

CoRE: Problem Details

April 27th (Wednesday), 14:00–15:30 UTC

Problem Details:

Concise equivalent of RFC 7807(bis)

example (RFC 7807)

```
{  
  "type": "https://example.com/probs/out-of-credit",  
  "title": "You do not have enough credit.",  
  "detail": "Your current balance is 30, but that costs 50.",  
  "instance": "/account/12345/messages/abc",  
  "balance": 30,  
  "accounts": ["/account/12345",  
               "/account/67890"]  
}
```

stataatus

Concise version in progress until July 2020
Waiting for completion of CoRAL

Problem: 3GPP needs this **now** (June)

learnings

RFC 7807's `type` is a URI reference

Implementers get this wrong:

Treating a relative reference as an absolute name:

```
"type": "out-of-credit",
```

(This would undergo URI resolution on the current base)

"bundled" approach (Carsten Bormann)

Going for **registered** types (as CBOR tag)

Can come with **custom problem details entries** (per type)

Add a registry for **standard problem details entries**

<https://core-wg.github.io/core-problem-details/3gpp-stopgap/draft-ietf-core-problem-details.html>

example (bundled)

```
/ 4711 is the registered CBOR tag for example.com's problem type /
4711({ / type → example.com's out-of-credit problem /

-1 /title/: "You do not have enough credit.",
-2 /detail/: "Your current balance is 30, but that costs 50.",
-3 /instance/: "/account/12345/messages/abc",
12 /balance/: 30,
17 /accounts/: ["/account/12345",
                "/account/67890"]
/ 12 and 17 are the "custom problem detail entry keys" defined for 4711 /
})
```

"unbundled" approach (Thomas Fossati)

No type at all

Add a global registry for custom problem details entries
(works best if these are maps as well)

A bit like CWT

example (unbundled)

```
{ / no problem type given /  
  -1 /title/: "You do not have enough credit.",  
  -2 /detail/: "Your current balance is 30, but that costs 50.",  
  -3 /instance/: "/account/12345/messages/abc",  
  471112 /out-of-credit-balance/: 30,  
  470017 /available-accounts/: ["/account/12345",  
                                "/account/67890"]  
  / 471112 and 470017 are the "custom problem detail entry keys"  
    registered by example.com /  
}
```

```
{ / no problem type given /
  -1 /title/: "You do not have enough credit.",
  -2 /detail/: "Your current balance is 30, but that costs 50.",
  -3 /instance/: "/account/12345/messages/abc",
  4711 /example.com out-of-credit custom problem detail key/ : {
    0 /out-of-credit-balance/: 30,
    1 /available-accounts/: ["/account/12345",
                             "/account/67890"]
    / 0 and 1 are internal to example.com's 4711;
      they don't need registering /
  }
} / nesting another map /
```

```

{ / no problem type given /
  -1 /title/: "You do not have enough credit.",
  -2 /detail/: "Your current balance is 30, but that costs 50.",
  -3 /instance/: "/account/12345/messages/abc",
  "tag:example.com,2022:out-of-credit" : {
    0 /out-of-credit-balance/: 30,
    1 /available-accounts/: ["/account/12345",
                             "/account/67890"]
    / 0 and 1 are internal to example.com's 2022:out-of-credit;
      they don't need registering /
  }
} / look, ma, no registering /

```

```
{ / no problem type given /
  -1 /title/: "You do not have enough credit.",
  -2 /detail/: "Your current balance is 30, but that costs 50.",
  -3 /instance/: "/account/12345/msgs/abc",
  "http://example.com/account/pd": {
    0 /out-of-credit-balance/: 30,
    1 /available-accounts/: ["/account/12345",
                             "/account/67890"]
  },
  "http://example.com/common/pd": {
    0 /pid/: 24153,
    1 /process name/: "acctd",
  }
} / composition example /
```

**can we get this done
this week?**