

3GPP TSG CN Plenary Meeting #23
10th – 12th March 2004 Phoenix, USA.

NP-040052

Source: TSG CN WG4
Title: Corrections on TEI5 CSSPLIT
Agenda item: 8.8
Document for: APPROVAL

Spec	CR	Rev	Doc-2nd-Level	Phase	Subject	Cat	Ver_C
29.232	061		N4-040185	Rel-5	Addition of Package Id for CTM	F	5.6.0
23.205	050	1	N4-040355	Rel-5	Use Modify command for change of flow direction to bothway	F	5.6.0

- 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.

15.1.6 Cellular Text telephone Modem Text Transport

PackageName: CTM Text Transport

PackageID: threegctm (0x0068??) [Editor's note: This needs to be registered with IANA]

Description: The CTM text transport package is intended for enabling robust real time text conversation through a voice channel primarily intended for communication over mobile networks. This package includes the mechanisms needed to transport T.140 text conversation streams [19] in a voice channel environment, using the CTM Cellular Text Telephone Modem specified in 3GPP TS 26.226 [18]. The transport mechanism allows for alternating transport of voice and text.

Version: 1

Extends: None

CHANGE REQUEST

⌘ **23.205 CR 050** ⌘ 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:	⌘ Use Modify command for change of flow direction to bothway		
Source:	⌘ CN4		
Work item code:	⌘ TEI5	Date:	⌘ 06/02/2004
Category:	⌘ F	Release:	⌘ Rel5
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	F (correction)		2 (GSM Phase 2)
	A (corresponds to a correction in an earlier release)		R96 (Release 1996)
	B (addition of feature),		R97 (Release 1997)
	C (functional modification of feature)		R98 (Release 1998)
	D (editorial modification)		R99 (Release 1999)
	Detailed explanations of the above categories can be found in 3GPP TR 21.900 .		Rel-4 (Release 4)
			Rel-5 (Release 5)
			Rel-6 (Release 6)

Reason for change:	⌘ Change of flow direction is usaly performed with a Modify command.
Summary of change:	⌘ Change of flow direction is performed with a modify command.
Consequences if not approved:	⌘ Some implementation could ignore a second move command (with the included change of flow direction) on a termination which is already moved

Clauses affected:	⌘ 13.5				
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="text-align: center;">Y</td> <td style="text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> Other core specifications ⌘	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Y	N				
<input type="checkbox"/>	<input checked="" type="checkbox"/>				
	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> Test specifications	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
<input type="checkbox"/>	<input checked="" type="checkbox"/>				
	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> O&M Specifications	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
<input type="checkbox"/>	<input checked="" type="checkbox"/>				
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.

13.5 Call Waiting (CW)

The procedures specified in 3GPP TS 23.083 [13] for the Call Waiting supplementary service shall be followed. The following clauses describe the additional requirements for the bearer independent CS core network.

Call confirmation to the waiting call

The MSC server shall, on reception of the call confirmation, select the MGW that will be used for the waiting call. The MSC server should select the MGW which is already in use for the active call. If out-of-band transcoder control is applied for the waiting speech call, it shall be performed in accordance with 3GPP TS 23.153 [3].

Existing call on hold

The clause "Hold request" in clause 13.6 applies.

Existing call released

If the active call is disconnected while another call is waiting, the bearer termination towards the waiting party (C) as well as to the called party (A) is not removed.

Acceptance of waiting call

If the mobile subscriber decides to accept the waiting call, it handles (according to 3GPP TS 23.082 [12]) the existing call as described in clause 13.5 (i.e. it either puts the call on hold or the call is released). When the MSC server receives the connect indication from subscriber A, if required the MSC server shall modify the access bearer as described in subclause 13.18.1. Finally, the MSC server shall connect the access side bearer termination to the previously created bearer termination of the remote party in the waiting call and modify the waiting call's bearer termination so that it is both-way through-connected.

If a different MGW is selected for the incoming call, then a bearer from the new MGW (MGW2) shall be connected towards the old MGW (MGW1) before offering the call to the subscriber A.

If out-of-band transcoder control is applied for the waiting speech call, it shall be performed in accordance with 3GPP TS 23.153[3].

Waiting call released by calling subscriber (subscriber C)

The respective resources already allocated at the selected MGW for the waiting call shall be released.

Example

Figure 13.13 shows the network model for a waiting call at the serving MSC server/MGW. The "thick, squared" line represents the call control signalling for the existing call and, on the Iu interface, the already existing control plane toward the serving RNC. The "thin, squared" line represents the call control signalling for the waiting call. The "thick, dotted" line represents the bearer control signalling and the bearer for the existing call, whereas the "thin, dotted" line represents the ones for the waiting call. Note that for a TDM access there is no separation of call and bearer control signalling.

