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TECHNICAL SPECIFICATION

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Contents

Foreword

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y   the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.

z   the third digit is incremented when editorial only changes have been incorporated in the document.

Introduction

Void.

1 Scope

The present document provides an index to the set of specifications for interworking between 3GPP systems and Wireless Local Area Networks (WLAN).

No further changes to this specification are intended. If any future evolution of the procedures in this specification is necessary, it should be documented in other specifications.

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*.

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[12]   Void.

[13]   3GPP TS 23.234: "3rd Generation Partnership Project; Technical Specification Group Services and System Aspects; 3GPP system to Wireless Local Area Network (WLAN) Interworking; System Description" (Release 12).

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[52]   3GPP TS 22.234: "Requirements on 3GPP system to Wireless Local Area Network (WLAN) interworking (Release 13)".

[53]   3GPP TS 32.252: "Telecommunication management; Charging management; Wireless Local Area Network (WLAN) charging (Release 11)".

[54]   3GPP TS 24.235: "3GPP System to Wireless Local Area Network (WLAN) interworking Management Object (MO) (Release 12)".

[55]   3GPP TS 24.327: "Mobility between 3GPP Wireless Local Area Network (WLAN) interworking (I-WLAN) and 3GPP systems; General Packet Radio System (GPRS) and 3GPP I-WLAN aspects; Stage 3 (Release 12)".

[56]   3GPP TS 29.161: "Interworking between the Public Land Mobile Network (PLMN) supporting packet based services with Wireless Local Area Network (WLAN) access and Packet data (Release 11)".

[57]   3GPP TS 29.234: "3GPP system to Wireless Local Area Network (WLAN) interworking; Stage 3 (Release 11)".

3 Definitions and abbreviations

3.1 Definitions

Void.

3.2 Abbreviations

Void.

4 Security Requirements for 3GPP-WLAN Interworking

This feature has been discontinued since Release 13 and the present specification is used to provide references to the latest versions of the stage-1, 2 and 3 specifications.

- TS 22.234 [52].

- TS 24.234 [47].

- TS 24.235 [54].

- TS 24.327 [55].

- TS 29.161 [56].

- TS 29.234 [57].

- TS 23.234 [13].

- TS 32.252 [53].

