Table 19.3 gives an idea of the size of resource representations in various situations. The example refers to a data-only resource, so that XML and JSON can be used. The two lines refer to the same resource, but with longer and shorter component names. That is why the sizes in the last column are the same and the size reduction is greater when names are longer. Naturally, the sizes presented vary a lot with the concrete example, but this gives an idea of the values involved.

Table 19.3. Sizes (in bytes) of several resource representations XML JSON SIL Source SIL binary with names

SIL binary without names Longer names 2472 1491 1317 927 358 Shorter names 1857 1153 979 589 358

Compressed versions of XML and JSON [42] also accomplish relevant reductions in size, but time is needed to compress and to decompress messages, on top of which text parsing still needs to be done at the receiver. The compilation in SIL takes longer than a simple compression, but it does not need to be done at runtime. Compilation is a design time feature and messages sent are generated in binary directly. Messages received are parsed directly in binary, much faster than text parsing due to the navigable structure provided by the TLV scheme.

https://www.deepdyve.com/lp/institute-of-electrical-and-electronics-engineers/performance-evaluation-of-object-serialization-libraries-in-xml-json-h14OztovGZ?