

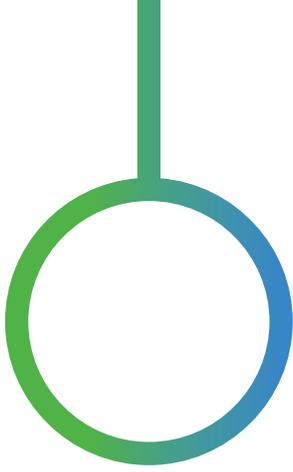
BEHRTECH

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Best-in-Class Wireless Connectivity for IIoT

Deploy a robust, scalable and cost-effective IIoT network with the MYTHINGS™ platform



The Most Reliable, Scalable & Integrable Wireless Connectivity Platform for Industrial IoT

MYTHINGS™ by BehrTech is a hardware agnostic, interoperable and integrable wireless connectivity platform purpose-built for massive scale industrial and commercial IoT networks. At the core of MYTHINGS is MIOTY™ (TS-UNB), the only low power, wide area network (LPWAN) technology standardized by ETSI (TS 103-357) for production level robustness, capacity and power efficiency. With a unique interoperability approach, the MYTHINGS platform can be easily integrated into any legacy environment, reducing costs and complexity while fostering data control and ownership in IoT deployments.

What Makes MYTHINGS Different?



QUALITY OF SERVICE

Incorporating MIOTY, MYTHINGS is designed to withstand heavy co-channel interference in the license-free spectrum, delivering industrial

grade reliability. Geared for physically demanding environments, it also has superior penetration capabilities to ensure consistent connectivity underground, over challenging topology and through metal, rebar obstructions.



MASSIVE SCALABILITY

Maximum spectral efficiency enabled by MIOTY allows for the huge capacity of MYTHINGS networks. Aggregating millions of daily messages using only a single base station, MYTHINGS networks easily scale with the rising number of IoT devices while requiring the least infrastructure to be deployed.



EXCEPTIONAL MOBILE CONNECTIVITY

Unlike legacy LPWAN solutions, which are intended for stationary use only, MYTHINGS allows for data collection from mobile, high-speed devices at up to 120 km/h velocity, unlocking a wide array of connected worker and fleet management applications.



EXTENSIVE COVERAGE

With a range of over 15 km, only a few MYTHINGS base stations are needed for full coverage in vast areas like industrial complexes, campuses or oilfields. Flexibility in base station deployment also enables you to cover previously unfeasible, hard-to-reach locations and cellular “blind spots.”



ULTRA-LOW POWER CONSUMPTION

Optimized for power efficiency, MYTHINGS sensors can support the longest battery life of any LPWAN solution on the market. Avoid the hassle of battery replacement and recharging on a monthly, weekly or even daily basis.



OPEN, HIGHLY INTEGRABLE ARCHITECTURE

Introducing an open, interoperable approach, the MYTHINGS platform can be deployed on cross-vendor devices and integrated into the application systems of your choice. It also comes with highly configurable network management software and native cloud support for easy and flexible end-to-end deployments.



END-TO-END SECURITY

Built-in AES 128 encryption and a versatile data authentication mechanism secure network-level communication, while Transport Layer Security (TLS) protocol protects application-level data transfer.



NETWORK AND DATA OWNERSHIP

By eliminating dependence on vendor specific hardware and third-party managed networks, MYTHINGS provides you with full control and authority over your IIoT devices, network and data.

The Power of Telegram Splitting

At the core of the MYTHINGS software platform, is MIOTY which leverages Telegram Splitting (TS UNB) technology. This new communication approach divides a message into multiple subpackets and transmits them at different times and frequency patterns. Dramatically reduced on-air time combined with pseudo-randomness and superior channel coding provide unrivaled robustness against external interference while maximizing overall system capacity.



MIOTY (TS UNB) is the only LPWAN technology standardized by the European Telecommunication Standardization Institute (ETSI). It is included in ETSI's technical specification for low throughput networks (TS 103 357).

The MYTHINGS Network Architecture

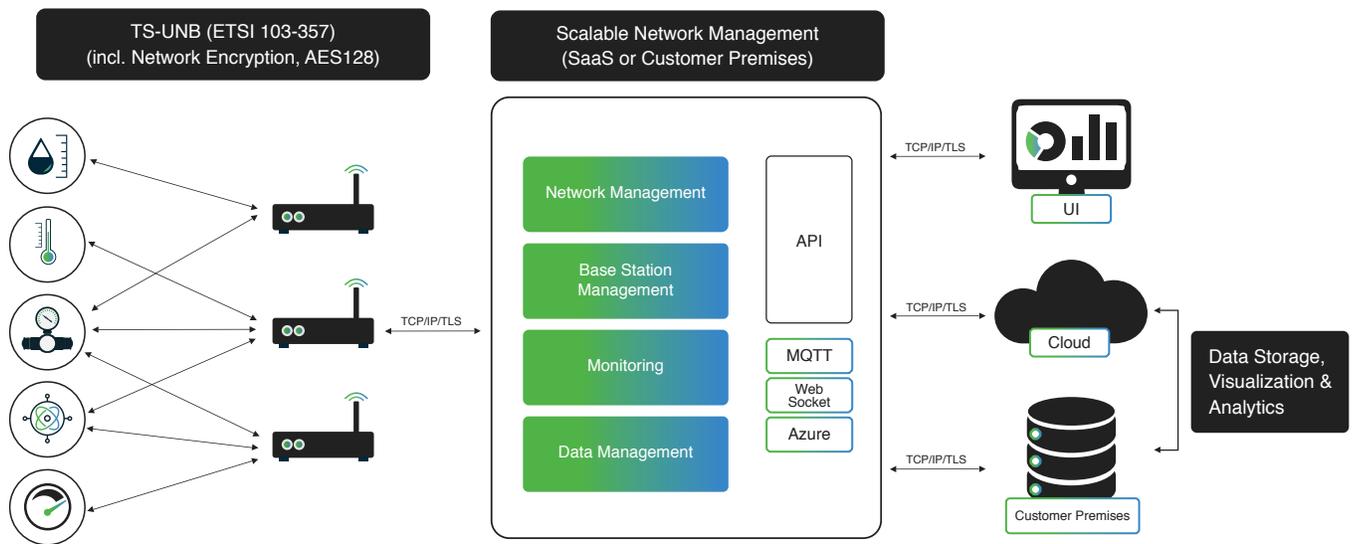
MYTHINGS networks employ a star topology. At least one base station aggregates data from a massive number of remote sensors. Embedded with flexible interfaces, the base station then relays data to users' preferred backend systems – whether on-premises data centers and historians or the cloud. An end-to-end network management software is additionally included for convenient management of your entire IIoT value chain.

MYTHINGS Sensors

Sensors run the MYTHINGS Library, a small footprint and power optimized implementation of the MIOTY (TS-UNB) communication stack. The MYTHINGS Library supports inexpensive off-the-shelf, sub-GHz transceiver chipsets from the world's leading chipset manufacturers like Silicon Labs.

MYTHINGS Base Station

Running MYTHINGS OS, the base station is integrated with the MIOTY receiver protocol, MYTHINGS cloud connect and multiple APIs (e.g. MQTT, REST etc.). MYTHINGS OS supports industry standard IIoT gateways in combination with off-the-shelf Software Defined Radios (SDR).



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