TSG RAN Meeting #24   **RP-040180**
SEOUL, South Korea, 02 - 04 June 2004

Title   CRs (Rel-5 and Rel-6 Category A) to TS 25.423 and TS 25.433 on
                             Unsuccessful Operation of RL Setup Procedure for HSDPA
Source   TSG RAN WG3
Agenda Item   7.4.6

RAN3 Tdoc	Spec	curr. Vers.	new Vers.	CR	Rev	Cat	Rel	Title	Work item
R3-040877	TS 25.423	5.9.0	5.10.0	962	1	F	Rel-5	Unsuccessful Operation of RL Setup Procedure for HSDPA	HSDPA-IubIur
R3-040878	TS 25.423	6.1.0	6.2.0	963	1	A	Rel-6	Unsuccessful Operation of RL Setup Procedure for HSDPA	HSDPA-IubIur
R3-040879	TS 25.433	5.8.0	5.9.0	994	1	F	Rel-5	Unsuccessful Operation of RL Setup Procedure for HSDPA	HSDPA-IubIur
R3-040880	TS 25.433	6.1.0	6.2.0	995	1	A	Rel-6	Unsuccessful Operation of RL Setup Procedure for HSDPA	HSDPA-IubIur

3GPP TSG-RAN3 Meeting #42
Montreal, Canada, 10ᵗʰ – 14ᵗʰ May 2004

Tdoc ⌘ *R3-040877*

CR-Form-v7

CHANGE REQUEST

⌘ | **25.423** | CR | **962** | ⌘**rev** | **1** | ⌘ | Current version: | **5.9.0** | ⌘

*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 **X** Core Network ☐

Title: ⌘	Unsuccessful Operation of RL Setup Procedure for HSDPA	
Source: ⌘	RAN3	
Work item code:⌘	HSDPA-IubIur	***Date:*** ⌘ 10/5/2004
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:
 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 chapter 8.3.1.3 (Unsuccessful Operation of RL Setup) of the current specification, no statement mandates to include *HS-DSCH Information Response* IE in case the RL indendified by *HS-PDCH RL ID* IE could be successfully established. This means that a partial failure of RL Setup does unnecessarily always imply that HS-DSCH could not be established.
Summary of change:⌘	Rev1

- The proposed procedural text was changed to be applied only for FDD.

Rev0

- Procedural text regarding partial failure was changed for mandating Node B to include *HS-DSCH Information Response* IE in RL SETUP FAILURE in case the RL indendified by *HS-PDCH RL ID* IE could be successfully established.

Impact assessment towards the previous version of the specification (same release):

This CR has isolated impact on the previous version of the specification (same release). The impact can be considered isolated because the change only affects HSDPA. |
| ***Consequences if not approved:*** ⌘ | If the CR is not approved, a partial failure for RL Setup Procedure would still unnecessarily imply failure to setup an HS-DSCH. |
| ***Clauses affected:*** ⌘ | 8.3.1.3 |

	Y	N			
Other specs	⌘	X		Other core specifications	⌘	CR963r1 TS25.423 v6.1.0
					CR994r1 TS25.433 v5.8.0
					CR995r1 TS25.433 v6.1.0
Affected:			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.

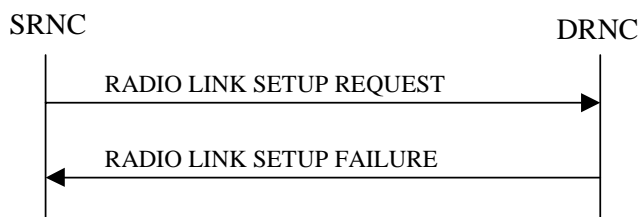## 8.3.1 Radio Link Setup

8.3.1.3 Unsuccessful Operation

Figure 6: Radio Link Setup procedure: Unsuccessful Operation

If the establishment of at least one radio link is unsuccessful, the DRNC shall respond with a RADIO LINK SETUP FAILURE message. The DRNC shall include in the RADIO LINK SETUP FAILURE message a general *Cause* IE or a *Cause* IE for each failed radio link. The *Cause* IE indicates the reason for failure.

