3GPP TSG SA WG3 Security **S3-050096**

21-25 February 2005 **(comments to S3-050060)**

Sophia-Antipolis, France

Agenda Item: IMS

Source: Ericsson, Nokia (Comments by Gemplus, Axalto, OCS)

Title: Comments on WID: IMS security extensions

Document for: Discussion/Decision

Editorial comments
The current version of the WID does not correspond to the last 3GPP WID template. In section 9 "Impacts the box "USIM" should be replaced with the box "UICC apps"

Comments on "Impacts"
The proposed WID for IMS security extensions indicates in section 9 "impacts" that this Work Item will not affect the USIM.

The IMS security relies on the ISIM application stored on the UICC. In the scope of the security study of this working item a modification of the ISIM could be proposed to allow the use of IMS on other access networks.
Moreover, previous S3 contribution (S3-041038) mentioned the possibility to re-use GBA infrastructure for IMS security extensions. Since GBA_U is part of GBA, a modification of the UICC could be envisaged in the scope of this work item.

So, the WID "IMS security extensions" shall not preclude modifications of the UICC applications.

Proposal
We propose to tick the box "don't know" for the UICC apps in section 9 "impacts".

Work Item Description

Title: Security extensions for IP Multimedia Sub-system

1 3GPP Work Area

	Radio Access
X	Core Network
	Services

2 Linked work items

1. There are related work items in S3: "WLAN Interworking Security", "IMS Phase 2 - Lawful Interception in the 3GPP Rel-6 architecture"
2. There is a related work item in S2: "System enhancements for fixed broadband access to IMS"

3 Justification

Release 5 and 6 IMS access security solution was mainly designed for UMTS access networks. Even though the access security solution is access network independent, there are still important use scenarios in which the current solution is difficult or even impossible to use:

- Access networks that include NATs, such as fixed broadband access as currently specified in ETSI and ITU-T in the framework of next generation networking (NGN).
- IMS subscriber having (possibly third party provided) Internet access.
- IMS subscriber using 3GPP/WLAN interworking scenario 2 or 3.

Furthermore, IMS security architecture relies partly on underlying network security. For example, media is not protected end-to-end because the security architecture relies on encryption provided by access network. However, some of these new access networks cannot be trusted for media encryption.

TSG-S3 has prime responsibility for all security-related specification work in 3GPP. TSG-S3 needs to study if IMS access security solution needs to be extended in order to solve the above problems, and how potential extensions are done.

4 Objective

The objective with this WI is to further study security requirements and solutions related to alternative access paths to IMS. Special focus is put on to study NAT traversal solutions between UE and P-CSCF~~, and media encryption.~~ Another objective is to study the requirements and need for media protection in IMS as well as the possible solutions. An objective is also to align the work with the specification work for fixed broadband access to IMS.

5 Service Aspects

yes, the end-user shall be able to access the services located at the home IM-domain wherever the end-user may roam to. It shall also be possible to use different access technology to connect the "IP multimedia CN Subsystem" e.g. xDSL, wireline and Wireless LAN etc.

6 MMI-Aspects

yes, visibility and configurability. Issues like visibility of offered security level and user interaction shall be studied.

7 Charging Aspects

none identified

8 Security Aspects

yes, this WI issues security features

9 Impacts

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

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

Meeting	Date	Activity

New specifications						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
TBD	Feasibility study on media protection in IP Multimedia Sub-system.	SA3				~~SA3 should consider if a new TR on IP Multimedia Sub-system access security extension requirements is needed~~ TR on media protection.
						~~SA3 should consider if media encryption should be documented in a new TS~~

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
33.203		Access security for IP-based services		Adds NAT traversal solution.
		Other specs may be identified as work progresses, e.g. stage 3 specifications		

11 Work item raporteurs

Ericsson, Bengt Sahlin

12 Work item leadership

S3

13 Supporting Companies

Ericsson, Nokia, TBD

14 Classification of the WI (if known)

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

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

Stage 3: Protocol impact from providing IMS services via alternative access networks.