



FUTUREDASH

See Your World Differently

Energy Management as an App

Kevin Strong - CEO

FutureDash

- Orange County startup with unique cloud-assisted wireless sensor platform
 - Combination of real-time embedded gateway system enhanced by cloud services
 - Patent pending
 - Highly secure & private
 - Applications in energy management, home automation, home security, telehealth / connected care and personal monitoring
- First application, software & hardware, targeted at the emerging home energy management marketplace

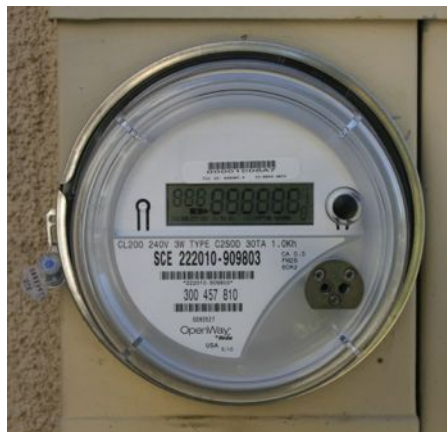


Energy Management as an App?

Today: Dedicated hardware and software



Future: “Free” hardware + open platform for apps



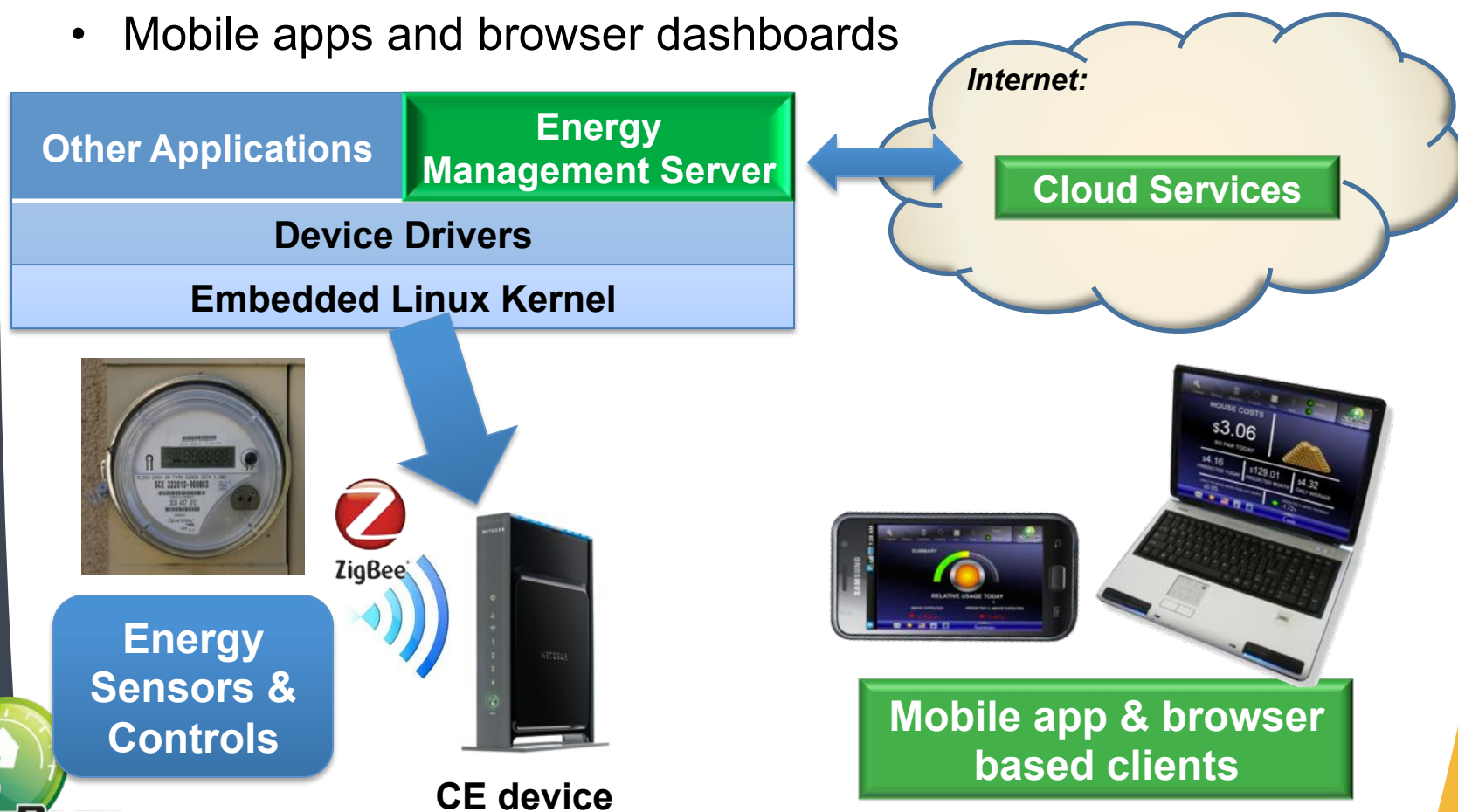
Energy Management application categories

