

**Anybus**<sup>®</sup>  
BY HMS NETWORKS

Wireless connectivity solutions



With Anybus you get true industrial-grade wireless connectivity for your machines, systems and factories



**Hms** Connecting Devices<sup>™</sup>



# Connect with the leading experts in industrial wireless communication

Focus on the growth and evolution of your core business, without worrying about how to obtain robust and secure wireless connections. You can rely on Anybus, the most widely used brand for industrial network connectivity.

Get support from the world leading experts in industrial communication, guiding you from your first inquiry throughout the product life cycle.

Award-winning Anybus technology: Our core technology has been voted best-in-class by both analysts and users.

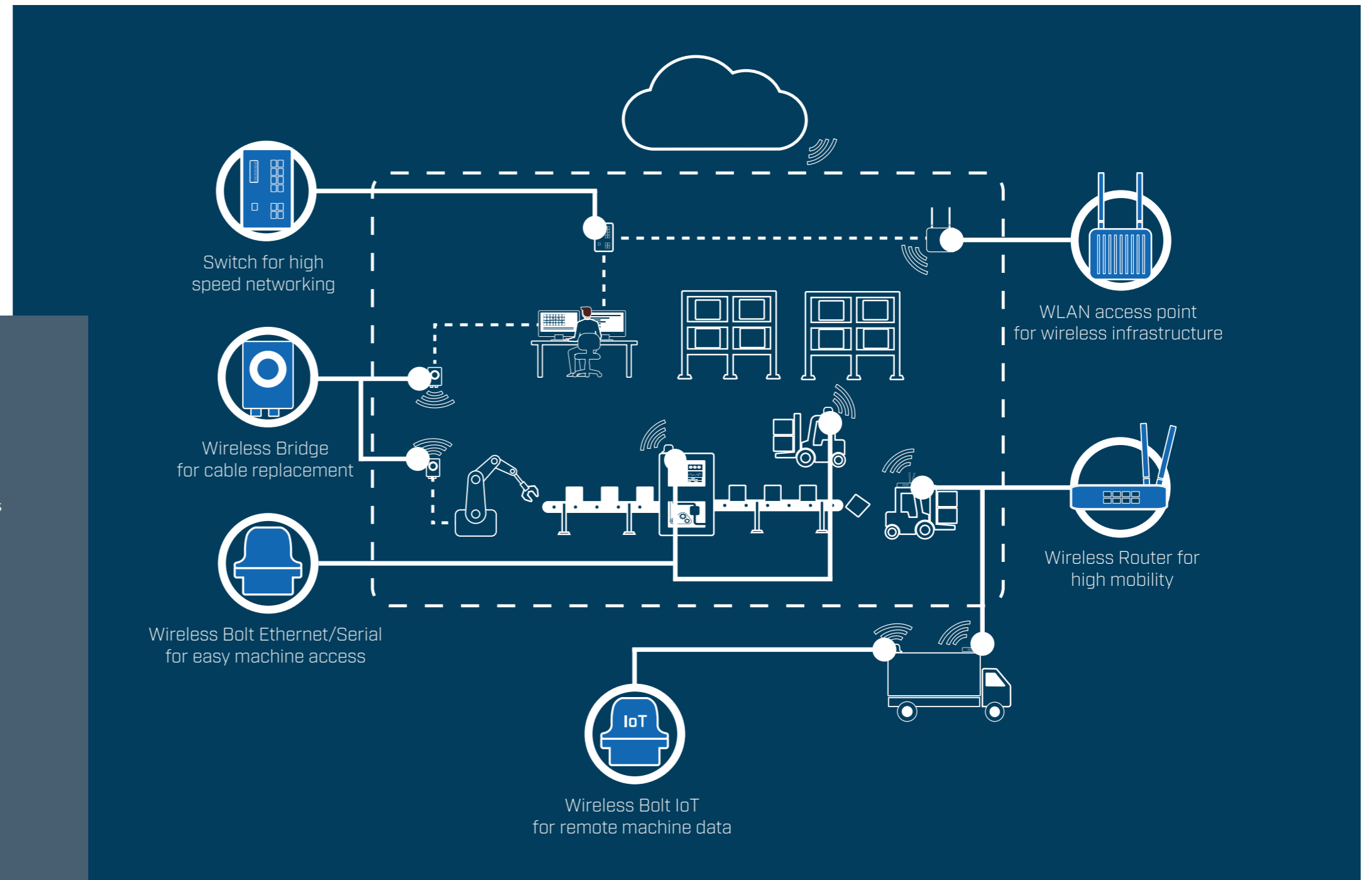


# Prepare for the future by going wireless with HMS Networks

Anybus Wireless - powerful industrial wireless solutions for all applications in the modern factory.

Factory floors, warehouses and other industrial environments are complex and challenging places for wireless networking. The equipment often needs to operate in dusty areas, extreme temperatures or in locations with a lot of different disturbances like moving objects. A wireless network can transform your operations in a very positive way, but only if it is powerful and stable enough. The Anybus Wireless Solutions were developed with this in mind, to meet the demands of your industrial applications.

