MQTT for Sensor Networks (MQTT-SN) Version 1.3

Working Draft 01

18 February 2020

Technical Committee:

[OASIS Message Queuing Telemetry Transport (MQTT) TC](https://www.oasis-open.org/committees/mqtt/)

Chairs:

Ian Craggs ([icraggs@gmail.com](mailto:icraggs@gmail.com)), Individual member

Allan Stockdill-Mander ([asm@uk.ibm.com](mailto:asm@uk.ibm.com)), [IBM](http://www.ibm.com)

Editors:

Ian Craggs ([icraggs@gmail.com](mailto:icraggs@gmail.com)), Individual member

Andrew Banks ([Andrew\_Banks@uk.ibm.com](mailto:Andrew_Banks@uk.ibm.com)), [IBM](http://www.ibm.com)

Simon Johnson ([simon.johnson@thingstream.io](mailto:simon.johnson@thingstream.io)), [Thingstream AG](http://www.thingstream.io/)

Rahul Gupta ([rahul.gupta@us.ibm.com](mailto:rahul.gupta@us.ibm.com)), [IBM](http://www.ibm.com)

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Related work:

This specification is related to:

* *MQTT Version 5.0*. Edited by Andrew Banks, Ed Briggs, Ken Borgendale, and Rahul Gupta. OASIS Standard. Latest version: <https://docs.oasis-open.org/mqtt/mqtt/v5.0/mqtt-v5.0.html>.
* *MQTT Version 3.1.1*. Edited by Andrew Banks and Rahul Gupta. OASIS Standard. Latest version: <http://docs.oasis-open.org/mqtt/mqtt/v3.1.1/mqtt-v3.1.1.html>.

Abstract:

This specification defines the MQTT for Sensor Networks protocol (MQTT-SN). It is closely related to the MQTT v3.1.1 and MQTT v5.0 standards.

Status:

This [Working Draft](https://www.oasis-open.org/policies-guidelines/oasis-defined-terms-2017-05-26#dWorkingDraft) (WD) has been produced by one or more TC Members; it has not yet been voted on by the TC or [approved](https://www.oasis-open.org/policies-guidelines/tc-process#committeeDraft) as a Committee Draft (Committee Specification Draft or a Committee Note Draft). The OASIS document [Approval Process](https://www.oasis-open.org/policies-guidelines/tc-process#standApprovProcess) begins officially with a TC vote to approve a WD as a Committee Draft. A TC may approve a Working Draft, revise it, and re-approve it any number of times as a Committee Draft.

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# Introduction

[All text is normative unless otherwise labeled]

## IPR Policy

This specification is provided under the [Non-Assertion](https://www.oasis-open.org/policies-guidelines/ipr#Non-Assertion-Mode) Mode of the [OASIS IPR Policy](https://www.oasis-open.org/policies-guidelines/ipr), the mode chosen when the Technical Committee was established. For information on whether any patents have been disclosed that may be essential to implementing this specification, and any offers of patent licensing terms, please refer to the Intellectual Property Rights section of the TC’s web page (<https://www.oasis-open.org/committees/mqtt/ipr.php>).

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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](#RFC2119)] and [[RFC8174](#RFC8174)] when, and only when, they appear in all capitals, as shown here.

## Normative References

[RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, DOI 10.17487/RFC2119, March 1997, <<http://www.rfc-editor.org/info/rfc2119>>.

**[****RFC8174]** Leiba, B., "Ambiguity of Uppercase vs Lowercase in RFC 2119 Key Words", BCP 14, RFC 8174, DOI 10.17487/RFC8174, May 2017, <<http://www.rfc-editor.org/info/rfc8174>>.

[Reference] [Full reference citation]

## Non-Normative References

**[****RFC3552]** Rescorla, E. and B. Korver, "Guidelines for Writing RFC Text on Security Considerations", BCP 72, RFC 3552, DOI 10.17487/RFC3552, July 2003, <<https://www.rfc-editor.org/info/rfc3552>>.

[Reference] [Full reference citation]

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For example:

**[OpenDoc-1.2]** *Open Document Format for Office Applications (OpenDocument) Version 1.2*. Edited by Patrick Durusau and Michael Brauer. 19 January 2011. OASIS Committee Specification Draft 07. <https://docs.oasis-open.org/office/v1.2/csd07/OpenDocument-v1.2-csd07.html>. Latest stage: <https://docs.oasis-open.org/office/v1.2/OpenDocument-v1.2.html>.

*Reference sources:*

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# Section Title

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## Level 2 section title

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#### Level 4 section title

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##### Level 5

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###### Level 6

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# Safety, Security, and Data Protection Considerations

(**Note:** OASIS strongly recommends that Technical Committees consider issues that might affect safety, security, privacy, and/or data protection in implementations of their specification and document these for implementers and adopters. For some purposes, you may find it required, e.g. if you apply for IANA registration.

While it may not be immediately obvious how your specification might make systems vulnerable to attack, most specifications, because they involve communications between systems, message formats, or system settings, open potential channels for exploit. For example, IETF [[RFC3552](#RFC3552)] lists “eavesdropping, replay, message insertion, deletion, modification, and man-in-the-middle” as well as potential denial of service attacks as threats that must be considered and, if appropriate, addressed in IETF RFCs.

In addition to considering and describing foreseeable risks, this section should include guidance on how implementers and adopters can protect against these risks.

We encourage editors and TC members concerned with this subject to read *Guidelines for Writing RFC Text on Security Considerations,* IETF [[RFC3552](#RFC3552)], for more information.)

# Conformance

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(**Note:** A Work Product approved by the TC must include a list of people who participated in the development of the Work Product. This is generally done by collecting the list of names in this appendix. This list shall be initially compiled by the Chair, and any Member of the TC may add or remove their names from the list by request.

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The following individuals have participated in the creation of this specification and are gratefully acknowledged:

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1. Example Title

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* 1. Subsidiary section

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1. Revision History

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| --- | --- | --- | --- |
| **Revision** | **Date** | **Editor** | **Changes Made** |
| [Rev number] | [Rev Date] | [Modified By] | [Summary of Changes] |