Technical Specification Group Services and System Aspects Meeting #17, Biarritz, France, 9-12 September 2002

TSGS#17(02)0441

3GPP TSG-SA WG2 meeting #26
Toronto, Canada, 18th – 23rd August 2002

S2-022631

Title: **Response to "LS on new requirements about functionality to make subscription to different domains independent or linked based on operator decision"**

Response to: S2-022629 (= S1-021831)

Release: 6

Source: SA2
To: SA1
Cc: SA

Contact Person: Maria Pia Galante, Telecom Italia Lab
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Attachments: S2-022629

1. Overall Description:

SA2 thanks SA1 for their liaison on new requirements on subscriptions to CN domains.

SA2 believes that the liaison as well as the attached CR to 22.101 try to clarify the Release 6 requirements on the relationships between subscriptions to IM CN domain and the PS CN domain with regard to their linkage to a single UE (or set of equipment that is subject to the UE functionality split).

In order to identify proper solutions and give correct guidance to other groups, SA2 needs clarification on the correct interpretation on subscription requirements:

1. "The 3GPP system shall provide the functionality to maintain each subscription independent of each other;"
Does this subscription independency requirement affect only the relationship between subscriptions to IM CN domain and PS CN domain, or also to the relationship between subscriptions to the PS and CS CN domains?
Further, does this relate to a single UE, or, can independent subscriptions just be simply provided by multiple UEs?

2. "The 3GPP system shall provide the functionality to provide dependencies between the different subscriptions based on operator decisions".
What is the purpose to provide functionality to activate an existing 3GPP PS subscription, only if the associated IMS subscription is active? – more explicit requirements are needed in this scenario.

SA2 has just started an activity on architectural updates for access independence (specifically with regard to 3GPP, 3GPP2 and W-LAN) and therefore SA2 welcomes the formulation of SA1 requirements in the area of subscription relationships in order to guide such technical activity.

2. Actions:

To SA1 group.

ACTION: SA1 is kindly asked to provide clarifications to the questions above.

3. Date of Next TSG-SA2 Meetings:

SA2#27	14-18 October, 2002	Beijing

3GPP TSG-SA WG2 meeting #26 **Tdoc S2-022629**
Toronto, Canada, 18th – 23rd August 2002

TSG-SA WG1 #17 **S1-021831**
Durango, USA, 12-16th August 2002 **Agenda Item:**

Title: **New requirements about functionality to make subscription to different domains independent or linked based on operator decision**

Release: 6

Source: SA1
To: S2, S3, S5
Cc: T3

Contact Person: **Enrico Scarrone, Telecom Italia**
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Attachments: CR titled "Independent and linked subscriptions"

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1. Overall Description:

At the last SA1 meeting the capability to make independent subscriptions one of each other as well the need of specified mechanism to allow operator to include dependencies between the different subscriptions was discussed in detail. Both cases were recognized as necessary cases for release 6

This has resulted in the approval of the CR to 22.101 that is presented as attachment to this LS.

S1 like to clarify the requirements:

1) 3GPP system shall allow each subscription to be independent of each other;
   e.g. the subscription to the IMS domain shall be independent from the one to the 3GPP CN domains, to grant access to IMS by means of different access domain independently from the 3GPP CN core network subscription
2) 3GPP system shall provide a mechanism to include dependencies between the different subscriptions based on operator decisions.
   Examples of dependencies are
   - an existing IMS subscription can be activated only if the linked 3GPP CN PS subscription exist
   - an existing IMS subscription can be activated only if the linked 3GPP CN PS subscription is active.
   - an existing 3GPP PS subscription can be activated only if the linked 3GPP IMS is active

   It shall be noted that it is expected that subscription belonging from different operators can be linked only with the agreement of all the pertinent operators.

Both cases are requiring the definition of appropriate solution and mechanisms, for this reason S1 like to inform S2, S3 and S5. S1 like to invite S2 to define the architectural principles for the mechanisms that can satisfy the requirements, as well to invite S3 to evaluate and consider the security implications.

We also invite S5 to assess the implications on billing and charging due to the requirements described above.

2. Actions:

To S2 group.

ACTION: Define a technical solution to satisfy the requirements and provide guidance to the correct SWGs to implement the solution in the appropriate specifications.

To S3 group.

ACTION: Evaluate the security implication and consider appropriate actions.

To S5 group.

ACTION: Evaluate the implications on billing and charging and consider appropriate actions.

