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Universal Mobile Telecommunications System (UMTS);
LTE;
Specification of the TUAK algorithm set: A second example algorithm set for the 3GPP authentication and key generation functions f1, f1*, f2, f3, f4, f5 and f5*;
Document 5: Performance evaluation
(3GPP TR 35.935 version 16.0.0 Release 16)

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Contents

Foreword

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1 Scope

The present document provides a reference to an independent performance evaluation report of the Tuak algorithm set carried out by the ISG Smart Card Centre of the Royal Holloway University of London.

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1] 3GPP TS 35. 231: "Specification of the Tuak algorithm set: A second example algorithm set for the 3GPP authentication and key generation functions f1, f1*, f2, f3, f4, f5 and f5*; Document 1: Algorithm specification ".

[2] "Performance Evaluation of the TUAK algorithm in support of the ETSI Sage standardisation group"; Keith Mayes; ISG Smart Card Centre, Royal Holloway University of London; (available at http://www.3gpp.org/ftp/Specs/archive/35_series/35.936/SAGE_report/Perfevaluation.zip)

[3] "Performance Evaluation of the TUAK algorithm in support of the GSMA and ETSI SAGE standardisation group""; Keith Mayes; ISG Smart Card Centre, Royal Holloway University of London; Crisp Telecom Limited; (available at http://www.3gpp.org/ftp/Specs/archive/35_series/35.936/SAGE_report/Perfevaluationext.zip)

3 Definitions, symbols and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in TS 35.231 apply. A term defined in the present document takes precedence over the definition of the same term, if any, in TS 35.231 [1].

4 Performance evaluation of the Tuak algorithm set

The performance evaluation report of the Tuak algorithm set [1] can be found here: [2].

An extension to the performance evaluation report can be found here: [3].

Annex A:
Change history

Change history							
Date	**TSG #**	**TSG Doc.**	**CR**	**Rev**	**Subject/Comment**	**Old**	**New**
Nov 2014					First TR version		0.1.0
Dec 2014	SA#66	SP-140817			Version for information and approval	0.1.0	1.0.0
					Version after approval	1.0.0	12.0.0
Jan 2016	SA#70				Upgrade to Rel-13 (MCC)	12.0.0	13.0.0

Change history							
Date	**Meeting**	**TDoc**	**CR**	**Rev**	**Cat**	**Subject/Comment**	**New version**
2017-03	SA#75					Promotion to Release 14 without technical change	14.0.0
2018-06	-	-	-	-	-	Update to Rel-15 version (MCC)	**15.0.0**
2020-07	-	-	-	-	-	Update to Rel-16 version (MCC)	**16.0.0**

History

Document history		
V16.0.0	August 2020	Publication