Building the Internet of Things

New protocols need not apply

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YAS

(Yet Another Suit)

Why stay awake...

The “Internet of Things” coined in 1999

Conventional wisdom was we needed special purpose protocols – IP was for (PCs)++

IP was considered:

Too complex

Too much code

Too much memory

Too large headers

All wrong

Many view the IoT as:

-Intrusive

-Big Brother

-Just a lot of hype

-A way to sell more stuff we don’t need

-So what – the IPv6 lightbulb

IPv6 is necessary

Address space

Autoconfiguration

IP is Essential

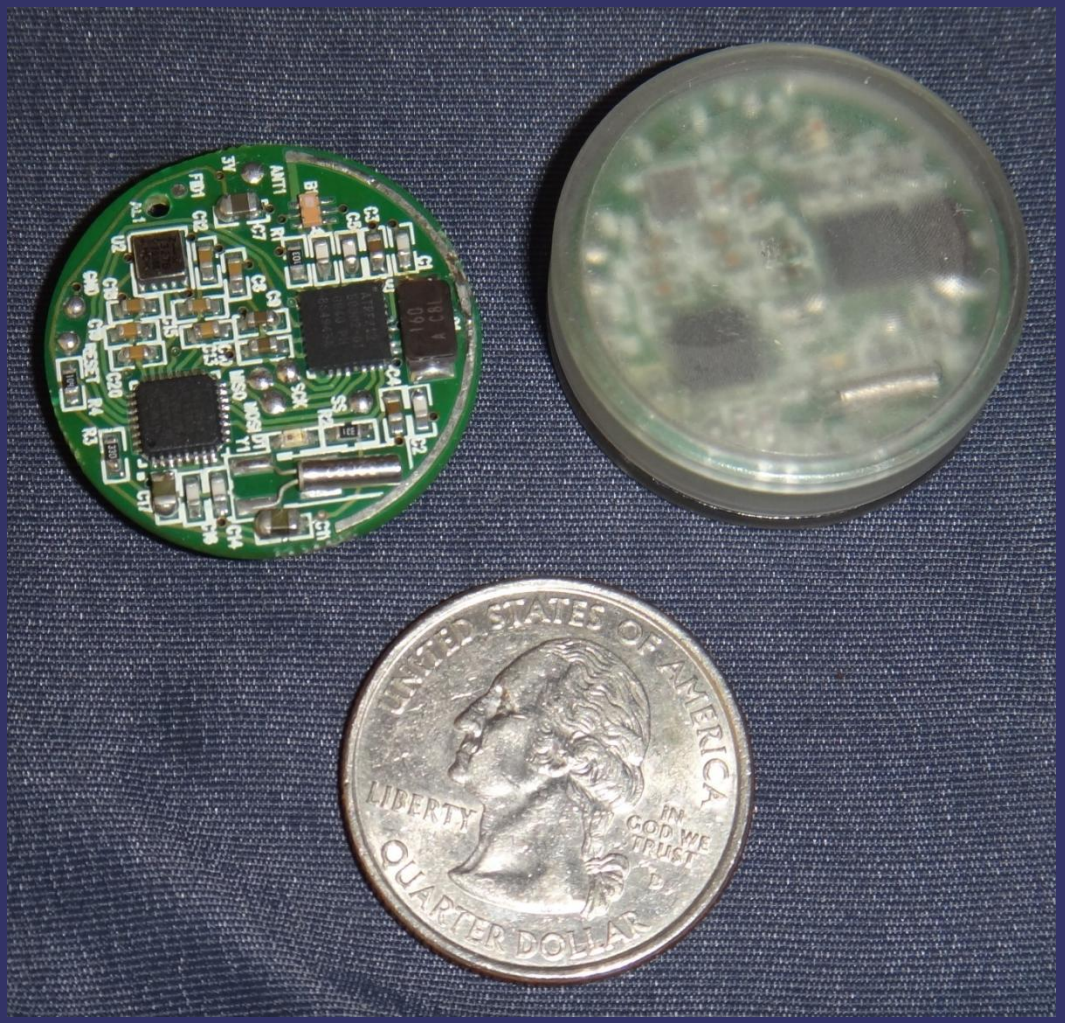
Leverage existing knowledge, tools, protocols, experience

Support for multiple PHYs

End to end connectivity, security

No gateways/translation

Coin Cell Module



- ✓ Battery Operated
- ✓ 3-D accelerometer
- ✓ Temp Sensor
- ✓ Light Sensor
- ✓ 802.15.4
- ✓ IPv6/6lowpan
- ✓ Multi-year battery life
- ✓ Coin Flip application

The Presidential Innovation Fellows Program

- Started 2 years ago by US CTO
- Create pockets of innovation in US Government
    - Open Data Initiative, My Data Initiative

- Cyber-Physical Systems / Internet of Things

Cyber-Physical Systems – not just another name for the Internet of Things

SmartAmerica Challenge

-Launched in December 2013
-Over 20 projects/teams
-Cross-sector CPS test-beds
-Show the benefits to:
  -Administration
  -Legislature
  -Agencies
  -*American Public*

-We will hold a Summit at the White House in June
-The projects need to show:
    -Job Growth
    -Economic Growth
    -Creating new job industries
    -Improve or save lives
-Light the imagination for what is to come

IPSO Application Framework

IPSO Alliance –www.ipso-alliance.org

60+ member companies promoting IP in sensor/control, M2M and IoT applications

Application Framework

Application agnostic
"Restful" compatible – COAP or HTTP
License Free

INNOVATE. CREATE. WIN $10,000.

ipso 2014 CHALLENGE

www.ipso-alliance.org

- PIF Round 3 is open
- Apply by April 7
- 3 Project areas
  - 21st Century VA
  - Open Data Initiative
  - Crowd Source Open Data Tools

- www.whitehouse.gov/innovationfellows

New Product Idea

The IPv6 Ready Ethernet Cable

Thank you

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