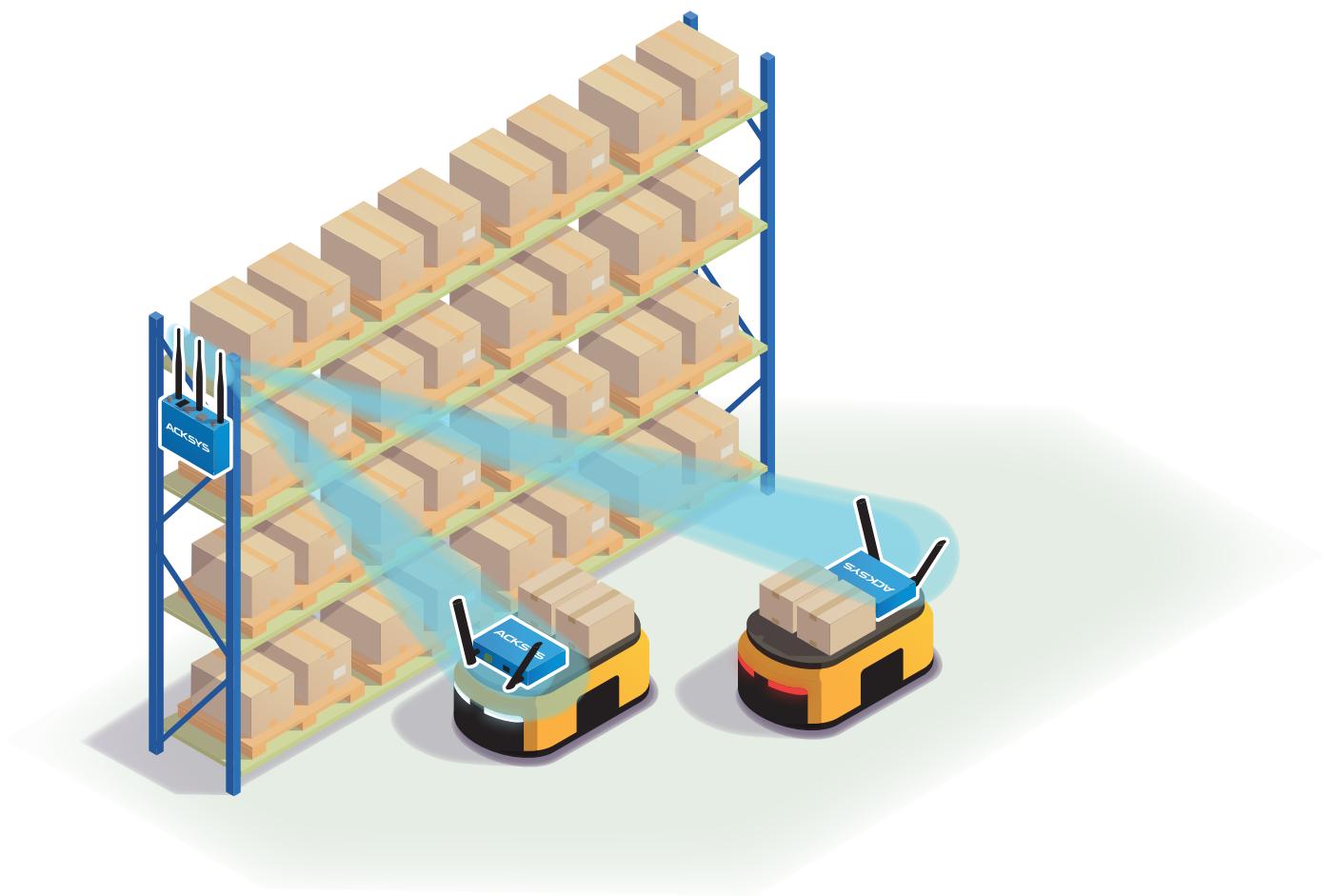
The deployment of automated systems in intralogistics allows:

- management of repetitive handling operations in complete autonomy,
- reduction of damage to goods.

To meet these needs, ACKSYS WiFi routers fit perfectly

into a fleet of AGVs thanks to their great compactness and centralized administration.

Their reinforced radio link as well as their roaming capacities guarantee continuous and seamless communication in real time.



> EMBEDDED ASSETS

- Fast Roaming < 30ms
- Industrial design (protection against ESD...)
- Shocks and vibrations proof (EN 61373)
- Increased reliability of the WiFi link (MIMO)
- Very compact case

> GROUND ASSETS

- Up to 80 clients connected simultaneously
- Extended WiFi coverage (MIMO)
- Wide T° range : -25°C/+60°C or -40°C/+70°C
- Dual radio for APs interconnection

> VERSATILITY

- Suitable for high-density AP sites
- Compatible with existing WiFi infrastructures (Cisco, Aruba...)

> CENTRALIZED SUPERVISION

- WaveManager administration and deployment software
- Group configuration

> CYBERSECURITY

- WPA/WPA2 encryption, 802.1X authentication (Radius)...
- Firewall, VPN, DoS...