[FDD - If some radio links were established successfully, the DRNC shall indicate this in the RADIO LINK SETUP FAILURE message in the same way as in the RADIO LINK SETUP RESPONSE message.]

[FDD - If the RL identified by the *PDSCH RL ID* IE is a radio link in the DRNS and this RL is successfully established, then the DRNC shall allocate a DSCH-RNTI to the UE Context and include the *DSCH-RNTI* IE in the RADIO LINK SETUP FAILURE message.]

If the RADIO LINK SETUP REQUEST message includes a *C-ID* IE corresponding to a cell reserved for operator use and the *Permanent NAS UE Identity* IE is not present, the DRNC shall reject the procedure and send the RADIO LINK SETUP FAILURE message.

[FDD - If the accessed cell supports TFCI power control, the DRNC shall include the *TFCI PC Support Indicator* IE in the RADIO LINK SETUP FAILURE message.]

[FDD - If the RL identified by the *HS-PDSCH RL ID* IE is a radio link in the DRNS and this RL is successfully established, then the DRNC shall allocate a HS-DSCH-RNTI to the UE Context and include the *HS-DSCH-RNTI* IE and the *HS-DSCH FDD Information Response* IE in the RADIO LINK SETUP FAILURE message.]

Typical cause values are:

Radio Network Layer Causes:

- [FDD - UL Scrambling Code Already in Use];

- DL Radio Resources not Available;

- UL Radio Resources not Available;

- [FDD - Combining Resources not available];

- Combining not Supported

- Requested Configuration not Supported;

- Cell not Available;

- [FDD - Requested Tx Diversity Mode not Supported];

- Power Level not Supported;

- Number of DL codes not supported;

- Number of UL codes not supported;

- Dedicated Transport Channel Type not Supported;

- DL Shared Channel Type not Supported;

- [TDD - UL Shared Channel Type not Supported];

- [FDD - UL Spreading Factor not Supported];

- [FDD - DL Spreading Factor not Supported];

- CM not Supported;

- [FDD - DPC mode change not Supported];

- Cell reserved for operator use;

- Delayed Activation not supported.

Transport Layer Causes:

- Transport Resource Unavailable.

Miscellaneous Causes:

- Control Processing Overload;

- HW Failure;

- Not enough User Plane Processing Resources.

3GPP TSG-RAN3 Meeting #42 *Tdoc* ⌘*R3-040878*
Montreal, Canada, 10th – 14th May 2004

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CHANGE REQUEST

| ⌘ | **25.423** | **CR** | **963** | ⌘**rev** | **1** | ⌘ | 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 **X** Core Network ☐

Title:	⌘	Unsuccessful Operation of RL Setup Procedure for HSDPA
Source:	⌘	RAN3
Work item code:⌘	HSDPA-IubIur	***Date:*** ⌘ 10/5/2004
Category:	⌘ **A**	***Release:*** ⌘ Rel-6

Use one of the following categories:	*Use one 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	*Rel-4 (Release 4)*
be found in 3GPP TR 21.900.	*Rel-5 (Release 5)*
	Rel-6 (Release 6)

Reason for change:	⌘	In chapter 8.3.1.3 (Unsuccessful Operation of RL Setup) of the current specification, no statement mandates to include *HS-DSCH Information Response* IE in case the RL indendified by *HS-PDCH RL ID* IE could be successfully established. This means that a partial failure of RL Setup does unnecessarily always imply that HS-DSCH could not be established.
Summary of change:⌘		Rev1 - The proposed procedural text was changed to be applied only for FDD. Rev0 - Procedural text regarding partial failure was changed for mandating Node B to include *HS-DSCH Information Response* IE in RL SETUP FAILURE in case the RL indendified by *HS-PDCH RL ID* IE could be successfully established. <u>Impact assessment towards the previous version of the specification (same release):</u> This CR has isolated impact on the previous version of the specification (same release). The impact can be considered isolated because the change only affects HSDPA.
Consequences if not approved:	⌘	If the CR is not approved, a partial failure for RL Setup Procedure would still unnecessarily imply failure to setup an HS-DSCH.
Clauses affected:	⌘	8.3.1.3

