IT-sikkerhedsteknikker – Entitetsautentifikation – Del 2: Mekanismer med bekræftende kryptering

IT Security techniques – Entity authentication – Part 2: Mechanisms using authenticated encryption

DANSK STANDARD
Danish Standards Association

Göteborg Plads 1
DK-2150 Nordhavn

Tel: +45 39 96 61 01
Tel: +45 39 96 61 01
dansk.standard@ds.dk
www.ds.dk

DS projekt: M322061
ICS: 35.030

Første del af denne publikations betegnelse er:
DS/ISO/IEC, hvilket betyder, at det er en international standard, der har status som dansk standard.

Denne publikations overensstemmelse er:
IDT med: ISO/IEC 9798-2:2019

DS-publikationen er på engelsk.

Denne publikation erstatter: DS/ISO/IEC 9798-2:2009, DS/ISO/IEC 9798-2/Cor 2:2012, DS/ISO/IEC 9798-2/Cor 3:2013, DS/ISO/IEC 9798-2/Corr.1:2010

DS-publikationstyper
Dansk Standard udgiver forskellige publikationstyper.
Typen på denne publikation fremgår af forsiden.

Der kan være tale om:

Dansk standard
- standard, der er udarbejdet på nationalt niveau, eller som er baseret på et andet lands nationale standard, eller
- standard, der er udarbejdet på internationalt og/eller europæisk niveau, og som har fået status som dansk standard

DS-information
- publikation, der er udarbejdet på nationalt niveau, og som ikke har opnået status som standard, eller
- publikation, der er udarbejdet på internationalt og/eller europæisk niveau, og som ikke har fået status som standard, fx en teknisk rapport, eller
- europæisk præstandard

DS-håndbog
- samling af standarder, eventuelt suppleret med informativt materiale

DS-hæfte
- publikation med informativt materiale

Til disse publikationstyper kan endvidere udgives
- tillæg og rettelsesblade

DS-publikationsform
Publikationstyperne udgives i forskellig form som henholdsvis
- fuldtekstpublikation (publikationen er trykt i sin helhed)
- godkendelsesblad (publipukationen leveres i kopi med et trykt DS-omslag)
- elektronisk (publikationen leveres på et elektronisk medie)

DS-betegnelse
Alle DS-publikationers betegnelse begynder med DS efterfulgt af et eller flere præfikser og et nr., fx **DS 383**, **DS/EN 5414** osv. Hvis der efter nr. er angivet et **A** eller **Cor**, betyder det, enten at det er et **tillæg** eller et **rettelsesblad** til hovedstandarden, eller at det er indført i hovedstandarden.
DS-betegnelse angives på forsiden.

Overensstemmelse med anden publikation:
Overensstemmelse kan enten være IDT, EQV, NEQ eller MOD
- **IDT:** Når publikationen er identisk med en given publikation.
- **EQV:** Når publikationen teknisk er i overensstemmelse med en given publikation, men præsentationen er ændret.
- **NEQ:** Når publikationen teknisk eller præsentationsmæssigt ikke er i overensstemmelse med en given standard, men udarbejdet på baggrund af denne.
- **MOD:** Når publikationen er modificeret i forhold til en given publikation.

INTERNATIONAL ISO/IEC

Fourth edition
2019-06-26

IT Security techniques — Entity authentication —

Part 2: Mechanisms using authenticated encryption

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

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

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

Contents

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.

IT Security techniques — Entity authentication —

Part 2:
Mechanisms using authenticated encryption

1 Scope

This document specifies entity authentication mechanisms using authenticated encryption algorithms. Four of the mechanisms provide entity authentication between two entities where no trusted third party is involved; two of these are mechanisms to unilaterally authenticate one entity to another, while the other two are mechanisms for mutual authentication of two entities. The remaining mechanisms require an on-line trusted third party for the establishment of a common secret key. They also realize mutual or unilateral entity authentication.

Annex A defines Object Identifiers for the mechanisms specified in this document.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 9798-1, *Information technology — Security techniques — Entity authentication — Part 1: General*