RP-020744

Title CRs (R99 and Rel-4/Rel-5 Category A) to TS 25.423, 25.427 and 25.433 on

**Correction for the DL DPDCH transmission** 

Source TSG RAN WG3

Agenda Item 7.3.3

RAN3 Tdoc	Spec	curr. Vers.	new Vers.	REL	CR	Rev	Cat	Title	Work item
R3-022431	25.427	3.9.0	3.10.0	R99	086	-	F	Correction for the DL DPDCH transmission	TEI
R3-022432	25.427	4.3.0	4.4.0	REL-4	087	-	Α	Correction for the DL DPDCH transmission	TEI
R3-022433	25.427	5.0.0	5.1.0	REL-5	088	-	Α	Correction for the DL DPDCH transmission	TEI
R3-022434	25.423	3.11.0	3.12.0	R99	754	-	F	Correction for the DL DPDCH transmission	TEI
R3-022435	25.423	4.6.0	4.7.0	REL-4	755	-	Α	Correction for the DL DPDCH transmission	TEI
R3-022436	25.423	5.3.0	5.4.0	REL-5	756	-	Α	Correction for the DL DPDCH transmission	TEI
R3-022437	25.433	3.11.0	3.12.0	R99	783	-	F	Correction for the DL DPDCH transmission	TEI
R3-022438	25.433	4.6.0	4.7.0	REL-4	784	-	Α	Correction for the DL DPDCH transmission	TEI
R3-022439	25.433	5.2.0	5.3.0	REL-5	785	-	Α	Correction for the DL DPDCH transmission	TEI

Sopnia	sopnia Antipolis, France, 11 – 15 November 2002										
	CHANGE DECLIEST										
CHANGE REQUEST											
ж	25.42	3 CR	754	жrev	-	ж	Current version:	3.11.0	æ		
For <u></u>	<b>IELP</b> on using this	form, see	e bottom of this	s page or l	look i	at the	e pop-up text ove	r the ₩ syr	nbols.		
Propose	d change affects:	UICC a	apps#	ME	Rac	dio A	ccess Network X	Core Ne	etwork		

Title:	ж	Correction for the DL DPDCH transmission									
Source:	$\mathfrak{R}$	RAN WG3									
Work item code.	:Ж	TEI		Date: 眯	11/11/2002						
Category:	$\mathfrak{R}$	F		Release: 🖁	R99						
		Use one of the following categories:			he following releases:						
		<b>F</b> (correction)		,	GSM Phase 2)						
		A (corresponds to a correction in an ear	rlier release)	•	(Release 1996)						
		<b>B</b> (addition of feature),		R97 (	(Release 1997)						
		C (functional modification of feature)			Release 1998)						
		<b>D</b> (editorial modification)		R99 (	Release 1999)						
		Detailed explanations of the above categorie	s can	Rel-4 (	Release 4)						
		be found in 3GPP <u>TR 21.900</u> .		Rel-5 (	Release 5)						
				Rel-6 (	Release 6)						

Reason for change: ₩	The sentence about the DL DPDCH transmission in TS25.423 is slightly different from the sentence in TS25.427. In TS25.423, it mentions "RL"; on the other hand, in TS25.427, it mentions DL DPDCH itself. Besides, the text of TS25.423 is redundant. See R3-022430: e-mail discussion report.							
Summary of change: ₩	It is clarified that the sentence mentions DL DPDCH itself. And the redundant text is deleted; instead, TS25.427 is referred.							
Consequences if # not approved:	If this CR is not approved, the difference between TS25.423 and TS25.427 still remains. As a result, DL DPCCH might be stopped until DL user plane is synchronised.							
	Impact Analysis:							
	Impact assessment towards the previous version of the specification (same release):							
	This CR has [isolated impact] with the previous version of the specification (same release) because it might affect the DL transmission of the new RL.							
	This CR has an impact under [functional] point of view.  The impact [can] be considered isolated because the change affects [one] [system function] namely the DL transmission of the new RL.							

Clauses affected:	<b>₩</b> 8.3.	1.2 and 8.3.2.2		
Other specs	¥ X	Other core specifications	¥	CR086 on 25.427 v3.9.0 CR087 on 25.427 v4.3.0 CR088 on 25.427 v5.0.0

affected:	X Test specifications O&M Specifications	CR755 on 25.423 v4.6.0 CR756 on 25.423 v5.3.0 CR783 on 25.433 v3.11.0 CR784 on 25.433 v4.6.0 CR785 on 25.433 v5.2.0
Other comments:	*	

#### How to create CRs using this form:

- 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 <a href="ftp://ftp.3gpp.org/specs/">ftp://ftp.3gpp.org/specs/</a> 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

#### 8.3.1.1 General

This procedure is used for establishing the necessary resources in the DRNS for one or more radio links.

The connection-oriented service of the signalling bearer shall be established in conjunction with this procedure.

#### 8.3.1.2 Successful Operation

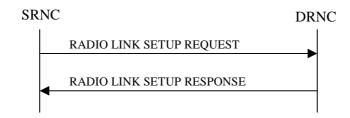


Figure 5: Radio Link Setup procedure: Successful Operation

When the SRNC makes an algorithmic decision to add the first cell or set of cells from a DRNS to the active set of a specific UE-UTRAN connection, the RADIO LINK SETUP REQUEST message is sent to the corresponding DRNC to request establishment of the radio link(s).

The DRNS shall prioritise resource allocation for the RL(s) to be established according to Annex A.

