

TD Extension Points

Links and Annotation

W3C WoT Face To Face Meeting

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TD Extension Points

- Links Field
- Thing Hierarchy
- Semantic Annotation

Links

- "links" field in the TD
- RFC 8288 => Web linking
- RFC 6690 + core-links-json => Web link serialization
- Points to related resources
- Collections of resources
- Hierarchies of resources

```
"links": [  
  {  
    "href": "https://servient.example.com/things/lamp/controller",  
    "rel": "controlledBy",  
    "mediaType": "application/td"  
  }  
]
```

Links pointing to TDs

- How do you point to a TD?
 - Stored in an RD
 - Exposed by a thing
- Collection of links in a TD
- TD as an index with link annotation
- Hierarchies of TDs

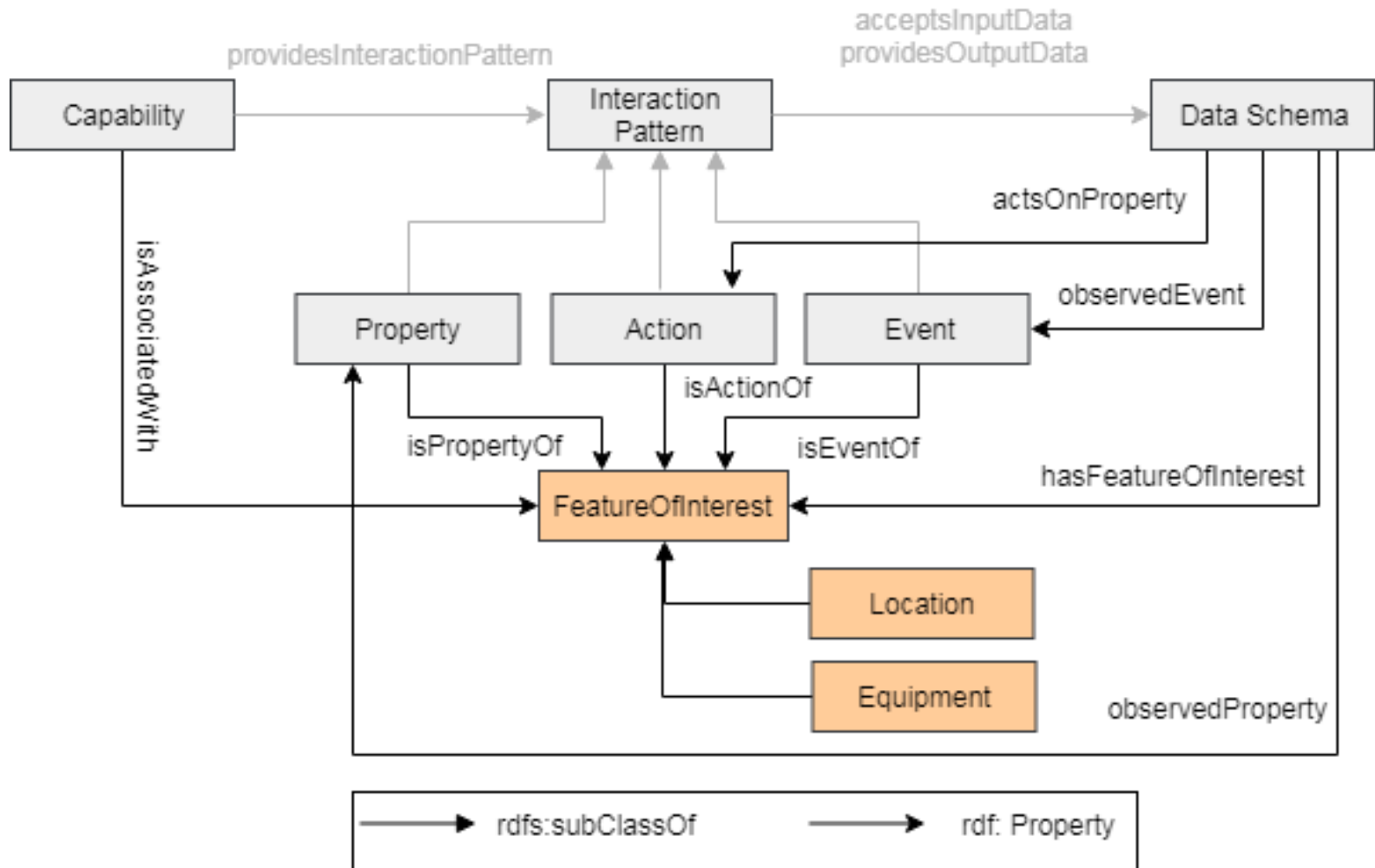
Collection-Hierarchy

```
"links": [  
  {  
    "href": "https://servient.example.com/things/lamp/controller",  
    "rel": "controlledBy",  
    "mediaType": "application/td"  
  },  
  {  
    "href": "https://servient.example.com/things/lamp",  
    "rel": "partOf",  
    "mediaType": "application/td"  
  },  
  {  
    "href": "https://servient.example.com/things/lamp/switch",  
    "rel": "hasController",  
    "mediaType": "application/td"  
  }  
]
```

Semantic Annotation

- Add triples to a TD
- Add context resources

Feature Of Interest Pattern



Thing Description Example

```
{ "@context": [{"iot": "http://iotschema.org/",
                "festoPA": "http://example.com/FestoPA/" } ],
  "@type": [ "Thing", "iot:Pump", "iot:Valve", "iot:FloatSwitch", "iot:UltrasonicSensing" ],
  "iot:isAssociatedWith" : {"@id": "festoPA:FESTO-1", "@type": "iot:LiquidMixingSystem"},
  "name": "FestoLive",
  "id": "urn:dev:wot:siemens:festolive",
  "security": [{"scheme": "basic"}],
  "properties": {
    "PumpStatus": {
      "@type": "iot:OperationStatus",
      "isPropertyOf": {"@id": "festoPA:Pipe2", "@type": "iot:LiquidPipe"},
      "type": "object",
      "properties": {"PumpStatus": {"type": "boolean"}},
      "writable": false, "observable": false,
      "forms": [{" href": "https://129.144.182.85/iot/api/devices/Festo/PumpStatus",
                    "mediaType": "application/json" } ] }
  }
```