NOTE: There shall be only one instance of bearer resource/bearer control signalling on the radio side.

If the CW condition applies, the MSC server seizes a new context with one bearer termination, T_C , in the MGW. T_A and T_B are the terminations of the already existing call.

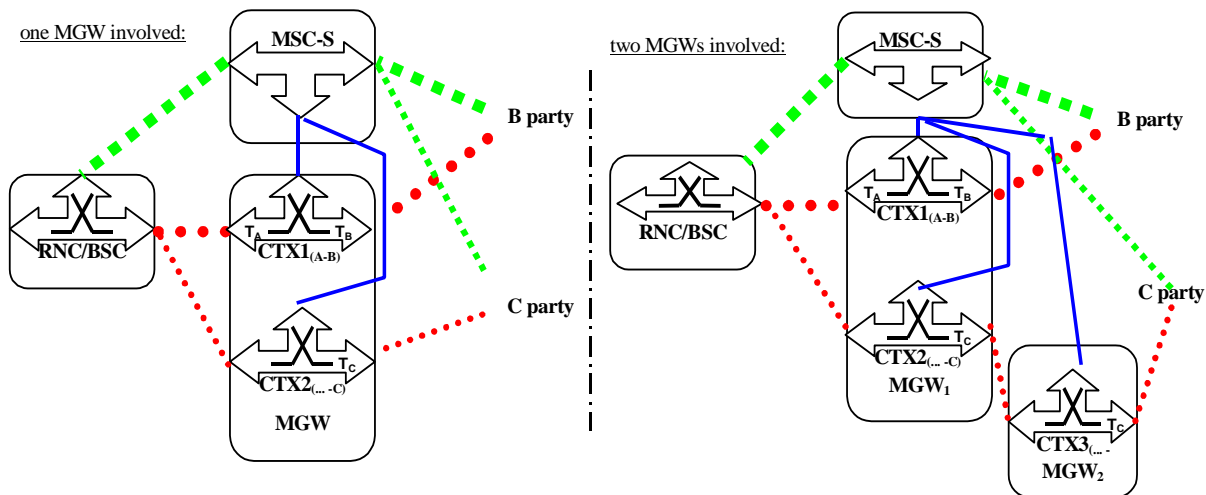


Figure 13.13: Call Wait (network model)

13.5.1 Call Confirmation of the waiting call

Figure 13.14 shows the sequence chart for the actions necessary within the bearer independent CS core network during call confirmation of the waiting call. Call and bearer establishment shall be as described for the mobile terminating call. When the MSC server receives the Alerting indication from the called subscriber (subscriber A), it shall apply the ringing tone to the waiting termination (T_C).

