TSG-RAN Meeting #12
Stockholm, Sweden, 12 - 15 June 2001

TSGRP#12(01) 0387

Title: **Agreed CRs to TS 25.931**

Source: **TSG-RAN WG3**

Agenda item: **8.3.3/8.3.4**

Tdoc_Num	Specification	CR_Num	Revision_Num	CR_Subject	CR_Category	WG_Status	Cur_Ver_Num	New_Ver_Num	Workitem
R3-011360	25.931	009		Correction to RAB Release Procedures	F	agreed	3.3.0	3.4.0	TEI
R3-011361	25.931	010		Correction to RAB Release Procedures	A	agreed	4.0.0	4.1.0	TEI

3GPP TSG-RAN3 Meeting #21
Pusan, South Korea, May 21-25, 2001

R3-011360
Revised version of R3-011266

CR-Form-v3

CHANGE REQUEST

⌘ **25.931** **CR** **009** ⌘ rev **-** ⌘ Current version: **3.3.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network **X** Core Network **X**

Title:	⌘	Correction to RAB Release Procedures
Source:	⌘	R-WG3
Work item code:	⌘	TEI
Date:	⌘	May 2001
Category:	⌘	**F**
Release:	⌘	R99

Use one of the following categories:
- ***F*** *(essential 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)*

Reason for change:	⌘	Alignment with RANAP
Summary of change:	⌘	Figures 17 and 18 updated in line with requirements in TS 25.413.
Consequences if not approved:	⌘	RNC may not be ready to (re-)establish a released RAB. Backwards Compatibility Statement : This CR is backward compatible with the intended behaviour of the previous version of RANAP.

Clauses affected:	⌘	7.7.1, 7.7.2		
Other specs affected:	⌘	**X** Other core specifications ☐ Test specifications ☐ O&M Specifications	⌘	25.413 v3.5.0 : CR 286 (R99) 25.931 v4.0.0 : CR 010 (REL-4)
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/3G_Specs/CRs.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.

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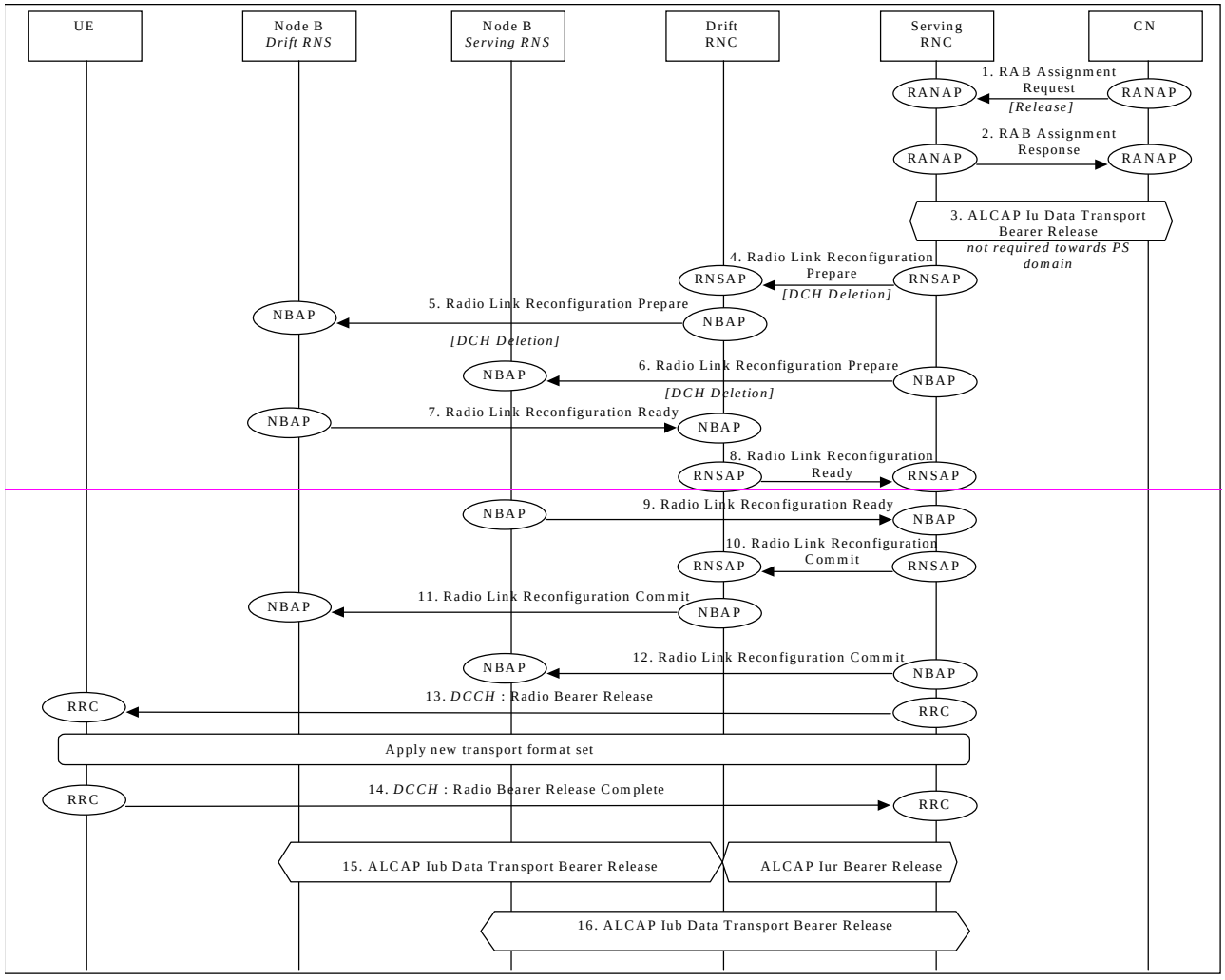
3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

