International Standard

ISO/IEC 19823-11

Second edition
2025-09

Information technology — Conformance test methods for security service crypto suites —

Part 11: Crypto suite PRESENT-80

Technologies de l'information — Méthodes d'essai de conformité pour les suites cryptographiques des services de sécurité —

Partie 11: Suite cryptographique PRESENT-80

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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 ISO 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).

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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 Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 31, *Automatic identification and data capture techniques*.

This second edition cancels and replaces the first edition (ISO/IEC 19823-11:2022), which has been technically revised.

The main changes are as follows:

— Test item 62 has been updated to reflect changes to the over-the-air protocol.

A list of all parts in the ISO/IEC 19823 series can be found on the ISO and IEC websites.

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.

Introduction

The ISO/IEC 29167 series describes security services as applicable for the ISO/IEC 18000 series. The various parts of ISO/IEC 29167 describe crypto suites that are optional extensions to the ISO/IEC 18000 air interfaces.

The ISO/IEC 19823 series describes the conformance test methods for security service crypto suites. It is related to the ISO/IEC 18047 series, which describes the radio frequency identification device conformance test methods, in the same way as ISO/IEC 29167 is related to ISO/IEC 18000.

These relations mean that, for a product that is claimed to be compliant to a pair of ISO/IEC 18000-n and ISO/IEC 29167-m, the test methods of ISO/IEC 18047-n and ISO/IEC 19823-m apply. If a product supports more than one part of ISO/IEC 18000 or ISO/IEC 29167, all related parts of ISO/IEC 18047 and ISO/IEC 19823 apply.

NOTE 1 The conformance test requirements of ISO/IEC 18000-6, ISO/IEC 18000-61, ISO/IEC 18000-62, ISO/IEC 18000-63, ISO/IEC 18000-64 are currently all in ISO/IEC 18047-6.

This document describes the test methods for the PRESENT-80 crypto suite as standardized in ISO/IEC 29167-11.

NOTE 2 Test methods for interrogator and tag performance are covered by ISO/IEC 18046 (all parts).

Information technology — Conformance test methods for security service crypto suites —

Part 11:
Crypto suite PRESENT-80

1 Scope

This document specifies methods for determining conformance to the security crypto suite defined in ISO/IEC 29167-11.

This document contains conformance tests for all mandatory functions.

Unless otherwise specified, the tests in this document are intended to be applied exclusively to RFID tags and interrogators defined in the ISO/IEC 18000 series using ISO/IEC 29167-11.

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 17025, *General requirements for the competence of testing and calibration laboratories*

ISO/IEC 18000-63, *Information technology — Radio frequency identification for item management — Part 63: Parameters for air interface communications at 860 MHz to 960 MHz Type C*

ISO/IEC 18047-6:2017, *Information technology — Radio frequency identification device conformance test methods — Part 6: Test methods for air interface communications at 860 MHz to 930 MHz*

ISO/IEC 19762, *Information technology — Automatic identification and data capture (AIDC) techniques — Vocabulary*

ISO/IEC 29167-11, *Information technology — Automatic identification and data capture techniques — Part 11: Crypto suite PRESENT-80 security services for air interface communications*