



# Pilots and Field Tests

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# Who is Smartenit?

- Provider of IoT/Connected Home total solution: Cloud, Hub and Devices.
- Broad portfolio of IoT devices that connect via ZigBee, INSTEON, WiFi and Cellular technologies
- Unique industry positions including:
  - Provider of connectivity products for EV charging infrastructure (Zigbee + Cellular + WiFi)
  - iSmartenit framework chosen by leading STB chipset manufacturer to power Connected Home platform
  - Framework works with or without cloud services

# Smartenit: End-to-end Offering

## User Interfaces:

Graphical applications for Android, iOS, desktops and browsers.



Proven on Smartenit gateways, Pogoplug, RaspberryPi, LG NAS, Beagle Bone, Ubuntu, and Android boxes.

## Gateways/Controllers and Cloud:

“Network appliances” that connect the device ecosystem (via ZigBee and/or INSTEON) to the consumer (via broadband).

Access can be local or through a cloud service.

## Device Ecosystem:

Actuators and sensors for lighting, doors, windows, appliances, sprinklers, curtains, HVAC, fireplaces, pools, etc.



# Smartenit's Philosophy and Focus

- Connected Home / Energy Management market won't be significant until user experience greatly improves and cost/benefits are obvious
- Effectiveness will reach new highs when solutions include user-driven automation
- HANs will be more prevalent when they provide greater and more visible benefits to consumers

Smartenit is among the first to make available a framework that integrates HA and SE profiles making a HAN truly useful!

# Pilots / Field Tests: Make or Break

- Essential to:
  - Verify design assumptions
  - Validate “Voice of the Customer”
  - Shake out “bleeding edge” technology woes
- Pilots and field trials bring healthy dose of reality to the product commercialization process



# 15A Plug Controller (ZOE-MP1)

- Controls loads up to 140VAC and 15A
- Responds to Demand Response and Price events, plus on/off commands
- Measures and makes available energy information from the load/appliance (kW and kWh)
- Small form factor and simple installation
- ZigBee SEP 1.1 certified
- Small field trials – big learning!



# Communicating Metering Controller

- Small controller for loads up to 270VAC and 30A
- Responds to Demand Response and Price events, plus on/off commands
- Measures and makes available load energy information (kW, kWh, Vrms, Irms, etc.)
- Handles 2-speed appliances (such as 2-speed pool motors) directly, eliminating second controller
- ZigBee (SEP 1.1/HA 1.2), WiFi and Cellular options
- Trials helped expose ZigBee implementation issues



# EVSE: Charger and Site Gateway

- True IoT application to practically handle EV charging infrastructure
- Proves the advantage of lower data rate mesh networks, combined with cloud access via broadband (ZigBee network plus site controller)
- Smart Energy ready using ZigBee 1.1
- Benefited from broad experience (failures and successes) from previous SE small trials





# Harmony G1 Hub

- Bridges ZigBee and INSTEON devices with IP networks (Ethernet/Wi-Fi/Cellular)
  - Communicates with smart meter to get energy, price, utility messages and demand response event information
  - Built-in data logger
  - Communicates with devices in the HAN (load controllers, thermostats, EV chargers, etc.) to monitor energy usage and enable user determined control
- Built-in rules engine to easily set up automated actions with or without cloud services
- Diminutive size, Smart-TV, **BIG** performance!

# Tenets for Success

- Treat every failure as a learning opportunity
- Don't ignore what "glitches" are trying to tell you
- Over communicate with stakeholders
- Know the difference between perseverance and obstinacy
- When faced with myriad issues, cast a wide support net that includes technical suppliers
- It is often good to ignore the conventional wisdom.