

NIPC updates

ASDF meeting 05/07/2024

Agenda

- NIPC
 - Improve draft readability
 - Discussion/feedback from SDF WG:
 - Pub/sub API formatting
 - Encoding for binary data NIPC API
 - Extensions
 - Connection API simplification
 - Some adaptations to SDF nomenclature, API structure
- NIPC in SDF
- Getting organized

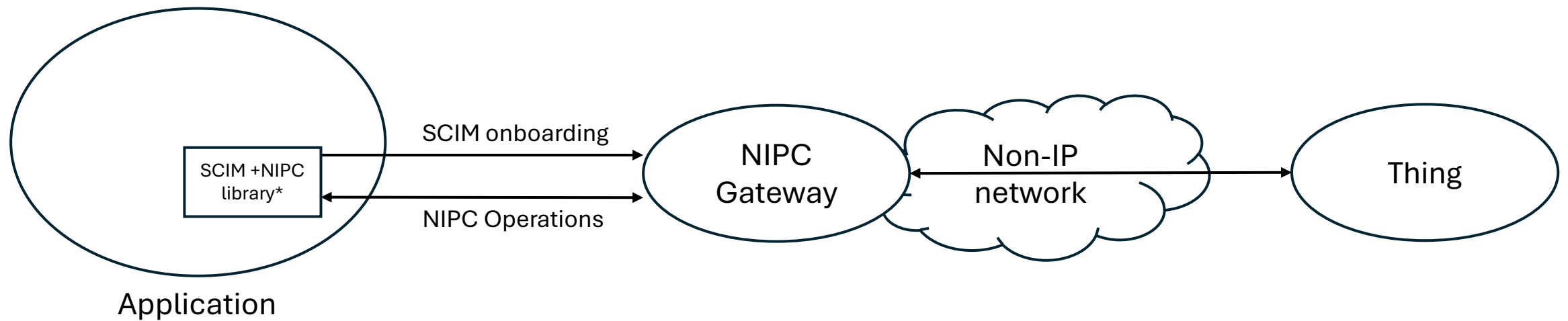
Improve draft readability

- Schema
 - Current:
 - schema definition in each API call
 - reference if API calls use the same schema as previously defined API call
 - Proposed:
 - Include a schema section
 - Reference section of the schema in API call definition
- Include JSON examples in each API call definition
- Appendix OpenAPI model makes draft quite long. Can we reference it?
- Other?