Working seamlessly together, Anybus Wireless Solutions cover every aspect of modern industrial requirements for infrastructure, machine access and cable replacement.



# Anybus Wireless Bridge

- for replacement of serial or Ethernet cabling with a robust wireless connection



## Unwire!

Anybus® Wireless Bridge™ is ideal for system integrators needing to establish a robust wireless connection for industrial use. The Wireless Bridge is often used in pairs as a cable replacement, but can also be used as an access point connecting up to seven clients.

## Bridges industrial protocols

Use the Anybus Wireless Bridge to create a wireless connection in a PROFINET, EtherNet/IP, Modbus-TCP, BACnet/IP network or any other TCP/IP-based protocol. You can use the same hardware for both Bluetooth and WLAN communication. There is also a separate version making it possible to bridge serial RS-232/422/485 communication over Bluetooth.

<b>Range</b>	Up to 400 meters
<b>Mounting</b>	DIN-rail or wall-mounted
<b>IP class</b>	IP67
<b>Configuration</b>	Push-button or web-based
<b>Connector</b>	M12 (DSUB on serial version)
<b>Wired</b>	Ethernet
<b>Wireless</b>	WLAN, Bluetooth and Bluetooth LE
<b>Antenna</b>	Three internal antennas or one external

# Anybus Wireless Bolt

- for wireless machine access and simple mobility

Wireless Bolt Serial



Wireless Bolt Ethernet

## Make machines easy to access

Anybus® Wireless Bolt™ is ideal for machine builders wanting to enable wireless access to their machines. The Wireless Bolt is mounted on the machine or the cabinet and connects to the application via Ethernet or serial communication.

## All-in-one solution

With Anybus Wireless Bolt you get an all-in-one package featuring connector, communication processor and integrated antenna in the same unit, with an exterior IP66/IP67 protection class.

## Improve outdoor connectivity

The white version of Wireless Bolt - the “Sunbolt” - absorbs 30% less sunheat than the black Wireless Bolt, making it a perfect fit for outdoor applications.

<b>Range</b>	Up to 100 meters
<b>Mounting</b>	Screwed onto the machine/cabinet (M50 hole, 50.5 mm)
<b>IP class</b>	IP66/IP67 top side (IP21 bottom side)
<b>Configuration</b>	Web based, AT Commands or Easy Config modes
<b>Connector</b>	2x9-pin plug connector alternatively 3-pin power connector and RJ45 connector with PoE (inside the machine).
<b>Wired</b>	Ethernet or Serial RS232/485
<b>Wireless</b>	WLAN, Bluetooth and Bluetooth LE
<b>Antenna</b>	One internal antenna

# Anybus Wireless Routers

- for high speed wireless connections and full mobility



## Industrial grade wireless connectivity

The Anybus Wireless Routers are ideal for high-speed WLAN and LTE connectivity. Advanced routing functionality allows you to segment your network and protect mission critical data. An extensive range of redundancy technologies ensures uninterrupted operations. The ruggedized design makes the routers ideal for a wide variety of industrial applications.

