

Case study: Agriculture



Benefits

- Quick and simple integration into existing IT infrastructure
- Additional services such as alarms notifications and data reports
- Capable to connect to older Siemens PLCs with the MPI/Profibus interface

"Many customers have such a positive experience that they want to keep the option of remote maintenance at any time."

André Remmelt, Technician at Börger

Remote maintenance in agricultural engineering systems

The name Börger stands for premium quality when it comes to separation technology. In order to guarantee it, the company sets very strict requirements of its partners and suppliers. This is why they have opted for solutions from HMS Industrial Networks for remote maintenance.

The medium-sized company boasts 290 employees at the headquarters in Borken and branches all over the world. Börger develops, produces and markets eccentric rotor pumps, chopping devices, separation technology, liquid discharge technology, stainless steel containers and agitation technology for a wide range of industries all over the world. The company's philosophy is driven by the uncompromising requirements in terms of quality, availability and service.

The customer's requirement is at the centre of everything the company does. Mike Eiting, repsonsible for business development at Börger, explains "We develop and build exactly what the customer requires for their system. We can provide an assembly which is ready for connection, or just the pump or the separator."

"Bioselect" has proven to be a real best-seller: the eccentric rotor pump in this device separates the liquid from the solid components of an original material. This is often used for slurry, for example, as it allows a significant reduction in volume. The solids pressed out make excellent litter for stalls or can be used as solids in biogas plants. The technology on which the Bioselect is based is as simple as it is clever. The mixture is fed in via a pump at optimum pressure and moved to the other end using a screw-conveyor. The liquid falls through a circulating sieve, while the solids are pressed against a disc with a flexible bearing at the end. The degree of drying can be varied as a function of the pressing force.

PLC remote access

There is a PLC to govern speeds and pressures. And remote maintenance has been key from the outset: "The applications on site do not always stay the same, so it is good when you can react without somebody having to drive to the customer," explains Dominik Finke from the electronics workshop. For example, the composition of the slurry is very much dependent on the animal feed. "If changes need to be made, then we can provide quick, simple support,".



Benjamin Ochsendorff from Wachendorff with Börger experts André Remmelt, Mike Eiting and Dominik Finke.



The control cabinet for this Bioselect contains an Ewon Cosy 131 router from Wachendorff and a Siemens PLC.



The mobile remote maintenance box is sent to the customer if required. Once they have tried it, most want to keep it.

The right router for each application

Often, the cost-effective Cosy 141 router is adequate, with its 4-way switch and MPI/Profibus interface, which has everything required to connect both the older (S7-300) and newer (S7-1200) controllers from Siemens.

Where there is no internet connection available, the Ewon Cosy 131 Cellular model is the right choice.

And for applications where simple remote access is not sufficient, the Ewon Flexy router is used. This model allows data recording and alarm notification for the controllers connected, as required. The connection to the internal LAN is via WiFi or the mobile network. "We use the Ewon Flexy routers for example, when customers want status messages sent by SMS," explains Dominik Flnke. For many Börger systems, the mobile network is the most important method of communication, as the systems are often fitted on mobile trailers.

What the team likes about Ewon solution

Börger's industrial customers really appreciate the benefits of remote maintenance based on Ewon and Talk2M.

Indeed, to enable quick, simple integration into the existing IT infrastructure, only outgoing connections are opened both by the Ewon routers and the connection software 'eCatcher'. This means both the firewall and the proxy server can be adjusted without problems. Only the standard ports authorised in most cases are used. The Ewon router and the service technician with eCatcher "meet" in the Talk2M service portal, where an encrypted VPN tunnel is established between the service technician's PC and the router. This uses established security standards such as OpenVPN, SSL/TLS.

The experts at Börger not only swear by the security functions, but also on the options for central device and user management in the Talk2M portal, which makes managing multiple systems without ongoing costs much easier.

"The free version, Talk2M Free, is still enough for us at this point; we now have remote maintenance for over 100 systems, which we will gradually migrate to the professional version, Talk2M Pro," explains Andre Remmelt.

Talk2M Pro expands the functionality by adding more simultaneous connections, easy administration of Ewon routers and users in groups and extended firewall and password rules.

The clever 'Remote Maintenance Box'

Not all customers want to invest in the option of remote maintenance to begin with, or they have reservations. However, if there is a need for adaptations later or there are unresolved problems for the customer, then André Remmelt and his colleagues simply send the remote maintenance box, fitted with an Ewon router, to the customer by express courier. "The box is pre-assembled and labelled. All you have to do is plug it in and then we can see the system data and provide rapid assistance or upload an update," he explains. "Many customers have such a positive experience that they want to keep the box so they have the option of remote maintenance at any time." he beams.

"More and more technology is moving into the stalls. From the milking machine to the ventilation or the photovoltaic system on the roof, there is lots of data and error messages around. Farmers today like to display these on a tablet, giving them an overview around the clock," explains Mike Eiting. "The option of remote access is now something our agricultural customers are specifically asking for."



Learn more on www.ewon.biz

The Ewon Flexy is a multipurpose internet data gateway that allows Machine Builders to monitor and collect vital KPIs for analysis and predictive maintenance.

