Technical Specification Group Services and System Aspects ***TSGS#18(02)0775***

Meeting #18, New Orleans, U.S.A., 9-12 December 2002

Source: **TSG SA WG2**
Title: **CRs on 23.221**
Agenda Item: **7.2.3**

The following Change Requests (CRs) have been approved by TSG SA WG2 and are requested to be approved by TSG SA plenary #18.
Note: the source of all these CRs is now S2, even if the name of the originating company(ies) is still reflected on the cover page of all the attached CRs.

Tdoc #	Title	Spec	CR #	cat	Version in	REL	WI	S2 meeting
S2-023272	Update to duplicate text	23.221	037rev1	F	5.6.0	5	IMS-CCR	S2-28
S2-023642	Completion of recent change on CS domain signalling requirements	23.221	038rev1	F	5.6.0	6	TEI6	S2-28

3GPP TSG-SA2 Meeting #28
Bangkok, Thailand, November 11, 2002

Tdoc ⌘ S2-023272

CR-Form-v7

CHANGE REQUEST

⌘ **23.221** **CR** **37** ⌘ **rev** **1** ⌘ Current version: **5.6.0** ⌘

*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:	⌘	Update to Duplicate Text
Source:	⌘	Lucent Technologies
Work item code:	⌘	IMS-CCR
Date:	⌘	11.11.2002
Category:	⌘	**F**
Release:	⌘	Rel-5

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:	⌘	Text and figures related to address management were duplicated in 23.228 and 23.221 with slight differences. The duplicate text was agreed to be removed from 23.228. This CR replaces the text in 23.221 with text that is consistent with that removed from 23.228.
Summary of change:	⌘	Replace the text of Clause 5.4.
Consequences if not approved:	⌘	Text and figures may get out of sync leading to conflicting information and implementation errors.

Clauses affected:	⌘	Clause 5.4

		Y	N			
Other specs affected:	⌘	X		Other core specifications	⌘	TS 23.228 CR-210
				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.

5.4 IP addressing and routing for access to IM-subsystem services

This section deals with a UE accessing IM CN subsystem services via UMTS.

A UE accessing IM CN Subsystem services requires an IP address that is logically part of the IM CN subsystem IP Addressing Domain. This is established using an appropriate PDP-context. It is possible to connect to a GGSN either in the VPLMN or the HPLMN. For routing efficiency this context may benefit from being connected though a GGSN in the visited network. The connection between the UE and the IM CN subsystem (where the GGSN is either in the Home or the Visited network) is shown below:

~~This section deals with a UE making access to IM-subsystem services only and via UMTS.~~

~~A UE accessing IM-Subsystem services requires an IP address which is logically part of the Serving Network IM Subsystem IP-Addressing Domain. This is established using an appropriate PDP-context. It is possible to connect to a GGSN either in the VPLMN or the HPLMN. For routing efficiency this context may benefit from being connected through an GGSN in the visited network. Examples of the connection between the UE and the Visited Network IM Subsystem is shown below in figure 5-5 (GGSN in VPLMN) and 5-5a (GGSN in HPLMN):~~

