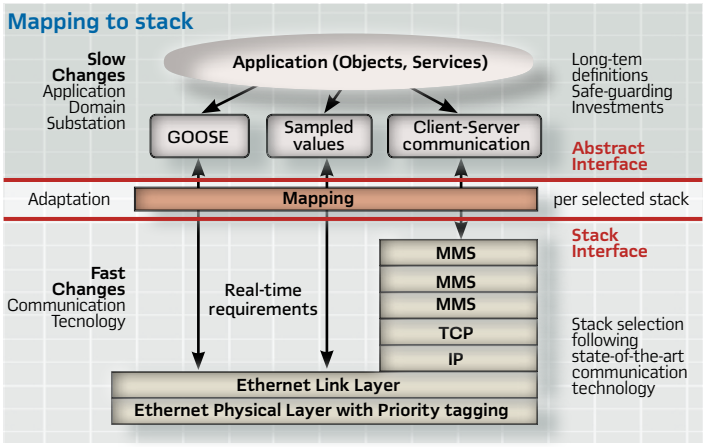
Is IEC 61850 a protocol?

We appreciate your articles, news, feedback or any information that will help us paint a broader picture of the IEC 61850 role and the future of our industry.



One of our readers did not agree with a sentence from this column in the Summer 2009 issue (*see the Letters section*). Christoph Brunner then selected to ask in his column the question "Is IEC 61850 a protocol?" and give us his thoughts about it (*see page 27*).
Since the comment is on something that I said, let me explain what I think about this subject.
First of all, if you read my column in the Summer 2009 issue, I do not say that IEC 61850 is just a protocol. A significant part of the text is about the modeling of different elements of the electric power system and the importance of the standard as one of the key elements of the Smart Grid of the future.
Why did I say that IEC 61850 is a protocol? The answer is very simple. I will use the same definition that Christoph uses - "*a protocol is a set of rules used by computers to communicate with each other across a network*". Now if we ask the question "Does IEC 61850 define a set of rules for IEDs and computers to communicate over the substation network?", the answer is definitely "Yes".
Otherwise, the IEDs and computers will not be able to talk to each other. Nevertheless, it is not a simple protocol; it is a Super Protocol that defines an abstract interface that is mapped to different protocols depending on the required services by the application.
Moreover, IEC 61850 is definitely not "*just a protocol*". It is the multidimensional standard that was created to support not only the communications for all types of applications, but also to allow the development of tools that are changing the ways we do engineering, procurement, testing, maintenance, event analysis and many other everyday activities.
This is all I can say in the limited space here and I will join Christoph, waiting to hear what you have to say.

- Minnesota Power System Conference
  3-5 November 2009
  Minneapolis, MN, USA
- Concapan XXIX
  4-6 November 2009
  San Pedro Sula, Cortes, Honduras
- ALTAE (International Congress on High Voltage Systems)
  23-27 November
  Medellín, Colombia
- SNPTEE (XX National Seminar on Generation and Transmission of Electric Power)
  22-25 November 2009
  Recife, PE, Brazil
- 6th West African Power Industry Convention (WAPIC)
  2-3 December 2009
  Accra, Ghana
- Power-GEN International
  8-10 December 2009
  Las Vegas, NV, USA
- IEEE Smart Grid Innovative Smart Grid Technologies
  19-21 January 2010
  Gaithersburg, Maryland, USA
- Power Systems Conference 2010: Advanced Metering, Protection, Control, Communication and Distributed Resources
  9-12 March 2010
  Clemson, SC, USA
- DistribuTECH Conference and Exhibition
  23-25 March 2010
  Tampa, FL, USA