

Discussion - Mechanisms for Component Supporting Thing Description

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Mechanism indicated in WG Charter

1. To maximize interoperability, relation types for specific purposes should be identified. (from Section 2.2 Link-Relation Types)
 - Candidates for link relation type specification may include **type-of** and **part-of** relationships to support Templates and Components, respectively.
 - Other link types may be used to identify location or controller-controlled relationships, or implementation of specific network APIs.
2. (To) assemble a Thing Description from a set of reusable, modular capabilities, or declare that it supports some API, that is common to a class of Things. (from Section 2.4 Templates)
 - How is a TD Component to be defined and how are they to be combined into a complete Thing?
 - How is a TD Consumer able to determine that a particular Thing supports a specific sub-interface common to a set of Things?



Web of Things Working Group Charter

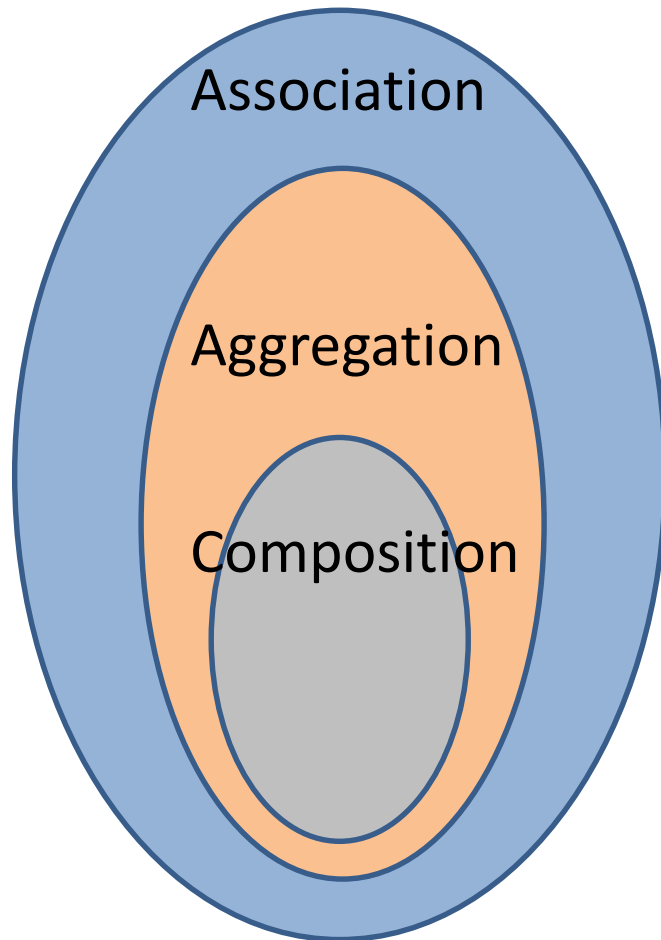
The mission of the [Web of Things Working Group](#) is to counter the fragmentation of the IoT through the specification of building blocks that enable easy integration of IoT devices and services across IoT platforms and application domains. These building blocks should complement and enhance existing standards. This [Working Group Charter](#) covers those aspects that the [Web of Things Interest Group](#) ([charter here](#)) believes are mature enough to progress to W3C Recommendations.

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Start date	31 January 2020
End date	31 January 2022
Charter extension	See Change History .
Chairs	Michael McCool (Intel) and Sebastian Kaebisch (Siemens)
Team Contacts	Kazuyuki Ashimura (0.2 FTE) Dave Raggett (0.1 FTE)
Meeting Schedule	Teleconferences: Weekly with additional topic specific calls as appropriate. Face-to-face: We will meet during the W3C's annual Technical Plenary week; additional face-to-face meetings may be scheduled by consent of the participants, with no more than four (4) face-to-face meetings in total per year.

