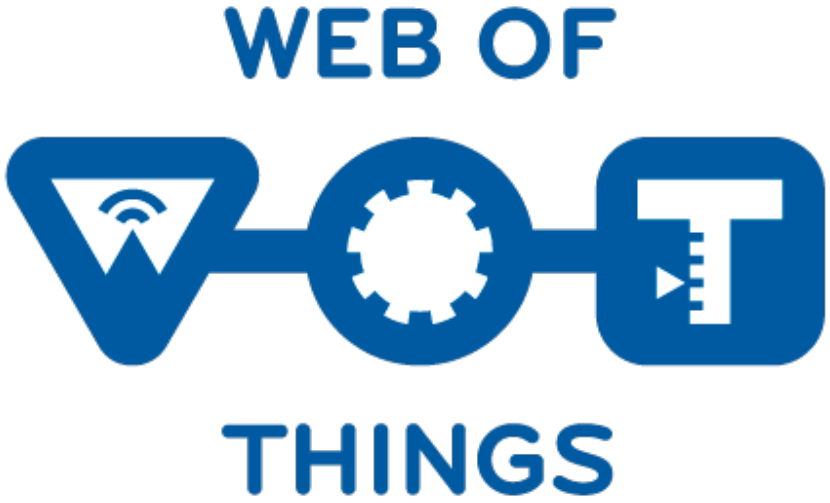

Spatial Data on the Web and Geolocation

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Geolocation Project Report

- Geolocation Requirements:
  - Encoding of geolocation data
  - Geolocation queries
- Results:
  - Data encoding: Draft specification
  - Use cases and examples:
    - (Relatively) static data encoded in TD
    - Dynamic data returned by a device
    - One Thing referencing another Things for geolocation information
  - Issues discovered:
    - Referencing an interaction vs. referencing the data returned by an interaction
- Future work:
  - Geolocation queries

Collaborations Needed

- Applications of Geolocation in WoT
  - Geospatial discovery
  - Localization of device installation
  - Tracking of mobile devices
  - Features of interest
- Alignment with Existing Spatial Data Standards
  - OGC
  - IEEE
  - WGS
  - OpenAR
  - W3C Web Geolocation API
  - GIS standards
  - BIM standards (e.g. see Takenaka presentation)

Next Steps

- Collect Requirements and Issues
  - https://github.com/w3c/wot/issues/981
- Geospatial Deliverables in next WoT WG Charter
  - e.g. Geospatial Discovery
- Interim Geospatial Extension
  - Experimental IG Activity
  - Geospatial Ontology for WoT Things
  - GeoSPARQL queries
  - Geospatial filters on XPath/JSONPath queries
  - Geospatial discovery "First Contact" (Introduction) mechanisms

Next Steps

- Convert proposal into a W3C Draft
  - Respec formatting, own repo, issue tracker, etc.
  - Updates to include geospatial query definitions
- Joint discussions and alignment with: Geospatial AND BIM
  - WGS84
  - W3C Spatial Data on the Web
  - BRICK
  - W3C Web Geolocation API
  - Open AR
  - Open Geospatial Consortium (GeoPose, GeoSPARQL)
  - IEEE P2874 – Geolocation, time series data, interval queries, etc.
  - Indoor GML
  - IETF – JSON Pointer