

Web of Things

Linked Data & Semantic Processing

Preparation for next F2F Meeting

26.05.2017

The Linked Data for WoT Applications

(Dave, McCool, Victor, Maria, Danh , Darko)

- Problem Statement - Example
 - Interop client can discover and read Thing descriptions from two or more different device ecosystems (e.g., W3C WoT and OCF), dynamically adapt applications to changes.
- Tasks
 - 1st Level (interaction model): Align information models of W3C WoT TD and OCF.
 - 2nd Level (horizontal voc): Align SSN/SOSA, SAREF (oneM2M), Haystack, ECHONET etc.
 - Implementation (e.g., NodeJS lib)
- Demonstrate
 - Discovery of devices regardless of the ecosystem they belong to (e.g., in the home appliances domain)
 - Interaction between devices from different ecosystems

Thing Description Recipes

(Koster, Danh, Aparna, Darko)

- Problem Statement - Example
 - Interop client creates a WoT application based on a recipe. Binding existing Things to recipe requirements is automated thanks to their Thing Descriptions.
- Tasks
 - Propose a Recipe format based on TD and capability templates
 - Implement a prototype
- Demonstrate
 - Discovery of recipes for rapid creation of WoT applications
 - Interaction between Things based on recipes

Semantic Processing for Web of Things

(Danh, Victor, Maria)

- Problem Statement - Example
 - Interop client is capable to validate and verify a chosen Thing Description. For example, to check whether a TD has been provided w.r.t TD rules.
- Tasks
 - Evaluate different approaches for semantic constraints and validation of Linked Data in terms of expressiveness, performance, adequacy to the TD model
 - Evaluate other kinds of processing, e.g., reasoning, stream processing
- Demonstrate
 - TBD