Scope
Deliverables
Success Criteria
Coordination
Participation
Communication
Decision Policy
Patent Policy
Licensing
About this Charter

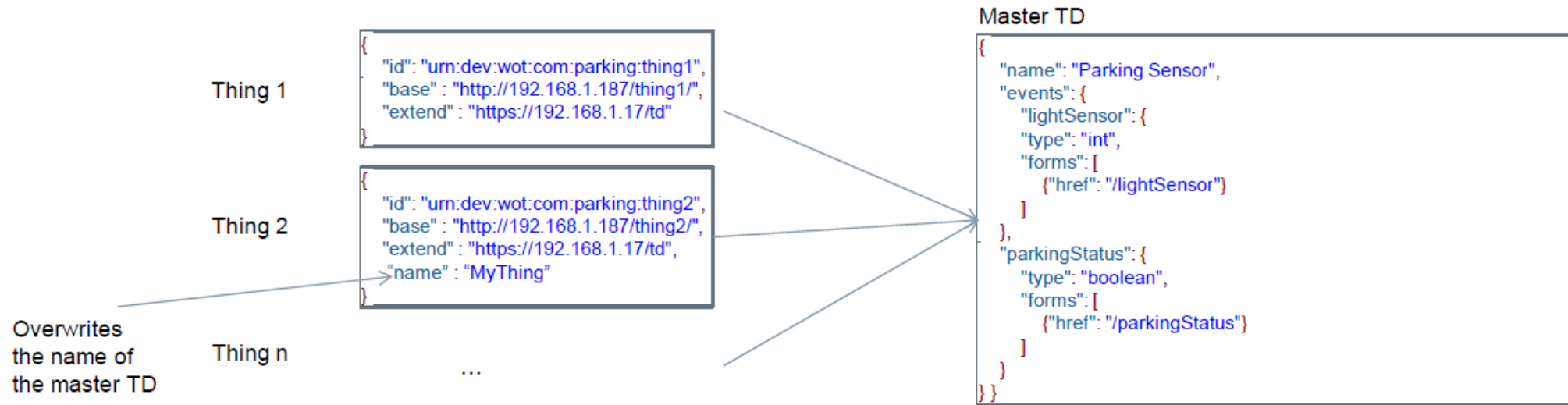
UML Associations



- Associations
 - E.g. TD to Model, Features of Interest such as location, License information, etc.
 - Should we use link-relation types?
- Aggregation
 - E.g. Array of LEDs, Array of keys on a keyboard, a collection of sensors in farms.
- Composition
 - Is vehicle a Thing? Or A network of things?
(e.g. [VSS](#) - Body, ADAS, Cabin, Chassis, Drivetrain, OBD)
 - Should we use “contain” the components in TD?