7.7.1 DCH - DCH Release - Synchronised

This example shows release of a radio access bearer on a dedicated channel (DCH) when the RRC connection still uses a dedicated channel (DCH) after the release.
[FDD - The UE communicates via two Nodes B. One Node B is controlled by SRNC, one Node B is controlled by DRNC.]
[TDD – The Nodes B shown in the figure are mutually exclusive in TDD mode.]


UE
Node B
Drift RNS
Node B
Serving RNS
Drift
RNC
Serving
RNC
CN
1. RAB Assignment
Request
[Release]
RANAP
RANAP
2. RAB Assignment
Response
RANAP
RANAP
3. ALCAP Iu Data Transport
Bearer Release
not required towards PS
domain
4. Radio Link Reconfiguration
Prepare
[DCH Deletion]
RNSAP
RNSAP
5. Radio Link Reconfiguration Prepare
[DCH Deletion]
NBAP
NBAP
6. Radio Link Reconfiguration Prepare
[DCH Deletion]
NBAP
NBAP
7. Radio Link Reconfiguration Ready
NBAP
NBAP
8. Radio Link Reconfiguration
Ready
RNSAP
RNSAP
9. Radio Link Reconfiguration Ready
NBAP
NBAP
10. Radio Link Reconfiguration
Commit
RNSAP
RNSAP
11. Radio Link Reconfiguration Commit
NBAP
NBAP
12. Radio Link Reconfiguration Commit
NBAP
NBAP
13. DCCH : Radio Bearer Release
RRC
RRC
Apply new transport format set
14. DCCH : Radio Bearer Release Complete
RRC
RRC
15. ALCAP Iub Data Transport Bearer Release
ALCAP Iur Bearer Release
16. ALCAP Iub Data Transport Bearer Release

