3GPP TSG SA WG3 Security — S3#37 Sophia Antipolis, France 21 - 25 February 2005

CR-Form-v7.1 CHANGE REQUEST	
(#)	33.234 CR 051
For HELP on using this form, see bottom of this page or look at the pop-up text over the symbols. Proposed change affects: UICC apps ME Radio Access Network Core Network X	
Title: 器	Wu Reference Point Description
Source:	ZTE Corporation, NOKIA
Work item code: 器	WLAN Date: 10/01/2005
	Release: Rel-6 Use one of the following categories: F (correction) A (corresponds to a correction in an earlier release) B (addition of feature), C (functional modification of feature) D (editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21.900. Rel-6 Release: Rel-6 Use one of the following releases: Ph2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 5) Rel-6 (Release 7)
Reason for change:	The security mechanism on Wu is very important for WLAN 3GPP IP Access. However, there is no description of Wu interface in the reference points description clause.
Summary of change	Add the description of the Wu reference point in clause 4.1.5.
Consequences if not approved:	The description of reference points is not complete according to the reference model.
Clauses affected: Other specs affected:	# 4.1.5 Y N X Other core specifications X
Other comments:	≋

*** BEGIN OF CHANGE ***

4.1.5 Reference points description

Wa

The reference point Wa connects the WLAN Access Network to the 3GPP Network (i.e. the 3GPP AAA Proxy in the roaming case and the 3GPP AAA server in the non-roaming case). The main purpose of the protocols implementing this interfaces is to transport authentication and keying information (WLAN UE - 3GPP network), and authorization information (WLAN AN – 3GPP network). The reference point has to accommodate also legacy WLAN Access Networks and thus should be Diameter [23], [24] or RADIUS [15], [26] based.

$\mathbf{W}\mathbf{x}$

This reference point is located between 3GPP AAA Server and HSS. The main purpose of the protocols implementing this interface is communication between WLAN AAA infrastructure and HSS, and more specifically the retrieval of authentication vectors, e.g. for USIM authentication, and retrieval of WLAN access-related subscriber information from HSS. The protocol is either MAP or Diameter based.

D'/Gr'

This optional reference point is located between 3GPP AAA Server and pre-R6 HLR/HSS. The main purpose of the protocol implementing this interface is communication between WLAN AAA infrastructure and HLR, and more specifically the retrieval of authentication vectors, e.g. for USIM authentication, from HLR. The protocol is MAP-based.

Wn

This reference point is located between the WLAN Access Network and the WAG. This interface is to force traffic on a WLAN UE initiated tunnel to travel via the WAG. The specific method to implement this interface is subject to local agreement between the WLAN AN and the PLMN.

Wm

This reference point is located between 3GPP AAA Server and Packet Data Gateway. The functionality of this reference point is to retrieve tunnelling attributes and UE's IP configuration parameters from/via Packet Data Gateway.

Wd

The reference point Wd connects the 3GPP AAA Proxy to the 3GPP AAA Server. This interface is similar to Wa, its main purpose is to transport authentication, authorization and related information in a secure manner.

<u>Wu</u>

The reference point Wu is located between the WLAN UE and the Packet Data Gateway. It represents the WLAN UE-initiated tunnel between the WLAN UE and the Packet Data Gateway. On Wu interface WLAN UE and Packet Data Gateway run IKEv2 protocol to establish IPsec tunnel and protect user data packets transmitted.

*** END OF CHANGE ***