One (Internet of) Everything to find them all and in the Smart Home bind them

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Smart Homes & Cleanpower 2013 Conference
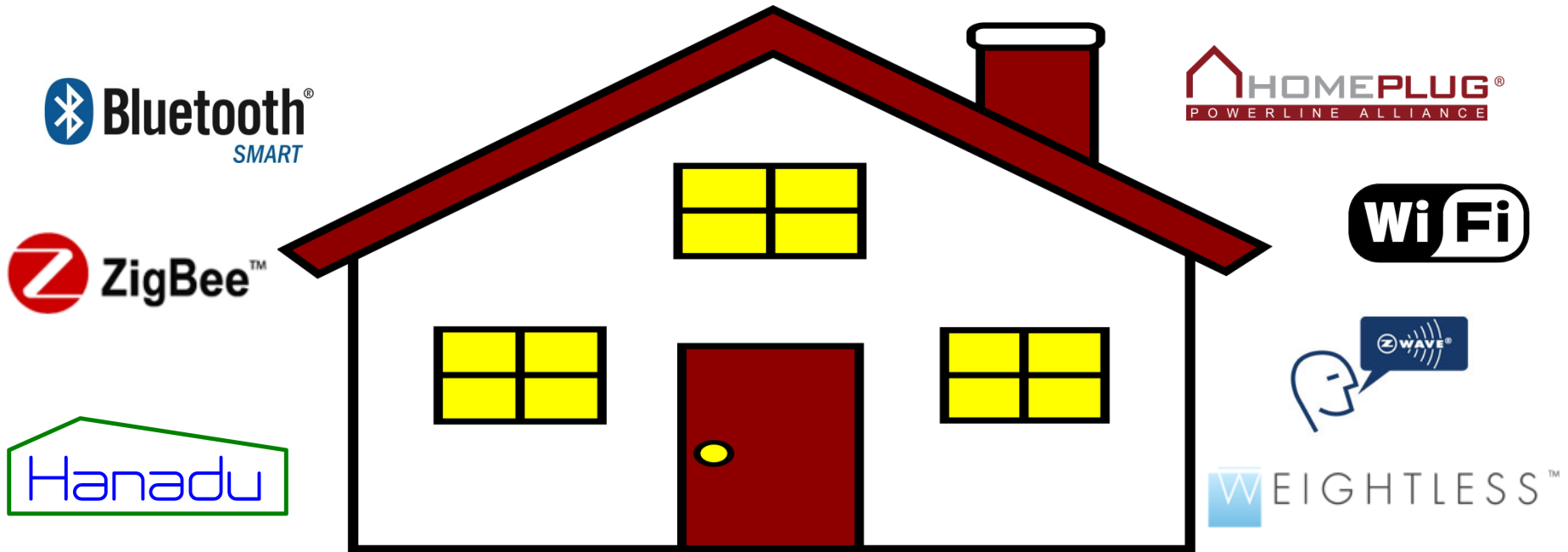5 November 2013 – Cambridge
www.hvm-uk.com/smarthomes

Synopsis

▶ Connectivity in the smart home will be multifarious but invisible: whether it be Hanadu, ZigBee, Weightless, Z-Wave or GreenPHY it will work seamlessly and everywhere.

▶ The householder will get all the functionality they need, irrespective of which connection method they are using.

▶ Technology companies need to make sure that it will just work.

▶ It shouldn't require dark magic.

