IOT Week 2017: IOT Standards

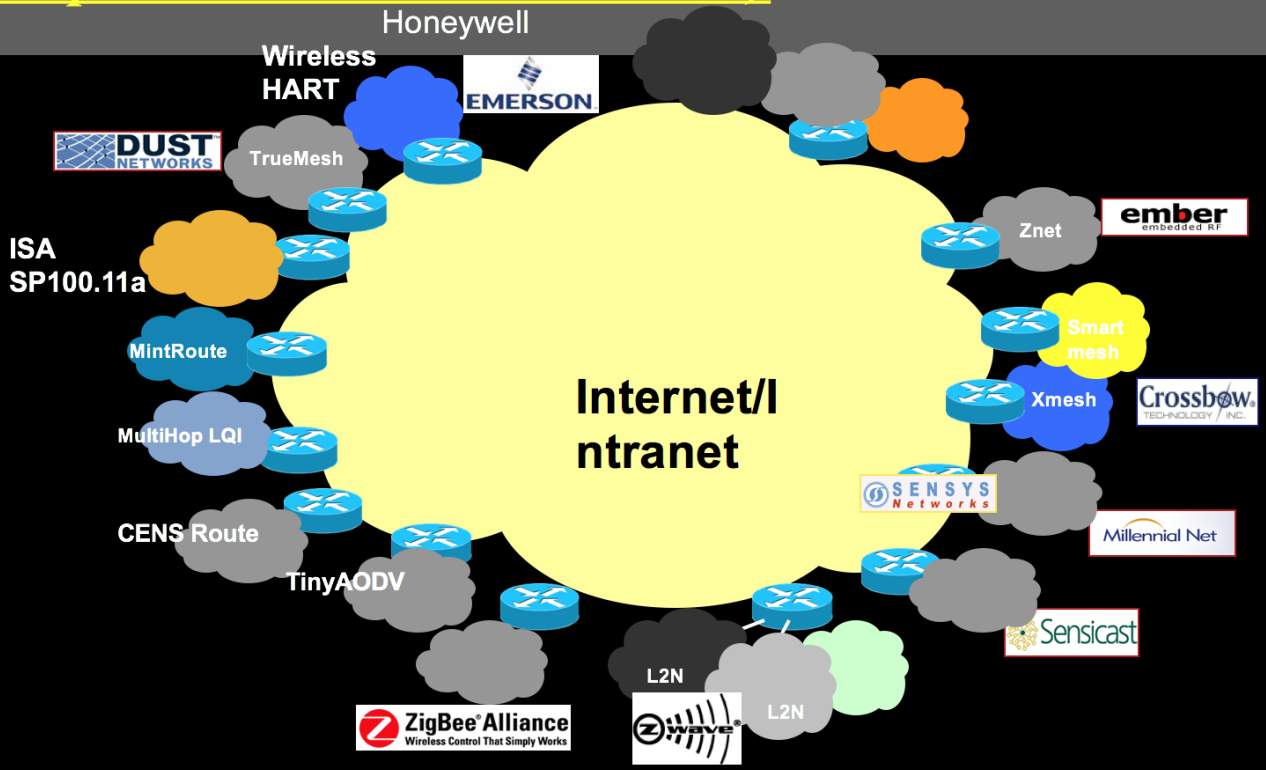
Patrick Wetterwald, CTAO IOT Standards and Architecture