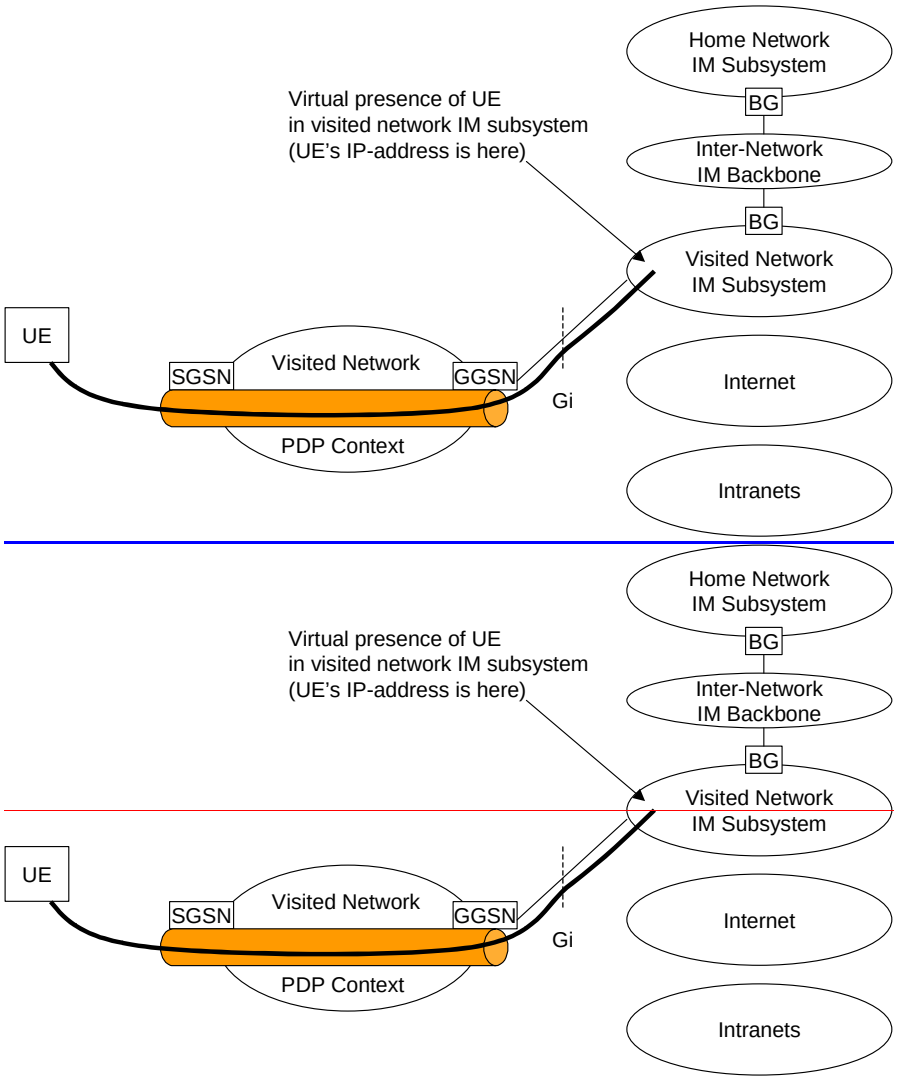

Figure 5-5 UE Accessing IM Subsystem Services with GGSN in the visited network

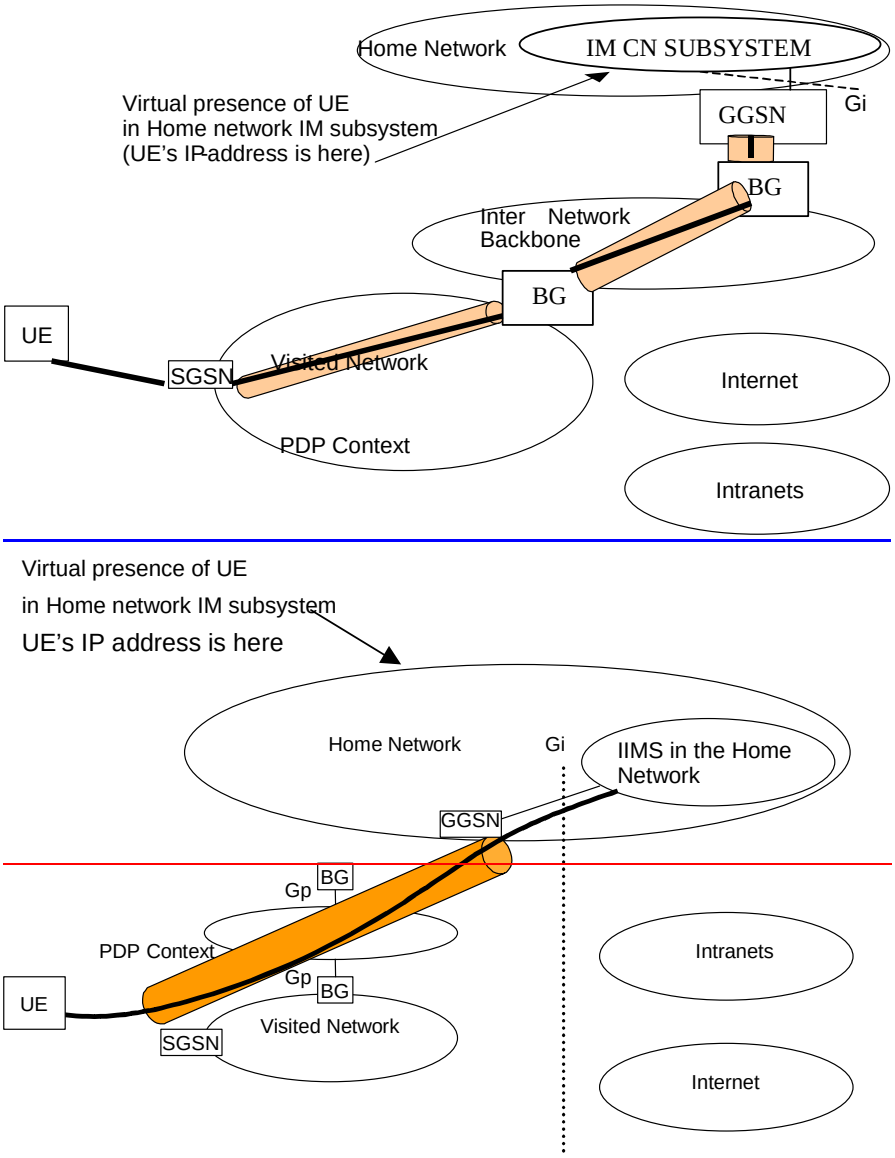

Figure 5-5a UE Accessing IM CN subsystem Services with GGSN in the Home network

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CHANGE REQUEST

⌘ **23.221** **CR** **38** ⌘**rev** **1** ⌘ Current version: **5.6.0** ⌘

*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:	⌘	Completion of recent change on CS domain signalling requirements
Source:	⌘	Vodafone Ltd
Work item code:	⌘	TEI6
Date:	⌘	6/11/02
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)*
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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:	⌘	At SA 2 #24 in Madrid, text was added to 23.121 and 23.221 specifying some of the CS domain signalling requirements. When these CRs were liaised to TSG GERAN, it was commented that text on "in order delivery" of messages was missing. This CR attempts to correct this.
Summary of change:	⌘	Text is added to 6.11a
Consequences if not approved:	⌘	Possible mistakes when new RANs are added to the 3GPP system.

Clauses affected:	⌘	6.11a

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

Other comments:	⌘	

6.11 Signalling connection establishment

A signalling connection between the UE and a CN node refers here to a logical connection consisting of an RRC connection between UE and the RAN and an Iu signalling connection between the RAN and the CN node. The signalling connection is used for transfer of higher layer (MM, CM) information between the UE and the CN node.

At a CM service request to one of the CN domain types and when no such connection exists towards the applicable CN domain type, the UE shall request establishment of a new signalling connection.

