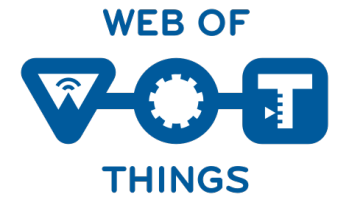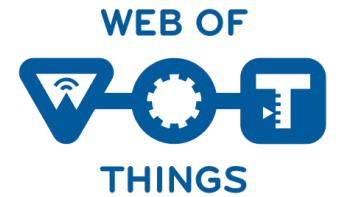# W3C WoT WG
TD Session

Helsinki VF2F 2020

Sebastian Kaebisch

Agenda

- Known TD spec bugs 😡

- Known underspecified features in TD spec 😐

- New features coming soon for TD 1.1 😀

- Status TDT

- Hypermedia (Daniel / Ege)

- Discovery and Security (just a recap what was discussed on Monday)

Known TD Spec Bugs 😡

WEB OF

WEB OF THINGS

- Example 17 shows invalid TD
  → PR: https://github.com/w3c/wot-thing-description/pull/914

  → Can be fixed in TD 1.1 and TD 1.0 REC

- Swapped security/securityDefinition definition in the TD context file
  → only relevant for semantic based parsing
  → https://github.com/w3c/wot-thing-description/issues/915

  → Errata for TD 1.0?

security	Set of security definition names, chosen from those defined in securityDefinitions. These must all be satisfied for access to resources.	mandatory	string or Array of string
securityDefinitions	Set of named security configurations (definitions only). Not actually applied unless names are used in a security name-value pair.	mandatory	Map of SecurityScheme

```
"securityDefinitions": {
    "@id": "td:securityDefinitions",
    "@type": "@id",
    "@container": "@index"
},


"security": {
    "@id": "td:hasSecurityConfiguration",
    "@type": "@id",
    "@container": "@set",
    "@context": {
        "td": "https://www.w3.org/2019/wot/td#",
        "jsonschema": "https://www.w3.org/2019/wot/json-schema#",
        "wotsec": "https://www.w3.org/2019/wot/security#",
        "hctl": "https://www.w3.org/2019/wot/hypermedia#",
        "rdf": "http://www.w3.org/1999/02/22-rdf-syntax-ns#",
        "in": {
            "@id": "wotsec:in"
        },
        "authorization": {
            "@id": "wotsec:authorization",
            "@type": "@id"
        },
        "token": {
            "@id": "wotsec:token",
            "@type": "@id"
        },
        "refresh": {
            "@id": "wotsec:refresh",
            "@type": "@id"
        },
        "proxy": {
            "@id": "wotsec:proxy",
            "@type": "@id"
```

Known underspecified features in TD spec 😐
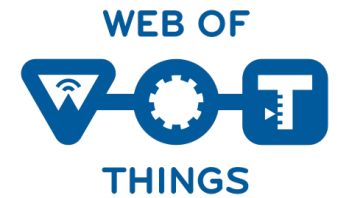
- Usage of URI variables, especially for actions
  → TD spec shows only an example for Actions, that confuses readers since we have the input field
  → Spec should provide a better explanation about the usage of URI variables like avoid them if possible
  → https://github.com/w3c/wot-thing-description/issues/910
  → PR available https://github.com/w3c/wot-thing-description/pull/911

  Will be improved in TD 1.1

- Clarifying how **readmultipleproperties** work
  → usage is very fuzzy and not clear to developer
  → usage of URI variables not possible so far, request payload structure and content type not clear
  → use cases required (CoAP PATCH?, OPC-UA, Cloud Systems?)
  → https://github.com/w3c/wot-thing-description/issues/848

  Will be improved in TD 1.1

- Improve the text on Action parameters
  → unclear, how one or multiple inputs / outputs parameters can be defined
  → https://github.com/w3c/wot-thing-description/issues/913

  Will be improved in TD 1.1

New features coming soon for TD 1.1 😃
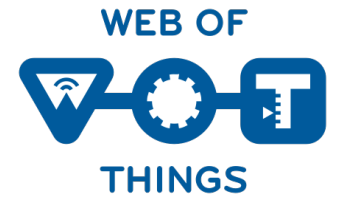
- Introduce **minLength**, **maxLength** and **multipleOf** in Data Schema model
  → PR available: https://github.com/w3c/wot-thing-description/pull/896
  → since it has impact in data schema definition, renew Figure 2 drawing and table extension in 5.3.2 waiting for the new render.sh script

- Introduce **definition** and **$ref** from JSON Schema to enable global definitions
  → also introduce JSON Pointer feature into TD language
- → Example and proposal is provided here:
  https://github.com/w3c/wot-thing-description/issues/307#issuecomment-650072301