

Secure QR Code Authentication Version 1.0

Committee Specification Draft 01

29 March 2022

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Abstract:

This document describes the use of QR Codes and a mobile phone as a replacement for a username and password in user login authentication. An alternative to passwords that includes QR Codes is described and typical use cases are described.

This document also provides an overview and context for using QR Codes for security purposes.

This document specifies a “Secure QR Code Authentication Protocol” (SQRAP) and assesses the related security threats and risks.

Status:

This document was last revised or approved by the OASIS Electronic Secure Authentication (ESAT) TC on the above date. The level of approval is also listed above. Check the "Latest stage" 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=esat#technical>.

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Key words:

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "NOT RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in BCP 14 [[RFC2119](#RFC2119)] and [[RFC8174](#RFC8174)] when, and only when, they appear in all capitals, as shown here.

Citation format:

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[SQRAP-v1.0]

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Table of Contents

[1 Introduction 4](#_Toc64028682)

[1.1 Changes from earlier Versions 4](#_Toc64028683)

[1.2 Glossary 4](#_Toc64028684)

[1.2.1 Definitions of terms 4](#_Toc64028685)

[1.2.2 Acronyms and abbreviations 4](#_Toc64028686)

[1.2.3 Document conventions 4](#_Toc64028687)

[2 Section Title 5](#_Toc64028688)

[2.1 Level 2 section title 5](#_Toc64028689)

[2.1.1 Level 3 section title 5](#_Toc64028690)

[2.1.1.1 Level 4 section title 5](#_Toc64028691)

[2.1.1.1.1 Level 5 5](#_Toc64028692)

[2.1.1.1.1.1 Level 6 5](#_Toc64028693)

[3 Conformance 6](#_Toc64028694)

[Appendix A. References 7](#_Toc64028695)

[A.1 Normative References 7](#_Toc64028696)

[A.2 Informative References 8](#_Toc64028697)

[Appendix B. Security and Privacy Considerations 9](#_Toc64028698)

[Appendix C. Acknowledgments 10](#_Toc64028699)

[C.1 Special Thanks 10](#_Toc64028700)

[C.2 Participants 10](#_Toc64028701)

[Appendix D. Revision History 11](#_Toc64028702)

[Appendix E. Example Title 12](#_Toc64028703)

[E.1 Subsidiary section 12](#_Toc64028704)

[E.1.1 Sub-subsidiary section 12](#_Toc64028705)

[E.1.1.1 Sub-sub-subsidiary section 12](#_Toc64028706)

[E.1.1.1.1 Sub-sub-sub-subsidiary section 12](#_Toc64028707)

[Appendix F. Notices 13](#_Toc64028708)

# Introduction

[All text is normative unless otherwise labeled]

## Changes from earlier Versions

[Optional section.]

This section provides a description of significant differences from previously published, differently numbered Versions of this specification, if any. (Detailed revision history of this numbered Version should be tracked in an Appendix.)

## Glossary

[Optional section.]

### Definitions of terms

[Optional section.]

### Acronyms and abbreviations

[Optional section.]

### Document conventions

[Optional section.]

* Naming conventions
* Font colors and styles
* Typographical conventions

# Section Title

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## Level 2 section title

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### Level 3 section title

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#### Level 4 section title

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##### Level 5

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# Conformance

[Required section.]

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[Required section.]

This appendix contains the normative and informative references that are used in this document.

While any hyperlinks included in this appendix were valid at the time of publication, OASIS cannot guarantee their long-term validity.

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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.

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* 1. Normative References

The following documents are referenced in such a way that some or all of their content constitutes requirements of this document.

[RFC2119]

Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, DOI 10.17487/RFC2119, March 1997, <<https://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, <<https://www.rfc-editor.org/info/rfc8174>>.

[ISO/IEC Directives] (Only used if ISO/IEC Key words are elected in front pages)

ISO/IEC Directives, Part 2 (Eighth edition) *Principles and rules for the structure and drafting of ISO and IEC documents*, International Organization for Standardization and International Electrotechnical Commission, 2018. <https://www.iso.org/sites/directives/current/part2/index.xhtml>.

[Reference]

[Full reference citation]

* 1. Informative References

The following referenced documents are not required for the application of this document but may assist the reader with regard to a particular subject area.

[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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[Optional section.]

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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.

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[Required section.]

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Substantial contributions to this document from the following individuals are gratefully acknowledged:

[Participant Name, Affiliation | Individual Member]

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[Optional section.]

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

1. Example Title

Additional Appendixes may be added as needed:

* IANA Considerations
	1. Subsidiary section

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