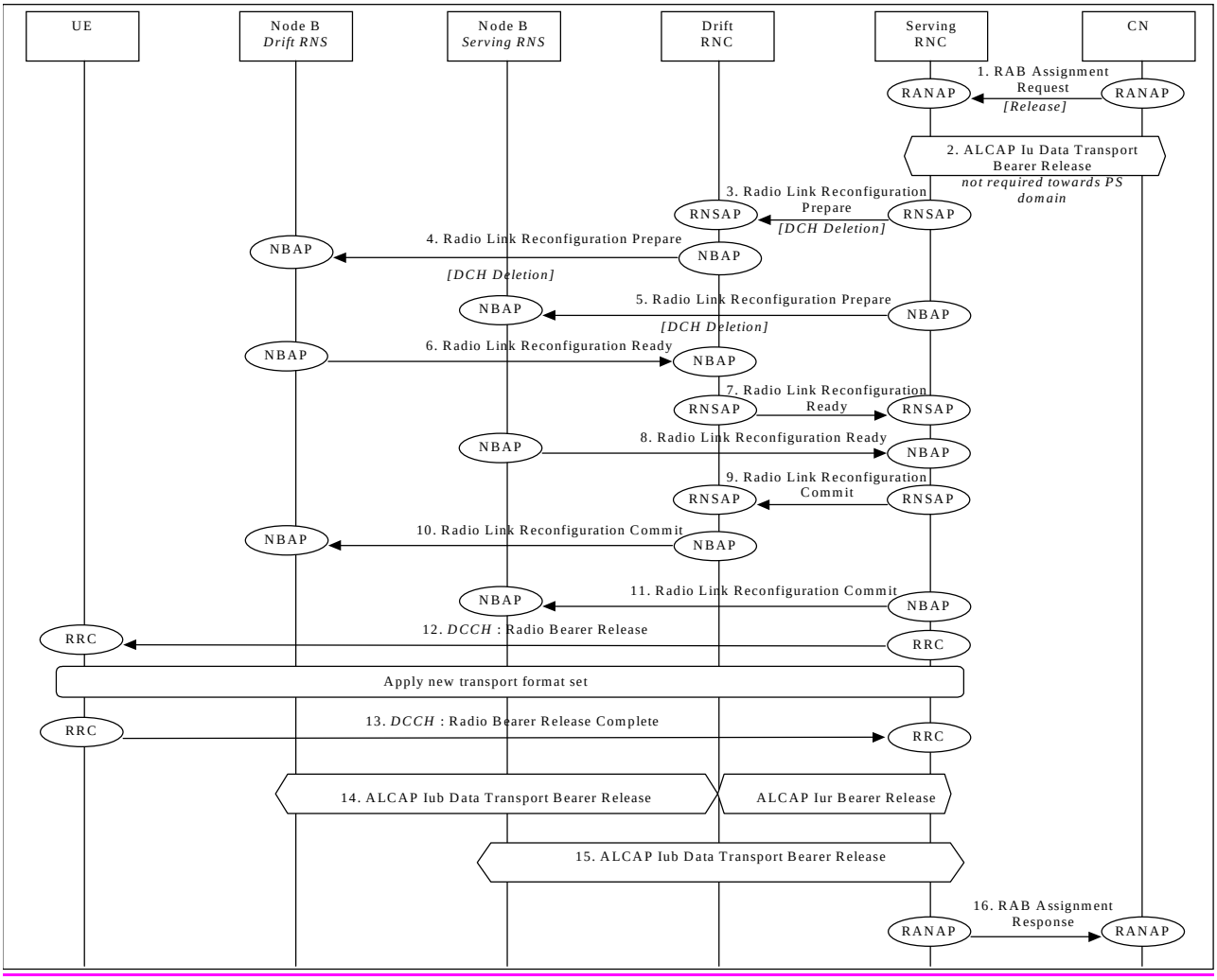


Figure 17: Radio Access Bearer Release - DCH - DCH Release - Synchronised

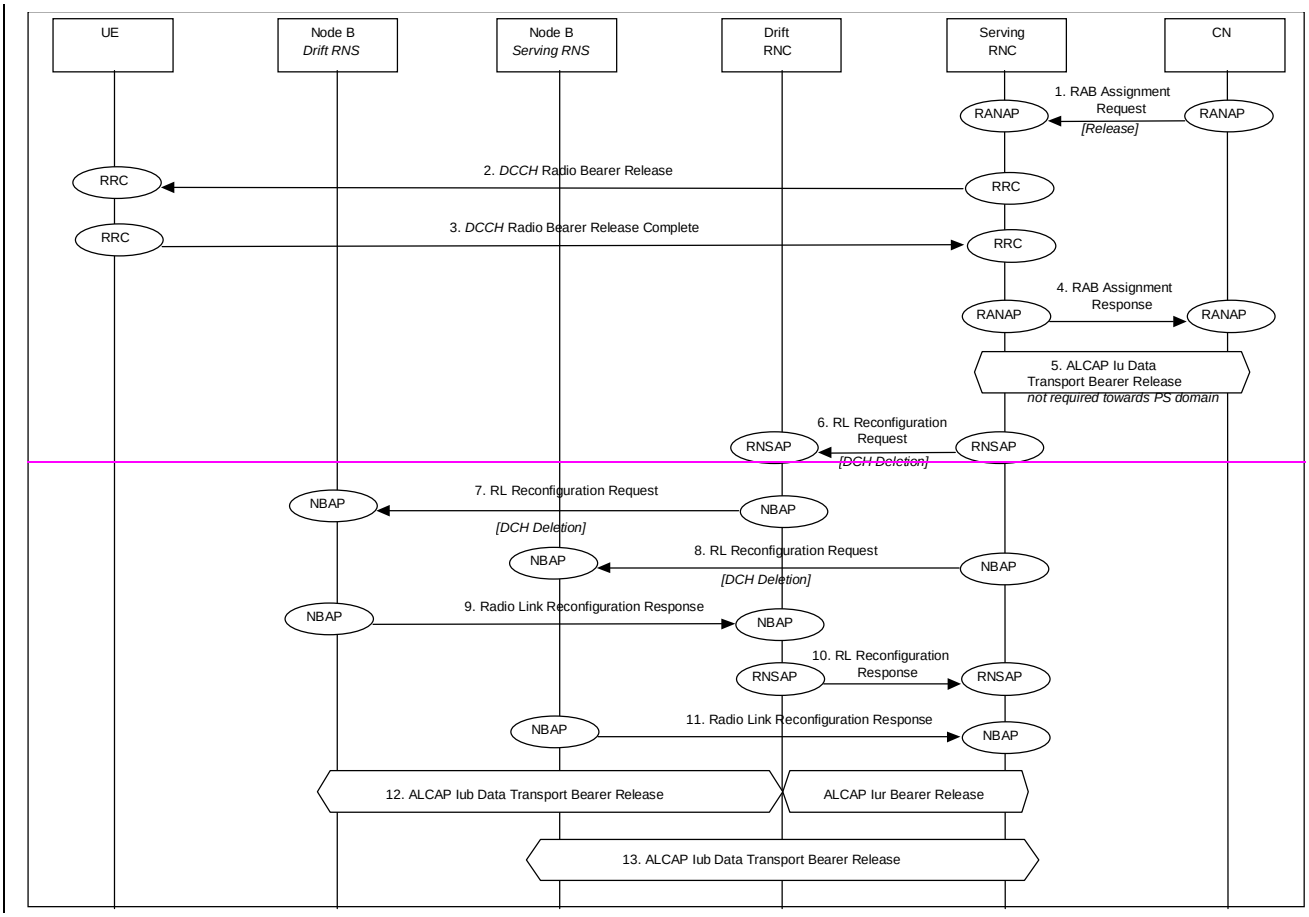
1. CN initiates release of the radio access bearer with RANAP message **Radio Access Bearer Assignment Request**.
~~2. SRNC acknowledges the release of radio access bearer (**Radio Access Bearer Assignment Response**).~~
2~~3~~. SRNC initiates release of the Iu Data Transport bearer between the CN and the SRNC using the ALCAP protocol (this step is not required towards PS domain).
3~~4~~. SRNC requests DRNC to prepare release of DCH carrying the radio access bearer (**Radio Link Reconfiguration Prepare**).
Parameters: Transport Format Combination Set, UL scrambling code.
4~~5~~. DRNC requests its Node B to prepare release of DCH carrying the radio access bearer (**Radio Link Reconfiguration Prepare**).
Parameters: Transport Format Combination Set, UL scrambling code.
5~~6~~. SRNC requests its Node B to prepare release of DCH carrying the radio access bearer (**Radio Link Reconfiguration Prepare**).
Parameters: Transport Format Combination Set, UL scrambling code (FDD only), Time Slots (TDD only), User Codes (TDD only).
6~~7~~. Node B notifies DRNC that release preparation is ready (**Radio Link Reconfiguration Ready**).
7~~8~~. DRNC notifies SRNC that release preparation is ready (**Radio Link Reconfiguration ready**).
8~~9~~. Node B notifies SRNC that release preparation is ready (**Radio Link Reconfiguration Ready**).

