3GPP TSG CN Plenary Meeting #24 **NP-040220**
2nd – 4th June 2004 Seoul, KOREA.

Source: TSG CN WG4

Title: Corrections on IMS Rel-6

Agenda item: 9.1

Document for: APPROVAL

Spec	CR	Rev	Doc-2nd-Level N4-040	Phase	Subject	Cat	Ver_C
23.003	086	4	472	Rel-6	Clarification of the uses of SIP URIs for Public User ID	F	6.2.0
29.328	085	2	715	Rel-6	Mapping to Diameter AVP for Requested Identity Set	F	6.1.0

3GPP TSG CN WG4 Meeting #22bis
Edinburgh, UK, 14th – 20th April 2004

N4-040472

CR-Form-v7

CHANGE REQUEST

⌘ **23.003** **CR** **086** ⌘ **rev** **4** ⌘ Current version: **6.2.0** ⌘

*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⌘ ☐ ME ☐ Radio Access Network ☐ Core Network **X**

Title:	⌘	Clarification of the uses of SIP URIs for Public User ID
Source:	⌘	CN4
Work item code:	⌘	IMS2
Date:	⌘	15/04/2004
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:	⌘	It is currently confusing that different forms of the same SIP URI could either be interpreted as the same Public ID or different Public IDs. This change clarifies that possible confusion by reference to RFC 3261, sub-section 19.1.1 entitled "SIP and SIPS URI Components" and also RFC 2396 which is entitled "Uniform Resource Identifiers (URI): Generic Syntax".
Summary of change:	⌘	A reference to RFC 3261 is given which specifies when the SIP URI and tel URL should considered equivalent and when two SIP URIs should be considered the same Public ID.
Consequences if not approved:	⌘	There is scope for mis-interpretation of the specifications by implementors using SIP URIs and TEL URLs.

Clauses affected:	⌘	13.4			
Other specs affected:	⌘	**Y**	**N**		
			X	Other core specifications	⌘
			X	Test specifications	
			X	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.

13.4 Public Uuser Iidentity

The Ppublic Uuser Iidentity shall take the form of either a SIP URI (see RFC 3261 [26]) or a tel URL (see RFC 2806 [45]). A SIP URI for a Public User Identity shall take the form "sip:user@domain". SIP URI comparisions shall be performed as defined in RFC 3261 [26], section 19.1.4.

If there is no ISIM application to host the public user identity, a temporary public user identity shall be derived, based on the IMSI. The temporary public user identity shall be of the form "user@domain" and shall therefore be equal to the private user identity. The private user identity is derived as described in subclause 13.2. That is, the private user identity will be appended to the string "sip:"

EXAMPLE: "sip:234150999999999@ims.mnc015.mcc234.3gppnetwork.org".

3GPP TSG CN WG4 Meeting #23
Zagreb, Croatia, 10th – 14th May 2004

N4-040715

CR-Form-v7

CHANGE REQUEST

⌘ **29.328** **CR** **085** ⌘ **rev** **2** ⌘ 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⌘ ☐ ME ☐ Radio Access Network ☐ Core Network ☒

Title:	⌘	Mapping to Diameter AVP for Requested Identity Set
Source:	⌘	CN4
Work item code:	⌘	IMS2-CCR
Date:	⌘	15/04/2004
Category:	⌘	**F**
Release:	⌘	Rel-6

Use one of the following categories:
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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:	⌘	In the last CN4 meeting (CN4#22), it was agreed to introduce the new "Requested Identity Set" information element over the Sh interface. However the mapping to the corresponding Diameter AVP "Identity-Set" was not listed in the table A.3.1. By the way, the "Requested Identity Set" IE is marked as conditional in the table 6.1.1.1 with the following condition: this IE must be used when the requested data are IMS public identities. However the associated description clarifies that this IE may be absent even if IMS public identities are requested to be downloaded. Therefore, the IE should be marked as "Optional" instead of "Conditional".
Summary of change:	⌘	Modify the category of "Requested Identity Set" IE, from "Conditional" to "Optional". Add the mapping between "Requested Identity Set" IE and the "Identity-Set" Diameter AVP in the table A.3.1.
Consequences if not approved:	⌘	There will be no Diameter AVP corresponding to "Requested Identity Set" information element used over the Sh interface. Besides, the use of this IE will be unclear due to an appropriated category assigned in the tble 6.1.1.1.

Clauses affected:	⌘	Table 6.1.1.1, Annex 3.1

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

Other comments: ⌘	

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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.

Beginning of the first modification

6.1.1 Data read (Sh-Pull)

This procedure is used between the AS and the HSS. The procedure is invoked by the AS and is used:

- To read transparent and/or non-transparent data for a specified user from the HSS.

This procedure is mapped to the commands User-Data-Request/Answer in the Diameter application specified in 3GPP TS 29.329 [5]. Tables 6.1.1.1 and 6.1.1.2 detail the involved information elements.