If the RADIO LINK SETUP REQUEST message includes the *Allowed Queuing Time* IE the DRNS may queue the request the time corresponding to the value of the *Allowed Queuing Time* IE before starting to execute the request.

If no D-RNTI IE was included in the RADIO LINK SETUP REQUEST message, the DRNC shall assign a new D-RNTI for this UE.

#### <partly omitted>

#### **Response Message:**

At the reception of the RADIO LINK SETUP REQUEST message, the DRNS allocates the requested type of channelisation codes and other physical channel resources for each RL and assigns a binding identifier and a transport layer address for each DCH or set of co-ordinated DCHs and for each DSCH [TDD – and USCH]. This information shall be sent to the SRNC in the message RADIO LINK SETUP RESPONSE when all the RLs have been successfully established.

After sending the RADIO LINK SETUP RESPONSE message the DRNS shall continuously attempt to obtain UL synchronisation on the Uu interface. [FDD - The DRNS shall start <del>DL transmission on the <u>DL DPDCH(s)</u> of the new RL after synchronisation is achieved in the <u>DL user plane</u> as specified in ref. [4].] [TDD – The DRNS shall start transmission on the new RL immediately as specified in ref. [4].]</del>

#### <partly omitted>

#### 8.3.2 Radio Link Addition

#### 8.3.2.1 General

This procedure is used for establishing the necessary resources in the DRNS for one or more additional RLs towards a UE when there is already at least one RL established to the concerned UE via this DRNS.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The Radio Link Addition procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

[FDD – The Radio Link Addition procedure serves to establish one or more new Radio Links which do not contain the DSCH. If the DSCH shall be moved into a new Radio Link, the Radio Link reconfiguration procedure shall be applied.]

[TDD – The Radio Link Addition procedure serves to establish a new Radio Link with the DSCH and USCH included, if they existed before.]

#### 8.3.2.2 Successful Operation

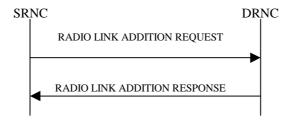


Figure 7: Radio Link Addition procedure: Successful Operation

The procedure is initiated with a RADIO LINK ADDITION REQUEST message sent from the SRNC to the DRNC.

Upon reception, the DRNS shall reserve the necessary resources and configure the new RL(s) according to the parameters given in the message. Unless specified below, the meaning of parameters is specified in other specifications.

The DRNS shall prioritise resource allocation for the RL(s) to be established according to Annex A.

#### <partly omitted>

#### Response message:

If all requested RLs are successfully added, the DRNC shall respond with a RADIO LINK ADDITION RESPONSE message.

After sending the RADIO LINK ADDITION RESPONSE message, the DRNS shall continuously attempt to obtain UL synchronisation on the Uu interface. [FDD - The DRNS shall start <del>DL</del> transmission on the <u>DL DPDCH(s)</u> of the new RL after synchronisation is achieved in the <u>DL user plane</u> as specified in ref. [4].] [TDD – The DRNS shall start transmission on the new RL immediately as specified in ref. [4].]

			CH	ANGE	REQ	UE	ST				CR-Form-v7
*	25	.423	CR 75	5	жrev	-	ж	Current vers	sion:	4.6.0	¥
For <u><b>HELP</b></u> on t	ısing	this for	m, see bott	om of this	page or	look	at the	e pop-up text	t over	the ¥ syr	mbols.
Proposed change	affec	<i>ts:</i>	JICC apps	€	ME	Rad	dio A	ccess Netwo	rk X	Core Ne	etwork
Title:	Со	rrectio	n for the DL	DPDCH t	ransmis	sion					
Source: #	RA	N WG	3								
Work item code:₩	TE	l						Date: #	11/	11/2002	
Category:								Release: # Use <u>one</u> of 2 e) R96 R97 R98 R99 Rel-4 Rel-5 Rel-6	the for (GSN) (Relea (Relea (Relea (Relea (Relea		
Reason for change	e. #	The	sentence al	out the D	I DPDC	H tra	nsmis	ssion in TS2	•	,	different
reason for onang	<b>.</b>	from hand	the senten	ce in TS25 27, it men	5.427. In tions DL	TS25	5.423 CH it	, it mentions self. Besides	"RL";	on the ot	her
Summary of chang	ge:♯	It is clarified that the sentence mentions DL DPDCH itself. And the redunction text is deleted; instead, TS25.427 is referred.								ndant	
Consequences if not approved:	¥	If this CR is not approved, the difference between TS25.423 and TS25.42 remains. As a result, DL DPCCH might be stopped until DL user plane is synchronised.									
		Impac	t Analysis:								
		Impac releas		ent towards	s the pre	vious	vers	sion of the sp	ecific	ation (san	ne
								is version of nission of the			n (same
		The in		be conside	ered isol	lated	beca	t of view. use the char of the new F		fects [one	e]
Clauses affected:	ж	8.3.1	.2 and 8.3.	2.2							
Other specs	ж	Y N	Other core	specifica	tions	ж	CR0	86 on 25.42 87 on 25.42	7 v4.3	3.0	

affected:	X Test specifications O&M Specifications	CR754 on 25.423 v3.11.0 CR756 on 25.423 v5.3.0 CR783 on 25.433 v3.11.0 CR784 on 25.433 v4.6.0 CR785 on 25.433 v5.2.0
Other comments:	<b>*</b>	

#### How to create CRs using this form:

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- 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 <a href="ftp://ftp.3gpp.org/specs/">ftp://ftp.3gpp.org/specs/</a> 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

#### 8.3.1.1 General

This procedure is used for establishing the necessary resources in the DRNS for one or more radio links.

