CoAP over TCP/TLS/ WebSockets

Carsten Bormann cabo@tzi.org T2TRG/OCF Amsterdam 2017-03-10

CoAP over TCP/TLS: Status

- Already was implemented in IoTivity a year ago based on early draft
 - CoRE WG first took different direction ("L1"), then aligned with OCF ("L3")
 - Additional since: BERT, Signaling messages
- Second WGLC now completed, draft -07 published
- Mostly clarifications in most recent revision

BERT

- Enable use of block-wise with larger blocks
- Extremely simple extension (just relaxing some restrictions)
- Addresses some OCF performance concerns:
 - If you already have TCP on your platform, can use more of its additional performance

Signaling messages

- Messages that are not about requests/responses
 - but about connection itself
- CSM: Capabilities/Settings Messages
- Ping/Pong, including Custody option (checkpoint)
- Release/Abort messages (diagnostics)

CSM

- Mandatory initial exchange
 - Needs to be added to IoTivity to stay compatible
- Indicate capabilities: e.g.
 Block-wise, Max-message-size
- Settings: Not used in current spec, but options can be registered