- Basic {real-time} awareness of whole-home usage
- Energy-centric home automation
- Energy management integrated with security, home control & automation
- Disaggregated usage data for deeper understanding & finer granularity
- Residential demand-response



Architecture for Energy Management as an App

- Standards based communication with smart meter / energy sensors & controls
- Embedded energy management server on 24/7 CE device
- Supporting cloud services
- Mobile apps and browser dashboards



Embedded Linux CE devices



**Dedicated Energy
Management Gateways**



Wireless routers



**Telco / Cable
residential gateways**



Set-top Box



Smart TV



Blu-ray / DVD players



Media Players



**Network Attached
Storage**



Game machines

Optional add-on energy sensors and controls



Smart Plugs and Load Controllers

Multi-circuit energy monitoring



Wireless Thermostats

Market Opportunity

PikeResearch

Home Energy Management Market will surpass \$2 billion in annual revenue by 2020



By 2015, 13 percent of U.S. households will have some type of energy management network.
The market for lighting controls, programmable thermostats, and self-monitoring systems will each exceed \$1 billion



US market for HAN and home energy management products and services will exceed \$750M by 2015

NanoMarkets

Sales of sensors and related software for home area network (HAN) applications will reach \$1.1 billion by 2014



150 Million HAN-enabled Smart Meters by 2020

Market for equipment and services for the Smart Energy home will exceed \$3B globally by 2014

HAN = Home Area Network. Industry terminology for a network of energy management devices, enabled appliances and applications on the home side of the electric meter. (Gas & water smart meters can be included too)