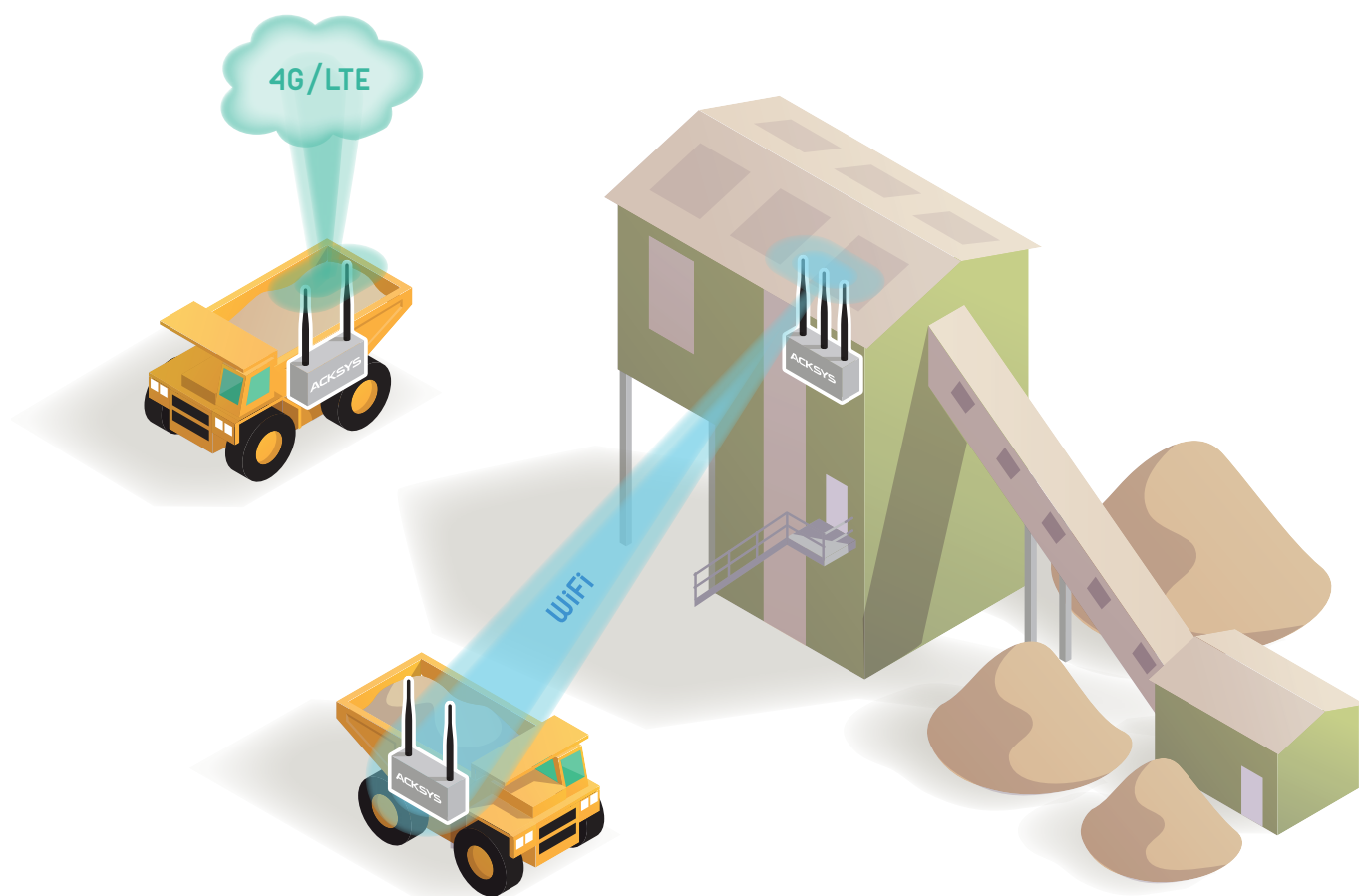
- QUARRY MACHINERY AND MATERIALS -

Connected vehicles and industrial networks

At the same time robust, reliable and secure, ACKSYS rugged routers are designed to withstand the harshest environments.

Combining WiFi and 4G, they guarantee global and scalable wireless coverage of the site, provide

mobility to people and equipment - even the most distant - and meet the interconnection needs of different equipment. They guarantee a seamless data communication despite a constantly changing environment.



> RELIABILITY OF THE WIFI NETWORK

- MIMO technology (WiFi 5 / 11ac)
- Extended broadband coverage
- Flexibility: point-to-point, mesh or infrastructure modes

> MOBILITY

- Fast Roaming WiFi <30 ms
- Automatic 4G/WiFi switching

> RESILIENCE TO HARSH ENVIRONMENTS

- IP66 rugged devices, -40°C/+70°C, M12 connectors
- Shocks and vibrations proof (EN 61373)

> VERSATILITY

- Streams mutualization (process, video, embedded HMI...)
- Supports Modbus/TCP, PROFINET, PROFI-safe, SafeEthernet, EtherNet/IP...






