INTERNATIONAL STANDARD

ISO/IEC 9797-3

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Information technology — Security techniques — Message Authentication Codes (MACs) —

Part 3: Mechanisms using a universal hashiTeh STANDARD PREVIEW (stAMENDMENT.1i)

Technologies de l'information — Techniques de sécurité — Codes ISC/11-09/97-32011/2000 https://standards.iteh.avcatalogistandards/sist/1554885e-15/S-40ec-9ba1b6b1fl1a**Partie 3: Mécanismes utilisant une** fonction de hachage universelle

AMENDEMENT 1



Reference number ISO/IEC 9797-3:2011/Amd.1:2020(E)

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

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Part 3: Mechanisms using a universal hash-function

AMENDMENT 1

Clause 5

Insert the following paragraph at the end of Clause 5 (after the NOTE):

Annex A defines object identifiers that shall be used to identify the algorithms specified in this document. Annex B provides numerical examples for the algorithms specified in this document, and Annex C gives information on the security properties of these algorithms.

6.5.1

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Replace the first sentence with the following:

GMAC can be used with any block cipher from ISO/IEC018033-3 that has a block length of 128 bits. The resulting MAC/isotobits long/cwhere to a multiple of 8 satisfying $96 \le t \le 128$ (t = 64 is also permitted for specialized applications is set 67.5.2) 11-and 1-2020

6.5.2

Replace the second list item with the following:

— The tag length, *t*, shall be selected such that *t* is a multiple of 8 satisfying $96 \le t \le 128$. The only permitted exception to this is tag length t = 64. However, this tag length is only permitted for specialized applications, and should only be used with great care.

NOTE For some voice or video applications, short authentication tags (i.e. where t = 64) can be appropriate. In such applications the forgery of some fraction of individual authenticated "packets" can be tolerable, because each packet of data in a large stream can carry very little of the overall meaning. However, even for such applications, short tags can be problematic for GMAC as a result of targeted forgery attacks of the type documented in Appendix B of [9]. Detailed guidance on use of tag length t = 64 is provided in Appendix C of [9].

Annex B

Change the title to Numerical examples.

Annex B, text and table titles

Change all occurrences of "test vector" to "numerical example".

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Bibliography

Change Bibliographic entry [9] to:

[9] National Institute of Standards and Technology, *NIST Special Publication 800-38D: Recommendation for Block Cipher Modes of Operation: Galois/Counter Mode (GCM) and GMAC.* November 2007

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