Anybus ®
BY HMS NETWORKS

Anybus Edge 網關 PROFINET LTE Codesys

借助 Anybus 邊緣網關，可以輕鬆安全地訪問來自工業設備和機器的數據，還可以在應用程序生命週期內進行全面的數據和設備管理。Edge 網關支持邊緣智能、智能分散操作，可以在靠近數據源的地方執行。從網關，用戶定義的數據通過 HMS Hub 通過安全連接提供到雲。該解決方案非常適合監控應用，還可以通過物聯網應用以智能方式控制所有連接的工業設備。

特點與優勢

- HMS 中心連接
- 實現輕鬆的遠程控制和管理
- 提供Modbus-TCP客戶端/服務器和Modbus-RTU主/從接口
- 啟用 OPC UA、MQTT、SNMP、SNTP 通信
- 強大的圖形邊緣智能設計工具
- 簡單的網頁配置界面
- 防火牆、OpenVPN 和密碼保護
- NAT路由
- TLS 數據加密
- HTTPS 端口使用
- 設備發起的連接
- 中央或本地設備管理
- 可大規模部署的更新
- 實時狀態信息
- 警報和自動響應

連通性

MODBUS-RTU
- 4096 個值（最多 8192 個值，包括數組成員）
- Modbus-RTU 主/從
- 多達 128 個設備

MODBUS TCP
- 4096 個值（最多 8192 個值，包括數組成員）
- Modbus-TCP 客戶端/服務器

OPC UA 規範
- 支持發現服務
- 用戶名和密碼認證
- 安全策略 Basic256Sha256 / Basic128Rsa15 / None

MQTT 規範
- MQTT 客戶端充當發布者/訂閱者
- MQTT 版本 3.1 - 3.1.1
- 支持 Last Will 和 QoS 0-2
- 用戶名和密碼認證
- TLS

SNMP 管理器
- 多達 128 個代理和 4096 個值陷阱接收器

網絡連接

- OpenVPN 客戶端：將設備集成到虛擬專用網絡中
- DHCP 服務器：最多 100 個客戶端，最多 20 個靜態租用
- 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

LTE/4G
- LTE Cat. 4 / Cat. 1
- Versions for Europe, North America, and Asian Pacific
- External Antenna Connector

PROFINET
- Complete PROFINET RT and IRT functionality specification 2.3
- Max 512 bytes of Input and 512 bytes of Output data
- Acyclic Data exchange (Record Data Requests)
- Baud rate 10/100 Mbit/s Isochronous cycle times 0.25 to 4 ms (25 µs increments)
- SNMP-MIBII support
- TCP/IP Configuration via DCP (Discovery and Configuration Protocol)
- LLDP (Linked Layer Discovery Protocol)
- Support for I&M (Identification & Maintenance)
- Supports Media Redundancy Protocol (MRP)
- PROFINET uplink configuration via .GSDML file
- Dual port cut-through switch allowing for a daisy-chain topology
- Dual RJ-45 ports available simultaneously
- PROFINET Asset Management

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
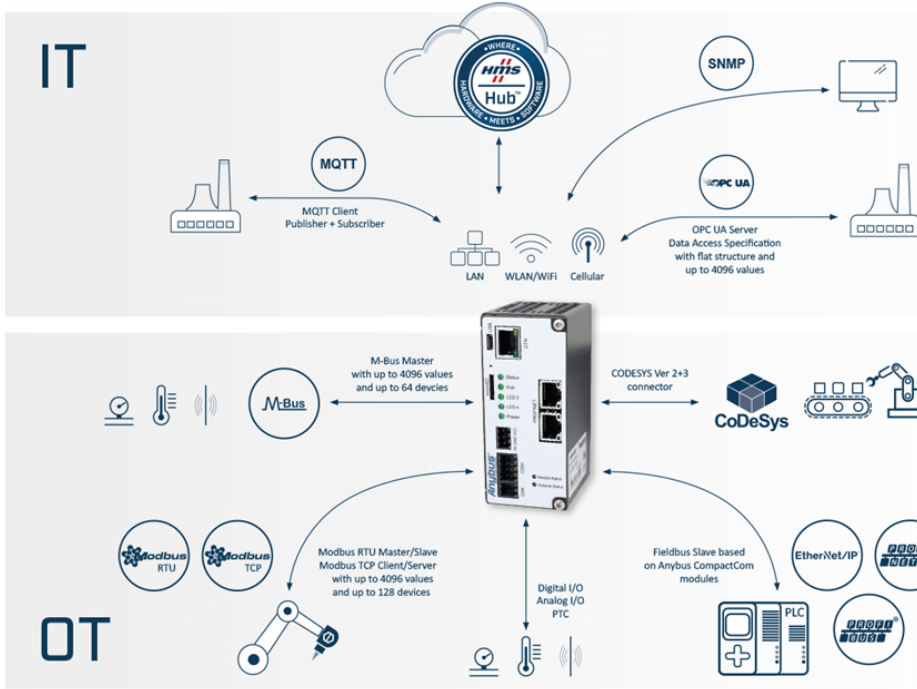
CONFIGURATION

Codesys

For advanced programming needs, the Anybus Edge Gateways provide a Codesys pre-licensed configuration version. The traditional Edge Sequence configuration interface is replaced by Codesys and can take advantage of the full range of features and possibilities of the system.

For detailed information about programming with Codesys 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

4G/LTE

Standard	LTE Cat. 4/ Cat. 1
Band Support - Europe Version	B1,B3,B7,B8,B20,B28A
Band Support - North America Version	B4,B2,B12,B14,B66

Band Support - Asian Pacific Version	B1,B3,B5,B8,B9,B18,B19,B28
SIM card	Full-size (1FF) Push/push slot on the back
Antenna interface	SMA female

PROFINET

Standards	2.31
LED indicators	Available on the front of the product indicating Module Status and Network Status of the PROFINET network.
Connectors	2 x RJ45 100 Mbit/s
Galvanic isolation	YES

交貨內容

- 網關
- 快速入門文檔
- 連接器端子
- **不**包括電源

訂購信息

訂購代碼	ABE04151（歐盟） ABE04187（北美） ABE04223（亞太地區）

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