Annex A (informative): Change history

Date	TSG #	TSG Doc.	CR	Rev	Cat	Subject/Comment	Old	New	WI
2004-03	SP-23	SP-040167	-	-		Presented for approval at TSG SA #23	1.0.1	2.0.0	
2004-03	SP-23	-	-	-		Approved and placed under Change Control (Rel-6)	2.0.0	6.0.0	
2004-06	SP-24	SP-040384	001	-		Profiling of IKEv2 and ESP for NAT traversal	6.0.0	6.1.0	WLAN
2004-06	SP-24	SP-040385	002	-		Sending of temporary identities from WLAN UE	6.0.0	6.1.0	WLAN
2004-06	SP-24	SP-040386	003	-		Extension of IKEv2 and IPsec profiles	6.0.0	6.1.0	WLAN
2004-06	SP-24	SP-040462	004	1		Support of EAP SIM and AKA in AAA server and WLAN UE	6.0.0	6.1.0	WLAN
2004-06	SP-24	SP-040388	005	-		Introduction of UE split alternative 2 in TS 33.234	6.0.0	6.1.0	WLAN
2004-06	SP-24	SP-040389	006	-		Re-authentication failure notification to HSS	6.0.0	6.1.0	WLAN
2004-06	SP-24	SP-040390	007	-		Identity request procedure clarification	6.0.0	6.1.0	WLAN
2004-06	SP-24	SP-040391	008	-		WLAN mechanism to allow restrictions on simultaneous sessions	6.0.0	6.1.0	WLAN
2004-06	SP-24	SP-040392	009	-		Requirement on keeping WLAN access keys independent from 2G/3G access keys stored in USIM	6.0.0	6.1.0	WLAN
2004-09	SP-25	SP-040622	010	-		Update reference to RFC3748 "Extensible Authentication Protocol (EAP)"	6.1.0	6.2.0	WLAN
2004-09	SP-25	SP-040622	011	-		References update	6.1.0	6.2.0	WLAN
2004-09	SP-25	SP-040622	012	-		Sending of temporary identities from WLAN UE	6.1.0	6.2.0	WLAN
2004-09	SP-25	SP-040622	013	-		Clarification on fast re-authentication procedure	6.1.0	6.2.0	WLAN
2004-09	SP-25	SP-040622	014	-		Correction of authentication procedure for WLAN UE split	6.1.0	6.2.0	WLAN
2004-09	SP-25	SP-040622	016	-		Wa interface security	6.1.0	6.2.0	WLAN
2004-09	SP-25	SP-040622	017	-		Introduction of protected result indications	6.1.0	6.2.0	WLAN
2004-09	SP-25	SP-040622	018	-		Tunnel authentication procedure in Wm interface	6.1.0	6.2.0	WLAN
2004-09	-	-	-	-		Resolution of CR 015 (see below) which modified the same parts as CR 017 (MCC)	6.2.0	6.2.1	
2004-09	SP-25	SP-040622	015	-		Modification of mechanism to restrict simultaneous WLAN sessions	6.2.0	6.2.1	WLAN
2004-12	SP-26	SP-040858	019	2		Profile for PDG certificates in Scenario 3	6.2.1	6.3.0	WLAN
2004-12	SP-26	SP-040868	020	5		Impact of Feasibility Study on (U)SIM Security Reuse by Peripheral Devices on Local Interfaces	6.2.1	6.3.0	WLAN
2004-12	SP-26	SP-040858	024	1		Sending of W-APN identification	6.2.1	6.3.0	WLAN
2004-12	SP-26	SP-040858	025	2		Clean up of not completed chapters	6.2.1	6.3.0	WLAN
2004-12	SP-26	SP-040858	027	6		Correction of WLAN UE function split	6.2.1	6.3.0	WLAN
2004-12	SP-26	SP-040858	028	-		Passing keying material to the WLAN-AN during the Fast re-authentication procedure	6.2.1	6.3.0	WLAN
2004-12	SP-26	SP-040858	029	1		Clarification on Deletion of Temporary IDs	6.2.1	6.3.0	WLAN
2004-12	SP-26	SP-040858	030	-		Clarification on Protecting Re-authentication ID in FAST/FULL Re-Authentication procedure	6.2.1	6.3.0	WLAN
2004-12	SP-26	SP-040858	031	-		Assigning Remote IP Address to WLAN UE using IKEv2 configuration Payload	6.2.1	6.3.0	WLAN
2004-12	SP-26	SP-040858	033	1		Tunnel Establishment Procedure	6.2.1	6.3.0	WLAN
2004-12	SP-26	SP-040858	036	-		Deletion of inconclusive text on A5/2 countermeasures	6.2.1	6.3.0	WLAN
2004-12	SP-26	SP-040858	037	1		Alignment of IPsec profile with RFC2406	6.2.1	6.3.0	
2004-12	SP-26	SP-040858	040	2		Control of simultaneous sessions in WLAN 3GPP IP access	6.2.1	6.3.0	WLAN
2004-12	SP-26	SP-040858	041	1		Completion of definition and abbreviations	6.2.1	6.3.0	WLAN
2004-12	SP-26	SP-040858	042	1		Fallback from re-authentication to full authentication	6.2.1	6.3.0	WLAN
2004-12	SP-26	SP-040858	043	-		Clarification on the use of IMSI in WLAN 3GPP IP access	6.2.1	6.3.0	WLAN
2004-12	SP-26	SP-040858	044	2		Clarification on the use of MAC addresses	6.2.1	6.3.0	WLAN
2004-12	SP-26	SP-040858	045	-		Clarifications and corrections on the use of pseudonyms	6.2.1	6.3.0	WLAN