Table 6.1.1.1: Sh-Pull

Information element name	Mapping to Diameter AVP	Cat.	Description
User Identity (See 7.1)	User-Identity	M	IMS Public Identity or MSISDN of the user for whom the data is required.
Requested data (See 7.3)	Data-Reference	M	This information element indicates the reference to the requested information. The set of valid reference values are defined in 7. 6.
Requested Identity set (See 7.11)	Identity-Set	~~C~~O	If Data-Reference indicates that IMS Public Identities is the requested data set to be downloaded, this information element ~~shall~~ should be included. When this information element takes the value IMPLICIT_IDENTITIES, the HSS shall provide all IMS Public Identities that are implicitly registered with the IMS Public Identity included in the message in the User-Identity AVP. When this information element takes the value REGISTERED_IDENTITIES, the HSS shall provide all IMS Public Identities whose state is registered, belonging to all Private Identities that the IMS Public Identity in the User-Identity AVP is associated with. When this information element takes the value ALL_IDENTITIES~~,~~, the HSS shall provide all IMS Public Identities, belonging to all Private Identities that the IMS Public Identity in the User-Identity AVP is associated with. If Data-Reference indicates that IMS Public Identities is the requested data set to be downloaded and this information element is not included, the HSS shall download the set of IMS Public Identities that would be downloaded if the value of this information element had been ALL_IDENTITIES.
Requested domain (See 7.2)	Requested-Domain	C	This information element indicates the domains to which the operation is applicable. Check table 7.6.1 to see when it is applicable.
Current Location (See 7.8)	Current-Location	C	This information element indicates whether an active location retrieval has to be initiated or not. It shall be present if Location Information is requested. If this information element takes the value InitiateActiveLocationRetrieval (1) the HSS shall indicate to the MSC/VLR and/or SGSN the need to initiate an active location retrieval.
Service Indication (See 7. 4)	Service-Indication	C	IE that identifies, together with the User-Identity and Data-Reference, the set of service related transparent data that is being requested..
Application Server Identity (See 7.9)	Origin-Host	M	IE that identifies the AS originator of the request and that is used to check the AS permission list.
Application Server Name	Server-Name	C	IE that is used, together with the user identity and Data-Reference, as key to identify the filter criteria. This element shall be present when the Data-Reference value is InitialFilterCriteria (13).

Table 6.1.1.2: Sh-Pull Resp

Information element name	Mapping to Diameter AVP	Cat.	Description
Result (See 7.5)	Result-Code / Experimental_ Result	M	Result of the request. Result-Code AVP shall be used for errors defined in the Diameter Base Protocol. Experimental-Result AVP shall be used for Sh errors. This is a grouped AVP which contains the 3GPP Vendor ID in the Vendor-Id AVP, and the error code in the Experimental-Result-Code AVP.
Data (See 7.6)	User-Data	O	Requested data.

6.1.1.1 Detailed behaviour

The conditions for the inclusion of Requested-Domain as an additional key to the requested data are described in table 7.6.1. If repository data is requested, Service-Indication shall be present in the request. If initial filter criteria are requested, the Server-Name AVP shall contain the SIP URL of the AS that initiates the request; requests for initial filter criteria are limited to those initial filter criteria which are relevant to the requesting AS.

Upon reception of the Sh-Pull request, the HSS shall, in the following order:

1. Check that the AS sending the request (identified by the Origin-Host AVP) has Sh-Pull permission in the AS Permissions List (See 6.2). If not, Experimental-Result-Code shall be set to DIAMETER_ERROR_OPERATION_NOT_ALLOWED in the Sh-Pull Response.

2. Check that the user for whom data is asked exists in HSS. If not, Experimental-Result-Code shall be set to DIAMETER_ERROR_USER_UNKNOWN in the Sh-Pull Response.

3. Check that the requested user data is allowed to be read by the AS.

   - If the data referenced in the request is not allowed to be read, Experimental-Result Code shall be set to DIAMETER_ERROR_USER_DATA_CANNOT_BE_READ in the Sh-Pull Response.

4. Check whether or not the data that is requested to be downloaded by the AS is currently being updated by another entity. If there is an update of the data in progress, the HSS shall delay the Sh-Pull-Resp message until the update has been completed and shall include in the Sh-Pull-Resp message the updated data requested.

If there is an error in any of the above steps then the HSS shall stop processing and shall return the error code specified in the respective step (see 3GPP TS 29.329 [5] and 3GPP TS 29.229 [7] for an explanation of the error codes). Otherwise, the requested operation shall take place and the HSS shall return the Result-Code AVP set to DIAMETER_SUCCESS and the requested data identified by User-Identity and Data-Reference in the Sh-Pull Response message..

End of the first modification

Beginning of the second modification

A.3 Sh message parameters to Diameter AVP mapping

The following table gives an overview about the mapping:

Table A.3.1: Sh message parameters to Diameter AVP mapping

Sh parameter	AVP Name
User identity	User-Identity
Requested data, Unauthorized data	Data-Reference
Service Indication	Service-Indication
Result, Data Request Result, Data Update Result	Result-Code / Experimental-Result
Requested Data, Updated data, Changed data	User-Data
Subscription request type	Subs-Req-Type
Unauthorized data	Data-Reference
Requested Domain	Requested-Domain
Current Location	Current-Location
Application Server Identity	Server-Name
Requested Identity Set	Identity-Set

End of the second modification