W3C WoT IG Sunnyvale face to face meeting

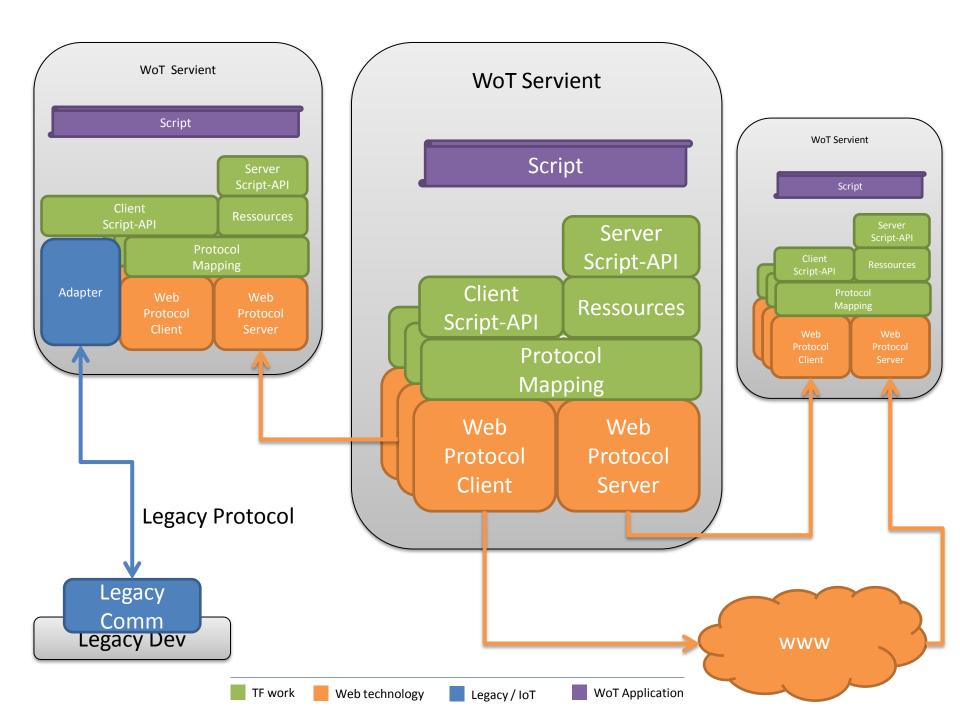
Report of
Task force on API and protocol mapping
by Johannes Hund

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Discussion topics of TF-AP

- Architecture Model
 - Reach consensus for an architecture model
- Use cases & Requirements
 - Collection and dissemination of IoT scenarios
- Technology Landscape
 - Relevant IoT resp. Web protocols and technologies
- Abstract Resource Model
 - Protocol-agnostic typed resources for web things:
 Properties, Actions and Events/Subscriptions

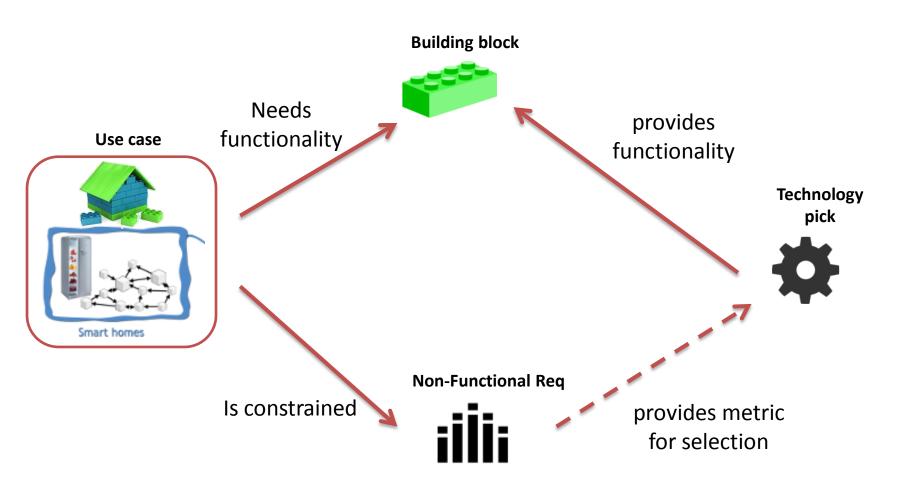
Architecture Model



Use cases in a web of things

Use case document

Document: http://w3c.github.io/wot/wot-ucr.html



Abstract Resource Model for Things

Web Thing model

- Properties
 - Static or dynamic properties of the Thing
- Actions
 - Invocable actions on a thing
 - May or may not result in state change
- Subscriptions/Event Sources
 - Intention to be notified on a certain condition

Web Thing model by example

Imagine a coffee machine

- Properties
 - Fill level of Water
 - Number of cups served
 - Brewing Temperature
 - Coffee Prices
- Actions
 - Brew
 - Clean run
 - Refund
- Subscriptions/Event Sources
 - Coffee poured
 - Service interval
 - Money inserted



Technology landscape

Technology landscape of TF-AP

https://www.w3.org/WoT/IG/wiki/APIs_and_Protocols_TF#Technology_Landscape

To be merged into

http://w3c.github.io/wot/landscape.html

- Protocols
 - Protocols that allow to map the abstract model
 - Protocols that can be generically adapted
 - Legacy protocols
- Resource Models
 - Common resource models
 - Models from consortia or domains
- API patterns
 - Patterns used in scripting APIs that interface the web

Our expectations for this F2F

Expected outcomes of the F2F

- Tech landscape:
 - Structure and example contents
 - Assigned caretakers
- Resource Model:
 - Consensus on the principle ideas
 - Structure of deliverable
- Architecture model:
 - Consensus on taxonomy and picture
 - Assigned caretakers
- Goal-setting for TPAC

Agenda points for the break-out

- Recap of discussion / sync
- Report from joint F2F with IRTF T2T pRG
- Joint discussion of security&privacy topics
- AP Discussion topics:
 - Resource model (Review, prepare consensus)
 - Architecture (Merging and prepare consensus)
 - Tech landscape (Structure, Contributions, Caretakers)
 - Example protocol mappings
 - White gaps (Brainstorming, Filtering, Detailing)
 - Next Steps

Questions?

Use case document - contributing

Document: http://w3c.github.io/wot/wot-ucr.html

Sources: https://github.com/w3c/wot

- 1. Go to repo w3c/wot
- 2. Year the repo to create your local copy
- 3. Add & commit your changes to your fork of wot/ucr-doc/wot-ucr.xml
- Discuss and review the changes in this comparison with others.
- 5. The pull request is nerged
- 6. The document is automagically updated