ETSI IP6 Vice Chairman, IEC SEG8 Chair, IPSO Alliance Past President

pwetterw@cisco.com

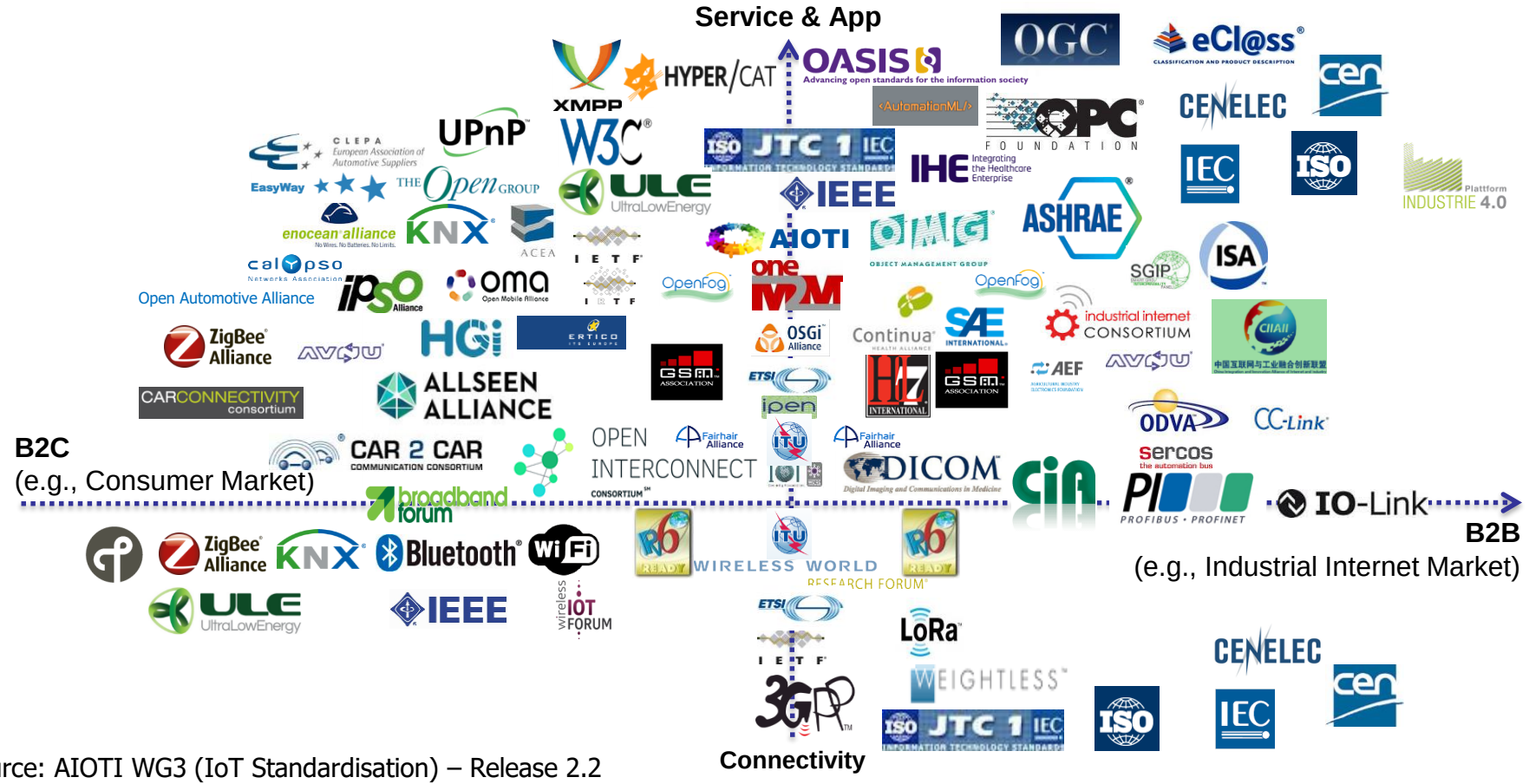
June 6th , 2017

So far … WAS (Wait And See) - *The current Trend (Slide presented at the IETF – 2007)*



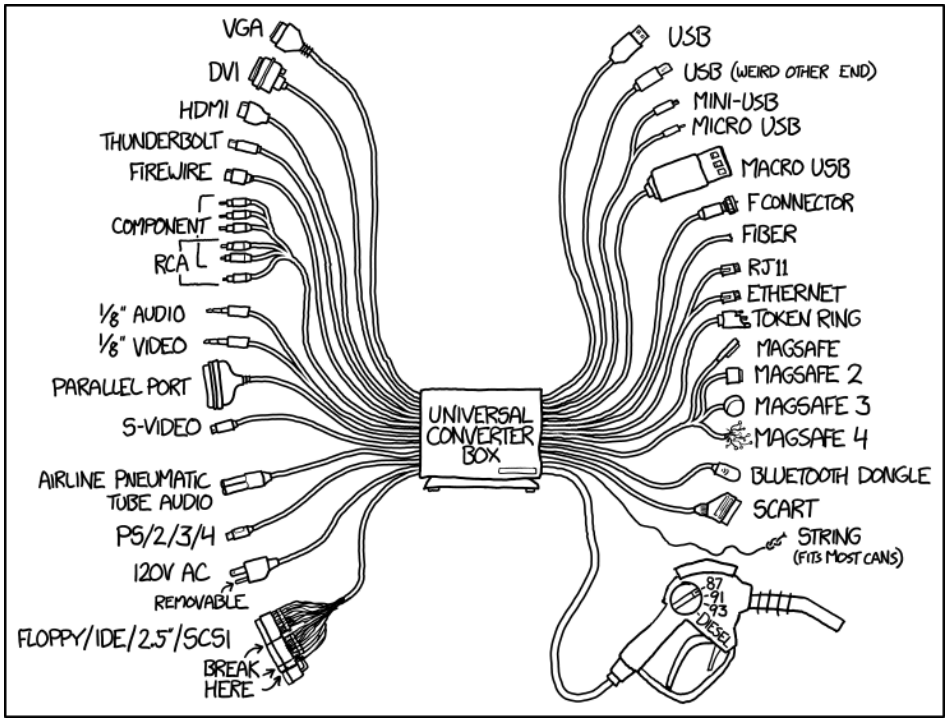
Most promoters of non-IP solutions have understood that IP was a MUST: they call this "IP convergence": A protocol translation gateway ! Or Tunneling …

IoT SDOs and Alliances Landscape (Technology and Marketing Dimensions)



Source: AIOTI WG3 (IoT Standardisation) – Release 2.2

We solved the interoperability problem



What made the success of the Internet?

- Open standards to support the Innovation
- Simple Layered Architecture
- Clear SDO's domains ownership
- Constant evolution to follow the Innovation
  - Leading to specific IOT deliverables:
    - IETF: 6LowPan, Roll, Core, 6Lo, LPWAN, Ipwave…
    - IEEE: 802.1TSN , 802.15.4 …
    - …
- Endorsed (Profiling) by International SDOs
  - Interoperability / Certification

Current issues with IOT standardization

- Established SDOs usually implies long lead time. (Process, Consensus based, Blocking situation, Influential role…)
- Industrial Alliances with a few partners are more efficient and also define a go to market strategy but they are not always « open » and IPR policy needs specific attention.
- IOT is bringing new challenges:
  - Virtualization
  - Semantic interoperability (no more only text, picture or video)
  - Domain specific requirements (Security, Determinism, Deployment, Environmental)
  - Big Data, Analytics, Fog
- Marketing messages appear before the standard readiness

IOT Standardization bodies

- Beside new Industrial Alliances, Existing SDOs will continue to play an important role:
  - IETF: close to 9000 RFCs
  - IEEE: 1300 active standards, 600 in production
  - IEC: 9000 Standards
  - ISO: 21639 Standards
  - ITU
  - ETSI, W3C ...

Be yourself; everyone else is already taken.
Oscar Wilde

Thanks You