The connection-oriented service of the signalling bearer shall be established in conjunction with this procedure.

#### 8.3.1.2 Successful Operation

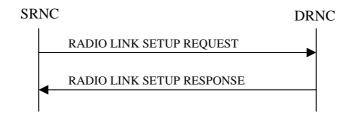


Figure 5: Radio Link Setup procedure: Successful Operation

When the SRNC makes an algorithmic decision to add the first cell or set of cells from a DRNS to the active set of a specific UE-UTRAN connection, the RADIO LINK SETUP REQUEST message is sent to the corresponding DRNC to request establishment of the radio link(s). The Radio Link Setup procedure is initiated with this RADIO LINK SETUP REQUEST message sent from the SRNC to the DRNC.

Upon receipt of the RADIO LINK SETUP REQUEST message, the DRNS shall reserve the necessary resources and configure the new RL(s) according to the parameters given in the message. Unless specified below, the meaning of parameters is specified in other specifications.

The DRNS shall prioritise resource allocation for the RL(s) to be established according to Annex A.

If the RADIO LINK SETUP REQUEST message includes the *Allowed Queuing Time* IE the DRNS may queue the request for a time period not exceedingthe value of the *Allowed Queuing Time* IE before starting to execute the request.

#### <partly omitted>

#### Response Message:

Upon receipt of the RADIO LINK SETUP REQUEST message, the DRNS allocates the requested type of channelisation codes and other physical channel resources for each RL and assigns a binding identifier and a transport layer address for each DCH, for each set of co-ordinated DCHs and for each DSCH [TDD – and USCH]. This information shall be sent to the SRNC in the RADIO LINK SETUP RESPONSE message when all the RLs have been successfully established.

After sending the RADIO LINK SETUP RESPONSE message the DRNS shall continuously attempt to obtain UL synchronisation on the Uu interface. [FDD - The DRNS shall start <del>DL</del> transmission on the <u>DL DPDCH(s)</u> of the new RL after synchronisation is achieved in the <u>DL user plane</u> as specified in ref. [4].] [TDD – The DRNS shall start transmission on the new RL immediately as specified in ref. [4].]

#### <partly omitted>

#### 8.3.2 Radio Link Addition

#### 8.3.2.1 General

This procedure is used for establishing the necessary resources in the DRNS for one or more additional RLs towards a UE when there is already at least one RL established to the concerned UE via this DRNS.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The Radio Link Addition procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

[FDD – The Radio Link Addition procedure serves to establish one or more new Radio Links which do not contain the DSCH. If the DSCH shall be moved into a new Radio Link, the Radio Link reconfiguration procedure shall be applied.]

[TDD – The Radio Link Addition procedure serves to establish a new Radio Link with the DSCH and USCH included, if they existed before.]

#### 8.3.2.2 Successful Operation

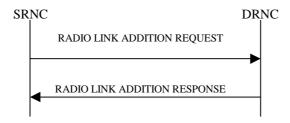


Figure 7: Radio Link Addition procedure: Successful Operation

The procedure is initiated with a RADIO LINK ADDITION REQUEST message sent from the SRNC to the DRNC.

Upon receipt, the DRNS shall reserve the necessary resources and configure the new RL(s) according to the parameters given in the message. Unless specified below, the meaning of parameters is specified in other specifications.

The DRNS shall prioritise resource allocation for the RL(s) to be established according to Annex A.

#### <partly omitted>

#### Response message:

If all requested RLs are successfully added, the DRNC shall respond with a RADIO LINK ADDITION RESPONSE message.

After sending the RADIO LINK ADDITION RESPONSE message, the DRNS shall continuously attempt to obtain UL synchronisation on the Uu interface. [FDD - The DRNS shall start <del>DL</del> transmission on the <u>DL DPDCH(s)</u> of the new RL after synchronisation is achieved in the <u>DL user plane</u> as specified in ref. [4].] [TDD – The DRNS shall start transmission on the new RL immediately as specified in ref. [4].]

Radio Access Network X Core Network

## 3GPP TSG-RAN3 Meeting #33 Sophia Antipolis, France, 11<sup>th</sup> – 15<sup>th</sup> November 2002

UICC apps₩

Proposed change affects:

CHANGE REQUEST									
¥	25.423	CR	756	ж rev	-	¥	Current version:	5.3.0	ж
· ப	<b>ELP</b> on using this forr								<u> </u>

ME

Correction for the DL DPDCH transmission Title: RAN WG3 Source: Date: # 11/11/2002 Work item code: ₩ TEI Release: # Rel-5 Category: Use <u>one</u> of the following categories: Use one of the following releases: F (correction) (GSM Phase 2) 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) (Release 1998) R98 **D** (editorial modification) R99 (Release 1999) Detailed explanations of the above categories can Rel-4 (Release 4) be found in 3GPP TR 21.900. (Release 5) Rel-5 Rel-6 (Release 6)

The sentence about the DL DPDCH transmission in TS25.423 is slightly different Reason for change: # from the sentence in TS25.427. In TS25.423, it mentions "RL"; on the other hand, in TS25.427, it mentions DL DPDCH itself. Besides, the text of TS25.423 is redundant. See R3-022430: e-mail discussion report. Summary of change: ₩ It is clarified that the sentence mentions DL DPDCH itself. And the redundant text is deleted; instead, TS25.427 is referred. Consequences if If this CR is not approved, the difference between TS25.423 and TS25.427 still remains. As a result, DL DPCCH might be stopped until DL user plane is not approved: synchronised. Impact Analysis: Impact assessment towards the previous version of the specification (same release): This CR has [isolated impact] with the previous version of the specification (same release) because it might affect the DL transmission of the new RL. This CR has an impact under [functional] point of view. The impact [can] be considered isolated because the change affects [one] [system function] namely the DL transmission of the new RL.

