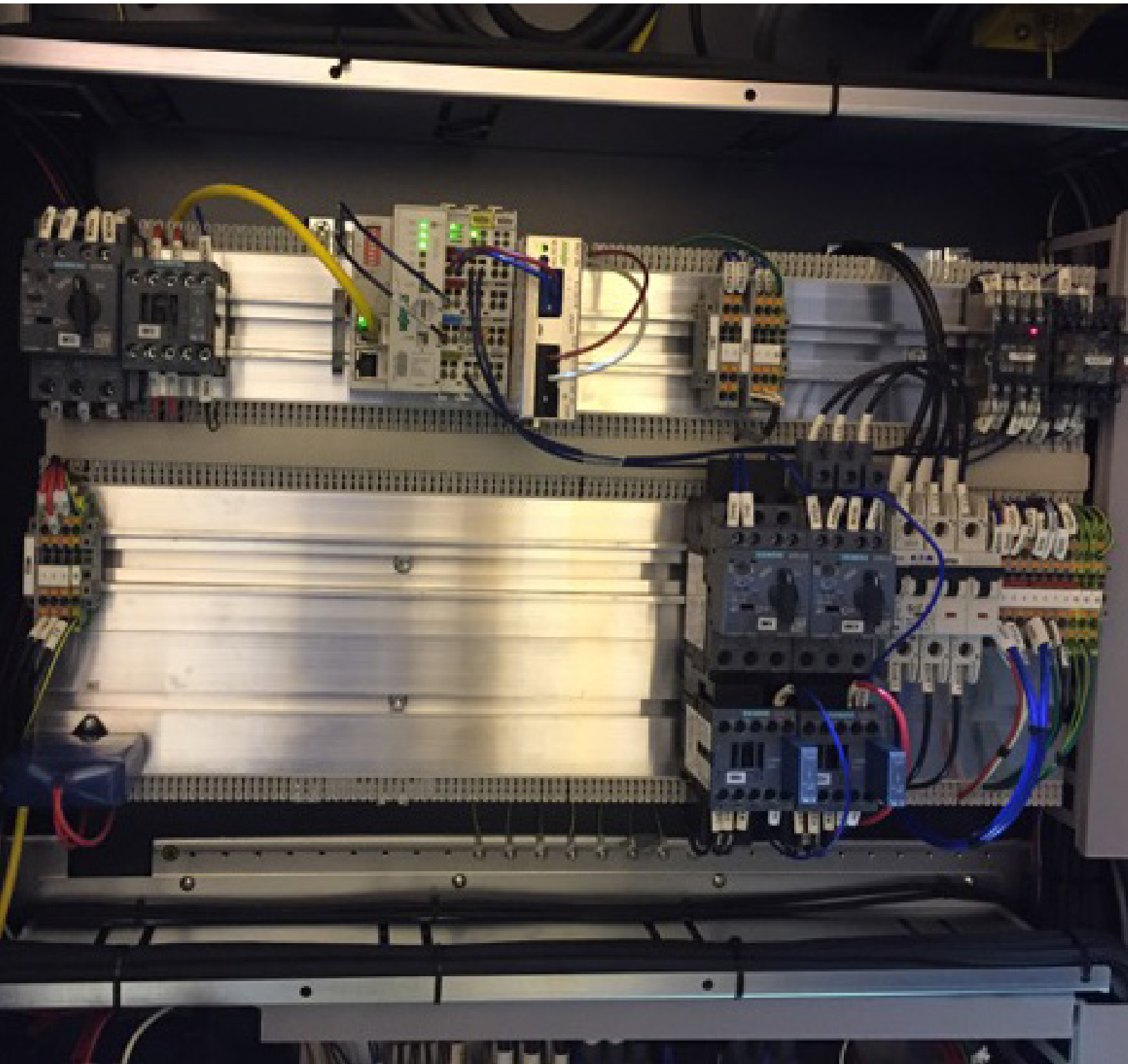
NUMEROUS PROTOCOLS

A Simple One-Solution-for-All



A Simple One-Solution-for-All

NUMEROUS PROTOCOLS

At Patterson-UTI, engineers needed the various systems of their land-based drilling rigs to communicate with one another, while also keeping them isolated. This created quite a challenge when the control system and the data collecting hub, needed to be on separate networks, but because of this, could then no longer communicate directly with each other. However, it was this communication that was essential to Patterson-UTI's operational plan.

"We couldn't easily integrate these two systems because each one of them lives on different networks," Mahmoud Hadi, Control and Automation Manager at Patterson-UTI explained. "We want to have restricted exposure while each system can access the other system."

The solution for Patterson-UTI came from using the WAGO PFC 200 as an IIoT Gateway. Collecting data from all of their systems, the PFC 200 worked as an aggregator sharing data with stakeholders who needed that information while protecting the systems that needed to be isolated, safely separated.

"It's a really fantastic win for WAGO and Patterson-UTI," WAGO Regional Sales Manager John Hagar said. "The PFC 200 can talk either MODBUS or Profibus, so they can put one of these on existing oil rigs and very easily - over OPC UA and MQTT - make the data available to the end customer. They can make a retro fit kit that will go on existing rigs and all new rigs will come with a 750-8206."

Control Engineer, Vijay Aundhekar said the Patterson-UTI team learned about how the PFC 200 could be a perfect fit for their operation with the assistance of a WAGO Application Engineer who helped the team to understand on a deeper level how using WAGO products could provide all the benefits they sought.

"There were a lot of brochures on the product that told us the features, but WAGO's professionals helped us validate those concepts," Aundhekar continued. "We did not go in blindly to the product, we wanted WAGO professionals to help prove those concepts and from that we were able to go from there."

According to Hadi, what differentiated WAGO from other competing data aggregators were the many features the PFC 200 offered and the direct support they received from WAGO during the decision-making process.

"I would say that the biggest advantage would be the access to all the different protocols…." Hadi said. "WAGO has that ability to hold all the relevant protocols, while giving us the choice to choose. WAGO had all the features we needed. Also the price and the support we received is really why we chose WAGO in the end."

Patterson-UTI's access to WAGO's extensive online libraries was another reason for deciding to use the PFC 200 according to Wayne Steed, Patterson-UTI Control Engineer. "Making sure that the libraries are specific to each protocol we were using and the different logic we were trying to implement in the gateway was very valuable to us," he said.

"WAGO designed-in OPC UA and MQTT capability in its PFCs in order to make them IIoT-ready," Hagar explained. "This enables them to talk to Amazon (AWS), IBM (Bluemix), Microsoft (Azure), or other cloud-based data center solutions." Patterson-UTI connects with AWS for their data processes.

"Working with WAGO and Innovative IDM (distributer), they were able to put together a specialized kit," Steed said. "[WAGO] created a special part number that would have all the pieces we needed to ship to each of our rigs. So getting that part number was a large advantage for connecting Patterson, WAGO and Innovative IDM."

With WAGO's PFC 200, Patterson-UTI is now able to collect data from all of their systems while keeping those systems safely isolated from each other.

"Our process has been simplified because WAGO has created a simple one-solution-for-all," Aundhekar said.