Diagnostic Notation Next Steps?

Background: CoRAL

Constrained RESTful Application Language (CoRAL):
Hypermedia format

— links to resources, with type information
— forms, to specify action input on resources
— simple resource metadata

Replacing Links-JSON/-CBOR (a cleaned-up link-format)
Originated in T2TRG, now in CoRE WG

CoRAL Representation Formats

- primary: CBOR-based
  - concise, for constrained devices
- bespoke text-based
  - for whiteboards and RFCs

(1) Do we need a JSON version? (Not on agenda…)
(2) Can we get by with CBOR diagnostic notation?

CBOR diagnostic notation is tedious for CoRAL

Much of the CoRAL content is CRIs
Constrained Resource Identifiers: parsed URIs

```
[-1,              / scheme = "coap" /      coap://198.51.100.1:61616/.well-known/core
 [h'C6336401',    / host /
  61616],         / port /
 [".well-known", / path /
  "core"]
]

[true,                  / discard /       /.well-known/core?rt=temperature-c
 [".well-known",        / path /
  "core"],
 ["rt=temperature-c"]]  / query /
```

Application-specific extensions?

Potential approach:
embrace application-specific extensions of diagnostic notation.

```
cri'coap://198.51.100.1:61616/.well-known/core'

cri'/.well-known/core?rt=temperature-c'
```

Syntax is patterned after h'...', b64'...', ...

Application defines the word before the first quote.
Registry?

Other CoRAL considerations

— CBOR-packed vs. CURIEs in CRI

  Easy to do prefix `coaps://coap.me`
  `[-2, ["coap", "me"]]`
  `coaps://coap.me/foo/bar` ➔ `` `225([["foo","bar"]]) ``

  Not easy to do `coaps://coap.me/foo`
  `[-2, ["coap", "me"], ["foo"]]`
  `coaps://coap.me/foo/bar` ➔ `` `225([[???,"bar"]]) ``