CORECONF status
Carsten Bormann, CoRE@IETF110, 2021-03-12
The four CORECONF documents

- Yang-cbor, Sid: In IETF Last Call (ends 2021-03-17), reviews TBD except:
  - secdir/yang-cbor (Shawn Emery): No security cons, and that is alright so.
- Comi, Yang-library: In WG, waiting for shepherd writeup (yours truly)
  - Comi: shepherd’s comments, waiting for WG input and resolution
  - Yang-library: next
Core-sid comment

• Ben Kaduk (Security AD) upon the start of the last-call (well-observed):
  • This appears (on quick skim) to be a proposal to create a registry and assign globally unique uint64 values to items in (unrelated) YANG modules.
  • In a sense this would be a **new global naming system** and as such might have some unexpected properties. Please send comments to last-call@ as usual, if you take a look.
  • This is indeed the intention, and core-sid has been carefully designed to fill this role. Looking forward to more security thinking about this!
Comi comments and issues (1)

• Issue in netmod: Type equivalence
  • Comi currently assumes e.g. uint8 is incompatible (NBC) with int8 by assigning different encodings in URI
  • This incompatibility seems to be held up in current netmod discussion
  • Still, do we need to rely on it?
  • No rationale for inconsistencies given in draft
### Comi URI encoding of YANG data

<table>
<thead>
<tr>
<th>YANG datatype</th>
<th>Uri-Query text content</th>
</tr>
</thead>
<tbody>
<tr>
<td>uint8, uint16, unit32, uint64</td>
<td>int2str(key)</td>
</tr>
<tr>
<td>int8, int16, int32, int64</td>
<td>urlSafeBase64(CBORencode(key))</td>
</tr>
<tr>
<td>decimal64</td>
<td>urlSafeBase64(CBOR_key)</td>
</tr>
<tr>
<td>string</td>
<td>key</td>
</tr>
<tr>
<td>boolean</td>
<td>&quot;0&quot; or &quot;1&quot;</td>
</tr>
<tr>
<td>enumeration</td>
<td>int2str(key)</td>
</tr>
<tr>
<td>bits</td>
<td>urlSafeBase64(CBORencode(key))</td>
</tr>
<tr>
<td>binary</td>
<td>urlSafeBase64(key)</td>
</tr>
<tr>
<td>identityref</td>
<td>int2str(key)</td>
</tr>
<tr>
<td>union</td>
<td>urlSafeBase64(CBORencode(key))</td>
</tr>
<tr>
<td>instance-identifier</td>
<td>urlSafeBase64(CBORencode(key))</td>
</tr>
</tbody>
</table>

- String may not be URL-safe
- Why `uint`≠`int`
  - Identityref, enumeration probably OK
- What is "CBOR key"?
- key vs. `CBORencode(key)`
Comi comments and issues (2)

- Text about block-wise transfers (§ 5) does not really add anything
  - All that is probably needed is a short mention of the need for attention

- Making pagination a SHOULD for /.well-known/core needs to indicate:
  - How this is done (it is defined in CoRE RD § 6, but not for /wkc)
  - When can that SHOULD be violated?
  - (Note that there is a general YANG problem here, too; https://tools.ietf.org/html/draft-wwlh-netconf-list-pagination-nc-01 ?)
Comi comments and issues (3)

Nits

• SID encoding: 0 → A (and not the empty string)

• New yang module version needed after update of documentation reference from RFC 7049 to RFC 8949?

• 4.01 vs. 4.03 confusion