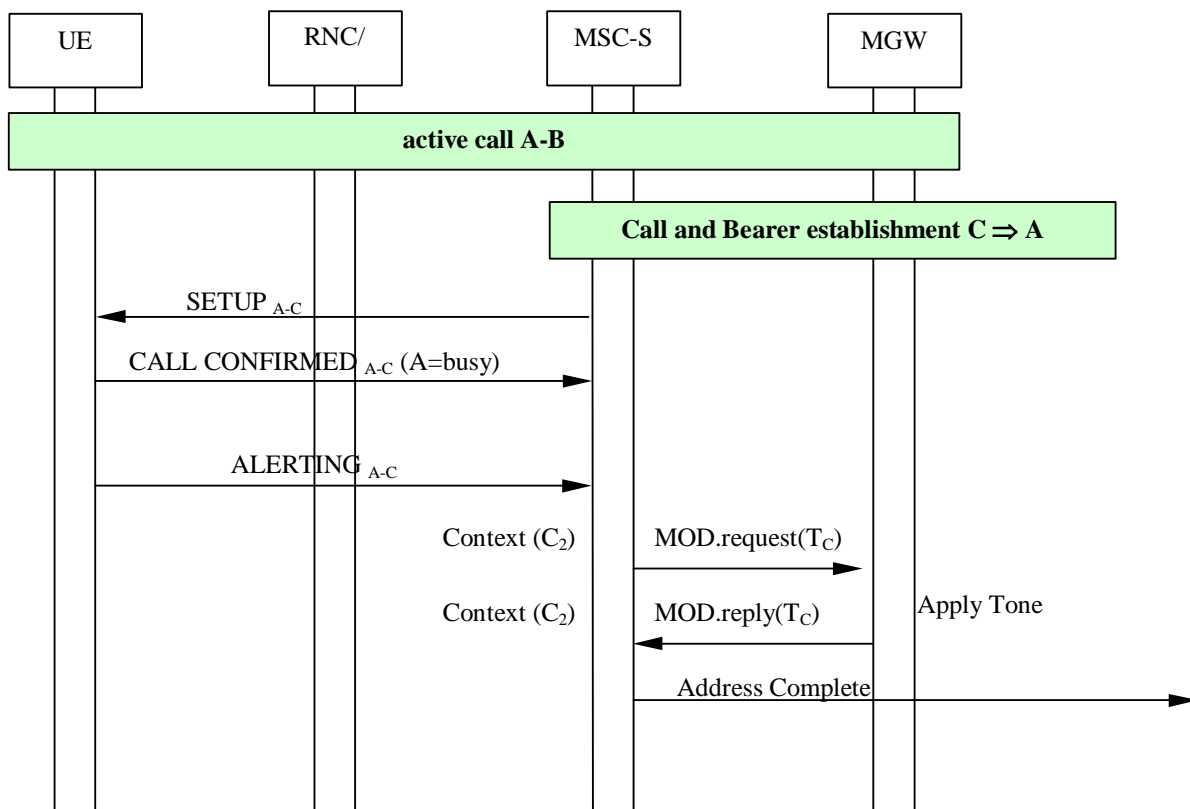
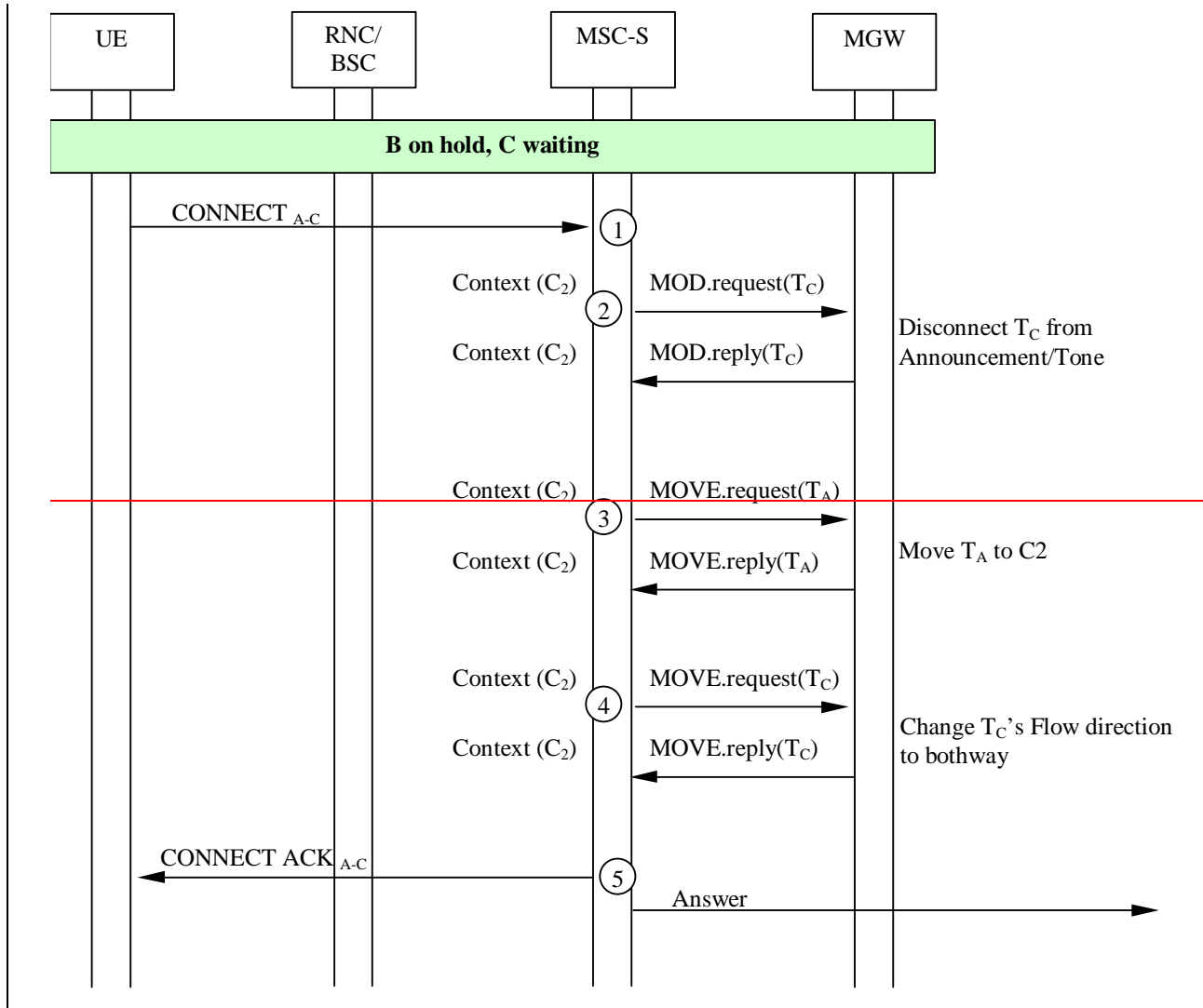


Figure 13.14: Call Confirmation of the Waiting Call.

