

# iot.schema.org

Community Teleconference

February 21, 2019

# Agenda

- Updates
- One Data Model Update
- Technical Plan Review
- AOB

# Brief Updates

- Community group off to a slow start
  - Some glitch with the account
  - Need to elect chairs and create the mail list
- W3C Web of Things WG moving toward CR status
- W3C WoT Workshop 2 being planned - CFP
- One Data Model liaison is developing
  - Presentations on data models from [iot.schema.org](http://iot.schema.org), OCF, IPSO/LWM2M, Nest, OneM2M/SDT, Zigbee Alliance
  - Common patterns include Action, Event, and Property affordances with data shape constraints
  - Review included today
- Other updates?

# One Data Model Review

- Presented a couple of slides to focus the discussion around the data model scope
- Abstract model with protocol bindings
- Events, Actions, Properties, and Data Shapes
- Strawman use case for using a common model to translate across ecosystems

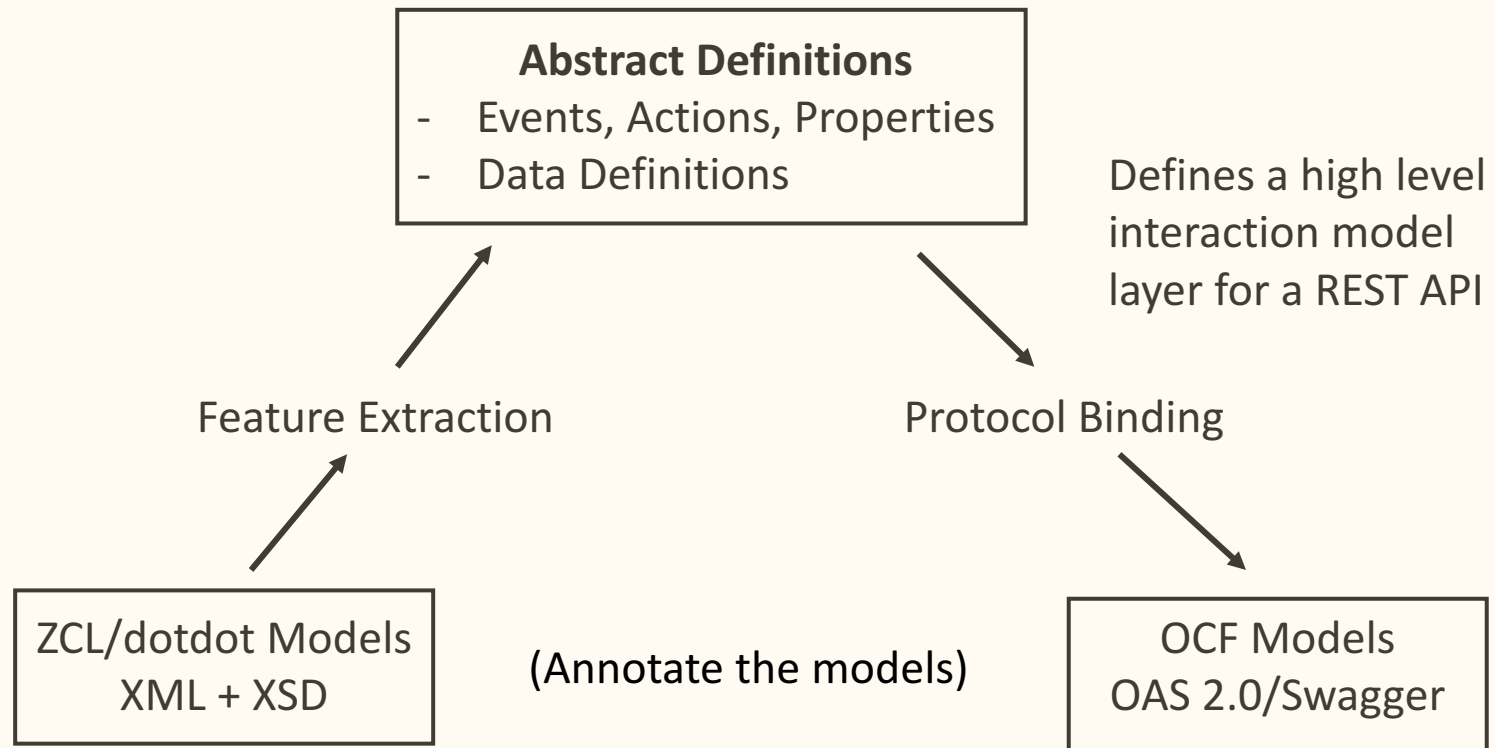
# (Maybe) Not one full stack model

- A high level abstraction with protocol bindings
- Events, Actions, Properties, and Data Shapes
- Interoperability through common modular capabilities or function blocks
  - Binary On/Off Switch
  - Level Control
  - Color Control
- Applications adapt, Bridges translate based on abstractions and protocol bindings
- Code generation and application libraries

# What needs to be common?

- How the abstraction works
  - Language for the abstraction, how we write them down
  - Method of protocol binding
  - How we deal with (diverse) data constraints
- Interoperable sets of definitions for common things
  - What are the common affordances of an on/off control?
  - How can participants submit proposals and how does the selection then work?
- Eventual Convergence on the most popular definitions and protocol bindings

# Example Model Conversion (Interim Step)



# Technical Plan – Definitions

- Create example definition sets from existing ecosystems – Annotation and Feature Extraction
  - ZCL/dotdot, OCF, LWM2M, SmartThings
- Create a Developer Guideline for new definitions and for using existing definitions
- Collect useful tools and scripts
- New classes
  - Data classes
  - Capability sets for common Thing types?
  - Definitions for common Enumerations?



# Technical Plan – Web Interface

- Add Shapes Constraints to the definitions
- Develop the browser navigation hooks
- Determine hosting relative to [schema.org](http://schema.org)

# Technical Plan – Feature of Interest

- Develop integrations for external Fol ontologies
  - Automotive (VSS Schema)
  - Buildings (Brick Schema)
  - Sensor data and geospatial (W3C, OGC)
  - Industrial (IIC collaboration?)
- Examples of annotations including domain-specific Fol definitions

# Other Business?

- AOB