



Low-power wide-area network / LoRa

LPWANs, in particular LoRa networks, are essential to the Internet of things and enable sensors to be globally networked. These data networks use licence-free frequency bands and the sensors operate for more than ten years on the same batteries. Thanks to our experience, we have all the necessary expertise to build a carrier-grade network that meets professional requirements.

Competent partner for forward-looking LoRa networks

A carrier-grade network is an essential requirement for professional services: availability, security, performance and management are all critical in this context. Thanks to our successful collaboration with notable telecom providers and manufacturers, we not only bring to the table many years of experience but also extensive expertise in the area of network infrastructure. From conceptual design and the implementation of scalable

POCs (proofs of concept) through to planning and operation, our services cover the entire value chain.

We serve as a competent partner who supports you in the realisation of your tailored telecommunication or network infrastructure solution with the guarantee of reliable coverage and performance.



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What are low-power wide-area networks?

Various devices use sensors to transmit individual pieces of information such as brightness, temperature, status, "in motion" or "at rest" within the LoRa low-power wide-area network (LPWAN). Thanks to its narrow bandwidth and robust modulation, this data network has an extremely large range, allowing it to penetrate deep into buildings or even underground. The sensors require little energy, enabling them to be used for more than ten years. This also keeps the network's emissions very low. Furthermore, low-cost and long-lasting maintenance expands the opportunities for new business models and service offers.

What are the advantages of LoRa LPWAN?

LoRa LPWANs are particularly suitable for linking battery-operated sensors in local to national networks. They use licence-free frequency bands so they can also be operated as private networks. The connection to gateways and a central network server creates a wireless network or a combination of various networks, which enables the implementation of new business cases. LPWANs are crucial for the IoT (Internet of things) and can be used in the following areas, for example.

Potential areas of application

- > Energy sector: Reading of water and electricity meters
- > Infrastructure and buildings: Building automation such as light, climate, heating and ventilation control
- > Ecology: Intelligent rubbish containers, e.g. notification when a container is full
- > Cities (smart city): Demand-driven lighting control, e.g. light based on people's movements
- > Mobility: Parking spaces with occupancy sensors
- > Healthcare: Digital hospitals that save energy and resources

Enkom provides you with comprehensive support

As a comprehensive provider of industry-specific solutions, Enkom has successfully implemented a broad range of ICT projects in recent years. Thanks to our product portfolio, many years of experience and implementation expertise, we can help you develop a tailored overall solution.