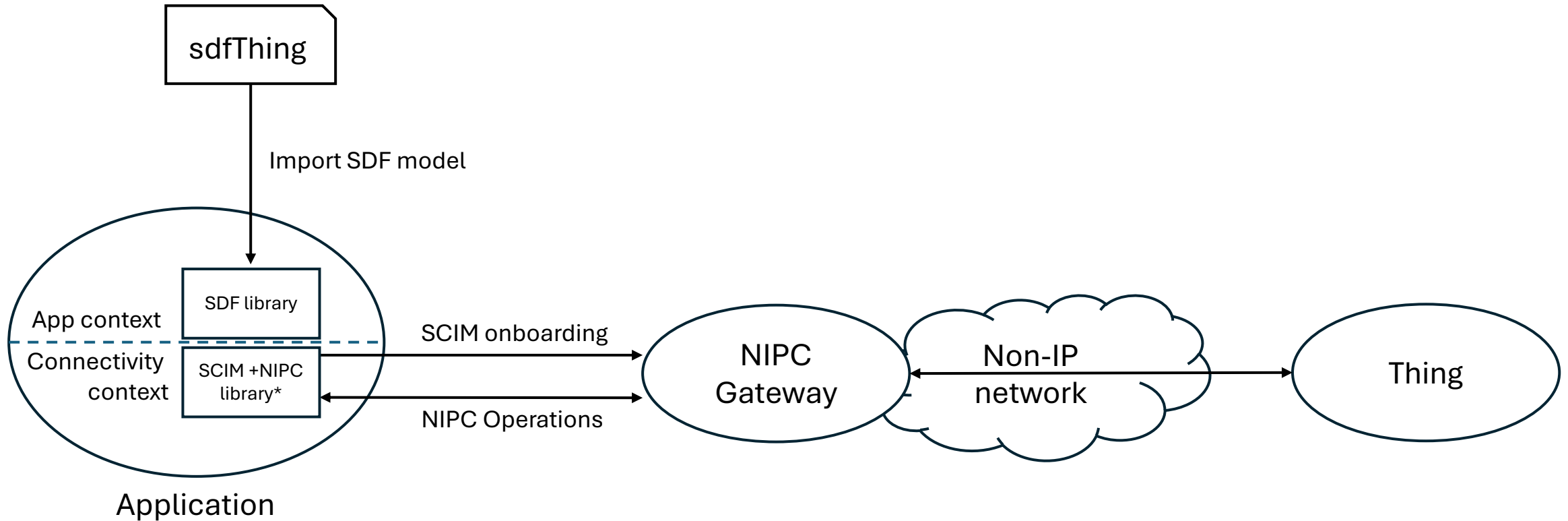
Discussion & feedback

- Pub/sub Data API formatting
 - Currently protobuf
 - Proposed JSON + CBOR??
- Binary data in data API (Value)
- Protocol extensions:
 - Currently defined BLE & Zigbee
 - Interest in defining others? EnOcean? LoraWan? ...
 - IANA registry?
- API extensions:
 - IANA registry?
 - Vendor specific?
- We can simplyfy connect API to a single API (subsume binding)

