TSG-RAN Meeting #26
Athen, Greece, 08-10 December 2004

RP-040478
Agenda item 7.3.1

Source: TSG-RAN WG2.

Title: CR to 25.303 Rel-5 (and Rel-6)

The following CRs are in RP-040478:

Spec	CR	Rev	Phase	Subject	Cat	Version-Current	Version-New	Doc-2nd-Level	Workitem
25.303	075	-	Rel-5	Clarification of inter-layer dependencies	F	5.1.0	5.2.0	R2-042620	TEI5
25.303	076	-	Rel-6	Clarification of inter-layer dependencies	A	6.1.0	6.2.0	R2-042621	TEI5

3GPP TSG-RAN WG2 Meeting #45
Yokohama, Japan, 15-19 November 2004

Tdoc ⌘R2-042620

CR-Form-v7.1

CHANGE REQUEST

⌘ **25.303** **CR** **075** ⌘ **rev** **-** ⌘ Current version: **5.1.0** ⌘

*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 [X] Radio Access Network [X] Core Network [ ]

Title:	⌘	Clarification of inter-layer dependencies
Source:	⌘	RAN WG2
Work item code:	⌘	TEI5
Date:	⌘	15/11/2004
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:
Ph2 (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)
Rel-7 (Release 7)

Reason for change: ⌘ The TS25.303 is currently not in alignment with TS25.331 for the Radio Bearer Setup According to TS25.303, section 6.2.1.1.1, UE shall await RLC acknowlegement of the RADIO BEARER SETUP COMPLETE before "…the UE-RRC creates a new RLC entity associated with the new radio bearer", and uplink data transmission is started. TS25.331, section 8.2.2.4, lists some scenarios where UE shall wait RLC acknowledgement before continuing with the completion of the RB setup procedure.

However, for a 'normal' RB setup, i.e. when the RB setup is not performed simultaneous with an SRNS relocation and/or security modification, UE is (according to TS25.331) not required to await the RLC acknowledgement of the RADIO BEARER SETUP COMPLETE before assuming the RB setup is complete.

In general, section 1 Scope of TS25.303 states that *"peer-to-peer elementary procedure descriptions are described in the related protocol descriptions"* and *interlayer procedures in the present document are informative.* But nothing is stated about interlayer dependencies.

Summary of change: ⌘ Section 1, Scope:
It is clarified that interlayer procedure dependencies are described in other specifications [TS25.331].

Section 6.2.1.1.1, Radio Bearer Establishment with Dedicated Physical Channel Activation:
Text describing that UE need to await confirmation of the RADIO BEARER SETUP COMPLETE message before establishing the new RLC entity is deleted.

		Figure 5 is corrected to be aligned with the changed text (arrows “DCCH: Data Ack” and “RLC-Data-CNF” are deleted). **Isolated Impact Analysis** Functionality corrected: RB establishment Isolated impact statement: Correction to a function where specifications were misaligned. Would not affect implementations behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise. **Implementation of this CR by a R99/Rel-4 UE will not cause compatibility issues.**
Consequences if not approved:	⌘	Misalignment between specifications will remain, leading to missunderstanding of functions.

Clauses affected:	⌘	1, 6.2.1.1.1			
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.
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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.

1 Scope

The present document describes all procedures that assign, reconfigure and release radio resources. Included are e.g. procedures for transitions between different states and substates, handovers and measurement reports. The emphasis is on showing the combined usage of both peer-to-peer messages and interlayer primitives to illustrate the functional split between the layers, as well as the combination of elementary procedures for selected examples. The peer-to-peer elementary procedure descriptions and interlayer dependencies are described in the related protocol descriptions /1, 2, 3/ and they are thus not within the scope of the present document.

The interlayer procedures and interlayer dependencies in the present document are informative.

