

MQTT Version 3.1.1 Errata 01

Committee Specification Draft 01

03 September 2015

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Related work:

This specification is related to:

- *MQTT and the NIST Cybersecurity Framework Version 1.0*. Edited by Geoff Brown and Louis-Philippe Lamoureux. Latest version: <http://docs.oasis-open.org/mqtt/mqtt-nist-cybersecurity/v1.0/mqtt-nist-cybersecurity-v1.0.html>.

Abstract:

This document lists errata for *MQTT Version 3.1.1*.

Status:

This document was last revised or approved by the OASIS Message Queuing Telemetry Transport (MQTT) TC on the above date. The level of approval is also listed above. Check the "Latest version" location noted above for possible later revisions of this document. Any other numbered Versions and other technical work produced by the Technical Committee (TC) are listed at https://www.oasis-open.org/committees/tc_home.php?wg_abbrev=mqtt#technical.

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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

- | | |
|------------------|--|
| [RFC2119] | Bradner, S., “Key words for use in RFCs to Indicate Requirement Levels”, BCP 14, RFC 2119, March 1997. http://www.ietf.org/rfc/rfc2119.txt . |
| [MQTT311] | <i>MQTT Version 3.1.1</i> . Edited by Andrew Banks and Rahul Gupta. 29 October 2014. OASIS Standard. http://docs.oasis-open.org/mqtt/mqtt/v3.1.1/os/mqtt-v3.1.1-os.html . |

26 **2 Approved Errata**

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

28 **2.1 Remaining length range check.**

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

32 Remove:

```
33     multiplier = 1
34     value = 0
35     do
36         encodedByte = 'next byte from stream'
37         value += (encodedByte AND 127) * multiplier
38         multiplier *= 128
39         if (multiplier > 128*128*128)
40             throw Error(Malformed Remaining Length)
41     while ((encodedByte AND 128) != 0)
```

42

43

44 Add:

```
45     multiplier = 1
46     value = 0
47     do
48         encodedByte = 'next byte from stream'
49         value += (encodedByte AND 127) * multiplier
50         if (multiplier > 128*128*128)
51             throw Error(Malformed Remaining Length)
52         multiplier *= 128
53     while ((encodedByte AND 128) != 0)
```

54 **3 Conformance**

55 No changes to conformance.

56 **Appendix A. Acknowledgments**

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

59 **Participants:**

60 Ed Briggs, Microsoft

61

62

Appendix B. Revision History

Revision	Date	Editor	Changes Made
01	26 August 2015	Andrew Banks, Rahul Gupta	Initial Version. Add errata 1, remaining length range check.

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