base SDF

IESG processing

draft-ietf-asdf-sdf-18
2024-02-29 -18 I-D
2024-03-29 Publication Requested (WG ➔ IESG)
2024-04-11 AD Evaluation
SDF IESG Processing: Next Steps

— Current Status: AD review (... late April)
  • Respond to AD review comments, likely ➔ –19

— Next: IETF Last Call (... early/mid May)
  • Respond to review comments, in particular from directorate reviewers, likely ➔ –20

— Next: IESG evaluation, IESG Telechat (2024-05-16?)
  • Respond to ADs' DISCUSS feedback;
    ➔ clear DISCUSSes (-21?) ➔ approved
  • Respond to COMMENT feedback (-22?)
    ➔ announcement sent
IANA interactions: Registrations, new registries
- parallel: Find Designated Experts for new registries

RFC-Editor: EDIT stage (1-2 months)
RFC-Editor: RFC-EDITOR (~ 1 month)
RFC-Editor + Authors (+ AD): AUTH48

Publication as an RFC (July?)
SDF additions: Work after sdf-base

- Modeling Infrastructure: New ways to model things
- Tool Support
- Using extension points: New qualities
1. draft-bormann-asdf-sdf-mapping: Mapping files
   — Combining additional information with a base model
   — e.g., ecosystem-specific (OMA numbers)
2. TO DO: Approach for representing instance information
   — Easy(?) for sdfProperty
   — Example: location information
   — Unclear for sdfAction and sdfEvent
Instance Information

Information about:

— Identity of the thing (with thing's digital side)
— Supplementary Identity Info (with twin)
— Purpose in Life, links, ... (one of above)
— Information about physical side (location, manual electrical settings, ...)
— lives with twin, possibly with thing itself
1. draft-bormann-asdf-sdf-compact: Compact Notation
   ➔ can be Informational (or used in normative documents?)

2. Various translation tool descriptions, e.g.:
   draft-kiesewalter-asdf-yang-sdf: Translation YANG ↔ SDF
(3) New qualities: Links

draft-laari-asdf-relations: Extended relation information for SDF

draft-bormann-asdf-sdftype-link: An sdfType for Links

➔ Needs some work before WGLC
   — integrate?
   — instance vs. class support?
1. (Adding location information:) draft-lee-asdf-digital-twin: Extended information of SDF for Digital Twin

→ Start discussion
— needs instance vs. class support

2. draft-brinckman-nipc-00
Application Layer Interface for Non-IP device control (NIPC)
Plan

— [] recharter ASDF WG to enable this work
— [] do the work
— [] profit
Summary of Foreseeable Deliverables

1. infra: draft-bormann-asdf-sdf-mapping: Mapping files
2. infra: TO DO: Approach for representing instance information
3. tools: draft-bormann-asdf-sdf-compact: Compact Notation
4. tools: Various translation tool descriptions?
5. Links in model and instance:
   — model: draft-laari-asdf-relations: relations in SDF
   — instance: draft-bormann-asdf-sdftype-link: sdfType
6. Modeling Digital Twins, instance information for that:
   — (Adding location information:) draft-lee-asdf-digital-twin
7. Modeling Non-IP device control, draft-brinckman-nipc-00
The ASDF has developed SDF into a standards-track specification for thing interaction and data modelling. In the process of developing this specification, further functional requirements have emerged that can be addressed as extensions to the base SDF specification.

The ASDF WG will develop these extensions in consultation with experts from OneDM and its contributing organizations to extend SDF to cover aspects such as digital twin, mapping to other IoT SDOs, and gateway interactions translating between IP and other transports.

As work evolves, ASDF will observe and may want to interact with IRTF Research Groups such as the Usable Formal Methods Research Group (UFMRG). ASDF will work with Thing-to-Thing Research Group (T2TRG) and its WISHI (Work on IoT Semantic/Hypermedia Interoperability, https://wishi.space) program to engage researchers and other SDOs in this space, such as W3C Web of Things, which is working on Thing Models and related specifications.