

# IETF Hackathon:

Work on IoT Semantic  
Hypermedia Interoperability  
(WISHI)

IETF 105

20-21 July 2019

Montreal



# Hackathon Plan

- IoT Data Model convergence
- Hypermedia for IoT (and coffee)
- Specs involved
  - Constrained Application Language (CoRAL)
  - One Data Model Simple Definition Format
  - OMA SpecWorks LwM2M/IPSO models

# IoT Data Model converge

- Using One Data Model (OneDM) Simple Definition Format (SDF) for data and model interchange
  - Improved [automatic conversion](#) of IPSO/LwM2M models to SDF
  - Improvement suggestion for SDF data types, schema, constraints
  - [Tool](#) generating SDF schema in CDDL
- Proposed JSON format for CoRAL

# Binary data extraction

- [Problem statement](#) for binary data extraction
- [Playground deployment](#)
  - Informative example how this can be done
  - Improvements on implementation

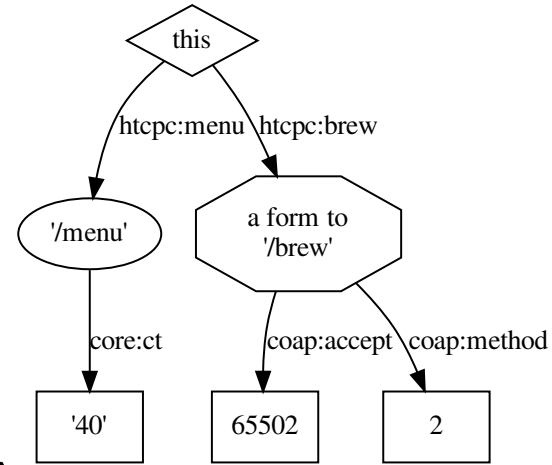
# Brewing coffee with hypermedia

- Reference scenario: Carrier-Grade Coffee Machine

- Discover and describe coffee machine
- Discover menu options
- Make coffee selections
- Brew

- Two open source implementations using CoRAL and CoAP:

- [RIOT OS](#) (running on SAMR21-xpro board)
- [Python \(micrurus\)](#)



# Wrap Up

## Team members:

Christian Amsüss

Carsten Bormann

Klaus Hartke

Ari Keränen

Michael Koster

Michael McCool

Ivaylo Petrov

## Remotely:

Leandro Lanzieri

Niklas Widell

Links, notes, and more  
information:

[https://github.com/t2trg/wishi  
/wiki/IETF-105-Hackathon](https://github.com/t2trg/wishi/wiki/IETF-105-Hackathon)