13.5.2 Acceptance of the Waiting Call

Figure 13.15 shows the sequence chart for the actions necessary within the bearer independent CS core network for the acceptance of a waiting call. When the MSC server receives the Connect indication from the UE (subscriber A) (bullet 1 in figure 13.15), it shall request the MGW to disconnect subscriber C from the applied ringing tone (bullet 2 in figure 13.15) and move T_A to the context of the waiting call (bullet 3 in figure 13.15). The MSC server then requests the MGW to change the through-connection of the termination T_C so that it will be both way through-connected (bullet 4 in figure 13.15).



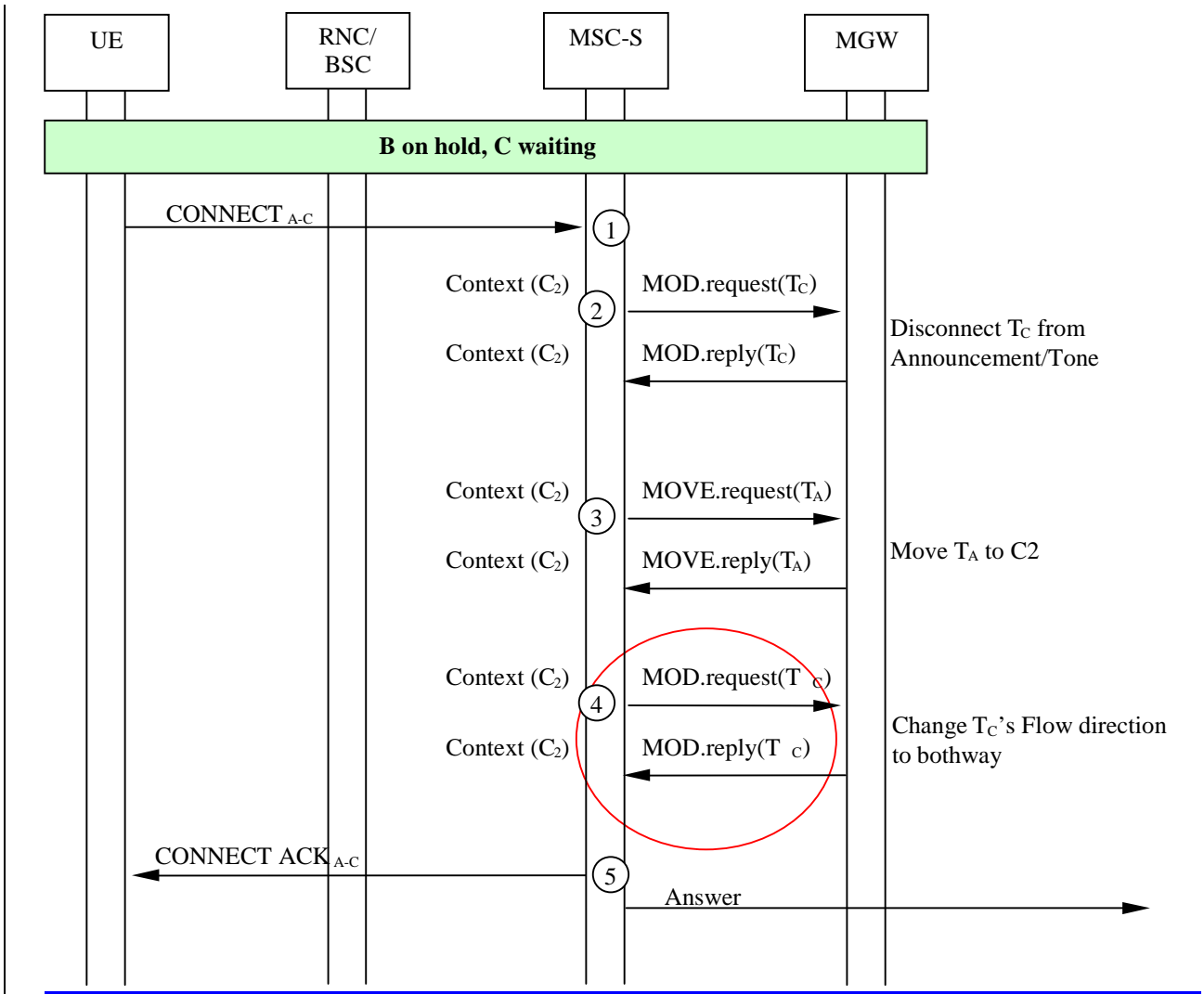


Figure 13.15: Acceptance of the Waiting Call.