

# USNAP is...



An industry alliance bringing together utilities, utility equipment manufacturers, and customer equipment manufacturers to develop and promote a modular communications interface to enable customer equipment participation in energy management and demand response.

A common name for ANSI/CEA-2045, a modular communications standard for grid-interactive devices, that includes the Physical through Presentation layers of the OSI Model, as well as other design parameters (such as case size and shape.)

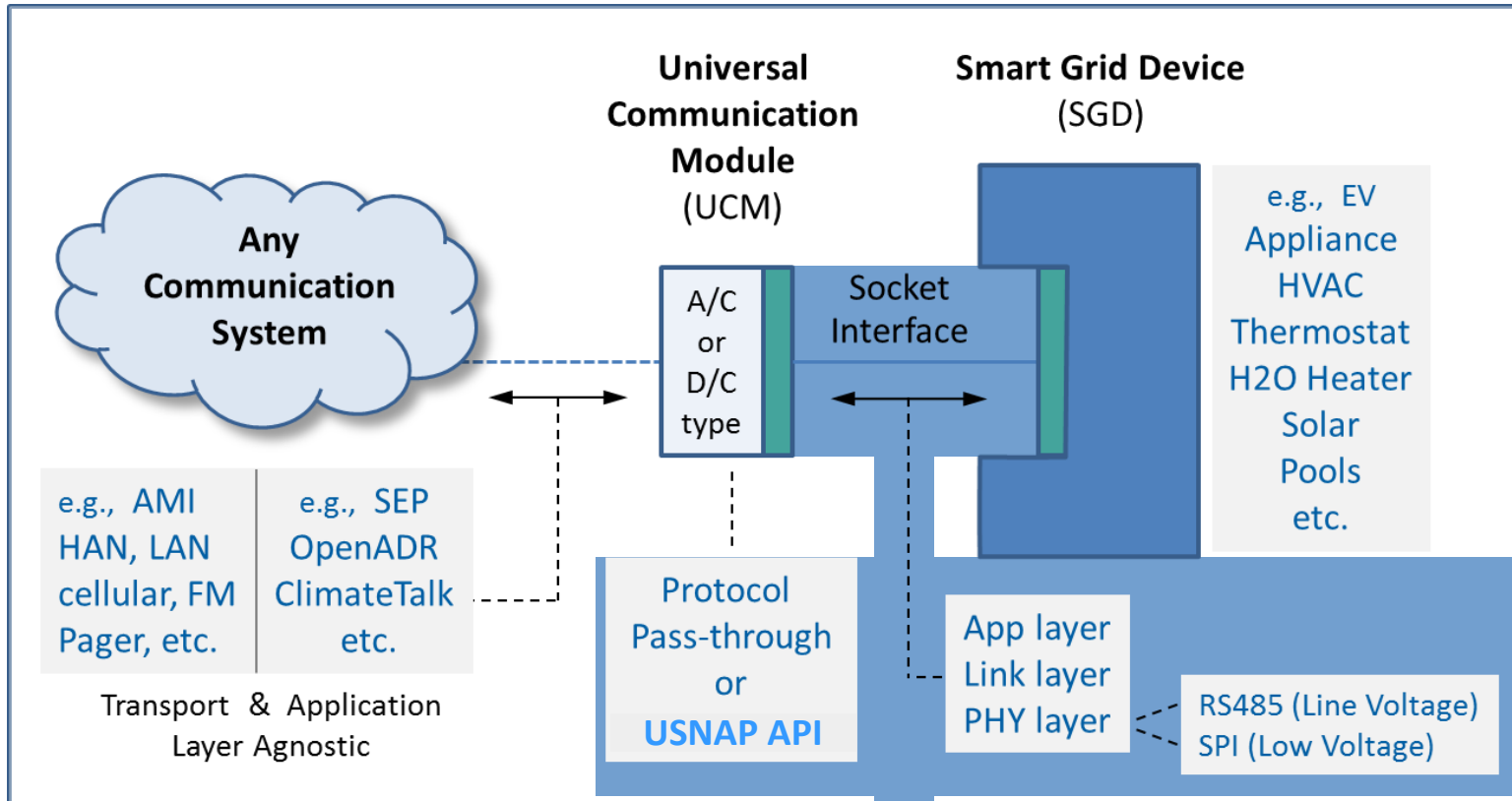


**Nobody wants to be the one who bet the DR farm on Betamax or DVD-HD.**

The goals of the USNAP Alliance are to;

- enable common, ubiquitous, implementation of energy management and demand response, via the CEA-2045 Modular Communications Interface,
- enable end-user equipment (device) manufacturers to develop communications to a single standard interface (module) and know that their equipment will interoperate, via the installed module, with any Smart Grid system or network in the marketplace, now, or in the future.

# Standard Deployment Architecture



The appliance or other customer device needs only handle the USNAP command set. The device becomes network and protocol-agnostic, “delegating” the network and protocol-specific work to the UCM.



# Implementation and Experience

USNAP's ongoing collaboration with EPRI:

- Heating, Ventilation and Air Conditioning (6 Utilities)
- Hot Water Heating (9 Utilities)
- Pool Pumps (4 Utilities)
- EVSE (4 Utilities)
- PV Inverters (2 Utilities)

In the Marketplace:

- Hot Water Heaters (retrofit and new install)
- Thermostats
- EV Home Charging Equipment
- Other implementations are in development, and will reach the market before the end of the year.

# What's Next?



- **Testing & Certification** - Multiple certification profiles covering differing levels of control, from simple “On/Off” to complex capabilities.
- Based on these certification levels, USNAP is pursuing two parallel testing approaches:
  - A major independent lab to provide testing and certification services to USNAP members.
  - In partnership with EPRI, developing a standardized PC simulation platform.
- **Development**
  - Smaller form factor
  - Expansion of command set beyond energy management and DR