SCIM + NIPC



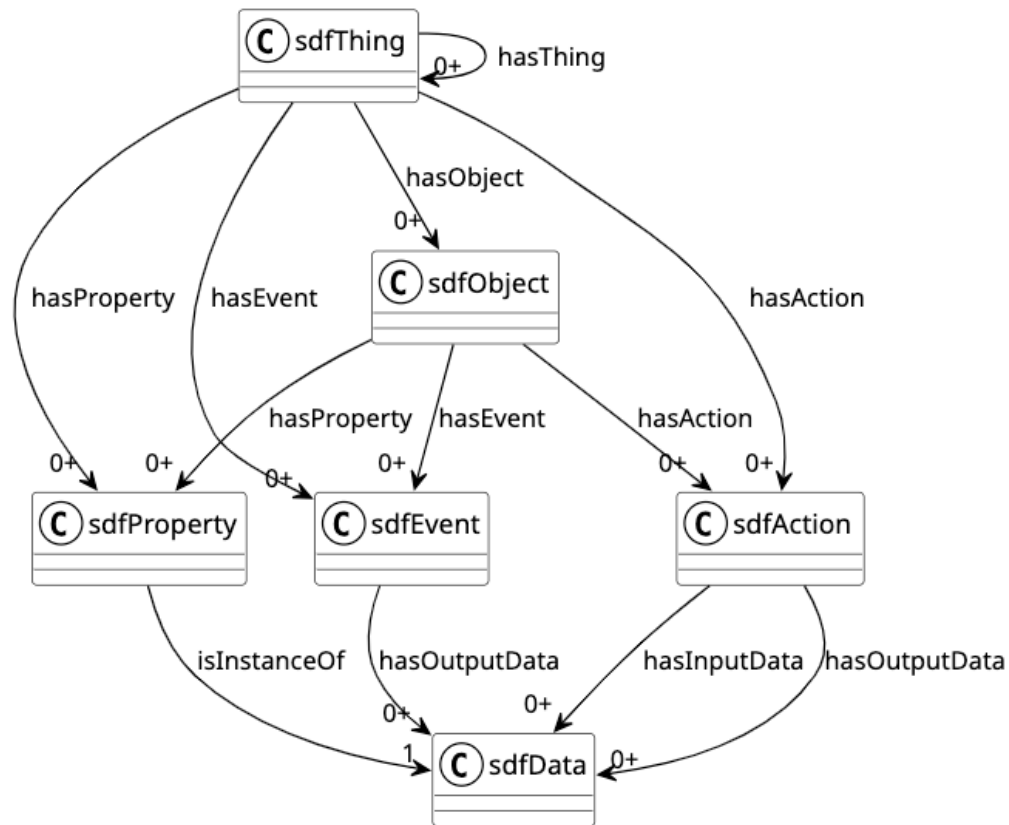
Integrating with SDF



* <https://github.com/iot-onboarding/tiedie>

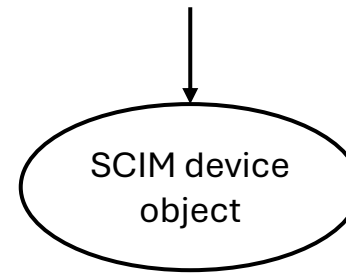
NIPC adaptations to SDF

SDF



NIPC

THING



NIPC

Device Operations

Connection

Attribute

➤ Attribute

➤ Subscription

➤ Broadcast

Registrations

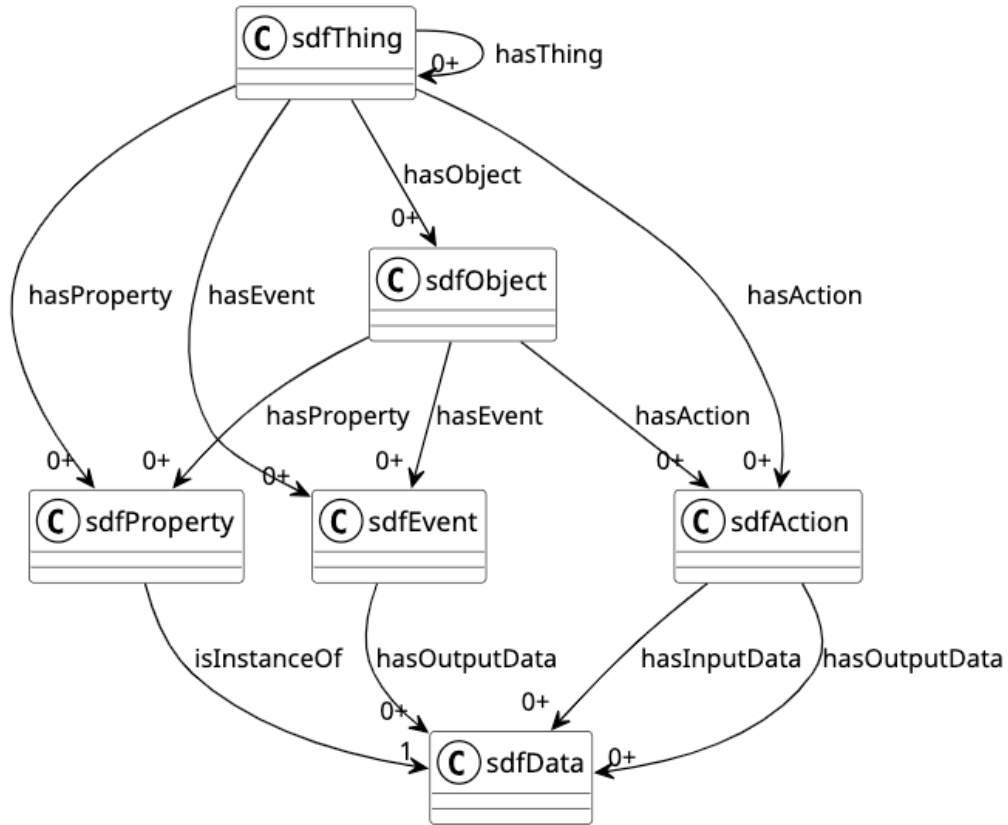
Attribute

Topic

File

NIPC operations

NIPC adaptations to SDF



NIPC draft 0

Device Operations

- Connection
- Attribute
 - Attribute
 - Subscription
 - Broadcast

Registrations

- Attribute
- Topic
- File

NIPC operations

SCIM for devices

- Device
- Device-ID
- Extensions



NIPC with SDF

sdfProperty

- nipcProperty
 - Attribute
 - Subscription
 - Broadcast
 - File
 - Connection
- SCIM-Object
 - Device-ID
 - Extension

sdfAction

- nipcAction
- GET,PUT, POST, DELETE of NIPC-Property

sdfEvent

- nipcEvent
- Connection
- Broadcast
- Subscription

New SDF quality of type JSON object?

```
"sdfProperty": {  
  "temperature": {  
    "description": "The current temperature setting or measurement.",  
    "type": "number"  
    "nipcProperty": "  
      "ble": {  
        "serviceID": "12345678-1234-5678-1234-56789abcdef4",  
        "characteristicID": "12345678-1234-5678-1234-56789abcdef4",  
      }  
    }  
  }  
}
```