Clauses affected:	₩ 8.3.	1.2 and 8.3.2.2		
Other specs	ж X	Other core specifications	Ж	CR086 on 25.427 v3.9.0 CR087 on 25.427 v4.3.0 CR088 on 25.427 v5.0.0

affected:	X Test specifications O&M Specifications	CR754 on 25.423 v3.11.0 CR755 on 25.423 v4.6.0 CR783 on 25.433 v3.11.0 CR784 on 25.433 v4.6.0 CR785 on 25.433 v5.2.0
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

#### 8.3.1.1 General

This procedure is used for establishing the necessary resources in the DRNS for one or more radio links.

The connection-oriented service of the signalling bearer shall be established in conjunction with this procedure.

#### 8.3.1.2 Successful Operation

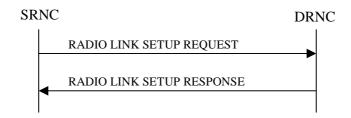


Figure 5: Radio Link Setup procedure: Successful Operation

When the SRNC makes an algorithmic decision to add the first cell or set of cells from a DRNS to the active set of a specific UE-UTRAN connection, the RADIO LINK SETUP REQUEST message is sent to the corresponding DRNC to request establishment of the radio link(s). The Radio Link Setup procedure is initiated with this RADIO LINK SETUP REQUEST message sent from the SRNC to the DRNC.

Upon receipt of the RADIO LINK SETUP REQUEST message, the DRNS shall reserve the necessary resources and configure the new RL(s) according to the parameters given in the message. Unless specified below, the meaning of parameters is specified in other specifications.

The DRNS shall prioritise resource allocation for the RL(s) to be established according to Annex A.

If the RADIO LINK SETUP REQUEST message includes the *Allowed Queuing Time* IE the DRNS may queue the request for a time period not to exceed the value of the *Allowed Queuing Time* IE before starting to execute the request.

#### <partly omitted>

#### Response Message:

Upon receipt of the RADIO LINK SETUP REQUEST message, the DRNS allocates the requested type of channelisation codes and other physical channel resources for each RL and assigns a binding identifier and a transport layer address for each DCH, for each set of co-ordinated DCHs and for each DSCH [TDD – and USCH]. This information shall be sent to the SRNC in the RADIO LINK SETUP RESPONSE message when all the RLs have been successfully established.

After sending the RADIO LINK SETUP RESPONSE message the DRNS shall continuously attempt to obtain UL synchronisation on the Uu interface and start reception on the new RL.

For each RL for which the *Delayed Activation* IE is not included in the RADIO LINK SETUP REQUEST message the DRNS shall:

- [FDD -start <del>DL</del> transmission on the <u>DL DPDCH(s)</u> of the new RL after synchronisation is achieved in the <del>DL user plane</del> as specified in ref. [4].]
- [TDD start transmission on the new RL immediately as specified in ref. [4].]

For each RL for which the *Delayed Activation* IE is included in the RADIO LINK SETUP REQUEST message, the DRNS shall:

- if the *Delayed Activation* IE indicates "Separate Indication":

- not start any DL transmission for the concerned RL on the Uu interface;
- if the Delayed Activation IE indicates "CFN":
  - [FDD start transmission on the <u>DL DPDCH(s)</u> of the new RL after synchronisation is achieved in the <u>DL user plane</u> as specified in ref. [4], however never before the CFN indicated in the *Activation CFN* IE.]
  - [TDD start transmission on the new RL at the CFN indicated in the *Activation CFN* IE as specified in ref. [4].]

#### <partly omitted>

#### 8.3.2 Radio Link Addition

#### 8.3.2.1 General

This procedure is used for establishing the necessary resources in the DRNS for one or more additional RLs towards a UE when there is already at least one RL established to the concerned UE via this DRNS.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The Radio Link Addition procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

[FDD – The Radio Link Addition procedure serves to establish one or more new Radio Links which do not contain the DSCH. If the DSCH shall be moved into a new Radio Link, the Radio Link reconfiguration procedure shall be applied.]

[TDD – The Radio Link Addition procedure serves to establish a new Radio Link with the DSCH and USCH included, if they existed before.]

#### 8.3.2.2 Successful Operation

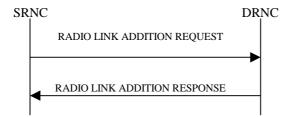


Figure 7: Radio Link Addition procedure: Successful Operation

The procedure is initiated with a RADIO LINK ADDITION REQUEST message sent from the SRNC to the DRNC.

Upon receipt, the DRNS shall reserve the necessary resources and configure the new RL(s) according to the parameters given in the message. Unless specified below, the meaning of parameters is specified in other specifications.

The DRNS shall prioritise resource allocation for the RL(s) to be established according to Annex A.

#### <partly omitted>

#### Response message:

If all requested RLs are successfully added, the DRNC shall respond with a RADIO LINK ADDITION RESPONSE message.