		Y	N			
Other specs	⌘	**X**		Other core specifications	⌘	CR962r1 TS25.423 v5.9.0
						CR994r1 TS25.433 v5.8.0
						CR995r1 TS25.433 v6.1.0
Affected:			**X**	Test specifications		
			X	O&M Specifications		
Other comments:	⌘					

How to create CRs using this form:

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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.

8.3.1 Radio Link Setup
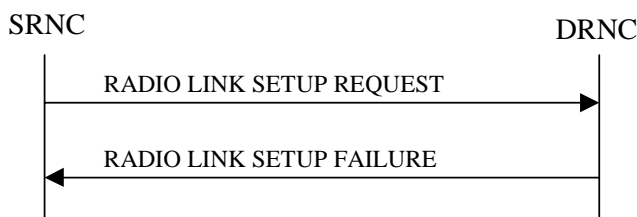
8.3.1.3 Unsuccessful Operation

Figure 6: Radio Link Setup procedure: Unsuccessful Operation

If the establishment of at least one radio link is unsuccessful, the DRNC shall respond with a RADIO LINK SETUP FAILURE message. The DRNC shall include in the RADIO LINK SETUP FAILURE message a general *Cause* IE or a *Cause* IE for each failed radio link. The *Cause* IE indicates the reason for failure.

[FDD - If some radio links were established successfully, the DRNC shall indicate this in the RADIO LINK SETUP FAILURE message in the same way as in the RADIO LINK SETUP RESPONSE message.]

[FDD - If the RL identified by the *PDSCH RL ID* IE is a radio link in the DRNS and this RL is successfully established, then the DRNC shall allocate a DSCH-RNTI to the UE Context and include the *DSCH-RNTI* IE in the RADIO LINK SETUP FAILURE message.]

If the RADIO LINK SETUP REQUEST message includes a *C-ID* IE corresponding to a cell reserved for operator use and the *Permanent NAS UE Identity* IE is not present, the DRNC shall reject the procedure and send the RADIO LINK SETUP FAILURE message.

[FDD - If the accessed cell supports TFCI power control, the DRNC shall include the *TFCI PC Support Indicator* IE in the RADIO LINK SETUP FAILURE message.]

[FDD - If the RL identified by the *HS-PDSCH RL ID* IE is a radio link in the DRNS and this RL is successfully established, then the DRNC shall allocate a HS-DSCH-RNTI to the UE Context and include the *HS-DSCH-RNTI* IE and the *HS-DSCH FDD Information Response* IE in the RADIO LINK SETUP FAILURE message.]

Typical cause values are:

Radio Network Layer Causes:

- [FDD - UL Scrambling Code Already in Use];

- DL Radio Resources not Available;

- UL Radio Resources not Available;

- [FDD - Combining Resources not available];

- Combining not Supported

- Requested Configuration not Supported;

- Cell not Available;

- [FDD - Requested Tx Diversity Mode not Supported];

- Power Level not Supported;

- Number of DL codes not supported;

- Number of UL codes not supported;

- Dedicated Transport Channel Type not Supported;

- DL Shared Channel Type not Supported;

- [TDD - UL Shared Channel Type not Supported];

- [FDD - UL Spreading Factor not Supported];

- [FDD - DL Spreading Factor not Supported];

- CM not Supported;

- [FDD - DPC mode change not Supported];

- Cell reserved for operator use;

- Delayed Activation not supported.

Transport Layer Causes:

- Transport Resource Unavailable.

