Anybus Edge Gateway with Switch

With Anybus Edge Gateways, data from industrial devices and machines can be accessed in an easy and secure way, also allowing full data and device management over the application lifecycle. The Edge Gateways enable edge intelligence, intelligent decentralized operations to be executed close to the data sources. From the gateways, user-defined data is provided via HMS Hub to the cloud over a secure connection. Perfect for monitoring applications, the solution also enables all connected industrial equipment to be controlled from IoT applications in a smart way.

FEATURES & BENEFITS

- HMS Hub connectivity
- Enable easy remote control and management
- Provide Modbus-TCP client/server and Modbus-RTU master/slave interfaces
- Enable OPC UA, MQTT, SNMP, SNTP communication
- Powerful graphical edge intelligence design tool
- Simple web configuration interface
- Firewall, OpenVPN & password protection
- NAT routing
- TLS data encryption
- HTTPS port usage
- Device initiated connections
- Central or local device management
- Mass deployable updates
- Real-time status information
- Alerts and automatic responses

CONNECTIVITY

MODBUS-RTU
- 4096 values (up to 8192 values including array members)
- Modbus-RTU master/slave
- Up to 128 devices

MODBUS-TCP
- 4096 values (up to 8192 values including array members)
- Modbus-TCP client/server

OPC UA SPECIFICATIONS
- Supports Discovery Services
- User name and password authentication
- Security policy Basic256Sha256 / Basic128Rsa15 / None

MQTT SPECIFICATIONS
- MQTT client acting as publisher/subscribers
- MQTT version 3.1 - 3.1.1
- Last Will and QoS 0-2 supported
- User name and password authentication
- TLS

SNMP MANAGER
- Up to 128 agents and 4096 values Trap receiver

NETWORK CONNECTIVITY

- OpenVPN client: Integrate the device into a virtual private network
- DHCP server: Up to 100 clients, up to 20 static leases
- NAT: Route traffic between a local (internal) and a global (external) network, up to 1000 mappings, up to 50 static mappings
- Firewall: Filter incoming traffic, up to 1000 rules (including dynamic rules for outgoing traffic), up to 50 static rules

SECURITY

Secure data at every level

Protecting the data on the journey between the factory floor and the enterprise software is only part of the story. Device and data security is an ever-growing concern in our day to day business. True security must be present at every level in an end to end solution. It would be no benefit to encrypt the data transfer if the value in the payload is already compromised. Data must be handled with care from the point it enters a system until the point it leaves.

**Security features of Anybus Edge**

- Firewall, OpenVPN & password protection – Controlling access to the devices is paramount in security. Access is not just about stopping connections but also ignoring them completely – to not be brought down by denial of service attacks.
- Root access authentication – Controlling the root access to a system ensures certain routines can never be interfered with.
- TLS data encryption – Protecting privacy and data integrity with strong encryption means that data gets to where it needs to be without being manipulated.
- Standard port usage – The device pushes and pulls data utilizing the outbound HTTPS connection enabling easy integration with standard firewalled environments.

Manage your devices to be ready for the threats of tomorrow

There exists an ever changing landscape today in the world of security. With our new-found access to global libraries of features and software, we must be prepared to maintain the integrity of a system by keeping it up to date and protected from threats. The largest security threat to any system is an out of date device with a known vulnerability. The concept of a fully hardened device that will be able to survive in the field without updates and feature enhancements is already a debunked myth. By providing all levels of update capability, the Edge system is designed to keep you protected into the unknowns of the future.