9~~10~~.RNSAP message **Radio Link Reconfiguration Commit** is sent from SRNC to DRNC.
10~~1~~.NBAP message **Radio Link Reconfiguration Commit** is sent from DRNC to Node B.
11~~2~~.NBAP message **Radio Link Reconfiguration Commit** is sent from SRNC to Node B.
12~~3~~.RRC message **Radio Bearer Release** is sent by SRNC to UE.
Parameters: Transport Format Set, Transport Format Combination Set, Time Slots (TDD only), User Codes (TDD only).
13~~4~~.UE sends RRC message **Radio Bearer Release Complete** to SRNC.
14~~5~~. Not used resources in-DRNC and Node B (Drift RNS) are released. DRNC initiates release of Iur and Iub (Drift RNS) Data Transport bearer using ALCAP protocol
15~~6~~. Not used resources in SRNC and Node B (Serving RNS, if any) are released. SRNC initiates release of Iub (Serving RNS) Data Transport bearer using ALCAP protocol.

16. SRNC acknowledges the release of radio access bearer (**Radio Access Bearer Assignment Response**). Note: This message may be sent any time after step 1 provided the RNC is prepared to receive new establishment request of a radio access bearer identified by the same radio access bearer identifier

7.7.2 DCH - DCH Release - Unsynchronised

This example shows release of a radio access bearer on a dedicated channel (DCH) when the RRC connection still uses a dedicated channel (DCH) after the release. The UE communicates via two Nodes B. One Node B is controlled the SRNC, one Node B is controlled by DRNC. The reconfiguration does not require to be synchronised among Node-Bs, SRNC and UE.


