

Beijing, China, 18-27 September 2001

Title: LS to IEEE 802, Home RF Forum

Source: Telia, Telenor, Ericsson

To: IEEE 802, Home RF Forum

Contact Person:

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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, Home RF, etc. In companies wireless access is provided to portable computer users by use of the same technology. For residential use wireless access is also increasing. 3rd 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 UMTS 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.

3GPP TSG SA#13 has received an LS from ETSI BRAN on their work on this very same topic. 3GPP TSG SA#13 has discussed and approved a work item for a feasibility study on interworking between UMTS and WLAN. The approved Work Item Description is attached to this document.

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

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

Source: Telenor, Telia, Ericsson, Microsoft, KPN, Siemens

Title: WI Proposal : 'Feasibility study on WLAN-UMTS Interworking'

Agenda item: 8.9 Beyond Release 5 and/or Current work plan (Vision, Phasing etc.)

Document for: Approval

Work Item Description

Title

WLAN-UMTS 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. 3rd 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 UMTS 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 feasibility study is to study a generic interworking functionality between UMTS and WLAN systems (e.g. IEEE 802.11 family, HIPERLAN/2, ...). In specific it aims at:

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

5 Service aspects

Service aspects should assess service requirements and the support of UMTS 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 charging architecture or not.

8 Security Aspects

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

9 Impacts

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

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

New specifications						
Spec No.	Title	Prime resp. WG	2ndary resp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
TR 22.xxx	Feasibility study on WLAN-UMTS interworking	SA1	SA2	SA#15	SA#16	TR
Affected existing specifications						

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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, Microsoft, KPN, Siemens, Samsung Electronics Research Institute, Motorola, Swisscom

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Classification of the WI (if known)

The work item is a feasibility study