<NEXT CHANGED SECTION>

6.2.1.1.1 Radio Bearer Establishment with Dedicated Physical Channel Activation

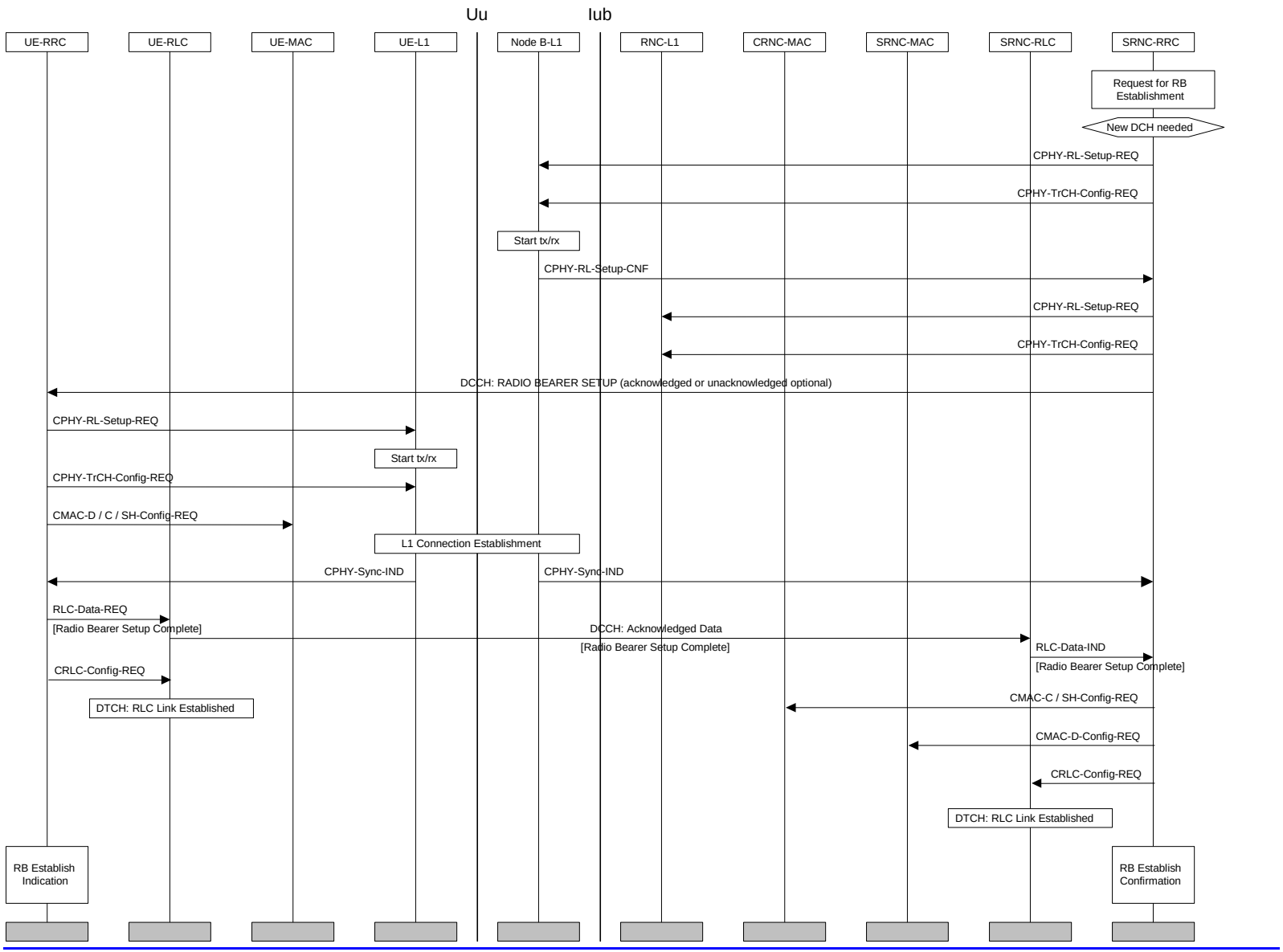
The procedure in figure 5 is applied when a new physical channel needs to be created for the radio bearer. A Radio Bearer Establishment is initiated when an RB Establish Request primitive is received from the DC-SAP on the network side of the RRC layer. This primitive contains a bearer reference and QoS parameters. Based on these QoS parameters, L1 and L2 parameters are chosen by the RRC entity on the network side.