UE
Node B
Drift RNS
Node B
Serving RNS
Drift
RNC
Serving
RNC
CN
1. RAB Assignment
Request
[Release]
RANAP
RANAP
2. DCCH Radio Bearer Release
RRC
RRC
3. DCCH Radio Bearer Release Complete
RRC
RRC
4. RAB Assignment
Response
RANAP
RANAP
5. ALCAP Iu Data
Transport Bearer Release
not required towards PS domain
6. RL Reconfiguration
Request
[DCH Deletion]
RNSAP
RNSAP
7. RL Reconfiguration Request
[DCH Deletion]
NBAP
NBAP
8. RL Reconfiguration Request
[DCH Deletion]
NBAP
NBAP
9. Radio Link Reconfiguration Response
NBAP
NBAP
10. RL Reconfiguration
Response
RNSAP
RNSAP
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NBAP
NBAP
12. ALCAP Iub Data Transport Bearer Release
ALCAP Iur Bearer Release
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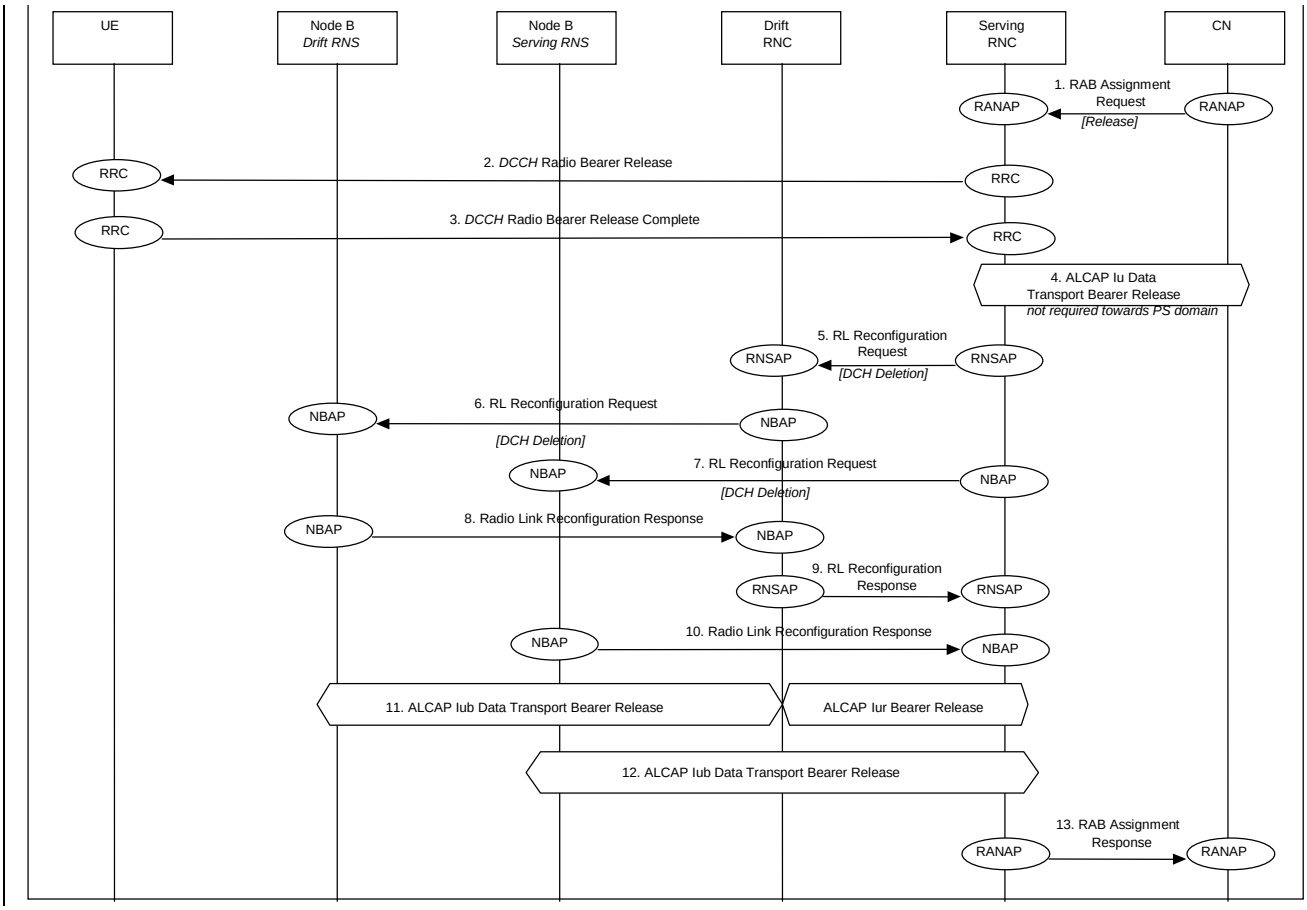

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1. CN initiates release of the radio access bearer with RANAP Radio Access Bearer Assignment Request message.
2. RRC message Radio Bearer Release is sent by SRNC to UE.
3. UE sends RRC message Radio Bearer Release Complete to SRNC.
~~4. SRNC acknowledges the release of radio access bearer to CN.~~
4~~5~~. SRNC initiates release of the Iu Data Transport bearer between the CN and the SRNC using the ALCAP protocol (this step is not required towards PS domain).
5~~6~~. SRNC requests DRNC to release of DCH carrying the radio access bearer.
Parameters: DCH ID, TFCS.
6~~7~~. DRNC requests its Node B to release of DCH carrying the radio access bearer.
Parameters: DCH ID, TFCS.
7~~8~~. SRNC requests its Node B to prepare release of DCH carrying the radio access bearer.
Parameters: DCH ID, TFCS.
8~~9~~. Node B acknowledges DRNC.
9~~10~~.DRNC acknowledges SRNC.
10~~1~~.Node B acknowledges SRNC.
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13. SRNC acknowledges the release of radio access bearer to CN. Note: This message may be sent any time after step 3 provided the RNC is prepared to receive new establishment request of a radio access bearer identified by the same radio access bearer identifier.

3GPP TSG-RAN3 Meeting #21
Pusan, South Korea, May 21-25, 2001

R3-011361

CR-Form-v3

CHANGE REQUEST

⌘ **25.931** **CR** **010** ⌘ rev **-** ⌘ Current version: **4.0.0** ⌘

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Source:	⌘	R-WG3
Work item code:	⌘	TEI
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Category:	⌘	**A**
Release:	⌘	REL-4

