Abstract:
This document lists errata for MQTT Version 3.1.1.

Status:
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**Citation format:**

When referencing this specification the following citation format should be used:

**[MQTT-v3.1.1-Errata01]**

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1 Introduction

This document lists the approved errata to the MQTT V3.1.1 OASIS Standard.
Each one is listed as a subsection of Approved Errata (Section 2), in order of their insertion.
As required by the OASIS Technical Committee Process, the approved errata represent changes that are not “substantive”.

Text to be removed from or added to the original specification is marked as follows:

Remove:

The text to be removed.

Add:

Text to be added.

1.1 Terminology

The key words “MUST”, “MUST NOT”, “REQUIRED”, “SHALL”, “SHALL NOT”, “SHOULD”, “SHOULD NOT”, “RECOMMENDED”, “MAY”, and “OPTIONAL” in this document are to be interpreted as described in [RFC2119].

1.2 Normative References


2 Approved Errata

The following are approved errata to the OASIS MQTT Version 3.1.1 standard and its related works.

2.1 Remaining length range check.

The pseudocode in section 2.2.3 of the MQTT V3.1.1 specification [MQTT311], does not correctly detect a fixed header remaining length greater than 2,097,151 bytes. To correct the pseudocode move the range check so that it precedes the multiplier update.

Remove:

```c
multiplier = 1
value = 0

do
    encodedByte = 'next byte from stream'
    value += (encodedByte AND 127) * multiplier
    multiplier *= 128
    if (multiplier > 128*128*128)
        throw Error(Malformed Remaining Length)
while ((encodedByte AND 128) != 0)
```

Add:

```c
multiplier = 1
value = 0

do
    encodedByte = 'next byte from stream'
    value += (encodedByte AND 127) * multiplier
    if (multiplier > 128*128*128)
        throw Error(Malformed Remaining Length)
    multiplier *= 128
while ((encodedByte AND 128) != 0)
```
3 Conformance

No changes to conformance.
Appendix A. Acknowledgments

The following individuals have participated in the creation of these errata and are gratefully acknowledged:

Participants:
Ed Briggs, Microsoft
### Appendix B. Revision History

<table>
<thead>
<tr>
<th>Revision</th>
<th>Date</th>
<th>Editor</th>
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<tr>
<td>01</td>
<td>26 August 2015</td>
<td>Andrew Banks, Rahul Gupta</td>
<td>Initial Version.</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Add errata 1, remaining length range check.</td>
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