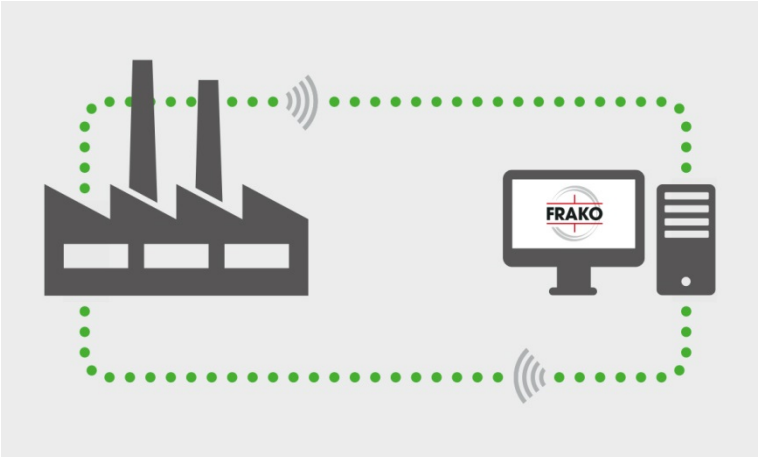
FRAKO Supervision Service in the Cloud

To make their electrical supply secure and reliable, many companies invest in power factor correction equipment, active or passive harmonic filters, and power quality and energy management systems. For these installations, it is important that the status data and measurement readings of parameters such as energy consumption, reactive power and harmonics are continuously monitored, polled regularly by data collectors and evaluated by specialized software. In this way, critical system conditions can be detected in good time and operational reliability thus ensured.

It makes good sense to automate this ongoing monitoring of all the data, including alarms and error messages, and to evaluate these by means of energy management systems. This can be done by the company itself or outsourced to an external service provider. With its Supervision Service, the power quality specialist firm FRAKO offers an individual and reliable remote maintenance solution customized to suit the network, thus relieving the customer of time-consuming on-site diagnostic work.



(Bidirectional communication between customer system and FRAKO SupervisionService)

Supervision Service makes tedious routine checks unnecessary.

For the effective monitoring of devices and systems, plus the installation of an energy management system, it is necessary to construct a flexible IT infrastructure with its associated server systems. However, these systems need permanent maintenance and monitoring; they require regular updates and extendable data storage capacity, continually updated protective mechanisms for data and network security, and an independent and

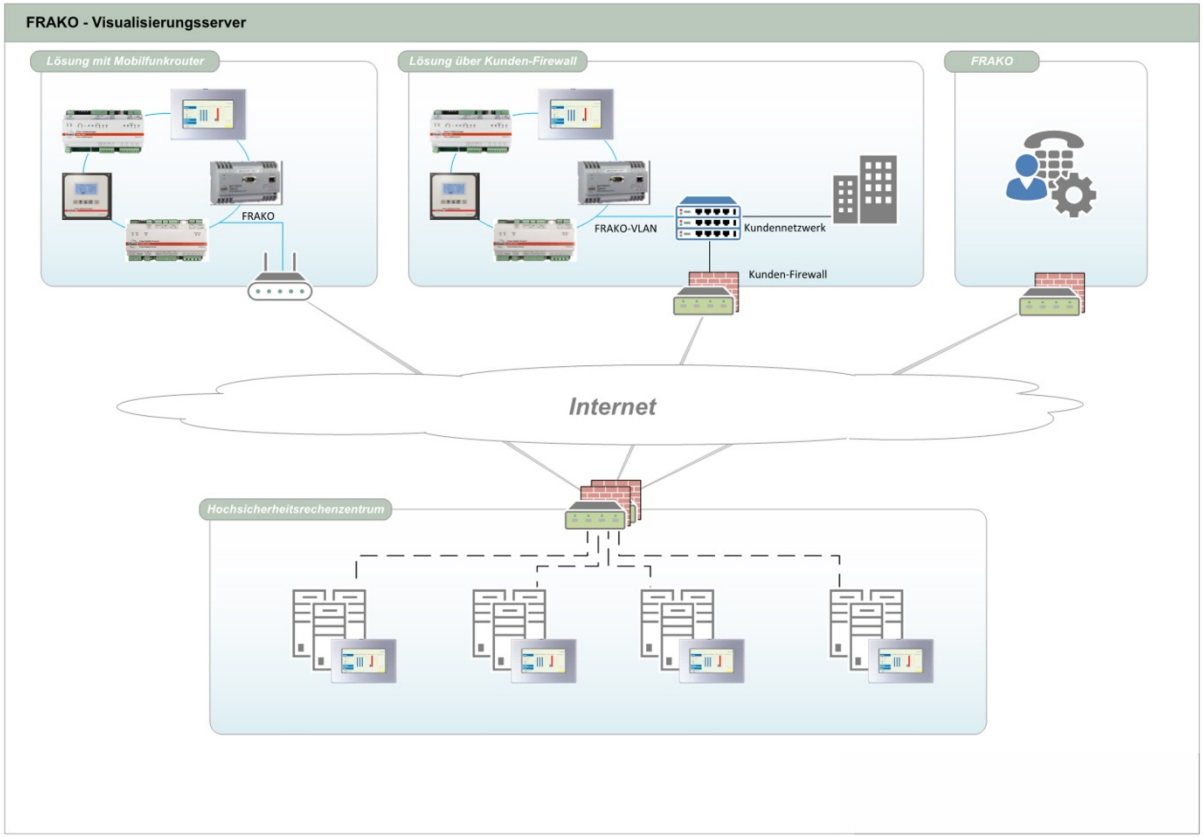
forward-looking network infrastructure. This represents a considerable cost- and labour-intensive investment, especially when large volumes of data are involved. An increasing number of enterprises are therefore deciding to entrust service providers with this task.
FRAKO's Supervision Service guarantees continuous remote monitoring coupled with a highly reliable server connection. The data are evaluated by analysis tools in the EMVIS 3000 software, when appropriate automatic messages and alarms being transmitted. In addition, FRAKO diagnosis specialists can quickly detect disturbances, interpret measurement readings and identify the interplay between various abnormalities. Any maintenance interventions required are initiated jointly with the customer. In order to relieve pressure on the IT infrastructure, FRAKO now offers reliable, highly available cloud solutions in cooperation with the specialist service provider HWI IT GmbH in Malterdingen, Germany. This enables companies to focus on their core activities and cut costs.

