Press Release

G3-PLC Alliance member devolo strongly engages in G3-PLC projects

Paris, France, November 29th, 2018. G3-PLC Alliance member devolo AG has been very active in the area of G3-PLC applications. The Germany-based expert for Powerline and smart metering devices is involved in various G3-PLC activities, with a particular focus on national and Europe-wide funding projects CALLIA and ENERGY.

The EU-funded CALLIA project

Europe's ambitious climate protection goals require a safe and comprehensive integration of Renewable Energies on all voltage levels of the electricity grid. Currently, cross-border transmission of electricity is limited to the high voltage grid. Within CALLIA, the partners will investigate how direct energy transfer between distribution grids in two different countries is able to foster the integration of Renewable Energies. The important goals of the project include: more efficient integration of decentralized generation units and stabilization of the European electricity grid. Therefore, grid operators, research institutes and industrial partners from Austria, Belgium, Germany and Turkey will join forces in a multilateral project consortium coordinated by ISC Konstanz. devolo supports CALLIA with its longstanding expertise in Powerline communication.

Smart Metering in Turkey – pilot project within CALLIA

Turkey offers huge opportunities for G3-PLC. For example, BEDAS, which has been distributing electricity of 26,6 TWh to approximately more than 5 million subscribers on an area of 3,573 km² on the European Side of Istanbul, is the biggest distribution company of Turkey. Within the EU-Project Callia, BEDAS together with devolo started a G3-PLC pilot project, which aims to gain experience on planning, implementation and demonstration of a new AMI system.

In Kumburgaz and Bakirköy, two districts of Istanbul, the utility BEDAS and powerline-expert devolo installed now the field trial to test the G3-PLC technology to connect smart meters to the grid control centre for remote meter readout. In the smart grid, devolo provides an innovative IP-based data transmission with G3-PLC technology in the frequency range 150-500 kHz. G3-PLC uses the mains supply in the low-voltage level as infrastructure for communication. This provides the benefit of making the integration of G3-PLC exceptionally cost-effective.

The ENERGY project – awarded with the GreenTec Award

In the meanwhile successfully accomplished ENERGY project, devolo AG – together with municipal utility Krefeld Netze GmbH and Janitza electronics GmbH, and academic partners, the University of Applied Sciences Düsseldorf and the University of Duisburg-Essen, researched the application of G3-PLC technology at the distribution network level. The overarching goal of the joint project "Measurement of the low-voltage side network state variables in

real time" (ENERGIE - Erfassung der niederspannungsseitigen Netzzustandgrößen in Echtzeit) was to determine, using sensors, the network condition at only important strategic points on the low-voltage side and to use this data for network planning and operational concerns of network management. The state of the power system was detected in real time. These were measured at relevant points with network analyzers. Their data was sent immediately to the network operator by means of power line communication. New computer-aided analysis methods enabled direct reaction to unpredictable fluctuations. Due to such measures of the network, expansion is done purposefully, costs are reduced and the environment is protected. This is an important contribution to the development of renewable energy within the meaning of the energy revolution.

devolo AG tested and optimized in this project, the powerline communications in real time. The devolo G3-PLC modem 500k operates in the frequency band 150-500 kHz and convinces in real-time communication with a very high distance range. Measuring instruments for the power grid are simply connected via Ethernet or serial interface with a devolo G3-PLC modem. The modem modulates the data to the existing power line. Thus, the data is transferred securely and reliably to a local substation, from where they are transmitted via fiber optic to the network operator. Data communication via G3 Powerline technology does usually not require repeater(s). It is therefore a rapidly installed and cost effective form of communication for the smart grid. The ENERGY project was successfully completed in 2016.

devolo AG won, on behalf of the consortium of the ENERGY project, the GreenTec Award 2016, Europe‘s largest environmental and economic prize. The jury of GreenTec Awards honored with this award the commitment of the consortium for the exploration of innovative methods for management of the power grid. With the practical knowledge of the project, future expansion of the electricity grid will be far more targeted, cost saving and environment protective. For data communication in the smart grid, the devolo G3-PLC modem 500k has been proven.

About G3-PLC

G3-PLC is a protocol for narrow band low frequency powerline communications. G3-PLC facilitates high-speed, highly-reliable, long-range communication over the existing powerline grid. With the ability to cross transformers, infrastructure costs are reduced and with its support of IPv6, G3-PLC will support powerline communications into the future.

About the G3-PLC Alliance

The G3-PLC Alliance was formed in order to support, promote and implement G3-PLC in smart grid applications. Its members come from the key stakeholders in the smart grid ecosystem. The objectives of the G3-PLC Alliance consortium are to support G3-PLC in internationally recognized standards bodies to achieve the rapid adoption of G3-PLC specification worldwide and to develop a framework for equipment testing to facilitate interoperability among adopters. Moreover, the Alliance educates the market and promotes the value, benefits and applications of G3-PLC.

About devolo AG

devolo makes the home intelligent and the mains supply smart. Household customers use Powerline adapters from devolo to bring high-speed data connections into every room. There are about 37 million dLAN adapters in use internationally. And customers with devolo Home Control discover the possibilities of the smart home—it can be set up quickly, expanded however you want and conveniently controlled using your smartphone. As an OEM partner, devolo individually adapts its products and solutions to the needs of international telecommunications companies. In the professional sector, conversion of the power supply infrastructure provides additional opportunities. devolo solutions can be used to monitor and control new smart grids in real time as well as implement completely new services. devolo was founded in 2002 and currently employs about 330 people. The world market leader in the Powerline area is represented by its own subsidiaries and by partners in 19 countries.

The devolo Smart Grid business unit delivers smart grid solutions. As a Powerline pioneer, devolo is a proven expert in the area

of data communication over the power line. devolo uses its expertise to develop and sell products for data communication and data security over the mains and for smart control of decentralised power generators, electrical consumers and accumulators. Thanks to products tested in the field, several production locations and high-performance logistics, devolo Smart Grid is a strong partner for energy providers and network operators.

For more information visit the website: www.G3-PLC.com

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