

case study



Retail Branch Stores Brought Under Centralized Control

CHALLENGE

Dm-drogerie markt currently operates over 2000 stores in Germany. However, the path to this point consisted of solutions that were located in a network that was technically highly heterogeneous. For the expansion, a sustainable building management concept had to be created for all stores in order to minimize both lifecycle and energy costs. Furthermore, the experience of shopping was to be brought to the foreground through the relief of store employees and a significant improvement in comfort. Last but not least, an energy management platform was to be used to gain insight into the energy flows of each store in order to make the CO2 footprint transparent and to be able to work towards the goal of continuous optimization.

SOLUTION

Hörburger AG developed a standardized building services concept in cooperation with dm-drogerie markt, manufacturers of ventilation and air conditioning technology, and selected specialist engineers. This solution was not based solely on a new technical implementation; the role of defined processes and open communication between all parties involved was equally important.

For the first time, the building systems were based on electricity as the sole form of energy; district heating, gas or hot water generation were dispensed with entirely. All assets and their systems were equipped with intelligent interfaces, which made modern building automation possible in the first place. In addition to a standardized electrical sub-distribution system, a control cabinet was developed by Hörburger AG, which introduced the Niagara Framework®, an IoT solution that is still a technological pioneer in the entire industry today.

Hörburger AG continued to work on the cloud-based energy management platform QBRX, which is now ISO 50001 certified, in order to offer the original tasks of dm-drogerie markt from a single source. The QBRX connector software was developed for the Niagara Framework, which enables bidirectional communication of complex data sets between the building services controller in the store and the energy management platform. This software has become the centerpiece for using any Niagara Framework installation with QBRX.



FAST FACTS

Project Type: BMS, HVAC Integration

Building Type: Retail, 1,300 stores

Systems Integrated: HVAC, lighting, sub-metering

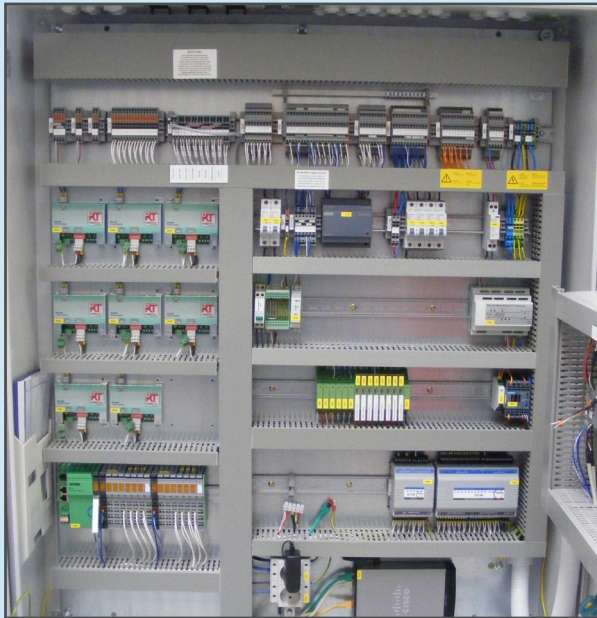
Number of Niagara Instances: 2,000

ADDITIONAL FACTS

- 1250 stores with Niagara 3.8
- 50 stores with Niagara 4.8, plus further expansion
- The Niagara Framework as middleware enables communication between Edge devices and cloud—no additional hardware required
- Intuitive operation of the building services by branch staff, expert access for external specialists
- Increased operating convenience, better energy efficiency, knowledge of all technical systems
- Customer-specific IT solutions enable Niagara networks over 2,000 distributed instances

BENEFITS

- Energy consumption transparency
- Simplified maintenance management
- Reduction of CO2 emissions
- Annual savings of more than 25% on energy costs at dm-drogerie markt
- Satisfied customers and employees confirm the shopping experience at a dm-drogerie markt store



“My experience shows that the higher-level control of less complex, but still durable and energy-efficient systems comes very close to this goal.

If we look at the life cycle of a building, we need a functioning energy management system that offers not only an evaluation but also real adjusting screws into the technology.

We can only succeed in this through the attitude of all those involved, functioning processes and the appropriate technologies, such as QBRX and the NIAGARA framework”

TINO ZANDER
Head of Product Management
Hörburger AG

RESULTS

This building technology turned out to be an ecologically and economically sustainable concept. Lifecycle costs were drastically reduced through simplified maintenance management. By using efficient technology in conjunction with the Niagara Framework, annual savings of more than 25% in energy costs as well as reductions in CO2 emissions were achieved. The introduction of QBRX provided dm-drogerie markt with the desired transparency of energy consumption and a management system that can communicate and also act seamlessly with all Niagara controllers in the stores. Hörburger AG developed the QBRX connector software, a building block that enables the entire Niagara community to use QBRX as their cloud-based energy management platform.

ABOUT HÖRBURGER

Hörburger AG offers comprehensive solutions in the fields of intelligent building and plant automation, control cabinet construction, retail facility management, energy management and machine automation. The company’s goal is the optimal networking and control of building, plant and machine technology to guarantee resource-saving, efficient and cost-saving operation. For the German version of this case study, visit <https://www.hoerburger.de/referenzen/details/retail-facility-management/dm-drogerie-markt/>

ABOUT TRIDIUM

For over 20 years, Tridium has led the world in business application frameworks – advancing truly open environments that harness the power of the Internet of Things. Our products allow diverse monitoring, control and automation systems to communicate and collaborate in buildings, data centers, manufacturing systems, smart cities and more. We create smarter, safer and more efficient enterprises and communities – bringing intelligence and connectivity to the network edge and back. Additional information about Tridium is available at www.tridium.com.



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