3. Date of Next TSG-SA1 Meetings:

SA1 SWGs	14-18 October 2002,	Beijing, China.
SA1#18	11-15 November 2002,	Korea.

TSG-SA WG1 #17 **S1-021838**
Durango, USA, 12-16th August 2002 **Agenda Item:**

CR-Form-v7

CHANGE REQUEST

⌘ **22.101** **CR** **CRNum** ⌘ **rev** **-** ⌘ Current version: **6.0.0** ⌘

*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:	⌘	Independent and linked subscriptions
Source:	⌘	IMS SWG
Work item code:	⌘	IMS
Date:	⌘	15/08/2002
Category:	⌘	**B**
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:	⌘	The current specification does not clearly specify operator requirements on subscriptions.
Summary of change:	⌘	The change makes it clear that subscriptions can be offered independently as well as linked to each other.
Consequences if not approved:	⌘	3GPP will not work according to clear requirements. This may throw operators in confusion about under what market conditions the 3GPP system will be adequately designed to operate. There is a risk that some requirements are not fulfilled. Further, the discussions on the ISIM issue will go on possibly forever in 3GPP, which will slow down the progress of work related to this issue.
Clauses affected:	⌘	Section 15.1

Other specs affected: ⌘	Y	N		⌘
			Other core specifications	
			Test specifications	
			O&M Specifications	

Other comments: ⌘

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.

15 Relationship between subscription and service delivery

15.1 Subscription

A subscription describes the commercial relationship between the subscriber and the service provider.

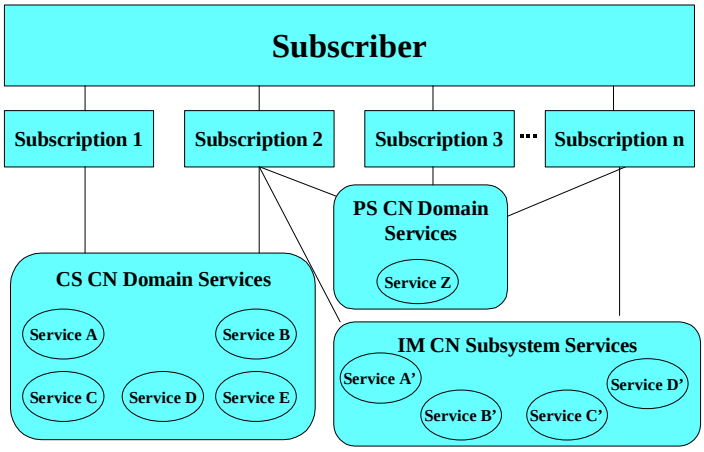

Figure 4: Subscriber, subscription and services relationship

A subscription to an ~~network~~ operator may provide the user with access to one or more domains. A Subscription shall identify the set of services, within particular domains, to which the user has access (see figure 3); each subscription may specify a different set of services. These services may be provided by the CS CN Domain and/or a PS CN Domain and/or an IM CN subsystem and appropriate access technologies (E.g. UTRAN, GERAN or WLAN). Subscriptions relate to services such as Basic Services (e.g. Teleservices, Bearer services), GPRS services and IM-Services (IP-based multimedia services), which are typically provided by network operators, and to value added services which typically are provided by network operators and/or other entities that provide services to a subscriber.

The subscription identifies:

- the services and related services information that are made available to the subscriber by the service provider ;

In addition a subscription to a network operator may identify:

- the domains to which the user has been granted access by the network operator. In particular, the GPRS service profile and information on the allowed QoS parameter ranges shall be contained in the subscription.

- the identity of the subscriber within these domains.
  Note: The identity of a subscriber in the CS CN domain and PS CN domain (e.g. her IMSI) may potentially be different to her identity in the IM CN subsystem

The 3GPP system shall provide the functionality to maintain each subscription independent of each other;

Example: the subscription to the IMS domain shall be independent from the one to the 3GPP CN domains, to grant access to IMS by means of different access domain independently from the 3GPP CN core network subscription

The 3GPP system shall provide the functionality to provide dependencies between the different subscriptions based on operator decisions.

Examples: - an existing IMS subscription can be activated only if the associated 3GPP CN PS subscription exist

- an existing IMS subscription can be activated only if the associated 3GPP CN PS subscription is active.

- an existing 3GPP PS subscription can be activated only if the associated IMS subscription is active

Note: subscriptions belonging to different operators may be linked only with the agreement of all the pertinent operators.