2004-12	SP-26	SP-040858	047	-		Wn Reference Point Description	6.2.1	6.3.0	WLAN
2004-12	SP-26	SP-040858	048	-		Removal of word "scenario"	6.2.1	6.3.0	WLAN
2004-12	SP-26	SP-040858	049	1		Correction of WRAP to CCMP	6.2.1	6.3.0	WLAN
2004-12	SP-26	SP-040858	050	1		Removal of resolved editors' notes	6.2.1	6.3.0	WLAN
2005-03	SP-27	SP-050142	051	-		Wu Reference Point Description	6.3.0	6.4.0	WLAN
2005-03	SP-27	SP-050142	052	1		Replacing PDGW with PDG	6.3.0	6.4.0	WLAN
2005-03	SP-27	SP-050142	055	1		Clarification on EAP-AKA(SIM) description in 3GPP IP access authentication and authorization	6.3.0	6.4.0	WLAN
2005-03	SP-27	SP-050142	056	2		Threat of users accessing each other in link layer and corresponding security requirements of user traffic segregation	6.3.0	6.4.0	WLAN
2005-03	SP-27	SP-050142	057	1		Clarifying the status that can't be changed in the security requirement of WLAN-UE split	6.3.0	6.4.0	WLAN
2005-03	SP-27	SP-050142	058	2		WLAN AN providing protection against IP address spoofing	6.3.0	6.4.0	WLAN
2005-03	SP-27	SP-050142	059	1		Clarification on the handling of simultaneous sessions	6.3.0	6.4.0	WLAN
2005-03	SP-27	SP-050142	060	2		Removal of editors' notes	6.3.0	6.4.0	WLAN
2005-03	SP-27	SP-050142	061	1		Detecting the start of a WLAN Direct IP Access session based on Wa/Wd Accounting Messages	6.3.0	6.4.0	WLAN
2005-03	SP-27	SP-050142	063	1		Adding verification method of PDG certification by OSCP protocol	6.3.0	6.4.0	WLAN
2005-06	SP-28	SP-050265	064	2	F	Specify the number of the IPsec SAs under the same IKE SA in WLAN 3GPP IP access	6.4.0	6.5.0	WLAN
2005-06	SP-28	SP-050265	065	1	F	Terminate WLAN session by AAA server	6.4.0	6.5.0	WLAN
2005-06	SP-28	SP-050265	066	-	F	Correction to the definition of the Wn Reference Point	6.4.0	6.5.0	WLAN
2005-06						Corrects version number on cover page	6.5.0	6.5.1	
2005-09	SP-29	SP-050547	0067	-	F	Correction of reference	6.5.1	6.6.0	WLAN
2005-09	SP-29	SP-050547	0068	-	F	Clarification on obtaining Remote IP address during Tunnel Establishment Procedure	6.5.1	6.6.0	WLAN
2005-09	SP-29	SP-050547	0069	-	F	Profiling of IKEv2 to support Re-keying of IPsec SAs and IKE SAs	6.5.1	6.6.0	WLAN
2005-09	SP-29	SP-050547	0070	-	F	Separation of authentication and authorization in WLAN 3GPP IP access	6.5.1	6.6.0	WLAN
2005-09	SP-29	SP-050547	0071	-	F	Support for simultaneous WLAN direct IP access sessions	6.5.1	6.6.0	WLAN
2005-12	SP-30	SP-050765	0072	-	F	IMSI availability at PDG	6.6.0	6.7.0	WLAN
2006-03	SP-31	SP-060047	0073	-	F	Correction of the incorrect statement in Tunnel fast re-authentication and authorization	6.7.0	6.8.0	WLAN
2006-03	SP-31	SP-060047	0074	-	F	updating the reference	6.7.0	6.8.0	WLAN
2006-03	SP-31	SP-060047	0076	-	F	Correction to authentication information retrieval between 3GPP AAA Server and HSS	6.7.0	6.8.0	WLAN
2006-03	SP-31	SP-060058	0075	-	C	Addition of in-band OCSP support	6.7.0	7.0.0	WLAN
2006-06	SP-32	SP-060414	0078	1	F	Correction of reference	7.0.0	7.1.0	WLAN
2006-06	SP-32	SP-060382	0079	-	B	Tunnel setup procedures for the private network access from WLAN 3GPP IP Access	7.0.0	7.1.0	I-WLAN Private NW access
2006-06	SP-32	SP-060382	0080	-	C	Clarification on PDG requirements for in-band OCSP support and update of reference	7.0.0	7.1.0	WLAN
2006-09	SP-33	SP-060498	0081	-	F	Correction to protocol used in Wx reference point	7.1.0	7.2.0	WLAN2
2006-09	SP-33	SP-060652	0082	1	F	Corrections and updates of references	7.1.0	7.2.0	WLAN2
2006-12	SP-34	SP-060804	0085	1	F	Correction of the Note re. fast re-authentication	7.2.0	7.3.0	WLAN
2007-03	SP-35	SP-070149	0087	1	F	CR 33.234-0087 - Update Reference	7.3.0	7.4.0	WLAN2
2007-03	SP-35	SP-070218	0091	1	A	Mandate the format of PDG ID	7.3.0	7.4.0	WLAN
2007-03	SP-35	SP-070144	0093	1	A	Correction and clarification of 3GPP AAA Server behaviour	7.3.0	7.4.0	TEI6
2007-03	SP-35	SP-070161	0095	1	D	Correction of reference	7.3.0	7.4.0	TEI7
2007-03	SP-35	SP-070141	0096	-	A	Extension of scope of TS 33.234	7.3.0	7.4.0	WLAN
2007-03	SP-35	SP-070161	0098	-	A	Clarification on certificate chain handling	7.3.0	7.4.0	TEI7
2007-06	SP-36	SP-070467	0088	2	B	Support of IMS emergency call over I-WLAN	7.4.0	7.5.0	WLAN
2007-06	SP-36	SP-070339	0089	2	B	Support of IMS emergency call over I-WLAN for UICC-less case	7.4.0	7.5.0	WLAN
2007-12	SP-38	SP-070911	0099	3	B	Support of IMS emergency call over I-WLAN	7.5.0	8.0.0	WLAN
2008-03	SP-39	SP-080144	0100	1	F	Note on using an unauthenticated Diffie_Hellman exchange for emergency calls	8.0.0	8.1.0	TEI8
2009-09	SP-45	SP-090526	0102	1	F	Addition of cipher suite for interworking WLAN	8.1.0	9.0.0	TEI9
2010-03	SP-47	SP-100103	0103	1	F	Use of EAP Request/AKA Identity message	9.0.0	9.1.0	TEI9

