Technical Specification Group Services and System Aspects **TSGS#27(05)0121**
Meeting #27, 14 - 17 March 2005,Tokyo, Japan

Source:	**TSG SA WG2**
Title:	**WID for Enhancement of I-WLAN Scenario 3**
Agenda item:	**7.2.3**
Document for:	**APPROVAL**

3GPP TSG-SA WG2 Meeting #44. **Tdoc S2-050521**
Budapest, Hungary, 26th January – 2nd February 2005

Source:	**Samsung, Fujitsu, T-Mobile International, Orange, LG Electronics, NEC**
Title:	**WID for Enhancement of I-WLAN Scenario 3**
Agenda item:	**7.8**
Document for:	**APPROVAL**

This document proposes a new work item for 3GPP/WLAN interworking in Release 7.

Work Item Description

Title

WLAN Interworking – Enhancements to support QoS provisioning over 3GPP/WLAN Interworking

1 3GPP Work Area

	Radio Access
X	Core Network
	Services

2 Linked work items

TSG SA1: 3GPP system - WLAN Interworking (with unique ID 31012)
TSG SA2: WLAN Interworking – Architecture Definition and stage 2 definition of WLAN access and Interworking (with unique ID 32018)
TSG SA2: End to End QoS
TSG SA2: Evolution of Policy Control and Charging

3 Justification

Some 3GPP PS based services (e.g. VoIP over IMS, PS streaming, etc) require strict QoS provisioning. In order to support such services over I-WLAN, QoS Provisioning in 3GPP-WLAN Interworking is required.
IEEE 802.11 WLAN standards are currently not supporting QoS mechanisms, therefore QoS provisioning was not considered in Rel-6 work for 3GPP-WLAN Interworking. As IEEE is currently finalizing QoS amendments to 802.11 WLAN standards, QoS-related aspects of the 3GPP-WLAN architecture should be studied.
In the context of end-to-end QoS provisioning being studied in TR 23.802, provisioning of QoS within I-WLAN as an IP-CAN is important. It shall be defined if and how QoS provisioning in I-WLAN can interact with the end-to-end QoS framework.

Flow based charging and service/subscription based policy control are studied in TR 23.803 as generic features to support the access to PS based services from different IP-CANs. In order to leverage the generic charging and service/subscription based policy control within I-WLAN as another IP-CAN, the Gateway element in case of 3GPP-WLAN Interworking has to provide the needed functionalities, e.g. for Policy Enforcement.

4 Objective

- Investigate the necessity and reliability of the applicable QoS mechanism between the WLAN UE and PDG, and the possible impacts to the 3GPP-WLAN interworking entities.
- Ensure that the architecture for 3GPP/WLAN Interworking defined by TS 23.234 is supported by the following QoS-related mechanisms being developed in 3GPP:
    a. E2E QoS architecture being studied in TR 23.802
    b. Policy and charging evolution capabilities being studied in TR 23.803.

5 Service Aspects

See the parent Work Item

6 MMI-Aspects

See the parent Work Item

7 Charging Aspects

See the parent Work Item

8 Security Aspects

See the parent Work Item

9 Impacts

Affects:	UICC apps	ME	AN	CN	Others
Yes		X		X	
No	X		X		
Don't know					X

10 Expected Output and Time scale (to be updated at each plenary)

New specifications						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
23.8bc	QoS and policy aspects of 3GPP/WLAN Interworking	SA2		SA#29		

Affected existing specifications The conclusion of the TR will identify the affected existing Technical Specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments

11 Work item rapporteur(s)

Osok Song (Samsung)

12 Work item leadership

SA2

13 Supporting Companies

T-Mobile International, Orange, Samsung, Fujitsu, LG Electronics, NEC

14 Classification of the WI (if known)

	Feature (go to 14a)
X	Building Block (go to 14b)
	Work Task (go to 14c)

14a The WI is a Feature: List of building blocks under this feature

14b The WI is a Building Block: parent Feature

TBD.

14c The WI is a Work Task: parent Building Block

form change history:
v1.11.0: includes those changes from v1.8.0 agreed at SP-25.
v1.10.0: full circle
v1.9.0: a clean sheet
v1.8.0: includes comments from SA#24
v1.7.0: includes comments from RAN, CN and T #24; also includes “early implementation” data
v1.6.0: includes comments made during review period prior to TSGs#24
v1.5.0: includes comments made at TSGs#23 (Phoenix)
v1.4.0: offered to SA#23 for approval
v1.3.0: offered to CN#23, RAN#23 and T#23 for comments
DRAFT4 v1.3.0: 2004-03-09: Incorporation of comments from Leaders list
DRAFT3 v1.3.0: 2004-02-19: Incorporation of comments from MCC members
DRAFT2 v1.3.0: 2004-01-29: Complete redraft:
v1.2.0: 2002-07-04: "USIM" box changed to "UICC apps"
2003-05-28: spelling of “rapporteur” corrected
2002-07-04: "USIM" box changed to "UICC apps"