The Web for Smart Objects

Zach Shelby
Chief Nerd @ Sensinode
The Web of Things

M2M Applications

Asset Management
Facility Management
Security Monitoring
Energy Management

IP Smart Objects

???

CoRE
Web Linking
JOSE
TLS
SenML
HOMENET
LWIG

Developers

IETF

W3C

ETSI

OASIS

Open Mobile Alliance

BACnet

ZigBee
WoT Building Blocks

• The IETF should **enable** the Web of Things
  – IETF = Horizontal building blocks
  – Others = Vertical applications & profiles
• Efficient yet standard protocols
• Optimized security toolbox
• Smart object data formats (like SenML)
• Identity, discovery, directories, search
  – Web Linking is a great framework
• Applicability for verticals
Challenges

• Tussle: Web Search vs. DNS
  – Some want DNS-SD for WoT resource lookup
  – Yet the Web today is all links and search
  – How to unify these worlds?
• Tussle: Centralized vs. distributed
  – How to design mechanisms for both?
• Threat: People turn this into an IMS of Things
  – IETF needs to give enough of a sane solution
  – Let’s give sound blocks/advice for other SDOs