ECOSYSTEM
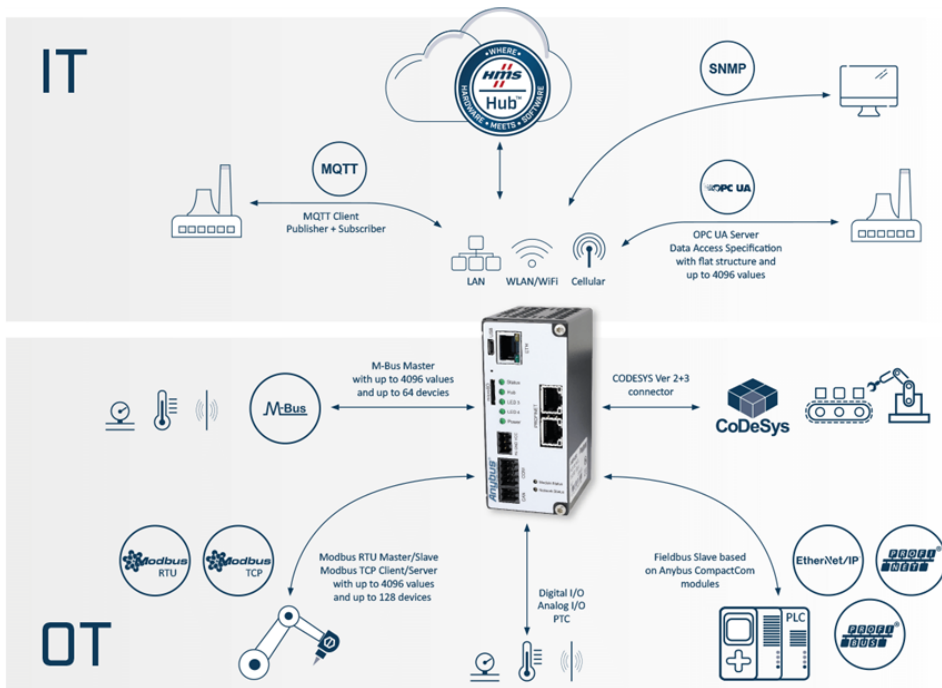
CONFIGURATION

Sequence

The Anybus Edge Gateways are built for ease of use. They feature HMS Sequence, a powerful graphical programming tool, to build your desired on-device Edge Intelligence. Configuration and deployment can be done locally or remotely via a simple web interface.

For detailed information about programming please visit the configuration section on the product support page.

TECHNICAL SPECIFICATIONS

GENERAL

Software	
Operating System	IPC@CHIP RTOS-LNX Real-time operating system
HMS Sequence editor and runtime	Visual programming editor running on the internal web server - I/O mapping editor - Up to 8192 I/O values - Up to 1024 portal variables

Technical Details		Standard
Dimensions (L•W•H)	100 series: 79 x 46 x 107 mm 140 series: 79 x 65 x 107 mm	
Protection class	IP20, NEMA rating 1	IEC 60529
Enclosure material	Continuously hot-dip aluminium-zinc coated steel	
Installation position	Vertical position	
Mounting	DIN rail (35•7,5/15)	EN 50022

Certifications		Standard
UL	File number: Pending	UL 508 Ind. Cont. Eq.
CE	2014/30/EU (EMC)	IEC 61000-6-3 IEC 61000-6-2 IEC 62368-1

Electrical Characteristics	
Power	24 VDC, BL 3.50/03 connector +- 15 %
Current consumption	< 0.4 A

Hardware Characteristics	
Reverse voltage protection	Yes
Short circuit protection	Yes

Environmental Characteristics	
Operating temp	0 to +55 °C (+32 to +131 °F)
Storage temp	-20 °C to +60 °C
Relative Humidity	5 % to 85 % relative humidity, non-condensing

Immunity and Emission for Industrial Environment		Standard
Electrostatic discharge	+-4 kV contact, +-8 kV air	EN 61000-4-2
Electromagnetic RF fields	10 V/m 80 MHz - 1 GHz 3 V/m 1,4 GHz - 2,0 GHz 1 V/m 2,0 GHz - 2,7 GHz	EN 61000-4-3
Fast Transients	+-2 kV DC, +- 1 kV signal	EN 61000-4-4
Surge protection	+- 0.5 kV CM / +-1 kV DM on DC, +-1 kV signal	EN 61000-4-5
RF conducted interference	10 V/rms	EN 61000-4-6
Emission (at 3 m)	0.15 MHz – 0.5 Mhz 40-30 dBμA/m (QP) 30-20 dBμA/m (Avg) 0.5 MHz – 30 Mhz 30 dBμA/m (QP) 20 dBμA/m (Avg)	EN 55016-2-3

Single Pack Accessories
Installation sheet

SECURITY

Encryption	TLS 2.3

Content of delivery

- Gateway
- Quick start documentation
- Connector terminals
- Power supply **not** included

Ordering Information

Order code	ABE04005

Quick start documentation, USB configuration cable are included. Configuration software is available for download.

Power supply is **not** included. 3 year guarantee. For purchasing instructions and terms and conditions, see: → How to buy