One (Internet of) Everything to find them all

Bluetooth® SMART

ZigBee™

Hanadu

HOMEPLUG® POWERLINE ALLIANCE

WiFi

Z·WAVE®

WEIGHTLESS™
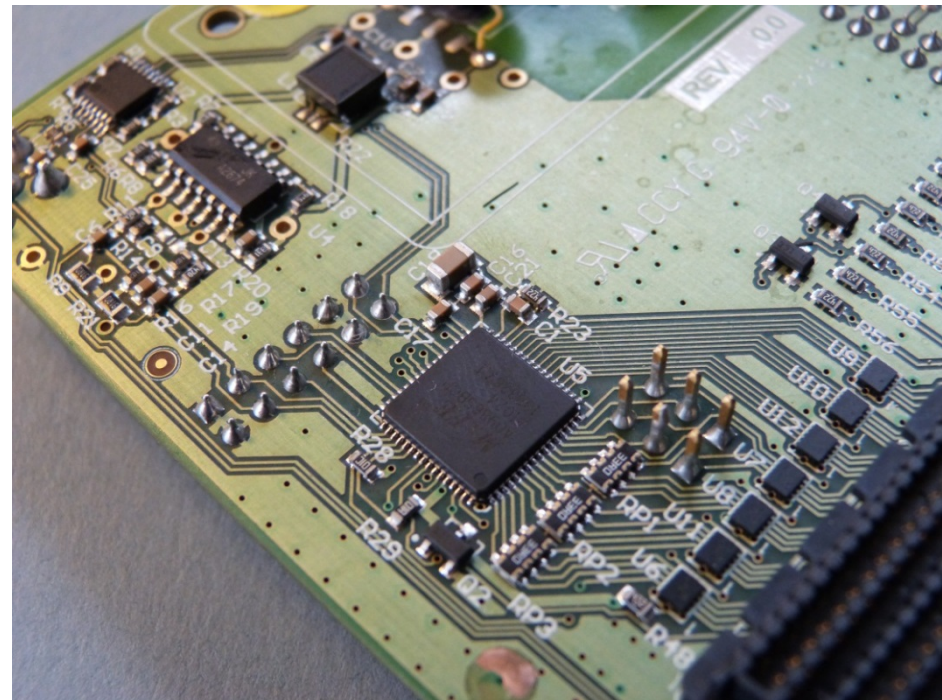
One (Internet of) Everything to find them all and in the Smart Home bind them

- ▶ Greenfield approach – No legacy obligations – Designed for In-Home M2M
- ▶ Powerline addition to IEEE 802.15.4 specification (at 250 kbps)
- ▶ Proprietary open specification (like ZigBee, Bluetooth, Weightless, etc.)
- ▶ Full co-existence with all home networking solutions
- ▶ Supports ZigBee profiles
- ▶ Meshes with ZigBee endpoints
- ▶ Native IPv6/6LoWPAN support
- ▶ Small & Cool:
  - ▸ *Ultra-small physical form factor*
  - ▸ *Sub-500mW power usage, inc PSU*
  - → Fits inside a mains plug: retrofittable
- ▶ EMC "good citizen": unique for PLC
- ▶ Hanadu SIG → Standardisation

Internet of Everything =   Internet of Things

+

M2M

Maths of the Internet of Everything

Internet of Everything = **Internet of Things**

+

M2M

Based on Web & API apps

Connectivity focussed devices

M2M =   Wide-Area M2M

          +

          Local-Area M2M

Maths of the Internet of Everything

GPRS Weightless LTE

M2M =   Wide-Area M2M

         +

         Local-Area M2M

Local-Area M2M =

Maths of the Internet of Everything

Local-Area M2M =

- ➤ Energy-Smart Homes
- ➤ Assisted living
- ➤ E-Health
- ➤ Building automation (21st century)
- ➤ Smart appliances

Maths of the Internet of Everything

Local-Area M2M =

- ➤ Energy-Smart Homes
- ➤ Assisted living
- ➤ E-Health
- ➤ Building automation (21st century)
- ➤ Smart appliances