2010-06	SP-48	SP-100251	0104	-	F	Use of EAP Request/AKA Identity message	9.1.0	9.2.0	TEI9
2010-06	SP-48	SP-100361	0105	1	C	Deprecation of SHA-1 and other changes to certificate, CRL and OCSP profiles	9.1.0	9.2.0	TEI9
2010-06	SP-49	SP-100474	0106	2		IPsec alignment	9.2.0	10.0.0	TEI10
2010-06	SP-49	SP-100482	0107	1		Unification of certificate and CRL profiles in TS 33.234 with TS 33.310, clause 6.1	9.2.0	10.0.0	TEI10
2011-03	SP-51	SP-110020	0108	1	C	IPsec alignment	10.0.0	11.0.0	TEI11
2011-09	SP-53	SP-110563	0109	-		IKEv2 profiling shall also point to TS 33.310	11.0.0	11.1.0	Sec11
2011-09	SP-53	SP-110564	0111	1		Removal of last step in tunnel authentications	11.0.0	11.1.0	TEI10
2011-12	SP-54	SP-110848	0110	1	C	CR to 33.234: Removal of maximum number of IKEv2 SA limit	11.1.0	11.2.0	Sec11
2011-12	SP-54	SP-110848	0113	1	C	Authentication for Private Network Access	11.1.0	11.2.0	Sec11
			0117	1	A	Corrections to IKEv2 procedure	11.2.0		
2012-03	SP-55	SP-120038	0120	2	A	The identity of the UICC-less UE in emergency call		11.3.0	TEI10
2012-06	SP-56	SP-120341	0121	1	F	Removal of void references in IMS emergency call over I-WLAN	11.3.0	11.4.0	SEC11
2013-12	SP-62	SP-130667	0122	1	F	User profile fetching before authentication in WLAN interworking	11.4.0	12.0.0	TEI12, WLAN
2014-09	SP-65	SP-140593	0123	-	F	Adding a Note on new purpose of specification	12.0.0	12.1.0	TEI12
2016-01	SP-70					Upgrade to Rel-13 (MCC)	12.1.0	13.0.0	

Change history							
Date	Meeting	TDoc	CR	Rev	Cat	Subject/Comment	New version
2016-12	SA#74	SP-160787	0126	1	C	Alignment according to withdrawal of I-WLAN feature	13.1.0
2017-03	SA#75	-	-	-		Promotion to Release 14 without technical change	**14.0.0**

History

Document history		
V14.0.0	April 2017	Publication