After sending the RADIO LINK ADDITION RESPONSE message the DRNS shall continuously attempt to obtain UL synchronisation on the Uu interface.

For each RL for which the *Delayed Activation* IE is not included in the RADIO LINK ADDITION REQUEST message the DRNS shall:

- [FDD -start <del>DL</del> transmission on the <u>DL DPDCH(s)</u> of the new RL <del>after synchronisation is achieved in the DL user plane as specified in ref. [4].]</del>
- [TDD start transmission on the new RL immediately as specified in ref. [4].]

For each RL for which the *Delayed Activation* IE is included in the RADIO LINK ADDITION REQUEST message, the DRNS shall:

- if the *Delayed Activation* IE indicates "Separate Indication":
  - not start any DL transmission for the concerning RL on the Uu interface;
- if the *Delayed Activation* IE indicates "CFN":
  - [FDD start transmission on the <u>DL DPDCH(s)</u> of the new RL after synchronisation is achieved in the <u>DL user plane</u> as specified in ref. [4], however never before the CFN indicated in the *Activation CFN* IE.]
- [TDD start transmission on the new RL at the CFN indicated in the Activation CFN IE as specified in ref. [4].]

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''			that	the DL D	PDCH tran	nsmission i	s not	stop	ped durin	ng the	RL	Reconfig	uration,
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the RL Reconfiguration.

**Impact Analysis:** 

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

This CR has [isolated impact] with the previous version of the specification (same release) because it might affect the DL DPDCH transmission during the RL Setup, Addition and Reconfiguration procedures.

This CR has an impact under [functional] point of view.

The impact [can] be considered isolated because the change affects [one] [system function] namely the DL DPDCH transmission during the RL Setup, Addition and Reconfiguration procedures.

Clauses affected:	ж	5.	1.2	and 5.10.2		
		Υ	Ζ			
Other specs	$\mathfrak{R}$	Χ		Other core specifications	ж	CR087 on 25.427 v4.3.0
						CR088 on 25.427 v5.0.0
						CR754 on 25.423 v3.11.0
						CR755 on 25.423 v4.6.0
						CR756 on 25.423 v5.3.0
						CR783 on 25.433 v3.11.0
						CR784 on 25.433 v4.6.0
						CR785 on 25.433 v5.2.0
affected:			X	Test specifications		
			X	O&M Specifications		
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Other comments:	$\mathfrak{H}$					

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Figure 2: Downlink Data Transfer procedure

The Node B shall only consider a transport bearer synchronised after it has received at least one DL DATA FRAME on this transport bearer before LTOA [5].

The Node B shall consider the DL user plane forof a certain RL synchronised once as synchronised. Once synchronised, the Node B shall assume the DL user plane for this RL stays synchronised as long as the RL exists, even if transport bearers are added (see subclause 5.10.2), replaced (see subclause 5.10.1), or removed. When a RL established through the Radio Link Addition procedure [4] [6] is combined with a RL whose DL user plane is considered as synchronised, the Node B shall consider the DL user plane of this newly established RL as synchronised.

[FDD - The Node B shall transmit on the DL DPDCH(s) of a certain RL Qonly when the DL user plane of this RL is considered synchronised, the Node B shall transmit on the DL DPDCH.]

[TDD – The Node B shall transmit special bursts on the DL DPCH as per [11], until the DL user plane is considered synchronised].

When the DL user plane is considered synchronised and the Node B does not receive a valid DL DATA FRAME in a TTI, it assumes that there is no data to be transmitted in that TTI for this transport channel, and shall act as one of the following cases:

- [TDD If the Node B receives no valid DL DATA FRAMEs for any transport channel assigned to a UE it shall assume DTX and transmit special bursts as per [11]].
- If the Node B is aware of a TFI value corresponding to zero bits for this transport channel, this TFI is assumed. If the TFS contains both a TFI corresponding to "TB length equal to 0 bits" and a TFI corresponding to "number of TB equal to 0", the Node B shall assume the TFI corresponding to "number of TB equal to 0". When combining the TFI's of the different transport channels, a valid TFCI might result and in this case data shall be transmitted on Uu.
- If the Node B is not aware of a TFI value corresponding to zero bits for this transport channel or if combining the TFI corresponding to zero bits with other TFI's, results in an unknown TFI combination, the handling as described in the following paragraph shall be applied.

At each radio frame, the Node B shall build the TFCI value of each CCTrCH, according to the TFI of the DCH data frames multiplexed on this CCTrCH and scheduled for that frame. [FDD - In case the Node B receives an unknown combination of TFIs from the DL DATA FRAMEs, it shall transmit only the DPCCH without TFCI bits.] [TDD - In case the Node B receives an unknown combination of DCH DL DATA FRAMEs, it shall apply DTX, i.e. suspend transmission on the corresponding DPCHs.]

Radio Link Reconfiguration Preparation procedure in combination with the Synchronised Radio Link Reconfiguration Commit procedure, or by using the Unsynchronised Radio Link Reconfiguration procedure. In both cases the following steps can be discerned:

- 1) The new transport bearer is established after which 2 transport bearers exist in parallel.
- 2) The transport channel(s) is/are switched to the new transport bearer.
- 3) The old transport bearer is released.