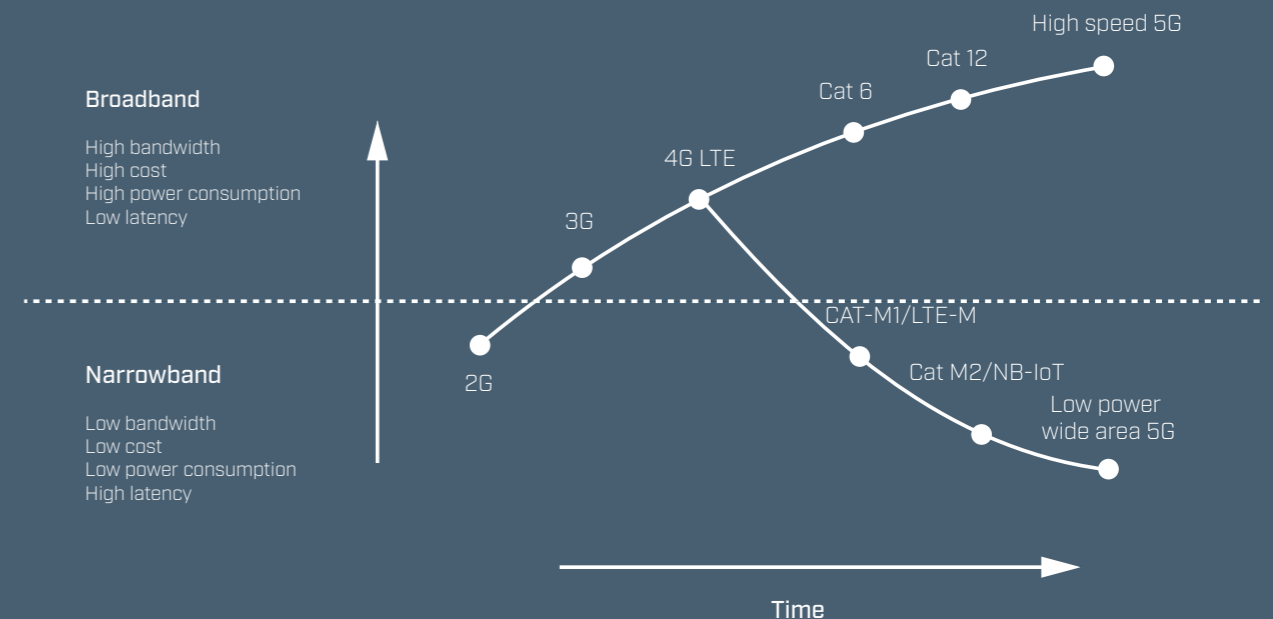
## World wide and futureproof coverage

The Wireless Routers can be used world-wide, independent of regulatory domains. Upcoming additions to this range will also include 5G-ready cellular routers.

<b>Cellular</b>	LTE Cat.4 2x2 MIMO, 4G/3G/2G Fall Back LTE-FDD: B1/B2/B3/B4/B5/B7/ B8/B12/B13/B18/B19/B20/B25/B26/B28 LTE-TDD: B38/B39/B40/B41 WCDMA: B1/B2/B4/B5/B6/B8/B19
<b>WLAN</b>	Selectable 2.4GHz or 5GHz- IEEE 802.11ac/a/b/g/n
<b>Ethernet</b>	LAN: 8 x 10/100Base-TX RJ45, Auto Nego- tiation, Auto MDI/MDI-X WAN: 1 x 100/1000Base-T RJ45, Auto Negotiation, Auto MDI/MDI-X
<b>Mounting</b>	DIN-rail
<b>IP class</b>	IP31
<b>Configuration</b>	CGI WebGUI, SSH, Telnet, SNMP, HTTPS

# 5G just around the corner

With the arrival of 5G, the manufacturing industry faces its biggest transformation yet. Safer, flexible and more efficient manufacturing systems will be possible thanks to the ultra-low-latency and reliability of 5G connectivity.



## It's not only about speed

The standardization of 5G is ongoing within 3GPP. At the same time vendors are trying out the technology in selected factories around the world. The initial phase of 5G deployment is based on 3GPP release 15. This release is primarily focused on enhanced mobile broadband (eMBB) and is mainly intended for early deployment of residential wireless broadband service.

3GPP release 16 will be the release covering Ultra-Reliable Low Latency Communications (URLLC). This release is intended to be ready at the end of 2019. 5G radio modules and network infrastructure supporting release 16 are expected early 2020. Deployment in factories will follow later in 2020, starting with AGVs and mobile workers.

# Anybus Wireless Bolt IoT

- for wireless access to remote applications anywhere



## Get industrial grade Internet connectivity anywhere

The Anybus Wireless Bolt IoT enables simple and efficient access to good cellular LPWA (Low Power Wide Area network) connectivity, avoiding antenna cable loss. The Wireless Bolt IoT is up-to-date with the latest LTE standards NB-IoT and CAT-M1. The Bolt IoT uses a 2G (GPRS/EDGE) fallback mechanism for deployment almost anywhere in the world.

## Low power usage

Low power/sleep mode is perfect for connecting remote equipment powered by battery, wind or solar panels.

<b>Data speeds</b>	Peak Download Rate Cat-M1: 300kbps, NB-IoT: 27kbps
<b>Mounting</b>	Screwed onto the machine/cabinet (M50 hole, 50.5 mm)
<b>IP class</b>	IP67 and UL NEMA 4X for top (outside the host), IP21 for bottom (inside the host)
<b>Configuration</b>	1. Accessing the built-in web pages via Ethernet. 2. Sending REST-commands via Ethernet.
<b>Connector</b>	RJ45 Ethernet/PoE, 3 Pole screw connector for power
<b>Wired</b>	Ethernet
<b>Wireless</b>	4G LTE: Category Cat-M1 and NB-IoT. Frequency Bands B1, B2, B3, B4, B5, B8, B12, B13, B17, B18, B19, B20, B26, B28 2G: EDGE, GPRS 850, 900, 1800, 1900

# Anybus Infrastructure

- for a robust and reliable backbone to your wireless network



## Create a WLAN infrastructure with Anybus Access Points

The Anybus Wireless LAN Access Point allows users to set up an industrial wireless infrastructure. It is available in two versions, one for IP30 (indoor) applications and one for IP67 (outdoor), both support Wi-Fi 5(IEEE802.11ac) and MESH.



## Switches for ultra-high data throughput

The intelligent Anybus Switches provide full Gigabit and ultra-high throughput. Multiple redundancy and cyber security features enable a highly reliable and secure network.

## Supply your products with power through the Ethernet cable

The Anybus Power over Ethernet Injectors make it possible to supply a product with power through an Ethernet cable, removing the need for additional power cables.

