3GPP TSG SA WG3 Security — S3#34 **S3-040597**

July 6 - 9, 2004

Acapulco, Mexico

3GPP TSG-SA WG1 Meeting #25 **Tdoc S1-040716**
Montreal, Canada, 28th Jun– 2nd July 2004

Title:	**Reply to LS on Correlation of I-WLAN Access and Service Authorization (S2-042347/S1-040562)**
Response to:	-
Release:	Rel 6
Work Item:	Interworking WLAN
Source:	SA1
To:	SA2
Cc:	SA3

Contact Person:

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Attachments: S1-040696 **'**Clarification of the relationship between different levels of WLAN interworking**'**

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1. Overall Description:

SA1 thanks SA2 for their LS entitled 'Correlation of I-WLAN Access and Service Authorization' (S2-042347/S1-040562). The result of the discussion of this LS within SA1 is as follows:

The following text exists within TS 22.234 regarding the scenarios for support of 3GPP Interworking with WLAN.

> It is an operator decision as to the level of interworking supported. This can be broadly grouped as:
> - 3GPP based access control and charging. The user shall be able to access general internet services and/or corporate intranets. (Scenario 2 of TR 22.934 [2])
> - Access to 3GPP PS based services, e.g. IMS. (Scenario 3 of TR 22.934 [2])
> - Access to 3GPP PS based services with service continuity. The user may or may not notice a disruption in service, depending upon the level of service continuity supported. This is further defined in TS 22.129 [5]. (Scenarios 4 and 5 of TR 22.934 [2])

The scenarios presented in TS 22.234 and TR 22.934 are considered to be independent and as such a network operator has several choices regarding the provision of 3GPP interworking with WLAN. A CR has been agreed in SA1 to clarify this within TS 22.234 and is attached to this LS for information.

Based on the reasoning given above it is possible for a network operator to offer only scenario 3(of TR22.934), without supporting scenario 2(of TR22.934) and SA1 recognise that this may be a valid scenario for a network operator to provide 3GPP interworking with WLAN. In this case, the 3GPP I-WLAN access authentication may not be available and authentication of the I-WLAN connection for the I-WLAN PS service connection is necessary. After authentication of the I-WLAN user an authorization for the use of a service (e.g. IMS) on I-WLAN will be performed.

Q1) Does SA1 require an explicit check for I-WLAN access authorization prior to allowing access to PS services?
A1) For the reasons described above **both** the authentication of a user and the authorization for a certain PS service for that user are to be performed before allowing access to the PS service. Additionally, it is also

desirable to determine whether USIM based I-WLAN access authentication has been used or not. Therefore, SA1 does require that it shall be possible for an explicit check for I-WLAN access authorization to be performed before accessing 3GPP PS based services.

Q2) Is there any requirement to support access authentication methods that are different from those based on the (U)SIM? ?
A2) No, It is required for the user to be authenticated by the 3GPP system (i.e. USIM) in order to access 3GPP PS based services.

Q3) Is there any requirement to preclude PS service access from other access networks than I-WLAN?
A3) At present access to 3GPP PS based services is only explicitly required from an I-WLAN. However, it is the opinion of SA1 that it would be undesirable to preclude PS service access from other access networks that have appropriate interworking defined by 3GPP. Hence, there is no requirement to preclude access to PS based services from access networks other than I-WLAN.

2. Actions:

To SA2 group.

ACTION: SA1 respectfully requests that SA2 take into account the content of the answers provided above when developing specifications for 3GPP Interworking with WLAN.

3. Date of Next TSG SA WG 1 Meetings:

SA1 SWGs	23 - 28 Aug 2004	Vienna, Austria
TSG-SA1 Meeting #26	11 - 15 Oct 2004	Sophia Antipolis, France
TSG-SA1 Meeting #27	17 - 21 Jan 2005	South Africa

CR-Form-v7

CHANGE REQUEST

• **22.234** **CR** **CRNum** • **rev** **-** • Current version: **6.1.0** •

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 •	X	ME	X	Radio Access Network		Core Network	X

Title: •	Clarification of the relationship between different levels of WLAN interworking	
Source: •	NTT DoCoMo Inc.	
Work item code: •	WLAN	Date: • 28/6/2004
Category: •	**F**	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.

Use one of the following releases:
2 (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 6)

Reason for change: •	TS 22.234 describes several levels of interworking between the 3GPP system and WLAN. These scenarios are described without stating that each of the levels of interworking are independent. This has lead to confusion when standardising the architecture for 3GPP-WLAN Interworking.
Summary of change: •	Text is added to chapter 5.1.7 to clarify that the levels of interworking between the 3GPP system and WLAN are independent and that it shall be possible for a network operator to provide a level of interworking described above without it being necessary to provide the preceding level of interworking.
Consequences if not approved: •	The independence of the WLAN Interworking scenarios will not be recognised resulting in incorrect Stage 2 and 3 standardisation for 3GPP-WLAN Interworking.

Clauses affected: •	5.1.7			
Other specs affected: •	Y	N		•
		X	Other core specifications	
		X	Test specifications	
		X	O&M Specifications	

Other comments:	•	CR based on LS received from SA2 in S1-040562.

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked • contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

1st Modified Section

5.1.7 Interworking between PLMN and WLANs

5.1.7.1 General

WLAN-3GPP system interworking is defined as a wireless IP connectivity service where the user obtains access via a Wireless LAN technology. It shall be possible to deploy the WLAN as an integral part of the 3GPP system or the two systems can be separate.

