



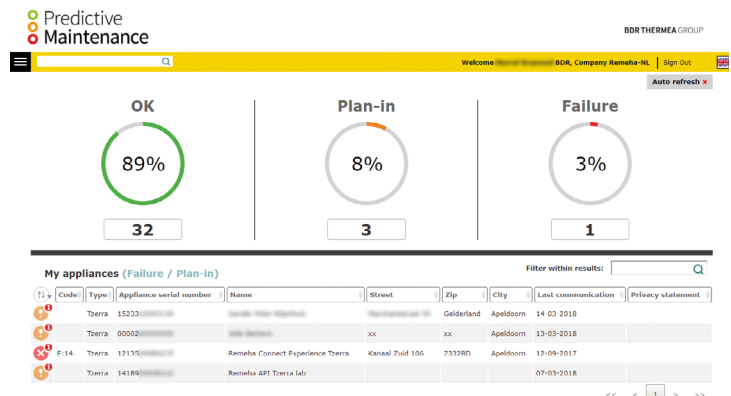
Remeha.Connect

Preventive maintenance by means of connectivity

As part of its roadmap, Remeha developed a digital service for its boilers which reduces any comfort-related complaints to a minimum. Remeha.Connect focuses on 'predictive' maintenance, ensuring that action is taken when a malfunction or an imminent malfunction is detected. The data provided by Remeha.Connect enables the installation engineer to analyze the malfunction and carry the required parts. This effectively minimizes any on-site surprises. In addition, the customer benefits from faster and more effective malfunction repairs, which will considerably reduce the likelihood of a repeat visit

The purpose of the Remeha.Connect Service is to minimize the number of hard malfunctions, thus ensuring that users experience less inconvenience and allowing service partners to create more efficient work planning (corrective, preventive and predictive).

Remeha uses connectivity and data to issue optimized advice regarding the usage and maintenance of its boilers.



The data provides insight into the way the systems are being used, and allows Remeha to develop new services. In addition, the marketing and product innovation departments can use the consumption data to introduce optimized and new versions of products to the market.

The implementation of the Remeha.Connect service consists of a Connect module which is connected to the boiler. ICT Groep uses

Microsoft's IoT cloud solution to connect this embedded device with the network, making the device's data available centrally.

The Microsoft Azure IoT Suite was chosen on purpose because of its reliability, safety and guaranteed performance, which are important quality aspects. By using the Microsoft IoT Suite, ICT can keep developing the Connect Service efficiently and continue to expand the service provision.

The implementation of IoT has allowed Remeha to expand its portfolio to provide services in addition to products. The IoT solution provides Remeha's customers with more flexibility and a higher level of satisfaction because malfunctions are being prevented and responses have become more adequate. This has enabled a supplier of heating products to transform into a proactive, innovative service provider that operates on the basis of big data. Whereas an installer used to only install a boiler and do an annual service check, he now provides a service: comfort.

ICT Energy's role

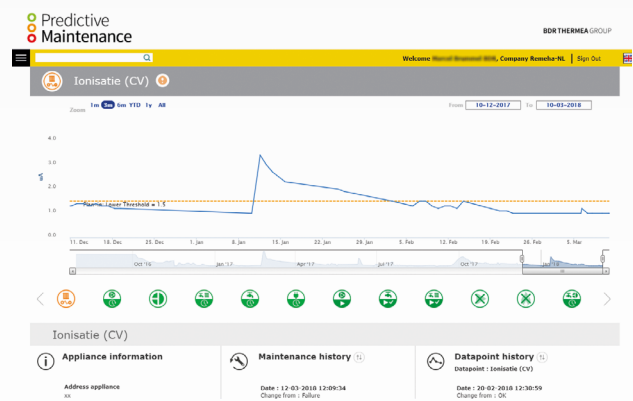
One of the special features of the IoT connectivity project is the strong collaboration between Remeha and ICT Groep. The working relationship between the two organizations has a long history and is based on mutual trust. In the process of drafting the business case within the digital roadmap, Remeha used ICT Groep's experience gained from other IoT projects. Because ICT had been involved in the project definition right from the start, it was able to provide flexible responses to changes due to the fact that the context was transparent for both parties. Remeha and ICT Groep shared the activities based on each organization's strong points. The embedded product, the GPRS gateway which is responsible for providing data access, was developed by Remeha. ICT Groep was

The Remeha.Connect Services was deployed successfully in May 2017. A large number of Connect modules are currently operational in the field, and preventive maintenance based on the data received is a fact.

Both parties are proud of the result and have described the achievement on YouTube:

[Remeha.Connect software solution by ICT Group](#)

responsible for realizing the entire back-end (collection, storage, business intelligence and display/reporting by means of conNXT concepts).



About Remeha

Remeha operates at an international level and was founded during the twenties of the previous century under the name Gerard van Reekum's Metaal Handel (Gerard van Meekum's Metal Trading). Currently, Remeha is an important player in the market of central heating systems and operates the largest central heating laboratory in The Netherlands, where the company is continuously pushing back the frontiers of technology.

Remeha is part of BDR Thermea. BDR Thermea Group operates worldwide in more than seventy countries. The BDR Thermea Group is the third largest player in the European market for heating and sanitation hot water systems.

For more information, please visit their website:

<https://www.remeha.nl/>



Keywords:

conNXT IoT platform, Azure IoT Suite (IoT Hub, Stream Analytics, Azure Functions), Connectivity (GPRS / GSM via our partner Tele-2, MQTT / AMQP), Big Data (Azure Data Lake, Machine Learning), Business Intelligence (PowerBI), ICT Mobile (Progressive Web Apps), Azure API management, PHP, ASP.net, VPN (secure) communications