If no RRC connection exists, this is established in conjugation with (before) the transfer of the signalling establishment request. At the RRC connection establishment, an UE context is built up in the SRNC.

If an RRC connection is already established, the UE shall send the signalling establishment request using that RRC connection.

At reception of the signalling establishment request, the SRNC will establish an Iu connection towards the CN node indicated by the CN service domain type received from UE.

6.11a CS Domain Signalling Requirements (in particular relating to handover)

Correct operation of the Call Control, Mobility Management and Call Independent Supplementary Service protocols requires that downlink messages from the MSC shall be delivered in the correct order and shall not be lost, duplicated or delivered in error.

The RAN and Iu/A interfaces shall provide this functionality in all cases except for when the Iu/A interface SCCP connection is being changed, eg at SRNS relocation or inter-BSC (external) handover.

When the SCCP connection is being changed, the MSC shall buffer downlink CC, MM and CISS messages. Specifically, the MSC shall buffer messages from these protocols after transmission of a (BSSMAP) Handover Command or RANAP-Relocation Command message and until receipt of a Handover Complete, Relocation Complete, Handover Failure or Relocation Cancel message.

In the uplink, the UE is responsible for delivering the CS domain messages across the radio interface. Once the message has been received by part of the network, it is the network's responsibility to deliver the message to the MSC. This can result in duplicate message delivery to the CN. The RAN shall ensure that the protocol used between UE and RAN permits any duplicate messages that are delivered to the CN, to be correctly discarded by N(SD) mechanism specified in 3GPP TS 24.007 [22] for the uplink CC, MM and CISS messages.