Lean network structure through common server solution

(source: Rothaus Baden State Brewery)

The Rothaus Baden State Brewery employs state-of-the-art machinery and process plant to produce German beers of the highest quality by traditional methods. However, the increasing levels of automation have also made the production process more sensitive to fluctuations and upsets in the supply of power and other utilities. For this reason, the company has for a long time continued to invest in maintaining power quality and ensuring the reliability of its electrical supply network. In addition to network analysis instruments, the brewery also installed active filters and power factor correction units, plus the FRAKO Energy Management System.
Previously, Rothaus archived all measurement readings and data on its own server, and FRAKO saved the information required for evaluation of the network and its Supervision Service on an external server. This double expenditure is now a thing of the past, since the IT specialist HWI made a highly reliable cloud facility with a joint server available to both companies, HWI also providing the required support and maintenance. For decades Rothaus has possessed a well-structured network of almost 150 different server systems, with

comprehensive security incorporated, making it possible to implement the HWI solution without a hitch. Even with this cloud facility in place, Rothaus retains sovereignty over its complete network, right down to the last detail, and can intervene at any time should this be necessary.



(Quelle: HWI IT GmbH)

Maximum IT security, even in the cloud

Many companies have great misgivings when considering remote maintenance solutions offered by external service providers, since sensitive data should not fall into the hands of third parties. Cloud facilities in the automation field are therefore a particularly delicate issue, because there is a direct impact on the reliability of the production processes.

HWI as IT service provider was able to convince the Rothaus management of its cloud concept. “When it is a matter of security, it is also a matter of trust. And this is achieved through transparency,” emphasizes Holger Wiedel, the founder and CEO of HWI, “Therefore

it is clearly delineated where which data are located, how they are safeguarded and who has what authorization to access them.” FRAKO's Supervision Service operates in an encapsulated server environment with IPsec VPN connectivity. With this separate network segment, it is ensured that even in the event of a possible zero-day attack at FRAKO, no direct connection into the Rothaus IT network can be established. In addition, the HWI cloud server is located in a special high security data centre equipped with state-of-the-art security measures.

Cost-effective for small businesses

Smaller operations with only a few data points in the field can also profit from the powerful performance of FRAKO's EMVIS 3000 evaluation software. It has multitenant capability, and its high computing power enables it to process the measurement data from several customers at the same time. Secure and personalized VPN access guarantees that each individual company can only view its own data, while nevertheless benefiting from the complete spectrum of FRAKO's Supervision Service. This makes the Supervision Service cost-effective and attractive even for smaller networks, an advantage that can for example play a major role in the auditing and certification of SMEs without straining their budgets.

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