SDF: Today

Semantic Definition Format (SDF) for Data and Interactions of Things defines

— classes
  of
— digital affordances

(assembled into a class of Things, ~ product).
Original input from OneDM (One Data Model) liaison group
Used that to define draft-ietf-asdf-sdf
At a stable –12, small issues remain to be done

conversion tools from/to other ecosystems' models
• draft-kiesewalter-asdf-yang-sdf
• ecosystem converters for OMA, OCF, DTDL, WoT
  used, e.g., to populate OneDM's playground
proposed companion specifications

— draft-bormann-asdf-sdf-compact
  more human-readable form (JSON ➔ YAML)

— draft-bormann-asdf-sdf-mapping
  augment an SDF model by additional "qualities"

— draft-laari-asdf-relations
  link between SDF models at the model level

— draft-bormann-asdf-sdftype-link
  describe data and interactions based on links
the role of links

— model-level links (draft-laari-asdf-relations)
— already in use for re-use/composition (sdfRef)
— semantic links: e.g., unit

— instance-level links (draft-bormann-asdf-sdftype-link)
described by new data type ("sdftype": "link")
data model based on RFC 8288 (Web Linking)

Need to be validated by appropriate examples
extension points

SDF defines "qualities" (properties that make up a class)
Extend SDF: add qualities
Some of these are ecosystem specific: Namespacing?

— namespaces provided for model components
— "quality" namespaces are one level more meta
  — possibly use CURIE-like syntax with registered namespace names
extending SDF architecture

easy to add: Further class level information:

— protocol bindings for affordances
— other ecosystem info for affordances

Not so easy to add: class level information...

— for things
— that serves as common parameter for affordances
Other kinds of information

— purpose in life ("role")
  — device needs to know
— deployment information, e.g.:
  — location
  — links to other things/affordances

Needed:
• at the class level (modeling the instances)
• at the instance level