In step 1), communication on the old transport bearer continues as normal. In addition, the Node B shall support DL DATA FRAMEs, the DCH Synchronisation procedure (see section 5.3) and the Timing Adjustment procedure (see section 5.2) on the new bearer. This enables the SRNC to determine the timing on the new transport bearer. DL DATA FRAMEs transported on the new transport bearer shall not be transmitted on the DL DPDCH before the CFN indicated in the RADIO LINK RECONFIGURATION COMMIT message.

Regarding step 2), the moment of switching is determined differently in the synchronised and unsynchronised case:

- When using the combination of the Synchronised Radio Link Reconfiguration Preparation procedure and the Synchronised Radio Link Reconfiguration Commit procedure, the UL/DL DATA FRAMEs shall be transported on the new transport bearer from the CFN indicated in the RADIO LINK RECONFIGURATION COMMIT message.
- When using the Unsynchronised Radio Link Reconfiguration procedure, the Node B shall start using the new transport bearer for the transport of UL DATA FRAMEs from the CFN at which the new transport bearer is considered synchronised (i.e. has received a DL DATA FRAME before LTOA [4]).

In both cases, starting from this CFN the Node-B shall support all applicable DCH Frame Protocol procedures on the new transport bearer and no requirements exist regarding support of DCH Frame Protocol procedures on the old transport bearer.

Finally in step 3), the old transport bearer is released.

# 5.10.2 Transport channel addition

As described in NBAP [4] and RNSAP [6], transport channel addition can be achieved by using the Synchronised Radio Link Reconfiguration Preparation procedure in combination with the Synchronised Radio Link Reconfiguration Commit procedure, or by using the Unsynchronised Radio Link Reconfiguration procedure.

When using the Synchronised Radio Link Reconfiguration Preparation procedure the Node B shall support DL DATA FRAMEs, the Synchronisation procedure (see section 5.3) and the Timing Adjustment procedure (see section 5.2) on the new transport bearer also before the CFN indicated in the RADIO LINK RECONFIGURATION COMMIT message, in order to enable the SRNC to determine the timing on the new transport bearer. DL DATA FRAMEs transported on the new transport bearer before this CFN shall not be transmitted on the DL DPDCH. Starting from this CFN the Node B shall support all applicable DCH frame protocol procedures on the new transport bearer.

When using the Unsynchronised Radio Link Reconfiguration procedure the Node B shall support data frames and control frames when the new transport bearer is established.

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- DL DPDCH transmission shall not be stopped during RL Sync/Unsync Reconfiguration procedure.
- Even if a new RL is established, DL DPDCH transmission shall not be stopped when the transport bearer of the new RL is combined with already existing and synchronised transport bearer.
- Once the DL user plane for a certain RL is synchronised, the Node B shall assume that the DL user plane stays synchronised as long as the RL exists.

#### <u>5.10.2</u>

- In the Sync. RL Reconfiguration procedure:
  - DL DATA FRAMEs, the Synchronisation procedure and the Timing Adjustment procedure shall be supported on the new transport bearer before the CFN indicated by the Commit message has not elapsed.
  - DL DATA FRAMEs transported on the new transport bearer shall not be transmitted on the DL DPDCH before the CFN indicated by the Commit message.

# Consequences if not approved:

If this CR is not approved, the ambiguity of the DL DPDCH transmission still remains. As a result, SRNC might not send RRC message, e.g. if SRNC believes that the DL DPDCH transmission is not stopped during the RL Reconfiguration, but Node B believes that the DL DPDCH transmission shall be stopped during the RL Reconfiguration.

**Impact Analysis:** 

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

This CR has [isolated impact] with the previous version of the specification (same release) because it might affect the DL DPDCH transmission during the RL Setup, Addition and Reconfiguration procedures.

This CR has an impact under [functional] point of view.

The impact [can] be considered isolated because the change affects [one] [system function] namely the DL DPDCH transmission during the RL Setup, Addition and Reconfiguration procedures.

Clauses affected:	ж	5	.1.2	and 5.10.2		
		Υ	N			
Other specs	$\mathfrak{R}$	X		Other core specifications	$\mathfrak{R}$	CR086 on 25.427 v3.9.0
						CR088 on 25.427 v5.0.0
						CR754 on 25.423 v3.11.0
						CR755 on 25.423 v4.6.0
						CR756 on 25.423 v5.3.0
						CR783 on 25.433 v3.11.0
						CR784 on 25.433 v4.6.0
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affected:			X	Test specifications		
			Х	O&M Specifications		
Other comments:	$\mathbf{lpha}$					

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Regarding step 2), the moment of switching is determined differently in the synchronised and unsynchronised case:

- When using the combination of the Synchronised Radio Link Reconfiguration Preparation procedure and the Synchronised Radio Link Reconfiguration Commit procedure, the UL/DL DATA FRAMEs shall be transported on the new transport bearer from the CFN indicated in the RADIO LINK RECONFIGURATION COMMIT message.
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		Υ	1		
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affected:			Test specifications		
			O&M Specifications		
Other comments:	$\mathfrak{R}$				

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affected:	X Test specifications O&M Specifications	CR754 on 25.423 v3.11.0 CR755 on 25.423 v4.6.0 CR756 on 25.423 v5.3.0 CR784 on 25.433 v4.6.0 CR785 on 25.433 v5.2.0	
Other comments:	*		

#### How to create CRs using this form:

- 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 <a href="ftp://ftp.3gpp.org/specs/">ftp://ftp.3gpp.org/specs/</a> 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.

