INTERNATIONAL STANDARD

ISO/IEC 9798-4

Second edition
1999-12-15

Information technology — Security techniques — Entity authentication —

Part 4: **Mechanisms using a cryptographic check function**

Technologies de l'information — Techniques de sécurité — Authentification d'entité —

Partie 4: Mécanismes utilisant une fonction cryptographique de vérification

Reference number
ISO/IEC 9798-4:1999(E)

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Contents

Information technology — Security techniques — Entity authentication — Part 4: Mechanisms using a cryptographic check function

1 Scope

This part of ISO/IEC 9798 specifies entity authentication mechanisms using a cryptographic check function. Two mechanisms are concerned with the authentication of a single entity (unilateral authentication), while the remaining are mechanisms for mutual authentication of two entities.

The mechanisms specified in this part of ISO/IEC 9798 use time variant parameters such as time stamps, sequence numbers, or random numbers, to prevent valid authentication information from being accepted at a later time or more than once.

If a time stamp or sequence number is used, one pass is needed for unilateral authentication, while two passes are needed to achieve mutual authentication. If a challenge and response method employing random numbers is used, two passes are needed for unilateral authentication, while three passes are required to achieve mutual authentication.

Examples of cryptographic check functions are given in ISO/IEC 9797.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO/IEC 9798. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO/IEC 9798 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO/IEC 9797 (all parts), *Information technology — Security techniques — Message Authentication Codes (MACs).*

ISO/IEC 9798-1:1997, *Information technology — Security techniques — Entity authentication — Part 1: General*.