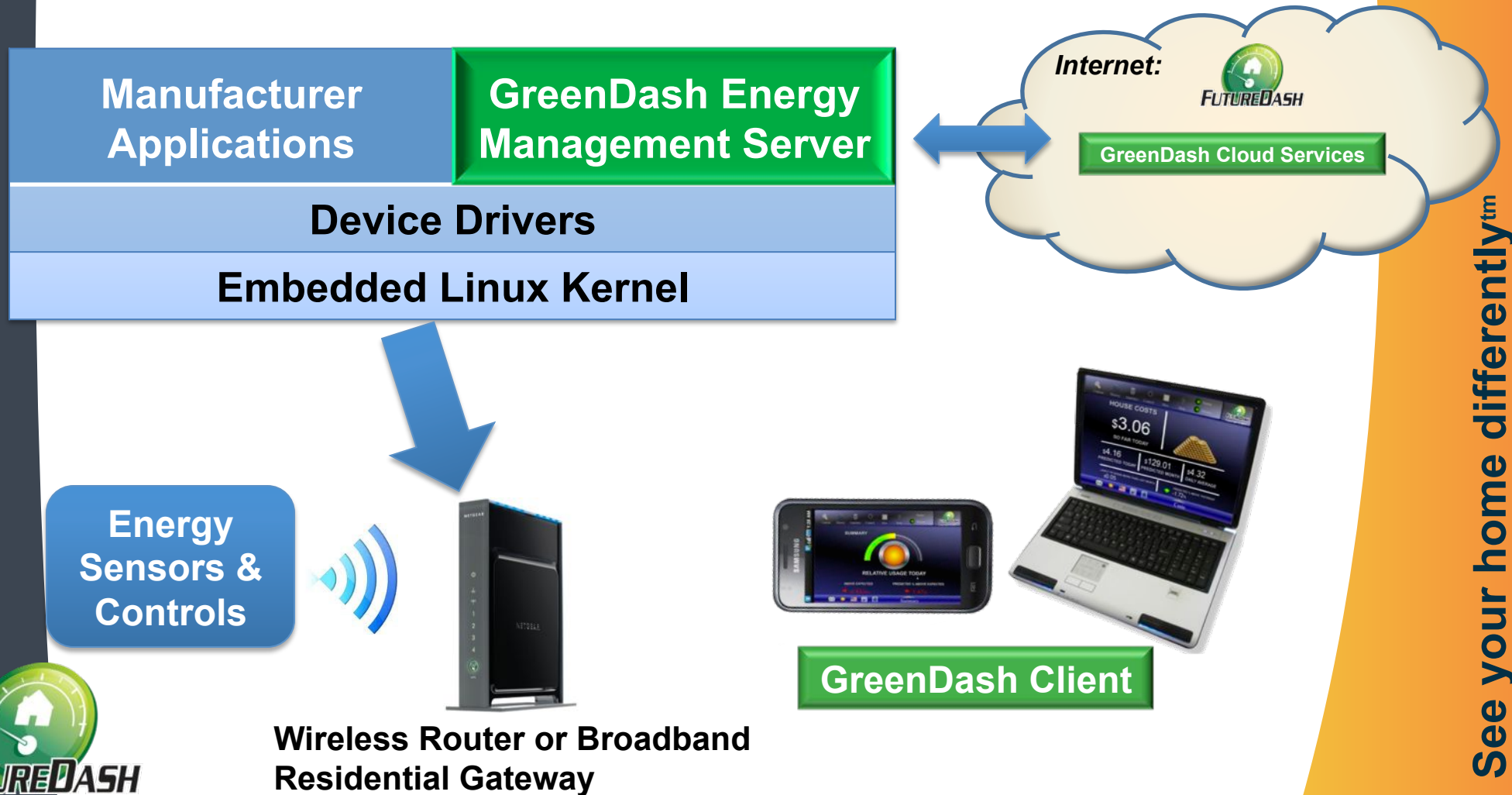
Challenges

- Standards to create an open market
- Minimizing additional power required to measure & control power...
- Privacy & Security of energy usage data
- Motivating customers



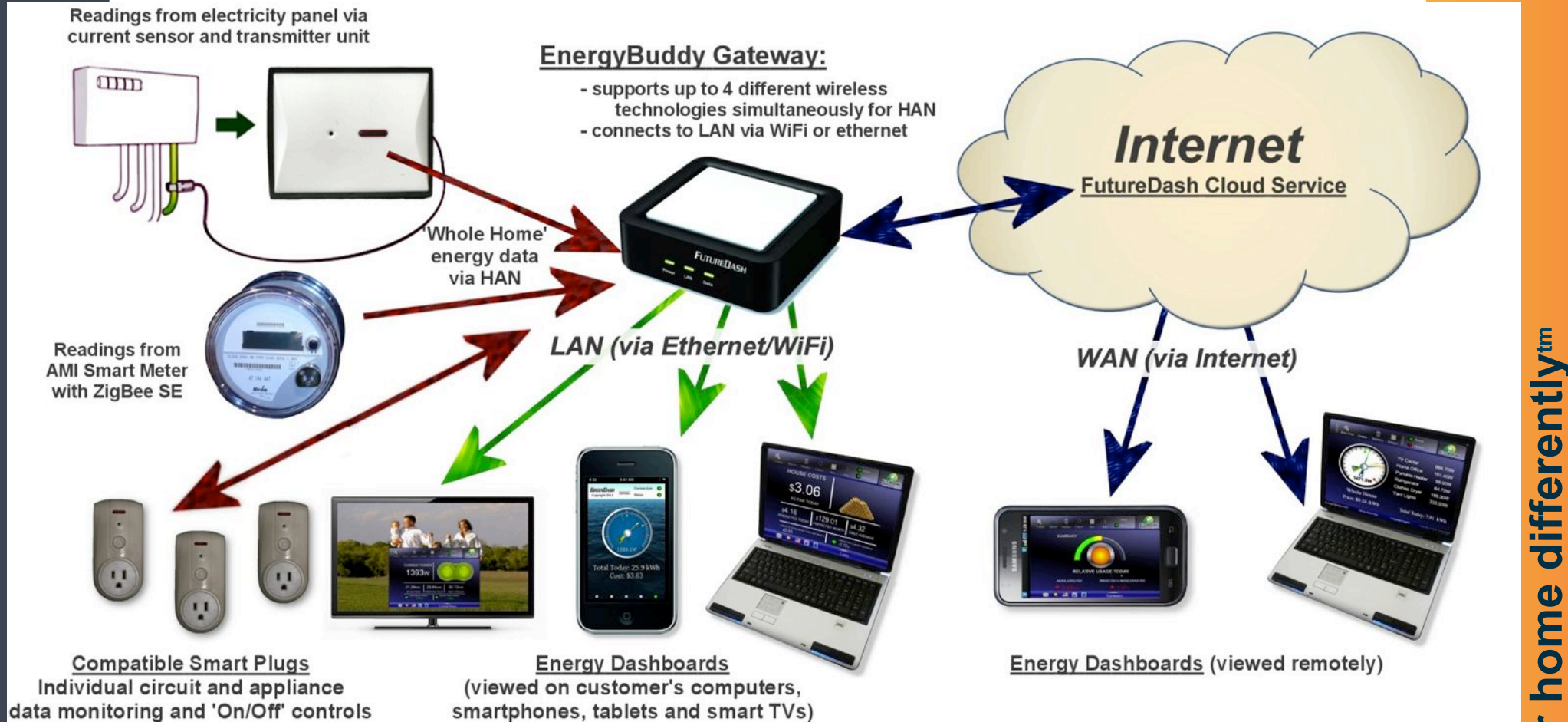
FutureDash's Core Software Platform

- Application software for embedded Linux devices such as Wireless Routers & Residential Gateways
- Easily ported to OEM / Service Provider platforms (Embedded Linux)
- Supported by GreenDash Cloud Services



See your home differently™

EnergyBuddy system



EnergyBuddy Kit



Summary

- {Real time} Energy Management as an App is coming.....
- Basic real-time awareness of energy usage will be “free”
- Vibrant and diverse market for more advanced energy management products & services is emerging