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Clauses affected:	⌘	7.7.1, 7.7.2		
Other specs affected:	⌘	**X** Other core specifications	⌘	25.413 v4.0.0 : CR 287 (REL-4) 25.931 v3.3.0 : CR 009 (R99)
		☐ Test specifications		
		☐ O&M Specifications		
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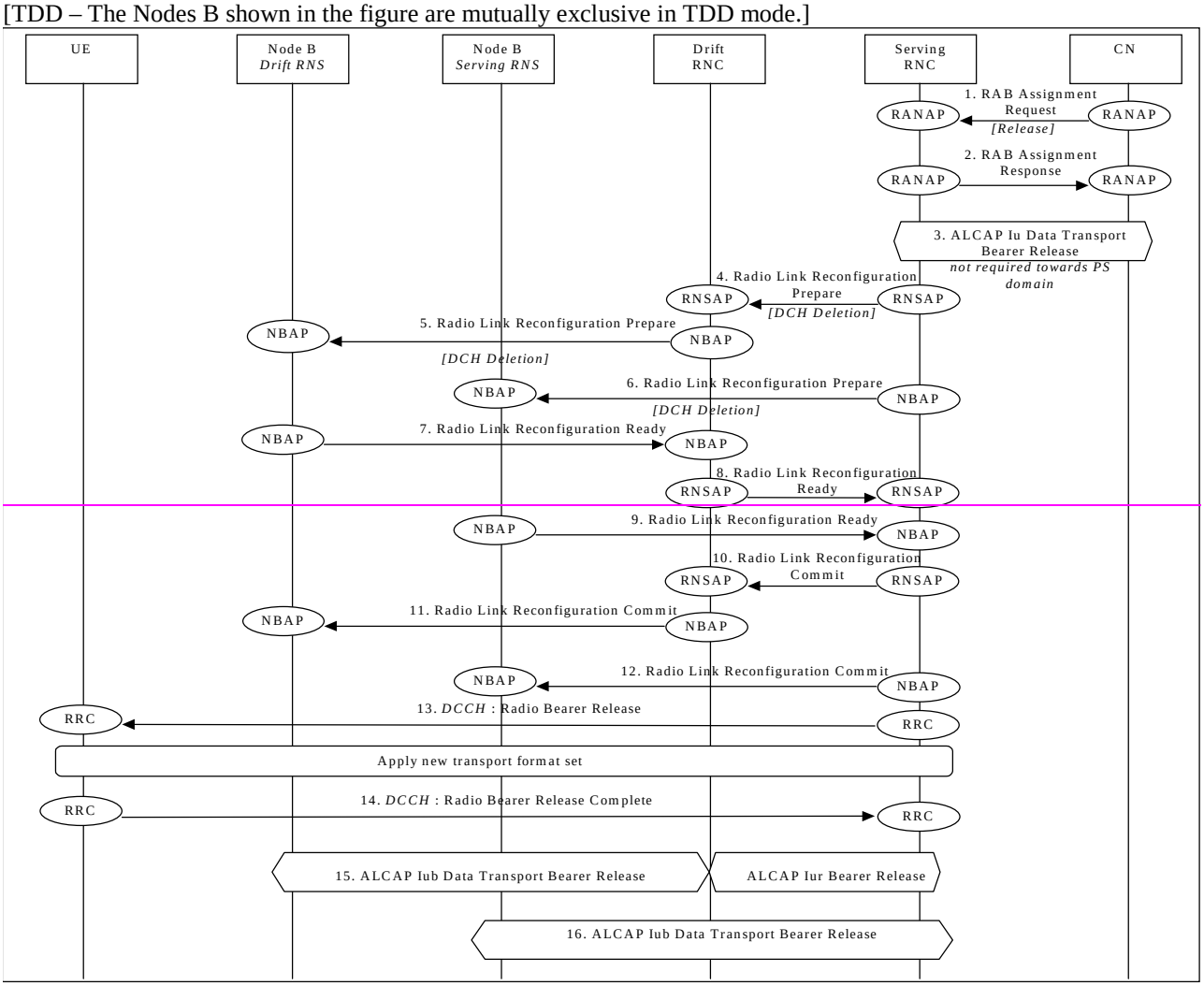

