

As frequent readers of PAC World I wonder if the below could be of interest for publication in your magazine. It's not so much a technical article as Friday afternoon leisure.

Nicholas Etherden, STRI, Sweden

The true meaning of IEC 61850 - Working Together to Achieve Interoperability! What do you do when your "Comprehensive & Independent Hands-on Training" with participants from Europe, America and Africa is just about to start? The multi-vendor test installation - with IEDs from ABB, Areva and Siemens communicating over a RuggedCom network and equipped with Omicron test set - had been shipped well in advance to be the test environment for the hands-on course. So when this equipment gets lost in the shipping company's (let us call it SC) cyberspace how do you manage?

So this was actually what happened. No equipment for the IEC 61850 course! And nobody at SC had even the slightest clue where it was. Later we found out it was the result of a lack of interoperability in the SC logistic system. SC Sweden tried to export data about the shipment to SC Germany. But the code was wrong; the message had no quality attributes and no IEC 61850 services to confirm reception!

So did Nicholas Etherden from STRI and Karlheinz Schwarz from Netted Automation give up when they had participants from all over the world waiting for this hands-on-course? No, because the true meaning of IEC 61850 is to make different vendors talk to each other and to work together. So Nicholas started by

Don't hesitate. Share your thoughts and experiences.

contacting Omicron who shipped a new test set overnight from Austria. The Doble participant to the course had brought a Doble test set and Megger/Programma surprised us with a new test set. And we got two new Ethernet switches from the Hirschmann attendee. So how about the IEDs? The participant from SEL brought a Schweitzer IED for IEC 61850, Siemens sent a new IED and Nicholas picked up a new Areva IED at their training center in Frankfurt. Programma offered us to borrow an ABB RET670 that Carl Ohlen from STRI picked up in Stockholm before flying down to Frankfurt.

One of the hotel rooms became the IEC 61850 instant system integration and engineering center. Nicholas Etherden from STRI, Andrea Bonetti from Programma and Joerg Reuter from Helinks managed during the night to get the new IEC 61850 system up and running. That is interoperability! Then after two days the original system arrived so we now actually had two sets with equipment from nine manufacturers. We even got a SCADA from ARC Informatique up and running while we were at it. The conclusion is that the hands-on-course in fact became more realistic than originally planned. A large number of IED, test set and switch manufacturers were directly involved together with the participants and Helinks system tool set and even some SCADA applications. This demonstrated the true meaning of IEC 61850 - Interoperability. Interoperability that really works! Stories like this show that the power industry is truly working together to make the IEC 61850 standard a success and fulfill the market expectations on an open and

flexible communication infrastructure for the power industry. In order to make IEC 61850 the efficient model for Power Utility Automation that will benefit all of us - we need to work together.



I am glad to note that PAC is bringing out to light the protection stalwarts under the heading "GURU" and also about the history of various Relays. We in Commonwealth countries know mostly about British equipment and their practices and some of the erstwhile brands are synonymous. For Relays erstwhile AEI, and English Electric were famous names till it became as one unit "GEC Measurements" in Stafford. Subsequently it became GEC ALSTHOM I wonder if PAC can publish the articles that appeared in GEC Measurement in house publication "INSITE" August 1984 issue on the origin of GEC Co and November 1984 issue on AEI which were famous for relays. Scanned copies of both articles are attached.

K.R.Balakrishnan, Chennai, India

PAC World: Dear Mr. Balakrishnan, thank you for the two articles. We will consider them for the future History section. The files you sent will be available for download from the PAC World web site.

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address

PAC World (Email: editor@pacw.org)
8 Greenway Plaza, Suite 1510
Houston, TX 77046, USA

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