The 3GPP system shall be capable of interworking with one or more WLANs and a WLAN shall be capable of interworking with one or more 3GPP systems see figure 2.

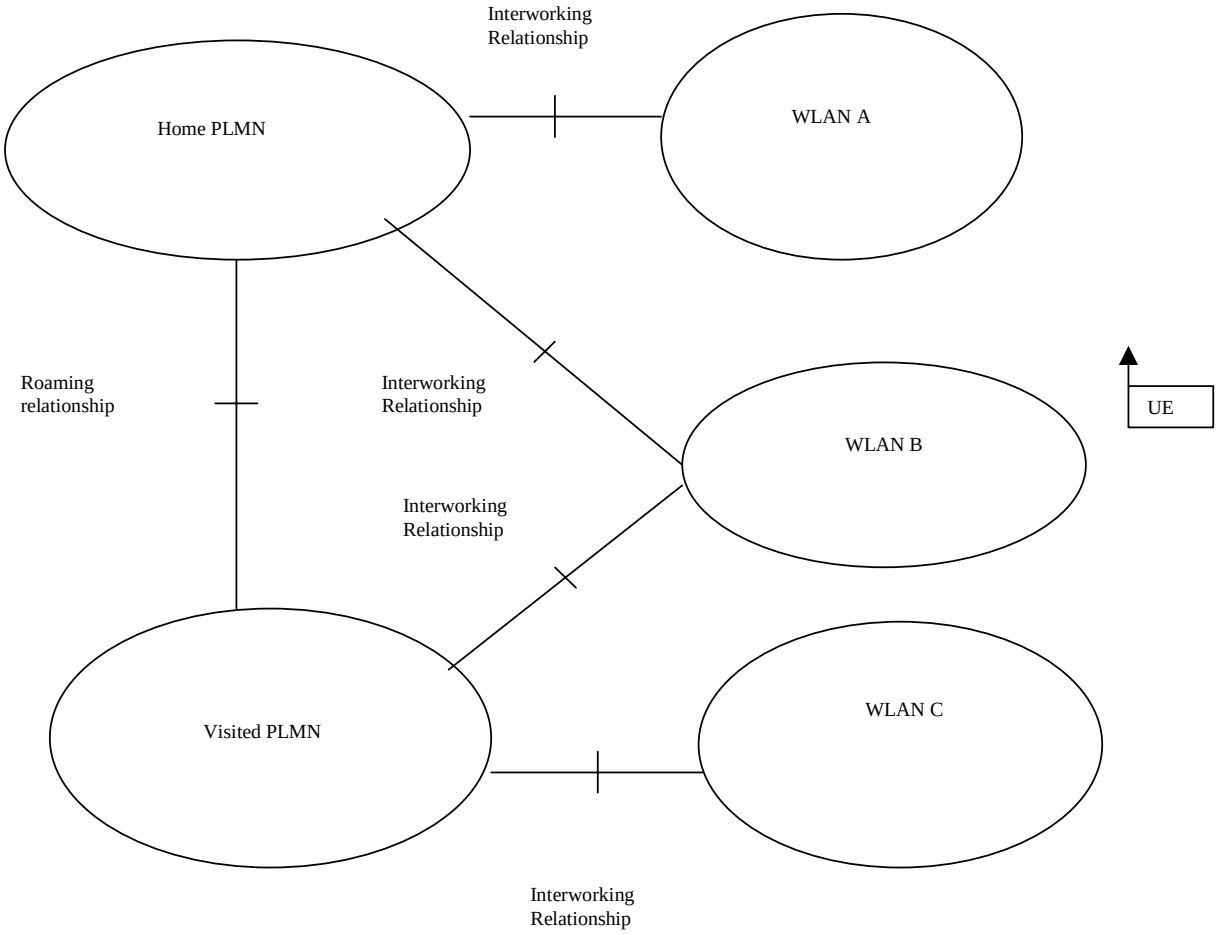

Figure 2: WLAN-3GPP system interworking relationships

The service is subject to a 3GPP system subscription (see clause 15). Both IPv4 and IPv6 connectivity via a Wireless LAN (WLAN) shall be supported.

It is an operator decision as to the level of interworking supported. This can be broadly grouped as:

- 3GPP based access control and charging. The user shall be able to access general internet services and/or corporate intranets. (Scenario 2 of TR 22.934 [2])
- Access to 3GPP PS based services, e.g. IMS. (Scenario 3 of TR 22.934 [2])

- Access to 3GPP PS based services with service continuity. The user may or may not notice a disruption in service, depending upon the level of service continuity supported. This is further defined in TS 22.129 [5]. (Scenarios 4 and 5 of TR 22.934 [2])

NOTE: Further information on these levels of interworking and the use cases supported can be found in TR 22.934 [2].

The different levels of interworking supported are defined to be independent. Hence, it shall be possible for a network operator to provide a particular level of interworking independently to other levels of interworking.

NOTE: For example, it is possible for a network operator to provide a level of interworking to provide access to 3GPP PS based services (Scenario 3 of TR 22.934 [2]) without needing to provide the level of interworking for 3GPP based access control and charging (Scenario 2 of TR 22.934 [2]). In this case 3GPP USIM based authentication of the user is still needed before accessing 3GPP PS based services.

In addition to the general requirements on I-WLAN defined in the present document, the following requirements apply:

- When enabling access to 3GPP services that require separate authentication and access control, such as IMS, the service authentication and access control mechanisms for those services shall be used.

- It should be possible to provide access via I-WLAN on deployed WLAN devices.

End of changes