Miscellaneous Causes:

- Control Processing Overload;

- HW Failure;

- Not enough User Plane Processing Resources.

3GPP TSG-RAN3 Meeting #42   *Tdoc* ⌘ *R3-040879*
Montreal, Canada, 10ᵗʰ – 14ᵗʰ May 2004

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CHANGE REQUEST

⌘ | **25.433** | **CR** | **994** | ⌘**rev** | **1** | ⌘ | Current version: | **5.8.0** | ⌘

*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 **X** Core Network ☐

Title: ⌘	Unsuccessful Operation of RL Setup Procedure for HSDPA
Source: ⌘	RAN3

Work item code:⌘	HSDPA-IubIur	***Date:*** ⌘	10/5/2004

Category: ⌘	**F**	***Release:*** ⌘	Rel-5
	Use one of the following categories:		*Use one 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	Rel-4	*(Release 4)*
	be found in 3GPP TR 21.900.	Rel-5	*(Release 5)*
		Rel-6	*(Release 6)*

Reason for change: ⌘	In chapter 8.2.17.3 (Unsuccessful Operation of RL Setup) of the current specification, Node can B allocate HS-DSCH-RNTI to Node B Communication Context and include the *HS-DSCH-RNTI* IE in RL SETUP FAILURE, which are against the agreement that CRNC allocates the HS-DSCH RNTI and Node B can not do it.

Additionally in this chapter currently no statement mandates to include *HS-DSCH Information Response* IE in case the RL indendified by *HS-PDCH RL ID* IE could be successfully established. This means that a partial failure of RL Setup does unnecessarily always imply that HS-DSCH could not be established. |
| ***Summary of change:***⌘ | Rev1

- The proposed procedural text was changed to be applied only for FDD.

Rev0

The following sentence is removed from the chapter 8.2.17.3.

"If the RL identified by the *HS-PDSCH RL ID* IE is a radio link in the Node B and this RL is successfully established, then the Node B shall allocate a HS-DSCH-RNTI to the Node B Communication Context and include the *HS-DSCH-RNTI* IE in the RADIO LINK SETUP FAILURE message."

The following sentence is added to chapter 8.2.17.3.

If the RL identified by the *HS-PDSCH RL ID* IE is a radio link in the Node B and this RL is successfully established, then the Node B shall include the [FDD – *HS-DSCH FDD Information Response* IE] [TDD – *HS-DSCH TDD Information Response* IE] in the |

RADIO LINK SETUP FAILURE message.

Impact assessment towards the previous version of the specification (same release):

This CR has isolated impact on the previous version of the specification (same release). The impact can be considered isolated because the change only affects HSDPA.

Consequences if not approved:	⌘ If the CR is not approved, the misalingment between procedural text and the message structure remains. Also partial failure would still unnecessarily imply failure to setup an HS-DSCH.

Clauses affected:	⌘ 8.2.17.3	

	Y	N		
Other specs	⌘ X		Other core specifications	⌘ CR962r1 TS25.423 v5.9.0
				CR963r1 TS25.423 v6.1.0
				CR995r1 TS25.433 v6.1.0
Affected:		X	Test specifications	
		X	O&M Specifications	

Other comments:	⌘

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8.2.17 Radio Link Setup

8.2.17.3 Unsuccessful Operation

CRNC   Node B

RADIO LINK SETUP REQUEST
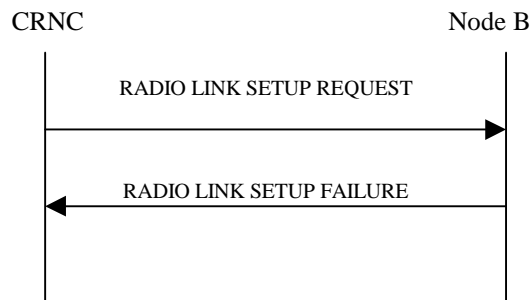
RADIO LINK SETUP FAILURE

Figure 25: Radio Link Setup procedure, Unsuccessful Operation

If the establishment of at least one radio link is unsuccessful, the Node B shall respond with a RADIO LINK SETUP FAILURE message. The message contains the failure cause in the *Cause* IE.

