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Third edition
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Information security — Message authentication codes (MACs) —

Part 2: Mechanisms using a dedicated hash-function

Sécurité de l'information — Codes d'authentication de message (MAC) —

Partie 2: Mécanismes utilisant une fonction de hachage dédiée

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Foreword

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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 or www.iec.ch/members_experts/refdocs).

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This document was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, SC 27, *Information security, cybersecurity and privacy protection*.

This third edition cancels and replaces the second edition (ISO/IEC 9797-2:2011), which has been technically revised.

The main changes compared to the previous edition are as follows:

— Using dedicated hash-function 17 for MAC Algorithms 1 and 3 has been added;

— Using dedicated hash-functions 11, 12, 13 to 16, and 17 for MAC Algorithm 2 has been added;

— MAC Algorithm 4 based on Keccak, a primitive in the definition of dedicated hash-functions 13 to 16 has been added.

A list of all parts in the ISO/IEC 9797 series can be found on the ISO and IEC websites.

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Information security — Message authentication codes (MACs) —

Part 2:
Mechanisms using a dedicated hash-function

1 Scope

This document specifies MAC algorithms that use a secret key and a hash-function (or its round-function or sponge function) to calculate an *m*-bit MAC. These mechanisms can be used as data integrity mechanisms to verify that data has not been altered in an unauthorized manner.

NOTE A general framework for the provision of integrity services is specified in ISO/IEC 10181-6.

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 10118-3, *IT Security techniques — Hash-functions — Part 3: Dedicated hash-functions*