Alliance Formed to Drive Communications Standard for Smart-Grid

Twelve major players in the smart grid industry are announcing a new global partnership at the Metering Europe Conference in Amsterdam (October 4 - 6, 2011) to support the deployment of the new power line communications protocol called G3-PLC. The partners in the association are led by major players in the smart grid sector, including Enexis, ERDF, Maxim Integrated Products, STMicroelectronics, Texas Instruments, Cisco, Itron, Landis & Gyr, Nexans, Sagemcom, EDF R&D and Trialog.

The new Power Line Communications (PLC) technology transmits digital information through electrical power lines using OFDM (orthogonal frequency division multiplexing) and is widely acknowledged to be the most reliable, secure and cost effective mode of communication for the smart grid today. This new technology, defined to solve the challenges of tomorrow's smart grid, has been adopted as the basis for several major standards such as IEEE, ITU and IEC/CENELEC which offer interoperability with the current G3-PLC specification available today. G3-PLC products are currently available from major semiconductor and equipment manufacturers and it is being field tested by several major utilities and organizations worldwide, including ERDF in France.
The alliance was formed to support G3-PLC's rapid adoption by utilities worldwide in various smart grid applications such as automatic meter management, EV charging, home energy management, lighting control and grid monitoring.

Michele Bellon, G3-PLC Alliance President, also President of ERDF, stated "The formation of the G3-PLC Alliance is an essential step towards smart grids. By attracting leaders across the spectrum of the smart grid industry, we will be able to drive worldwide adoption and help reduce energy consumption. We ask other industry players to join our partnership and support this initiative."

Just as with other ubiquitous communications standards, WiFi and Bluetooth for

example, this Alliance has been created in order to drive widespread adoption of G3-PLC by enabling rapid development up and down the entire electric power ecosystem.

Chief among the Alliance's goals are:
- Promote G3-PLC in Internationally recognized standards organizations (IEEE, ITU, IEC, ISO, etc.)
- Promote G3-PLC technical features, performance, and overall value
- Organize certification tests and programs
- Organize and operate the industry users group to maintain the G3-PLC specification and to insure interoperability
- Support utilities in the deployment of the new G3-PLC communications protocol in their respective countries
- Promote G3-PLC in other applications such as home/building energy management; home automation; vehicle-to-grid and vehicle-to-charging station communications; lighting control and management; factory automation, and optimization of smart grid performance

G3-PLC is a global open power line communication protocol specifically designed for smart grid communications.
It enables smart meter management, control and monitoring of the electrical distribution network, energy management, EV charging, lighting control as well as other smart grid applications.

The G3-PLC is designed to operate in 10-490 kHz frequency bands and it is compliant with CENELEC, FCC and ARIB regulatory bodies. It was designed to meet the following requirements:
• Robustness: communications profile suited to operate in severe noisy environments such as low–voltage lines, long-range communications in medium-voltage lines, and especially to enable communication across MV-LV transformers
• Performance: Bi-directional digital communication with data rate up to 300 Kbps
• Simplicity: simple to implement, install (Plug-and-Play), operate and maintain
• Security: it offers a safe environment using AES-128 cryptography engine
• Scalability: Supports IPv6 for new internet-based energy management systems and applications
• Cost: ability to cross MV-LV transformers reduces the number of data concentrators. High speed communication over very long distances reduces the number of repeaters required

More information at
Electric Utility Enexis www.enexis.nl/site [1]
ERDF www.erdfdistribution.fr/Accueil [2]
Equipment Manufacturer Cisco http://www.cisco.com/en/US/hmpgs/index.html [3]

Itron https://www.itron.com/Pages/default.aspx [4]
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Trialog www.trialog.com [12]

For more information on G3-PLC and how to join please visit www.G3-PLC.com [13]

For more information on ERDF please visit www.erdfdistribution.fr/Accueil [2]

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