[FDD - If some radio links were established successfully, the Node B shall indicate this in the RADIO LINK SETUP FAILURE message in the same way as in the RADIO LINK SETUP RESPONSE message. In this case, the Node B shall include the *Communication Control Port Id* IE in the RADIO LINK SETUP FAILURE message.] If the RL identified by the *HS-PDSCH RL ID* IE is a radio link in the Node B and this RL is successfully established, then the Node B shall allocate a HS-DSCH-RNTI to the Node B Communication Context and include the *HS-DSCH-RNTI* IE in the RADIO LINK SETUP FAILURE message.

[FDD - If the RL identified by the *HS-PDSCH RL ID* IE is a radio link in the Node B and this RL is successfully established, then the Node B shall include the *HS-DSCH FDD Information Response* IE in the RADIO LINK SETUP FAILURE message.]

Typical cause values are as follows:

Radio Network Layer Cause:

- Combining not supported

- Combining Resources not available

- Requested Tx Diversity Mode not supported

- Number of DL codes not supported

- Number of UL codes not supported

- UL SF not supported

- DL SF not supported

- Dedicated Transport Channel Type not supported

- Downlink Shared Channel Type not supported

- Uplink Shared Channel Type not supported

- CM not supported

- DPC mode change not supported

- Delayed Activation not supported

Transport Layer Cause:

- Transport Resources Unavailable

Miscellaneous Cause:

- O&M Intervention

- Control processing overload

- HW failure

3GPP TSG-RAN3 Meeting #42   *Tdoc* ⌘ *R3-040880*
Montreal, Canada, 10ᵗʰ – 14ᵗʰ May 2004

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CHANGE REQUEST

⌘	**25.433**	**CR**	**995**	⌘**rev**	**1**	⌘	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 **X**   Core Network ☐

Title:	⌘	Unsuccessful Operation of RL Setup Procedure for HSDPA
Source:	⌘	RAN3

Work item code: ⌘	HSDPA-IubIur			***Date:*** ⌘	10/5/2004

Category:	⌘	**A**		***Release:*** ⌘	Rel-6

<table>
<tr><td><i>Use <u>one</u> of the following categories:</i></td><td colspan="2"><i>Use <u>one</u> of the following releases:</i></td></tr>
<tr><td><i>F (correction)</i></td><td><i>2</i></td><td><i>(GSM Phase 2)</i></td></tr>
<tr><td><i>A (corresponds to a correction in an earlier release)</i></td><td><i>R96</i></td><td><i>(Release 1996)</i></td></tr>
<tr><td><i>B (addition of feature),</i></td><td><i>R97</i></td><td><i>(Release 1997)</i></td></tr>
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<tr><td><i>D (editorial modification)</i></td><td><i>R99</i></td><td><i>(Release 1999)</i></td></tr>
<tr><td><i>Detailed explanations of the above categories can</i></td><td><i>Rel-4</i></td><td><i>(Release 4)</i></td></tr>
<tr><td><i>be found in 3GPP <u>TR 21.900</u>.</i></td><td><i>Rel-5</i></td><td><i>(Release 5)</i></td></tr>
<tr><td></td><td><i>Rel-6</i></td><td><i>(Release 6)</i></td></tr>
</table>

Reason for change: ⌘	In chapter 8.2.17.3 (Unsuccessful Operation of RL Setup) of the current specification, Node can B allocate HS-DSCH-RNTI to Node B Communication Context and include the *HS-DSCH-RNTI* IE in RL SETUP FAILURE, which are against the agreement that CRNC allocates the HS-DSCH RNTI and Node B can not do it. Additionally in this chapter currently no statement mandates to include *HS-DSCH Information Response* IE in case the RL indendified by *HS-PDCH RL ID* IE could be successfully established. This means that a partial failure of RL Setup does unnecessarily always imply that HS-DSCH could not be established.

