



# **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
- Carsten Borman
- Michael Richardson
- Rohit Mohan
- Braeden Sandford
- Sriram Sekar
- Bart Brinckman
- Niklas Meyer

## 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