# 8.2.17 Radio Link Setup

#### 8.2.17.1 General

This procedure is used for establishing the necessary resources for a new Node B Communication Context in the Node B

[FDD – The Radio Link Setup procedure is used to establish one or more radio links. The procedure establishes one or more DCHs on all radio links, and in addition, it can include the establishment of one or more DSCHs on one radio link l

[TDD – The Radio Link Setup procedure is used to establish one radio link including one or more transport channels. The transport channels can be a mix of DCHs, DSCHs, and USCHs, including also combinations where one or more transport channel types are not present.]

#### 8.2.17.2 Successful Operation



Figure 24: Radio Link Setup procedure, Successful Operation

The procedure is initiated with a RADIO LINK SETUP REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

Upon reception of the RADIO LINK SETUP REQUEST message, the Node B shall reserve necessary resources and configure the new Radio Link(s) according to the parameters given in the message.

The Node B shall prioritise resource allocation for the RL(s) to be established according to Annex A.

#### <partly omitted>

#### **Response Message:**

If the RLs are successfully established, the Node B shall and respond with a RADIO LINK SETUP RESPONSE message.

After sending the RADIO LINK SETUP RESPONSE message, the Node B shall continuously attempt to obtain UL synchronisation on the Uu interface. [FDD – The Node B shall start transmission on the <u>DL DPDCH(s)</u> of the new RL after synchronisation is achieved in the <u>DL user plane</u> as specified in [16].] [TDD – The Node B shall start transmission on the new RL immediately as specified in [16].]

#### <partly omitted>

#### 8.3.1 Radio Link Addition

#### 8.3.1.1 General

This procedure is used for establishing the necessary resources in the Node B for one or more additional RLs towards a UE when there is already a Node B Communication Context for this UE in the Node B.

The Radio Link Addition procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

#### 8.3.1.2 Successful Operation

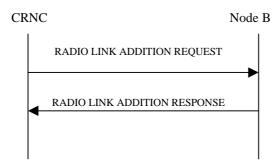


Figure: 28 Radio Link Addition procedure, Successful Operation

The procedure is initiated with a RADIO LINK ADDITION REQUEST message sent from the CRNC to the Node B using the Communication Control Port assigned to the concerned Node B Communication Context.

Upon reception, the Node B shall reserve the necessary resources and configure the new RL(s) according to the parameters given in the message. Unless specified below, the meaning of parameters is specified in other specifications.

The Node B shall prioritise resource allocation for the RL(s) to be established according to Annex A.

#### <partly omitted>

#### Response message:

If all requested RLs are successfully added, the Node B shall respond with a RADIO LINK ADDITION RESPONSE message.

After sending the RADIO LINK ADDITION RESPONSE message, the Node B shall continuously attempt to obtain UL synchronisation on the Uu interface. [FDD – The Node B shall start transmission on the <u>DL DPDCH(s)</u> of the new RL after synchronisation is achieved in the <u>DL user plane</u> as specified in [16].] [TDD – The Node B shall start transmission on the new RL immediately as specified in [16].]

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#### How to create CRs using this form:

- 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 <a href="ftp://ftp.3gpp.org/specs/">ftp://ftp.3gpp.org/specs/</a> 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.

# 8.2.17 Radio Link Setup

#### 8.2.17.1 General

This procedure is used for establishing the necessary resources for a new Node B Communication Context in the Node B

[FDD – The Radio Link Setup procedure is used to establish one or more radio links. The procedure establishes one or more DCHs on all radio links, and in addition, it can include the establishment of one or more DSCHs on one radio link.]

[TDD – The Radio Link Setup procedure is used to establish one radio link including one or more transport channels. The transport channels can be a mix of DCHs, DSCHs, and USCHs, including also combinations where one or more transport channel types are not present.]

#### 8.2.17.2 Successful Operation



Figure 24: Radio Link Setup procedure, Successful Operation

The procedure is initiated with a RADIO LINK SETUP REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

Upon reception of the RADIO LINK SETUP REQUEST message, the Node B shall reserve necessary resources and configure the new Radio Link(s) according to the parameters given in the message.

The Node B shall prioritise resource allocation for the RL(s) to be established according to Annex A.

#### <partly omitted>

#### Response Message:

If the RLs are successfully established, the Node B shall respond with a RADIO LINK SETUP RESPONSE message.

After sending the RADIO LINK SETUP RESPONSE message, the Node B shall continuously attempt to obtain UL synchronisation on the Uu interface. [FDD – The Node B shall start transmission on the <u>DL DPDCH(s)</u> of the new RL after synchronisation is achieved in the <u>DL user plane</u> as specified in [16].] [TDD – The Node B shall start transmission on the new RL immediately as specified in [16].]

#### <partly omitted>

#### 8.3.1 Radio Link Addition

#### 8.3.1.1 General

This procedure is used for establishing the necessary resources in the Node B for one or more additional RLs towards a UE when there is already a Node B Communication Context for this UE in the Node B.

The Radio Link Addition procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

#### 8.3.1.2 Successful Operation

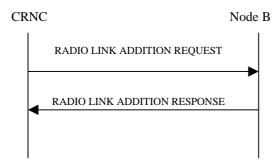


Figure: 28 Radio Link Addition procedure, Successful Operation

The procedure is initiated with a RADIO LINK ADDITION REQUEST message sent from the CRNC to the Node B using the Communication Control Port assigned to the concerned Node B Communication Context.

Upon reception, the Node B shall reserve the necessary resources and configure the new RL(s) according to the parameters given in the message. Unless specified below, the meaning of parameters is specified in other specifications.

