ACRIOS
SYSTEMS

Remote water meter and heat cost allocator readings in compliance with the EED

THE CLIENT AND HIS CHALLENGE

HANNSO s.r.o. is an exclusive sale representative of the Maddalena brand. Maddalena is an Italian manufacturer of water meters and heats cost allocators with a production of 3 million instruments every year within 7 production lines. As an exclusive distributor of the Maddalena water meters and heat cost allocators, HANNSO had to come up with a solution for the remote meter readings. This solution had to be EED compliant to support both their existing and new installations with a requirement to read meters of other vendors as well. The support of other vendors was crucial to provide customers with a complex solution for their needs and various types of installation.

THE ISSUE

The EED stands for the EU's **Energy Efficiency Directive**. It is a set of rules and obligations by which the European Union will achieve energy efficiency targets. Among other obligations, there is one that states that by the end of 2027 all of the water meters and heat cost allocators must be read remotely at least once a month.

The consumer must be informed actively about the monthly consumption. The company must inform the consumer by email or another notification tool about the consumption which makes it a complex issue the company needs to address and solve

With our customer HANNSO we had to find a solution which is:

- Easy to install with no training needed
- Supports multiple vendors and their meters
- Battery powered with a battery life of at least 6 years
- Not depending on any local network, such as WiFi
- Transparent with its pricing even at scale with no hidden fees involved
- Secure with the support of AES encryption

OUR SOLUTION

To meet the client's required solution, we have chosen the wM-Bus to NB-IoT converter system. The hardware is used with a device management platform via which we can offer services of remote configuration, and firmware updates to support new meters.
To have a Plug and Play solution we provide our

customers with services of remote configuration together with connectivity. This effectively means that our customer's customer has to only place a converter within an installation site. This is being done by screwing 2 screws into the wall and fixing the converter in place by doing so.
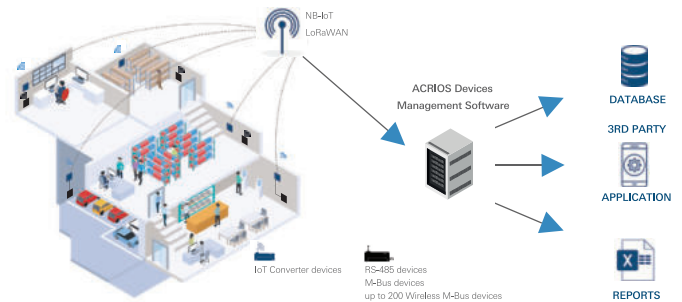
We have chosen this solution for 5 reasons:

1. Option to retrofit an existing installation

Thanks to using open wM-Bus communication, we can receive data from other vendors as well. This is a huge benefit to the customer as there is no need to change the meters themselves.

2. The integration flexibility

Within the project, we had to cover use cases in which we forward the data to various applications as well as export simple CSV files and send them to the customer's server. For this reason, we have created a device management platform that uses a converter only as a bulletproof collecting device and all of the data conversion is happening on the server-side. configuration, remote monitoring as well as connectivity is included. Even at scale.

3. Cost transparency

We provide our customers with a transparentbusiness model "pay per connected meter". Within the cost, the confi guration, remote monitoring as well as connectivity is included. Even at scale.

4. Future-proof approach

Within the architecture of the solution, the hardware - converter itself acts only as a collecting device that is agnostic to the used meters. By having an option to remotely do firmware updates through our device management platform, we can make sure that even in the future we will be able to keep up with existing trends when it comes to metering, new meters, and their protocols without a need to change hardware.

5. Robustness

With radio devices, mainly the ones mounted in metal cabinets or on metal objects - such are HCA - we can run into signal propagation issues and the further signal has to travel, the worse it gets. With the converter solution, we depend on the link budget between the meter and the converter. This makes the installation stable even with an increasing number of connected devices.

STATISTICS

15 minutes

It takes 15 minutes to fully install our solution.

6 years

The meters are being read once a day with a battery life of 6 years.

3 floors

One converter can cover 3 floors, but it depends on the material building is made of.

240 meters

One converter can receive up to 240 meters. In real-life conditions, we receive around 90 meters per converter.

CONTACT US

Meziříčská 2868, Rožnov pod Radhoštěm, 756 61, Czech Republic

e-mail: smetana@acrios.com, website: www.acrios.com