The physical layer processing on the network side is started with the CPHY-RL-Setup request primitive issued to all applicable Node Bs. If any of the intended recipients is / are unable to provide the service, it will be indicated in the confirmation primitive(s).After setting up L1 including the start of Tx / Rx in Node B, the NW-RRC sends a RADIO BEARER SETUP message to its peer entity (acknowledged or unacknowledged transmission optional for the NW). This message contains L1, MAC and RLC parameters. After receiving the message, the UE-RRC configures L1 and MAC.

When L1 synchronisation is indicated, the UE sends a RADIO BEARER SETUP COMPLETE message in acknowledged-mode back to the network. The NW-RRC configures MAC and RLC on the network side.

~~After receiving the confirmation for the RADIO BEARER SETUP COMPLETE, t~~The UE-RRC creates a new RLC entity associated with the new radio bearer. The applicable method of RLC establishment may depend on RLC transfer mode. The RLC connection can be either implicitly established, or explicit signalling can be applied.

Finally, an RB Establish Indication primitive is sent by UE-RRC and an RB Establish Confirmation primitive is issued by the RNC-RRC.


Uu
Iub
UE-RRC
UE-RLC
UE-MAC
UE-L1
Node B-L1
RNC-L1
CRNC-MAC
SRNC-MAC
SRNC-RLC
SRNC-RRC
Request for RB Establishment
New DCH needed
CPHY-RL-Setup-REQ
CPHY-TrCH-Config-REQ
Start tx/rx
CPHY-RL-Setup-CNF
CPHY-RL-Setup-REQ
CPHY-TrCH-Config-REQ
DCCH: RADIO BEARER SETUP (acknowledged or unacknowledged optional)
CPHY-RL-Setup-REQ
Start tx/rx
CPHY-TrCH-Config-REQ
CMAC-D / C / SH-Config-REQ
L1 Connection Establishment
CPHY-Sync-IND
CPHY-Sync-IND
RLC-Data-REQ
[Radio Bearer Setup Complete]
DCCH: Acknowledged Data
[Radio Bearer Setup Complete]
RLC-Data-IND
[Radio Bearer Setup Complete]
CRLC-Config-REQ
DTCH: RLC Link Established
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RB Establish Indication
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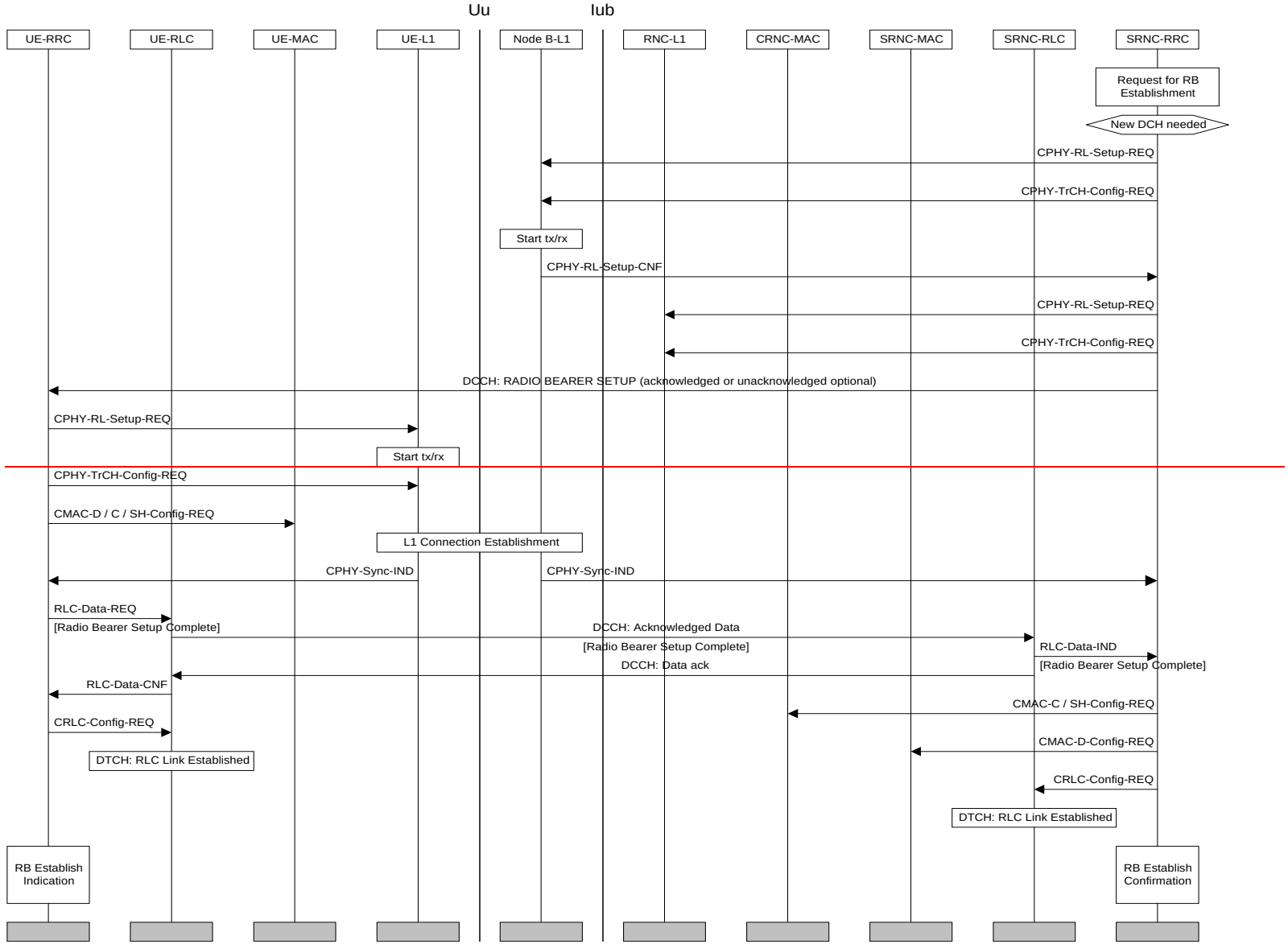

Figure 5: Radio Bearer Establishment with Dedicated Physical Channel Activation

3GPP TSG-RAN WG2 Meeting #45
Yokohama, Japan, 15-19 November 2004

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CHANGE REQUEST

⌘ **25.303** **CR** **076** ⌘**rev** **-** ⌘ Current version: **6.1.0** ⌘

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Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☒ Core Network ☐

Title:	⌘	Clarification of inter-layer dependencies
Source:	⌘	RAN WG2
Work item code:	⌘	TEI6
Date:	⌘	15/11/2004
Category:	⌘	**A**
Release:	⌘	Rel-6

