Data types and encodings

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The media type selection

- For pure **text** strings: text/plain; charset=utf-8 (ct: 0)
  E.g.: display text, owner's name, …

- For pure **byte** strings: application/octet-stream (ct: 42)
  E.g.: firmware image

- For **everything**: application/cbor (ct: 60)

CBOR examples

- Text and byte strings, packaged in CBOR, are just themselves, with a length prefix:
  "foo" ➜ 0x63656f6f ("cfoo"); h'010203' ➜ 0x43010203

- 0 ➜ 0x00, 1 ➜ 0x01, 14 ➜ 0x0e, up to 23 ➜ 0x17
  Add length byte 0x18..0x1b for 1, 2, 4, 8 additional bytes:
  42 ➜ 0x**18**2a, 1000 ➜ 0x**19**03e8,
  18446744073709551615 ➜ 0x**1b**ffffffffffffffff
  Mirror negative to the left of 0:
  –1 ➜ 0x20, –10 ➜ 0x29, –1000 ➜ 0x**39**03e7

- Length prefix for floating point: 0xf9/fa/fb for 16/32/64

- Length prefix for array, map: 0x80+n, 0xa0+n
  [1, 2, 3] ➜ 0x83010203, {1: 2, 3: 4} ➜ 0xa201020304

- Alternative: Indefinite length, bracket using 0x9f/0xff and 0xbf/0xff