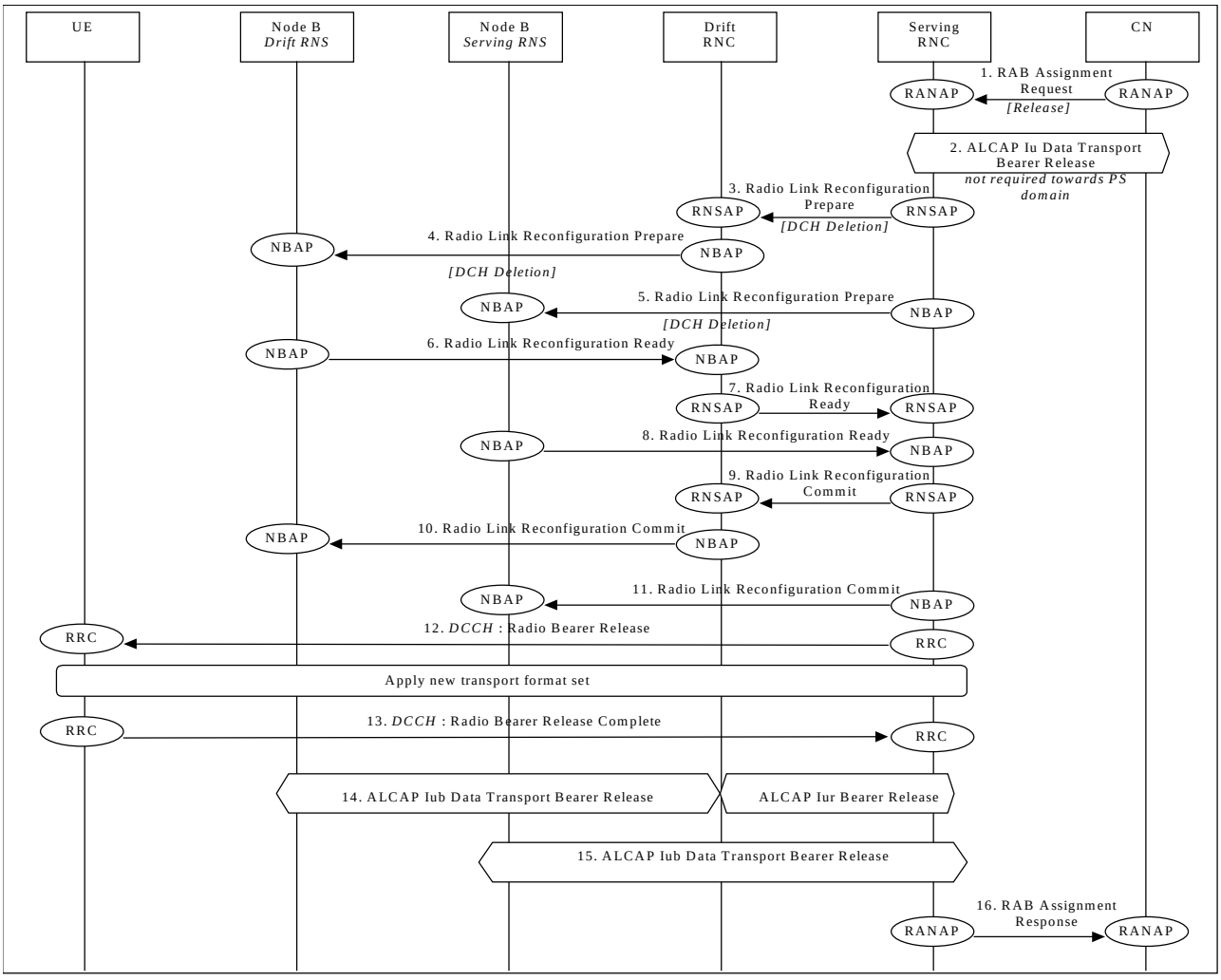

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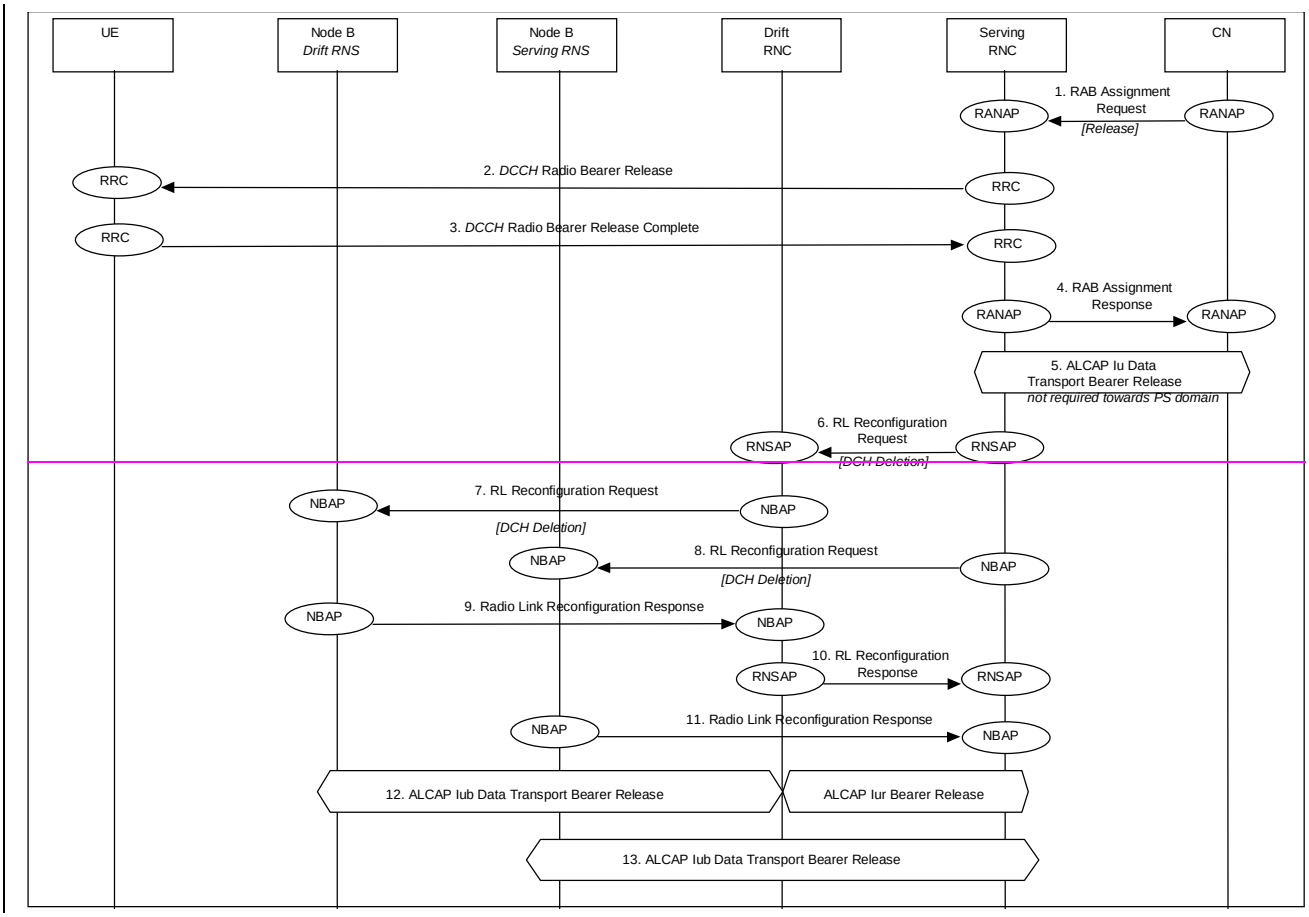
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Response
RNSAP
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11. Radio Link Reconfiguration Response
