

CoRE: CORECONF

- RFC 9254: YANG-CBOR
- In IESG: [CORE-SID](#)
- WGLC passed [CORE-COMI](#)
- WGLC passed [CORE-YANG-LIBRARY](#)

CoRE Topic Interim 2023-03-15:
discussed the broader CORECONF/YANG landscape

SID allocation

<draft-ietf-core-sid-20.txt>

<draft-toutain-lpwan-sid-allocation-02.txt>

CORE-SID -20 was submitted 2023-03-01

deal with Rob Wilton's DISCUSS: adding status information to SID files:

- global file status
- per-SID status

IESG processing + parallel WGLC (...2023-03-16)

CoRE-SID *status*

One unfixed remnant in –20 kept DISCUSS open
–21 should be submitted this week

Issue: no tool to **validate** examples/SID file against YANG
→ manual fixes

Need to update PYANG to address WGLC comments

SID completeness

Does YANG generate a complete set of SIDs?

- What would a complete set be?
- Evolve YANG to emit this complete set, or do we add the missing parts manually for the RFC?
- (new SIDs can always be added, so missing one is not catastrophic, but undesirable.)

ietf-system (Appendix A of core-sid-20)

RPCs, actions; existing example:

```
1715,data,/ietf-system:set-current-datetime,  
1716,data,/ietf-system:set-current-datetime/current-datetime,  
1718,data,/ietf-system:system-restart,  
1719,data,/ietf-system:system-shutdown,
```

but what about input/output? more correct:

```
171*,data,/ietf-system:set-current-datetime/input,  
1716,data,/ietf-system:set-current-datetime/input/current-datetime,
```

SID assignment process: regular or with whipped cream?

CoRE SID defines the regular process.

Some applications have special requirements:

<draft-toutain-lpwan-sid-allocation-02.txt>

... proposes allocations for certain LPWAN protocols.

- Assignment by WG (inside range allocation by IANA/Megarange)
- How do we (designated expert) check a document like this?
- Correctness? Completeness?

(See also Appendix A of draft-bormann-cbor-cddl-csv-02 for an efficient way to discuss SID allocations.)

IANA input

(1) exact status of private use space (60000..99999)

(2) synchronization points in publishing: How can an RFC have a link to a SID file when the link is only established after publication

(3) handling multiple versions of SID files (update to newest?)

→ Discuss with IANA on location this week

COMI:

Access to YANG information bases via CoAP

<draft-ietf-core-comi-12.txt>: CORECONF → CoAP (like RFC 8040 for RESTCONF → HTTP)

Already went through a Working Group Last-call much earlier
-11 discussed at IETF 115 hackathon

→ simplifications in -12 (removing a fundamental bug as well)

2023-03-15 interim: why not simplify some more?

-13 to be done: "simplify" branch

COMI: radical simplification

Instance identifiers — SID + keys: [1533, "eth0"]
Remove unnecessary URI encoding format (base64)
Use FETCH and iPATCH request payloads instead
→ directly send them in YANG-CBOR

Done in "simplify" branch

<https://core-wg.github.io/comi/simplify/draft-ietf-core-comi.html>

But wait, there's more?

COMI: sets of operations

— [✓]: data node access:

FETCH:

application/yang-**identifiers**+cbor

→ application/yang-**instances**+cbor

iPATCH:

application/yang-**instances**+cbor → 2.04 Changed

COMI: sets of operations (2)

- [✓]: RPC or action:
POST:
application/yang-**instances**+cbor
→ application/yang-**instances**+cbor
- [✓]: event streams (separate URI):
GET/Observe:
→ application/yang-**instances**+cbor
(?f= query parameter has remnant of SIDs in URI)

COMI: sets of operations — Needed?

— ? full datastore access:

GET/PUT/POST/DELETE:

application/yang-**data**+cbor; id=sid

— ? error response with 4.00

application/yang-**data**+cbor; id=sid

COMI: Next steps

- Discuss above changes
- Make changes in –13
- Get some implementer feedback

- Another WGLC
- Ship it

CoRE: CRIs (HREF)

draft-ietf-core-href defines **CRIs** and CRI references

Concise equivalent of

- URIs and
- URI references (RFC 3986)

–12 (2013-03-06): Add full coverage of all URI schemes supplying negative integers that can be used in their place

(open IANA questions how to make this registry run)

CRIs: Extensibility

- Base CRI definition handles all CoAP applications
- More complex URIs are sometimes used in the Big Web
- Section 7 now clarifies extension approach
- Section 7.1: PET = percent encoded text
- Issue #61 / PR #62:
clarify how to handle CRIs with unknown extensions

Pesky stuff

#59 Empty path in (absolute) CRIs: [] or null?

- Trailing null can be elided; [] needed for CRI-Reference

Related:

#50 Empty CRI [] needs to be disallowed

#44 Strictness of UTF-8 checking vs. PET

Do not require full checking from constrained device??

CRI: Next Step

Decide remaining questions in a well-prepared interim

~ 2023-04-26?