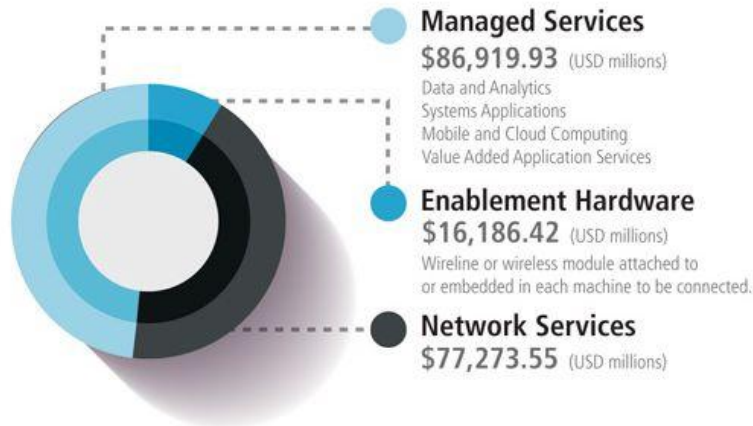


Intro to W3C “Web of Things” Interest Group

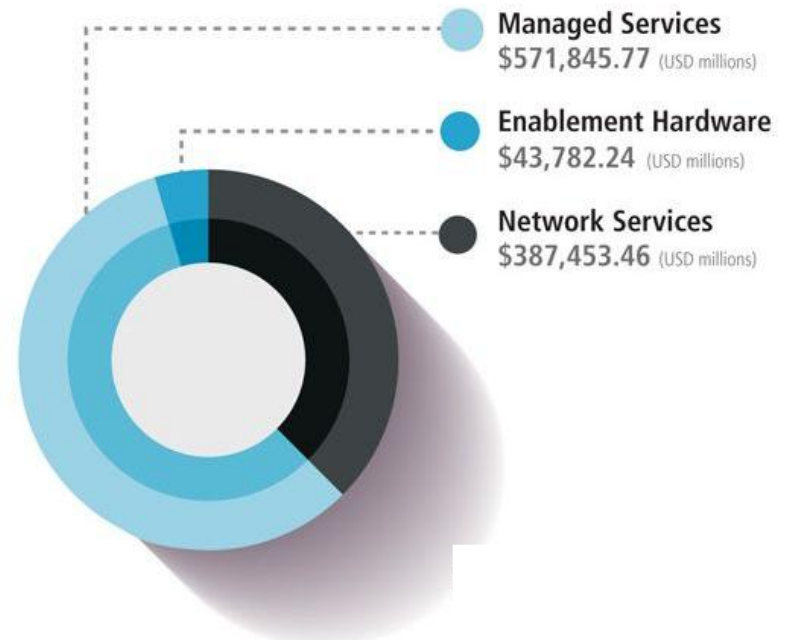
The WoT market is more than things

2014

180+ Billion in Revenue
in 2014



2020



Source: Postscales / Harbor Research

but ...

What is it about?



And concretely ...

Source: Postscapes / Harbor Research

Example:
Web technologies in Combined Charging System
(CCS, ISO/IEC 15118)



Sources: BMW, efacec, GH, GM, greenmotor.uk, VW

Interfaces supporting multiple stakeholders: OEM, Infrastructure Industry, Grid / Mobility Operators, End customer, Regulation, Cities, ...

What interaction paradigms have persons and these distributed things in common?



participation in a chat room



Local storage participating in a Virtual power plant (VPP)

Can web technologies for human interactions e.g. chat be used to organize the IoT, like the collaboration of distributed energy resources?

