

Press release

Powerful analysis of digital substations

Comprehensive signal assessment in IEC 61850 environments

OMICRON has been involved in developments for testing IEC 61850 communication for more than 15 years.

IEC 61850 describes different kinds of communication. The classic SCADA communication is realized as peer-to-peer communication between the client (SCADA system) and the server (IED Intelligent Electronic Device). For fast inter-device communication, the multicast communication via IEC 61850 GOOSE (Generic Object Oriented Substation Event) was developed. Here, protection and automation information can be distributed easily. The same mechanism was adapted to the transmission of measured Sampled Values between Merging Units and IEDs.

Starting with testing solutions making protection testing possible with GOOSE and Sampled Values (SV), OMICRON became the market leader for testing solutions in accordance with IEC 61850. With IEDScout, an easy-to-use test client was developed and is being continuously improved. The latest versions allow for the simulation of different IEDs and also work with IEC 61850 setting groups.

When the test module IEC 61850 client/server was released with Test Universe 3.10, the SCADA communication became a part of protection testing. IEC 61850 Reports issued by the IED could be used for testing as well as any value in the IED's data model. Additionally, setting the test related modes also became possible during protection testing. When with Test Universe 3.20 Sampled Values according to IEC 61869-9 became testable, the product range for protection testing was complete.

DANEO 400 is the hybrid signal analyzer for power utility automation systems. The measurement system records and analyzes all conventional signals (voltages, currents, hard wired binary status signals) and messages on the communication network in a substation. It measures signals from both of these worlds and can provide information to assess their proper coordination. The device keeps track of what is going on in the substation by obtaining information on the operational status and communication. IEC 61850 communication verification based on SCL information is possible as well as live observation of measurement values and IEC 61850 messages. Measurement of propagation delays (for example, for GOOSE and SV) and supervision of the system support the user in different applications.

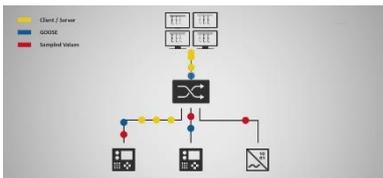
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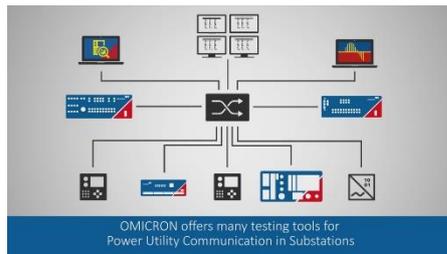
DANEO 400: Measurement, recording and analysis of all signals in PAC systems



Powerful analysis with DANEO Control 4.00



OMICRON test solutions provide comprehensive signal assessment in IEC 61850 environments



OMICRON offers a wide range of testing tools for Power Utility Communication in substations

Company profile

OMICRON is an international company serving the electrical power industry with innovative testing and diagnostic solutions. The application of OMICRON products allows users to assess the condition of the primary and secondary equipment on their systems with complete confidence. Services offered in the area of consulting, commissioning, testing, diagnosis and training make the product range complete.

Customers in more than 150 countries rely on the company's ability to supply leading edge technology of excellent quality. Service centers on all continents provide a broad base of knowledge and extraordinary customer support. All of this together with our strong network of sales partners is what has made our company a market leader in the electrical power industry.

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