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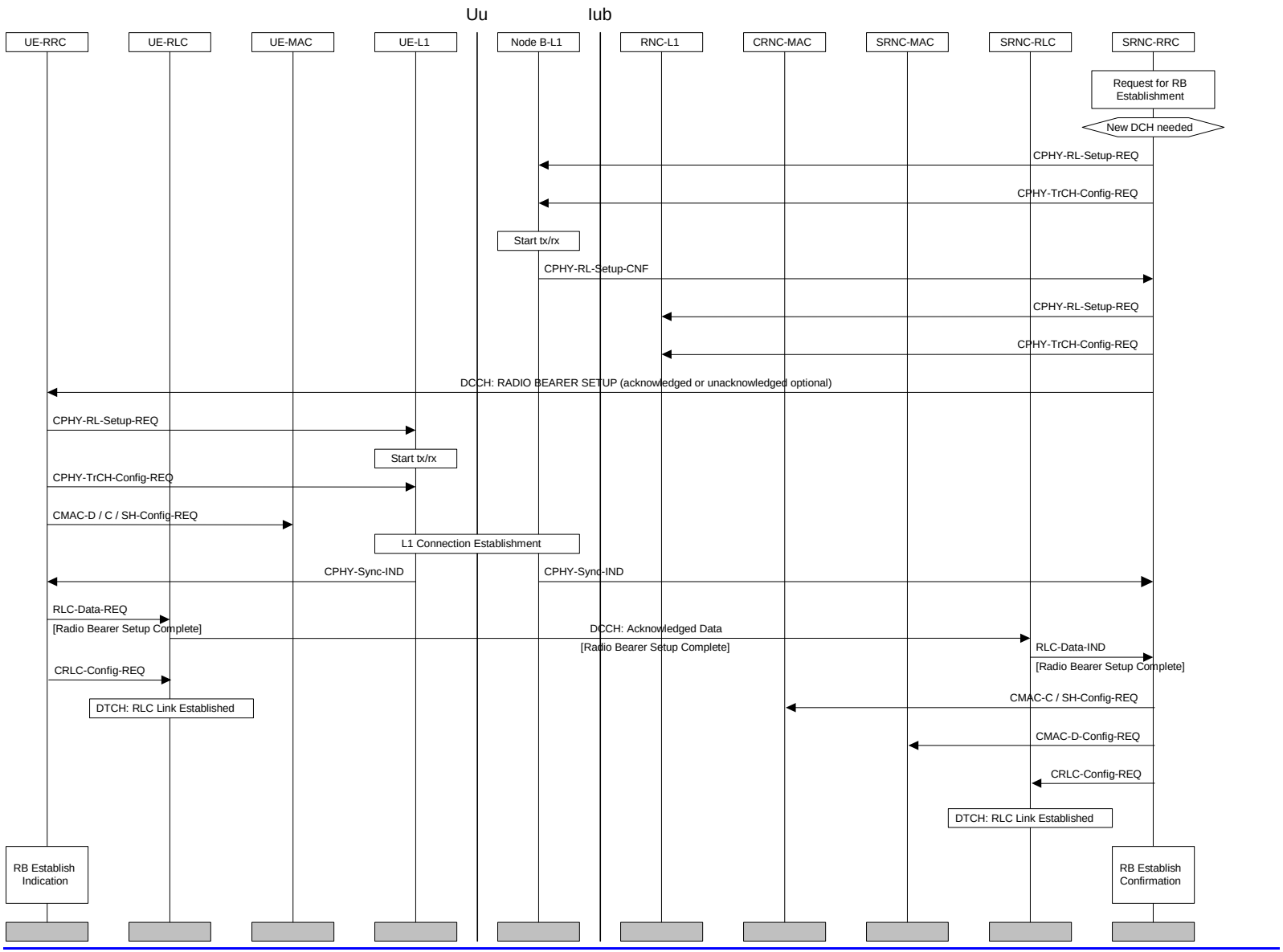
Uu
Iub
UE-RRC
UE-RLC
UE-MAC
UE-L1
Node B-L1
RNC-L1
CRNC-MAC
SRNC-MAC
SRNC-RLC
SRNC-RRC
Request for RB Establishment
