

# DOTS Signal Channel

<https://tools.ietf.org/html/draft-ietf-dots-signal-channel>

<https://github.com/boucadair/draft-ietf-dots-signal-channel>

DOTS WG Meeting  
London, March 2018

Editors: Tiru (Reddy) & Med (Boucadair)

# Agenda

- List of changes since the interim
- Next steps

# Hop-Limit

- A new CoAP Option is defined to detect and prevent infinite loops
  - The use of an option instead of a parameter in the message body is more adequate to accommodate all request types
  - An IANA request to assign a codepoint for it
  - An IANA request to assign an error code to notify that a hop limit is reached

# ack-timeout as a float

- Used to be an integer in -17
- But some implementations define it as a float
- RFC7252 does not provide a hint
  - Checked with the authors of 7252:
    - *“RFC 7252 itself never needs to take a position on what data type the ACK\_TIMEOUT parameter should be represented in.”*
  - Makes sense if the configuration is local
- A clear data type/unit is needed for DOTS because the configuration is negotiated between clients and servers
- Updated to draft to align with existing implementations
  - ack-timeout is defined as a float

# Support Multiple Observe Requests

- RFC7252 states:
    - The client SHOULD generate tokens in such a way that tokens currently in use for a given source/destination endpoint pair are unique
  - This behavior prevents the support of multiple observe bound to the same DOTS client
  - Actions
    - Errata against RFC7252
    - Implemented this change
- OLD:  
`'cuid' is a mandatory Uri-Query parameter for GET requests.`
- NEW:  
`'cuid' is a mandatory Uri-Path parameter for GET requests.`

# Max-Age Option

- Used to have 'config-interval' to govern how a client can re-contact its server to retrieve configuration changes
- Replaced with Max-Age Option with these recommendations:
  - Servers SHOULD return Max-Age Option
  - Max-Age Option set to 0 is NOT RECOMMENDED
  - Max-Age Option set to  $2^{32}-1$  is equivalent to associating an infinite lifetime with a configuration data
  - A misbehaving client MAY be disconnected if it does not proceed with configuration update
  - During attack times:
    - Refresh requests MUST NOT be sent by DOTS clients
    - DOTS servers MUST NOT terminate the (D)TLS session after the expiry of Max-Age

# Some Minor Edits

- **Add this text for clarity:**

Note that `'heartbeat-interval'`, `'missing-hb-allowed'`, `'max-retransmit'`, `'ack-timeout'`, and `'ack-random-factor'`, if present, do not need to be provided for both `'mitigating-config'` and `'idle-config'` in a PUT request.

- **Add this text for clarity:**

`'cuid'`, `'cdid'`, and `'mid'` must not appear in the PUT request message body.

# Early Port Allocation

- Request for 4646 was handed to the AD
- IANA suggested to apply for permanent allocation
- In progress

# Working Copy

<https://github.com/boucadair/draft-ietf-dots-signal-channel>

# Next Steps

- Publish -18
- Issue a WGLC on -18
- Questions?