

Title: WLAN Interworking Security WID
Source: BT Group

Work Item Description

Title

WLAN Interworking Security WID

1 3GPP Work Area

X	Radio Access
X	Core Network
X	Services
X	Terminals

2 Linked work items

Access Security for IP based Services

Subscription Management

UE Management

User equipment functionality split

Network Domain Security (if secure distribution of authentication between roaming partners is necessary)

Lawful Interception

WLAN inter-working WID in SA1 and SA2

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 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.

The current study within SA1, described in the “3GPP system – WLAN Interworking” WID, covers requirements aspects of WLAN-3GPP System Interworking [S1-020638]. In addition SA2 have a complimentary WID, which is identifying and analysing potential Interworking architectures [S2-02-0908]. It is therefore considered to be necessary for SA3 to develop Security Architecture suitable for implementation to enhance these work items.

Don't know								
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10 Expected Output and Time scale (to be updated at each plenary)

Deliverables				
No.	Title	Prime resp. WG	Completion Date	Comments
1	3GPP & IEEE WLAN Interworking Security Review	SA3	SA3#25 8-11 th October 2002	A Review of the security of existing 3GPP and IEEE WLAN security from a theoretical and practical perspective. http://www.ieee802.org/11/ http://www.cisco.com/warp/public/cc/so/cuso/epso/sqfr/safwl_wp.htm http://www.cs.umd.edu/~waa/1x.pdf http://www.isaac.cs.berkeley.edu/isaac/wep-faq.html http://slashdot.org/articles/01/02/15/1745204.shtml
2	3GPP & IEEE WLAN Interworking Security Risk Analysis	SA3	SA3#25 8-11 th October 2002	Determination of the security risks associated with various deployment environments and interworking scenarios. (SA2 Technical Report will be presented for info at SA #17 9 th – 12 th September)
43	Wireless Local Area Network (WLAN) Interworking Security Technical Specification		SA3#27 Feb 2003	

New specifications						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
TS xx.xxx	Wireless Local Area Network (WLAN) Interworking Security	SA3	SA1 SA2	SA#19 17 th – 20 th March 2003	SA#20 9 th – 12 th June 2003	TS To include recommendations Trust Model as an informative annex

Affected existing specifications 3GPP			
TS	21.133		3G security; Security threats and requirements
TS	33.106		Lawful interception requirements
TS	33.107		3G security; Lawful interception architecture and functions
TS	33.108		3G security; Handover interface for Lawful Interception
TS	33.200		Network Domain Security - MAP
TS	33.203		3G security; Access security for IP-based services
TS	33.210		3G security; Network Domain Security (NDS); IP network layer security

Affected existing specifications IEEE	
<u>IEEE 802.11, 1999 Edition</u>	ISO/IEC 8802-11: 1999 IEEE Standards for Information Technology -- Telecommunications and Information Exchange between Systems -- Local and Metropolitan Area Network -- Specific Requirements -- Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications
<u>IEEE 802.11a-1999</u>	(8802-11:1999/Amd 1:2000(E)), IEEE Standard for Information technology—Telecommunications and information exchange between systems—Local and metropolitan area networks—Specific requirements—Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) specifications—Amendment 1: High-speed Physical Layer in the 5 GHz band
<u>IEEE 802.11b-1999</u>	Supplement to 802.11-1999, Wireless LAN MAC and PHY specifications: Higher speed Physical Layer (PHY) extension in the 2.4 GHz band
<u>IEEE 802.11d-2001,</u>	Amendment to IEEE 802.11-1999, (ISO/IEC 8802-11) Information technology--Telecommunications and information exchange between systems--Local and metropolitan area networks--Specific requirements--Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications: Specification for Operation in Additional Regulatory Domains
IEEE 802.11i	Draft Standard 802.11i, D2.1 (March 2002): Specification for Enhanced Security.

Affected existing specifications ETSI BRAN
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ETSI TS101 761-2 V1.3.1	Broadband Radio Access Networks (BRAN) HIPERLAN Type 2 Data Link Control (DLC) layer; Part 2: Radio Link Control (RLC) sublayer.

11 Work item rapporteurs

~~If supported by SA3 at SA3#24 Ericsson can take the rapporteur role. Luis Lopez-Soria Ericsson~~

12 Work item leadership

SA3

13 Supporting Companies

~~Alcatel, BT Group, Cisco, Ericsson, Gemplus, Lucent, Motorola, Nokia, Nortel, Orange, Siemens Sonera, Telenor, Telia, Vodafone,~~

~~The above supporting companies, active in SA3, support the "3GPP System - WLAN Interworking" WID in SA1 and SA2 and it will need to be confirmed that they support this WID by the SA3#24 meeting 9th-12th of July 2002~~

14 Classification of the WI (if known)

X	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:

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