

**Source:** SA1  
**Title:** Updated WLAN Interworking WID  
**Document for:** Approval  
**Agenda Item:** 7.1.3

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**TSG-SA WG1 #17**  
**Durango, USA, 12-16<sup>th</sup> August 2002**

**S1-021743**  
**Agenda Item:10.13**

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**Title: Updated WLAN Interworking WID**  
**Source: rapporteur**

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## Work Item Description

### **Title**

3GPP system - WLAN- Interworking

### **1 3GPP Work Area**

	Radio Access
X	Core Network
X	Services

### **2 Linked work items**

Linked Building Blocks to be defined.

### **3 Justification**

There is an increasing demand for wireless 'local area' access in very different scenarios. Wireless access to Internet is provided to public users by the use of currently existing WLAN technology such as IEEE 802.11b. In companies wireless access is provided to portable computer users by use of the same technology. For residential use wireless access is also increasing. 3<sup>rd</sup> generation technologies and systems will provide bearers for similar packet switched services, with greater mobility and wider area coverage albeit with reduced data rate.

WLAN technology can complement 3GPP based networks in deployment environments with high user density and demand for higher data rates. However, in order to provide flexible use of both technologies in these environments and to provide mobility of services between the two technologies it is sensible that some degree of interworking exists between the two technologies/systems.

### **4 Objective**

The purpose of the work is twofold

- Continue the feasibility study
- Proceed with specification work

| The purpose of the feasibility study is to study a generic interworking functionality between 3GPP system -and WLAN systems (e.g. IEEE 802.11 family, HIPERLAN/2, ...). In specific it aims at:

- Study the service requirements for Interworking scenarios.
- Study the different possible architectures for interworking.

The feasibility study has identified several Interworking scenarios. Scenario 2 provides an IP connectivity via WLAN system for 3GPP subscribers. In that scenario access control and charging are 3GPP system based.

The specification work will aim at specifying the service and operational requirements for Interworking scenarios, beginning with scenario 2.

## **5 Service aspects**

Service aspects should assess service requirements and the support of UMTS-3GPP services over the WLAN radio access.

## **6 MMI aspects**

MMI aspects should define a minimum set of functions to support the choice of access system by the user and/or terminal for when both access systems are available.

## **7 Charging Aspects**

Both charging requirements and charging architecture should be studied. In particular it should be considered whether WLAN charging should be integrated with the UMTS-3GPP system charging architecture or not.

## **8 Security Aspects**

Security requirements should be studied given the prerequisite that a) the security level of the UMTS-3GPP platform itself is not impacted, b) the security level provided to users in the WLAN mode is comparable to the one of UMTS-3GPP.

## **9 Impacts**

<b>Affects:</b>	<b>USIM</b>	<b>ME</b>	<b>AN</b>	<b>CN</b>	<b>Others</b>
<b>Yes</b>					
<b>No</b>					
<b>Don't know</b>	X	X	X	X	X

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

<b>New specifications</b>						
Spec No.	Title	Prime resp. WG	2ndary resp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
TR 22.934	Feasibility study on 3GPP system to Wireless Local Area Network (WLAN) interworking	SA1	SA2	SA#15	SA#176	TR
<b>Affected existing specifications</b>						
22.101		Service principles				SA1
22.115		Charging and Billing				SA1
21.133		<u>Security Threats and Requirements</u>				SA1
22.105		<u>Services and Service Capabilities</u>				SA1
22.129		<u>Handover Requirements between UTRAN and GERAN or Other Radio Systems</u>				SA1
22.011		<u>Service Accessibility</u>				SA1

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**Work item rapporteurs**

Fredric Paint, Telenor

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**Work item leadership**

SA1 (secondary SA2)

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**Supporting Companies**

Telenor, Ericsson, Telia, Nokia, Sonera, Voicestream, Nortel, Alcatel, Toshiba, Cisco, Vodafone, Motorola.

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**Classification of the WI (if known)**

The work item is a feature