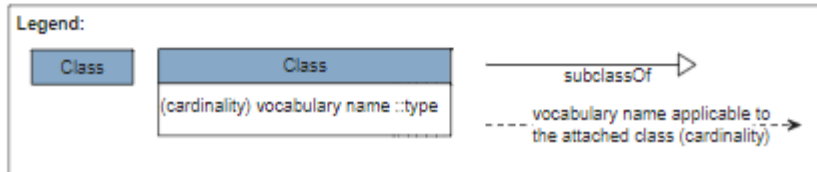
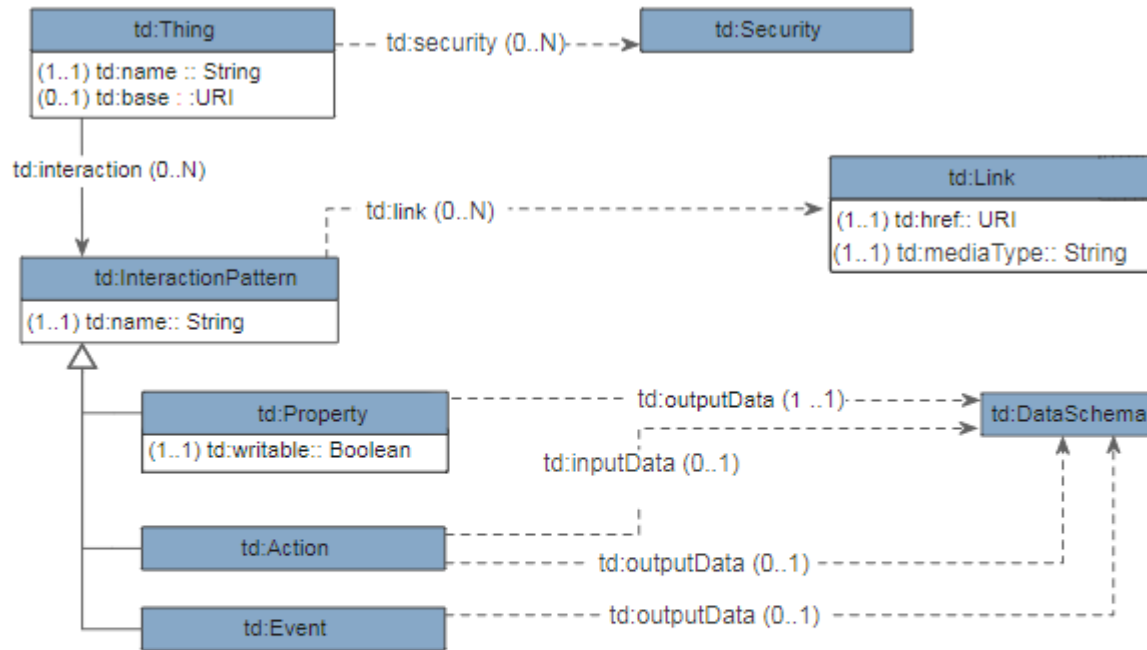


W3C WoT WG
Thing Description

First Public Working Draft
September 2017

Sebastian Kaebisch

TD Core Model



TD Serialization with JSON-LD

W3C WoT TD
vocabulary

```
{
  "@context": [
    "http://w3c.github.io/wot/w3c-wot-td-context.jsonld",
    {"sensor": "http://example.org/sensors#"}
  ],
  "@type": ["Thing"],
  "name": "MyTemperatureThing",
  "interaction": [{
    "@type": [
      "Property",
      "sensor:Temperature"
    ],
    "name": "temperature",
    "sensor:unit": "sensor:Celsius",
    "outputData": {"type": "number"},
    "writable": false,
    "link": [{
      "href": "coap://mytemp.example.com:5683/",
      "mediaType": "application/json"
    }]
  }]
}
```

domain-specific
vocabulary

JSON Schema
base types plus
semantics

Let's go in!

W3C Working Draft

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Web of Things (WoT) Thing Description

W3C First Public Working Draft 14 September 2017



This version:

<https://www.w3.org/TR/2017/WD-wot-thing-description-20170914/>

Latest published version:

<https://www.w3.org/TR/wot-thing-description/>

Latest editor's draft:

<https://w3c.github.io/wot-thing-description/>

Editors:

Sebastian Kaebisch, [Siemens AG](#)
Takuki Kamiya, [Fujitsu Laboratories of America, Inc.](#)

Contributors:

[In the GitHub repository](#)

Repository:

[We are on GitHub](#)
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Abstract

This document describes a formal model and common representation for a Web of Things (WoT) Thing Description. A Thing Description describes the metadata and interfaces of Things, where a Thing is an abstraction of a physical entity that provides interactions to and participates in the Web of Things. Thing Descriptions provide a narrow-waist set of interactions based on a small vocabulary that makes it possible both to integrate diverse devices and to allow diverse applications to interoperate. Thing Descriptions, by default, are encoded in JSON-LD. JSON-LD provides both a powerful foundation to represent knowledge about Things and simplicity, since it allows processing as a JSON document. In addition to physical entities, Things can also represent virtual entities. A Thing Description instance can be hosted by the Thing itself or hosted externally due to Thing's resource restrictions (e.g. limited memory space) or when a Web of Things-compatible legacy device is retrofitted with a Thing Description.

Status of This Document

<https://www.w3.org/TR/wot-thing-description>

Current Experiments and Next Plans

- introduce ***observable*** flag in Property for TPAC PlugFest (e.g., for CoAP, MQTT,...)
- JSON Schema as Linked Data Representation
- Metadata for some protocol bindings, e.g., **method, headerOptions,...**
- allow URI template, e.g., /blabla/{timestamp}
- TD management and publication
- Alternative TD serializations (check new Mozilla & EVERYTHING proposal)