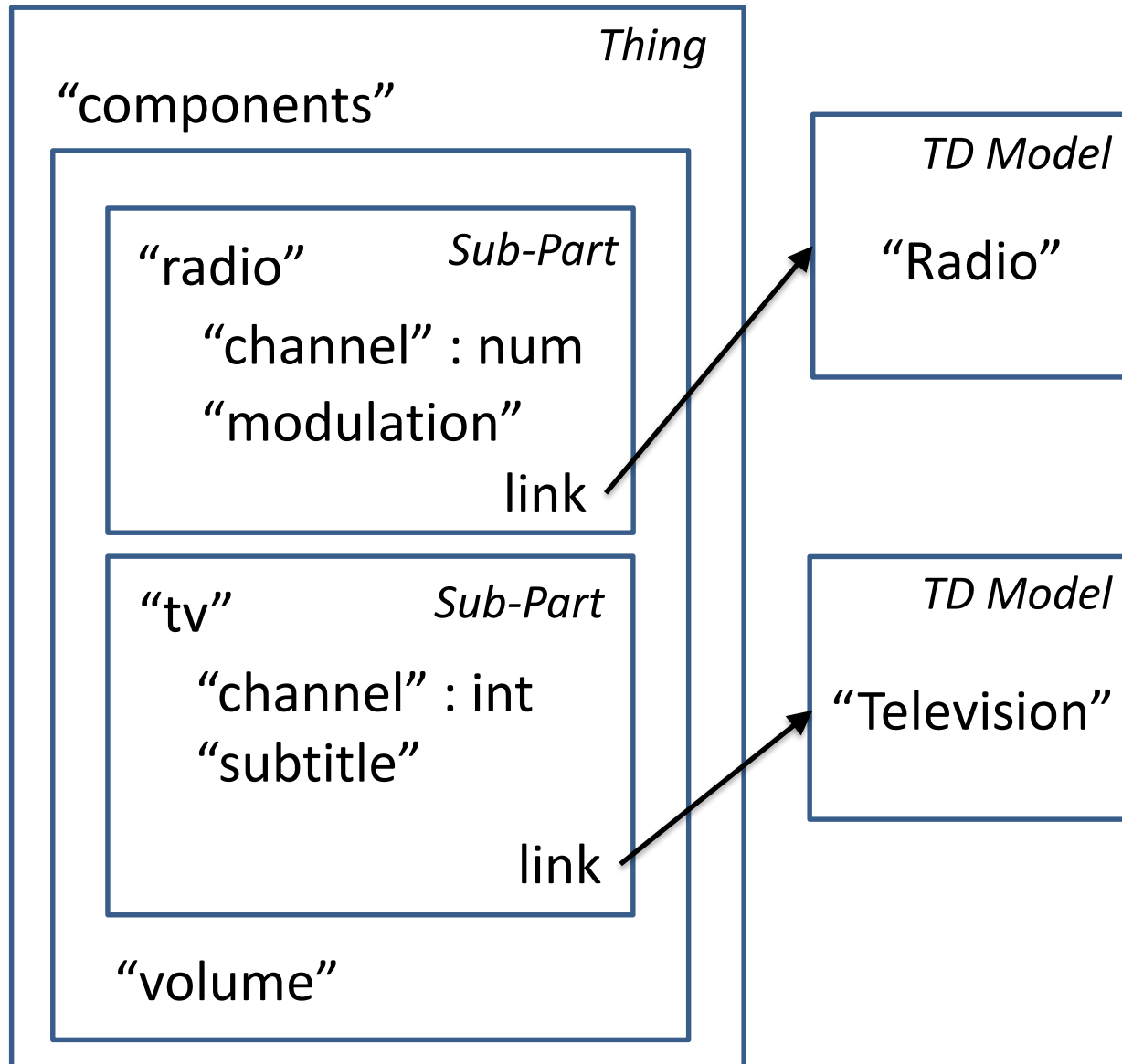
Issues relevant to Composition

- Inheritance (Issue [#168](#))

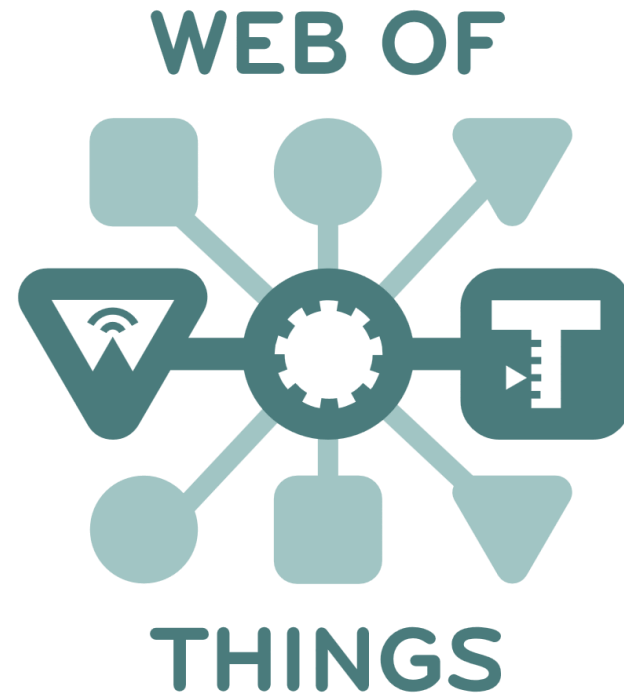


- Support for Components in ID (Issue [#958](#))
 - "components": { "name": obj } structure, where "obj" is basically a Thing.

Issue 958: Component mechanism to support mashups



- Several sub-parts in TD to be able to separate them in a modular way.
- Sub-parts are each implementations of a sub-API capability described elsewhere.
- Each sub-part is basically a Thing.
- Another use case is the TD we are writing for the [WoT Directory](#), which has several sub-APIs.
- Solution should be aligned with [OneDM](#).



Thank you!