



IETF Hackathon

SDF at work

IETF 121
2–3 November 2024
Dublin, Ireland



Hackathon Plan

Work on 2 classes of problems

- Using SDF in networking environments (NIPC & SCIM):
 - ASDF describes interaction of Things
 - SCIM for devices provides device onboarding
 - NIPC is an Application Gateway for Non-IP Protocols
 - > How can they interoperate?
- Converting models between eco-systems: SDF & Matter

IETF DRAFTS:

- [draft-ietf-asdf-sdf](#)
- [draft-ietf-asdf-nipc](#)
- [draft-ietf-scim-device-model](#)

Matter ↔ SDF

- Converter written by Niklas Meyer
- Achievements:
 - Verified: [converter](#) can be used by other ASDF people
 - [Docker container](#) for the conversion tool
- Work in Progress:
 - Ongoing: Document demo setup with physical Matter and non-Matter devices
(Validating interoperation between LwM2M/IPSO and Matter via SDF)

SDF with SCIM & NIPC

- Reviewed different deployments models & where SDF can be used
- Mapping NIPC to SDF by including a NIPC quality in SDF:

```
"nipc": {  
  "ble": {  
    "serviceID": "12345678-1234-5678-1234-56789abcdef4",  
    "characteristicID": "12345678-1234-5678-1234-56789abcdef4"  
  }  
}
```

- Registering SDF model to a NIPC Gateway
- Mapping an SDF model to a Thing: Defining a manifest that can be leveraged in SCIM, MUD or NIPC

Wrap Up

Team members:

- Ari Keränen
- Bart Brinckman
- Braeden Sandford
- Carsten Bormann
- Eliot Lear
- Michael Richardson
- Niklas Meyer
- Rohit Mohan
- Sriram Sekar

First timers @ IETF/Hackathon:

- Braeden Sandford
- Sriram Sekar

Discussion will be continued in
ASDF working group F2F
meeting

13:00-15:00 UTC, November 7,
2024