W3C Web of Things Workshop Berlin, June 2014



W3C Web of Things Workshop

Berlin, June 2014



Presentation and discussions on

- Sharing experiences, use cases and reqs
- From things to the Web of Things
- Security, trust, privacy, provenance, access
- Semantics, linked data, vocabularies
- IoT projects and standardization bodies

Break out sessions:

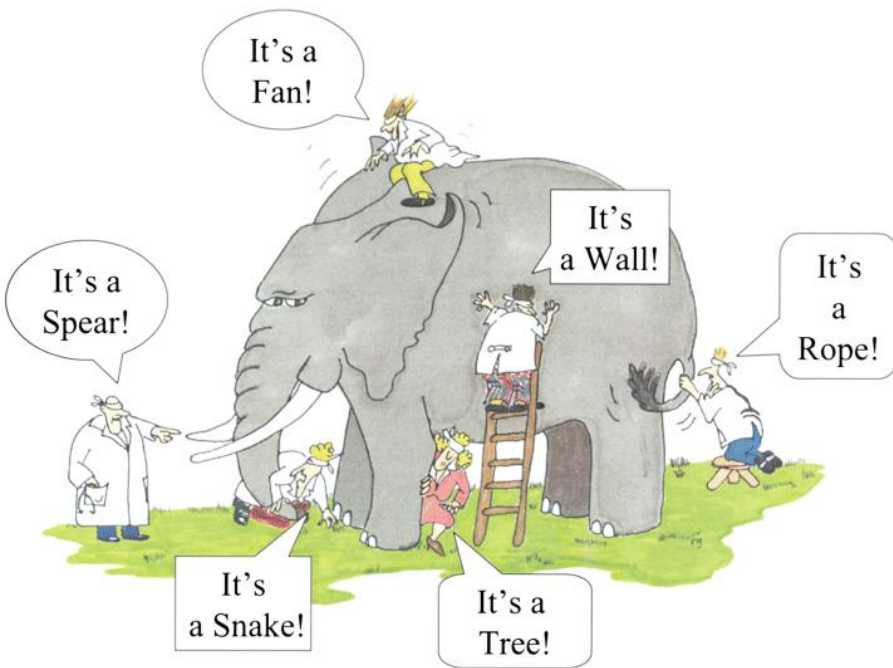
- Service descriptions for the WoT
- Interaction models for the WoT
- Scripting in the WoT
- The Web of Things Friendly Label



Demonstrations:

- Node-RED - a wiring tool for the WoT
- Connect devices to the Web
- WoT-based Vehicle to Grid Communication
- EVERYTHING Web of Things API
- On-the-fly Integration of Static and Dynamic Linked Data

W3C WoT IG is about ...



Source: nature.com

Projects and Use cases:

- what are common requirements

Architectures:

- how to enable things being part of the web?

Cross Layer Aspects:

- How to optimize web technologies for constraints such as power?

Security Architecture:

- what is reasonable for things which most of the time we are not aware of

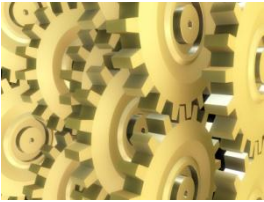
Simple Set Up of Collaborations:

- how can semantic web simplify the interaction between different domains?

... to compile a joint understanding of WoT from different viewpoints and to discuss what is available to implement it

Charter of W3C WoT IG

(<http://www.w3.org/2014/12/wot-ig-charter.html>)



Motivation

- Overcome the domain silos
- Enable cross domain thing interactions
- What web technologies are applicable for this?
- How to model things and provide context to the data?

Scope

- Survey of WoT use cases
- What thing interactions are common
- Identify relevant WoT building blocks
- Collaboration with other standardization organisations

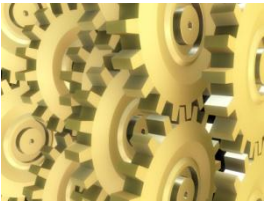
Deliverables

- WoT Use cases and requirements
- Landscape of WoT technologies
- Guidelines on best practice
- Missing WoT building blocks or adaptations



W3C WoT IG

Work has started with



- Screening of available use case descriptions
https://www.w3.org/WoT/IG/wiki/Use_cases_across_application_domains#Links_to_external_work_on_use_cases
- Taxonomy of use case domains
https://www.w3.org/WoT/IG/wiki/Use_cases_across_application_domains#Use_Cases_and_Applications
- WoT objective for use cases and interaction patterns
https://www.w3.org/WoT/IG/wiki/Use_cases_across_application_domains#Use_case_writing_style

Potential Interaction with T2T



- Joint understanding of use cases
- Probably complementary focus and interests
 - T2T: e.g. network management, transport, ...
 - WoT: e.g. web applications, semantic web, ...
- But also joint interests: e.g. security, beyond REST, ...