

**FOR IMMEDIATE RELEASE**

**For more information:**

Layla McHale  
McHale Communications  
408.981.6394  
[layla@mchalecomm.com](mailto:layla@mchalecomm.com)

**ITU-T UNITED NATIONS' G.HN NETWORKING STANDARD FORTIFIES ITS SMART GRID  
CAPABILITIES**

**ITU-T G.hn Work Group Agrees on a Smart Grid Technology Profile and Guidelines for Smart Grid  
Applications**

**Beaverton, Ore., December 7, 2009** – [HomeGrid Forum](#), a global, non-profit trade group promoting the United Nations' International Telecommunication Union's (ITU-T) [G.hn](#) networking standard, today announced that the ITU-T G.hn workgroup has agreed upon a number of key specifications that together form the baseline requirements for G.hn Smart Grid products. The study group also agreed on the addition of an Appendix to the G.hn standard that provides insight to the use of G.hn-based products in Smart Grid applications. These agreements, reached at the latest ITU-T G.hn workgroup meeting in Valencia, Spain from November 16-20, build on G.hn's highly flexible, parameterized architecture which was approved earlier this year.

**G.hn Profile for Smart Grid**

At the Valencia meeting, the G.hn workgroup completed its definition of a "low complexity" profile targeted at Smart grid applications. A "profile" is a minimum set of G.hn parameters and specifications that define a specific system to meet a targeted range of applications. This profile makes it possible for multiple manufacturers to develop products that deliver the low power consumption, low cost, performance, reliability, and security that is required for Smart Grid and other lower bit rate applications. The profile specifies minimum requirements for features including: signal bandwidth, data modulation methods, transmitter linearity requirements, and Forward Error Correction (FEC), while maintaining interoperability with fully-featured G.hn products.

Smart Grid products that will benefit from G.hn include:

- Smart Meters
- In-home displays (IHD) and smart thermostats
- Plug-in Electrical Vehicles (PEV) and Electrical Vehicle Supply Equipment (EVSE)

- Smart household appliances such as washing machines, dryers, dishwashers, heating, ventilating, and air-conditioning (HVAC) systems
- Energy System Interface (ESI) devices

“We are happy to see the G.hn workgroup working together to address the needs of the Smart Grid industry with this level of speed and collaboration,” said Dr. Vladimir Oksman, technical marketing director at Lantiq, and Chairperson of HomeGrid Forum’s Smart Grid Workgroup. “G.hn continues to fulfill its promise of complete home networking from the Smart Meter to the HDTV.”

As a complement to the ITU-T’s work, HomeGrid Forum will provide Smart Grid-related certification testing for G.hn products and this work is underway in HomeGrid’s Compliance and Interoperability Workgroup.

### **G.hn Guidelines for Smart Grid Applications**

At the Valencia meeting the G.hn work group also agreed on an Appendix to the G.hn standard that provides guidelines for using G.hn in Smart Grid applications and for how they work with other G.hn-connected consumer devices in the home. The Appendix reflects recommendations and requirements from NIST, the Open Smart Grid Users Group, and other organizations that are focused on implementing the proliferation of the Smart Grid.

The Appendix is a convenient way to provide guidance to G.hn product developers and users, while preserving all of the previous G.hn definitions. The Appendix describes how G.hn devices can be used as part of application layer Energy Management System (EMS) software that resides above the G.hn physical layer (PHY) and data link layer (DLL). It also shows how G.hn Smart Grid devices interface to a service provider’s Smart Grid access network via the Energy Service interface (ESI) to support secure end-to-end smart grid services between the service provider and home.

Smart Grid applications that will benefit from G.hn include:

- Utility-based Demand Response programs via broadband internet connections or Advanced Metering Infrastructure (AMI) systems
- Remote troubleshooting to minimize cost
- In-home device support of automatic Demand Response programs using real-time pricing information
- Flexible control of appliances to reduce power consumption during peak periods

### **G.hn Capability for Smart Grid and Multimedia Applications**

Virtually all devices that consume energy or share information can benefit from G.hn technology. G.hn’s connectivity over power lines, coaxial cabling, and telephone wires provides greater coverage, performance, and

reliability throughout the home than technologies that operate over a single wire type, and this enables users to build integrated, whole-home networks.

Beyond Smart Grid, G.hn provides a single, unified home networking technology for multimedia voice, video and data communications that is fully interoperable with its Smart Grid derivatives. Through one worldwide standard, G.hn will unify home networking of digital content and consumer devices over any wire -- coax cable, telephone wires, and power lines. With G.hn, service providers will deploy new offerings, including IPTV, more cost effectively and consumer electronics and smart appliances manufacturers will provide powerful devices for connecting all types of entertainment, home automation, appliances, and security products throughout the house while greatly simplifying the consumer purchasing and installation process.

#### **About HomeGrid Forum**

HomeGrid Forum is a global, non-profit trade group promoting the International Telecommunication Union's G.hn standardization efforts for next-generation home networking. HomeGrid Forum promotes adoption of G.hn through technical and marketing efforts, addresses certification and interoperability of G.hn-compliant products, and cooperates with complementary industry alliances. For more information on HomeGrid Forum, please visit [www.homegridforum.org](http://www.homegridforum.org) or follow us on Twitter @homegrid\_forum.