Summary of change: ⌘	Rev1 - The proposed procedural text was changed to be applied only for FDD. Rev0 The following sentence is removed from the chapter 8.2.17.3. "If the RL identified by the *HS-PDSCH RL ID* IE is a radio link in the Node B and this RL is successfully established, then the Node B shall allocate a HS-DSCH-RNTI to the Node B Communication Context and include the *HS-DSCH-RNTI* IE in the RADIO LINK SETUP FAILURE message." The following sentence is added to chapter 8.2.17.3. If the RL identified by the *HS-PDSCH RL ID* IE is a radio link in the Node B and this RL is successfully established, then the Node B shall include the [FDD – *HS-DSCH FDD Information Response* IE] [TDD – *HS-DSCH TDD Information Response* IE] in the

RADIO LINK SETUP FAILURE message.

Impact assessment towards the previous version of the specification (same release):

This CR has isolated impact on the previous version of the specification (same release). The impact can be considered isolated because the change only affects HSDPA.

Consequences if not approved:	⌘ If the CR is not approved, the misalingment between procedural text and the message structure remains. Also partial failure would still unnecessarily imply failure to setup an HS-DSCH.

Clauses affected:	⌘ 8.2.17.3

	Y	N			
Other specs	X		Other core specifications	⌘	CR962r1 TS25.423 v5.9.0 CR963r1 TS25.423 v6.1.0 CR994r1 TS25.433 v5.8.0
affected:		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.

8.2.17   Radio Link Setup
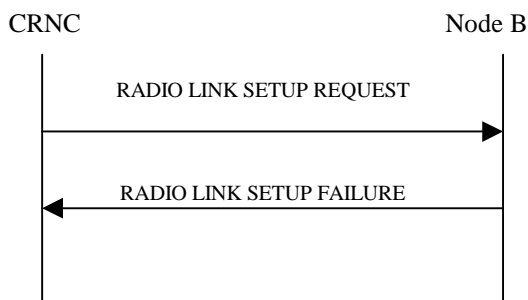
8.2.17.3   Unsuccessful Operation

Figure 25: Radio Link Setup procedure, Unsuccessful Operation

If the establishment of at least one radio link is unsuccessful, the Node B shall respond with a RADIO LINK SETUP FAILURE message. The message contains the failure cause in the *Cause* IE.

[FDD - If some radio links were established successfully, the Node B shall indicate this in the RADIO LINK SETUP FAILURE message in the same way as in the RADIO LINK SETUP RESPONSE message. In this case, the Node B shall include the *Communication Control Port Id* IE in the RADIO LINK SETUP FAILURE message.] ~~If the RL identified by the *HS-PDSCH RL ID* IE is a radio link in the Node B and this RL is successfully established, then the Node B shall allocate a HS-DSCH-RNTI to the Node B Communication Context and include the *HS-DSCH-RNTI* IE in the RADIO LINK SETUP FAILURE message.~~

[FDD - If the RL identified by the *HS-PDSCH RL ID* IE is a radio link in the Node B and this RL is successfully established, then the Node B shall include the *HS-DSCH FDD Information Response* IE in the RADIO LINK SETUP FAILURE message.]

Typical cause values are as follows:

Radio Network Layer Cause:

- Combining not supported

- Combining Resources not available

- Requested Tx Diversity Mode not supported

- Number of DL codes not supported

- Number of UL codes not supported

- UL SF not supported

- DL SF not supported

- Dedicated Transport Channel Type not supported

- Downlink Shared Channel Type not supported

- Uplink Shared Channel Type not supported

- CM not supported

- DPC mode change not supported

- Delayed Activation not supported

Transport Layer Cause:

- Transport Resources Unavailable

Miscellaneous Cause:

- O&M Intervention

- Control processing overload

- HW failure