> EASY MAINTENANCE

- Configuration stored on a removable key

> CYBERSECURITY

- WPA/WPA2 encryption, 802.1X authentication (Radius)...
- Firewall, VPN, DoS...

- Wireless products designed for mobile industrial applications -

	 AirLink	 AirBox	 RuggedAir100	 RuggedAir1000	 RailBox
Recommended for	AGV	Indoor WiFi coverage	Trucks Heavy vehicles	Outdoor WiFi coverage	Overhead cranes Heavy vehicles
Wireless interface	WiFi 4 (11n) 2.4 / 5 GHz	WiFi 5 (11ac) 2.4 / 5 GHz	WiFi 4 (11n) 2.4 / 5 GHz	WiFi 5 (11ac) 2.4 / 5 GHz	WiFi 5 (11ac) 2.4 / 5 GHz
	-	4G LTE (optional)	-	-	4G LTE (optional)
Mobility	Roaming WiFi <30ms	Roaming WiFi <30ms	Roaming WiFi <30ms	Roaming WiFi <30ms	Roaming WiFi <30ms
	-	Automatic 4G/WiFi switching	-	-	Automatic 4G/WiFi switching
Functions	Access point, client, repeater, router, mesh, cellular router (optional, depending on model)				
Ethernet interface	1 x Gigabit (RJ45)	2 x Gigabit (RJ45)	2 x 10/100 Mbps (M12)	2 x Gigabit (M12)	2 x Gigabit (M12)
Dimensions l x w x h (mm)	103 x 67 x 24	141 x 99 x 35	175 x 80 x 57	175 x 80 x 57	175 x 80 x 57
Power supply	9-48 VDC PoE	9-48 VDC redundant PoE	9-48 VDC redundant PoE	12-36 VDC isolated & redundant PoE	24-110 VDC isolated & redundant PoE +
Environment	-20°C to +60°C	-20°C to +60°C	-40°C to +70°C	-40°C to +70°C	-25°C to +70°C or -40°C to +70°C
	IP30	IP30	IP66	IP66	IP66
Security	Firewall, DoS, https, MAC filtering, WPA/WPA2-Personal & Enterprise (IEEE 802.1X/RADIUS), WEP, tunnels L2 (GRE), VPN (OpenVPN), SNMP V3, client isolation in AP mode				
Ethernet routing	Multicast (PIM), IP redundancy (VRRP), NAT router, router (LAN, WAN, WLAN, WWAN)				
Ethernet networking	Frames filtering, bridge, repeater, STP/RSTP, VLAN, DHCP (server & client), DNS relay, WMM QoS				
Administration	http, https / SNMP agent (V1, V2C, V3) / WaveManager administration software				



Why choose ACKSYS ?

> RELIABILITY AND ROBUSTNESS

ACKSYS' products are designed to be used in harsh environment, this is why their manufacturing components are carefully selected, controlled and submitted to endurance tests. They come with a 5-year or lifetime warranty.

> LONG LASTING PRODUCTS

In order to provide long lasting solutions to its customers, ACKSYS works closely with its suppliers to foresee any eventual obsolete products and thus back-up its product line to avoid any stock rupture. ACKSYS also pay attention to develop products compatible with existing solutions.

> RELEVANT SOLUTIONS

ACKSYS develops tailored solutions designed to fit its customers' specific business needs or unique application environment and is also able to adapt its products upon request. All ACKSYS' products are compliant with the standards in the various targeted markets.

> CUSTOMER SERVICE COMMITMENT

ACKSYS has developed a solid pre-sales and after-sales process to ensure that customers receive the highest level of support at every stage of their projects. ACKSYS commits to provide state-of-the-art technology, products and training to keep its customers, distributors and VARs in the forefront of the communication age.

ACKSYS
COMMUNICATIONS & SYSTEMS

Since 1984, ACKSYS Communications & Systems has acquired a strong know-how in designing and manufacturing industrial data communication solutions (WLAN / LAN / serial).

Its expertise and high quality standards allows it to meet the most severe requirements in transportation (rail & road), industrial (M2M IIoT, automation), military (marine, land, air), aeronautics, mining (underground and above ground), oil & gas and environment (renewable energy, water, waste water).

Its inbuilt engineering, technical and commercial teams are able to meet accurately the expectations of its customers and assist them from the definition of their needs to the deployment. Thanks to a qualified and structured distribution network, ACKSYS is present on the five continents and can therefore meet any industrial application need, any time.

ACKSYS Communications & Systems

Z.A. Val Joyeux - 10, rue des Entrepreneurs - 78450 Villepreux - France

Phone : +33 (0) 1 30 56 46 46 - Fax : +33 (0) 1 30 56 12 95 - Email : sales@acksys.fr

www.acksys.fr