

TCP Usage Guidance in the Internet of Things

draft-ietf-lwig-tcp-constrained-
node-networks-09

Carles Gomez

Universitat Politècnica de Catalunya

Jon Crowcroft

University of Cambridge

Michael Scharf

Hochschule Esslingen

Status (I/II)

- IETF 104
 - Presented draft-ietf-lwig-tcp-constrained-...-05
- Comments by Stuart Cheshire
 - Led to -06
- Comments by Gorry Fairhurst
 - Led to -07
- WGLC on -07
 - Comments by Ingemar Johansson
 - Comprehensive reviews by Ilpo Järvinen and Markku Kojo

Status (II/II)

- Version -08
 - Aimed to address the WGLC comments
 - Still some remaining points
- Last update is -09
 - Aimed to address the remaining points

Updates in -09 (I/II)

- Ilpo's comments
 - Replaced “Pure ACK” by “ACK without payload”
 - 4.3.1. Loss recovery
 - Clarified example: segments 1 to 6 will not be outstanding right at the beginning
 - One editorial improvement
- Markku's comments (I/II)
 - “Single-segment” reverted back to “single-MSS”
 - 4.1.1. MSS
 - “Limit the MTU” to “Limit the IP datagram size”
 - Removed text focusing on IPv4
 - No IPv4 equivalent to the IPv6 MTU requirement

Updates in -09 (II/II)

- Markku's comments (II/II)
 - 4.2.1. Single-MSS stacks
 - CoAP-level stop-and-wait, single-MSS window sufficient
 - Exception of CSM and first app message
 - 4.2.3. Delayed ACKs for single-MSS stacks
 - Disabling Nagle has no impact if sender can only handle stop-and-wait operation at the TCP level
 - Editorial clarifications
 - 4.2.4. RTO calculation for single-MSS
 - Cited FASOR draft
 - 4.3.1. Loss recovery
 - With Limited Transmit, cwnd of 2 segments would be enough to trigger sending segments 1 to 5
 - Sender has to wait for the Delayed ACK for segment 1

Comments/Questions?