

Fourth edition
2019-06

IT Security techniques — Entity authentication —

Part 2: Mechanisms using authenticated encryption

*Techniques de sécurité IT — Authentification d'entité —
Partie 2: Mécanismes utilisant le chiffrement authentifié*



Reference number
ISO/IEC 9798-2:2019(E)

© ISO/IEC 2019



COPYRIGHT PROTECTED DOCUMENT

© ISO/IEC 2019

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

This is a preview of "ISO/IEC 9798-2:2019". Click [here](#) to purchase the full version from the ANSI store.

Contents

	Page
Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Symbols and abbreviated terms	2
5 General	3
6 Requirements	3
7 Mechanisms not involving an on-line trusted third party	4
7.1 General	4
7.2 Unilateral authentication	4
7.2.1 General	4
7.2.2 Mechanism UNI.TS — One-pass authentication	5
7.2.3 Mechanism UNI.CR — Two-pass authentication	5
7.3 Mutual authentication	6
7.3.1 General	6
7.3.2 Mechanism MUT.TS — Two-pass authentication	6
7.3.3 Mechanism MUT.CR — Three-pass authentication	7
8 Mechanisms involving an on-line trusted third party	8
8.1 General	8
8.2 Mechanism TP.TS — Four-pass authentication	8
8.3 Mechanism TP.CR — Five-pass authentication	10
Annex A (normative) Object Identifiers	12
Annex B (informative) Use of text fields	13
Annex C (informative) Properties of entity authentication mechanisms	14
Bibliography	15

Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents) or the IEC list of patent declarations received (see <http://patents.iec.ch>).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 27, *IT Security techniques*.

This fourth edition cancels and replaces the third edition (ISO/IEC 9798-2:2008), which has been technically revised. It also incorporates the Technical Corrigenda ISO/IEC 9798-2:2008/Cor.1:2010, ISO/IEC 9798-2:2008/Cor.2:2012 and ISO/IEC 9798-2:2008/Cor.3:2013. The main changes compared to the previous edition are as follows:

- replacement of encryption by authenticated encryption;
- inclusion of constants uniquely identifying the mechanism and the instance of authenticated encryption within the mechanism.

A list of all parts in the ISO/IEC 9798 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.