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NBAP
12. ALCAP Iub Data Transport Bearer Release
ALCAP Iur Bearer Release
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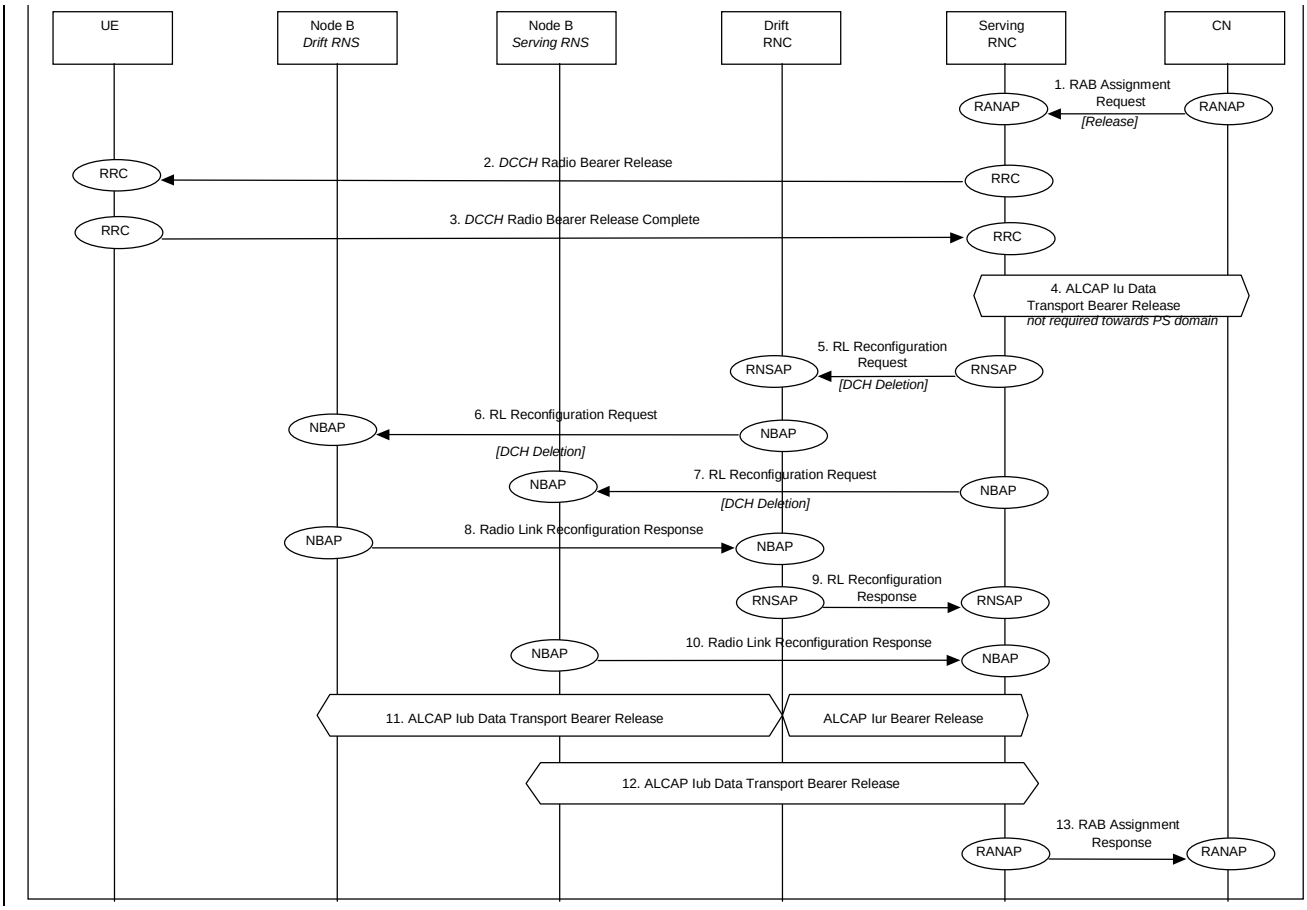

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