

## **‘Card Smart:’ USNAP Provides Versatility**

*By Bill Zalud, Contributing Writer*

Imagine a solution that is like a computer USB port that allows myriad applications. Such a card from the USNAP Alliance promises to provide a common connector between the communications module and devices including a thermostat, energy display, load controller, home appliances, and plug-in hybrid electric vehicles. The USNAP card enables any home area network (HAN) standard, now and into the future, to use any vendor's smart meter as a gateway into the home, without adding additional hardware. The approach, with a protocol independent serial interface, extends the smart grid to energy aware consumer products.

The approach provides an affordable solution that can be deployed during the manufacturing process of white goods and other products or in the field. Utilities can continue deployment of their smart meters using their protocol of choice, knowing that HAN devices will be compatible today, tomorrow and well into the future. USNAP is an acronym for utility smart network access port, a simple, yet cost effective solution.



*The alliance has a plan to provide a solution to handle myriad home area networked appliances.*

The initial idea for USNAP emerged in 2007 when the California Energy Commission (CEC) was considering the concept of programmable communicating thermostats (PCT) as part of its energy efficiency program. According to California officials, PCTs are necessary for a statewide demand response system controlled through a radio data system installed in every PCT. Recognizing that utilities were rolling out advanced metering infrastructure or AMI programs throughout the state and that the PCTs would need to communicate with the native AMI meter protocol as well, the USNAP concept was conceived as a solution.

The same standard for thermostats can be applied to other HAN devices such as in-home displays, load control modules, plug-in electric vehicles, solar energy systems and kitchen appliances.

In order to accelerate standardization efforts, a specification is nearly completed and consumers should be able to purchase compatible products this year.

The idea is simple. Rather than force manufacturers to build and integrate devices for each communication protocol deployed, why not offer a simple circuit card that can be “plugged” or “snapped” in to connect it to the native AMI network? That way, when one state or utility adopts protocol A and another adopts protocol B, manufacturers and retailers can offer the same exact product in multiple markets. The same standard can be applied to many HAN devices.

Recently, the USNAP Alliance and the Electric Power Research Institute (EPRI) arranged joint development of a single modular interface specification combining elements of the EPRI demand response socket interface specification and the USNAP Alliance 2.0 specification.

For more information on USNAP Alliance, visit [www.usnap.org](http://www.usnap.org)  
For more information about the Electric Power Research Institute, visit [www.epri.com](http://www.epri.com)

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