▶ Typically internet-connected
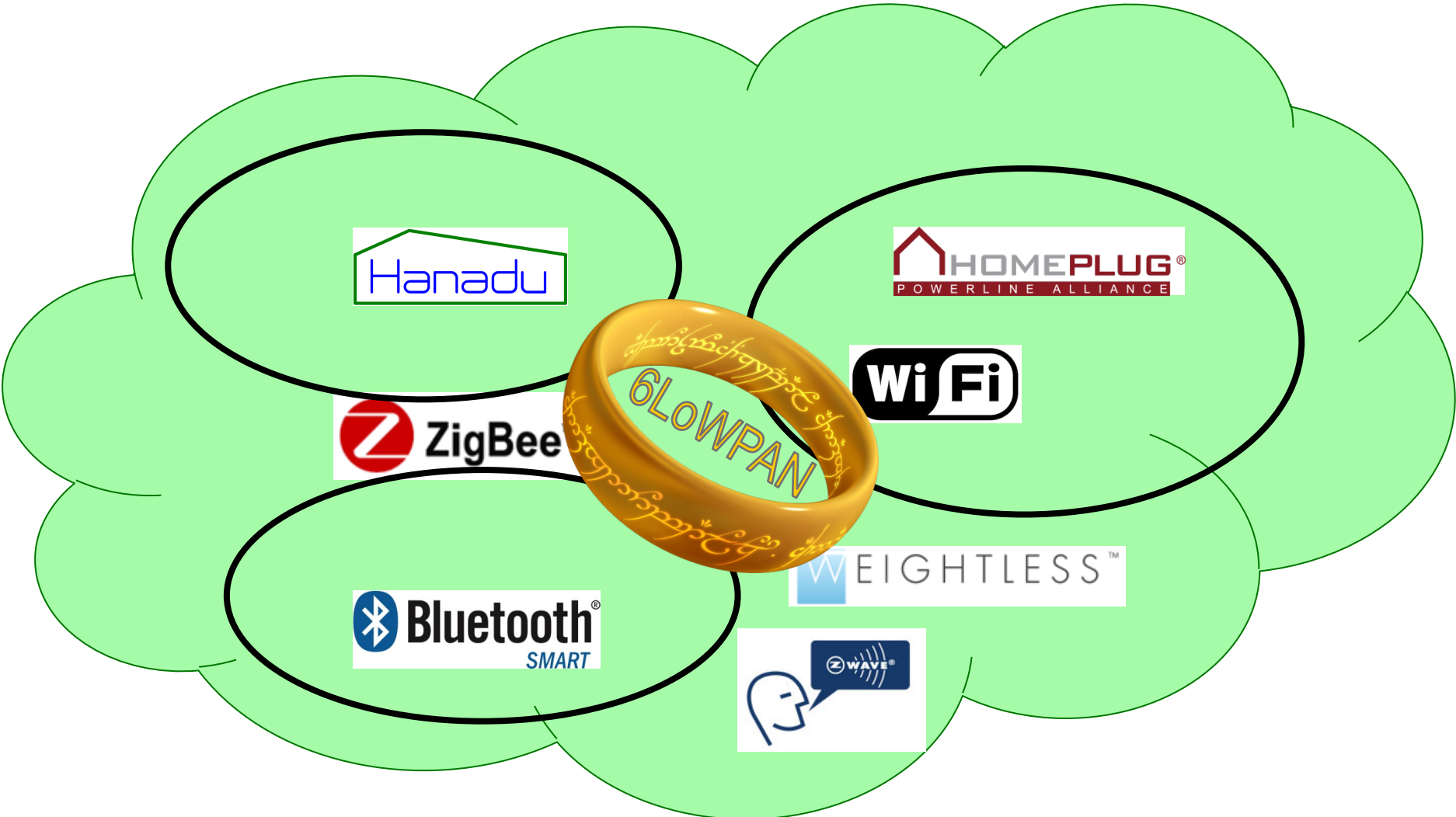
▶ Not all are native IP

▶ Few are native IPv6

▶ Radio technologies: difficult to deploy into the average home

▶ Multiple applications often require multiple networks

The Cloud Within The Home

"And In The Smart Home Bind Them"

Hanadu Interworking Capabilities

Hanadu Interworking Capabilities

Xsilon

▶ Comprehensive interworking capabilities based on common network components: 802.15.4 and IPv6

6LoWPAN interworking

ZigBee meshing
ZigBee profiles

Hanadu

6LoWPAN

HAN2WAN IPv6 bridging

Thank You

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