

14 September, 2001

Sophia Antipolis, France

3GPP TSG SA WG3 Security — S3#20

S3-010435

16 - 19 October, 2001

Sydney, Australia

3GPP TSG-SA WG2 meeting #19
Sophia Antipolis, France, 27 – 31 August 2001

Tdoc S2-012456

Title: Security aspects for IMS related to Authentication
Source: SA2
To: SA3
Cc: CN1, CN4
Response to: S2-012031 (S3-010382)
S2-012032 (S3-010387)
S2-012034 (S3-010402)

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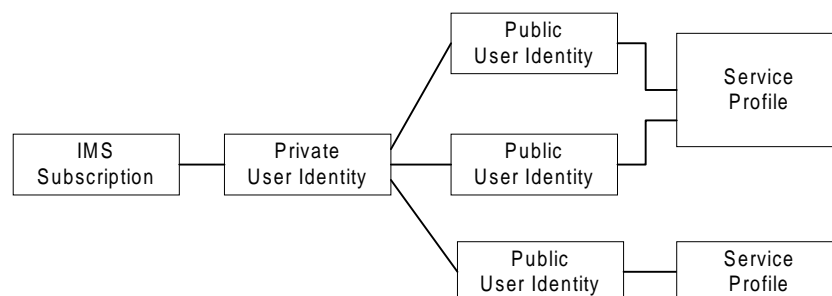
Attachments: S2-012063 (Response LS on Usage of the Public User Identifier in the IMS)

1. Overall Description:

This liaison is the outcome of the SA2 discussion and relates to three incoming SA3-LS S2-012031, S2-012032, S2-012034. These documents raise issues concerning:

- the confirmation of the current S3 working assumptions for the authentication of an IMS subscriber in the S-CSCF (S2-012031/ S2-012032).
- the requirements related to the private and public identities in the IMS in respect to the registration (S2-012034).

During the plenary meeting SA2 also discussed an incoming liaison statement on the Usage of Public User Identifier in the IMS from SA WG1 (S2-012063 attached), which is attached to this contribution.



According to the SA1 requirement, documented in S2-012063, this is the scenario that should be supported by the IMS in Release 5. All public user identities that are associated with the same profile should have the same set of services. Public user identities that are associated with a different profile could have a different set of services.

2. Actions:

Based on these requirements SA2 agreed on the following principles about which it would like to inform SA3 about:

1. Subscribers may have different service profiles just as requested by SA1. SA2 assumes that each Public ID belongs to a single service profile, but a single service profile may have several Public IDs. Furthermore, different service profiles may be assigned to different S-CSCFs even when these service profiles have the same Private ID. However these service profiles shall have a different set of Public IDs. SA2 kindly asks SA3 to respond if this work assumption significantly increases the SA3 work load such that the Release 5 IMS security standardisation can not be completed on time.
2. SA2 currently does not see the need of changing the S-CSCF for a given service profile while a session is ongoing. However, if no session is active, the S-CSCF allocated for a service profile may be changed. Such a change is envisioned for example for management purposes or for the case that the operator wants to introduce new services for that user. TS 23.228 already defines procedures that assist such a change of the S-CSCF. An example is the procedure defined for the network initiated de-registration.
3. It is SA2's understanding that it is still a valid optimisation to send multiple sets of authentication vectors from the HSS to the S-CSCF. This is because Public IDs are typically re-registered with the same S-CSCF.
4. So far, SA2 has not identified a case where the same Public ID is registered with two different S-CSCFs simultaneously. SA3 may thus assume that only a single S-CSCF is allocated for a set of Public IDs that belongs to a particular service profile.
5. SA2 can confirm the work assumption SA3 made for the I-CSCF after Step 18 in the figure in S2-012031. The result of the Cx_Query/Cx_QueryResp performed by the I-CSCF in Step 17 and Step 18 enables the I-CSCF to access the S-CSCF without that a new selection process need to be performed. The exception to that are cases when a network failure causes the originally selected S-CSCF to be unavailable!
6. Regarding the optimisation of authentication call flows, SA2 would like to inform SA3 that there shall be no optimisation, which can compromise the integrity of the architecture. SA2 expects CN WGs to be responsible for any protocol level optimisations that can be done. On the issue of the routing of registration messages, S2 would like to remind S3, CN1 and CN4 of section 5.1.4 of TS 23.228, "The routing of the SIP registration information flows shall not take into account previous registrations (i.e., registration state)".
7. SA3 asked SA2 to clarify what identities, in relation with the IMPI and the IMPU can be defined without the interaction of the operator. This is based on the statement in TS23.228: "The home network operator is responsible for the assignment of the private user identifier, and public user identifiers; other identities that are not defined by the operator may also exist." This issue was not discussed during the SA2#19 plenary meeting. SA2 plans to discuss this topic at a future meeting and send an LS to SA5 when an answer has been found.

3. Date of Next SA2 Meetings:

SA2_20	29 th October – 2 nd November 2001	Japan
SA2_21	26 th – 30 th November 2001	Cancun, Mexico

TSG-SA WG 1 (Services) meeting #13
Lake Tahoe, USA, 9-13 July 2001

S1-010849
Agenda Item:

Title: Response LS on Usage of the Public User Identifier in the IMS

Source: TSG SA1

To: TSG SA2

cc:

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1. Overall Description:

SA1 thanks SA2 for their LS S2-011702r1 titled "*LS on Usage of the Public User Identifier in the IMS*" dated 29 June 2001.

SA1 has reviewed the scenarios described in the SA2 LS. These scenarios were reviewed in conjunction with a separate discussion document (S1-010668) that was submitted to SA1. This discussion document has been attached to this response LS for informational purposes.

2. Responses to Questions:

The SA1 responses to the questions in the SA2 LS are given below:

Question #1: Which of the described scenarios should be supported in IMS Rel.5?

Response: Scenario C with multiple profiles with one or more public user identifiers per profile is the scenario that should be supported by the IMS in Release 5.

An example of Scenario C is a user with a business profile and personal profile with each profile having one or more public user identities. See the attached discussion document S1-010668 for additional information on this example.

Question #2: Is there a requirement that different Public Identifiers should enable different services for the subscriber?

Response: All public user identities that are associated with the same profile should have the same set of services. Public user identities that are associated with a different profile could have a different set of services.

An example is a user with both a personal and a business profile. The user could have entertainment services such as games that are only available via the personal profile. Also, the user could have business-related services such as VPN that are only available via the business profile.

3. Attachments:

S1-010805 [LS on Usage of the Public User Identifier in the IMS]

S1-010668 [Relationship of IMS Public User IDs to Subscriptions]



S1-010805.doc



S1-010668.doc