New DCH needed
CPHY-RL-Setup-REQ
CPHY-TrCH-Config-REQ
Start tx/rx
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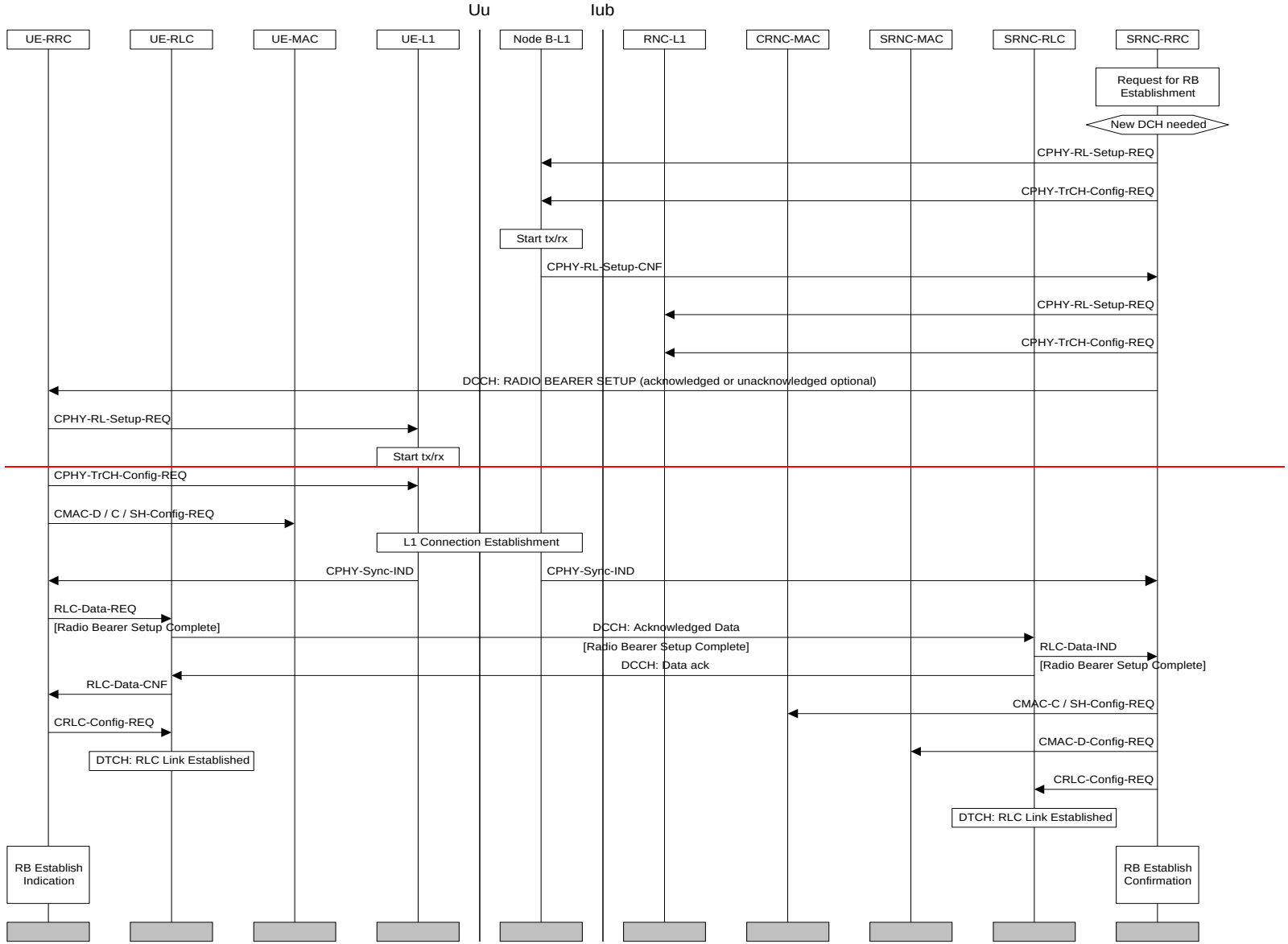

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