

New CoAP Block-Wise Transfer Options For Faster Transmission

[draft-ietf-core-new-block-02](#)

IETF CoRE Meeting, 20th Nov 2020

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Agenda

- Changes since last interim
- One Pending Question
- Next Steps

Updates in -02 (10/2020) (1 of 2)

- Add a statement that either both or neither options can be supported
- Add an implementation note about how tokens can be handled to reduce number to be tracked
- Add a clarification about the behaviour when multiple instances of Q-Block2 are included
- Remove the "MUST NOT" restriction on 2.31 (Continue)
- Handling of requests that cannot be fulfilled due to packet size limitations now return 4.13

Updates in -02 (10/2020) (2 of 2)

- Update the CDDL and add an implementation note to suggest the use of indefinite-length arrays
- Add a note about the ACK_TIMEOUT delay (2s) after MAX_PAYLOADS
- Not recommended to be used in a NoSec security mode
- Editorial
 - Clarify what is meant by "repeat request" by updating use of 'M' bit in requests
 - Change the name of the options to Q-Block1 and Q-Block2

Option Naming

- Poll set up for naming:

<https://doodle.com/poll/2uv4vfez9sq77fa9>

- ~~Quick-Block~~
- **Q-Block**
- **Resilient-Block**
- ~~Fast-Block~~
- **Robust-Block**
- ~~FLLF-Block~~
- ~~LL-Block~~
- **Tough-Block**
- **A-Block (Alternative Block)**

Question: Congestion Control (1 of 2)

- Background: MAX_PAYLOADS (default every 10 packets)
 - Default wait of ACK_TIMEOUT before proceeding
 - Use of CON every MAX_PAYLOAD for reduction of turnaround times
 - CON fails if unidirectional traffic loss
 - NON will wait for ACK_TIMEOUT before next packet sent
- How to reduce NON turnaround times if network/peer OK?
 - Signal something in the MAX_PAYLOAD packet to indicate immediate acknowledge response required
 - if response fails to get through there still will be ACK_TIMEOUT wait which is OK

Question: Congestion Control (2 of 2)

- Possibilities: No-Response Option works for Q-Block1
 - ISE, not Standards Track
 - How to handle Q-Block2?
 - May make sense to do the same for Q-Block1
- What about?
 - Update the Q-Block option format to “NUM **R** M SZX” where **R** bit set means:
 - Q-Block1: Respond with 2.31
 - Q-Block2: Issue GET for next block
- Is it worth to be solved?

Next Steps

- Prepare -03 with the outcome of the discussion to address the pending question
- Update the implementation
- If no major issue, target a WGLC
- Please review and share comments:
<https://github.com/core-wg/new-block>

Thank You