draft-ietf-lpwan-coap-static-context-hc-15

Authors:
Ana Minaburo
Laurent Toutain
Ricardo Andreasen
Status

• IESG State: 1 Discussion. Enough positions to pass once DISCUSS position is resolved

• Reviews:
  • SECDIR: Discuss + Nits
  • genart, iotdir, opsdir, tsvart: No Objection

• Thank you to the reviewers for their valuable inputs

Benjamin Kaduk
Francesca Palmobini
Alexey Melnikov
Deborah Brungard
Alissa Cooper
Roman Danyliw

Martin Duke
Erik Kline
Murray Kucherawy
Warren Kumari
(Mirja Kühlewind)
Barry Leiba

Alvaro Retana
(Adam Roach)
Martin Vigoureux
Magnus Westerlund
Robert Wilton
Theresa Enghardt
Changes from v13 to v15

- Section 2. Applying SCHC to CoAP headers
  - Figure 1 has been divided in 3 different scenarios.
Changes from v13 to v15

- Section 4. Compression of CoAP header fields
  - Eliminate the unidirectional/bidirectional confusion

Rule 8724

<table>
<thead>
<tr>
<th>FID</th>
<th>FL</th>
<th>FP</th>
<th>DI</th>
<th>TV</th>
<th>MO</th>
<th>CDA</th>
<th>Sent bits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CoAP version</td>
<td>2</td>
<td>1</td>
<td>bi</td>
<td>01</td>
<td>equal</td>
<td>Not-sent</td>
<td></td>
</tr>
<tr>
<td>CoAP Type</td>
<td>2</td>
<td>1</td>
<td>up</td>
<td>0</td>
<td>equal</td>
<td>Not-sent</td>
<td></td>
</tr>
<tr>
<td>CoAP URI-Path</td>
<td>var</td>
<td>1</td>
<td>up</td>
<td>temperature</td>
<td>equal</td>
<td>Not-sent</td>
<td></td>
</tr>
<tr>
<td>CoAP Uri-Path</td>
<td>var</td>
<td>1</td>
<td>dwn</td>
<td>0; update 1; inventory 2; password</td>
<td>Mapping-mapping</td>
<td>Mapping-sent</td>
<td>2</td>
</tr>
</tbody>
</table>
Changes from v13 to v15

• Section 5. Options
  • Defined the solution for the any option
    • Options are defined with the D-T L V format
    • Any option with this format definition could be compress with SCHC
      • D-T => Field ID
      • L => Field length
      • V => Target value

• Section 9. Security
  • Improvements on this section
    • Security of RFC8724 applies when LPWAN is used
    • Security of RFC8613 applies when using OSCORE
    • DoS attacks are possible causing excessive resource consumption
    • SCHC may avoid some of those attacks because the length sent is the one of the compressed header and not the one of the original header.
    • The size of the IV for OSCORE has been rewritten. The size has an impact on the frequency the key is renewed.
To solve: Discussion – v16

• Section 2. Applying SCHC to CoAP headers
  • Difficult to follow, more explanation
  • Put the difference between dashed and dot lines

• Section 3.1 Remain talking about unidirectional and bidirectional
  • Update this section and explain how SCHC works on defining the description of each field

• Section 5. CoAP Options
  • Reflect the Options compression and How to address future options? (explained before)

• Section 9. Security Considerations
  • Add the inputs from Benjamin DISCUSSion
Thank you

• Questions?