The Node B shall prioritise resource allocation for the RL(s) to be established according to Annex A.

#### <partly omitted>

#### **Response Message:**

If all requested RLs are successfully added, the Node B shall respond with a RADIO LINK ADDITION RESPONSE message.

After sending the RADIO LINK ADDITION RESPONSE message, the Node B shall continuously attempt to obtain UL synchronisation on the Uu interface. [FDD – The Node B shall start transmission on the <u>DL DPDCH(s)</u> of the new RL after synchronisation is achieved in the <u>DL user plane</u> as specified in [16].] [TDD – The Node B shall start transmission on the new RL immediately as specified in [16].]

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#### How to create CRs using this form:

- 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 <a href="ftp://ftp.3gpp.org/specs/">ftp://ftp.3gpp.org/specs/</a> 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.

# 8.2.17 Radio Link Setup

#### 8.2.17.1 General

This procedure is used for establishing the necessary resources for a new Node B Communication Context in the Node B.

[FDD – The Radio Link Setup procedure is used to establish one or more radio links. The procedure establishes one or more DCHs on all radio links, and in addition, it can include the establishment of one or more DSCHs or an HS-DSCH on one radio link.]

[TDD – The Radio Link Setup procedure is used to establish one radio link including one or more transport channels. The transport channels can be a mix of DCHs, DSCHs, and USCHs, or DCHs and an HS-DSCH, including also combinations where one or more transport channel types are not present.]

#### 8.2.17.2 Successful Operation



Figure 24: Radio Link Setup procedure, Successful Operation

The procedure is initiated with a RADIO LINK SETUP REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

Upon reception of the RADIO LINK SETUP REQUEST message, the Node B shall reserve necessary resources and configure the new Radio Link(s) according to the parameters given in the message.

The Node B shall prioritise resource allocation for the RL(s) to be established according to Annex A.

#### <partly omitted>

#### **Response Message:**

If the RLs are successfully established, the Node B shall and respond with a RADIO LINK SETUP RESPONSE message.

After sending the RADIO LINK SETUP RESPONSE message the Node B shall continuously attempt to obtain UL synchronisation on the Uu interface.

For each RL for which the *Delayed Activation* IE is not included in the RADIO LINK SETUP REQUEST message, the Node B shall:

- [FDD start transmission on the <u>DL DPDCH(s)</u> of the new RL after synchronisation is achieved in the <u>DL user plane</u> as specified in [16].]
- [TDD start transmission on the new RL immediately as specified in [16].]

For each RL for which the *Delayed Activation* IE is included in the RADIO LINK SETUP REQUEST message, the Node B shall:

- if the *Delayed Activation* IE indicates "Separate Indication":
  - not start any DL transmission for the concerned RL on the Uu interface;
- if the *Delayed Activation* IE indicates "CFN":
  - [FDD start transmission on the <u>DL DPDCH(s)</u> of the new RL after synchronisation is achieved in the <u>DL user plane</u> as specified in [16], however never before the CFN indicated in the *Activation CFN* IE.]
  - [TDD start transmission on the new RL at the CFN indicated in the Activation CFN IE as specified in [16].]

### <partly omitted>

#### 8.3.1 Radio Link Addition

#### 8.3.1.1 General

This procedure is used for establishing the necessary resources in the Node B for one or more additional RLs towards a UE when there is already a Node B Communication Context for this UE in the Node B.

The Radio Link Addition procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

#### 8.3.1.2 Successful Operation

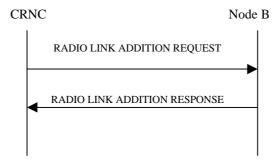


Figure: 28 Radio Link Addition procedure, Successful Operation

The procedure is initiated with a RADIO LINK ADDITION REQUEST message sent from the CRNC to the Node B using the Communication Control Port assigned to the concerned Node B Communication Context.

Upon reception, the Node B shall reserve the necessary resources and configure the new RL(s) according to the parameters given in the message. Unless specified below, the meaning of parameters is specified in other specifications.

The Node B shall prioritise resource allocation for the RL(s) to be established according to Annex A.

#### <partly omitted>

#### **Response Message:**

If all requested RLs are successfully added, the Node B shall respond with a RADIO LINK ADDITION RESPONSE message.

After sending the RADIO LINK ADDITION RESPONSE message, the Node B shall continuously attempt to obtain UL synchronisation on the Uu interface.

For each RL for which the *Delayed Activation* IE is not included in the RADIO LINK ADDITION REQUEST message, the Node B shall:

- [FDD start transmission on the <u>DL DPDCH(s)</u> of the new RL after synchronisation is achieved in the <u>DL user plane</u> as specified in [16].]
- [TDD start transmission on the new RL immediately as specified in [16].]

For each RL for which the *Delayed Activation* IE is included in the RADIO LINK ADDITION REQUEST message, the Node B shall:

- if the *Delayed Activation* IE indicates "Separate Indication":
  - not start any DL transmission for the concerned RL on the Uu interface;
- if the *Delayed Activation* IE indicates "CFN":
  - [FDD start transmission on the <u>DL DPDCH(s)</u> of the new RL after synchronisation is achieved in the <u>DL user plane</u> as specified in [16], however never before the CFN indicated in the *Activation CFN* IE.]
  - [TDD start transmission on the new RL at the CFN indicated in the Activation CFN IE as specified in [16].]